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end date rather than preparing a new projection each quarter.

(3) *Unrealized holding gains and losses on available-for-sale debt securities.* The deferred tax effects of any unrealized holding gains and losses on available-for-sale debt securities may be excluded from the determination of the amount of deferred tax assets that are dependent upon future taxable income and the calculation of the maximum allowable amount of such assets. If these deferred tax effects are excluded, this treatment must be followed consistently over time.

§§ 167.14–167.19 [Reserved]

APPENDIXES A–B TO PART 167
[RESERVED]

APPENDIX C TO PART 167—RISK-BASED CAPITAL REQUIREMENTS—INTERNAL-RATINGS-BASED AND ADVANCED MEASUREMENT APPROACHES

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PART I. GENERAL PROVISIONS

Section 1. Purpose, Applicability, Reservation of Authority, and Principle of Conservatism

(a) *Purpose.* This appendix establishes:

(1) Minimum qualifying criteria for Federal savings associations using Federal savings association-specific internal risk measurement and management processes for calculating risk-based capital requirements;

(2) Methodologies for such Federal savings associations to calculate their risk-based capital requirements; and

(3) Public disclosure requirements for such Federal savings associations.

(b) *Applicability*. (1) This appendix applies to a Federal savings association that:

(i) Has consolidated assets, as reported on the most recent year-end Consolidated Reports of Condition and Income (Call Report) or Thrift Financial Report (TFR), as appropriate, equal to $250 billion or more;

(ii) Has consolidated total on-balance sheet foreign exposure at the most recent year-end equal to $10 billion or more (where total on-balance sheet foreign exposure equals total cross-border claims less claims with head office or guarantor located in another country plus redistributed guaranteed amounts to the country of head office or guarantor plus local country claims on local residents plus revaluation gains on foreign exchange and derivative products, calculated in accordance with the Federal Financial Institutions Examination Council (FFIEC) 009 Country Exposure Report);

(iii) Is a subsidiary of a depository institution that uses 12 CFR part 3, appendix C, 12 CFR part 208, appendix F, 12 CFR part 325, appendix D, or 12 CFR part 167, appendix C, to calculate its risk-based capital requirements; or

(iv) Is a subsidiary of a bank holding company that uses 12 CFR part 225, appendix G, to calculate its risk-based capital requirements.

(2) Any Federal savings association may elect to use this appendix to calculate its risk-based capital requirements.

(3) A Federal savings association that is subject to this appendix must use this appendix unless the OCC determines in writing that application of this appendix is not appropriate in light of the savings association's asset size, level of complexity, risk profile, or scope of operations. In making a determination under this paragraph, the OCC will apply notice and response procedures in the same manner and to the same extent as the notice and response procedures in §167.3(d).

(c) *Reservation of authority*—(1) *Additional capital in the aggregate*. The OCC may require a Federal savings association to hold an amount of capital greater than otherwise required under this appendix if the OCC determines that the savings association's risk-based capital requirement under this appendix is not commensurate with the savings association's credit, market, operational, or other risks. In making a determination under this paragraph, the OCC will apply notice and response procedures in the same manner and to the same extent as the notice and response procedures in §167.3(d).

(2) *Specific risk-weighted asset amounts*. (i) If the OCC determines that the risk-weighted asset amount calculated under this appendix by the savings association for one or more exposures is not commensurate with the risks associated with those exposures, the OCC may require the savings association to assign a different risk-weighted asset amount to the exposures, to assign different risk parameters to the exposures (if the exposures are wholesale or retail exposures), or to use different model assumptions for the exposures (if relevant), all as specified by the OCC.

(ii) If the OCC determines that the risk-weighted asset amount for operational risk produced by the savings association under this appendix is not commensurate with the operational risks of the savings association, the OCC may require the savings association to assign a different risk-weighted asset amount for operational risk, to change elements of its operational risk analytical framework, including distributional and dependence assumptions, or to make other changes to the savings association's operational risk management processes, data and assessment systems, or quantification systems, all as specified by the OCC.

(3) *Regulatory capital treatment of unconsolidated entities*. The OCC may find that the capital treatment for an exposure to a transaction not subject to consolidation on the savings association's balance sheet does not appropriately reflect the risks imposed on

the savings association. Accordingly, the OCC may require the savings association to treat the transaction as if it were consolidated on the savings association's balance sheet. The OCC will look to the substance of and risk associated with the transaction as well as other relevant factors in determining whether to require such treatment and in calculating risk-based capital as the OCC deems appropriate.

(4) *Other supervisory authority*. Nothing in this appendix limits the authority of the OCC under any other provision of law or regulation to take supervisory or enforcement action, including action to address unsafe or unsound practices or conditions, deficient capital levels, or violations of law.

(d) *Principle of conservatism.* Notwithstanding the requirements of this appendix, a Federal savings association may choose not to apply a provision of this appendix to one or more exposures, provided that:

(1) The savings association can demonstrate on an ongoing basis to the satisfaction of the OCC that not applying the provision would, in all circumstances, unambiguously generate a risk-based capital requirement for each such exposure greater than that which would otherwise be required under this appendix;

(2) The savings association appropriately manages the risk of each such exposure;

(3) The savings association notifies the OCC in writing prior to applying this principle to each such exposure; and

(4) The exposures to which the savings association applies this principle are not, in the aggregate, material to the savings association.

Section 2. Definitions

Advanced internal ratings-based (IRB) systems means a Federal savings association's internal risk rating and segmentation system; risk parameter quantification system; data management and maintenance system; and control, oversight, and validation system for credit risk of wholesale and retail exposures.

Advanced systems means a Federal savings association's advanced IRB systems, operational risk management processes, operational risk data and assessment systems, operational risk quantification systems, and, to the extent the savings association uses the following systems, the internal models methodology, double default excessive correlation detection process, IMA for equity exposures, and IAA for securitization exposures to ABCP programs.

Affiliate with respect to a company means any company that controls, is controlled by, or is under common control with, the company.

Applicable external rating means:

(1) With respect to an exposure that has multiple external ratings assigned by NRSROs, the lowest solicited external rating assigned to the exposure by any NRSRO; and

(2) With respect to an exposure that has a single external rating assigned by an NRSRO, the external rating assigned to the exposure by the NRSRO.

Applicable inferred rating means:

(1) With respect to an exposure that has multiple inferred ratings, the lowest inferred rating based on a solicited external rating; and

(2) With respect to an exposure that has a single inferred rating, the inferred rating.

Asset-backed commercial paper (ABCP) program means a program that primarily issues commercial paper that:

(1) Has an external rating; and

(2) Is backed by underlying exposures held in a bankruptcy-remote SPE.

Asset-backed commercial paper (ABCP) program sponsor means a Federal savings association that:

(1) Establishes an ABCP program;

(2) Approves the sellers permitted to participate in an ABCP program;

(3) Approves the exposures to be purchased by an ABCP program; or

(4) Administers the ABCP program by monitoring the underlying exposures, underwriting or otherwise arranging for the placement of debt or other obligations issued by the program, compiling monthly reports, or ensuring compliance with the program documents and with the program's credit and investment policy.

Backtesting means the comparison of a Federal savings association'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.

Bank holding company is defined in section 2 of the Bank Holding Company Act (12 U.S.C. 1841).

Benchmarking means the comparison of a Federal savings association's internal estimates with relevant internal and external data or with estimates based on other estimation techniques.

Business environment and internal control factors means the indicators of a Federal savings association's operational risk profile that reflect a current and forward-looking assessment of the savings association's underlying business risk factors and internal control environment.

Carrying value means, with respect to an asset, the value of the asset on the balance sheet of the Federal savings association, determined in accordance with GAAP.

Clean-up call means a contractual provision that permits an originating Federal savings association or servicer to call securitization exposures before their stated maturity or call date. See also *eligible clean-up call*.

Commodity derivative contract means a commodity-linked swap, purchased commodity-linked option, forward commodity-linked contract, or any other instrument linked to commodities that gives rise to similar counterparty credit risks.

Company means a corporation, partnership, limited liability company, depository institution, business trust, special purpose entity, association, or similar organization.

Control. A person or company *controls* a company if it:

(1) Owns, controls, or holds with power to vote 25 percent or more of a class of voting securities of the company; or

(2) Consolidates the company for financial reporting purposes.

Controlled early amortization provision means an early amortization provision that meets all the following conditions:

(1) The originating Federal savings association has appropriate policies and procedures to ensure that it has sufficient capital and liquidity available in the event of an early amortization;

(2) Throughout the duration of the securitization (including the early amortization period), there is the same pro rata sharing of interest, principal, expenses, losses, fees, recoveries, and other cash flows from the underlying exposures based on the originating Federal savings association's and the investors' relative shares of the underlying exposures outstanding measured on a consistent monthly basis;

(3) The amortization period is sufficient for at least 90 percent of the total underlying exposures outstanding at the beginning of the early amortization period to be repaid or recognized as in default; and

(4) The schedule for repayment of investor principal is not more rapid than would be allowed by straight-line amortization over an 18-month period.

Credit derivative means a financial contract executed under standard industry credit derivative documentation that allows one party (the protection purchaser) to transfer the credit risk of one or more exposures (reference exposure) to another party (the protection provider). See also *eligible credit derivative*.

Credit-enhancing interest-only strip (CEIO) means an on-balance sheet asset that, in form or in substance:

(1) Represents a contractual right to receive some or all of the interest and no more than a minimal amount of principal due on the underlying exposures of a securitization; and

(2) Exposes the holder to credit risk directly or indirectly associated with the underlying exposures that exceeds a pro rata share of the holder's claim on the underlying exposures, whether through subordination provisions or other credit-enhancement techniques.

Credit-enhancing representations and warranties means representations and warranties that are made or assumed in connection with a transfer of underlying exposures (including loan servicing assets) and that obligate a Federal savings association to protect another party from losses arising from the credit risk of the underlying exposures. Credit-enhancing representations and warranties include provisions to protect a party from losses resulting from the default or nonperformance of

the obligors of the underlying exposures or from an insufficiency in the value of the collateral backing the underlying exposures. Credit-enhancing representations and warranties do not include:

(1) Early default clauses and similar warranties that permit the return of, or premium refund clauses that cover, first-lien residential mortgage exposures for a period not to exceed 120 days from the date of transfer, provided that the date of transfer is within one year of origination of the residential mortgage exposure;

(2) Premium refund clauses that cover underlying exposures guaranteed, in whole or in part, by the U.S. government, a U.S. government agency, or a U.S. government sponsored enterprise, provided that the clauses are for a period not to exceed 120 days from the date of transfer; or

(3) Warranties that permit the return of underlying exposures in instances of misrepresentation, fraud, or incomplete documentation.

Credit risk mitigant means collateral, a credit derivative, or a guarantee.

Credit-risk-weighted assets means 1.06 multiplied by the sum of:

(1) Total wholesale and retail risk-weighted assets;

(2) Risk-weighted assets for securitization exposures; and

(3) Risk-weighted assets for equity exposures.

Current exposure means, with respect to a netting set, the larger of zero or the market value of a transaction or portfolio of transactions within the netting set that would be lost upon default of the counterparty, assuming no recovery on the value of the transactions. Current exposure is also called replacement cost.

Default—(1) *Retail*. (i) A retail exposure of a Federal savings association is in default if:

(A) The exposure is 180 days past due, in the case of a residential mortgage exposure or revolving exposure;

(B) The exposure is 120 days past due, in the case of all other retail exposures; or

(C) The savings association has taken a full or partial charge-off, write-down of principal, or material negative fair value adjustment of principal on the exposure for credit-related reasons.

(ii) Notwithstanding paragraph (1)(i) of this definition, for a retail exposure held by a non-U.S. subsidiary of the savings association that is subject to an internal ratings-based approach to capital adequacy consistent with the Basel Committee on Banking Supervision's ''International Convergence of Capital Measurement and Capital Standards: A Revised Framework'' in a non-U.S. jurisdiction, the savings association may elect to use the definition of default that is used in that jurisdiction, provided that the savings association has obtained prior approval from the OCC to use the definition of default in that jurisdiction.

(iii) A retail exposure in default remains in default until the savings association has reasonable assurance of repayment and performance for all contractual principal and interest payments on the exposure.

