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FEDERAL HOUSING FINANCE AGENCY

12 CFR Part 1240

RIN 2590-AB27

Enterprise Regulatory Capital Framework Amendments

AGENCY: Federal Housing Finance Agency.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Federal Housing Finance Agency (FHFA or the Agency) is seeking comments on a notice of proposed rulemaking (proposed rule) that would amend several provisions in the Enterprise Regulatory Capital Framework (ERCF) for the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac, and with Fannie Mae, each an Enterprise). The proposed rule would include modifications related to guarantees on commingled securities, multifamily mortgage exposures secured by government-subsidized properties, derivatives and cleared transactions, and credit scores, among other items.

DATES: Comments must be received on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISER].

ADDRESSES: You may submit your comments on the proposed rule, identified by regulatory information number (RIN) 2590-AB27, by any one of the following methods:

- *Agency website*: www.fhfa.gov/open-for-comment-or-input.
- *Federal eRulemaking Portal*: https://www.regulations.gov. Follow the instructions for submitting comments. If you submit your comment to the Federal eRulemaking Portal, please also send it by e-mail to FHFA at

RegComments@fhfa.gov to ensure timely receipt by FHFA. Include the following information in the subject line of your submission: Comments/RIN 2590-AB27.

- *Hand Delivered/Courier*: The hand delivery address is: Clinton Jones, General Counsel, Attention: Comments/RIN 2590-AB27, Federal Housing Finance Agency, 400 Seventh Street, SW., Washington, DC 20219. Deliver the package at the Seventh Street entrance Guard Desk, First Floor, on business days between 9 a.m. and 5 p.m.
- *U.S. Mail, United Parcel Service, Federal Express, or Other Mail Service*: The mailing address for comments is: Clinton Jones, General Counsel, Attention: Comments/RIN 2590-AB27, Federal Housing Finance Agency, 400 Seventh Street, SW., Washington, DC 20219. Please note that all mail sent to FHFA via U.S. Mail is routed through a national irradiation facility, a process that may delay delivery by approximately two weeks. For any time-sensitive correspondence, please plan accordingly.

FOR FURTHER INFORMATION CONTACT: Andrew Varrieur, Senior Associate Director, Office of Capital Policy, (202) 649-3141, Andrew.Varrieur@fhfa.gov; Christopher Vincent, Principal Financial Analyst, Office of Capital Policy, (202) 649-3685, Christopher.Vincent@fhfa.gov; or James Jordan, Associate General Counsel, Office of General Counsel, (202) 649-3075, James.Jordan@fhfa.gov. These are not toll-free numbers. For TTY/TRS users with hearing and speech disabilities, dial 711 and ask to be connected to any of the contact numbers above.

SUPPLEMENTARY INFORMATION:

Comments

FHFA invites comments on all aspects of the proposed rule. Copies of all comments will be posted without change and will include any personal information you provide, such as your name, address, email address, and telephone number, on the FHFA website at https://www.fhfa.gov. In addition, copies of all comments received will be available for examination by the public through the electronic rulemaking docket for this proposed rule also located on the FHFA website.

Table of Contents

I. Introduction

FHFA is seeking comments on amendments to the ERCF that would enhance, clarify, or otherwise refine various regulatory capital requirements for the Enterprises. The proposed rule would modify provisions in the ERCF related to the following items: guarantees on commingled securities, multifamily mortgage exposures secured by properties with a government subsidy, derivatives and cleared transactions, credit scores for single-family mortgage exposures, guarantee assets, mortgage servicing assets (MSAs), time-based calls for credit risk transfer (CRT) exposures, interest-only (IO) mortgage-backed securities (MBS), the single-family countercyclical adjustment, the stability capital buffer, and the compliance date for the advanced approaches.

The proposed amendments would implement the lessons learned through the continued application of the ERCF and better reflect the risks inherent in the Enterprises' business models. In addition, the proposed rule would clarify certain areas of the ERCF. In doing so, the modifications in this proposed rule would enhance the safety and soundness of the Enterprises and contribute to the furtherance of the Enterprises' missions.

FHFA adopted the ERCF on December 17, 2020, with the purpose of implementing a going-concern regulatory capital standard to ensure that each of Fannie Mae and Freddie Mac operates in a safe and sound manner, and, across the economic cycle is positioned to fulfill its statutory mission to provide stability and ongoing

assistance to the secondary mortgage market. The ERCF satisfied a statutory requirement that FHFA establish by regulation, risk-based capital requirements to safeguard the Enterprises against the risks that arise in the operation and management of their businesses. The ERCF also implemented a new leverage framework that included both a minimum requirement and a leverage buffer. The ERCF became effective on February 16, 2021. FHFA subsequently amended the ERCF three times. The amendments refined the prescribed leverage buffer amount (PLBA or leverage buffer) and the risk-based capital treatment of CRT, implemented a more comprehensive set of public disclosure requirements for the standardized approach, and required the Enterprises to submit capital plans to FHFA on an annual basis. Each of the amendments became effective in 2022.

Since the adoption of the ERCF, the Enterprises have been operating under the capital requirements and buffers outlined in the standardized approach while simultaneously building their capital positions. However, despite their recent progress accumulating capital, the Enterprises remain severely undercapitalized. Since the Enterprises were placed into conservatorships in September 2008, they have been supported by Senior Preferred Stock Purchase Agreements (PSPAs) between the U.S. Department of the Treasury (Treasury) and each Enterprise.[1]

As conservator and prudential regulator, FHFA continuously monitors the risk inherent in the Enterprises' business operations and reviews the appropriateness of the ERCF's capital requirements and buffers to mitigate those risks. FHFA has identified

[1] Fannie Mae's and Freddie Mac's Amended and Restated Senior Preferred Stock Purchase Agreements with Treasury, as amended through September 14, 2021, can be found on FHFA's webpage at https://www.fhfa.gov/Conservatorship/Pages/Senior-Preferred-Stock-Purchase-Agreements.aspx.

several provisions in the ERCF that could be revised to enhance the ERCF. Specifically, the proposed rule would introduce:

- A 5 percent risk weight and 50 percent credit conversion factor for guarantees on commingled securities,
- A risk multiplier of 0.6 for multifamily mortgage exposures secured by properties with certain government subsidies,
- A standardized approach for counterparty credit risk (SA-CCR) as the method for computing risk weights for derivatives and cleared transactions,
- A modified procedure for determining a representative credit score for single-family mortgage exposures,
- A modified credit score assumption for single-family mortgage exposures originated without a representative credit score,
- A 20 percent risk weight for guarantee assets, and
- A timing alignment between the application of single-family countercyclical adjustments and property value adjustments.

FHFA has also identified several aspects of the ERCF where specific language would clarify and enhance the usefulness of the ERCF. The proposed rule would:

- Expand the definition of MSAs to include servicing rights on mortgage loans owned by the Enterprise,
- Explicitly permit eligible time-based call options in the CRT operational criteria,
- Amend the risk weights for IO MBS to 0 percent, 20 percent, and 100 percent, conditional on whether the security was issued by the Enterprise, the other Enterprise, or a non-Enterprise entity, respectively, and

- Clarify the calculation of the stability capital buffer when an increase and a decrease might be applied concurrently.

Finally, the proposed rule would extend the compliance date for the advanced approaches. Each item is discussed below.

II. Proposed Requirements

A. Guarantees on Commingled Securities

The ERCF includes risk-based, leverage, and buffer capital requirements for guarantees on commingled securities – certain resecuritizations guaranteed by a combination of Fannie Mae and Freddie Mac, described more fully below. For risk-based capital, an Enterprise is currently required to apply a 20 percent risk weight on exposures to the other Enterprise in a commingled security. For leverage capital and buffer calculations, an Enterprise is currently required to apply a 100 percent credit conversion factor to these exposures because they are off-balance sheet guarantees. The 20 percent risk weight and 100 percent credit conversion factor for guarantees on commingled securities may not accurately reflect the counterparty risks posed by commingling activities and in certain circumstances may impair the liquidity of the Enterprises' securities, which may adversely affect the nation's housing finance market. The proposed rule would reduce the risk weight and the credit conversion factor for guarantees on commingled securities to 5 percent and 50 percent, respectively.

On February 28, 2019, FHFA issued a final rule on common MBS known as the Uniform Mortgage-Backed Security (UMBS) with the purpose of enhancing liquidity in the MBS marketplace and fostering the efficiency and liquidity of the secondary mortgage market. On June 3, 2019, the Enterprises launched newly issued UMBS. The

UMBS are a single-class security issued by either Fannie Mae or Freddie Mac backed by single-family mortgage loans purchased by the issuing Enterprise. For the UMBS market to operate successfully, market participants must continue to accept UMBS as fungible irrespective of the issuing Enterprise. That is, investors generally must agree that a UMBS of a certain coupon, maturity, and loan origination year issued by one Enterprise is roughly equivalent to the corresponding UMBS issued by the other Enterprise.[2]

To foster fungibility, each Enterprise may issue "Supers," which are single-class resecuritizations of UMBS. The securities underlying Supers may be commingled, *i.e.*, Supers may be backed by both securities that are issued and guaranteed by Fannie Mae and securities that are issued and guaranteed by Freddie Mac. The Enterprises may also issue collateralized mortgage obligations, or CMOs, and real estate mortgage investment conduits, or REMICs, which are each a type of structured security in which the collateral can include UMBS. If an Enterprise guarantees a security backed in whole or in part by securities of the other Enterprise, the Enterprise is obligated under its guarantee to fund any shortfall in the event that the other Enterprise fails to make a payment due on its securities.[3] Investors in commingled securities benefit from the original guarantees extended by guarantors of the underlying collateral, as well as the additional guarantees of resecuritizing Enterprise, including on the commingled collateral.

As a result of these multiple guarantees, the current 20 percent risk weight and 100 percent credit conversion factor for commingled securities may not accurately reflect

[2] To support investor confidence in that fungibility, FHFA adopted a final rule governing Enterprise actions affecting UMBS cash flows to investors (12 CFR part 1248), publishes quarterly prepayment monitoring reports, and limits certain pooling practices with respect to the creation of UMBS.

[3] The Enterprises have entered into an indemnification agreement relating to commingled securities issued by the Enterprises. The indemnification agreement obligates each Enterprise to reimburse the other for any such shortfall.

these counterparty risks and, in certain circumstances, may impair the liquidity of the Enterprises' securities. However, despite their current Treasury support under the PSPAs, the Enterprises also remain privately-owned corporations, and their obligations do not have the explicit guarantee of the full faith and credit of the United States. Therefore, the MBS and other obligations of an Enterprise pose some degree of counterparty risk.

The proposed rule would reduce the risk weight for guarantees on commingled securities from 20 percent to 5 percent to better align the capital requirements with the inherent counterparty risk. A lower risk weight should reduce an Enterprise's incentive to only guarantee Supers securities collateralized by its own UMBS, leading to different volumes and investor perceptions of UMBS issued by each Enterprise, and potentially leading to a bifurcation of UMBS pricing and trading. Several commenters on FHFA's 2020 notice of proposed rulemaking on Enterprise capital[4] recommended FHFA implement a similar treatment, while also stating that an Enterprise's exposures to the other Enterprise do not increase aggregate credit risk and the 20 percent risk weight is therefore excessive.

The risk-weight floor assigned to any retained CRT exposure is 5 percent.[5] This risk weight applies to senior tranches of CRT transactions that absorb catastrophic levels of loss only after resources to absorb expected and unexpected losses are exhausted. Similarly, the losses that an Enterprise would experience from commingled securities would likely occur in remote circumstances through sustained catastrophic levels of loss after the other Enterprise has exhausted its loss-absorbing financial resources. Therefore, the proposed 5 percent risk weight for credit exposures arising out of guarantees on

[4] 85 FR 39274 (June 30, 2020).
[5] 87 FR 14764 (March 16, 2022).

commingling activities would align with the risk-weight floor for retained CRT exposures.

The proposed rule would also reduce the credit conversion factor for guarantees on commingled securities from 100 percent to 50 percent. To enhance the liquidity of UMBS and the overall stability of the secondary mortgage market, the leverage and buffer requirements for guarantees on commingled securities would also need to be updated. FHFA proposes to accomplish this by reducing the impact of these guarantees on an Enterprise's adjusted total assets. According to generally accepted accounting principles, an Enterprise's guarantee of commingled collateral is not consolidated on the balance sheet because the Enterprise issuing the guarantee does not have any rights or powers to direct the activities of the underlying commingled resecuritization trust and is not the primary beneficiary of its activities.[6] Under the ERCF, off-balance sheet assets are subject to a range of credit conversion factors to determine adjusted total assets. FHFA's proposal to update the credit conversion factor for guarantees on commingled securities to 50 percent would align with the prevailing regulatory capital treatment for off-balance sheet undrawn commitments with an original maturity of more than one year that are not unconditionally cancelable by the Enterprise.

The proposed changes to the requirements for guarantees on commingled securities would affect both risk-weighted assets and adjusted total assets. FHFA estimates that under the proposed rule, the total common equity tier 1 capital (CET1) required to meet the risk-based capital requirements and buffers for the Enterprises'

[6] FASB ASC 810.

guarantees on commingled securities as of June 30, 2022 would decline by approximately $5.1 billion.

Question 1: What, if any, other factors should FHFA consider in its determination of a 5 percent risk weight and 50 percent credit conversion factor for guarantees on commingled securities?

Question 2: Is the proposed 5 percent risk weight for guarantees on commingled securities appropriately calibrated?

Question 3: Is the proposed 50 percent credit conversion factor for guarantees on commingled securities appropriately calibrated?

Question 4: Should FHFA adjust the regulatory capital treatment for exposures to MBS guaranteed by the other Enterprise to mitigate any risk of disruption to the UMBS?

Question 5: Should FHFA consider a different risk weight for second-level resecuritizations backed by UMBS?

Question 6: What should be the regulatory capital treatment of any credit risk mitigation effect of any indemnification or similar arrangements between the Enterprises relating to UMBS resecuritizations?

Question 7: Should FHFA adopt different risk weights for MBS guaranteed by an Enterprise and the unsecured debt of an Enterprise?

B. Multifamily Government Subsidy Risk Multiplier

The methodology for calculating multifamily credit risk weights in the ERCF does not differentiate between multifamily mortgage exposures secured by properties with a government subsidy and by properties without a government subsidy. Two previous FHFA products that together formed much of the basis for the ERCF – the

Conservatorship Capital Framework, an internal risk measurement framework established in 2017, and FHFA's 2018 notice of proposed rulemaking on Enterprise Capital Requirements[7] – each contained such a differentiation in the form of a multifamily risk multiplier. FHFA did not include such a multiplier in the ERCF due to calibration challenges caused by the relatively infrequent instances of loss across multifamily loan programs that include a government subsidy. However, several commenters on FHFA's 2020 notice of proposed rulemaking on Enterprise capital[8] recommended that FHFA introduce a risk multiplier to reflect that multifamily mortgage exposures associated with government-subsidized properties are less risky than those associated with unsubsidized properties, all else equal.

Properties with government subsidies represent an important segment of the Enterprises' multifamily business models. FHFA sets a yearly limit or cap on the dollar value of the Enterprises' multifamily acquisitions, ensuring they provide liquidity to the secondary market without crowding out private competition. As part of the annual acquisition limits, FHFA directs the Enterprises to meet specific affordable housing or mission goals by acquiring multifamily loans collateralized by properties that charge rents affordable to certain segments of the population with specified income levels. Affordable property units are available to renters at a rental rate below the typical market rate, leading to generally strong demand for affordable property units and therefore to relatively stable vacancy rates.

Government subsidies of affordable housing are issued either at the federal or state and local levels, typically in the form of a tax credit, direct subsidy, or voucher

[7] 83 FR 33312 (July 17, 2018).
[8] 85 FR 39274.

reimbursement. The purpose of these subsidies is to compensate property owners for providing below-market rental rates on units within their multifamily properties. Many subsidies last for multiple years and remain in place only if the property owner meets certain program-specific requirements. Although government-subsidized properties typically collect lower gross rents per unit than comparable non-affordable properties and may generate lower net operating income (NOI), property owners compensate for the lower property income through the value of the government-subsidies. Thus, property owners have an incentive to ensure the property follows the contractual subsidy restrictions, including avoiding potential default (60 or more days past due), to retain the government subsidy. The primary subsidy programs include the Low-Income Housing Tax Credit (LIHTC) program,[9] Section 8 Housing Assistance Payment contracts, and diverse state- and local-level programs.

Many government subsidy programs require property owners to make a specified percentage of units affordable to residents at or below a certain percent of area median income (AMI). For example, to qualify for the LIHTC program, a property owner must (in general) make at least 20 percent of the units available to renters at or below 50 percent of AMI, make at least 40 percent of the units available to renters at or below 60 percent of AMI, or make at least 40 percent of the units available to renters with an average income of no more than 60 percent of AMI and no units to renters with an income greater than 80 percent of AMI. In practice, the number of units restricted as affordable at a multifamily property often significantly exceeds the applicable minimum

[9] Section 42 of the Internal Revenue Code (26 U.S.C.A. § 42); 26 CFR 1.42 (Treasury regulations); each state agency's qualified allocation plan, regulations and compliance manual, along with a list of state and local LIHTC-allocating agencies, can be found at https://www.huduser.gov/portal/datasets/lihtc.html.

program requirements because the penalties for non-compliance can be quite costly. Minimum affordability criteria aim to ensure that the primary benefits of government subsidy programs accrue to low-income renters rather than to property owners acting in bad faith.

