

**[START OF TRANSCRIPT]**

**Male Speaker:** Ladies and gentlemen, welcome and thank you for joining today's web conference for FHFA’s proposed rule on Enterprise capital. Please note that all participant lines will be muted for the duration of this event. You are welcome though to submit written questions throughout the presentation. Our presenters will do their best to address these during Q&A.

To submit a written question, use the chat panel on the right hand side of your screen and choose all panelists from the send to drop down menu there. If you require any technical assistance, please send a private note to the event producer. With that, I'd like to start today's conference and introduce Danielle Walton stakeholder Relations Officer. Please go ahead.

**Danielle Walton:** Thank you so much and good afternoon everybody. I want to thank you all for taking the time to join us for this webinar on FHFA’s proposed rule on capital requirements for Fannie Mae and Freddie Mac. Joining me for today's webinar are members of FHFA’s Office of Financial Analysis, Modeling and Simulations team who will provide an overview of proposed rule and respond to any additional questions you may have. Throughout this presentation as was just explained, you can type your question into the submit question box at the bottom of your screen. Once the webinar has concluded we will make the webinar recording available on fhfa.gov where you can also find the full proposed rule and submit your written comments. I will go ahead and turn things over to Senior Associate Director Naa Awaa Tagoe for opening remarks.

**Naa Awaa Tagoe:** Thanks, Danielle. On behalf of the team that worked on this proposed rule, FHFA is pleased to have the opportunity to provide some insight into the thinking that influenced the development of the proposed rule and to provide a high level review of the proposed rule. Our thought processes and the choices we made are laid out in more detail in the preamble to the proposed rule. However, we appreciate that the preamble is a fairly extensive document. So, in today's presentation, our goal is to provide you with the highlights of the proposed rule.

For today's agenda, I will cover the overview of the proposed rule, important considerations identified by FHFA in developing the proposed rule, and the summary of the proposed rule. Then I will turn the presentation over to my colleagues who will cover the proposed risk-based capital requirements, the proposed minimum leverage capital requirement alternatives, the statutory definition of capital for the Enterprises, and the impact of the proposed rule.

Turning first to the overview. The context for FHFA proposing this rule is that FHFA’s predecessor agency, OFHEO, adopted a capital rule for the Enterprises in 2001 and periodically updated it prior to the financial crisis. In September 2008, FHFA suspended capital requirements after placing Fannie Mae and Freddie Mac into conservatorship. The Senior Preferred Stock Purchase Agreements

that were established between the Treasury Department and each Enterprise limit the amount of capital that each Enterprise can hold. Despite the capital limits imposed by the Senior Preferred Stock Purchase Agreement, both Enterprises make assumptions about capital in their everyday business decisions in order to evaluate the relative risk of transactions and assets.

FHFA routinely evaluates Enterprises’ business decisions. In the course of that activity, FHFA identified the need to develop an aligned risk management framework to better evaluate the Enterprises’ business decisions. To address this need, FHFA developed the Conservatorship Capital Framework, or the CCF, which FHFA put into effect last year. The CCF provides the basis for FHFA’s proposed capital regulation.

Regarding the purpose of the proposed rule, as I mentioned earlier, the Enterprises have limited ability to hold capital during conservatorship. So, the proposed rule will be suspended after it is finalized. In spite of that FHFA believes that the proposed rule achieves several objectives. First, FHFA believes that it is important as a prudential regulator to articulate a view about capital requirements. The proposed rule transparently communicates FHFA’s views on this issue.

Second, the proposed rule gives FHFA a baseline from which to modify capital requirements for future housing finance entities, even if those entities are different from the Enterprises upon completion of housing finance reform.

Third, the proposed rule allows market participants to comment on the capital requirements for the Enterprises.

Fourth, the proposed rule provides valuable feedback to FHFA to refine the CCF, which will continue to apply to the Enterprises in conservatorship.

Continuing with the purpose of the proposed rule, it is important to note that in proposing this rule, FHFA is not attempting to take a position on housing finance reform. The proposed rule is not a step towards recapitalizing the Enterprises and releasing them from conservatorship. FHFA’s position continues to be that it is the role of Congress and the Administration to determine the future of housing finance reform and what role, if any, the Enterprises should play in that system.

Turning to some of the considerations in developing the proposed rule, FHFA identified the following important considerations. First, it was important to model the proposed rule on current regulatory practice because the design of the suspended capital regulation dates back to the 1990s. A lot has changed since then. In particular, financial regulation, accounting rules, and the mortgage market have all evolved significantly over the past 20 years.

It was also important for FHFA to acknowledge and address differences in the business models of the Enterprises compared to other financial institution. In

particular, the Enterprises’ primary purpose is to guarantee mortgage credit risk. As such FHFA wanted to develop a nuanced view of capital requirements for mortgage credit risk.

One important consideration which is not listed on this slide is transparency. Transparency of the capital requirements was particularly important for us. For the credit risk capital requirements, we chose to use lookup tables instead of the Enterprises’ internal models or FHFA’s internal model to promote transparency.

Another consideration was that FHFA use the experience gained from the financial crisis to develop safe and sound capital requirements. Now a couple of tangible examples of this in the proposed rule are fairly high capital requirements for private-label securities that reflect the Enterprises experience with private-label securities during the crisis. The proposed rule also distinguishes between credit risk capital requirements for modified loans versus non-modified loan based on the Enterprises’ extensive experience and data post crisis with loan modifications.

Continuing with important considerations, FHFA considered it prudent that the risk-based capital requirements explicitly includes components of credit risk, market risk, operational risk, and a going concern buffer. That the requirements put in place full life-of-loan capital for each loan, at acquisition. That the requirements cover losses for different loan categories in a severe stress event comparable to the recent financial crisis. That the requirements provide capital relief for credit risk transfer transactions and that the requirements do not count future Enterprise revenues as capital.

Continuing with important considerations, FHFA acknowledges that current regulatory practice for financial institutions establishes additional capital buffers, such as counter cyclical capital buffers above risk-based capital requirements. However, FHFA believes that additional capital buffers are unnecessary at this time because of the robust features of the proposed risk-based capital requirements, and because FHFA has the authority to increase risk-based or minimum leverage capital requirements by order or regulation.

FHFA also acknowledges that it may be necessary in the future to revise this rule, develop a separate capital planning rule or develop a liquidity rule, the timing of which will depend on how the Enterprises evolve and on the details of housing finance reform.

Turning to the summary of the proposed rule. The proposed rule establishes the following regulatory capital framework for the Enterprises: A new framework for risk-based capital requirements; and a revised minimum leverage capital requirement with two alternative proposals.

In order to be considered adequately capitalized, an Enterprise would have to meet the higher of the risk-based capital requirement or the minimum capital requirement. FHFA is proposing two alternatives for the minimum leverage capital requirement because FHFA is balancing multiple considerations on how best to set the minimum leverage requirement as a backstop to the risk-based capital requirement. These considerations include the model risk associated with any risk-based measure, the pro-cyclicality of using updated loan-to-value ratios in the risk-based capital requirements, the funding risks of the Enterprises business and the incentives created if the minimum leverage capital requirement exceeds the risk-based capital requirements. These issues are discussed in more detail in the preamble to the proposed rule.

I will turn the presentation over to Andrew Varrieur to cover the proposed risk-based capital requirement.

**Andrew Varrieur:**

Thank you Naa Awa. The proposed risk-based capital requirements for single-family and multifamily assets and guarantees include the following components: granular credit risk requirements to account for default risk; market risk requirements to account for spread risk; an operational risk requirement to account for the risk of ongoing business operations; and a going concern buffer that provides the Enterprises with sufficient capital to continue operating for one to two years after a stress event without external capital support.