(2) *Wholesale*. (i) A Federal savings association's wholesale obligor is in default if:

(A) The savings association determines that the obligor is unlikely to pay its credit obligations to the savings association in full, without recourse by the savings association to actions such as realizing collateral (if held); or

(B) The obligor is past due more than 90 days on any material credit obligation(s) to the savings association.[1]

(ii) An obligor in default remains in default until the savings association has reasonable assurance of repayment and performance for all contractual principal and interest payments on all exposures of the savings association to the obligor (other than exposures that have been fully written-down or charged-off).

Dependence means a measure of the association among operational losses across and within units of measure.

Depository institution is defined in section 3 of the Federal Deposit Insurance Act (12 U.S.C. 1813).

Derivative contract means a financial contract whose value is derived from

[1] Overdrafts are past due once the obligor has breached an advised limit or been advised of a limit smaller than the current outstanding balance.

the values of one or more underlying assets, reference rates, or indices of asset values or reference rates. Derivative contracts include interest rate derivative contracts, exchange rate derivative contracts, equity derivative contracts, commodity derivative contracts, credit derivatives, and any other instrument that poses similar counterparty credit risks. Derivative contracts also include unsettled securities, commodities, and foreign exchange transactions with a contractual settlement or delivery lag that is longer than the lesser of the market standard for the particular instrument or five business days.

Early amortization provision means a provision in the documentation governing a securitization that, when triggered, causes investors in the securitization exposures to be repaid before the original stated maturity of the securitization exposures, unless the provision:

(1) Is triggered solely by events not directly related to the performance of the underlying exposures or the originating Federal savings association (such as material changes in tax laws or regulations); or

(2) Leaves investors fully exposed to future draws by obligors on the underlying exposures even after the provision is triggered.

Economic downturn conditions means, with respect to an exposure held by the savings association, those conditions in which the aggregate default rates for that exposure's wholesale or retail exposure subcategory (or subdivision of such subcategory selected by the savings association) in the exposure's national jurisdiction (or subdivision of such jurisdiction selected by the savings association) are significantly higher than average.

Effective maturity (M) of a wholesale exposure means:

(1) For wholesale exposures other than repo-style transactions, eligible margin loans, and OTC derivative contracts described in paragraph (2) or (3) of this definition:

(i) The weighted-average remaining maturity (measured in years, whole or fractional) of the expected contractual cash flows from the exposure, using the undiscounted amounts of the cash flows as weights; or

(ii) The nominal remaining maturity (measured in years, whole or fractional) of the exposure.

(2) For repo-style transactions, eligible margin loans, and OTC derivative contracts subject to a qualifying master netting agreement for which the savings association does not apply the internal models approach in paragraph (d) of section 32 of this appendix, the weighted-average remaining maturity (measured in years, whole or fractional) of the individual transactions subject to the qualifying master netting agreement, with the weight of each individual transaction set equal to the notional amount of the transaction.

(3) For repo-style transactions, eligible margin loans, and OTC derivative contracts for which the savings association applies the internal models approach in paragraph (d) of section 32 of this appendix, the value determined in paragraph (d)(4) of section 32 of this appendix.

Effective notional amount means, for an eligible guarantee or eligible credit derivative, the lesser of the contractual notional amount of the credit risk mitigant and the EAD of the hedged exposure, multiplied by the percentage coverage of the credit risk mitigant. For example, the effective notional amount of an eligible guarantee that covers, on a pro rata basis, 40 percent of any losses on a $100 bond would be $40.

Eligible clean-up call means a clean-up call that:

(1) Is exercisable solely at the discretion of the originating Federal savings association or servicer;

(2) Is not structured to avoid allocating losses to securitization exposures held by investors or otherwise structured to provide credit enhancement to the securitization; and

(3)(i) For a traditional securitization, is only exercisable when 10 percent or less of the principal amount of the underlying exposures or securitization exposures (determined as of the inception of the securitization) is outstanding; or

(ii) For a synthetic securitization, is only exercisable when 10 percent or less

of the principal amount of the reference portfolio of underlying exposures (determined as of the inception of the securitization) is outstanding.

Eligible credit derivative means a credit derivative in the form of a credit default swap, nth-to-default swap, total return swap, or any other form of credit derivative approved by the OCC, provided that:

(1) The contract meets the requirements of an eligible guarantee and has been confirmed by the protection purchaser and the protection provider;

(2) Any assignment of the contract has been confirmed by all relevant parties;

(3) If the credit derivative is a credit default swap or nth-to-default swap, the contract includes the following credit events:

(i) Failure to pay any amount due under the terms of the reference exposure, subject to any applicable minimal payment threshold that is consistent with standard market practice and with a grace period that is closely in line with the grace period of the reference exposure; and

(ii) Bankruptcy, insolvency, or inability of the obligor on the reference exposure to pay its debts, or its failure or admission in writing of its inability generally to pay its debts as they become due, and similar events;

(4) The terms and conditions dictating the manner in which the contract is to be settled are incorporated into the contract;

(5) If the contract allows for cash settlement, the contract incorporates a robust valuation process to estimate loss reliably and specifies a reasonable period for obtaining post-credit event valuations of the reference exposure;

(6) If the contract requires the protection purchaser to transfer an exposure to the protection provider at settlement, the terms of at least one of the exposures that is permitted to be transferred under the contract provides that any required consent to transfer may not be unreasonably withheld;

(7) If the credit derivative is a credit default swap or nth-to-default swap, the contract clearly identifies the parties responsible for determining whether a credit event has occurred, specifies that this determination is not the sole responsibility of the protection provider, and gives the protection purchaser the right to notify the protection provider of the occurrence of a credit event; and

(8) If the credit derivative is a total return swap and the savings association records net payments received on the swap as net income, the savings association records offsetting deterioration in the value of the hedged exposure (either through reductions in fair value or by an addition to reserves).

Eligible credit reserves means all general allowances that have been established through a charge against earnings to absorb credit losses associated with on- or off-balance sheet wholesale and retail exposures, including the allowance for loan and lease losses (ALLL) associated with such exposures but excluding specific reserves created against recognized losses.

Eligible double default guarantor, with respect to a guarantee or credit derivative obtained by a Federal savings association, means:

(1) *U.S.-based entities*. A depository institution, a bank holding company, a savings and loan holding company (as defined in 12 U.S.C. 1467a) provided all or substantially all of the holding company's activities are permissible for a financial holding company under 12 U.S.C. 1843(k), a securities broker or dealer registered with the SEC under the Securities Exchange Act of 1934 (15 U.S.C. 78o *et seq.*), or an insurance company in the business of providing credit protection (such as a monoline bond insurer or re-insurer) that is subject to supervision by a state insurance regulator, if:

(i) At the time the guarantor issued the guarantee or credit derivative or at any time thereafter, the savings association assigned a PD to the guarantor's rating grade that was equal to or lower than the PD associated with a long-term external rating in the third-highest investment-grade rating category; and

(ii) The savings association currently assigns a PD to the guarantor's rating grade that is equal to or lower than the PD associated with a long-term external rating in the lowest investment-grade rating category; or

(2) *Non-U.S.-based entities.* A foreign bank (as defined in §211.2 of the Federal Reserve Board's Regulation K (12 CFR 211.2)), a non-U.S.-based securities firm, or a non-U.S.-based insurance company in the business of providing credit protection, if:

(i) The savings association demonstrates that the guarantor is subject to consolidated supervision and regulation comparable to that imposed on U.S. depository institutions, securities broker-dealers, or insurance companies (as the case may be), or has issued and outstanding an unsecured long-term debt security without credit enhancement that has a long-term applicable external rating of at least investment grade;

(ii) At the time the guarantor issued the guarantee or credit derivative or at any time thereafter, the savings association assigned a PD to the guarantor's rating grade that was equal to or lower than the PD associated with a long-term external rating in the third-highest investment-grade rating category; and

(iii) The savings association currently assigns a PD to the guarantor's rating grade that is equal to or lower than the PD associated with a long-term external rating in the lowest investment-grade rating category.

Eligible guarantee means a guarantee that:

(1) Is written and unconditional;

(2) Covers all or a pro rata portion of all contractual payments of the obligor on the reference exposure;

(3) Gives the beneficiary a direct claim against the protection provider;

(4) Is not unilaterally cancelable by the protection provider for reasons other than the breach of the contract by the beneficiary;

(5) Is legally enforceable against the protection provider in a jurisdiction where the protection provider has sufficient assets against which a judgment may be attached and enforced;

(6) Requires the protection provider to make payment to the beneficiary on the occurrence of a default (as defined in the guarantee) of the obligor on the reference exposure in a timely manner without the beneficiary first having to take legal actions to pursue the obligor for payment;

(7) Does not increase the beneficiary's cost of credit protection on the guarantee in response to deterioration in the credit quality of the reference exposure; and

(8) Is not provided by an affiliate of the savings association, unless the affiliate is an insured depository institution, bank, securities broker or dealer, or insurance company that:

(i) Does not control the savings association; and

(ii) Is subject to consolidated supervision and regulation comparable to that imposed on U.S. depository institutions, securities broker-dealers, or insurance companies (as the case may be).

Eligible margin loan means an extension of credit where:

(1) The extension of credit is collateralized exclusively by liquid and readily marketable debt or equity securities, gold, or conforming residential mortgages;

(2) The collateral is marked to market daily, and the transaction is subject to daily margin maintenance requirements;

(3) The extension of credit is conducted under an agreement that provides the savings association the right to accelerate and terminate the extension of credit and to liquidate or set off collateral promptly upon an event of default (including upon an event of bankruptcy, insolvency, or similar proceeding) of the counterparty, provided that, in any such case, any exercise of rights under the agreement will not be stayed or avoided under applicable law in the relevant jurisdictions;[2] and

(4) The savings association has conducted sufficient legal review to conclude with a well-founded basis (and maintains sufficient written documentation of that legal review) that

[2]This requirement is met where all transactions under the agreement are (i) executed under U.S. law and (ii) constitute ''securities contracts'' under section 555 of the Bankruptcy Code (11 U.S.C. 555), qualified financial contracts under section 11(e)(8) of the Federal Deposit Insurance Act (12 U.S.C. 1821(e)(8)), or netting contracts between or among financial institutions under sections 401–407 of the Federal Deposit Insurance Corporation Improvement Act of 1991 (12 U.S.C. 4401–4407) or the Federal Reserve Board's Regulation EE (12 CFR part 231).

the agreement meets the requirements of paragraph (3) of this definition and is legal, valid, binding, and enforceable under applicable law in the relevant jurisdictions.

Eligible operational risk offsets means amounts, not to exceed expected operational loss, that:

(1) Are generated by internal business practices to absorb highly predictable and reasonably stable operational losses, including reserves calculated consistent with GAAP; and

(2) Are available to cover expected operational losses with a high degree of certainty over a one-year horizon.

Eligible purchased wholesale exposure means a purchased wholesale exposure that:

(1) The savings association or securitization SPE purchased from an unaffiliated seller and did not directly or indirectly originate;

(2) Was generated on an arm's-length basis between the seller and the obligor (intercompany accounts receivable and receivables subject to contra-accounts between firms that buy and sell to each other do not satisfy this criterion);

(3) Provides the savings association or securitization SPE with a claim on all proceeds from the exposure or a pro rata interest in the proceeds from the exposure;

(4) Has an M of less than one year; and

(5) When consolidated by obligor, does not represent a concentrated exposure relative to the portfolio of purchased wholesale exposures.

Eligible securitization guarantor means:

(1) A sovereign entity, the Bank for International Settlements, the International Monetary Fund, the European Central Bank, the European Commission, a Federal Home Loan Bank, Federal Agricultural Mortgage Corporation (Farmer Mac), a multilateral development bank, a depository institution, a bank holding company, a savings and loan holding company (as defined in 12 U.S.C. 1467a) provided all or substantially all of the holding company's activities are permissible for a financial holding company under 12 U.S.C. 1843(k), a foreign bank (as defined in §211.2 of the Federal Reserve Board's Regulation K (12 CFR 211.2)), or a securities firm;

(2) Any other entity (other than a securitization SPE) that has issued and outstanding an unsecured long-term debt security without credit enhancement that has a long-term applicable external rating in one of the three highest investment-grade rating categories; or

(3) Any other entity (other than a securitization SPE) that has a PD assigned by the savings association that is lower than or equal to the PD associated with a long-term external rating in the third highest investment-grade rating category.