The proposed rule would introduce a risk multiplier equal to 0.6 for any multifamily mortgage exposures secured by one or more properties each with at least one applicable government subsidy, subject to certain affordability criteria. The applicable government subsidies would be limited to the following three primary subsidy programs: (i) LIHTC, (ii) Section 8 project-based rental assistance, and (iii) state and local affordable housing programs that require the provision of affordable housing for the life of the loan. A multifamily mortgage exposure meeting the collateral criteria would qualify for the 0.6 risk multiplier if the Enterprise can verify that each property securing the exposure has at least 20 percent of its units restricted as affordable units, where the affordability restriction means less than or equal to 80 percent of AMI.

For a multifamily mortgage exposure to qualify for the government subsidy multiplier, the properties securing the exposure must have significant, long-term, and continuous government subsidies. LIHTC and project-based Section 8 programs meet these criteria, so to ensure alignment in this regard, the proposed rule would require that qualifying state and local affordable housing programs require affordable housing to be provided for the life of the loan.

The addition of a government subsidy multiplier would affect risk-weighted assets, only. FHFA estimates that under the proposed rule, required CET1 capital for the

Enterprises' multifamily mortgage exposures as of June 30, 2022 would decline by approximately $0.4 billion.

Question 8: Is the 0.6 risk multiplier for multifamily mortgage exposures secured by properties with a government subsidy appropriately calibrated?

Question 9: Is the restriction that at least 20 percent of units must be made available at or below 80 percent of AMI appropriately calibrated?

Question 10: Should FHFA consider additional thresholds and/or affordability restrictions for a multifamily mortgage exposure to qualify for a risk multiplier greater than 0.6 but less than 1.0?

Question 11: Do FHFA's proposed categories of applicable government subsidies appropriately capture the population of multifamily government subsidies that are significant, long-term, and continuous?

Question 12: Are there data or analyses available that would support a multi-tiered government subsidy risk multiplier that varies with the level of subsidy or by other relevant factors? If so, what data and factors?

C. Derivatives and Cleared Transactions

An Enterprise with a positive exposure on a derivative contract expects to receive a payment from its counterparty and is subject to the credit risk that the counterparty will default on its obligations and fail to pay the amount owed under the contract. Therefore, the ERCF requires an Enterprise to hold risk-based capital based on the exposure amount of its derivative contracts.

The current rule requires an Enterprise to use the current exposure methodology (CEM) to determine the exposure amount of each derivative contract. The risk-weighted

asset amount for the derivative contract is then the product of the exposure amount and the risk weight of the counterparty. The ERCF requires an Enterprise to use CEM to determine the exposure amounts of their over-the-counter (OTC) derivative contacts and cleared derivative contracts, as well as determine the risk-weighted assets amount of their contributions of commitments to mutualized loss sharing agreements with central counterparties (*i.e.*, default fund contributions).

Under CEM, the exposure amount of a single derivative contract is equal to the sum of its current credit exposure and potential future exposure (PFE). Current credit exposure is equal to the greater of zero and the on-balance sheet fair value of the derivative contract. PFE approximates the Enterprise's potential exposure to its counterparty over the remaining maturity of the derivative contract. PFE equals the product of the notional amount of the derivative contract and a supervisory-provided conversion factor, which reflects the potential volatility in the reference asset of the derivative contract. The ERCF provides the conversion factors in a look-up table that is based on the derivative contract's type and remaining maturity. The potential exposure generally increases with an increase in volatility and the duration of the derivative contract.

CEM was developed before the financial crisis and does not reflect recent market conventions and regulatory requirements that are designed to reduce the risks associated with derivative contracts. This can lead to a significant mismatch between the risks of derivative portfolios and the regulatory capital that the Enterprises must hold against them. Examples of CEM drawbacks include a lack of differentiation between margined and unmargined derivative contracts and inadequate recognition of the risk-reducing

benefits of a balanced derivatives portfolio. Furthermore, the supervisory conversion factors provided under CEM were developed prior to the 2007-2008 financial crisis and they have not been recalibrated to reflect the stress volatilities observed in recent years.

For these reasons, the Basel Committee on Banking Supervision (Basel Committee) developed the SA-CCR and published it as a final standard in 2014.[10] The U.S. banking regulators adopted SA-CCR as a replacement for CEM in 2020.

SA-CCR provides important improvements to risk sensitivity and calibration relative to CEM, including differentiation of margin and non-margin trades and recognition of netting agreements, resulting in more appropriate capital requirements for derivative contracts. One of the concerns regarding the current regulatory capital treatment for derivative contracts under CEM is that CEM does not appropriately recognize collateral, including the risk-reducing nature of variation margin, and does not provide sufficient netting for derivative contracts that share similar risk factors. The SA-CCR methodology addresses these concerns.

Compared to CEM, SA-CCR offers a more risk-sensitive approach to determine the replacement cost and PFE for a derivative contract. Specifically, SA-CCR improves collateral recognition by differentiating between margined and unmargined derivative contracts. SA-CCR also better captures recently observed stress volatilities among the primary risk drivers for derivative contracts. SA-CCR is a standardized, non-modelled approach that is relatively straightforward to implement.

The proposed rule would require an Enterprise to calculate the exposure amounts of OTC and cleared derivative contracts using SA-CCR rather than CEM, as well as the

[10] https://www.bis.org/publ/bcbs279.pdf.

risk-weighted asset amounts of default fund contributions. The Enterprises would also be required to use SA-CCR to determine the exposure amount of their derivative contracts for inclusion in adjusted total assets. Use of SA-CCR would allow an Enterprise to recognize the meaningful, risk-reducing relationship between derivative contracts within a balanced derivatives portfolio and to recognize the risk-mitigation effects of guarantees, credit derivatives, and collateral for purposes of its risk-based capital requirements. In addition, the replacement of CEM with SA-CCR would result in better alignment between the ERCF and both the U.S. banking framework and the international standards issued by the Basel Committee.[11]

Under the proposed rule and consistent with the U.S. banking framework, the Enterprises would apply SA-CCR in the following ways:

1. *Netting sets*

Under SA-CCR, an Enterprise would calculate the exposure amount of its derivative contract at the netting set level. The proposed rule would define a netting set to mean either one derivative contract between an Enterprise and a single counterparty, or a group of derivative contracts between an Enterprise and a single counterparty that are subject to a qualifying master netting agreement (QMNA). The proposed rule would retain the current definition of a QMNA.

2. *Hedging sets*

For the PFE calculation under SA-CCR, an Enterprise would fully or partially net derivative contracts within the same netting set that share similar risk factors. This approach would recognize that derivative contracts with similar risk factors share

[11] To note one point of departure, the proposed rule would not include the internal models methodology from 12 CFR 217.132(d) to reduce reliance on internal models.

economically meaningful relationships with close correlations that make netting appropriate. In contrast, CEM recognizes only a portion of the netting benefits of derivative contracts subject to a QMNA, without accounting for relationships between the underlying risk factors of derivative contracts.

Under SA-CCR, a hedging set means those derivative contracts within the same netting set that share similar risk factors. The proposal would define five types of hedging sets – interest rate, exchange rate, credit, equity, and commodities – and would provide formulas for netting within each hedging set. Each formula would be particular to each hedging set type and would reflect the regulatory correlation assumptions between risk factors in the hedging set.

3. *Derivative contract amount for the PFE component calculation*

Similar to CEM, an Enterprise would use an adjusted derivative contract amount for the PFE component calculation under SA-CCR. However, as part of the estimate, SA-CCR would use updated supervisory factors that reflect the stress volatilities observed during the financial crisis. The supervisory factors would reflect the variability of the primary risk factors of the derivative contract over a one-year time horizon. In addition, SA-CCR would apply a separate maturity factor to each derivative contract that would scale down, if necessary, the default one-year risk horizon of the supervisory factor to the risk horizon appropriate for the derivative contract.

4. *Collateral recognition and differentiation between margined and unmargined derivative contracts*

Under CEM, an Enterprise recognizes the collateral only after the exposure amount has been determined. Under the proposed rule, SA-CCR would account for

collateral directly within the exposure amount calculation. For replacement cost, the proposed rule would recognize collateral on a one-for-one basis. For PFE, SA-CCR would use the concept of a PFE multiplier, which would allow an Enterprise to reduce the PFE amount through recognition of over-collateralization, in the form of both variation margin and independent collateral. It would also account for negative fair value amounts of the derivative contracts within the netting set. In addition, the proposed rule would differentiate between margined and unmargined derivative contracts, such that the netting set subject to variation margin would always have an exposure amount no higher than an equivalent netting set that is not subject to a variation margin agreement.

To accommodate the introduction of the SA-CCR into the ERCF's standardized approach, the proposed rule would make a series of corresponding modifications, including adding appropriate defined terms to ERCF's definitions and updating the calculation of total risk-weighted assets. Notably, the proposed rule would replace the current requirements for cleared transactions (12 CFR 1240.37) and collateralized transactions (12 CFR 1240.39) with modified requirements from the U.S. banking framework's advanced approaches (12 CFR 217.133 and 12 CFR 217.132(b)). As a result, the proposed rule's requirements for cleared transactions would reflect the U.S. banking framework's risk weights on cleared transactions and risk-weighted assets on default fund contributions. The proposal would depart from the U.S. banking framework by omitting exposure calculations related to internal model methodology to reduce reliance on the Enterprises' internal model results.

The proposed rule's requirements for collateralized transactions would maintain the current collateral haircut approach and standard supervisory haircuts, both of which

are also included in the U.S. banking framework. However, the proposed rule's requirements for collateralized transactions would remove the current simple approach and add the U.S. banking framework's simple value-at-risk (VaR) methodology to align with the U.S. banking framework's advanced approaches application of collateralized transactions.

The proposed rule would also add credit valuation adjustment (CVA) risk-weighted assets to the calculation of standardized total risk-weighted assets. The CVA is a fair value adjustment that reflects counterparty credit risk in the valuation of OTC derivative contracts. CVA risk-weighted assets cover the risk of incurring mark-to-market losses because of the deterioration in the creditworthiness of an Enterprise's counterparties. The proposed rule would include the U.S. banking framework's formulaic simple CVA approach but not the advanced CVA approach. This departure from the U.S. banking framework would reduce reliance on the Enterprises' internal model results.

The proposed changes to the approaches for derivatives and cleared transactions would affect both risk-weighted assets and adjusted total assets. FHFA estimates that under the proposed rule, the total CET1 capital required to meet the risk-based capital requirements and buffers for the Enterprises' derivatives and cleared transactions as of September 30, 2022 would increase by less than $0.1 billion.

Question 13: In addition to the risk-sensitivity enhancements SA–CCR provides relative to CEM, what, if any, other factors should FHFA consider in its determination to replace CEM with SA–CCR?

D. Representative Credit Scores for Single-family Mortgage Exposures

Credit scores are a primary risk factor for determining the riskiness of a single-family mortgage exposure due to their strong correlation with the likelihood of a borrower default. Therefore, credit scores are an important input in the ERCF calculation of risk weights for single-family mortgage exposures, both at origination (original credit score) and over time (refreshed credit score). A single-family mortgage exposure is normally associated with multiple credit scores because an exposure can have multiple borrowers and each borrower can have multiple scores. Often, each borrower has three credit reports and, therefore, three credit scores, one from each national consumer reporting agency (repository). To account for multiple credit scores associated with a single-family mortgage exposure, the ERCF includes a procedure to determine a single representative credit score for each single-family mortgage exposure.

The proposed rule would modify the current procedure for selecting a representative credit score to reflect FHFA's announcement[12] in October 2022 that the Enterprises will require two, rather than three, credit reports from the repositories (bi-merge credit report requirement). While the implementation date for the bi-merge credit report requirement has yet to be announced, the proposed rule would position the Enterprises to account for the new requirement upon implementation.

The current ERCF instructs the Enterprises to use a two-step procedure for identifying the representative credit score on a single-family mortgage exposure. In the first step, an Enterprise selects a single score for each borrower on the loan by either

[12] FHFA Announces Validation of FICO 10T and VantageScore 4.0 for Use by Fannie Mae and Freddie Mac | Federal Housing Finance Agency, *available at* https://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Announces-Validation-of-FICO10T-and-VantageScore4-for-FNM-FRE.aspx.

selecting the median score if the borrower has scores from three repositories or selecting the lowest score if the borrower has fewer than three scores. In the second step, an Enterprise determines the representative score for the exposure by selecting the lowest single score across all borrowers from step one.

After the adoption of the bi-merge credit score requirement, the current procedure for determining a representative credit score could result in a significant downward shift in representative credit scores for most borrowers. This is because with the bi-merge credit report requirement, there is a higher likelihood that the representative credit score for most borrowers would end up being the lower of two scores rather than the median of three scores.

To mitigate this risk, the proposed rule would replace the first step in determining a single-family mortgage exposure's representative credit score. Rather than using the median or lowest score, the proposed rule would require an Enterprise to calculate the average credit score across repositories for each borrower in step one. This change should mitigate the concern about downward bias, as the average across the two scores is closer to the center of the borrower's credit score distribution than the minimum across scores. To validate this assumption, FHFA analyzed original credit scores from over 39 million borrowers associated with loans acquired between 2010 and 2022 and found that changing the procedure from the minimum of the medians to the minimum of the averages (where for each borrower FHFA selected, at random, two out of three scores) had little aggregate effect on the average representative score. The results of this analysis suggested that under the current rule, the average representative credit score was 750.6, whereas under the proposed rule, the average representative credit score was 750.3 using

two borrower scores (selected at random from the set of three) and 750.7 using three borrower scores.

The proposed change to step one would also alleviate concerns about when the bi-merge credit score requirement will be implemented. To examine the effect of the proposed change before the implementation date of the bi-merge credit score requirement, FHFA repeated the previous analysis but analyzed the difference between the use of the median of three scores and the use of the mean of three scores. The results of this analysis again showed little change (750.6 vs. 750.7) in the central tendency of the representative credit score distributions, and it showed there is little difference between the two approaches in aggregate. Under the proposed rule, FHFA expects that for the period before the implementation date of the bi-merge credit score requirement the borrower credit score would typically be based on three scores, and after the implementation date the borrower credit score would typically be based on two scores.

The proposed change to the procedure for selecting a representative credit score would affect risk-weighted assets, only. FHFA estimates that under the proposed rule, the total CET1 capital required to meet the risk-based capital requirements for the Enterprises' single-family mortgage exposures as of June 30, 2022 would decline by less than $0.1 billion.

Question 14: What, if any, changes should FHFA consider to the proposed methodology for determining a representative credit score? For example, should FHFA consider requiring an Enterprise to calculate a representative credit score by averaging credit scores across multiple borrowers in step two rather than by taking the lowest score across those borrowers?

E. Original Credit Scores for Single-family Mortgage Exposures without a Representative Original Credit Score

As discussed above, credit scores play an important role in the ERCF calculation of risk weights for single-family mortgage exposures due to their strong correlation with the likelihood of a borrower default. Credit scores are commonly used as a proxy for a borrower's creditworthiness and are therefore a primary input in many lenders' automated underwriting systems. Historically, and in particular prior to the financial crisis, a borrower's lack of credit history and credit score indicated a significant level of risk. Therefore, the current ERCF requires an Enterprise to assign a credit score of 600 to any single-family mortgage exposure where a permissible credit score cannot be determined (unscored). This conservative assignation places single-family mortgage exposures with unscored borrowers in the lowest possible ERCF credit score buckets across the single-family base grids, implying the highest level of risk.

However, advances in financial regulation and improvements in mortgage underwriting and lending standards since the financial crisis suggest that FHFA's initial credit score assignation for single-family mortgage exposures associated with unscored borrowers may not accurately reflect the prevailing level of credit risk in these exposures. Although a missing credit score could be due to a data error, today it is far more likely the loan was either manually underwritten with the establishment of nontraditional credit and strict requirements on property type, loan purpose, and DTI, or the loan was

underwritten through an automated system with more stringent requirements than would be necessary if the borrower had an available credit score.[13]

To reflect the post-crisis improvements in regulatory, underwriting, and lending standards, as well as the recent inclusions of positive rental payment histories in the Enterprises' automated underwriting systems, the proposed rule would modify the assignation process of an original credit score to a single-family mortgage exposure without a permissible credit score at origination. FHFA analyzed the two-year default performance of single-family mortgage exposures associated with unscored borrowers relative to similar exposures associated with scored borrowers and determined that unscored exposures performed most similarly to scored exposures with original credit scores in the range of 680 to 699. Therefore, subject to Enterprise verification that none of the borrowers have a credit score at one of the repositories, the proposed rule would require an Enterprise to assign an original credit score of 680 to a single-family mortgage exposure without a permissible credit score at origination.