In order to better differentiate credit risk, the proposed rule categorizes single-family and multifamily loans by loan segment. The single-family loan segments are: New originations - these are loans that are less than six months old. Performing seasoned loans - generally these are loans that are six or more months old and have never been delinquent. Re-performing loans non-modified - these are loans that were delinquent and have cured without a modification. Re-performing loans modified - these are loans that were delinquent and had cured with a modification. Non-performing loans - these are loans that are currently delinquent loans - at least 30 days delinquent. Multifamily has two loan segments, fixed rate loans and adjustable rate loans.

The proposed rule calculates credit risk capital requirements using the following: Base grids determine the credit risk capital requirements for “baseline” loans by loan segment. A “baseline” loan is defined as a synthetic loan that generally has the set of most common risk attributes. For example, fixed rate, 30 year, purchase, owner-occupied, etc. Risk multipliers adjust the credit risk capital requirements to reflect individual risk characteristics of loans that differ from baseline loans. Risk multipliers may increase or decrease the capital requirement. For example, the risk multiplier for a fixed rate 15 year loan will lower the capital requirement relative to the baseline 30 year fixed rate loan, and the risk multiplier for an ARM loan will raise the capital requirement relative to the baseline 30 year fixed rate loan.

Credit enhancement multipliers decrease credit risk capital requirements on loans with loan-level credit enhancement. Counterparty haircuts moderate the decrease in credit risk capital requirements from loan-level credit enhancements to reflect counterparty credit risk.

Finally, the credit risk capital requirements are reduced to reflect the capital relief from CRT transactions. We’ll have an example of how the CRT capital release is calculated later in the presentation.

Slide 13 provides an example of the grids and multipliers using the single-family new originations loan segment. In the upper left corner, we have an extract from the single-family new originations base grid. This is just an extract, see the proposed rule for the full grid. The columns are bucketed original LTV values and the rows are bucketed original credit score values. To determine the base capital requirement for a loan you use the loan’s original LTV and the original credit score to access the appropriate cell in the table. For example for a loan with an OLTV of 90% and an original credit score of 730, the base capital requirements would be 400 basis points and that's the number circled in red.

This base grid was calculated using a synthetic loan having a set of “baseline” characteristics. At the bottom left of the slide we have the baseline loan characteristics. They are purchase, owner occupied, one-unit, multiple borrowers, DTI between 25% and 40%, 30 year fixed rate mortgage, loan size greater than \$100,000, sourced from the retail channel and no second lien. So, using those characteristics, we then varied the OLTV and credit score of the baseline loan to fill out the grid.

So what do you do with loans that have characteristics that differ from the baseline loan? The table on the right contains risk multipliers for adjusting the base capital requirements to account for different risk characteristics. For example, looking at loan purpose at the top of the table, “purchase” has a multiplier 1.0 because the baseline loan was a purchase loan. For cash out refinances, the multiplier is 1.4, meaning cash out refinances have a 40% higher capital requirements relative to purchase loans. The rest of the table shows a selection of the other risk multipliers. Note this is just a subset of the risk multipliers, see the proposed rule for the full table.

The items circled in red are used in an example on the next slide. If you focus on the last circled item - the 0.551, this is how we handle mortgage insurance and the proposed rule. You see that for a loan with an LTV in the range of 85 to 90 and a coverage percent of 25%, the risk multiplier is 0.551. This is interpreted as the Enterprise is holding 55% of the risk and the mortgage insurer is holding the remaining 45% of the risk.

Last before we leave this slide, I want to point out that the other single family loan segments, performing seasoned, non-performing etc. have a similar construct with their own base grids and multipliers.

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This slide has an example for calculating the net credit risk requirements based on the values of previous slide. So, in this example we have a newly originated loan with an OLTV of 90% and original credit score of 730 that has identical features to the baseline loan except to the following: property type of condominium, DTI of 42%, and mortgage insurance coverage of 25%. Further, there is a counterparty haircut of 17.2% on the mortgage insurance.

Looking at item number one, the base capital requirement is 400 bps, given the OLTV and credit score that we saw that in the previous slide. Looking at item number two, the risk multipliers are: loan purpose - has a multiplier of 1.0 (purchase is the baseline characteristic), occupancy type - has a multiplier of 1.0 (owner occupied is the baseline characteristic). Property type has a multiplier of 1.1, that's for condominium. Number of borrowers - has a multiplier 1.0 (multiple borrowers is its baseline characteristic). DTI has a multiplier 1.2 because the DTI is great than 40%. Product type has a multiplier of 1.0 (fixed rate 30 year loan is the baseline characteristic). And loan size has a multiplier of 1.0 (UPB is greater than \$100,000 that again is the baseline characteristic).

Note we circled Property Type and DTI because those are the characteristics that differ from the baseline loan.

With the item number three, we have a credit enhancement multiplier of 0.551 from the prior slide and a counterparty haircut at 17.2%. Item number four is the equation for calculating the credit risk capital. Note to simplify the equation, we only included the multipliers that don't equal 1.0. Looking at the equation, we see the 400 bps base requirement, we see that the multipliers for property type and DTI increase the requirement, the credit enhancement multipliers decreases their requirement, and the haircut reduces the value of the credit enhancement. So where this loan had a base requirement of 400 bps, after taking into account the additional risk characteristics, the credit enhancement and the haircut on the credit enhancement, the final requirement is 332 basis points.

On this slide we have examples of a base grid and risk multipliers for fixed rate multifamily loans. Again, these tables are just extracts, please see the proposed rule for the full tables. Looking at the base grid in the upper left corner, the columns are bucketed acquisition or mark-to-market LTV values and the rows are bucketed acquisition or mark-to-market debt service coverage ratio values. The characteristics of the baseline loan associated with this base grid include: loan has never been delinquent or modified, not an interest only loan, \$10 million loan amount, 10 year balloon, 30 year amortization period, and not a special product. The proposed rule treats government subsidized student housing and rehab value add lease of properties a special products.

Note there is a special treatment for interest only loans. When calculating the debt service coverage ratio to determine the base capital requirement, if the loan is interest only you calculate the DSCR as if the loan were fully amortizing.

Then on the right hand side of the slide, we have examples of the multifamily risk multipliers. Note they're very different from the single family risk multipliers, reflecting the different risk characteristics of the multifamily business.

Market risk. The primary targets of the risk-based capital requirement for market risk is spread risk, as the Enterprises closely hedge interest rate risk at the portfolio level through the use of callable debt and derivatives. Spread risk is a loss in value of an asset relative to a risk free or funding benchmark. The proposed rule has market risk capital requirements for the following retained portfolio assets: single-family and multifamily whole loans and agency securities, private-label securities, commercial mortgage-backed securities and other assets with market risk exposure.

The following three approaches are used to measure market risk: single-point estimate, where the proposed rule provides a constant that is multiplied by the market value of the asset; spread shock, where the proposed rule provides a spread shock and the Enterprises use their internal models to estimate the spread duration; and internal models, where the Enterprises internal models are used exclusively to estimate the spread risk.

Assets are assigned to one or more of these approaches based on, first, whether the asset belongs to a small and declining portfolio where acquisition is limited as the result of conservatorship; two, the relative importance of market risk to credit risk for the asset; and, three, the complexity of the product structure or prepayment sensitivity.

The proposed rules includes an operational risk capital requirement and a going concern buffer. The operational risk capital requirement is eight basis points. It reflects the inherent risk in ongoing business operations. It is based on the Basel operational risk methodology. The eight basis points would be multiplied by the UPB or market value of the Enterprises’ assets and guarantees.

The going concern buffer is 75 basis points. It provides the Enterprises with sufficient capital to continue operating for one to two years after a stress event without external capital support. So, 75 basis points would be multiplied by the UPB or market value of the Enterprises’ assets and guarantees. Earned revenues would provide additional resources to support continued operation during a stress event but they're not factored into the risk-based capital requirements.