Eligible servicer cash advance facility means a servicer cash advance facility in which:

(1) The servicer is entitled to full reimbursement of advances, except that a servicer may be obligated to make non-reimbursable advances for a particular underlying exposure if any such advance is contractually limited to an insignificant amount of the outstanding principal balance of that exposure;

(2) The servicer's right to reimbursement is senior in right of payment to all other claims on the cash flows from the underlying exposures of the securitization; and

(3) The servicer has no legal obligation to, and does not make advances to the securitization if the servicer concludes the advances are unlikely to be repaid.

Equity derivative contract means an equity-linked swap, purchased equity-linked option, forward equity-linked contract, or any other instrument linked to equities that gives rise to similar counterparty credit risks.

Equity exposure means:

(1) A security or instrument (whether voting or non-voting) that represents a direct or indirect ownership interest in, and is a residual claim on, the assets and income of a company, unless:

(i) The issuing company is consolidated with the Federal savings association under GAAP;

(ii) The savings association is required to deduct the ownership interest from tier 1 or tier 2 capital under this appendix;

(iii) The ownership interest incorporates a payment or other similar obligation on the part of the issuing company (such as an obligation to make periodic payments); or

(iv) The ownership interest is a securitization exposure;

(2) A security or instrument that is mandatorily convertible into a security or instrument described in paragraph (1) of this definition;

(3) An option or warrant that is exercisable for a security or instrument described in paragraph (1) of this definition; or

(4) Any other security or instrument (other than a securitization exposure) to the extent the return on the security or instrument is based on the performance of a security or instrument described in paragraph (1) of this definition.

Excess spread for a period means:

(1) Gross finance charge collections and other income received by a securitization SPE (including market interchange fees) over a period minus interest paid to the holders of the securitization exposures, servicing fees, charge-offs, and other senior trust or similar expenses of the SPE over the period; divided by:

(2) The principal balance of the underlying exposures at the end of the period.

Exchange rate derivative contract means a cross-currency interest rate swap, forward foreign-exchange contract, currency option purchased, or any other instrument linked to exchange rates that gives rise to similar counterparty credit risks.

Excluded mortgage exposure means any one- to four-family residential pre-sold construction loan for a residence for which the purchase contract is cancelled that would receive a 100 percent risk weight under section 618(a)(2) of the Resolution Trust Corporation Refinancing, Restructuring, and Improvement Act and under 12 CFR 167.1 (definition of ''qualifying residential construction loan'') and 12 CFR 167.6(a)(1)(iv).

Expected credit loss (ECL) means:

(1) For a wholesale exposure to a non-defaulted obligor or segment of non-defaulted retail exposures that is carried at fair value with gains and losses flowing through earnings or that is classified as held-for-sale and is carried at the lower of cost or fair value with losses flowing through earnings, zero.

(2) For all other wholesale exposures to non-defaulted obligors or segments of non-defaulted retail exposures, the product of PD times LGD times EAD for the exposure or segment.

(3) For a wholesale exposure to a defaulted obligor or segment of defaulted retail exposures, the Federal savings association's impairment estimate for allowance purposes for the exposure or segment.

(4) Total ECL is the sum of expected credit losses for all wholesale and retail exposures other than exposures for which the savings association has applied the double default treatment in section 34 of this appendix.

Expected exposure (EE) means the expected value of the probability distribution of non-negative credit risk exposures to a counterparty at any specified future date before the maturity date of the longest term transaction in the netting set. Any negative market values in the probability distribution of market values to a counterparty at a specified future date are set to zero to convert the probability distribution of market values to the probability distribution of credit risk exposures.

Expected operational loss (EOL) means the expected value of the distribution of potential aggregate operational losses, as generated by the Federal savings association's operational risk quantification system using a one-year horizon.

Expected positive exposure (EPE) means the weighted average over time of expected (non-negative) exposures to a counterparty where the weights are the proportion of the time interval that an individual expected exposure represents. When calculating risk-based capital requirements, the average is taken over a one-year horizon.

Exposure at default (EAD). (1) For the on-balance sheet component of a wholesale exposure or segment of retail exposures (other than an OTC derivative contract, or a repo-style transaction, or eligible margin loan for which the Federal savings association

determines EAD under section 32 of this appendix), EAD means:

(i) If the exposure or segment is a security classified as available-for-sale, the savings associations carrying value (including net accrued but unpaid interest and fees) for the exposure or segment less any unrealized gains on the exposure or segment and plus any unrealized losses on the exposure or segment; or

(ii) If the exposure or segment is not a security classified as available-for-sale, the savings association's carrying value (including net accrued but unpaid interest and fees) for the exposure or segment.

(2) For the off-balance sheet component of a wholesale exposure or segment of retail exposures (other than an OTC derivative contract, or a repo-style transaction or eligible margin loan for which the savings association determines EAD under section 32 of this appendix) in the form of a loan commitment, line of credit, trade-related letter of credit, or transaction-related contingency, EAD means the savings association's best estimate of net additions to the outstanding amount owed the savings association, including estimated future additional draws of principal and accrued but unpaid interest and fees, that are likely to occur over a one-year horizon assuming the wholesale exposure or the retail exposures in the segment were to go into default. This estimate of net additions must reflect what would be expected during economic downturn conditions. Trade-related letters of credit are short-term, self-liquidating instruments that are used to finance the movement of goods and are collateralized by the underlying goods. Transaction-related contingencies relate to a particular transaction and include, among other things, performance bonds and performance-based letters of credit.

(3) For the off-balance sheet component of a wholesale exposure or segment of retail exposures (other than an OTC derivative contract, or a repo-style transaction or eligible margin loan for which the savings association determines EAD under section 32 of this appendix) in the form of anything other than a loan commitment, line of credit, trade-related letter of credit, or transaction-related contingency, EAD means the notional amount of the exposure or segment.

(4) EAD for OTC derivative contracts is calculated as described in section 32 of this appendix. A savings association also may determine EAD for repo-style transactions and eligible margin loans as described in section 32 of this appendix.

(5) For wholesale or retail exposures in which only the drawn balance has been securitized, the savings association must reflect its share of the exposures' undrawn balances in EAD. Undrawn balances of revolving exposures for which the drawn balances have been securitized must be allocated between the seller's and investors' interests on a pro rata basis, based on the proportions of the seller's and investors' shares of the securitized drawn balances.

Exposure category means any of the wholesale, retail, securitization, or equity exposure categories.

External operational loss event data means, with respect to a Federal savings association, gross operational loss amounts, dates, recoveries, and relevant causal information for operational loss events occurring at organizations other than the savings association.

External rating means a credit rating that is assigned by an NRSRO to an exposure, provided:

(1) The credit rating fully reflects the entire amount of credit risk with regard to all payments owed to the holder of the exposure. If a holder is owed principal and interest on an exposure, the credit rating must fully reflect the credit risk associated with timely repayment of principal and interest. If a holder is owed only principal on an exposure, the credit rating must fully reflect only the credit risk associated with timely repayment of principal; and

(2) The credit rating is published in an accessible form and is or will be included in the transition matrices made publicly available by the NRSRO that summarize the historical performance of positions rated by the NRSRO.

Financial collateral means collateral:

(1) In the form of:

(i) Cash on deposit with the Federal savings association (including cash held for the savings association by a third-party custodian or trustee);

(ii) Gold bullion;

(iii) Long-term debt securities that have an applicable external rating of one category below investment grade or higher;

(iv) Short-term debt instruments that have an applicable external rating of at least investment grade;

(v) Equity securities that are publicly traded;

(vi) Convertible bonds that are publicly traded;

(vii) Money market mutual fund shares and other mutual fund shares if a price for the shares is publicly quoted daily; or

(viii) Conforming residential mortgages; and

(2) In which the savings association 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).

GAAP means generally accepted accounting principles as used in the United States.

Gain-on-sale means an increase in the equity capital (as reported on Schedule RC of the Call Report or Schedule SC of the TFR, as appropriate) of a Federal savings association that results from a securitization (other than an increase in equity capital that results from the Federal savings association's receipt of cash in connection with the securitization).

Guarantee means a financial guarantee, letter of credit, insurance, or other similar financial instrument (other than a credit derivative) that allows one party (beneficiary) to transfer the credit risk of one or more specific exposures (reference exposure) to another party (protection provider). See also *eligible guarantee*.

High volatility commercial real estate (HVCRE) exposure means a credit facility that finances or has financed the acquisition, development, or construction (ADC) of real property, unless the facility finances:

(1) One- to four-family residential properties; or

(2) Commercial real estate projects in which:

(i) The loan-to-value ratio is less than or equal to the applicable maximum supervisory loan-to-value ratio in the OCC's real estate lending standards at 12 CFR 160.100–160.101;

(ii) The borrower has contributed capital to the project in the form of cash or unencumbered readily marketable assets (or has paid development expenses out-of-pocket) of at least 15 percent of the real estate's appraised ''as completed'' value; and

(iii) The borrower contributed the amount of capital required by paragraph (2)(ii) of this definition before the Federal savings association advances funds under the credit facility, and the capital contributed by the borrower, or internally generated by the project, is contractually required to remain in the project throughout the life of the project. The life of a project concludes only when the credit facility is converted to permanent financing or is sold or paid in full. Permanent financing may be provided by the savings association that provided the ADC facility as long as the permanent financing is subject to the savings association's underwriting criteria for long-term mortgage loans.

Inferred rating. A securitization exposure has an *inferred rating* equal to the external rating referenced in paragraph (2)(i) of this definition if:

(1) The securitization exposure does not have an external rating; and

(2) Another securitization exposure issued by the same issuer and secured by the same underlying exposures:

(i) Has an external rating;

(ii) Is subordinated in all respects to the unrated securitization exposure;

(iii) Does not benefit from any credit enhancement that is not available to the unrated securitization exposure; and

(iv) Has an effective remaining maturity that is equal to or longer than that of the unrated securitization exposure.

Interest rate derivative contract means a single-currency interest rate swap, basis swap, forward rate agreement, purchased interest rate option, when-issued securities, or any other instrument linked to interest rates that

gives rise to similar counterparty credit risks.

Internal operational loss event data means, with respect to a Federal savings association, gross operational loss amounts, dates, recoveries, and relevant causal information for operational loss events occurring at the savings association.

Investing Federal savings association means, with respect to a securitization, a Federal savings association that assumes the credit risk of a securitization exposure (other than an originating savings association of the securitization). In the typical synthetic securitization, the investing savings association sells credit protection on a pool of underlying exposures to the originating savings association.

Investment fund means a company:

(1) All or substantially all of the assets of which are financial assets; and

(2) That has no material liabilities.

Investors' interest EAD means, with respect to a securitization, the EAD of the underlying exposures multiplied by the ratio of:

(1) The total amount of securitization exposures issued by the securitization SPE to investors; divided by

(2) The outstanding principal amount of underlying exposures.

Loss given default (LGD) means:

(1) For a wholesale exposure, the greatest of:

(i) Zero;

(ii) The savings association's empirically based best estimate of the long-run default-weighted average economic loss, per dollar of EAD, the savings association would expect to incur if the obligor (or a typical obligor in the loss severity grade assigned by the savings association to the exposure) were to default within a one-year horizon over a mix of economic conditions, including economic downturn conditions; or

(iii) The savings association's empirically based best estimate of the economic loss, per dollar of EAD, the savings association would expect to incur if the obligor (or a typical obligor in the loss severity grade assigned by the savings association to the exposure) were to default within a one-year horizon during economic downturn conditions.

(2) For a segment of retail exposures, the greatest of:

(i) Zero;

(ii) The savings association's empirically based best estimate of the long-run default-weighted average economic loss, per dollar of EAD, the savings association would expect to incur if the exposures in the segment were to default within a one-year horizon over a mix of economic conditions, including economic downturn conditions; or

(iii) The savings association's empirically based best estimate of the economic loss, per dollar of EAD, the savings association would expect to incur if the exposures in the segment were to default within a one-year horizon during economic downturn conditions.

(3) The economic loss on an exposure in the event of default is all material credit-related losses on the exposure (including accrued but unpaid interest or fees, losses on the sale of collateral, direct workout costs, and an appropriate allocation of indirect workout costs). Where positive or negative cash flows on a wholesale exposure to a defaulted obligor or a defaulted retail exposure (including proceeds from the sale of collateral, workout costs, additional extensions of credit to facilitate repayment of the exposure, and drawdowns of unused credit lines) occur after the date of default, the economic loss must reflect the net present value of cash flows as of the default date using a discount rate appropriate to the risk of the defaulted exposure.