After five months, an Enterprise would continue to assign a refreshed credit score. To reflect the implied default performance in the population of unscored borrowers, the proposed rule would modify the definition of a refreshed credit score to mean the most recently available credit score. For a single-family mortgage exposure without a permissible credit score at origination, the refreshed credit score would be either an

[13] In August 2021, FHFA announced that to expand access to credit in a safe and sound manner, Fannie Mae would begin to consider rental payment history as part of its mortgage underwiring processes (https://www.fhfa.gov/mobile/Pages/public-affairs-detail.aspx?PageName=FHFA-Announces-Inclusion-of-Rental-Payment-History-in-Fannie-Maes-Underwriting-Process.aspx). In July 2022, Freddie Mac made a similar announcement (https://freddiemac.gcs-web.com/news-releases/news-release-details/freddie-mac-takes-further-action-help-renters-achieve).

updated credit score if one is available at the credit repositories or the original credit score, as determined per the proposed rule, if one is not.

The proposed change to the assignation process of an original credit score to a single-family mortgage exposure without a permissible credit score at origination would affect risk-weighted assets during the period between origination and the later of 5 months and when a borrower's refreshed credit score becomes available. FHFA estimates that under the proposed rule, required CET1 capital for the Enterprises' single-family mortgage exposures as of June 30, 2022 would decline by less than $0.1 billion.

Question 15: What, if any, changes should FHFA consider to the proposed methodology for determining an original credit score for a single-family mortgage exposure without a permissible credit score at origination?

F. Guarantee Assets

A guarantee asset is an on-balance sheet asset that represents the present value of a future consideration for providing a financial guarantee on a portfolio of mortgage exposures not recognized on the balance sheet. Examples of such off-balance sheet exposures include, but are not limited to, Freddie Mac's multifamily K-deals, Fannie Mae's multifamily bond credit enhancements, and certain single-family guarantee arrangements without securitization. The current ERCF does not include an explicit risk weight for guarantee assets. As an "other asset" not specifically assigned a different risk weight, an Enterprise is required to assign a 100 percent risk weight (§ 1240.32(i)(5)) to guarantee assets.

The proposed rule would introduce a 20 percent risk weight for an Enterprise's guarantee assets. This risk weight would reflect the risk-weight floor for mortgage

exposures in the ERCF as well as the minimum risk weight for residential mortgage exposures under the Basel framework. In addition, FHFA's proposal would promote consistency across the financial system by aligning the risk weight for guarantee assets with the risk weight assigned to exposures to an Enterprise in the U.S banking framework.

The specification of a 20 percent risk weight for guarantee assets would affect risk-weighted assets, only. FHFA estimates that under the proposed rule, the total CET1 capital required to meet the risk-based capital requirements for the Enterprises' guarantee assets as of September 30, 2022 would decline by approximately $0.2 billion.

Question 16: What, if any, other factors should FHFA consider in its determination that guarantee assets should be assigned an explicit risk weight?

Question 17: Is the proposed 20 percent risk weight for guarantee assets appropriately calibrated?

Question 18: Should FHFA include guarantee assets in its definition of covered positions subject to market risk capital requirements?

G. Mortgage Servicing Assets

When a lender originates a mortgage loan, the lender may retain in its portfolio or transfer to another party both the loan and the servicing function, or the lender may separate the mortgage servicing rights (MSRs) from the mortgage loan and transfer individually either the loan or the MSR to another party. MSAs are, in general, assets resulting from owning MSRs that are expected to generate future income in exchange for performing the servicing function on one or more mortgage loans.

MSA valuations rely on assessments of future economic variables and are therefore subjective and subject to uncertainty. If interest rates rapidly decline, such as during a stress event, MSA values can also rapidly decline. In addition, adverse financial conditions may cause liquidity strains for firms seeking to sell or transfer their MSAs, further impacting the potential loss absorbing capacity of MSAs. For these and other reasons, the U.S. banking framework requires banks to capitalize MSAs through a combination of capital deductions and a 250 percent risk weight, and the current ERCF requires the Enterprises to do the same.

The ERCF defines an MSA as the contractual right to service for a fee mortgage loans that are owned by others. This definition reflects the traditional practice of acquiring MSRs for mortgage loans not already owned by the acquiring institution. However, it is unlikely that the value of MSRs would be less subjective or subject to less uncertainty if the underlying mortgage loans were already owned by the acquiring institution rather than by others. Therefore, the proposed rule would modify the definition of MSAs to include the contractual right to service any mortgage loans, regardless of the owner of the loan at the time the servicing rights are acquired.

FHFA anticipates that the proposed rule would not affect the total CET1 capital required to meet the Enterprises' stability capital buffers as of June 30, 2022.

Question 19: What, if any, changes should FHFA consider to the proposed definition for MSAs?

Question 20: Does the proposed definition for MSAs include circumstances in which an Enterprise acquires a contractual right to service mortgage loans already owned by the Enterprise?

Question 21: Does the proposed definition for MSAs include circumstances in which an Enterprise acquires a contractual right to service mortgage loans but, for reasons including compliance with generally accepted accounting principles, the servicing rights would not result in the creation of an MSA in the absence of the proposed requirement?

H. Time-based Calls for CRT Exposures

For mortgage exposures that are included in a CRT, an Enterprise has the option to calculate risk weights using the "credit risk transfer approach"[14] only if the CRT satisfies the ERCF's "operational criteria for credit risk transfers."[15] Under the current rule, these operational criteria include restrictions for clean-up calls. Clean-up calls are contractual provisions that permit an originating Enterprise to redeem securitization exposures before their stated maturity or call date. Time-based calls are contractual provisions that permit an issuing Enterprise to redeem a securitization exposure on one or more prespecified call dates. Time-based calls, which are integral to the Enterprises' credit risk management and are routinely used by the Enterprises to manage CRT economics, are not explicitly included as eligible clean-up calls. This lack of specificity has led to a lack of clarity about the eligibility of CRT transactions with time-based calls under the credit risk transfer approach in the ERCF.

The proposed rule would define an eligible time-based call as a time-based call that:

(i) Is exercisable solely at the discretion of the issuing Enterprise, and with a non-objection letter from FHFA prior to being exercised;

[14] 12 CFR 1240.44.
[15] 12 CFR 1240.41(c).

(ii) Is not structured to avoid allocating losses to securitization exposures held by investors or otherwise structured to provide at most de minimis credit protection to the securitization; and

(iii) Is only exercisable five years after the securitization exposure's issuance date.

The proposed changes would clarify that the ERCF permits time-based calls, with restrictions. To ensure a significant length of time before the first prespecified exercise date, the proposed rule would require that the eligible time-based calls have a first exercise call date at least five years after issuance. Further, to ensure safety and soundness, an Enterprise must request FHFA approval before exercising its time-based calls.

To satisfy the proposed operational criteria for CRT, any time-based call associated with a CRT must be an eligible time-based call.

FHFA anticipates that the proposed rule would result in an insignificant change to the total CET1 capital required to meet the risk-based capital requirements for the Enterprises' CRT exposures as of June 30, 2022.

Question 22: What, if any, changes should FHFA consider to the proposed definitions of time-based calls and eligible time-based calls for CRT?

I. Interest-only Mortgage-backed Securities

An IO MBS is a financial instrument that receives solely the interest payment stream generated by a pool of mortgages. An Enterprise may securitize the IO income stream from a pool of mortgages to better manage the interest rate risk exposure of the pool, or an Enterprise may buy IO securities of other issuers to hold in its portfolio as investment assets. Through the ownership of these investments, the Enterprises are

exposed to both credit and market risk. This discussion pertains to credit risk only, as risk weights for market risk on IO securities are contemplated in subpart F of the ERCF.

Under the current rule, an Enterprise must assign a zero percent risk weight to any MBS guaranteed by the Enterprise (other than any retained CRT exposure). Thus, by implication, IO MBS guaranteed by the securitizing Enterprise should receive a zero percent risk weight. However, the ERCF also states that the risk weight for a non-credit-enhancing IO MBS must not be less than 100 percent. Therefore, there is a need to clarify the risk weight for IO MBS to clarify whether a zero percent or 100 percent risk weight should apply.

An Enterprise could be both the issuer of and investor in an IO MBS. The credit risk on IO MBS issued and guaranteed by an Enterprise is significantly different from that of an IO MBS issued by a non-Enterprise entity and held in the Enterprise's retained portfolio as an investment.[16] Therefore, the proposed rule would require an Enterprise to apply a different risk weight to IO MBS issued and guaranteed by the Enterprise versus an IO MBS issued by a non-Enterprise entity. This bifurcation would better align the capital requirements for IO MBS to the risks inherent in the positions.

For IO MBS issued and guaranteed by an Enterprise, the proposed rule would require the issuing Enterprise to assign a zero percent risk weight to that exposure. The zero percent risk weight reflects that the Enterprise has already capitalized the credit risk on the underlying single-family mortgage exposures and that there is no incremental credit risk due to the securitization process. For IO MBS issued by a non-Enterprise entity, the proposed rule would require the Enterprise to assign a 100 percent risk weight

[16] Risk weights for an Enterprise's exposures to the other Enterprise are determined in 12 CFR 1240.32(c).

to that exposure. The 100 percent risk weight reflects that there is incremental credit risk accruing to the investing Enterprise through the acquisition of the IO MBS. Therefore, an Enterprise must hold credit risk capital against that asset. For IO MBS issued by the other Enterprise, the ERCF would continue to require an Enterprise to assign a 20 percent risk weight to that exposure.

FHFA anticipates that the proposed rule would not affect the total CET1 capital required to meet the risk-based capital requirements for the Enterprises' IO MBS as of June 30, 2022.

Question 23: Is the 100 percent risk weight assigned to the IO MBS issued by a non-Enterprise entity appropriately calibrated?

Question 24: Is the 20 percent risk weight assigned to the IO MBS issued by the other Enterprise appropriated calibrated?

J. Single-family Countercyclical Adjustment

In the ERCF, the mark-to-market loan-to-value ratio (MTMLTV) of a single-family mortgage exposure is a key input to determining credit risk-weighted assets for these exposures. The rule requires an Enterprise to use the FHFA Purchase-only State-level House Price Index (HPI) to update a property value when calculating an MTMLTV. The MTMLTV is then adjusted up or down by the application of a single-family countercyclical adjustment. This adjustment seeks to reduce the procyclicality of the capital requirements by increasing requirements when house prices are significantly above their long-term trend and reducing requirements when house prices are significantly below their long-term trend.

In calculating an MTMLTV, the ERCF mandates a six-month delay between loan origination and the first property value adjustment to reflect the time lag between loan origination and the publication of the FHFA HPI for the quarter following origination. However, there is no similar delay in the application of the single-family countercyclical adjustment. When house price appreciation is consistently high, such as in 2020 and 2021, this misalignment results in rapid increases to the risk-weighted assets for single-family mortgage exposures for the first six months due to the countercyclical adjustment, followed by a rapid decrease with the application of the first property value adjustment. In 2020 and 2021, this misalignment created a significant challenge for the Enterprises' reinsurance CRT programs. While FHFA has continually encouraged the Enterprises to reduce the time lag between loan origination and when they acquire credit protection, the misalignment created an incentive for the Enterprises to wait seven months before acquiring protection. By waiting until the capital requirement decreased mechanically, the Enterprises were able to reduce the amount of credit protection they acquired and save on premium costs.

The proposed rule would correct this misalignment by requiring an Enterprise to apply the first single-family countercyclical adjustment simultaneously with the first property value adjustment. This modification would reduce the volatility in the capital requirement for a single-family mortgage exposure over the first six months after origination and mitigate the incentive for the Enterprises to delay acquiring credit protection.

FHFA anticipates that adjusting the timing of the first single-family countercyclical adjustment would not affect the total CET1 capital required to meet the

risk-based capital requirements for the Enterprises' single-family mortgage exposures as of June 30, 2022.

Question 25: What, if any, changes should FHFA consider to the proposed adjustment to the timing and application of the single-family countercyclical adjustment?

K. Stability Capital Buffer

The stability capital buffer is an Enterprise-specific amount of common equity tier 1 capital in excess of an Enterprise's risk-based capital requirements. It is tailored to the risk that an Enterprise's default or other financial distress could have on the liquidity, efficiency, competitiveness, or resiliency of the national housing finance markets. The stability capital buffer is based on an Enterprise's share of the total residential mortgage debt outstanding in the United States and is expressed as a percent of adjusted total assets.

Under the current rule, an Enterprise's share of residential mortgage debt outstanding is assessed annually, and the stability capital buffer is derived from that assessment. Increases in the stability capital buffer are implemented with a two-year delay, while decreases are implemented with a one-year delay. These implementation delays contribute to the overall stability of the capital framework by providing the Enterprises with time to adjust their capital positions in response to changes in the stability capital buffer. However, having increases and decreases implemented with different delays potentially creates a situation where an increase and a decrease in the stability capital buffer are scheduled to become effective at the same time. To address this situation, the proposed rule would clarify that if an increase and decrease in the

stability capital buffer are scheduled for the same date, the Enterprise should rely on the more recent data and implement the decrease, disregarding the increase.

FHFA anticipates that the proposed rule would not affect the total CET1 capital required to meet the Enterprises' stability capital buffers as of June 30, 2022.

Question 26: What, if any, changes should FHFA consider to the proposed change to the application of the stability capital buffer?

L. Advanced Approaches

The ERCF's advanced approaches for determining risk-weighted assets rely on an Enterprise's internal models. These approaches require an Enterprise to maintain its own processes for identifying and assessing credit, market, and operational risk. They are intended to ensure that an Enterprise continues to enhance its risk management and analytical systems and not rely solely on its regulator's views on risk tolerance, risk measurement, and capital allocation. Because of the effort required to develop the governance processes and risk models necessary for effectuating the advanced approaches, the ERCF includes a transition period that delays the compliance date for the advanced approaches until January 1, 2025.

In December 2017, the Basel Committee finalized its Basel III framework.[17] As part of these post-crisis reforms, the Basel Committee sought to reduce excess variability of risk-weighted assets and restore credibility in the calculation of risk-weighted assets, in part by significantly constraining the use of internally-modeled approaches. Much of the finalized Basel III framework became effective in 2022.

[17] https://www.bis.org/bcbs/publ/d424.pdf.

U.S. banking regulators have yet to implement many of the reforms outlined in the finalized Basel III framework. However, on September 9, 2022, the U.S. banking regulators formally reaffirmed their commitment to implementing enhanced regulatory capital requirements that align with the finalized Basel III framework.[18] Further, in a recent speech,[19] the Vice Chair for Supervision of the Board of Governors of the Federal Reserve System noted that the last set of comprehensive adjustments to the Basel III framework, now under consideration in the U.S., would "further strengthen capital rules by reducing reliance on internal bank models."

Because the U.S. banking regulators are currently contemplating the last set of comprehensive adjustments to the Basel III framework, including the reliance on internal models, and given the costly nature of developing suitable internal models and governance processes for the advanced approaches, the proposed rule would further extend the compliance date for an Enterprise's advanced approaches to January 1, 2028. Until that time, the Enterprises will continue to rely on the standardized approach.

III. Effective Date

Under the rule published on December 17, 2020 establishing the ERCF, an Enterprise will not be subject to any requirement in the ERCF until the compliance date for the requirement as detailed in the ERCF. The effective date for the ERCF was February 16, 2021. The effective date for the ERCF amendments in this proposed rule would be 60 days after the day of publication of the final rule in the **Federal Register**.

IV. Paperwork Reduction Act

[18] https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220909a.htm.
[19] https://www.federalreserve.gov/newsevents/speech/barr20221201a.htm.

The Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq*.) requires that regulations involving the collection of information receive clearance from the Office of Management and Budget (OMB). The proposed rule contains no such collection of information requiring OMB approval under the PRA. Therefore, no information has been submitted to OMB for review.

V. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq*.) requires that a regulation that has a significant economic impact on a substantial number of small entities, small businesses, or small organizations must include an initial regulatory flexibility analysis describing the regulation's impact on small entities. FHFA need not undertake such an analysis if the agency has certified that the regulation will not have a significant economic impact on a substantial number of small entities (5 U.S.C. 605(b)). FHFA has considered the impact of the proposed rule under the Regulatory Flexibility Act. FHFA certifies that the proposed rule, if adopted as a final rule, would not have a significant economic impact on a substantial number of small entities because the proposed rule is applicable only to the Enterprises, which are not small entities for purposes of the Regulatory Flexibility Act.

List of Subjects for 12 CFR Part 1240

Capital, Credit, Enterprise, Investments, Reporting and recordkeeping requirements.

Authority and Issuance

Accordingly, for the reasons stated in the Preamble, under the authority of 12 U.S.C. 4511, 4513, 4513b, 4514, 4515-17, 4526, 4611-4612, 4631-36, FHFA proposes to

amend part 1240 of title 12 of the Code of Federal Regulation as follows:

Chapter XII—Federal Housing Finance Agency

Subchapter C—Enterprises

PART 1240—CAPITAL ADEQUACY OF ENTERPRISES

1**.** The authority citation for part 1240 continues to read as follows:

Authority: 12 U.S.C. 4511, 4513, 4513b, 4514, 4515, 4517, 4526, 4611-4612, 4631-36.