Now Bryan Goudie will discuss credit risk transfers.

**Bryan Goudie:**

Thanks Andrew. The Enterprises reduce the credit risk on their single-family and multifamily books of business by transferring and sharing risk beyond loan-level credit enhancements through single-family and multifamily credit risk transfers or CRTs. For single-family CRTs these transfers include capital markets

structured debt issuances such as Freddie Mac's STACR and Fannie Mae's CAS, and insurance or reinsurance transactions such as Fannie Mae’s CIRT and Freddie Mac’s ACIS.

Examples of multifamily CRTs include Fannie Mae’s DUS loss sharing program and Freddie Mac’s multifamily K-deal securitization program.

The proposed rule would require that the Enterprises calculate capital relief using a step-by-step formulaic approach. In general, the proposed approach would require five steps when calculating capital relief.

In the first step, the Enterprises would distribute total credit risk capital on the underlying whole loans and guarantees to the tranches of the CRT, independent of tranche ownership, such that the riskiest, most junior tranches are allocated capital before the most senior tranches.

In the second step, the Enterprises calculate capital relief accounting for tranche ownership.

However, this initial calculation of capital relief must be adjusted to account for lost timing and counterparty credit risk.

Therefore, in the third step, capital relief would be lowered by a lost timing factor that accounts for the timing of coverage, where the factor addresses the mismatch between lifetime losses on the whole loans and guarantees underlying the CRT and the term of coverage on the CRT.

In the fourth step, for loan sharing agreements, the Enterprises would apply haircuts to previously calculated capital relief to adjust for counterparty credit risk. Lastly, in the fifth step, the Enterprise would calculate total capital relief by adding up capital relief for each tranche in the CRT.

Now let's turn to slide 19.

This slide highlights a simplified CRT structure for illustrative purposes only. This CRT has three tranches, or exposures that share the same seniority: Tranches B, M1, and A. The cash flows for the CRT are associated with a reference pool of loans acquired by an Enterprise and usually deposited into mortgage-backed securities. The credit and prepayment performance of the reference pool of loans helps to determine the performance of the CRT’s tranches. Losses generally accrue from the most junior tranche – that is, tranche B - upward and the most senior tranche, tranche A, accrues losses only when tranche B and M1 are exhausted.

In terms of ownership, the Enterprises typically retain parts of or all of tranche B, the first loss tranche, and tranche A, the most senior tranche. Tranche M1 is often shared between capital markets or issued notes, reinsurance transactions, and the Enterprises generally retain a 5% slice. You can think of Freddie Mac STACR and ACIS transactions or programs taking this form.



Now, the next two slides provide an illustration of the proposed rule’s step by step approach, using this simplified CRT structure you see here. In the example, we’ll illustrate a single family CRT, however the calculations for multifamily CRTs are similar.

Now we’ll review the characteristics of our illustrative CRT. They are as follows: tranche B has a detachment point of 50 basis points, that is losses on a pool of loans would have to exceed 50 basis points to reduce tranche B, and tranche M1 has a detachment point of 450 basis points. And the CRTs coverage is 10 years.

For details on the reference pool, you have the chart on the right. In this case we’re looking at \$1 billion dollars’ worth of UPB of performing 30 year fixed rate single-family whole loans and guarantees with original LTV of between 60 and 80. The credit risk requirement on these single-family whole loans and guarantees is defined to be 275 basis points. For the example, aggregate expected losses, calculated internally by the Enterprises, are 25 basis points.

Regarding ownership, tranches B and A are retained by the Enterprise, and ownership of tranche M1 is split between capital markets, 60%, or issue notes, and reinsurer, 35%. The Enterprise retains a 5% stake in M1.

For the reinsurance share of M1, we’ll suppose that the reinsurer post 2.8 million dollars in collateral and it is associated with a haircuts of 5.2%.

Now for the calculation on the next slide. In the first step the Enterprises would allocate aggregate credit risk capital and expected losses such that the riskiest, most junior tranche, tranche B, would receive its allocation before the mezzanine tranche, tranche M1, and the most senior tranche, tranche A. In particular, the Enterprise would first distribute aggregate expected losses, 25 bps, and 25 bps of aggregate credit risk capital to tranche B. The Enterprise would then distribute the remaining credit risk capital, of 250 basis points, to tranche M1. As tranche A’s attachment point exceeds the sum of the expected losses and credit risk capital, the Enterprise would not allocate credit risk capital to tranche A for the purposes of identifying capital relief.

In the second step, the Enterprise would calculate capital relief accounting for tranche ownership. The Enterprise would receive 95% capital relief initially from tranche M1 since the Enterprise retains all of tranches A and B and retains 5% of tranche M1. The Enterprise would calculate capital relief on tranche M1 as the product of the allocated aggregate credit risk capital, that’s 250 basis points, and the portion of the tranche owned by private investors, 60%, and covered by a reinsurer, 35%. Thus, the Enterprise would calculate initial capital relief of 237.5 basis points or 150 coming from the capital market side and 87.5 coming from the reinsurance side.

However, this initial calculation of capital relief, as we said, should be adjusted to account for loss timing and counterparty credit risk. In particular, the CRT

coverage can expire before the underlying loans mature. Also, loss sharing agreements may be subject to the counterparty credit risk.

Therefore, in the third step, the proposed rule lowers initial capital relief by loss timing factor that addresses a mismatch between lifetime losses on the 30 year fixed rate loans and the CRT’s coverage of 10 years. The applicable loss timing factor for this illustration (found in a lookup table in the preamble and rule text) is 88%. Thus, the Enterprise would lower the capital relief by multiplying the loss timing factor, 88%, and initial capital relief. The relief would be 132 basis points from the capital markets side and 77 from the reinsurance side, for a total of 209 basis points.

In the fourth step, the Enterprise would apply haircuts to previously calculated capital relief to adjust for counterparty credit risk from the reinsurance arrangement. In particular, the Enterprise will identify the reinsurer’s uncollateralized exposure and apply a haircut. In this case, the uncollateralized exposure is identified by subtracting the reinsurer’s collateral amount, \$2.8 million dollars, from 77 basis points of a billion. The Enterprise would then consider the credit worthiness of the reinsurer and apply a haircut. The haircut in this case is 5.2%. Thus, the Enterprise would calculate counterparty credit risk from the reinsurer as the product of the counterparty haircut and the reinsurer’s uncollateralized exposure. In this case, the product is scaled by a billion and would result in 2.5 basis points of counterparty credit risk capital. Lastly, in the fifth step, the Enterprise would calculate total capital relief by adding up capital relief for each tranche in the CRT and reducing capital relief by any counterparty risk capital. For our illustration, the Enterprise would calculate total capital relief, that’s 206.5 basis points or capital relief after adjusting for ownership and loss timing, that's 209, less the counterparty credit risk capital of 2.5.

Stepping back, to get aggregate capital relief across an Enterprise, the proposed rule would require that an Enterprise recalculate capital relief by updating the necessary inputs for the step-by-step approach and for each CRT as needed, and then aggregate capital relief across all CRTs.

At this point we'll toss it over to John Williams to discuss minimum leverage capital requirements.

**John Williams:**

Thanks Bryan. The proposed rule presents two alternative minimum leverage capital requirement proposals for public consideration. Under the first approach, which is the 2.5% Alternative, the Enterprises would be required to hold capital equal to 2.5% of total assets and off-balance guarantees related to securitization activities, where total assets are determined in accordance with GAAP and off-balance guarantees related to securitization activities primarily consist of unconsolidated mortgage-backed securities at Fannie Mae and primarily K deal certificates at Freddie Mac. This approach requires the Enterprises to hold a minimum amount of capital for assets and guarantees that

does not differentiate between the risk characteristics of assets and guarantees, which is consistent with the Basel leverage capital requirements for banks.