Main index means the Standard & Poor's 500 Index, the FTSE All-World Index, and any other index for which the Federal savings association can demonstrate to the satisfaction of the OCC that the equities represented in the index have comparable liquidity, depth of market, and size of bid-ask spreads as equities in the Standard & Poor's 500 Index and FTSE All-World Index.

Multilateral development bank means the International Bank for Reconstruction and Development, the International Finance Corporation, the Inter-American Development Bank, the Asian Development Bank, the African Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank,

the European Investment Fund, the Nordic Investment Bank, the Caribbean Development Bank, the Islamic Development Bank, the Council of Europe Development Bank, and any other multilateral lending institution or regional development bank in which the U.S. government is a shareholder or contributing member or which the OCC determines poses comparable credit risk.

Nationally recognized statistical rating organization (NRSRO) means an entity registered with the SEC as a nationally recognized statistical rating organization under section 15E of the Securities Exchange Act of 1934 (15 U.S.C. 78o–7).

Netting set means a group of transactions with a single counterparty that are subject to a qualifying master netting agreement or qualifying cross-product master netting agreement. For purposes of the internal models methodology in paragraph (d) of section 32 of this appendix, each transaction that is not subject to such a master netting agreement is its own netting set.

Nth-to-default credit derivative means a credit derivative that provides credit protection only for the nth-defaulting reference exposure in a group of reference exposures.

Obligor means the legal entity or natural person contractually obligated on a wholesale exposure, except that a Federal savings association may treat the following exposures as having separate obligors:

(1) Exposures to the same legal entity or natural person denominated in different currencies;

(2)(i) An income-producing real estate exposure for which all or substantially all of the repayment of the exposure is reliant on the cash flows of the real estate serving as collateral for the exposure; the savings association, in economic substance, does not have recourse to the borrower beyond the real estate collateral; and no cross-default or cross-acceleration clauses are in place other than clauses obtained solely out of an abundance of caution; and

(ii) Other credit exposures to the same legal entity or natural person; and

(3)(i) A wholesale exposure authorized under section 364 of the U.S. Bankruptcy Code (11 U.S.C. 364) to a legal entity or natural person who is a debtor-in-possession for purposes of Chapter 11 of the Bankruptcy Code; and

(ii) Other credit exposures to the same legal entity or natural person.

Operational loss means a loss (excluding insurance or tax effects) resulting from an operational loss event. Operational loss includes all expenses associated with an operational loss event except for opportunity costs, forgone revenue, and costs related to risk management and control enhancements implemented to prevent future operational losses.

Operational loss event means an event that results in loss and is associated with any of the following seven operational loss event type categories:

(1) Internal fraud, which means the operational loss event type category that comprises operational losses resulting from an act involving at least one internal party of a type intended to defraud, misappropriate property, or circumvent regulations, the law, or company policy, excluding diversity- and discrimination-type events.

(2) External fraud, which means the operational loss event type category that comprises operational losses resulting from an act by a third party of a type intended to defraud, misappropriate property, or circumvent the law. Retail credit card losses arising from non-contractual, third-party initiated fraud (for example, identity theft) are external fraud operational losses. All other third-party initiated credit losses are to be treated as credit risk losses.

(3) Employment practices and workplace safety, which means the operational loss event type category that comprises operational losses resulting from an act inconsistent with employment, health, or safety laws or agreements, payment of personal injury claims, or payment arising from diversity- and discrimination-type events.

(4) Clients, products, and business practices, which means the operational loss event type category that comprises operational losses resulting from the nature or design of a product or from an unintentional or negligent failure to meet a professional obligation to specific clients (including fiduciary and suitability requirements).

(5) Damage to physical assets, which means the operational loss event type category that comprises operational losses resulting from the loss of or damage to physical assets from natural disaster or other events.

(6) Business disruption and system failures, which means the operational loss event type category that comprises operational losses resulting from disruption of business or system failures.

(7) Execution, delivery, and process management, which means the operational loss event type category that comprises operational losses resulting from failed transaction processing or process management or losses arising from relations with trade counterparties and vendors.

Operational risk means the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events (including legal risk but excluding strategic and reputational risk).

Operational risk exposure means the 99.9th percentile of the distribution of potential aggregate operational losses, as generated by the Federal savings association's operational risk quantification system over a one-year horizon (and not incorporating eligible operational risk offsets or qualifying operational risk mitigants).

Originating Federal savings association, with respect to a securitization, means a savings association that:

(1) Directly or indirectly originated or securitized the underlying exposures included in the securitization; or

(2) Serves as an ABCP program sponsor to the securitization.

Other retail exposure means an exposure (other than a securitization exposure, an equity exposure, a residential mortgage exposure, an excluded mortgage exposure, a qualifying revolving exposure, or the residual value portion of a lease exposure) that is managed as part of a segment of exposures with homogeneous risk characteristics, not on an individual-exposure basis, and is either:

(1) An exposure to an individual for non-business purposes; or

(2) An exposure to an individual or company for business purposes if the Federal savings association's consolidated business credit exposure to the individual or company is $1 million or less.

Over-the-counter (OTC) derivative contract means a derivative contract that is not traded on an exchange that requires the daily receipt and payment of cash-variation margin.

Probability of default (PD) means:

(1) For a wholesale exposure to a non-defaulted obligor, the Federal savings association's empirically based best estimate of the long-run average one-year default rate for the rating grade assigned by the savings association to the obligor, capturing the average default experience for obligors in the rating grade over a mix of economic conditions (including economic downturn conditions) sufficient to provide a reasonable estimate of the average one-year default rate over the economic cycle for the rating grade.

(2) For a segment of non-defaulted retail exposures, the savings association's empirically based best estimate of the long-run average one-year default rate for the exposures in the segment, capturing the average default experience for exposures in the segment over a mix of economic conditions (including economic downturn conditions) sufficient to provide a reasonable estimate of the average one-year default rate over the economic cycle for the segment and adjusted upward as appropriate for segments for which seasoning effects are material. For purposes of this definition, a segment for which seasoning effects are material is a segment where there is a material relationship between the time since origination of exposures within the segment and the savings association's best estimate of the long-run average one-year default rate for the exposures in the segment.

(3) For a wholesale exposure to a defaulted obligor or segment of defaulted retail exposures, 100 percent.

Protection amount (P) means, with respect to an exposure hedged by an eligible guarantee or eligible credit derivative, the effective notional amount of the guarantee or credit derivative, reduced to reflect any currency mismatch, maturity mismatch, or lack of restructuring coverage (as provided in section 33 of this appendix).

Publicly traded means traded on:

(1) Any exchange registered with the SEC as a national securities exchange under section 6 of the Securities Exchange Act of 1934 (15 U.S.C. 78f); or

(2) Any non-U.S.-based securities exchange that:

(i) Is registered with, or approved by, a national securities regulatory authority; and

(ii) Provides a liquid, two-way market for the instrument in question, meaning that there are enough independent bona fide offers to buy and sell so that a sales price reasonably related to the last sales price or current bona fide competitive bid and offer quotations can be determined promptly and a trade can be settled at such a price within five business days.

Qualifying central counterparty means a counterparty (for example, a clearinghouse) that:

(1) Facilitates trades between counterparties in one or more financial markets by either guaranteeing trades or novating contracts;

(2) Requires all participants in its arrangements to be fully collateralized on a daily basis; and

(3) The Federal savings association demonstrates to the satisfaction of the OCC is in sound financial condition and is subject to effective oversight by a national supervisory authority.

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:

(1) The underlying financial transactions are OTC derivative contracts, eligible margin loans, or repo-style transactions; and

(2) The Federal savings association obtains a written legal opinion verifying the validity and enforceability of the agreement under applicable law of the relevant jurisdictions if the counterparty fails to perform upon an event of default, including upon an event of bankruptcy, insolvency, or similar proceeding.

Qualifying master netting agreement means any written, legally enforceable bilateral agreement, provided that:

(1) The agreement creates a single legal obligation for all individual transactions covered by the agreement upon an event of default, including bankruptcy, insolvency, or similar proceeding, of the counterparty;

(2) The agreement provides the Federal savings association the right to accelerate, terminate, and close-out on a net basis all transactions under the agreement and to liquidate or set off collateral promptly upon an event of default, including upon an event of bankruptcy, insolvency, or similar proceeding, of the counterparty, provided that, in any such case, any exercise of rights under the agreement will not be stayed or avoided under applicable law in the relevant jurisdictions;

(3) The Federal savings association has conducted sufficient legal review to conclude with a well-founded basis (and maintains sufficient written documentation of that legal review) that:

(i) The agreement meets the requirements of paragraph (2) of this definition; and

(ii) In the event of a legal challenge (including one resulting from default or from bankruptcy, insolvency, or similar proceeding) the relevant court and administrative authorities would find the agreement to be legal, valid, binding, and enforceable under the law of the relevant jurisdictions;

(4) The Federal savings association establishes and maintains procedures to monitor possible changes in relevant law and to ensure that the agreement continues to satisfy the requirements of this definition; and

(5) The agreement does not contain a walkaway clause (that is, a provision that permits a non-defaulting counterparty to make a lower payment than it would make otherwise under the agreement, or no payment at all, to a defaulter or the estate of a defaulter, even if the defaulter or the estate of the defaulter is a net creditor under the agreement).

Qualifying revolving exposure (QRE) means an exposure (other than a securitization exposure or equity exposure) to an individual that is managed as part of a segment of exposures with homogeneous risk characteristics, not on an individual-exposure basis, and:

(1) Is revolving (that is, the amount outstanding fluctuates, determined largely by the borrower's decision to borrow and repay, up to a pre-established maximum amount);

(2) Is unsecured and unconditionally cancelable by the Federal savings association to the fullest extent permitted by Federal law; and

(3) Has a maximum exposure amount (drawn plus undrawn) of up to $100,000.

Repo-style transaction means a repurchase or reverse repurchase transaction, or a securities borrowing or securities lending transaction, including a transaction in which the Federal savings association acts as agent for a customer and indemnifies the customer against loss, provided that:

(1) The transaction is based solely on liquid and readily marketable securities, cash, gold, or conforming residential mortgages;

(2) The transaction is marked-to-market daily and subject to daily margin maintenance requirements;

(3)(i) The transaction is a ''securities contract'' or ''repurchase agreement'' under section 555 or 559, respectively, of the Bankruptcy Code (11 U.S.C. 555 or 559), a qualified financial contract under section 11(e)(8) of the Federal Deposit Insurance Act (12 U.S.C. 1821(e)(8)), or a netting contract between or among financial institutions under sections 401–407 of the Federal Deposit Insurance Corporation Improvement Act of 1991 (12 U.S.C. 4401–4407) or the Federal Reserve Board's Regulation EE (12 CFR part 231); or

(ii) If the transaction does not meet the criteria set forth in paragraph (3)(i) of this definition, then either:

(A) The transaction is executed under an agreement that provides the savings association the right to accelerate, terminate, and close-out the transaction on a net basis and to liquidate or set off collateral promptly upon an event of default (including upon an event of bankruptcy, insolvency, or similar proceeding) of the counterparty, provided that, in any such case, any exercise of rights under the agreement will not be stayed or avoided under applicable law in the relevant jurisdictions; or

(B) The transaction is:

(*1*) Either overnight or unconditionally cancelable at any time by the savings association; and

(*2*) Executed under an agreement that provides the savings association the right to accelerate, terminate, and close-out the transaction on a net basis and to liquidate or set off collateral promptly upon an event of counterparty default; and

(4) The savings association has conducted sufficient legal review to conclude with a well-founded basis (and maintains sufficient written documentation of that legal review) that the agreement meets the requirements of paragraph (3) of this definition and is legal, valid, binding, and enforceable under applicable law in the relevant jurisdictions.

Residential mortgage exposure means an exposure (other than a securitization exposure, equity exposure, or excluded mortgage exposure) that is managed as part of a segment of exposures with homogeneous risk characteristics, not on an individual-exposure basis, and is:

(1) An exposure that is primarily secured by a first or subsequent lien on one- to four-family residential property; or

(2) An exposure with an original and outstanding amount of $1 million or less that is primarily secured by a first or subsequent lien on residential property that is not one to four family.

Retail exposure means a residential mortgage exposure, a qualifying revolving exposure, or an other retail exposure.