2. Amend § 1240.2 by:

(a) Revising paragraphs (1) through (3) of the definition of "Adjusted total assets";

(b) Adding in alphabetical order the definitions of "Backtesting," "Basis derivative contract," "Commercial end-user," "Commingled security," "Credit default swap," and "Credit valuation adjustment";

(c) Removing the definitions of "Current exposure" and "Current exposure methodology";

(d) Adding in alphabetical order the definition of "Eligible time-based call";

(e) Revising paragraphs (1) and (3) of the definition of "Exposure amount" by in paragraph (1) removing the words "; an OTC derivative contract" and adding in their place the words "(other than an OTC derivative contract" and in paragraph (3) adding the words "or exposure at default (EAD)" after the word "amount";

(f) Revising paragraph (2) of the definition of "Financial collateral";

(g) Adding in alphabetical order the definitions of "Guarantee asset," and "Independent collateral";

(h) Revising the definition of "Mortgage servicing assets";

(i) Adding in alphabetical order the definition of "Net independent collateral amount";

(j) Revising the definition of "Netting set";

(k) Adding in alphabetical order the definitions of "Qualifying cross-product master netting agreement," and "Speculative grade";

(l) Revising the definition of "Standardized total risk-weighted assets" by redesignating paragraphs (1)(vi) and (1)(vii) as paragraphs (1)(vii) and (1)(viii) and adding new paragraph (1)(vi); and

(m) Adding in alphabetical order the definitions of "Sub-speculative grade," "Time-based call," "Uniform Mortgage-backed Security," "Value-at-Risk," "Variation margin," "Variation margin amount," and "Volatility derivative contract";

The additions and revisions read as follows:

§ 1240.2 Definitions.

* * * * *

Adjusted total assets * * *

(1) The balance sheet carrying value of all of the Enterprise's on-balance sheet assets, plus the value of securities sold under a repurchase transaction or a securities lending transaction that qualifies for sales treatment under GAAP, less amounts deducted from tier 1 capital under § 1240.22(a), (c), and (d), and less the value of securities received in security-for-security repo-style transactions, where the Enterprise acts as a securities lender and includes the securities received in its on-balance sheet assets but has not sold or re-hypothecated the securities received, *less* the fair value of any derivative

contracts;

(2)(i) The potential future exposure (PFE) for each netting set to which the Enterprise is a counterparty (including cleared transactions except as provided in paragraph (9) of this definition and, at the discretion of the Enterprise, excluding a forward agreement treated as a derivative contract that is part of a repurchase or reverse repurchase or a securities borrowing or lending transaction that qualifies for sales treatment under GAAP), as determined under § 1240.36(c)(7), in which the term C in § 1240.36(c)(7)(i) equals zero, and, for any counterparty that is not a commercial end-user, multiplied by 1.4. For purposes of this paragraph, an Enterprise may set the value of the term C in § 1240.36(c)(7)(i) equal to the amount of collateral posted by a clearing member client of the Enterprise in connection with the client-facing derivative transactions within the netting set; and

(ii) An Enterprise may choose to exclude the PFE of all credit derivatives or other similar instruments through which it provides credit protection when calculating the PFE under § 1240.36(c), provided that it does so consistently over time for the calculation of the PFE for all such instruments;

(3)(i)(A) The replacement cost of each derivative contract or single product netting set of derivative contracts to which the Enterprise is a counterparty, calculated according to the following formula, and, for any counterparty that is not a commercial end-user, multiplied by 1.4:

$$Replacement\ Cost = \max\{V - CVM_r + CVM_p; 0\}$$

Where:

V equals the fair value for each derivative contract or each single-product netting set of

derivative contracts (including a cleared transaction except as provided in paragraph (9) of this definition and, at the discretion of the Enterprise, excluding a forward agreement treated as a derivative contract that is part of a repurchase or reverse repurchase or a securities borrowing or lending transaction that qualifies for sales treatment under GAAP);

CVM_r equals the amount of cash collateral received from a counterparty to a derivative contract and that satisfies the conditions in paragraphs (3)(ii) through (vi) of this definition, or, in the case of a client-facing derivative transaction, the amount of collateral received from the clearing member client; and

CVM_p equals the amount of cash collateral that is posted to a counterparty to a derivative contract and that has not offset the fair value of the derivative contract and that satisfies the conditions in paragraphs (3)(ii) through (vi) of this definition, or, in the case of a client-facing derivative transaction, the amount of collateral posted to the clearing member client;

(B) Notwithstanding paragraph (3)(i)(A) of this definition, where multiple netting sets are subject to a single variation margin agreement, an Enterprise must apply the formula for replacement cost provided in § 1240.36(c)(10)(i), in which the term C_{MA} may only include cash collateral that satisfies the conditions in paragraphs (3)(ii) through (vi) of this definition; and

(C) For purposes of paragraph (3)(i)(A) of this definition, an Enterprise must treat a derivative contract that references an index as if it were multiple derivative contracts each referencing one component of the index if the Enterprise elected to treat the derivative contract as multiple derivative contracts under § 1240.36(c)(5)(vi);

(ii) For derivative contracts that are not cleared through a QCCP, the cash collateral received by the recipient counterparty is not segregated (by law, regulation, or an agreement with the counterparty);

(iii) Variation margin is calculated and transferred on a daily basis based on the mark-to-fair value of the derivative contract;

(iv) The variation margin transferred under the derivative contract or the governing rules of the CCP or QCCP for a cleared transaction is the full amount that is necessary to fully extinguish the net current credit exposure to the counterparty of the derivative contracts, subject to the threshold and minimum transfer amounts applicable to the counterparty under the terms of the derivative contract or the governing rules for a cleared transaction;

(v) The variation margin is in the form of cash in the same currency as the currency of settlement set forth in the derivative contract, provided that for the purposes of this paragraph, currency of settlement means any currency for settlement specified in the governing qualifying master netting agreement and the credit support annex to the qualifying master netting agreement, or in the governing rules for a cleared transaction; and

(vi) The derivative contract and the variation margin are governed by a qualifying master netting agreement between the legal entities that are the counterparties to the derivative contract or by the governing rules for a cleared transaction, and the qualifying master netting agreement or the governing rules for a cleared transaction must explicitly stipulate that the counterparties agree to settle any payment obligations on a net basis, taking into account any variation margin received or provided under the contract if a

credit event involving either counterparty occurs;

* * * * *

Backtesting means the comparison of an Enterprise's internal estimates with actual outcomes during a sample period not used in model development. In this context, backtesting is one form of out-of-sample testing.

* * * * *

Basis derivative contract means a non-foreign-exchange derivative contract (*i.e.,* the contract is denominated in a single currency) in which the cash flows of the derivative contract depend on the difference between two risk factors that are attributable solely to one of the following derivative asset classes: Interest rate, credit, equity, or commodity.

* * * * *

Commercial end-user means an entity that:

(1)(i) Is using derivative contracts to hedge or mitigate commercial risk; and

(ii)(A) Is not an entity described in section 2(h)(7)(C)(i)(I) through (VIII) of the Commodity Exchange Act (7 U.S.C. 2(h)(7)(C)(i)(I) through (VIII)); or

(B) Is not a "financial entity" for purposes of section 2(h)(7) of the Commodity Exchange Act (7 U.S.C. 2(h)) by virtue of section 2(h)(7)(C)(iii) of the Act (7 U.S.C. 2(h)(7)(C)(iii)); or

(2)(i) Is using derivative contracts to hedge or mitigate commercial risk; and

(ii) Is not an entity described in section 3C(g)(3)(A)(i) through (viii) of the Securities Exchange Act of 1934 (15 U.S.C. 78c-3(g)(3)(A)(i) through (viii)); or

(3) Qualifies for the exemption in section 2(h)(7)(A) of the Commodity Exchange

Act (7 U.S.C. 2(h)(7)(A)) by virtue of section 2(h)(7)(D) of the Act (7 U.S.C. 2(h)(7)(D)); or

(4) Qualifies for an exemption in section 3C(g)(1) of the Securities Exchange Act of 1934 (15 U.S.C. 78c-3(g)(1)) by virtue of section 3C(g)(4) of the Act (15 U.S.C. 78c-3(g)(4)).

Commingled security means a resecuritization of UMBS in which one or more of the underlying exposures is a UMBS guaranteed by the other Enterprise or is a resecuritization of UMBS guaranteed by the other Enterprise.

* * * * *

Credit default swap (CDS) means a financial contract executed under standard industry documentation that allows one party (the protection purchaser) to transfer the credit risk of one or more exposures (reference exposure(s)) to another party (the protection provider) for a certain period of time.

* * * * *

Credit valuation adjustment (CVA) means the fair value adjustment to reflect counterparty credit risk in valuation of OTC derivative contracts.

* * * * *

Eligible time-based call means a time-based call that:

(1) Is exercisable solely at the discretion of the originating Enterprise, provided the Enterprise obtains FHFA's non-objection prior to exercising the time-based call;

(2) Is not structured to avoid allocating credit losses to investors or otherwise structured to provide at most de minimis credit protection to the securitization or credit risk transfer; and

(3) Is exercisable no less than five years after the securitization or credit risk transfer issuance date.

* * * * *

Financial collateral * * *

(2) In which the Enterprise has a perfected, first-priority security interest or, outside of the United States, the legal equivalent thereof, (with the exception of cash on deposit; and notwithstanding the prior security interest of any custodial agent or any priority security interest granted to a CCP in connection with collateral posted to that CCP).

* * * * *

Guarantee asset means the present value of a future consideration to be received for providing a financial guarantee on a portfolio of mortgage exposures not recognized on the balance sheet.

Independent collateral means financial collateral, other than variation margin, that is subject to a collateral agreement, or in which an Enterprise has a perfected, first-priority security interest or, outside of the United States, the legal equivalent thereof (with the exception of cash on deposit; notwithstanding the prior security interest of any custodial agent or any prior security interest granted to a CCP in connection with collateral posted to that CCP), and the amount of which does not change directly in response to the value of the derivative contract or contracts that the financial collateral secures.

* * * * *

Mortgage servicing assets (MSAs) means the contractual rights to service

mortgage loans for a fee.

* * * * *

Net independent collateral amount means the fair value amount of the independent collateral, as adjusted by the standard supervisory haircuts under § 1240.39(b)(2)(ii), as applicable, that a counterparty to a netting set has posted to an Enterprise less the fair value amount of the independent collateral, as adjusted by the standard supervisory haircuts under § 1240.39(b)(2)(ii), as applicable, posted by the Enterprise to the counterparty, excluding such amounts held in a bankruptcy remote manner or posted to a QCCP and held in conformance with the operational requirements in § 1240.3.

Netting set means a group of transactions with a single counterparty that are subject to a qualifying master netting agreement or a qualifying cross-product master netting agreement. For derivative contracts, netting set also includes a single derivative contract between an Enterprise and a single counterparty.

* * * * *

Qualifying cross-product master netting agreement means a qualifying master netting agreement that provides for termination and close-out netting across multiple types of financial transactions or qualifying master netting agreements in the event of a counterparty's default, provided that the underlying financial transactions are OTC derivative contracts, eligible margin loans, or repo-style transactions. In order to treat an agreement as a qualifying cross-product master netting agreement for purposes of this subpart, an Enterprise must comply with the requirements of § 1240.3(c) of this part with respect to that agreement.

* * * * *

Speculative grade means the reference entity has adequate capacity to meet financial commitments in the near term, but is vulnerable to adverse economic conditions, such that should economic conditions deteriorate, the reference entity would present an elevated default risk.

* * * * *

Standardized total risk-weighted assets * * *

(1)(vi) Credit valuation adjustment (CVA) risk-weighted assets as calculated under § 1240.36(d);

(vii) Risk-weighted assets for operational risk, as calculated under § 1240.162(c) or § 1240.162(d), as applicable; and

(viii) Standardized market risk-weighted assets, as calculated under § 1240.204; minus

* * * * *

Sub-speculative grade means the reference entity depends on favorable economic conditions to meet its financial commitments, such that should such economic conditions deteriorate the reference entity likely would default on its financial commitments.

* * * * *

Time-based call means a contractual provision that permits an originating Enterprise to redeem a securitization exposure on or after a specified redemption or cancellation date.

* * * * *

Uniform Mortgage-backed Security (UMBS) means the same as that defined in 12

CFR 1248.1.

Value-at-Risk (VaR) means the estimate of the maximum amount that the value of one or more exposures could decline due to market price or rate movements during a fixed holding period within a stated confidence interval.

Variation margin means financial collateral that is subject to a collateral agreement provided by one party to its counterparty to meet the performance of the first party's obligations under one or more transactions between the parties as a result of a change in value of such obligations since the last time such financial collateral was provided.

* * * * *

Variation margin amount means the fair value amount of the variation margin, as adjusted by the standard supervisory haircuts under § 1240.39(b)(2)(ii), as applicable, that a counterparty to a netting set has posted to an Enterprise less the fair value amount of the variation margin, as adjusted by the standard supervisory haircuts under § 1240.39(b)(2)(ii), as applicable, posted by the Enterprise to the counterparty.

* * * * *

Volatility derivative contract means a derivative contract in which the payoff of the derivative contract explicitly depends on a measure of the volatility of an underlying risk factor to the derivative contract.

* * * * *

§ 1240.4 [Amended]

3. In § 1240.4(c) remove “2025” and add, in its place, “2028”.

4. Amend § 1240.31 by:

(a) In paragraph (a)(1)(iv) removing the word “or” after the “;”;

(b) In paragraph (a)(1)(v) removing the “.” after “1240.52” and adding “; or” in its place; and

(c) Adding paragraph (a)(1)(vi) to read as follows:

§ 1240.31 Mechanics for calculating risk-weighted assets for general credit risk.

(a) * * *

(1) * * *

(vi) CVA risk-weighted assets subject to § 1240.36(d);

* * * * *

5. Amend § 1240.32 by:

(a) Redesignating paragraph (c)(2) as paragraph (c)(3), adding new paragraph (c)(2), and revising redesignated paragraph (c)(3);

(b) Redesignating paragraph (i)(5) as paragraph (i)(6) and adding new paragraph (i)(5).

The additions and revision read as follows:

§ 1240.32 General risk weights.

(c) * * *

(2) An Enterprise must assign a 5 percent risk weight to an exposure to the other Enterprise in a commingled security.

(3) An Enterprise must assign a 20 percent risk weight to an exposure to another GSE, including an MBS guaranteed by the other Enterprise, except for exposures under paragraph (c)(2) of this section.

* * * * *

(i) * * *

(5) An Enterprise must assign a 20 percent risk weight to guarantee assets.

(6) An Enterprise must assign a 100 percent risk weight to all assets not specifically assigned a different risk weight under this subpart and that are not deducted from tier 1 or tier 2 capital pursuant to § 1240.22.

* * * * *

6. Amend § 1240.33 by:

(a) Revising paragraph (ii) in the definition of "Adjusted MTMLTV"; and

(b) Revising Table 1 to paragraph (a).

The revisions read as follows;

§ 1240.33 Single-family mortgage exposures.

(a) * * *

Adjusted MTMLTV * * *

(ii) The amount equal to 1 plus either:

(A) The single-family countercyclical adjustment available at the time of the exposure's origination if the loan age of the single-family mortgage exposure is less than or equal to 5; or

(B) The single-family countercyclical adjustment available as of that time if the loan age of the single-family mortgage exposure is greater than or equal to 6.

* * * * *

TABLE 1 TO PARAGRAPH (a)−PERMISSIBLE VALUES AND ADDITIONAL INSTRUCTIONS

Defined Term	Permissible Values	Additional Instructions
Cohort burnout	"No burnout," if the single-family mortgage exposure has not had a refinance opportunity since the loan age of the single-family mortgage exposure was 6. "Low," if the single-family mortgage exposure has had 12 or fewer refinance opportunities since the loan age of the single-family mortgage exposure was 6. "Medium," if the single-family mortgage exposure has had between 13 and 24 refinance opportunities since the loan age of the single-family mortgage exposure was 6. "High," if the single-family mortgage exposure has had more than 24 refinance opportunities since the loan age of the single-family mortgage exposure was 6.	High if unable to determine.
Coverage percent	0 percent <= coverage percent <= 100 percent	0 percent if outside of permissible range or unable to determine.
Days past due	Non-negative integer	210 if negative or unable to determine.
Debt-to-income (DTI) ratio	0 percent < DTI < 100 percent	42 percent if outside of permissible range or unable to determine.
Interest-only (IO)	Yes, no	Yes if unable to determine.
Loan age	0 <= loan age <= 500	500 if outside of permissible range or unable to determine.
Loan documentation	None, low, full	None if unable to determine.
Loan purpose	Purchase, cashout refinance, rate/term refinance	Cashout refinance if unable to determine.

Defined Term	Permissible Values	Additional Instructions
MTMLTV	0 percent < MTMLTV <= 300 percent	If the property securing the single-family mortgage exposure is located in Puerto Rico or the U.S. Virgin Islands, use the FHFA House Price Index of the United States. If the property securing the single-family mortgage exposure is located in Hawaii, use the FHFA Purchase-only State-level House Price Index of Guam. If the single-family mortgage exposure was originated before 1991, use the Enterprise's proprietary housing price index. Use geometric interpolation to convert quarterly housing price index data to monthly data. 300 percent if outside of permissible range or unable to determine.
Mortgage concentration risk	High, not high	High if unable to determine.
MI cancellation feature	Cancellable mortgage insurance, non-cancellable mortgage insurance	Cancellable mortgage insurance, if unable to determine.
Occupancy type	Investment, owner-occupied, second home	Investment if unable to determine.
OLTV	0 percent < OLTV <= 300 percent	300 percent if outside of permissible range or unable to determine.