Under the second approach, which is the Bifurcated Alternative, the Enterprises would be required to hold capital equal to 1.5% of trust assets and 4% of non-trust assets. Trust assets are defined as Fannie Mae mortgage-backed securities or Freddie Mac participation certificates held by a third parties, and off-balance guarantees related to securitization activities. Non-trust assets are defined as total assets in accordance with GAAP plus off-balance sheet guarantees related to securitization activities less trust assets with the Enterprises’ retained portfolios being included in non-trust assets.

This Bifurcated Alternative is consistent with the approach for minimum leverage capital requirements in the Enterprises’ Safety and Soundness Act, as it differentiates between the greater funding risk of the Enterprises’ non-trust assets and the lower funding risk of the Enterprises’ trust assets, while increasing the capital requirements for both types of assets relative to the current statutory requirements.

The Safety and Soundness Act establishes definitions of core capital and total capital. Unlike the banking regulators who have greater definitional flexibility under their statutes, FHFA does not have the authority to change the existing statutory definition. As a result, the proposed rule uses a statutory definition of core capital and total capital for the Enterprises.

Using the statutory definition, core capital, which is used to meet the minimum leverage capital requirement, is defined as the sum of the following: one, the par or stated value of outstanding common stock; two, the par or stated value of outstanding perpetual, non-cumulative preferred stock; three, paid-in capital; and four, retained earnings.

Total capital, which is used to meet the risk-based capital requirement is defined as the sum of the following: one, core capital; two, a general allowance for foreclosure losses; and three, any other amounts from sources of funds available to absorb losses incurred by the Enterprise, that the Director by regulation determines are appropriate to include in determining total capital.

With respect to deferred tax assets, the statutory definition of core capital does not reflect any specific considerations for deferred tax assets or limit the amount of deferred tax assets that count as capital. Generally speaking, deferred tax assets are considered a component of capital as these assets are capable of absorbing and offsetting losses through reduction in taxes. However, deferred tax assets may provide minimal to no loss-absorbing capability during a period of stress as recoverability may become uncertain.

Other financial regulators recognize the limited loss absorbing capability of deferred tax assets and limit the amount of deferred tax assets that may be

included in equity. This limited loss absorbing capability of deferred tax assets was demonstrated in 2008 during the financial crisis when both Enterprises concluded that the realization of existing deferred tax assets was uncertain based on projections of future taxable income. As a result, both Enterprises established partial valuation allowances on their existing deferred tax assets, and this action was a major contributor to the overall capital reduction at each Enterprise in 2008.

Consequently, the proposed rule would establish a risk-based capital requirement for deferred tax assets that would offset the deferred tax assets included in capital in a manner generally consistent with the Basel III treatment of deferred tax assets and generally adopted by other financial regulators.

I will now pass it to Katya Stepanova.

**Katya Stepanova:**

Thank you, John. Over the course of the next several slides, we are going to give you an overview of the impact of the proposed rule. FHFA conducted the impact analysis first, as of December 2007, and second, as of September 2017. We will start with impact analysis of the proposed rule as of December 2007. In estimating the impact of the proposed rule, the main question that we wanted to answer is the following: If the capital requirements proposed in the rule were in place in 2007, would they be sufficient to protect both Enterprises during the financial crisis?

So, FHFA estimated the Enterprises’ proposed rule’s risk-based capital requirements as of December 31<sup>st</sup>, 2007. The result of this impact analysis is that the capital requirements, when combined with the Enterprises’ revenues, would have exceeded the Enterprises’ respective peak cumulative capital losses. These are the losses that were sustained by the Enterprises between 2008 and the dates at which the Enterprises no longer required draws from the Treasury Department to eliminate negative net worth. That would be the fourth quarter of 2011 for Fannie Mae and the first quarter of 2012 for Freddie Mac. To provide more details on this result of the impact analysis, let's turn to the next slide, slide 26.

In the table we can see the comparison of proposed risk-based capital requirements to peak cumulative capital losses as of December 31<sup>st</sup>, 2007. This comparison between peak losses and the proposed required capital is presented separately for each Enterprise. The table shows risk-based capital, peak losses, and finally the difference between the risk-based capital and the peak losses. As you can see, the difference is positive for both Enterprises. It is three billion for Fannie Mae and 12 billion for Freddie Mac.

Now let's turn to the analysis of the impacts of the proposed rules as of September 30<sup>th</sup>, 2017. FHFA estimated the Enterprises’ capital requirements as of September 30<sup>th</sup>, 2017. This included estimation of the risk-based capital requirements and second, estimation of two options, or alternatives, for the

new minimum leverage capital requirement. As a result, the estimated proposed risk-based capital requirements when combined for both Enterprises would be 181 billion dollars. Under the proposed 2.5% Alternative, the minimum leverage capital requirement is 139 billion. Again, this is a combined number for both Enterprises. Similarly, when we looked at combined numbers for both Enterprises, under the proposed Bifurcated Alternative, the minimum leverage capital requirement is 103 billion.

Now let's talk in a bit more detail about risk-based capital requirements as of September 30th, 2017. Table on slide 28 shows the risk-based capital requirements by each risk category. As you can see these categories are credit risk, market risk, going-concern buffer, operational risk and requirement for deferred tax assets. As mentioned earlier, the combined requirement will come to 181 billion. If you look at the last column showing the relative contribution of each risk category, it is not surprising to see that credit risk contributes the largest share - that is the half of the risk-based capital requirements. Smaller, but still significant shares can be attributed to the going concern buffer and the requirement on deferred tax assets.

As far as deferred tax assets requirement is concerned, remember that the requirement is calculated as of September 30th, 2017. As a result of the Tax Act and Jobs Act enacted in December 2017, there was a reduction in the corporate tax rate that resulted in the write-downs of DTAs in the fourth quarter of 2017. Given reduction in corporate rate, DTA requirement going forward won't be as significant. For more details please see Table 33 in the preamble that shows that in the fourth quarter of 2017, DTAs requirement is more than twice lower than in the third quarter of 2017.

Now, let's turn to the total risk-based capital requirement when it's calculated as a percentage of total assets and off-balance sheet guarantees. That is the last row of the table on slide 28. It is 3.43% for Fannie Mae and 2.96% for Freddie Mac. If we look at both Enterprises combined, this percentage is equal to 3.24%. The percentage difference between Fannie Mae and Freddie Mac is largely driven by the difference in their requirement for deferred tax assets, where Fannie Mae has a bigger share in deferred tax assets requirement.

Continuing with more detailed analysis of the risk-based capital requirements, let's now move to the next slide to look at the attribution analysis of the total risk-based capital requirement by asset class categories.

Table on slide 29 provides details for requirement by asset categories measured in dollars, basis points, and the percent of total. These are combined Enterprises' numbers. It is not surprising to see the single-family whole loans and guarantees and related securities category contributes almost three quarters to the total risk-based capital.

Finally, the next slide presents a table with two alternatives for the new minimum leverage capital requirement. These are 2.5% Alternative and Bifurcated Alternative. While 2.5% Alternative by definition is a 2.5% of total assets and off- balance sheet guarantees, the Bifurcated Alternative is 1.8% and 1.9% of total assets and off-balance sheet guarantees for Fannie Mae and Freddie Mac, respectively.

In dollar terms, Fannie Mae has a larger minimum capital leverage requirements than Freddie Mac, and that is expected since Fannie Mae has a relatively larger total assets than Freddie Mac.

This concludes our presentation and now I’m going to pass it back to Naa Awaa Tagoe.