Retail exposure subcategory means the residential mortgage exposure, qualifying revolving exposure, or other retail exposure subcategory.

Risk parameter means a variable used in determining risk-based capital requirements for wholesale and retail exposures, specifically probability of default (PD), loss given default (LGD), exposure at default (EAD), or effective maturity (M).

Scenario analysis means a systematic process of obtaining expert opinions from business managers and risk management experts to derive reasoned assessments of the likelihood and loss impact of plausible high-severity operational losses. Scenario analysis may

include the well-reasoned evaluation and use of external operational loss event data, adjusted as appropriate to ensure relevance to a Federal savings association's operational risk profile and control structure.

SEC means the U.S. Securities and Exchange Commission.

Securitization means a traditional securitization or a synthetic securitization.

Securitization exposure means an on-balance sheet or off-balance sheet credit exposure that arises from a traditional or synthetic securitization (including credit-enhancing representations and warranties).

Securitization special purpose entity (securitization SPE) means a corporation, trust, or other entity organized for the specific purpose of holding underlying exposures of a securitization, the activities of which are limited to those appropriate to accomplish this purpose, and the structure of which is intended to isolate the underlying exposures held by the entity from the credit risk of the seller of the underlying exposures to the entity.

Senior securitization exposure means a securitization exposure that has a first priority claim on the cash flows from the underlying exposures. When determining whether a securitization exposure has a first priority claim on the cash flows from the underlying exposures, a Federal savings association is not required to consider amounts due under interest rate or currency derivative contracts, fees due, or other similar payments. Both the most senior commercial paper issued by an ABCP program and a liquidity facility that supports the ABCP program may be senior securitization exposures if the liquidity facility provider's right to reimbursement of the drawn amounts is senior to all claims on the cash flows from the underlying exposures except amounts due under interest rate or currency derivative contracts, fees due, or other similar payments.

Servicer cash advance facility means a facility under which the servicer of the underlying exposures of a securitization may advance cash to ensure an uninterrupted flow of payments to investors in the securitization, including advances made to cover foreclosure costs or other expenses to facilitate the timely collection of the underlying exposures. See also *eligible servicer cash advance facility*.

Sovereign entity means a central government (including the U.S. government) or an agency, department, ministry, or central bank of a central government.

Sovereign exposure means:

(1) A direct exposure to a sovereign entity; or

(2) An exposure directly and unconditionally backed by the full faith and credit of a sovereign entity.

Subsidiary means, with respect to a company, a company controlled by that company.

Synthetic securitization means a transaction in which:

(1) All or a portion of the credit risk of one or more underlying exposures is transferred to one or more third parties through the use of one or more credit derivatives or guarantees (other than a guarantee that transfers only the credit risk of an individual retail exposure);

(2) The credit risk associated with the underlying exposures has been separated into at least two tranches reflecting different levels of seniority;

(3) Performance of the securitization exposures depends upon the performance of the underlying exposures; and

(4) All or substantially all of the underlying exposures are financial exposures (such as loans, commitments, credit derivatives, guarantees, receivables, asset-backed securities, mortgage-backed securities, other debt securities, or equity securities).

Tier 1 capital is defined in subpart B of part 167, as modified in part II of this appendix.

Tier 2 capital is defined in subpart B of part 167, as modified in part II of this appendix.

Total qualifying capital means the sum of tier 1 capital and tier 2 capital, after all deductions required in this appendix.

Total risk-weighted assets means:

(1) The sum of:

(i) Credit risk-weighted assets; and

(ii) Risk-weighted assets for operational risk; minus

(2) Excess eligible credit reserves not included in tier 2 capital.

Total wholesale and retail risk-weighted assets means the sum of risk-weighted assets for wholesale exposures to non-defaulted obligors and segments of non-defaulted retail exposures; risk-weighted assets for wholesale exposures to defaulted obligors and segments of defaulted retail exposures; risk-weighted assets for assets not defined by an exposure category; and risk-weighted assets for non-material portfolios of exposures (all as determined in section 31 of this appendix) and risk-weighted assets for unsettled transactions (as determined in section 35 of this appendix) minus the amounts deducted from capital pursuant to subpart B of part 167 (excluding those deductions reversed in section 12 of this appendix).

Traditional securitization means a transaction in which:

(1) All or a portion of the credit risk of one or more underlying exposures is transferred to one or more third parties other than through the use of credit derivatives or guarantees;

(2) The credit risk associated with the underlying exposures has been separated into at least two tranches reflecting different levels of seniority;

(3) Performance of the securitization exposures depends upon the performance of the underlying exposures;

(4) All or substantially all of the underlying exposures are financial exposures (such as loans, commitments, credit derivatives, guarantees, receivables, asset-backed securities, mortgage-backed securities, other debt securities, or equity securities);

(5) The underlying exposures are not owned by an operating company;

(6) The underlying exposures are not owned by a small business investment company described in section 302 of the Small Business Investment Act of 1958 (15 U.S.C. 682); and

(7) The underlying exposures are not owned by a firm an investment in which is designed primarily to promote community welfare, including the welfare of low- and moderate-income communities or families, such as by providing services or jobs.

(8) The OCC may determine that a transaction in which the underlying exposures are owned by an investment firm that exercises substantially unfettered control over the size and composition of its assets, liabilities, and off-balance sheet exposures is not a traditional securitization based on the transaction's leverage, risk profile, or economic substance.

(9) The OCC may deem a transaction that meets the definition of a traditional securitization, notwithstanding paragraph (5), (6), or (7) of this definition, to be a traditional securitization based on the transaction's leverage, risk profile, or economic substance.

Tranche means all securitization exposures associated with a securitization that have the same seniority level.

Underlying exposures means one or more exposures that have been securitized in a securitization transaction.

Unexpected operational loss (UOL) means the difference between the Federal savings association's operational risk exposure and the savings association's expected operational loss.

Unit of measure means the level (for example, organizational unit or operational loss event type) at which the Federal savings association's operational risk quantification system generates a separate distribution of potential operational losses.

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.

Wholesale exposure means a credit exposure to a company, natural person, sovereign entity, or governmental entity (other than a securitization exposure, retail exposure, excluded mortgage exposure, or equity exposure). Examples of a wholesale exposure include:

(1) A non-tranched guarantee issued by a Federal savings association on behalf of a company;

(2) A repo-style transaction entered into by a Federal savings association with a company and any other transaction in which a savings association posts collateral to a company and faces counterparty credit risk;

(3) An exposure that a Federal savings association treats as a covered position under any applicable market risk rule for which there is a

counterparty credit risk capital requirement;

(4) A sale of corporate loans by a Federal savings association to a third party in which the savings association retains full recourse;

(5) An OTC derivative contract entered into by a Federal savings association with a company;

(6) An exposure to an individual that is not managed by a Federal savings association as part of a segment of exposures with homogeneous risk characteristics; and

(7) A commercial lease.

Wholesale exposure subcategory means the HVCRE or non-HVCRE wholesale exposure subcategory.

Section 3. Minimum Risk-Based Capital Requirements

(a) Except as modified by paragraph (c) of this section or by section 23 of this appendix, each Federal savings association must meet a minimum ratio of:

(1) Total qualifying capital to total risk-weighted assets of 8.0 percent; and

(2) Tier 1 capital to total risk-weighted assets of 4.0 percent.

(b) Each Federal savings association must hold capital commensurate with the level and nature of all risks to which the savings association is exposed.

(c) When a Federal savings association subject to any applicable market risk rule calculates its risk-based capital requirements under this appendix, the savings association must also refer to any applicable market risk rule for supplemental rules to calculate risk-based capital requirements adjusted for market risk.

PART II. QUALIFYING CAPITAL

Section 11. Additional Deductions

(a) *General.* A Federal savings association that uses this appendix must make the same deductions from its tier 1 capital and tier 2 capital required in subpart B of part 167, except that:

(1) A Federal savings association is not required to deduct certain equity investments and CEIOs (as provided in section 12 of this appendix); and

(2) A Federal savings association also must make the deductions from capital required by paragraphs (b) and (c) of this section.

(b) *Deductions from tier 1 capital.* A Federal savings association must deduct from tier 1 capital any gain-on-sale associated with a securitization exposure as provided in paragraph (a) of section 41 and paragraphs (a)(1), (c), (g)(1), and (h)(1) of section 42 of this appendix.

(c) *Deductions from tier 1 and tier 2 capital.* A Federal savings association must deduct the exposures specified in paragraphs (c)(1) through (c)(7) in this section 50 percent from tier 1 capital and 50 percent from tier 2 capital. If the amount deductible from tier 2 capital exceeds the Federal savings association's actual tier 2 capital, however, the Federal savings association must deduct the excess from tier 1 capital.

(1) *Credit-enhancing interest-only strips (CEIOs).* In accordance with paragraphs (a)(1) and (c) of section 42 of this appendix, any CEIO that does not constitute gain-on-sale.

(2) *Non-qualifying securitization exposures.* In accordance with paragraphs (a)(4) and (c) of section 42 of this appendix, any securitization exposure that does not qualify for the Ratings-Based Approach, the Internal Assessment Approach, or the Supervisory Formula Approach under sections 43, 44, and 45 of this appendix, respectively.

(3) *Securitizations of non-IRB exposures.* In accordance with paragraphs (c) and (g)(4) of section 42 of this appendix, certain exposures to a securitization any underlying exposure of which is not a wholesale exposure, retail exposure, securitization exposure, or equity exposure.

(4) *Low-rated securitization exposures.* In accordance with section 43 and paragraph (c) of section 42 of this appendix, any securitization exposure that qualifies for and must be deducted under the Ratings-Based Approach.

(5) *High-risk securitization exposures subject to the Supervisory Formula Approach.* In accordance with paragraphs (b) and (c) of section 45 of this appendix and paragraph (c) of section 42 of this appendix, certain high-risk securitization exposures (or portions thereof) that qualify for the Supervisory Formula Approach.

(6) *Eligible credit reserves shortfall.* In accordance with paragraph (a)(1) of section 13 of this appendix, any eligible credit reserves shortfall.

(7) *Certain failed capital markets transactions.* In accordance with paragraph (e)(3) of section 35 of this appendix, the savings association's exposure on certain failed capital markets transactions.

Section 12. Deductions and Limitations Not Required

(a) *Deduction of CEIOs.* A Federal savings association is not required to make the deduction from capital for CEIOs in 12 CFR 167.5(a)(2)(iii) and 167.12(e).

(b) *Deduction for certain equity investments.* A Federal savings association is not required to deduct equity securities from capital under 12 CFR 167.5(c)(2)(ii). However, it must continue to deduct equity investments in real estate under that section. *See* 12 CFR 167.1, which defines equity investments, including equity securities and equity investments in real estate.

Section 13. Eligible Credit Reserves

(a) *Comparison of eligible credit reserves to expected credit losses* —(1) *Shortfall of eligible credit reserves.* If a Federal savings association's eligible credit reserves are less than the savings association's total expected credit losses, the savings association must deduct the shortfall amount 50 percent from tier 1 capital and 50 percent from tier 2 capital. If the amount deductible from tier 2 capital exceeds the savings association's actual tier 2 capital, the savings association must deduct the excess amount from tier 1 capital.

(2) *Excess eligible credit reserves.* If a Federal savings association's eligible credit reserves exceed the savings association's total expected credit losses, the savings association may include the excess amount in tier 2 capital to the extent that the excess amount does not exceed 0.6 percent of the savings association's credit-risk-weighted assets.

(b) *Treatment of allowance for loan and lease losses.* Regardless of any provision in subpart B of part 167, the ALLL is included in tier 2 capital only to the extent provided in paragraph (a)(2) of this section and in section 24 of this appendix.

PART III. QUALIFICATION

Section 21. Qualification Process

(a) *Timing.* (1) A Federal savings association that is described in paragraph (b)(1) of section 1 of this appendix must adopt a written implementation plan no later than six months after the later of April 1, 2008, or the date the Federal savings association meets a criterion in that section. The implementation plan must incorporate an explicit first floor period start date no later than 36 months after the later of April 1, 2008, or the date the savings association meets at least one criterion under paragraph (b)(1) of section 1 of this appendix. The OCC may extend the first floor period start date.

(2) A Federal savings association that elects to be subject to this appendix under paragraph (b)(2) of section 1 of this appendix must adopt a written implementation plan.