Original credit score	300 <= original credit score <= 850	The original credit score for the single-family mortgage exposure is determined based on the original credit scores of each borrower on the exposure using the following procedure. Determine the borrower credit score for each borrower: • If there are original credit scores from multiple credit repositories for a borrower, the borrower credit score is the mean across the borrower's original credit scores. • If there is only one original credit score for the borrower from one repository, the borrower credit score is the one available original credit score. Determine the original credit score for the single-family mortgage exposure: • If there is only one borrower, the borrower credit score is the original credit score for the single-family mortgage exposure. • If there are multiple borrowers, the lowest borrower credit score across all borrowers is the original credit score for the single-family mortgage exposure. • If a borrower does not have a borrower credit score, determine the original credit score for the single-family mortgage exposure based on the borrower credit scores of the other borrowers on the loan. The original credit score for the single-family mortgage exposure is 680 if the Enterprise has verified that no borrower has a credit score at any of the three repositories. The original credit score for the single-family mortgage exposure is 600 if (i) an Enterprise is unable to determine the original credit score using the above procedure or (ii) the original credit score calculated using the procedure falls outside of the permissible range.

Defined Term	Permissible Values	Additional Instructions
Origination channel	Retail, third-party origination (TPO)	TPO includes broker and correspondent channels. TPO if unable to determine.
Payment change from modification	-80 percent < payment change from modification < 50 percent	If the single-family mortgage exposure initially had an adjustable or step-rate feature, the monthly payment after a permanent modification is calculated using the initial modified rate. 0 percent if unable to determine. -79 percent if less than or equal to -80 percent. 49 percent if greater than or equal to 50 percent.
Previous maximum days past due	Non-negative integer	181 months if negative or unable to determine.
Product type	"FRM30" means a fixed-rate single-family mortgage exposure with an original amortization term greater than 309 months and less than or equal to 429 months. "FRM20" means a fixed-rate single-family mortgage exposure with an original amortization term greater than 189 months and less than or equal to 309 months. "FRM15" means a fixed-rate single-family mortgage exposure with an original amortization term less than or equal to 189 months. "ARM1/1" is an adjustable-rate single-family mortgage exposure that has a mortgage rate and required payment that adjust annually.	Product types other than FRM30, FRM20, FRM15 or ARM 1/1 should be assigned to FRM30. Use the post-modification product type for modified mortgage exposures. ARM 1/1 if unable to determine.
Property type	1-unit, 2-4 units, condominium, manufactured home.	Use condominium for cooperatives. 2-4 units if unable to determine.

Refreshed credit score	300 <= refreshed credit score <= 850	The refreshed credit score for the single-family mortgage exposure is determined based on the refreshed credit scores of each borrower on the exposure using the following procedure. Determine the borrower credit score for each borrower: • If the Enterprise acquires refreshed credit scores from multiple repositories for a borrower, the borrower credit score is the mean across the borrower's refreshed credit scores. • If the Enterprise acquires only one refreshed credit score for the borrower from one repository, the borrower credit score is the one available refreshed credit score. • If the Enterprise does not acquire refreshed credit scores, the borrower's refreshed credit score is the borrower's most recently available credit score, which could be the borrower's original credit score. Determine the refreshed credit score for the single-family mortgage exposure: • If there is only one borrower, the borrower credit score is the refreshed credit score for the single-family mortgage exposure. • If there are multiple borrowers, the lowest borrower credit score across all borrowers is the refreshed credit score for the single-family mortgage exposure. If a borrower does not have a borrower credit score, determine the refreshed credit score for the single-family mortgage exposure based on the borrower credit scores of the other borrowers on the loan. • If no refreshed credit scores are available for any borrowers on the loan, then the refreshed credit score for the single-family mortgage exposure is the same as the original credit score for the single-family mortgage exposure.

Defined Term	Permissible Values	Additional Instructions
Streamlined refi	Yes, no.	No if unable to determine.
Subordination	0 percent <= Subordination <= 80 percent	80 percent if outside permissible range.

7. Amend § 1240.34 by:

(a) Adding in alphabetical order the definition of "Affordable unit";

(b) Adding in alphabetical order the definition of "Government subsidy";

(c) Revising Table 1 to paragraph (a); and

(d) Revising Table 4 to paragraph (d).

The additions and revisions read as follows:

§ 1240.34 Multifamily mortgage exposures.

(a) * * *

Affordable unit means a unit within a property securing a multifamily mortgage exposure that can be rented by occupants with income less than or equal to 80 percent of the area median income where the property resides.

* * * * *

Government subsidy means that the property satisfies both of the following criteria: (a) at least 20 percent of the property's units are restricted to be affordable units, and (b) the property benefits from one of the following three government programs:

(i) Low Income Housing Tax Credits (LIHTC);

(ii) Section 8 project-based rental assistance; or

(iii) State/Local affordable housing programs that require the provision of affordable housing for the life of the loan.

* * * * *

TABLE 1 TO PARAGRAPH (a)–PERMISSIBLE VALUES AND ADDITIONAL INSTRUCTIONS

Defined Term	Permissible Values	Additional Instructions
Acquisition DSCR	Greater than or equal to 0.	Origination DSCR if negative or unable to determine. If origination DSCR is unavailable, use underwriting DSCR. If underwriting DSCR is unavailable, use 1.00.
Acquisition LTV	Greater than or equal to 0.	Origination LTV if negative or unable to determine. If origination LTV is unavailable, use underwriting LTV. If underwriting LTV is unavailable, use 100 percent.
Government Subsidy	Yes, no	Yes if each property securing the multifamily mortgage exposure has a government subsidy. No otherwise.
Interest-only	Yes, no.	Yes if unable to determine.
Loan Term	Non-negative integer in years.	11 years if negative or unable to determine.
MTMDSCR	Greater than or equal to 0.	If the MTMDSCR is unavailable, the last observed DSCR can be marked to market using a property NOI index or an NOI estimate based on rent and expense indices. If the index is not sufficiently granular, either because of its frequency or geography, or with respect to a certain multifamily property type, use a more geographically broad index or a recently estimated mark-to-market value.
MTMLTV	Greater than or equal to 0.	If the MTMLTV is unavailable, mark to market using an index. If the index is not sufficiently granular, either because of its frequency or geography or with respect to a certain multifamily property type, use a more geographically broad index or a recently estimated mark-to-market value.
Net Operating Income (NOI) / Net Cash Flow (NCF)	Greater than or equal to 0.	Infer using origination LTV or origination DSCR if NOI/NCF is unavailable. Alternatively, infer using actual MTMLTV or actual MTMDSCR.
Original Amortization Term	Non-negative integer in years.	31 years if negative or unable to determine.
Original Loan Size	Non-negative dollar value.	$3,000,000 if negative or unable to determine
Payment Performance	Performing, delinquent 60 days or more, re-performing (without modification), modified.	Modified if unable to determine.
Special Product	Not a special product, student housing, rehab/value-add/lease-up, supplemental mortgage exposure.	Rehab/value-add/lease-up if unable to determine.
UPB	UPB > $0	$100,000,000 if negative or unable to determine.

* * * * *

TABLE 4 TO PARAGRAPH (d)−MULTIFAMILY RISK MULTIPLIERS

Risk Factor	Value or Range	Risk Multiplier
Payment Performance	Performing	1.00
	Delinquent more than 60 days	1.10
	Re-performing (without modification)	1.10
	Modified	1.20
Government Subsidy	No	1.00
	Yes	0.60
Interest-Only	No	1.00
	Yes (during the interest-only period)	1.10
Loan Term	Loan term <= 1Yr	0.70
	1Yr < loan term <= 2Yr	0.75
	2Yr < loan term <= 3Yr	0.80
	3Yr < loan term <= 4Yr	0.85
	4Yr < loan term <= 5Yr	0.90
	5Yr < loan term <= 7Yr	0.95
	7Yr < loan term <= 10Yr	1.00
	Loan term > 10Yr	1.15
Original Amortization Term	Original amortization term <= 20Yr	0.70
	20Yr < original amortization term <= 25Yr	0.80
	25Yr < original amortization term <= 30Yr	1.00
	Original amortization term > 30Yr	1.10
Original Loan Size (in millions)	Loan size <= $2m	1.45
	$2m < loan size <= $3m	1.35
	$3m < loan size <= $4m	1.25
	$4m < loan size <= $5m	1.15
	$5m < loan size <= $6m	1.08
	$6m < loan size <= $7m	1.02
	$7m < loan size <= $8m	0.96
	$8m < loan size <= $9m	0.92
	$9m < loan size <= $10m	0.88
	$10m < loan size <= $11m	0.86
	$11m < loan size <= $12m	0.84
	$12m < loan size <= $13m	0.82
	$13m < loan size <= $14m	0.81
	$14m < loan size <= $15m	0.81
	$15m < loan size <= $22m	0.80
	$22m < loan size <= $23m	0.79
	$23m < loan size <= $24m	0.78
	$24m < loan size <= $25m	0.76
	Loan size >$25m	0.70
Special Products	Not a special product	1.00
	Student housing	1.15
	Rehab/value-add/lease-up	1.25

8. Amend § 1240.35 by revising paragraphs (b)(3) and (4)(i) to read as follows:

§ 1240.35 Off-balance sheet exposures.

* * * * *

(b) * * *

(3) *50 percent CCF.* An Enterprise must apply a 50 percent CCF to:

(i) The amount of commitments with an original maturity of more than one year that are not unconditionally cancelable by the Enterprise; and

(ii) Guarantees on exposures to the other Enterprise in commingled securities.

(4) *100 percent CCF.* An Enterprise must apply a 100 percent CCF to the amount of the following off-balance sheet items and other similar transactions:

(i) Guarantees, except guarantees included in paragraph (b)(3)(ii) of this section;

* * * * *

9. Revise § 1240.36 to read as follows:

§ 1240.36 Derivative contracts.

(a) *Exposure amount for derivative contracts.* An Enterprise must calculate the exposure amount or EAD for all its derivative contracts using the standardized approach for counterparty credit risk (SA-CCR) in paragraph (c) of this section for purposes of standardized total risk-weighted assets. An Enterprise must apply the treatment of cleared transactions under § 1240.37 to its derivative contracts that are cleared transactions and to all default fund contributions associated with such derivative contracts for purposes of standardized total risk-weighted assets.

(b) *Methodologies for collateral recognition.* (1) An Enterprise may use the methodologies under § 1240.39 to recognize the benefits of financial collateral in mitigating the counterparty credit risk of repo-style transactions, eligible margin loans, collateralized OTC derivative contracts and single product netting sets of such

transactions.

(2) An Enterprise must use the methodology in paragraph (c) of this section to calculate EAD for an OTC derivative contract or a set of OTC derivative contracts subject to a qualifying master netting agreement.

(3) An Enterprise must also use the methodology in paragraph (d) of this section to calculate the risk-weighted asset amounts for CVA for OTC derivatives.

(c) *EAD for derivative contracts*—(1) *Options for determining EAD.* An Enterprise must determine the EAD for a derivative contract using SA-CCR under paragraph (c)(5) of this section. The exposure amount determined under SA-CCR is the EAD for the derivative contract or derivatives contracts. An Enterprise must use the same methodology to calculate the exposure amount for all its derivative contracts. An Enterprise may reduce the EAD calculated according to paragraph (c)(5) of this section by the credit valuation adjustment that the Enterprise has recognized in its balance sheet valuation of any derivative contracts in the netting set. For purposes of this paragraph (c)(1), the credit valuation adjustment does not include any adjustments to common equity tier 1 capital attributable to changes in the fair value of the Enterprise's liabilities that are due to changes in its own credit risk since the inception of the transaction with the counterparty.

(2) *Definitions.* For purposes of this paragraph (c) of this section, the following definitions apply:

(i) *End date* means the last date of the period referenced by an interest rate or credit derivative contract or, if the derivative contract references another instrument, by the underlying instrument, except as otherwise provided in paragraph (c) of this section.

(ii) *Start date* means the first date of the period referenced by an interest rate or credit derivative contract or, if the derivative contract references the value of another instrument, by underlying instrument, except as otherwise provided in paragraph (c) of this section.

(iii) *Hedging* set means:

(A) With respect to interest rate derivative contracts, all such contracts within a netting set that reference the same reference currency;

(B) With respect to exchange rate derivative contracts, all such contracts within a netting set that reference the same currency pair;

(C) With respect to credit derivative contract, all such contracts within a netting set;

(D) With respect to equity derivative contracts, all such contracts within a netting set;

(E) With respect to a commodity derivative contract, all such contracts within a netting set that reference one of the following commodity categories: Energy, metal, agricultural, or other commodities;

(F) With respect to basis derivative contracts, all such contracts within a netting set that reference the same pair of risk factors and are denominated in the same currency; or

(G) With respect to volatility derivative contracts, all such contracts within a netting set that reference one of interest rate, exchange rate, credit, equity, or commodity risk factors, separated according to the requirements under paragraphs (c)(2)(iii)(A) through (E) of this section.

(H) If the risk of a derivative contract materially depends on more than one of interest rate, exchange rate, credit, equity, or commodity risk factors, FHFA may require an Enterprise to include the derivative contract in each appropriate hedging set under paragraphs (c)(2)(iii)(A) through (E) of this section.

(3) *Credit derivatives.* Notwithstanding paragraphs (c)(1) and (c)(2) of this section:

(i) An Enterprise that purchases a credit derivative that is recognized under § 1240.38 as a credit risk mitigant for an exposure is not required to calculate a separate counterparty credit risk capital requirement under this section so long as the Enterprise does so consistently for all such credit derivatives and either includes or excludes all such credit derivatives that are subject to a master netting agreement from any measure used to determine counterparty credit risk exposure to all relevant counterparties for risk-based capital purposes.

(ii) An Enterprise that is the protection provider in a credit derivative must treat the credit derivative as an exposure to the reference obligor and is not required to calculate a counterparty credit risk capital requirement for the credit derivative under this section, so long as it does so consistently for all such credit derivatives and either includes all or excludes all such credit derivatives that are subject to a master netting agreement from any measure used to determine counterparty credit risk exposure to all relevant counterparties for risk-based capital purposes.

(4) *Equity derivatives.* An Enterprise must treat an equity derivative contract as an equity exposure and compute a risk-weighted asset amount for the equity derivative contract under § 1240.51. In addition, if an Enterprise is treating the contract as a

covered position under subpart F of this part, the Enterprise must also calculate a risk-based capital requirement for the counterparty credit risk of an equity derivative contract under this section.

(5) *Exposure amount.* (i) The exposure amount of a netting set, as calculated under paragraph (c) of this section, is equal to 1.4 multiplied by the sum of the replacement cost of the netting set, as calculated under paragraph (c)(6) of this section, and the potential future exposure of the netting set, as calculated under paragraph (c)(7) of this section.

(ii) Notwithstanding the requirements of paragraph (c)(5)(i) of this section, the exposure amount of a netting set subject to a variation margin agreement, excluding a netting set that is subject to a variation margin agreement under which the counterparty to the variation margin agreement is not required to post variation margin, is equal to the lesser of the exposure amount of the netting set calculated under paragraph (c)(5)(i) of this section and the exposure amount of the netting set calculated under paragraph (c)(5)(i) of this section as if the netting set were not subject to a variation margin agreement.

(iii) Notwithstanding the requirements of paragraph (c)(5)(i) of this section, the exposure amount of a netting set that consists of only sold options in which the premiums have been fully paid by the counterparty to the options and where the options are not subject to a variation margin agreement is zero.

(iv) Notwithstanding the requirements of paragraph (c)(5)(i) of this section, the exposure amount of a netting set in which the counterparty is a commercial end-user is equal to the sum of replacement cost, as calculated under paragraph (c)(6) of this section,

and the potential future exposure of the netting set, as calculated under paragraph (c)(7) of this section.

(v) For purposes of the exposure amount calculated under paragraph (c)(5)(i) of this section and all calculations that are part of that exposure amount, an Enterprise may elect to treat a derivative contract that is a cleared transaction that is not subject to a variation margin agreement as one that is subject to a variation margin agreement, if the derivative contract is subject to a requirement that the counterparties make daily cash payments to each other to account for changes in the fair value of the derivative contract and to reduce the net position of the contract to zero. If an Enterprise makes an election under this paragraph (c)(5)(v) for one derivative contract, it must treat all other derivative contracts within the same netting set that are eligible for an election under this paragraph (c)(5)(v) as derivative contracts that are subject to a variation margin agreement.

(vi) For purposes of the exposure amount calculated under paragraph (c)(5)(i) of this section and all calculations that are part of that exposure amount, an Enterprise may elect to treat a credit derivative contract, equity derivative contract, or commodity derivative contract that references an index as if it were multiple derivative contracts each referencing one component of the index.

(6) *Replacement cost of a netting set*—(i) *Netting set subject to a variation margin agreement under which the counterparty must post variation margin.* The replacement cost of a netting set subject to a variation margin agreement, excluding a netting set that is subject to a variation margin agreement under which the counterparty is not required to post variation margin, is the greater of:

(A) The sum of the fair values (after excluding any valuation adjustments) of the

derivative contracts within the netting set less the sum of the net independent collateral amount and the variation margin amount applicable to such derivative contracts;

(B) The sum of the variation margin threshold and the minimum transfer amount applicable to the derivative contracts within the netting set less the net independent collateral amount applicable to such derivative contracts; or

(C) Zero.