**Naa Awaa Tagoe:** Thanks Katya. We hope you found this helpful. Thanks for joining us today. I would like to encourage everybody to read the preamble and to pay particular attention to the issues we asked questions. We would especially appreciate your feedback on those questions. We will now take questions.

**Danielle Walton:** Thanks, everyone. We have a few questions in from our attendees. I'll read them off, and we'll respond. So the first one we've gotten is about the capital framework. Is there a capital framework now, while the GSEs are in conservatorship, and if so is it being used currently? Naa Awaa, would you like to take that question?

**Naa Awaa Tagoe:** Sure. There is a capital framework in conservatorship. FHFA put that in place last year in 2017, it's called the Conservatorship Capital Framework or the CCF. The Enterprises and FHFA both use the CCF. The Enterprises use it internally for risk management and risk reporting. Specifically, they use it to assess the relative risk of different assets and transactions. FHFA uses the CCF to evaluate the Enterprises’ business decisions and in particular we're looking at comparing the relative risk of assets and transactions for a particular Enterprise. Then when we look across Enterprises, we're comparing the risk of transactions and assets across Enterprises.

**Danielle Walton:** We also had a question about operational risk, does the eight basis points includes cyber risk?

**Andrew Varrieur:** Yes, the cyber risk would be included within the general category of operational risk, the eight basis points, we calculated using Basel's Basic Indicator Approach. Basel has a number of allowable methodologies for calculating operational risk. We used the Basic Indicator Approach and we took aggregate Enterprises’ data and ran it through the equation that Basel provides to get the eight basis points.

**Danielle Walton:** Great, we have a number of questions here about the “haircuts” term that we’ve used previously. Bryan, can you provide more of an explanation on that term?

**Bryan Goudie:** Thanks very much, Danielle. Sure. So, in general haircuts are used to account for counterparty default risk. Haircuts reduce capital relief that comes from credit enhancements or CRTs and they're based on the financial strength of the counterparty. In particular, we can take that counterparties with lower financial strength, may have a higher likelihood of not meeting their obligations and thus the haircuts are higher on those counterparties with lower financial strength. And as a result, capital relief is reduced more for counterparties with lower financial strength.

For the proposed rule, the components of the calculations include loss given default, probability of default and maturity adjustments, where higher loss given default, higher default probability and a longer maturity would lead to higher haircuts.

**Danielle Walton:** Thank you. We also have a number of questions about the ending of conservatorship and the net worth sweep. Naa Awaa, when and how will the net worth sweep be stopped and how will the Enterprises end conservatorship?

**Naa Awaa Tagoe:** I would go back to some of the comments we made at the start of the preamble and at the start of the webinar on the purpose of the rule. So, FHFA’s position continues to be that it is the role of Congress and the Administration to determine the future of housing finance reform and that in proposing this rule, FHFA is not taking a position on housing finance reform and in particular, the proposed rule is not a step towards recapitalizing the Enterprises and releasing them from conservatorship or modifying the PSPAs.

**Danielle Walton:** Thank you. For the next question, I'll ask Andrew. Broadly speaking, how were the single family and multifamily grids and multipliers calculated?

**Andrew Varrieur:** Broadly speaking, that’s a little complicated. We use the internal models from Fannie Mae, Freddie Mac and FHFA. We ran similar loans with similar economic scenarios through all three models, FHFA then combine the results to generate the grids and multipliers. That's on the single family side. On the multifamily side, we went through a very similar process, except FHFA does not have a multifamily credit risk model. So, we relied exclusively on the Enterprises.

**Danielle Walton:** Our next question is on guarantee fees. How would this proposal affect the Enterprises’ guarantee fees?

**Naa Awaa Tagoe:** Well, FHFA does not expect the proposed rule to affect the Enterprises’ guarantee fees. As I mentioned earlier, both Enterprises use the Conservatorship Capital Framework, the CCF, to assess certain assets and transactions and FHFA also looks at the reasonableness of g-fees based on the CCF. We report in FHFA’s credit risk transfer progress report, which is on our website that the Enterprises’ current guarantee fees on new acquisitions are broadly in line with the guarantee fees implied by the risk-based capital requirements in the CCF, which are the same requirements in the proposed

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rule. So, based on that outcome, we don't expect guarantee fees to be impacted by the proposed rule.

**Danielle Walton:** Here’s another one for you Bryan. Would the CRT example work differently if they were multiple tranches or does the same logic apply?

**Bryan Goudie:** Thanks for the question. Yeah. In general, the same logic would apply here if a CRT has multiple tranches. Take a STACR or CAS as an example. They typically have, for example, three mezzanine tranches or M tranches, as they were referred to in the example. Sometimes you can have two B tranches or as they were referred in the example, the lowest tranches. The methodology would just apply tranche by tranche. Just make sure to track ownership loss timing, counterparty credit risk as needed. Further, if the deal has more than one pool group, you can think about some of the CAS deals from Fannie Mae out there, which perhaps have pool group one between 60-80 and pool group two for higher LTV loans, I just want to make sure you track those two pool groups separately as well.

**Danielle Walton:** Looks like we have time for one more question. What are the stress scenario assumptions used in the grids and multipliers? If the grids and multipliers require updating, would that require a new regulation? Andrew, can you pick that one?

**Andrew Varrieur:** Sure. On the single-family side, the Enterprises use their internal management stress scenarios. FHFA uses the 25% severely adverse CCAR scenario and of course, we had to extend that and regionalize it. The three scenarios are all very similar to the experience during the recent crisis as the national level home prices decline 25% but then we use more conservative assumptions about the length of the trough and the recovery period. The multifamily side, the Enterprises use the exact same scenario. The multifamily stress scenario assumes a net operating income decline of 15% and a property value decline of 35%. Again, this is consistent with the financial crisis. The grids and multipliers are in the regulation. So, if we wanted to update them, that would be a change to regulation, so we would go through the full notice in comment process.

**Danielle Walton:** Thank you. Looks like that's all we have for questions for today. Thank you again for everyone for listening to this webinar. As a reminder, you can view the full rule and submit your comments on our website [fhfa.gov](http://fhfa.gov). Thank you so much and have a good afternoon.

**[END OF TRANSCRIPT]**



Federal Housing Finance Agency



## Enterprise Capital Requirements

Overview of Notice of Proposed Rulemaking

June 19, 2018

# AGENDA

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# OVERVIEW

- The Federal Housing Finance Agency (FHFA) suspended regulatory capital requirements after placing Fannie Mae and Freddie Mac (the Enterprises) into conservatorships in September 2008.
- Despite the Enterprises' strict capital limits imposed by the Senior Preferred Stock Purchase Agreements, FHFA identified the need to develop an aligned risk measurement framework to better evaluate each Enterprise's business decisions during conservatorship.
- To address this need, FHFA developed the Conservatorship Capital Framework (CCF), which went into effect in 2017. The CCF provides the basis for FHFA's proposed capital regulation (Proposed Rule).

# PURPOSE

- The Proposed Rule achieves several objectives:
  - Transparently communicates FHFA's views as a financial regulator about capital adequacy.
  - Prepares FHFA to modify the capital requirements for future housing finance entities, even if significantly different from the Enterprises, upon completion of housing finance reform by Congress.
  - Allows market participants to comment on the proposed capital requirements for Fannie Mae and Freddie Mac.
  - Provides valuable feedback to FHFA to refine the CCF, which will continue to apply to the Enterprises during conservatorship.
- Any final rule for Enterprise regulatory capital requirements would remain suspended during conservatorship.

# PURPOSE CONTD.

For clarification:

- In proposing this rule, FHFA is not attempting to take a position on housing finance reform.
- The Proposed Rule is not a step towards recapitalizing the Enterprises and administratively releasing them from conservatorship.
- FHFA's position continues to be that it is the role of Congress and the Administration to determine the future of housing finance reform and what role, if any, the Enterprises should play in that system.