(b) *Implementation plan.* (1) The savings association's implementation plan must address in detail how the savings association complies, or plans to comply, with the qualification requirements in section 22 of this appendix. The savings association also must maintain a comprehensive and sound planning and governance process to oversee the implementation efforts described in the plan. At a minimum, the plan must:

(i) Comprehensively address the qualification requirements in section 22 of this appendix for the savings association and each consolidated subsidiary (U.S. and foreign-based) of the savings association with respect to all portfolios and exposures of the savings association and each of its consolidated subsidiaries;

(ii) Justify and support any proposed temporary or permanent exclusion of business lines, portfolios, or exposures from application of the advanced approaches in this appendix (which business lines, portfolios, and exposures must be, in the aggregate, immaterial to the savings association);

(iii) Include the savings association's self-assessment of:

(A) The savings association's current status in meeting the qualification requirements in section 22 of this appendix; and

(B) The consistency of the savings association's current practices with the OCC's supervisory guidance on the qualification requirements;

(iv) Based on the savings association's self-assessment, identify and describe the areas in which the savings association proposes to undertake additional work to comply with the qualification requirements in section 22 of this appendix or to improve the consistency of the savings association's current practices with the OCC's supervisory guidance on the qualification requirements (gap analysis);

(v) Describe what specific actions the Federal savings association will take to address the areas identified in the gap analysis required by paragraph (b)(1)(iv) of this section;

(vi) Identify objective, measurable milestones, including delivery dates and a date when the savings association's implementation of the methodologies described in this appendix will be fully operational;

(vii) Describe resources that have been budgeted and are available to implement the plan; and

(viii) Receive approval of the savings association's board of directors.

(2) The savings association must submit the implementation plan, together with a copy of the minutes of the board of directors' approval, to the OCC at least 60 days before the savings association proposes to begin its parallel run, unless the OCC waives prior notice.

(c) *Parallel run*. Before determining its risk-based capital requirements under this appendix and following adoption of the implementation plan, the savings association must conduct a satisfactory parallel run. A satisfactory parallel run is a period of no less than four consecutive calendar quarters during which the savings association complies with the qualification requirements in section 22 of this appendix to the satisfaction of the OCC. During the parallel run, the savings association must report to the OCC on a calendar quarterly basis its risk-based capital ratios using subpart B of part 167 and the risk-based capital requirements described in this appendix. During this period, the savings association is subject to subpart B of part 167.

(d) *Approval to calculate risk-based capital requirements under this appendix*. The OCC will notify the savings association of the date that the savings association may begin its first floor period if the OCC determines that:

(1) The savings association fully complies with all the qualification requirements in section 22 of this appendix;

(2) The savings association has conducted a satisfactory parallel run under paragraph (c) of this section; and

(3) The savings association has an adequate process to ensure ongoing compliance with the qualification requirements in section 22 of this appendix.

(e) *Transitional floor periods*. Following a satisfactory parallel run, a Federal savings association is subject to three transitional floor periods.

(1) *Risk-based capital ratios during the transitional floor periods* —(i) *Tier 1 risk-based capital ratio*. During a Federal savings association's transitional floor periods, the savings association's tier 1 risk-based capital ratio is equal to the lower of:

(A) The savings association's floor-adjusted tier 1 risk-based capital ratio; or

(B) The savings association's advanced approaches tier 1 risk-based capital ratio.

(ii) *Total risk-based capital ratio*. During a savings association's transitional floor periods, the savings association's total risk-based capital ratio is equal to the lower of:

(A) The savings association's floor-adjusted total risk-based capital ratio; or

(B) The savings association's advanced approaches total risk-based capital ratio.

(2) *Floor-adjusted risk-based capital ratios*. (i) A Federal savings association's floor-adjusted tier 1 risk-based capital ratio during a transitional floor period is equal to the savings association's tier 1 capital as calculated under subpart B of part 167, divided by the product of:

(A) The savings association's total risk-weighted assets as calculated under subpart B of part 167; and

(B) The appropriate transitional floor percentage in Table 1.

(ii) A Federal savings association's floor-adjusted total risk-based capital ratio during a transitional floor period is equal to the sum of the savings association's tier 1 and tier 2 capital as calculated under subpart B of part 167, divided by the product of:

(A) The savings association's total risk-weighted assets as calculated under subpart B of part 167; and

(B) The appropriate transitional floor percentage in Table 1.

(iii) A Federal savings association that meets the criteria in paragraph (b)(1) or (b)(2) of section 1 of this appendix as of April 1, 2008, must use subpart B of part 167 during the parallel run and as the basis for its transitional floors.

TABLE 1—TRANSITIONAL FLOORS

Transitional floor period	Transitional floor percentage
First floor period	95 per
Second floor period	90 per
Third floor period	85 per

(3) *Advanced approaches risk-based capital ratios.* (i) A Federal savings association's advanced approaches tier 1 risk-based capital ratio equals the savings association's tier 1 risk-based capital ratio as calculated under this appendix (other than this section on transitional floor periods).

(ii) A Federal savings association's advanced approaches total risk-based capital ratio equals the savings association's total risk-based capital ratio as calculated under this appendix (other than this section on transitional floor periods).

(4) *Reporting.* During the transitional floor periods, a Federal savings association must report to the OCC on a calendar quarterly basis both floor-adjusted risk-based capital ratios and both advanced approaches risk-based capital ratios.

(5) *Exiting a transitional floor period.* A Federal savings association may not exit a transitional floor period until the savings association has spent a minimum of four consecutive calendar quarters in the period and the OCC has determined that the savings association may exit the floor period. The OCC's determination will be based on an assessment of the savings association's ongoing compliance with the qualification requirements in section 22 of this appendix.

(6) *Interagency study.* After the end of the second transition year (2010), the Federal banking agencies will publish a study that evaluates the advanced approaches to determine if there are any material deficiencies. For any primary Federal supervisor to authorize any institution to exit the third transitional floor period, the study must determine that there are no such material deficiencies that cannot be addressed by then-existing tools, or, if such deficiencies are found, they are first remedied by changes to this appendix. Notwithstanding the preceding sentence, a primary Federal supervisor that disagrees with the finding of material deficiency may not authorize any institution under its jurisdiction to exit the third transitional floor period unless it provides a public report explaining its reasoning.

Section 22. Qualification Requirements

(a) *Process and systems requirements.* (1) A Federal savings association must have a rigorous process for assessing its overall capital adequacy in relation to its risk profile and a comprehensive strategy for maintaining an appropriate level of capital.

(2) The systems and processes used by a Federal savings association for risk-based capital purposes under this appendix must be consistent with the savings association's internal risk management processes and management information reporting systems.

(3) Each Federal savings association must have an appropriate infrastructure with risk measurement and management processes that meet the qualification requirements of this section and are appropriate given the savings association's size and level of complexity. Regardless of whether the systems and models that generate the risk parameters necessary for calculating a Federal savings association's risk-based capital requirements are located

at any affiliate of the savings association, the savings association itself must ensure that the risk parameters and reference data used to determine its risk-based capital requirements are representative of its own credit risk and operational risk exposures.

(b) *Risk rating and segmentation systems for wholesale and retail exposures.* (1) A Federal savings association must have an internal risk rating and segmentation system that accurately and reliably differentiates among degrees of credit risk for the savings association's wholesale and retail exposures.

(2) For wholesale exposures:

(i) A Federal savings association must have an internal risk rating system that accurately and reliably assigns each obligor to a single rating grade (reflecting the obligor's likelihood of default). A Federal savings association may elect, however, not to assign to a rating grade an obligor to whom the savings association extends credit based solely on the financial strength of a guarantor, provided that all of the savings association's exposures to the obligor are fully covered by eligible guarantees, the savings association applies the PD substitution approach in paragraph (c)(1) of section 33 of this appendix to all exposures to that obligor, and the savings association immediately assigns the obligor to a rating grade if a guarantee can no longer be recognized under this appendix. The savings association's wholesale obligor rating system must have at least seven discrete rating grades for non-defaulted obligors and at least one rating grade for defaulted obligors.

(ii) Unless the savings association has chosen to directly assign LGD estimates to each wholesale exposure, the savings association must have an internal risk rating system that accurately and reliably assigns each wholesale exposure to a loss severity rating grade (reflecting the savings association's estimate of the LGD of the exposure). A Federal savings association employing loss severity rating grades must have a sufficiently granular loss severity grading system to avoid grouping together exposures with widely ranging LGDs.

(3) For retail exposures, a Federal savings association must have an internal system that groups retail exposures into the appropriate retail exposure subcategory, groups the retail exposures in each retail exposure subcategory into separate segments with homogeneous risk characteristics, and assigns accurate and reliable PD and LGD estimates for each segment on a consistent basis. The savings association's system must identify and group in separate segments by subcategories exposures identified in paragraphs (c)(2)(ii) and (iii) of section 31 of this appendix.

(4) The savings association's internal risk rating policy for wholesale exposures must describe the savings association's rating philosophy (that is, must describe how wholesale obligor rating assignments are affected by the savings association's choice of the range of economic, business, and industry conditions that are considered in the obligor rating process).

(5) The savings association's internal risk rating system for wholesale exposures must provide for the review and update (as appropriate) of each obligor rating and (if applicable) each loss severity rating whenever the savings association receives new material information, but no less frequently than annually. The savings association's retail exposure segmentation system must provide for the review and update (as appropriate) of assignments of retail exposures to segments whenever the savings association receives new material information, but generally no less frequently than quarterly.

(c) *Quantification of risk parameters for wholesale and retail exposures.* (1) The Federal savings association must have a comprehensive risk parameter quantification process that produces accurate, timely, and reliable estimates of the risk parameters for the savings association's wholesale and retail exposures.

(2) Data used to estimate the risk parameters must be relevant to the savings association's actual wholesale and retail exposures, and of sufficient quality to support the determination of risk-based capital requirements for the exposures.

(3) The savings association's risk parameter quantification process must produce appropriately conservative

risk parameter estimates where the savings association has limited relevant data, and any adjustments that are part of the quantification process must not result in a pattern of bias toward lower risk parameter estimates.

(4) The savings association's risk parameter estimation process should not rely on the possibility of U.S. government financial assistance, except for the financial assistance that the U.S. government has a legally binding commitment to provide.

(5) Where the savings association's quantifications of LGD directly or indirectly incorporate estimates of the effectiveness of its credit risk management practices in reducing its exposure to troubled obligors prior to default, the savings association must support such estimates with empirical analysis showing that the estimates are consistent with its historical experience in dealing with such exposures during economic downturn conditions.

(6) PD estimates for wholesale obligors and retail segments must be based on at least five years of default data. LGD estimates for wholesale exposures must be based on at least seven years of loss severity data, and LGD estimates for retail segments must be based on at least five years of loss severity data. EAD estimates for wholesale exposures must be based on at least seven years of exposure amount data, and EAD estimates for retail segments must be based on at least five years of exposure amount data.

(7) Default, loss severity, and exposure amount data must include periods of economic downturn conditions, or the savings association must adjust its estimates of risk parameters to compensate for the lack of data from periods of economic downturn conditions.

(8) The savings association's PD, LGD, and EAD estimates must be based on the definition of default in this appendix.

(9) The savings association must review and update (as appropriate) its risk parameters and its risk parameter quantification process at least annually.

(10) The savings association must at least annually conduct a comprehensive review and analysis of reference data to determine relevance of reference data to the savings association's exposures, quality of reference data to support PD, LGD, and EAD estimates, and consistency of reference data to the definition of default contained in this appendix.

(d) *Counterparty credit risk model.* A Federal savings association must obtain the prior written approval of the OCC under section 32 of this appendix to use the internal models methodology for counterparty credit risk.

(e) *Double default treatment.* A Federal savings association must obtain the prior written approval of the OCC under section 34 of this appendix to use the double default treatment.

(f) *Securitization exposures.* A Federal savings association must obtain the prior written approval of the OCC under section 44 of this appendix to use the Internal Assessment Approach for securitization exposures to ABCP programs.

(g) *Equity exposures model.* A Federal savings association must obtain the prior written approval of the OCC under section 53 of this appendix to use the Internal Models Approach for equity exposures.

(h) *Operational risk*—(1) *Operational risk management processes.* A Federal savings association must:

(i) Have an operational risk management function that:

(A) Is independent of business line management; and

(B) Is responsible for designing, implementing, and overseeing the savings association's operational risk data and assessment systems, operational risk quantification systems, and related processes;

(ii) Have and document a process (which must capture business environment and internal control factors affecting the savings association's operational risk profile) to identify, measure, monitor, and control operational risk in savings association products, activities, processes, and systems; and

(iii) Report operational risk exposures, operational loss events, and other relevant operational risk information to business unit management, senior management, and the board of directors (or a designated committee of the board).