(ii) *Netting sets not subject to a variation margin agreement under which the counterparty must post variation margin.* The replacement cost of a netting set that is not subject to a variation margin agreement under which the counterparty must post variation margin to the Enterprise is the greater of:

(A) The sum of the fair values (after excluding any valuation adjustments) of the derivative contracts within the netting set less the sum of the net independent collateral amount and variation margin amount applicable to such derivative contracts; or

(B) Zero.

(iii) *Multiple netting sets subject to a single variation margin agreement.* Notwithstanding paragraphs (c)(6)(i) and (ii) of this section, the replacement cost for multiple netting sets subject to a single variation margin agreement must be calculated according to paragraph (c)(10)(i) of this section.

(iv) *Netting set subject to multiple variation margin agreements or a hybrid netting set.* Notwithstanding paragraphs (c)(6)(i) and (ii) of this section, the replacement cost for a netting set subject to multiple variation margin agreements or a hybrid netting set must be calculated according to paragraph (c)(11)(i) of this section.

(7) *Potential future exposure of a netting set.* The potential future exposure of a

netting set is the product of the PFE multiplier and the aggregated amount.

(i) *PFE multiplier.* The PFE multiplier is calculated according to the following formula:

$$PFE\ multiplier = \min\left(1; 0.05 + 0.95 * e^{\left(\frac{V-C}{1.9*A}\right)}\right)$$

Where:

V is the sum of the fair values (after excluding any valuation adjustments) of the derivative contracts within the netting set;

C is the sum of the net independent collateral amount and the variation margin amount applicable to the derivative contracts within the netting set; and

A is the aggregated amount of the netting set.

(ii) *Aggregated amount.* The aggregated amount is the sum of all hedging set amounts, as calculated under paragraph (c)(8) of this section, within a netting set.

(iii) *Multiple netting sets subject to a single variation margin agreement.* Notwithstanding paragraphs (c)(7)(i) and (ii) of this section and when calculating the potential future exposure for purposes of adjusted total assets, the potential future exposure for multiple netting sets subject to a single variation margin agreement must be calculated according to paragraph (c)(10)(ii) of this section.

(iv) *Netting set subject to multiple variation margin agreements or a hybrid netting set.* Notwithstanding paragraphs (c)(7)(i) and (ii) of this section and when calculating the potential future exposure for purposes of adjusted total assets, the potential future exposure for a netting set subject to multiple variation margin agreements or a hybrid netting set must be calculated according to paragraph (c)(11)(ii) of this section.

(8) *Hedging set amount*—(i) *Interest rate derivative contracts.* To calculate the hedging set amount of an interest rate derivative contract hedging set, an Enterprise may use either of the formulas provided in paragraphs (c)(8)(i)(A) and (B) of this section:

(A) Formula 1 is as follows:

$$Hedging\ set\ amount = [(AddOn_{TB1}^{IR})^2 + (AddOn_{TB2}^{IR})^2 + (AddOn_{TB3}^{IR})^2 + 1.4 * AddOn_{TB1}^{IR} * AddOn_{TB2}^{IR} + 1.4 * AddOn_{TB2}^{IR} * AddOn_{TB3}^{IR} + 0.6 * AddOn_{TB1}^{IR} * AddOn_{TB3}^{IR}]^{\frac{1}{2}};\text{ or}$$

(B) Formula 2 is as follows:

$$Hedging\ set\ amount = |AddOn_{TB1}^{IR}| + |AddOn_{TB2}^{IR}| + |AddOn_{TB3}^{IR}|.$$

Where in paragraphs (c)(8)(i)(A) and (B) of this section:

$AddOn_{TB1}^{IR}$ is the sum of the adjusted derivative contract amounts, as calculated under paragraph (c)(9) of this section, within the hedging set with an end date of less than one year from the present date;

$AddOn_{TB2}^{IR}$ is the sum of the adjusted derivative contract amounts, as calculated under paragraph (c)(9) of this section, within the hedging set with an end date of one to five years from the present date; and

$AddOn_{TB3}^{IR}$ is the sum of the adjusted derivative contract amounts, as calculated under paragraph (c)(9) of this section, within the hedging set with an end date of more than five years from the present date.

(ii) *Exchange rate derivative contracts*. For an exchange rate derivative contract hedging set, the hedging set amount equals the absolute value of the sum of the adjusted

derivative contract amounts, as calculated under paragraph (c)(9) of this section, within the hedging set.

(iii) *Credit derivative contracts and equity derivative contracts.* The hedging set amount of a credit derivative contract hedging set or equity derivative contract hedging set within a netting set is calculated according to the following formula:

$$Hedging\ set\ amount = \left[\left(\sum_{k=1}^{K} \rho_k * AddOn(Ref_k)\right)^2 + \sum_{k=1}^{K} (1-(\rho_k)^2) * \left(AddOn(Ref_k)\right)^2\right]^{\frac{1}{2}}$$

Where:

k is each reference entity within the hedging set.

K is the number of reference entities within the hedging set.

$AddOn(Ref_k)$ equals the sum of the adjusted derivative contract amounts, as determined under paragraph (c)(9) of this section, for all derivative contracts within the hedging set that reference reference entity k.

ρ_k equals the applicable supervisory correlation factor, as provided in Table 2 to this section.

(iv) *Commodity derivative contracts.* The hedging set amount of a commodity derivative contract hedging set within a netting set is calculated according to the following formula:

$$Hedging\ set\ amount = \left[\left(\rho * \sum_{k=1}^{K} AddOn(Type_k)\right)^2 + (1-(\rho)^2) * \sum_{k=1}^{K} \left(AddOn(Type_k)\right)^2\right]^{\frac{1}{2}}$$

Where:

k is each commodity type within the hedging set.

K is the number of commodity types within the hedging set.

$AddOn(Type_k)$ equals the sum of the adjusted derivative contract amounts, as determined under paragraph (c)(9) of this section, for all derivative contracts within the hedging set that reference reference commodity type.

ρ equals the applicable supervisory correlation factor, as provided in Table 2 to this section.

(v) *Basis derivative contracts and volatility derivative contracts.* Notwithstanding paragraphs (c)(8)(i) through (iv) of this section, an Enterprise must calculate a separate hedging set amount for each basis derivative contract hedging set and each volatility derivative contract hedging set. An Enterprise must calculate such hedging set amounts using one of the formulas under paragraphs (c)(8)(i) through (iv) that corresponds to the primary risk factor of the hedging set being calculated.

(9) *Adjusted derivative contract amount*—(i) *Summary.* To calculate the adjusted derivative contract amount of a derivative contract, an Enterprise must determine the adjusted notional amount of derivative contract, pursuant to paragraph (c)(9)(ii) of this section, and multiply the adjusted notional amount by each of the supervisory delta adjustment, pursuant to paragraph (c)(9)(iii) of this section, the maturity factor, pursuant to paragraph (c)(9)(iv) of this section, and the applicable supervisory factor, as provided in Table 2 to this section.

(ii) *Adjusted notional amount.* (A)(*1*) For an interest rate derivative contract or a credit derivative contract, the adjusted notional amount equals the product of the notional amount of the derivative contract, as measured in U.S. dollars using the exchange rate on the date of the calculation, and the supervisory duration, as calculated by the following formula:

$$Supervisory\ duration = max\left\{\frac{e^{-0.05*\left(\frac{S}{250}\right)} - e^{-0.05*\left(\frac{E}{250}\right)}}{0.05}, 0.04\right\}$$

Where:

S is the number of business days from the present day until the start date of the derivative contract, or zero if the start date has already passed; and

E is the number of business days from the present day until the end date of the derivative contract.

(*2*) For purposes of paragraph (c)(9)(ii)(A)(*1*) of this section:

(*i*) For an interest rate derivative contract or credit derivative contract that is a variable notional swap, the notional amount is equal to the time-weighted average of the contractual notional amounts of such a swap over the remaining life of the swap; and

(*ii*) For an interest rate derivative contract or a credit derivative contract that is a leveraged swap, in which the notional amount of all legs of the derivative contract are divided by a factor and all rates of the derivative contract are multiplied by the same factor, the notional amount is equal to the notional amount of an equivalent unleveraged swap.

(B)(*1*) For an exchange rate derivative contract, the adjusted notional amount is the notional amount of the non-U.S. denominated currency leg of the derivative contract, as measured in U.S. dollars using the exchange rate on the date of the calculation. If both legs of the exchange rate derivative contract are denominated in currencies other than U.S. dollars, the adjusted notional amount of the derivative contract is the largest leg of the derivative contract, as measured in U.S. dollars using the exchange rate on the date of the calculation.

(*2*) Notwithstanding paragraph (c)(9)(ii)(B)(*1*) of this section, for an exchange rate derivative contract with multiple exchanges of principal, the Enterprise must set the adjusted notional amount of the derivative contract equal to the notional amount of the derivative contract multiplied by the number of exchanges of principal under the derivative contract.

(C)(*1*) For an equity derivative contract or a commodity derivative contract, the adjusted notional amount is the product of the fair value of one unit of the reference instrument underlying the derivative contract and the number of such units referenced by the derivative contract.

(*2*) Notwithstanding paragraph (c)(9)(ii)(C)(*1*) of this section, when calculating the adjusted notional amount for an equity derivative contract or a commodity derivative contract that is a volatility derivative contract, the Enterprise must replace the unit price with the underlying volatility referenced by the volatility derivative contract and replace the number of units with the notional amount of the volatility derivative contract.

(iii) *Supervisory delta adjustments.* (A) For a derivative contract that is not an option contract or collateralized debt obligation tranche, the supervisory delta adjustment is 1 if the fair value of the derivative contract increases when the value of the primary risk factor increases and −1 if the fair value of the derivative contract decreases when the value of the primary risk factor increases.

(B)(*1*) For a derivative contract that is an option contract, the supervisory delta adjustment is determined by the following formulas, as applicable:

TABLE 1 TO § 1240.36−SUPERVISORY DELTA ADJUSTMENT FOR OPTIONS CONTRACTS

	Bought	Sold
Call Options	$\Phi\left(\frac{ln\left(\frac{P+\lambda}{K+\lambda}\right)+0.5*\sigma^2*T/250}{\sigma*\sqrt{T/250}}\right)$	$-\Phi\left(\frac{ln\left(\frac{P+\lambda}{K+\lambda}\right)+0.5*\sigma^2*T/250}{\sigma*\sqrt{T/250}}\right)$
Put Options	$-\Phi\left(-\frac{ln\left(\frac{P+\lambda}{K+\lambda}\right)+0.5*\sigma^2*T/250}{\sigma*\sqrt{T/250}}\right)$	$\Phi\left(-\frac{ln\left(\frac{P+\lambda}{K+\lambda}\right)+0.5*\sigma^2*T/250}{\sigma*\sqrt{T/250}}\right)$

(*2*) As used in the formulas in Table 1 to this section:

(*i*) Φ is the standard normal cumulative distribution function;

(*ii*) P equals the current fair value of the instrument or risk factor, as applicable, underlying the option;

(*iii*) K equals the strike price of the option;

(*iv*) T equals the number of business days until the latest contractual exercise date of the option;

(*v*) λ equals zero for all derivative contracts except interest rate options for the currencies where interest rates have negative values. The same value of λ must be used for all interest rate options that are denominated in the same currency. To determine the value of λ for a given currency, an Enterprise must find the lowest value L of P and K of all interest rate options in a given currency that the Enterprise has with all counterparties. Then, λ is set according to this formula:

$\lambda = \max\{-L + 0.1\%, 0\}$; and

(*vi*) σ equals the supervisory option volatility, as provided in Table 2 to this section.

(C)(*1*) For a derivative contract that is a collateralized debt obligation tranche, the

supervisory delta adjustment is determined by the following formula:

$$\text{Supervisory Delta Adjustment} = \frac{15}{(1 + 14 * A) * (1 + 14 * D)}$$

(*2*) As used in the formula in paragraph (c)(9)(iii)(C)(1) of this section:

(*i*) A is the attachment point, which equals the ratio of the notional amounts of all underlying exposures that are subordinated to the Enterprise's exposure to the total notional amount of all underlying exposures, expressed as a decimal value between zero and one;[1]

(*ii*) D is the detachment point, which equals one minus the ratio of the notional amounts of all underlying exposures that are senior to the Enterprise's exposure to the total notional amount of all underlying exposures, expressed as a decimal value between zero and one; and

(*iii*) The resulting amount is designated with a positive sign if the collateralized debt obligation tranche was purchased by the Enterprise and is designated with a negative sign if the collateralized debt obligation tranche was sold by the Enterprise.

(iv) *Maturity factor.* (A)(*1*) The maturity factor of a derivative contract that is subject to a variation margin agreement, excluding derivative contracts that are subject to a variation margin agreement under which the counterparty is not required to post variation margin, is determined by the following formula:

$$\text{Maturity factor} = \frac{3}{2}\sqrt{\frac{\text{MPOR}}{250}}$$

[1] In the case of a first-to-default credit derivative, there are no underlying exposures that are subordinated to the Enterprise's exposure. In the case of a second-or-subsequent-to-default credit derivative, the smallest (n−1) notional amounts of the underlying exposures are subordinated to the Enterprise's exposure.

Where MPOR refers to the period from the most recent exchange of collateral covering a netting set of derivative contracts with a defaulting counterparty until the derivative contracts are closed out and the resulting market risk is re-hedged.

(*2*) Notwithstanding paragraph (c)(9)(iv)(A)(*1*) of this section:

(*i*) For a derivative contract that is not a client-facing derivative transaction, MPOR cannot be less than ten business days plus the periodicity of re-margining expressed in business days minus one business day;

(*ii*) For a derivative contract that is a client-facing derivative transaction, cannot be less than five business days plus the periodicity of re-margining expressed in business days minus one business day; and

(*iii*) For a derivative contract that is within a netting set that is composed of more than 5,000 derivative contracts that are not cleared transactions, or a netting set that contains one or more trades involving illiquid collateral or a derivative contract that cannot be easily replaced, MPOR cannot be less than twenty business days.

(*3*) Notwithstanding paragraphs (c)(9)(iv)(A)(*1*) and (*2*) of this section, for a netting set subject to more than two outstanding disputes over margin that lasted longer than the MPOR over the previous two quarters, the applicable floor is twice the amount provided in paragraphs (c)(9)(iv)(A)(*1*) and (*2*) of this section.

(B) The maturity factor of a derivative contract that is not subject to a variation margin agreement, or derivative contracts under which the counterparty is not required to post variation margin, is determined by the following formula:

$$\text{Maturity factor} = \sqrt{\frac{\min(M; 250)}{250}}$$

Where M equals the greater of 10 business days and the remaining maturity of the contract, as measured in business days.

(C) For purposes of paragraph (c)(9)(iv) of this section, if an Enterprise has elected pursuant to paragraph (c)(5)(v) of this section to treat a derivative contract that is a cleared transaction that is not subject to a variation margin agreement as one that is subject to a variation margin agreement, the Enterprise must treat the derivative contract as subject to a variation margin agreement with maturity factor as determined according to (c)(9)(iv)(A) of this section, and daily settlement does not change the end date of the period referenced by the derivative contract.

(v) *Derivative contract as multiple effective derivative contracts.* An Enterprise must separate a derivative contract into separate derivative contracts, according to the following rules:

(A) For an option where the counterparty pays a predetermined amount if the value of the underlying asset is above or below the strike price and nothing otherwise (binary option), the option must be treated as two separate options. For purposes of paragraph (c)(9)(iii)(B) of this section, a binary option with strike K must be represented as the combination of one bought European option and one sold European option of the same type as the original option (put or call) with the strikes set equal to 0.95 * K and 1.05 * K so that the payoff of the binary option is reproduced exactly outside the region between the two strikes. The absolute value of the sum of the adjusted derivative contract amounts of the bought and sold options is capped at the payoff amount of the binary option.

(B) For a derivative contract that can be represented as a combination of standard

option payoffs (such as collar, butterfly spread, calendar spread, straddle, and strangle), an Enterprise must treat each standard option component as a separate derivative contract.

(C) For a derivative contract that includes multiple-payment options, (such as interest rate caps and floors), an Enterprise may represent each payment option as a combination of effective single-payment options (such as interest rate caplets and floorlets).

(D) An Enterprise may not decompose linear derivative contracts (such as swaps) into components.

(10) *Multiple netting sets subject to a single variation margin agreement*—(i) *Calculating replacement cost.* Notwithstanding paragraph (c)(6) of this section, an Enterprise shall assign a single replacement cost to multiple netting sets that are subject to a single variation margin agreement under which the counterparty must post variation margin, calculated according to the following formula:

$$Replacement\ Cost = max\{\Sigma_{NS} max\{V_{NS}; 0\} - max\{C_{MA}; 0\}; 0\} + max\{\Sigma_{NS} min\{V_{NS}; 0\} - min\{C_{MA}; 0\}; 0\}$$

Where:

NS is each netting set subject to the variation margin agreement MA;

V_{NS} is the sum of the fair values (after excluding any valuation adjustments) of the derivative contracts within the netting set NS; and

C_{MA} is the sum of the net independent collateral amount and the variation margin amount applicable to the derivative contracts within the netting sets subject to the single variation margin agreement.