# PROPOSED RULE CONSIDERATIONS

- The Enterprises should operate under a robust capital framework that is similar to regulatory capital frameworks applicable to banks and other financial institutions, but appropriately differentiates from other capital requirements based on the actual risks associated with the Enterprises' businesses.
- FHFA should use experience gained during the conservatorships of the Enterprises to ensure that the capital requirements secure the safety and soundness of the Enterprises while also supporting their statutory missions to foster and increase liquidity of mortgage investments and promote access to mortgage credit throughout the Nation.



# PROPOSED RULE CONSIDERATIONS CONTD.

FHFA considers it prudent that the risk-based capital requirements:

- Include components of credit risk, market risk, operational risk, and a going-concern buffer;
- Require full life-of-loan capital for each loan, at acquisition;
- Cover losses for different loan categories in a severe stress event comparable to the recent financial crisis, but with house price recoveries somewhat more conservative than experienced following the recent crisis;
- Provide capital relief for credit risk transfer (CRT) transactions; and
- Do not count future Enterprise revenue as capital.

# PROPOSED RULE CONSIDERATIONS CONTD.

- FHFA's ongoing Prompt Corrective Action authority to increase risk-based or minimum leverage capital requirements by order or regulation make additional capital buffers beyond those FHFA proposes, such as a countercyclical buffer, unnecessary at this time.
- It may be necessary in the future for FHFA to revise this rule, develop a separate capital planning rule to more fully address stress testing of the Enterprises and other factors, and develop a liquidity rule, the timing of which will depend on how the Enterprises evolve and on the details of housing finance reform.



# SUMMARY OF THE PROPOSED RULE

The Proposed Rule establishes the following regulatory capital framework for the Enterprises:

- A new framework for risk-based capital requirements; and
- A revised minimum leverage capital requirement with two alternative proposals.
- In order to be considered adequately capitalized, an Enterprise would have to meet the higher of the risk-based capital requirement or the minimum capital requirement.

# RISK-BASED CAPITAL REQUIREMENTS

The Proposed Rule's risk-based capital requirements for single-family and multifamily assets and guarantees include the following four components:

- Granular **credit risk** capital requirements to account for default risk;
- **Market risk** capital requirements to account for spread risk;
- **Operational risk** capital requirement to account for risk in ongoing business operations; and
- **Going-concern buffer** that provides the Enterprises with sufficient capital to continue operating for one-two years after a stress event without external capital support.

# RISK-BASED CAPITAL REQUIREMENTS – CREDIT RISK

For credit risk capital requirements, in order to differentiate risk, the Proposed Rule categorizes single-family and multifamily loans by loan segment:

- Single-family loan segments:
  - New originations;
  - Performing seasoned loans;
  - Re-performing loans – non-modified;
  - Re-performing loans – modified; and
  - Non-performing loans.
- Multifamily loan segments:
  - Fixed-rate loans; and
  - Adjustable-rate loans.

# RISK-BASED CAPITAL REQUIREMENTS – CREDIT RISK CONTD.

The Proposed Rule calculates credit risk capital requirements using the following:

- **Base grids** determine credit risk capital requirements for “baseline” loans by loan segment.
- **Risk multipliers** adjust the credit risk capital requirements to reflect individual risk characteristics of loans that differ from those of baseline loans.
- **Credit enhancement multipliers** decrease credit risk capital requirements on loans with loan-level credit enhancement.
  - Counterparty haircuts moderate the decrease in credit risk capital requirements from loan-level credit enhancement to reflect counterparty credit risk.
- Reduce credit risk capital requirements to reflect **capital relief** from CRT transactions.

# SINGLE-FAMILY CREDIT RISK – NEW ORIGINATIONS

## Base Grid for Single-Family New Originations

(in bps)	Original Loan-To-Value (OLTV) (%)							
Original Credit Score	(30,60]	(60,70]	(70,75]	(75,80)	80	(80,85]	(85,90]	(90,95]
[680, 700)	53	154	230	300	339	405	528	656
[700, 720)	46	134	199	259	293	344	452	566
[720, 740) ...	39	115	171	222	251	300	400	507 ...
[740, 760)	31	95	141	183	206	244	326	417
[760, 780)	25	77	114	148	166	195	262	339
>= 780	19	59	87	113	127	148	200	258

## Base Grid Loan Characteristics

- Purchase
- Owner occupied or second home
- 1-Unit
- Multiple borrowers
- DTI between 25% and 40%
- 30-year fixed-rate mortgage (FRM)
- Loan size greater than \$100,000
- Retail channel sourced
- No second lien

## Select Single-Family Risk Multipliers

Loan Purpose	Purchase	1.0
	Cashout Refinance	1.4
	Rate/Term Refinance	1.3
Occupancy Type	Owner Occupied or Second Home	1.0
	Investment	1.2
Property Type	1-Unit	1.0
	2-4 Unit	1.4
	Condominium	1.1
	Manufactured Home	1.3
Number of Borrowers	Multiple Borrowers	1.0
	One Borrower	1.5
Debt-To-Income (DTI)	DTI <= 25%	0.8
	25% < DTI <= 40%	1.0
	DTI > 40%	1.2
Product Type	FRM 30 year	1.0
	ARM 1/1	1.7
	FRM 15 year	0.3
	FRM 20 year	0.6
Loan Size at Origination	UPB <= \$50,000	2.0
	\$50,000 < UPB <= \$100,000	1.4
	UPB > \$100,000	1.0
Credit Enhancement	OLTV: (80-85], CvrnPct* = 12%	0.867
	OLTV: (85-90], CvrnPct = 25%	0.551
Multipliers by Guide for 30 Yr Amortizing	OLTV: (90-95], CvrnPct = 30%	0.412
	OLTV: (95-97], CvrnPct = 35%	0.322
	OLTV: >97, CvrnPct = 35%	0.272

\* CvrnPct = Coverage Percentage

# SINGLE-FAMILY CREDIT RISK EXAMPLE

The product of (1) base grid capital, (2) risk multipliers, and (3) credit enhancement multipliers after adjusting for counterparty haircuts yields (4) credit risk capital.

Consider a newly originated loan with OLTV of 90 percent and an original credit score of 730 that has identical features to the baseline loan except for the following: property type of condominium, DTI of 42 percent, and mortgage insurance coverage of 25 percent.

**(1) Base grid capital** 400 bps

**(2) Select risk multipliers**

Loan purpose	1.0
Occupancy type	1.0
Property type	1.1
Number of borrowers	1.0
DTI	1.2
Product type	1.0
Loan size	1.0

**(3) Credit enhancement multiplier and counterparty haircut**

Credit enhancement multiplier	0.551
Counterparty haircut	17.2%

**(4) Credit risk capital** =  $(400 \text{ bps}) \times (1.1 \times 1.2) \times (1 - (1 - 0.551) \times (1 - 0.172)) = 332 \text{ bps}$



# MULTIFAMILY CREDIT RISK – FIXED-RATE LOANS

## Base Grid for Multifamily Fixed-Rate Loans

(in bps)	Acquisition LTV or MTMLTV (%)			
Acquisition DSCR or MTMDSCR	(55, 65]	(65, 70]	(70, 75]	(75, 80]
	⋮			
[1.25, 1.30)	520	593	645	690
[1.30, 1.35)	470	528	568	608
[1.35, 1.50) ...	428	475	510	548 ...
[1.50, 1.65)	315	345	375	408
[1.65, 1.80)	245	270	298	330

\* DSCR = Debt Service Coverage Ratio; MTM = Mark-To-Market.