(2) *Operational risk data and assessment systems.* A Federal savings association must have operational risk data and assessment systems that capture operational risks to which the savings association is exposed. The savings association's operational risk data and assessment systems must:

(i) Be structured in a manner consistent with the savings association's current business activities, risk profile, technological processes, and risk management processes; and

(ii) Include credible, transparent, systematic, and verifiable processes that incorporate the following elements on an ongoing basis:

(A) *Internal operational loss event data.* The Federal savings association must have a systematic process for capturing and using internal operational loss event data in its operational risk data and assessment systems.

(*1*) The savings association's operational risk data and assessment systems must include a historical observation period of at least five years for internal operational loss event data (or such shorter period approved by the OCC to address transitional situations, such as integrating a new business line).

(*2*) The Federal savings association must be able to map its internal operational loss event data into the seven operational loss event type categories.

(*3*) The savings association may refrain from collecting internal operational loss event data for individual operational losses below established dollar threshold amounts if the savings association can demonstrate to the satisfaction of the OCC that the thresholds are reasonable, do not exclude important internal operational loss event data, and permit the savings association to capture substantially all the dollar value of the savings association's operational losses.

(B) *External operational loss event data.* The Federal savings association must have a systematic process for determining its methodologies for incorporating external operational loss event data into its operational risk data and assessment systems.

(C) *Scenario analysis.* The Federal savings association must have a systematic process for determining its methodologies for incorporating scenario analysis into its operational risk data and assessment systems.

(D) *Business environment and internal control factors.* The Federal savings association must incorporate business environment and internal control factors into its operational risk data and assessment systems. The Federal savings association must also periodically compare the results of its prior business environment and internal control factor assessments against its actual operational losses incurred in the intervening period.

(3) *Operational risk quantification systems.* (i) The Federal savings association's operational risk quantification systems:

(A) Must generate estimates of the savings association's operational risk exposure using its operational risk data and assessment systems;

(B) Must employ a unit of measure that is appropriate for the savings association's range of business activities and the variety of operational loss events to which it is exposed, and that does not combine business activities or operational loss events with demonstrably different risk profiles within the same loss distribution;

(C) Must include a credible, transparent, systematic, and verifiable approach for weighting each of the four elements, described in paragraph (h)(2)(ii) of this section, that a savings association is required to incorporate into its operational risk data and assessment systems;

(D) May use internal estimates of dependence among operational losses across and within units of measure if the savings association can demonstrate to the satisfaction of the OCC that its process for estimating dependence is sound, robust to a variety of scenarios, and implemented with integrity, and allows for the uncertainty surrounding the estimates. If the savings association has not made such a demonstration, it must sum operational risk exposure estimates across units of measure to calculate its total operational risk exposure; and

(E) Must be reviewed and updated (as appropriate) whenever the savings association becomes aware of information that may have a material effect on

the savings association's estimate of operational risk exposure, but the review and update must occur no less frequently than annually.

(ii) With the prior written approval of the OCC, a Federal savings association may generate an estimate of its operational risk exposure using an alternative approach to that specified in paragraph (h)(3)(i) of this section. A savings association proposing to use such an alternative operational risk quantification system must submit a proposal to the OCC. In determining whether to approve a savings association's proposal to use an alternative operational risk quantification system, the OCC will consider the following principles:

(A) Use of the alternative operational risk quantification system will be allowed only on an exception basis, considering the size, complexity, and risk profile of the savings association;

(B) The savings association must demonstrate that its estimate of its operational risk exposure generated under the alternative operational risk quantification system is appropriate and can be supported empirically; and

(C) A savings association must not use an allocation of operational risk capital requirements that includes entities other than depository institutions or the benefits of diversification across entities.

(i) *Data management and maintenance.* (1) A Federal savings association must have data management and maintenance systems that adequately support all aspects of its advanced systems and the timely and accurate reporting of risk-based capital requirements.

(2) A Federal savings association must retain data using an electronic format that allows timely retrieval of data for analysis, validation, reporting, and disclosure purposes.

(3) A Federal savings association must retain sufficient data elements related to key risk drivers to permit adequate monitoring, validation, and refinement of its advanced systems.

(j) *Control, oversight, and validation mechanisms.* (1) The Federal savings association's senior management must ensure that all components of the savings association's advanced systems function effectively and comply with the qualification requirements in this section.

(2) The savings association's board of directors (or a designated committee of the board) must at least annually review the effectiveness of, and approve, the savings association's advanced systems.

(3) A savings association must have an effective system of controls and oversight that:

(i) Ensures ongoing compliance with the qualification requirements in this section;

(ii) Maintains the integrity, reliability, and accuracy of the savings association's advanced systems; and

(iii) Includes adequate governance and project management processes.

(4) The Federal savings association must validate, on an ongoing basis, its advanced systems. The savings association's validation process must be independent of the advanced systems' development, implementation, and operation, or the validation process must be subjected to an independent review of its adequacy and effectiveness. Validation must include:

(i) An evaluation of the conceptual soundness of (including developmental evidence supporting) the advanced systems;

(ii) An ongoing monitoring process that includes verification of processes and benchmarking; and

(iii) An outcomes analysis process that includes back-testing.

(5) The Federal savings association must have an internal audit function independent of business-line management that at least annually assesses the effectiveness of the controls supporting the savings association's advanced systems and reports its findings to the savings association's board of directors (or a committee thereof).

(6) The Federal savings association must periodically stress test its advanced systems. The stress testing must include a consideration of how economic cycles, especially downturns, affect risk-based capital requirements (including migration across rating grades and segments and the credit risk mitigation benefits of double default treatment).

(k) *Documentation*. The Federal savings association must adequately document all material aspects of its advanced systems.

Section 23. Ongoing Qualification

(a) *Changes to advanced systems*. A Federal savings association must meet all the qualification requirements in section 22 of this appendix on an ongoing basis. A savings association must notify the OCC when the savings association makes any change to an advanced system that would result in a material change in the savings association's risk-weighted asset amount for an exposure type, or when the savings association makes any significant change to its modeling assumptions.

(b) *Failure to comply with qualification requirements*. (1) If the OCC determines that a Federal savings association that uses this appendix and has conducted a satisfactory parallel run fails to comply with the qualification requirements in section 22 of this appendix, the OCC will notify the savings association in writing of the savings association's failure to comply.

(2) The Federal savings association must establish and submit a plan satisfactory to the OCC to return to compliance with the qualification requirements.

(3) In addition, if the OCC determines that the savings association's risk-based capital requirements are not commensurate with the savings association's credit, market, operational, or other risks, the OCC may require such a savings association to calculate its risk-based capital requirements:

(i) Under subpart B of part 167; or

(ii) Under this appendix with any modifications provided by the OCC.

Section 24. Merger and Acquisition Transitional Arrangements

(a) *Mergers and acquisitions of companies without advanced systems*. If a Federal savings association merges with or acquires a company that does not calculate its risk-based capital requirements using advanced systems, the savings association may use subpart B of part 167 to determine the risk-weighted asset amounts for, and deductions from capital associated with, the merged or acquired company's exposures for up to 24 months after the calendar quarter during which the merger or acquisition consummates. The OCC may extend this transition period for up to an additional 12 months. Within 90 days of consummating the merger or acquisition, the savings association must submit to the OCC an implementation plan for using its advanced systems for the acquired company. During the period when subpart A of this part applies to the merged or acquired company, any ALLL associated with the merged or acquired company's exposures may be included in the savings association's tier 2 capital up to 1.25 percent of the acquired company's risk-weighted assets. All general allowances of the merged or acquired company must be excluded from the savings association's eligible credit reserves. In addition, the risk-weighted assets of the merged or acquired company are not included in the savings association's credit-risk-weighted assets but are included in total risk-weighted assets. If a savings association relies on this paragraph, the savings association must disclose publicly the amounts of risk-weighted assets and qualifying capital calculated under this appendix for the acquiring savings association and under subpart B of part 167 for the acquired company.

(b) *Mergers and acquisitions of companies with advanced systems*—(1) If a Federal savings association merges with or acquires a company that calculates its risk-based capital requirements using advanced systems, the savings association may use the acquired company's advanced systems to determine the risk-weighted asset amounts for, and deductions from capital associated with, the merged or acquired company's exposures for up to 24 months after the calendar quarter during which the acquisition or merger consummates. The OCC may extend this transition period for up to an additional 12 months. Within 90 days of consummating the merger or acquisition, the savings association must submit to the OCC an implementation plan for using its advanced systems for the merged or acquired company.

(2) If the acquiring Federal savings association is not subject to the advanced approaches in this appendix at

the time of acquisition or merger, during the period when subpart B of part 167 apply to the acquiring savings association, the ALLL associated with the exposures of the merged or acquired company may not be directly included in tier 2 capital. Rather, any excess eligible credit reserves associated with the merged or acquired company's exposures may be included in the savings association's tier 2 capital up to 0.6 percent of the credit-risk-weighted assets associated with those exposures.

PART IV. RISK-WEIGHTED ASSETS FOR GENERAL CREDIT RISK

Section 31. Mechanics for Calculating Total Wholesale and Retail Risk-Weighted Assets

(a) *Overview*. A Federal savings association must calculate its total wholesale and retail risk-weighted asset amount in four distinct phases:

(1) Phase 1—categorization of exposures;

(2) Phase 2—assignment of wholesale obligors and exposures to rating grades and segmentation of retail exposures;

(3) Phase 3—assignment of risk parameters to wholesale exposures and segments of retail exposures; and

(4) Phase 4—calculation of risk-weighted asset amounts.

(b) *Phase 1—Categorization*. The Federal savings association must determine which of its exposures are wholesale exposures, retail exposures, securitization exposures, or equity exposures. The savings association must categorize each retail exposure as a residential mortgage exposure, a QRE, or an other retail exposure. The savings association must identify which wholesale exposures are HVCRE exposures, sovereign exposures, OTC derivative contracts, repo-style transactions, eligible margin loans, eligible purchased wholesale exposures, unsettled transactions to which section 35 of this appendix applies, and eligible guarantees or eligible credit derivatives that are used as credit risk mitigants. The savings association must identify any on-balance sheet asset that does not meet the definition of a wholesale, retail, equity, or securitization exposure, as well as any non-material portfolio of exposures described in paragraph (e)(4) of this section.

(c) *Phase 2—Assignment of wholesale obligors and exposures to rating grades and retail exposures to segments—(1) Assignment of wholesale obligors and exposures to rating grades*.

(i) The savings association must assign each obligor of a wholesale exposure to a single obligor rating grade and must assign each wholesale exposure to which it does not directly assign an LGD estimate to a loss severity rating grade.

(ii) The savings association must identify which of its wholesale obligors are in default.

(2) *Segmentation of retail exposures*. (i) The savings association must group the retail exposures in each retail subcategory into segments that have homogeneous risk characteristics.

(ii) The savings association must identify which of its retail exposures are in default. The savings association must segment defaulted retail exposures separately from non-defaulted retail exposures.

(iii) If the savings association determines the EAD for eligible margin loans using the approach in paragraph (b) of section 32 of this appendix, the savings association must identify which of its retail exposures are eligible margin loans for which the savings association uses this EAD approach and must segment such eligible margin loans separately from other retail exposures.

(3) *Eligible purchased wholesale exposures*. A Federal savings association may group its eligible purchased wholesale exposures into segments that have homogeneous risk characteristics. A Federal savings association must use the wholesale exposure formula in Table 2 in this section to determine the risk-based capital requirement for each segment of eligible purchased wholesale exposures.

(d) *Phase 3—Assignment of risk parameters to wholesale exposures and segments of retail exposures*—(1) *Quantification process*. Subject to the limitations in this paragraph (d), the Federal savings association must:

(i) Associate a PD with each wholesale obligor rating grade;

(ii) Associate an LGD with each wholesale loss severity rating grade or assign an LGD to each wholesale exposure;

(iii) Assign an EAD and M to each wholesale exposure; and

(iv) Assign a PD, LGD, and EAD to each segment of retail exposures.