(ii) *Calculating potential future exposure.* Notwithstanding paragraph (c)(5) of this section, an Enterprise shall assign a single potential future exposure to multiple netting sets that are subject to a single variation margin agreement under which the counterparty must post variation margin equal to the sum of the potential future exposure of each such netting set, each calculated according to paragraph (c)(7) of this section as if such nettings sets were not subject to a variation margin agreement.

(11) *Netting set subject to multiple variation margin agreements or a hybrid netting set*—(i) *Calculating replacement cost.* To calculate replacement cost for either a netting set subject to multiple variation margin agreements under which the counterparty to each variation margin agreement must post variation margin, or a netting set composed of at least one derivative contract subject to variation margin agreement under which the counterparty must post variation margin and at least one derivative contract that is not subject to such a variation margin agreement, the calculation for replacement cost is provided under paragraph (c)(6)(i) of this section, except that the variation margin threshold equals the sum of the variation margin thresholds of all variation margin agreements within the netting set and the minimum transfer amount equals the sum of the minimum transfer amounts of all the variation margin agreements within the netting set.

(ii) *Calculating potential future exposure.* (A) To calculate potential future exposure for a netting set subject to multiple variation margin agreements under which the counterparty to each variation margin agreement must post variation margin, or a netting set composed of at least one derivative contract subject to variation margin agreement under which the counterparty to the derivative contract must post variation margin and at least one derivative contract that is not subject to such a variation margin

agreement, an Enterprise must divide the netting set into sub-netting sets (as described in paragraph (c)(11)(ii)(B) of this section) and calculate the aggregated amount for each sub-netting set. The aggregated amount for the netting set is calculated as the sum of the aggregated amounts for the sub-netting sets. The multiplier is calculated for the entire netting set.

(B) For purposes of paragraph (c)(11)(ii)(A) of this section, the netting set must be divided into sub-netting sets as follows:

(*1*) All derivative contracts within the netting set that are not subject to a variation margin agreement or that are subject to a variation margin agreement under which the counterparty is not required to post variation margin form a single sub-netting set. The aggregated amount for this sub-netting set is calculated as if the netting set is not subject to a variation margin agreement.

(*2*) All derivative contracts within the netting set that are subject to variation margin agreements in which the counterparty must post variation margin and that share the same value of the MPOR form a single sub-netting set. The aggregated amount for this sub-netting set is calculated as if the netting set is subject to a variation margin agreement, using the MPOR value shared by the derivative contracts within the netting set.

TABLE 2 TO § 1240.36−SUPERVISORY OPTION VOLATILITY, SUPERVISORY CORRELATION PARAMETERS, AND SUPERVISORY FACTORS FOR DERIVATIVE CONTRACTS

Asset class	Category	Type	Supervisory option volatility (percent)	Supervisory correlation factor (percent)	Supervisory factor[1] (percent)
Interest rate	N/A	N/A	50	N/A	0.50
Exchange rate	N/A	N/A	15	N/A	4.0
Credit, single name	Investment grade	N/A	100	50	0.46
	Speculative grade	N/A	100	50	1.3
	Sub-speculative grade	N/A	100	50	6.0
Credit, index	Investment Grade	N/A	80	80	0.38
	Speculative Grade	N/A	80	80	1.06
Equity, single name	N/A	N/A	120	50	32
Equity, index	N/A	N/A	75	80	20
Commodity	Energy	Electricity	150	40	40
		Other	70	40	18
	Metals	N/A	70	40	18
	Agricultural	N/A	70	40	18
	Other	N/A	70	40	18

[1] The applicable supervisory factor for basis derivative contract hedging sets is equal to one-half of the supervisory factor provided in this Table 2, and the applicable supervisory factor for volatility derivative contract hedging sets is equal to 5 times the supervisory factor provided in this Table 2.

(d) *Credit valuation adjustment (CVA) risk-weighted assets*—(1) *In general.* With respect to its OTC derivative contracts, an Enterprise must calculate a CVA risk-weighted asset amount for its portfolio of OTC derivative transactions that are subject to the CVA capital requirement using the simple CVA approach described in paragraph (d)(5) of this section.

(2) [placeholder]

(3) *Recognition of hedges.* (i) An Enterprise may recognize a single name CDS,

single name contingent CDS, any other equivalent hedging instrument that references the counterparty directly, and index credit default swaps (CDS_{ind}) as a CVA hedge under paragraph (d)(5)(ii) of this section or paragraph (d)(6) of this section, provided that the position is managed as a CVA hedge in accordance with the Enterprise's hedging policies.

(ii) An Enterprise shall not recognize as a CVA hedge any tranched or n^{th}-to-default credit derivative.

(4) *Total CVA risk-weighted assets.* Total CVA risk-weighted assets is the CVA capital requirement, K_{CVA}, calculated for an Enterprise's entire portfolio of OTC derivative counterparties that are subject to the CVA capital requirement, multiplied by 12.5.

(5) *Simple CVA approach.* (i) Under the simple CVA approach, the CVA capital requirement, K_{CVA}, is calculated according to the following formula:

$$K_{CVA} = 2.33 \times \sqrt{\left(\sum_i 0.5 \times w_i \times \left(M_i \times EAD_i^{total} - M_i^{hedge} \times B_i\right) - \sum_{ind} w_{ind} \times M_{ind} \times B_{ind}\right)^2 + A}$$

Where:

$$A = \sum_i 0.75 \times w_i^2 \times \left(M_i \times EAD_i^{total} - M_i^{hedge} \times B_i\right)^2$$

(A) w_i = the weight applicable to counterparty i under Table 3 to this section;

(B) M_i = the EAD-weighted average of the effective maturity of each netting set with counterparty i (where each netting set's effective maturity can be no less than one year.)

(C) EAD_i^{total} = the sum of the EAD for all netting sets of OTC derivative

contracts with counterparty i calculated using the standardized approach to counterparty credit risk described in paragraph (c) of this section. When the Enterprise calculates EAD under paragraph (c) of this section, such EAD may be adjusted for purposes of calculating EAD_i^{total} by multiplying EAD by (1-exp(−0.05 × M_i))/(0.05 × M_i), where "exp" is the exponential function.

(D) M_i^{hedge} = the notional weighted average maturity of the hedge instrument.

(E) B_i = the sum of the notional amounts of any purchased single name CDS referencing counterparty i that is used to hedge CVA risk to counterparty i multiplied by (1-exp(−0.05 × M_i^{hedge}))/(0.05 × M_i^{hedge}).

(F) M_{ind} = the maturity of the CDS_{ind} or the notional weighted average maturity of any CDS_{ind} purchased to hedge CVA risk of counterparty i.

(G) B_{ind} = the notional amount of one or more CDS_{ind} purchased to hedge CVA risk for counterparty i multiplied by (1-exp(−0.05 × M_{ind}))/(0.05 × M_{ind})

(H) w_{ind} = the weight applicable to the CDS_{ind} based on the average weight of the underlying reference names that comprise the index under Table 3 to this section.

(ii) The Enterprise may treat the notional amount of the index attributable to a counterparty as a single name hedge of counterparty i (B_i,) when calculating K_{CVA}, and subtract the notional amount of B_i from the notional amount of the CDS_{ind}. An Enterprise must treat the CDS_{ind} hedge with the notional amount reduced by B_i as a CVA hedge.

TABLE 3 TO § 1240.36−ASSIGNMENT OF COUNTERPARTY WEIGHT

Internal PD (in percent)	Weight w_i (in percent)
0.00-0.07	0.70
>0.070-0.15	0.80
>0.15-0.40	1.00
>0.40-2.00	2.00
>2.00-6.00	3.00
>6.00	10.00

10. Revise § 1240.37 to read as follows:

§ 1240.37 Cleared transactions.

(a) *General requirements*—(1) *Clearing member clients.* An Enterprise that is a clearing member client must use the methodologies described in paragraph (b) of this section to calculate risk-weighted assets for a cleared transaction.

(2) *Clearing members.* An Enterprise that is a clearing member must use the methodologies described in paragraph (c) of this section to calculate its risk-weighted assets for a cleared transaction and paragraph (b) of this section to calculate its risk-weighted assets for its default fund contribution to a CCP.

(b) *Clearing member client Enterprises*—(1) *Risk-weighted assets for cleared transactions.* (i) To determine the risk-weighted asset amount for a cleared transaction, an Enterprise that is a clearing member client must multiply the trade exposure amount for the cleared transaction, calculated in accordance with paragraph (b)(2) of this section, by the risk weight appropriate for the cleared transaction, determined in accordance with paragraph (b)(3) of this section.

(ii) A clearing member client Enterprise's total risk-weighted assets for cleared

transactions is the sum of the risk-weighted asset amounts for all of its cleared transactions.

(2) *Trade exposure amount.* (i) For a cleared transaction that is a derivative contract or a netting set of derivative contracts, trade exposure amount equals the EAD for the derivative contract or netting set of derivative contracts calculated using the methodology used to calculate EAD for derivative contracts set forth in § 1240.36(c), plus the fair value of the collateral posted by the clearing member client Enterprise and held by the CCP or a clearing member in a manner that is not bankruptcy remote.

(ii) For a cleared transaction that is a repo-style transaction or netting set of repo-style transactions, trade exposure amount equals the EAD for the repo-style transaction calculated using the methodology set forth in § 1240.39(b)(2) or (3), plus the fair value of the collateral posted by the clearing member client Enterprise and held by the CCP or a clearing member in a manner that is not bankruptcy remote.

(3) *Cleared transaction risk weights.* (i) For a cleared transaction with a QCCP, a clearing member client Enterprise must apply a risk weight of:

(A) 2 percent if the collateral posted by the Enterprise to the QCCP or clearing member is subject to an arrangement that prevents any loss to the clearing member client Enterprise due to the joint default or a concurrent insolvency, liquidation, or receivership proceeding of the clearing member and any other clearing member clients of the clearing member; and the clearing member client Enterprise has conducted sufficient legal review to conclude with a well-founded basis (and maintains sufficient written documentation of that legal review) that in the event of a legal challenge (including one resulting from an event of default or from liquidation, insolvency, or receivership proceedings) the relevant

court and administrative authorities would find the arrangements to be legal, valid, binding, and enforceable under the law of the relevant jurisdictions.

(B) 4 percent, if the requirements of paragraph (b)(3)(i)(A) of this section are not met.

(ii) For a cleared transaction with a CCP that is not a QCCP, a clearing member client Enterprise must apply the risk weight applicable to the CCP under this subpart D.

(4) *Collateral.* (i) Notwithstanding any other requirement of this section, collateral posted by a clearing member client Enterprise that is held by a custodian (in its capacity as a custodian) in a manner that is bankruptcy remote from the CCP, clearing member, and other clearing member clients of the clearing member, is not subject to a capital requirement under this section.

(ii) A clearing member client Enterprise must calculate a risk-weighted asset amount for any collateral provided to a CCP, clearing member or a custodian in connection with a cleared transaction in accordance with requirements under subpart D of this part, as applicable.

(c) *Clearing member Enterprise*—(1) *Risk-weighted assets for cleared transactions.* (i) To determine the risk-weighted asset amount for a cleared transaction, a clearing member Enterprise must multiply the trade exposure amount for the cleared transaction, calculated in accordance with paragraph (c)(2) of this section by the risk weight appropriate for the cleared transaction, determined in accordance with paragraph (c)(3) of this section.

(ii) A clearing member Enterprise's total risk-weighted assets for cleared transactions is the sum of the risk-weighted asset amounts for all of its cleared

transactions.

(2) *Trade exposure amount.* A clearing member Enterprise must calculate its trade exposure amount for a cleared transaction as follows:

(i) For a cleared transaction that is a derivative contract or a netting set of derivative contracts, trade exposure amount equals the EAD calculated using the methodology used to calculate EAD for derivative contracts set forth in § 1240.36(c), plus the fair value of the collateral posted by the clearing member Enterprise and held by the CCP in a manner that is not bankruptcy remote.

(ii) For a cleared transaction that is a repo-style transaction or netting set of repo-style transactions, trade exposure amount equals the EAD calculated under § 1240.39(b)(2) or (3), plus the fair value of the collateral posted by the clearing member Enterprise and held by the CCP in a manner that is not bankruptcy remote.

(3) *Cleared transaction risk weights.* (i) A clearing member Enterprise must apply a risk weight of 2 percent to the trade exposure amount for a cleared transaction with a QCCP.

(ii) For a cleared transaction with a CCP that is not a QCCP, a clearing member Enterprise must apply the risk weight applicable to the CCP according to subpart D of this part.

(iii) Notwithstanding paragraphs (c)(3)(i) and (ii) of this section, a clearing member Enterprise may apply a risk weight of zero percent to the trade exposure amount for a cleared transaction with a QCCP where the clearing member Enterprise is acting as a financial intermediary on behalf of a clearing member client, the transaction offsets another transaction that satisfies the requirements set forth in § 1240.3(a), and the

clearing member Enterprise is not obligated to reimburse the clearing member client in the event of the QCCP default.

(4) *Collateral.* (i) Notwithstanding any other requirement of this section, collateral posted by a clearing member Enterprise that is held by a custodian (in its capacity as a custodian) in a manner that is bankruptcy remote from the CCP, clearing member, and other clearing member clients of the clearing member, is not subject to a capital requirement under this section.

(ii) A clearing member Enterprise must calculate a risk-weighted asset amount for any collateral provided to a CCP, clearing member or a custodian in connection with a cleared transaction in accordance with requirements under this subpart D.

(d) *Default fund contributions*—(1) *General requirement.* A clearing member Enterprise must determine the risk-weighted asset amount for a default fund contribution to a CCP at least quarterly, or more frequently if, in the opinion of the Enterprise or FHFA, there is a material change in the financial condition of the CCP.

(2) *Risk-weighted asset amount for default fund contributions to nonqualifying CCPs.* A clearing member Enterprise's risk-weighted asset amount for default fund contributions to CCPs that are not QCCPs equals the sum of such default fund contributions multiplied by 1,250 percent, or an amount determined by FHFA, based on factors such as size, structure, and membership characteristics of the CCP and riskiness of its transactions, in cases where such default fund contributions may be unlimited.

(3) *Risk-weighted asset amount for default fund contributions to QCCPs.* A clearing member Enterprise's risk-weighted asset amount for default fund contributions to QCCPs equals the sum of its capital requirement, K_{CM} for each QCCP, as calculated

under the methodology set forth in paragraph (d)(4) of this section, multiplied by 12.5.

(4) *Capital requirement for default fund contributions to a QCCP.* A clearing member Enterprise's capital requirement for its default fund contribution to a QCCP (K_{CM}) is equal to:

$$K_{CM} = \max\left\{K_{CCP} * \left(\frac{DF^{pref}}{DF_{CCP} + DF^{pref}_{CCPCM}}\right); 0.16\ percent * DF^{pref}\right\}$$

Where:

K_{CCP} is the hypothetical capital requirement of the QCCP, as determined under paragraph (d)(5) of this section;

DF^{pref} is prefunded default fund contribution of the clearing member Enterprise to the QCCP;

DF_{CCP} is the QCCP's own prefunded amount that are contributed to the default waterfall and are junior or pari passu with prefunded default fund contributions of clearing members of the QCCP; and

DF^{pref}_{CCPCM} is the total prefunded default fund contributions from clearing members of the QCCP to the QCCP.

(5) *Hypothetical capital requirement of a QCCP.* Where a QCCP has provided its K_{CCP}, an Enterprise must rely on such disclosed figure instead of calculating K_{CCP} under this paragraph (d)(5), unless the Enterprise determines that a more conservative figure is appropriate based on the nature, structure, or characteristics of the QCCP. The hypothetical capital requirement of a QCCP (K_{CCP}), as determined by the Enterprise, is equal to:

$$K_{CCP} = \sum_{CM_i} EAD_i * 1.6\,percent$$

Where:

CM_i is each clearing member of the QCCP; and

EAD_i is the exposure amount of the QCCP to each clearing member of the QCCP, as determined under paragraph (d)(6) of this section.

(6) *EAD of a QCCP to a clearing member.* (i) The EAD of a QCCP to a clearing member is equal to the sum of the EAD for derivative contracts determined under paragraph (d)(6)(ii) of this section and the EAD for repo-style transactions determined under paragraph (d)(6)(iii) of this section.

(ii) With respect to any derivative contracts between the QCCP and the clearing member that are cleared transactions and any guarantees that the clearing member has provided to the QCCP with respect to performance of a clearing member client on a derivative contract, the EAD is equal to the exposure amount of the QCCP to the clearing member for all such derivative contracts and guarantees of derivative contracts calculated under SA-CCR in § 1240.36(c) (or, with respect to a QCCP located outside the United States, under a substantially identical methodology in effect in the jurisdiction) using a value of 10 business days for purposes of § 1240.36(c)(9)(iv); less the value of all collateral held by the QCCP posted by the clearing member or a client of the clearing member in connection with a derivative contract for which the clearing member has provided a guarantee to the QCCP and the amount of the prefunded default fund contribution of the clearing member to the QCCP.