## Base Grid Loan Characteristics

- Loan never been delinquent or modified
- Not interest-only loan
- \$10 million loan amount
- 30-year amortization period
- Not a special product
- 10-year balloon

## Interest-Only Loans

For interest-only loans, use fully amortizing acquisition DSCR (or MTMDSCR) when determining base capital.

## Select Risk Multipliers

<b>Payment Performance</b>	<b>Performing</b>	<b>1.0</b>
	Delinquent	1.1
	Re-Performing (without Modification)	1.1
	Modified	1.2
<b>Interest-Only</b>	<b>Not Interest-Only</b>	<b>1.0</b>
	Interest-Only	1.1
<b>Original/Remaining Loan Term (years)</b>	Loan Term <= 1	0.7
	1 < Loan Term <= 3	0.8
	3 < Loan Term <= 5	0.9
	<b>5 &lt; Loan Term &lt;= 10</b>	<b>1.0</b>
	Loan Term > 10	1.2
<b>Original Loan Size (\$millions)</b>	Loan Size <= \$3	1.5
	\$3 < Loan Size <= \$5	1.2
	<b>\$5 &lt; Loan Size &lt;= \$10</b>	<b>1.0</b>
	\$10 < Loan Size <= \$25	0.8
	Loan Size > \$25	0.7

# RISK-BASED CAPITAL REQUIREMENTS – MARKET RISK

The Proposed Rule calculates market risk capital requirements, which focus on spread risk, for the following retained portfolio assets:

- Single-family and multifamily whole loans and agency securities;
- Private-label securities;
- Commercial mortgage-backed securities; and
- Other assets with market risk exposure.

The following three approaches are used to measure market risk:

- Single-point estimate;
- Spread shock; and
- Internal models.



# RISK-BASED CAPITAL REQUIREMENTS – OTHER

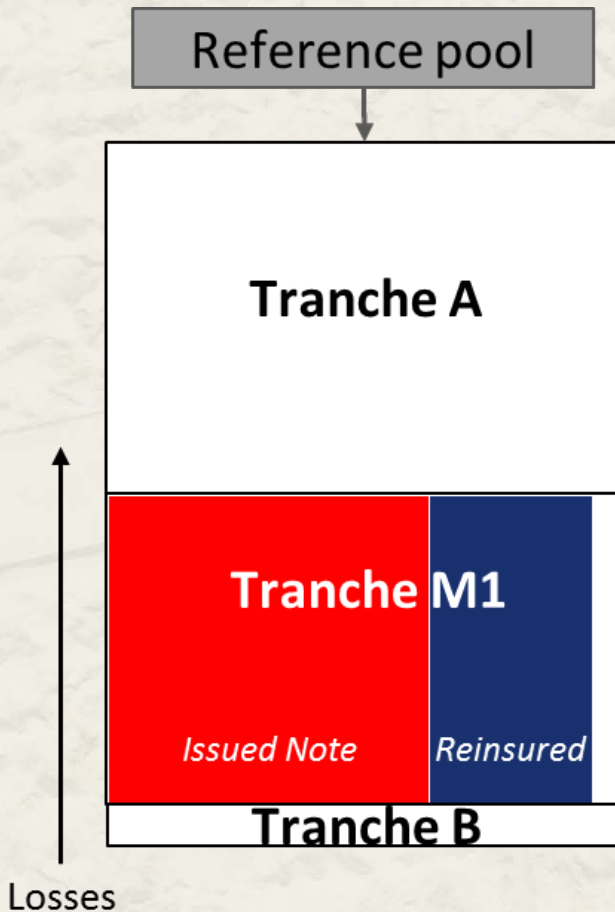
The Proposed Rule includes an operational risk capital requirement and a going-concern buffer.

- The operational risk capital requirement is 8 basis points (bps).
  - Reflects the inherent risk in ongoing business operations.
  - Based on the Basel operational risk methodology.
- The going-concern buffer is 75 bps.
  - Provides the Enterprises with sufficient capital to continue operating for one-two years after a stress event without external capital support.

# CAPITAL RELIEF FOR CREDIT RISK TRANSFERS

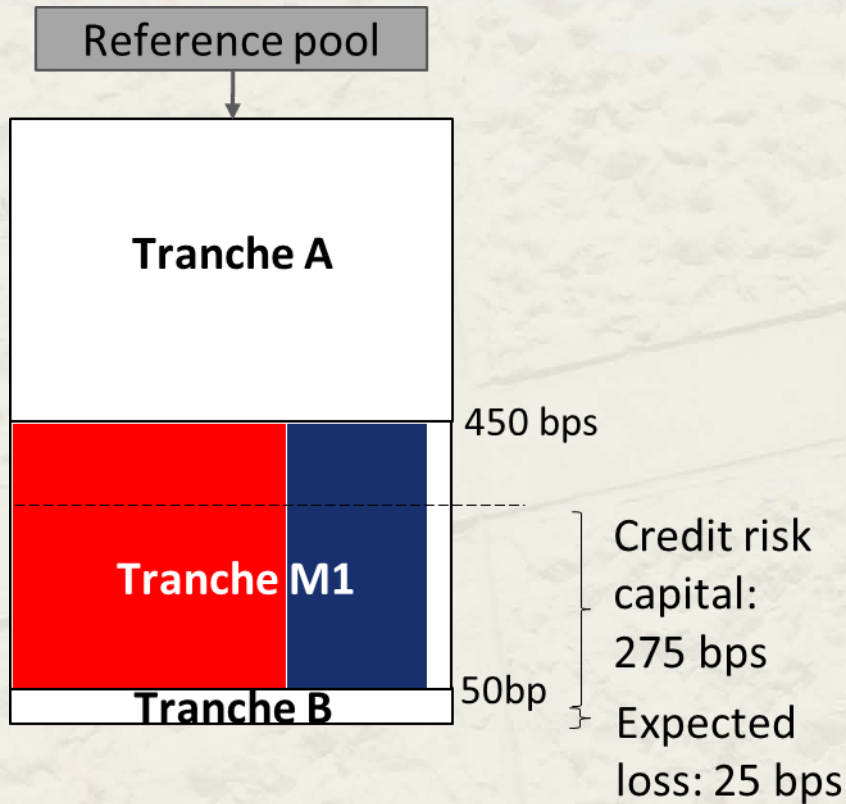
- Enterprise CRTs include capital markets, reinsurance, and loss sharing programs. Examples include:
  - Single-family: STACR/CAS, ACIS/CIRT, lender recourse.
  - Multifamily: DUS, K-Deals.
- The Proposed Rule's stepwise approach for capital relief:
  1. Distribute credit risk capital on the underlying loans to the tranches of the CRT independent of tranche ownership such that higher capital requirements are applied to more junior tranches;
  2. Calculate capital relief accounting for tranche ownership;
  3. Adjust capital relief for loss timing to address the mismatch between lifetime losses and the CRT's term of coverage;
  4. Adjust capital relief for counterparty credit risk on loss sharing transactions; and
  5. Aggregate capital relief across tranches.

# SINGLE-FAMILY CRT CAPITAL RELIEF EXAMPLE



- Reference pool includes loans acquired by an Enterprise and deposited into MBS.
- Credit and prepayment performance of the reference pool determine the performance of the CRT's tranches.
- Tranche B absorbs losses first. Tranche M1 absorbs losses after tranche B and before tranche A.
- Enterprises typically retain tranches B and A, and 5 percent of tranche M1. The remainder of tranche M1 is typically divided between issued notes through capital markets and reinsurance.

# SINGLE-FAMILY CRT CAPITAL RELIEF EXAMPLE CONTD.



## Tranche Ownership

- A and B Retained by Enterprise.
- M1 60% capital markets (red), 35% reinsured (blue), and 5% retained (white).