(iii) With respect to any repo-style transactions between the QCCP and a clearing

member that are cleared transactions, EAD is equal to:

$$EAD_i = \max\{EBRM_i - IM_i - DF_i; 0\}$$

Where:

$EBRM_i$ is the exposure amount of the QCCP to each clearing member for all repo-style transactions between the QCCP and the clearing member, as determined under § 1240.39(b)(2) and without recognition of the initial margin collateral posted by the clearing member to the QCCP with respect to the repo-style transactions or the prefunded default fund contribution of the clearing member institution to the QCCP;

IM_i is the initial margin collateral posted by each clearing member to the QCCP with respect to the repo-style transactions; and

DF_i is the prefunded default fund contribution of each clearing member to the QCCP that is not already deducted in paragraph (d)(6)(ii) of this section.

(iv) EAD must be calculated separately for each clearing member's sub-client accounts and sub-house account (*i.e.*, for the clearing member's proprietary activities). If the clearing member's collateral and its client's collateral are held in the same default fund contribution account, then the EAD of that account is the sum of the EAD for the client-related transactions within the account and the EAD of the house-related transactions within the account. For purposes of determining such EADs, the independent collateral of the clearing member and its client must be allocated in proportion to the respective total amount of independent collateral posted by the clearing member to the QCCP.

(v) If any account or sub-account contains both derivative contracts and repo-style

transactions, the EAD of that account is the sum of the EAD for the derivative contracts within the account and the EAD of the repo-style transactions within the account. If independent collateral is held for an account containing both derivative contracts and repo-style transactions, then such collateral must be allocated to the derivative contracts and repo-style transactions in proportion to the respective product specific exposure amounts, calculated, excluding the effects of collateral, according to § 1240.39(b) for repo-style transactions and to § 1240.36(c)(5) for derivative contracts.

11. Revise § 1240.39 to read as follows:

§ 1240.39 Collateralized transactions.

(a) *General.* (1) An Enterprise may use the following methodologies to recognize the benefits of financial collateral (other than with respect to a retained CRT exposure) in mitigating the counterparty credit risk of repo-style transactions, eligible margin loans, collateralized OTC derivative contracts and single product netting sets of such transactions:

(i) The collateral haircut approach set forth in paragraph (b)(2) of this section; and

(ii) For single product netting sets of repo-style transactions and eligible margin loans, the simple VaR methodology set forth in paragraph (b)(3) of this section.

(2) An Enterprise may use any combination of the two methodologies for collateral recognition; however, it must use the same methodology for similar exposures or transactions.

(b) *EAD for eligible margin loans and repo-style transactions*—(1) *General.* An Enterprise may recognize the credit risk mitigation benefits of financial collateral that secures an eligible margin loan, repo-style transaction, or single-product netting set of

such transactions by determining the EAD of the exposure using:

(i) The collateral haircut approach described in paragraph (b)(2) of this section; or

(ii) For netting sets only, the simple VaR methodology described in paragraph (b)(3) of this section.

(2) *Collateral haircut approach*—(i) *EAD equation.* An Enterprise may determine EAD for an eligible margin loan, repo-style transaction, or netting set by setting EAD equal to

$$\max\{0, [(\Sigma E - \Sigma C) + \Sigma(E_s \times H_s) + \Sigma(E_{fx} \times H_{fx})]\},$$

Where:

(A) ΣE equals the value of the exposure (the sum of the current fair values of all instruments, gold, and cash the Enterprise has lent, sold subject to repurchase, or posted as collateral to the counterparty under the transaction (or netting set));

(B) ΣC equals the value of the collateral (the sum of the current fair values of all instruments, gold, and cash the Enterprise has borrowed, purchased subject to resale, or taken as collateral from the counterparty under the transaction (or netting set));

(C) E_s equals the absolute value of the net position in a given instrument or in gold (where the net position in a given instrument or in gold equals the sum of the current fair values of the instrument or gold the Enterprise has lent, sold subject to repurchase, or posted as collateral to the counterparty minus the sum of the current fair values of that same instrument or gold the Enterprise has borrowed, purchased subject to resale, or taken as collateral from the counterparty);

(D) H_s equals the market price volatility haircut appropriate to the instrument or gold referenced in Es;

(E) E_{fx} equals the absolute value of the net position of instruments and cash in a currency that is different from the settlement currency (where the net position in a given currency equals the sum of the current fair values of any instruments or cash in the currency the Enterprise has lent, sold subject to repurchase, or posted as collateral to the counterparty minus the sum of the current fair values of any instruments or cash in the currency the Enterprise has borrowed, purchased subject to resale, or taken as collateral from the counterparty); and

(F) H_{fx} equals the haircut appropriate to the mismatch between the currency referenced in Efx and the settlement currency.

(ii) *Standard supervisory haircuts.* Under the standard supervisory haircuts approach:

(A) An Enterprise must use the haircuts for market price volatility (Hs) in Table 1 to this section as adjusted in certain circumstances as provided in paragraphs (b)(2)(ii)(C) and (D) of this section;

TABLE 1 TO § 1240.39−STANDARD SUPERVISORY MARKET PRICE VOLATILITY HAIRCUTS[1]

Residual maturity	Haircut (in percent) assigned based on: Sovereign issuers risk weight under §1240.32[2] (in percent)			Non-sovereign issuers risk weight under §1240.32 (in percent)			Investment grade securitization exposures (in percent)
	Zero	20 or 50	100	20	50	100	
Less than or equal to 1 year	0.5	1.0	15.0	1.0	2.0	4.0	4.0
Greater than 1 year and less than or equal to 5 years	2.0	3.0	15.0	4.0	6.0	8.0	12.0
Greater than 5 years	4.0	6.0	15.0	8.0	12.0	16.0	24.0
Main index equities (including convertible bonds) and gold				15.0			
Other publicly traded equities (including convertible bonds)				25.0			
Mutual funds				Highest haircut applicable to any security in which the fund can invest.			
Cash collateral held				Zero			
Other exposure types				25.0			

[1] The market price volatility haircuts in Table 1 to this section are based on a 10 business-day holding period.

[2] Includes a foreign PSE that receives a zero percent risk weight.

(B) For currency mismatches, an Enterprise must use a haircut for foreign exchange rate volatility (H_{fx}) of 8 percent, as adjusted in certain circumstances as provided in paragraphs (b)(2)(ii)(C) and (D) of this section.

(C) For repo-style transactions and client-facing derivative transactions, an Enterprise may multiply the supervisory haircuts provided in paragraphs (b)(2)(ii)(A) and (B) of this section by the square root of 1⁄2 (which equals 0.707107). If the Enterprise determines that a longer holding period is appropriate for client-facing derivative transactions, then it must use a larger scaling factor to adjust for the longer holding period pursuant to paragraph (b)(2)(ii)(F) of this section.

(D) An Enterprise must adjust the supervisory haircuts upward on the basis of a holding period longer than ten business days (for eligible margin loans) or five business days (for repo-style transactions), using the formula provided in paragraph (b)(2)(ii)(F) of this section where the conditions in this paragraph (b)(2)(ii)(D) apply. If the number of trades in a netting set exceeds 5,000 at any time during a quarter, an Enterprise must adjust the supervisory haircuts upward on the basis of a minimum holding period of twenty business days for the following quarter (except when an Enterprise is calculating EAD for a cleared transaction under § 1240.37). If a netting set contains one or more trades involving illiquid collateral, an Enterprise must adjust the supervisory haircuts upward on the basis of a minimum holding period of twenty business days. If over the two previous quarters more than two margin disputes on a netting set have occurred that lasted longer than the holding period, then the Enterprise must adjust the supervisory haircuts upward for that netting set on the basis of a minimum holding period that is at least two times the minimum holding period for that netting set.

(E)(*1*) An Enterprise must adjust the supervisory haircuts upward on the basis of a holding period longer than ten business days for collateral associated with derivative contracts (five business days for client-facing derivative contracts) using the formula provided in paragraph (b)(2)(ii)(F) of this section where the conditions in this paragraph (b)(2)(ii)(E)(*1*) apply. For collateral associated with a derivative contract that is within a netting set that is composed of more than 5,000 derivative contracts that are not cleared transactions, an Enterprise must use a minimum holding period of twenty business days. If a netting set contains one or more trades involving illiquid collateral or a derivative contract that cannot be easily replaced, an Enterprise must use a minimum holding period

of twenty business days.

(*2*) Notwithstanding paragraph (b)(2)(ii)(A) or (C) or (b)(2)(ii)(E)(*1*) of this section, for collateral associated with a derivative contract in a netting set under which more than two margin disputes that lasted longer than the holding period occurred during the two previous quarters, the minimum holding period is twice the amount provided under paragraph (b)(2)(ii)(A) or (C) or (b)(2)(ii)(E)(*1*) of this section.

(F) An Enterprise must adjust the standard supervisory haircuts upward, pursuant to the adjustments provided in paragraphs (b)(2)(ii)(C) through (E) of this section, using the following formula:

$$H_A = H_S \sqrt{\frac{T_M}{T_S}}$$

Where:

T_M equals a holding period of longer than 10 business days for eligible margin loans and derivative contracts other than client-facing derivative transactions or longer than 5 business days for repo-style transactions and client-facing derivative transactions;

H_s equals the standard supervisory haircut; and

T_s equals 10 business days for eligible margin loans and derivative contracts other than client-facing derivative transactions or 5 business days for repo-style transactions and client-facing derivative transactions.

(G) If the instrument an Enterprise has lent, sold subject to repurchase, or posted as collateral does not meet the definition of financial collateral, the Enterprise must use a 25.0 percent haircut for market price volatility (H_s).

(iii) *Own internal estimates for haircuts.* With the prior written notice to FHFA, an Enterprise may calculate haircuts (H_s and H_{fx}) using its own internal estimates of the volatilities of market prices and foreign exchange rates.

(A) To use its own internal estimates, an Enterprise must satisfy the following minimum quantitative standards:

(*1*) An Enterprise must use a 99th percentile one-tailed confidence interval.

(*2*) The minimum holding period for a repo-style transaction is five business days and for an eligible margin loan is ten business days except for transactions or netting sets for which paragraph (b)(2)(iii)(A)(*3*) of this section applies. When an Enterprise calculates an own-estimates haircut on a T_N-day holding period, which is different from the minimum holding period for the transaction type, the applicable haircut (H_M) is calculated using the following square root of time formula:

$$H_M = H_N \sqrt{\frac{T_M}{T_N}}$$

Where:

(*i*) T_M equals 5 for repo-style transactions and 10 for eligible margin loans;

(*ii*) T_N equals the holding period used by the Enterprise to derive H_N; and

(*iii*) H_N equals the haircut based on the holding period T_N

(*3*) If the number of trades in a netting set exceeds 5,000 at any time during a quarter, an Enterprise must calculate the haircut using a minimum holding period of twenty business days for the following quarter (except when an Enterprise is calculating EAD for a cleared transaction under § 1240.37). If a netting set contains one or more trades involving illiquid collateral or an OTC derivative that cannot be easily replaced, an

Enterprise must calculate the haircut using a minimum holding period of twenty business days. If over the two previous quarters more than two margin disputes on a netting set have occurred that lasted more than the holding period, then the Enterprise must calculate the haircut for transactions in that netting set on the basis of a holding period that is at least two times the minimum holding period for that netting set.

(*4*) An Enterprise is required to calculate its own internal estimates with inputs calibrated to historical data from a continuous 12-month period that reflects a period of significant financial stress appropriate to the security or category of securities.

(*5*) An Enterprise must have policies and procedures that describe how it determines the period of significant financial stress used to calculate the Enterprise's own internal estimates for haircuts under this section and must be able to provide empirical support for the period used. The Enterprise must obtain the prior approval of FHFA for, and notify FHFA if the Enterprise makes any material changes to, these policies and procedures.

(*6*) Nothing in this section prevents FHFA from requiring an Enterprise to use a different period of significant financial stress in the calculation of own internal estimates for haircuts.

(*7*) An Enterprise must update its data sets and calculate haircuts no less frequently than quarterly and must also reassess data sets and haircuts whenever market prices change materially.

(B) With respect to debt securities that are investment grade, an Enterprise may calculate haircuts for categories of securities. For a category of securities, the Enterprise must calculate the haircut on the basis of internal volatility estimates for securities in that

category that are representative of the securities in that category that the Enterprise has lent, sold subject to repurchase, posted as collateral, borrowed, purchased subject to resale, or taken as collateral. In determining relevant categories, the Enterprise must at a minimum take into account:

(*1*) The type of issuer of the security;

(*2*) The credit quality of the security;

(*3*) The maturity of the security; and

(*4*) The interest rate sensitivity of the security.

(C) With respect to debt securities that are not investment grade and equity securities, an Enterprise must calculate a separate haircut for each individual security.

(D) Where an exposure or collateral (whether in the form of cash or securities) is denominated in a currency that differs from the settlement currency, the Enterprise must calculate a separate currency mismatch haircut for its net position in each mismatched currency based on estimated volatilities of foreign exchange rates between the mismatched currency and the settlement currency.

(E) An Enterprise's own estimates of market price and foreign exchange rate volatilities may not take into account the correlations among securities and foreign exchange rates on either the exposure or collateral side of a transaction (or netting set) or the correlations among securities and foreign exchange rates between the exposure and collateral sides of the transaction (or netting set).

(3) *Simple VaR methodology.* With the prior written notice to FHFA, an Enterprise may estimate EAD for a netting set using a VaR model that meets the requirements in paragraph (b)(3)(iii) of this section. In such event, the Enterprise must

set EAD equal to max {0, [(ΣE − ΣC) + PFE]}, where:

(i) ΣE equals the value of the exposure (the sum of the current fair values of all instruments, gold, and cash the Enterprise has lent, sold subject to repurchase, or posted as collateral to the counterparty under the netting set);

(ii) ΣC equals the value of the collateral (the sum of the current fair values of all instruments, gold, and cash the Enterprise has borrowed, purchased subject to resale, or taken as collateral from the counterparty under the netting set); and

(iii) PFE (potential future exposure) equals the Enterprise's empirically based best estimate of the 99th percentile, one-tailed confidence interval for an increase in the value of (ΣE − ΣC) over a five-business-day holding period for repo-style transactions, or over a ten-business-day holding period for eligible margin loans except for netting sets for which paragraph (b)(3)(iv) of this section applies using a minimum one-year historical observation period of price data representing the instruments that the Enterprise has lent, sold subject to repurchase, posted as collateral, borrowed, purchased subject to resale, or taken as collateral. The Enterprise must validate its VaR model by establishing and maintaining a rigorous and regular backtesting regime.

(iv) If the number of trades in a netting set exceeds 5,000 at any time during a quarter, an Enterprise must use a twenty-business-day holding period for the following quarter (except when an Enterprise is calculating EAD for a cleared transaction under § 1240.37). If a netting set contains one or more trades involving illiquid collateral, an Enterprise must use a twenty-business-day holding period. If over the two previous quarters more than two margin disputes on a netting set have occurred that lasted more than the holding period, then the Enterprise must set its PFE for that netting set equal to

an estimate over a holding period that is at least two times the minimum holding period for that netting set.

12. Amend § 1240.41 by redesignating paragraphs (c)(6) as (c)(7) and adding new paragraph (c)(6) to read as follows.

§ 1240.41 Operational requirements for CRT and other securitization exposures.

* * * * *

(c) * * *

(5) Any clean-up calls relating to the credit risk transfer are eligible clean-up calls;

(6) Any time-based calls relating to the credit risk transfer are eligible time-based calls; and

(7) The Enterprise includes in its periodic disclosures under the Federal securities laws, or in other appropriate public disclosures, a reasonably detailed description of -

(i) The material recourse or other risks that might reduce the effectiveness of the credit risk transfer in transferring the credit risk on the underlying exposures to third parties; and

(ii) Each condition under paragraph (a) of this section (governing traditional securitizations) or paragraph (b) of this section (governing synthetic securitizations) that is not satisfied by the credit risk transfer and the reasons that each such condition is not satisfied.

* * * * *

13. Amend § 1240.42 by revising paragraph (f) to read as follows.

§ 1240.42 Risk-weighted assets for CRT and other securitization exposures.

(f) *Interest-only mortgage-backed securities.* For non-credit-enhancing interest-only mortgage-backed securities that are not subject to § 1240.32(c), the risk weight may not be less than 100 percent.

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14. Amend § 1240.400 by:

(a) Revising paragraph (c)(1); and

(b) Removing paragraph (d).

The revision reads as follows:

§ 1240.400 Stability capital buffer.

* * * * *

(c) * * *

(1) *Increase in stability capital buffer.* An increase in the stability capital buffer of an Enterprise under this section will take effect (*i.e.,* be incorporated into the maximum payout ratio under Table 1 to paragraph (b)(5) in § 1240.11) on January 1 of the year that is one full calendar year after the increased stability capital buffer was calculated, provided that where a stability capital buffer under paragraph (c)(2) of this section is calculated to be a decrease in the stability capital buffer from the previously calculated scheduled increase applicable on the same January 1, the decreased stability capital buffer under paragraph (c)(2) of this section shall take effect.

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/s/ February 22, 2023

Clinton Jones,
General Counsel, Federal Housing Finance Agency.