## CRT Coverage

Coverage term 10 years

## Reference Pool

Single-family loans \$1 billion, fixed-rate 30 year, 60%<OLTV<=80%

Credit risk capital 275 bps (excludes going-concern buffer and operational risk)

Expected loss 25 bps

## Reinsurance

Reinsurer Collateral: \$2.8 million, Haircut: 5.2%.

# SINGLE-FAMILY CRT CAPITAL RELIEF EXAMPLE CONTD.

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## 1. Distribute credit risk capital

M1 credit risk capital                      **250 bps** = 300 bps – 50 bps

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## 2. Capital relief accounting for ownership

Capital markets                      150 bps = 60% x 250 bps  
Reinsurance                      87.5 bps = 35% x 250 bps  
Total                      **237.5 bps**

---

## 3. Capital relief updated to account for loss timing

Capital markets                      132 bps = 88% x 150 bps  
Reinsurance                      77 bps = 88% x 87.5 bps  
Total                      **209 bps**

---

## 4. Capital relief updated to account for counterparty credit risk

Counterparty credit risk capital    =  $\frac{[(77 \text{ bps} \times \$1 \text{ billion} - \$2.8 \text{ million}) \times 5.2\%]}{\$1 \text{ billion}}$   
= **2.5 bps**

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## 5. Capital relief

Capital relief                      = 132 bps + 77 bps – 2.5 bps = 209 bps – 2.5 bps  
= **206.5 bps**

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# MINIMUM LEVERAGE CAPITAL REQUIREMENT ALTERNATIVES

The Proposed Rule includes two alternative minimum leverage capital requirements:

- The **2.5 Percent Alternative**: 2.5 percent of total assets and off-balance sheet guarantees.
  - This approach requires the Enterprises to hold a minimum amount of capital for assets and guarantees that does not differentiate between the risk characteristics of assets and guarantees, consistent with the Basel leverage capital requirements for banks.
- The **Bifurcated Alternative**: 1.5 percent of trust assets and 4.0 percent of non-trust assets.
  - This approach, consistent with the approach for minimum leverage capital requirements in the Enterprises' Safety and Soundness Act, differentiates between the greater funding risks of the Enterprises' non-trust assets and the lower funding risks of the Enterprises' trust assets, but increases the capital requirements for both types of assets.

# STATUTORY DEFINITION OF CAPITAL

- Core capital is used to meet the minimum leverage capital requirement and is defined as the sum of the following (as determined in accordance with GAAP):
  - The par or stated value of outstanding common stock;
  - The par or stated value of outstanding perpetual, noncumulative preferred stock;
  - Paid-in capital; and
  - Retained earnings.
- Total capital is used to meet the risk-based capital requirements and is defined as the sum of the following:
  - Core capital;
  - A general allowance for foreclosure losses; and
  - Any other amounts from sources of funds available to absorb losses incurred by the Enterprise that the Director by regulation determines are appropriate to include in determining total capital.

# DEFERRED TAX ASSETS

- The statutory definition of core capital does not limit the amount of Deferred Tax Assets (DTAs) that count as capital.
- The Proposed Rule would establish a risk-based capital requirement for DTAs that would offset the DTAs included in capital in a manner generally consistent with the Basel III treatment of DTAs.



# IMPACT AS OF DECEMBER 31, 2007

- FHFA estimated the Enterprises' risk-based capital requirements as of December 31, 2007, under the Proposed Rule.
- The capital requirements, when combined with the Enterprises' revenues, would have exceeded the Enterprises' respective peak cumulative capital losses resulting from the financial crisis including losses from write-downs of DTAs.
- Peak cumulative capital losses are defined as losses sustained between 2008 and the dates at which the Enterprises no longer required draws from the Treasury Department to eliminate negative net worth – the fourth quarter of 2011 for Fannie Mae and the first quarter of 2012 for Freddie Mac.

# IMPACT – RISK-BASED CAPITAL REQUIREMENTS

Comparison of proposed risk-based capital requirements as of December 31, 2007 to peak cumulative capital losses.

	<b>Fannie Mae</b> \$ in billions	<b>Fannie Mae</b> Percent of Total Assets and Off- Balance Sheet Guarantees	<b>Freddie Mac</b> \$ in billions	<b>Freddie Mac</b> Percent of Total Assets and Off- Balance Sheet Guarantees
Proposed Risk-Based Capital Requirement as of Dec 31, 2007	\$171	5.6%	\$110	5.0%
Peak Cumulative Capital Losses	\$167	5.5%	\$98	4.5%
Relative to Peak Capital Losses	\$3	0.1%	\$12	0.5%

Peak cumulative capital losses are defined as losses sustained between 2008 and the dates at which the Enterprises no longer required draws from the Treasury Department to eliminate negative net worth – the fourth quarter of 2011 for Fannie Mae and the first quarter of 2012 for Freddie Mac.



# IMPACT AS OF SEPTEMBER 30, 2017

- FHFA estimated the Enterprises' capital requirements as of September 30, 2017.
- The proposed risk-based capital requirement is \$181 billion (combined for both Enterprises).
- Under the proposed 2.5 Percent Alternative, the minimum leverage capital requirement is \$139 billion (combined for both Enterprises).
- Under the proposed Bifurcated Alternative, the minimum leverage capital requirement is \$103 billion (combined for both Enterprises).

# IMPACT – RISK-BASED CAPITAL REQUIREMENTS

Estimated risk-based capital requirements as of September 30, 2017 per the Proposed Rule – **by Risk Category**

Risk Category	Fannie Mae \$billions	Freddie Mac \$billions	Combined \$billions	Percent of Total
Credit Risk	\$59	\$32	\$91	50%
Market Risk	\$10	\$10	\$19	11%
Going-Concern Buffer	\$24	\$16	\$40	22%
Operational Risk	\$3	\$2	\$4	2%
Other (DTAs)	<u>\$20</u>	<u>\$7</u>	<u>\$27</u>	<u>15%</u>
Total Risk-Based Capital Requirement	\$115	\$66	\$181	100%
Percent of Total Assets and Off-Balance Sheet Guarantees	3.43%	2.96%	3.24%	

# IMPACT – RISK-BASED CAPITAL REQUIREMENTS CONTD.

Estimated risk-based capital requirements as of September 30, 2017 per the Proposed Rule – **by Asset Category**

Asset Category	Enterprises Combined \$billions	Enterprises Combined bps	Percent of Total
Single-Family Whole Loans, Guarantees and Related Securities	\$131	273	72%
Multifamily Whole Loans, Guarantees and Related Securities	\$14	278	8%
Private-Label Securities	\$3	2,336	2%
Commercial Mortgage-Backed Securities	\$0.02	279	0%
Other (DTA)	\$27	811	15%
Other Assets	<u>\$6</u>	192	<u>3%</u>
<b>Total Risk-Based Capital Requirement</b>	<b>\$181</b>		<b>100%</b>

# IMPACT – MIMIMUM LEVERAGE CAPITAL REQUIREMENTS

Estimated minimum leverage capital requirements as of September 30, 2017 per the Proposed Rule.

	<b>Fannie Mae \$billions</b>	<b>Freddie Mac \$billions</b>	<b>Combined \$billions</b>
2.5 Percent Alternative	\$84	\$56	\$139
Percent of Total Assets and Off-Balance Sheet Guarantees	2.5%	2.5%	2.5%
Bifurcated Alternative	\$60	\$43	\$103
Percent of Total Assets and Off-Balance Sheet Guarantees	1.8%	1.9%	1.9%

# CONTACT US

Submit Written Comments to:

[www.fhfa.gov/SupervisionRegulation/Rules/Pages/Enterprise-Capital-Requirements.aspx](http://www.fhfa.gov/SupervisionRegulation/Rules/Pages/Enterprise-Capital-Requirements.aspx)

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# Questions?



Thank You  
for Joining Us!