(2) *Floor on PD assignment*. The PD for each wholesale obligor or retail segment may not be less than 0.03 percent, except for exposures to or directly and unconditionally guaranteed by a sovereign entity, the Bank for International Settlements, the International Monetary Fund, the European Commission, the European Central Bank, or a multilateral development bank, to which the savings association assigns a rating grade associated with a PD of less than 0.03 percent.

(3) *Floor on LGD estimation*. The LGD for each segment of residential mortgage exposures (other than segments of residential mortgage exposures for which all or substantially all of the principal of each exposure is directly and unconditionally guaranteed by the full faith and credit of a sovereign entity) may not be less than 10 percent.

(4) *Eligible purchased wholesale exposures*. A Federal savings association must assign a PD, LGD, EAD, and M to each segment of eligible purchased wholesale exposures. If the savings association can estimate ECL (but not PD or LGD) for a segment of eligible purchased wholesale exposures, the savings association must assume that the LGD of the segment equals 100 percent and that the PD of the segment equals ECL divided by EAD. The estimated ECL must be calculated for the exposures without regard to any assumption of recourse or guarantees from the seller or other parties.

(5) *Credit risk mitigation—credit derivatives, guarantees, and collateral*. (i) A Federal savings association may take into account the risk reducing effects of eligible guarantees and eligible credit derivatives in support of a wholesale exposure by applying the PD substitution or LGD adjustment treatment to the exposure as provided in section 33 of this appendix or, if applicable, applying double default treatment to the exposure as provided in section 34 of this appendix. A Federal savings association may decide separately for each wholesale exposure that qualifies for the double default treatment under section 34 of this appendix whether to apply the double default treatment or to use the PD substitution or LGD adjustment treatment without recognizing double default effects.

(ii) A Federal savings association may take into account the risk reducing effects of guarantees and credit derivatives in support of retail exposures in a segment when quantifying the PD and LGD of the segment.

(iii) Except as provided in paragraph (d)(6) of this section, a Federal savings association may take into account the risk reducing effects of collateral in support of a wholesale exposure when quantifying the LGD of the exposure and may take into account the risk reducing effects of collateral in support of retail exposures when quantifying the PD and LGD of the segment.

(6) *EAD for OTC derivative contracts, repo-style transactions, and eligible margin loans*. (i) A Federal savings association must calculate its EAD for an OTC derivative contract as provided in paragraphs (c) and (d) of section 32 of this appendix. A Federal savings association may take into account the risk-reducing effects of financial collateral in support of a repo-style transaction or eligible margin loan and of any collateral in support of a repo-style transaction that is included in the savings association's VaR-based measure under any applicable market risk rule through an adjustment to EAD as provided in paragraphs (b) and (d) of section 32 of this appendix. A savings association that takes collateral into account through such an adjustment to EAD under section 32 of this appendix may not reflect such collateral in LGD.

(ii) A Federal savings association may attribute an EAD of zero to:

(A) Derivative contracts that are publicly traded on an exchange that requires the daily receipt and payment of cash-variation margin;

(B) Derivative contracts and repo-style transactions that are outstanding with a qualifying central counterparty (but not for those transactions that a qualifying central counterparty has rejected); and

(C) Credit risk exposures to a qualifying central counterparty in the form of clearing deposits and posted collateral that arise from transactions described in paragraph (d)(6)(ii)(B) of this section.

(7) *Effective maturity*. An exposure's M must be no greater than five years and no less than one year, except that an exposure's M must be no less than one day if the exposure has an original maturity of less than one year and is not part of a Federal savings association's ongoing financing of the obligor. An exposure is not part of a Federal savings association's ongoing financing of the obligor if the savings association:

(i) Has a legal and practical ability not to renew or roll over the exposure in the event of credit deterioration of the obligor;

(ii) Makes an independent credit decision at the inception of the exposure and at every renewal or roll over; and

(iii) Has no substantial commercial incentive to continue its credit relationship with the obligor in the event of credit deterioration of the obligor.

(e) *Phase 4—Calculation of risk-weighted assets*—(1) *Non-defaulted exposures*. (i) A Federal savings association must calculate the dollar risk-based capital requirement for each of its wholesale exposures to a non-defaulted obligor (except eligible guarantees and eligible credit derivatives that hedge another wholesale exposure and exposures to which the savings association applies the double default treatment in section 34 of this appendix) and segments of non-defaulted retail exposures by inserting the assigned risk parameters for the wholesale obligor and exposure or retail segment into the appropriate risk-based capital formula specified in Table 2 and multiplying the output of the formula (K) by the EAD of the exposure or segment. Alternatively, a Federal savings association may apply a 300 percent risk weight to the EAD of an eligible margin loan if the savings association is not able to meet the agencies' requirements for estimation of PD and LGD for the margin loan.

Table 2 – IRB Risk-Based Capital Formulas for Wholesale Exposures to Non-Defaulted Obligors and Segments of Non-Defaulted Retail Exposures[1]

Retail	**Capital Requirement (K) Non-Defaulted Exposures**	$K = \left[LGD \times N\left(\frac{N^{-1}(PD) + \sqrt{R} \times N^{-1}(0.999)}{\sqrt{1-R}} \right) - (LGD \times PD) \right]$
	Correlation Factor (R)	For residential mortgage exposures: $R = 0.15$
		For qualifying revolving exposures: $R = 0.04$
		For other retail exposures: $R = 0.03 + 0.13 \times e^{-35 \times PD}$
Wholesale	**Capital Requirement (K) Non-Defaulted Exposures**	$K = \left[LGD \times N\left(\frac{N^{-1}(PD) + \sqrt{R} \times N^{-1}(0.999)}{\sqrt{1-R}} \right) - (LGD \times PD) \right] \times \left(\frac{1 + (M - 2.5) \times b}{1 - 1.5 \times b} \right)$
	Correlation Factor (R)	For HVCRE exposures: $R = 0.12 + 0.18 \times e^{-50 \times PD}$
		For wholesale exposures other than HVCRE exposures: $R = 0.12 + 0.12 \times e^{-50 \times PD}$
	Maturity Adjustment (b)	$b = (0.11852 - 0.05478 \times \ln(PD))^2$

[1]N(.) means the cumulative distribution function for a standard normal random variable. N^{-1}(.) means the inverse cumulative distribution function for a standard normal random variable. The symbol e refers to the base of the natural logarithms, and the function ln(.) refers to the natural logarithm of the expression within parentheses. The formulas apply when PD is greater than zero. If PD equals zero, the capital requirement K is set equal to zero.

(ii) The sum of all the dollar risk-based capital requirements for each wholesale exposure to a non-defaulted obligor and segment of non-defaulted retail exposures calculated in paragraph (e)(1)(i) of this section and in paragraph (e) of section 34 of this appendix equals the total dollar risk-based capital requirement for those exposures and segments.

(iii) The aggregate risk-weighted asset amount for wholesale exposures to non-defaulted obligors and segments of non-defaulted retail exposures equals the total dollar risk-based capital requirement calculated in paragraph (e)(1)(ii) of this section multiplied by 12.5.

(2) *Wholesale exposures to defaulted obligors and segments of defaulted retail exposures.* (i) The dollar risk-based capital requirement for each wholesale exposure to a defaulted obligor equals 0.08 multiplied by the EAD of the exposure.

(ii) The dollar risk-based capital requirement for a segment of defaulted retail exposures equals 0.08 multiplied by the EAD of the segment.

(iii) The sum of all the dollar risk-based capital requirements for each wholesale exposure to a defaulted obligor calculated in paragraph (e)(2)(i) of this section plus the dollar risk-based capital requirements for each segment of defaulted retail exposures calculated in paragraph (e)(2)(ii) of this section equals the total dollar risk-based capital requirement for those exposures and segments.

(iv) The aggregate risk-weighted asset amount for wholesale exposures to defaulted obligors and segments of defaulted retail exposures equals the total dollar risk-based capital requirement calculated in paragraph (e)(2)(iii) of this section multiplied by 12.5.

(3) *Assets not included in a defined exposure category*. (i) A Federal savings association may assign a risk-weighted asset amount of zero to cash owned and held in all offices of the savings association or in transit and for gold bullion held in the savings association's own vaults, or held in another savings association's vaults on an allocated basis, to the extent the gold bullion assets are offset by gold bullion liabilities.

(ii) The risk-weighted asset amount for the residual value of a retail lease exposure equals such residual value.

(iii) The risk-weighted asset amount for any other on-balance-sheet asset that does not meet the definition of a wholesale, retail, securitization, or equity exposure equals the carrying value of the asset.

(4) *Non-material portfolios of exposures*. The risk-weighted asset amount of a portfolio of exposures for which the Federal savings association has demonstrated to the OCC's satisfaction that the portfolio (when combined with all other portfolios of exposures that the savings association seeks to treat under this paragraph) is not material to the savings association is the sum of the carrying values of on-balance sheet exposures plus the notional amounts of off-balance sheet exposures in the portfolio. For purposes of this paragraph (e)(4), the notional amount of an OTC derivative contract that is not a credit derivative is the EAD of the derivative as calculated in section 32 of this appendix.

Section 32. Counterparty Credit Risk of Repo-Style Transactions, Eligible Margin Loans, and OTC Derivative Contracts

(a) *In General*. (1) This section describes two methodologies—a collateral haircut approach and an internal models methodology—that a Federal savings association may use instead of an LGD estimation methodology 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 and to recognize the benefits of any collateral in mitigating the counterparty credit risk of repo-style transactions that are included in a Federal savings association's VaR-based measure under any applicable market risk rule. A third methodology, the simple VaR methodology, is available for single product netting sets of repo-style transactions and eligible margin loans.

(2) This section also describes the methodology for calculating EAD for an OTC derivative contract or a set of OTC derivative contracts subject to a qualifying master netting agreement. A Federal savings association also may use the internal models methodology to estimate EAD for qualifying cross-product master netting agreements.

(3) A Federal savings association may only use the standard supervisory haircut approach with a minimum 10-business-day holding period to recognize in EAD the benefits of conforming residential mortgage collateral that secures repo-style transactions (other than repo-style transactions included in the savings association's VaR-based measure under any applicable market risk rule), eligible margin loans, and OTC derivative contracts.

(4) A Federal savings association may use any combination of the three methodologies for collateral recognition; however, it must use the same methodology for similar exposures.

(b) *EAD for eligible margin loans and repo-style transactions*—(1) *General*. A Federal savings association 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 factoring the collateral into its LGD estimates for the exposure. Alternatively, a savings association may estimate an unsecured LGD for the exposure, as well as for any repo-style transaction that is included in the savings association's VaR-based measure under any applicable market risk rule, and determine the EAD of the exposure using:

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

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

(iii) The internal models methodology described in paragraph (d) of this section.

(2) *Collateral haircut approach*—(i) *EAD equation*. A Federal savings association may determine EAD for an eligible margin loan, repo-style transaction, or netting set by setting EAD equal to max $\{0, [(\Sigma E - \Sigma C) + \Sigma(Es \times Hs) + \Sigma(Efx \times Hfx)]\}$, where:

(A) ΣE equals the value of the exposure (the sum of the current market values of all instruments, gold, and cash the Federal savings association 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 market values of all instruments, gold, and cash the Federal savings association has borrowed, purchased subject to resale, or taken as collateral from the counterparty under the transaction (or netting set));

(C) Es 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 market values of the instrument or gold the Federal savings association has lent, sold subject to repurchase, or posted as collateral to the counterparty minus the sum of the current market values of that same instrument or gold the savings association has borrowed, purchased subject to resale, or taken as collateral from the counterparty);

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

(E) Efx 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 market values of any instruments or cash in the currency the Federal savings association has lent, sold subject to repurchase, or posted as collateral to the counterparty minus the sum of the current market values of any instruments or cash in the currency the savings association has borrowed, purchased subject to resale, or taken as collateral from the counterparty); and

(F) Hfx equals the haircut appropriate to the mismatch between the currency referenced in Efx and the settlement currency.

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

(*1*) A Federal savings association must use the haircuts for market price volatility (Hs) in Table 3, as adjusted in certain circumstances as provided in paragraph (b)(2)(ii)(A)(*3*) and (*4*) of this section;

TABLE 3—STANDARD SUPERVISORY MARKET PRICE VOLATILITY HAIRCUTS [1]

Applicable external rating grade category for debt securities	Residual maturity for debt securities	Issuers exempt from the 3 basis point floor	Other issuers
Two highest investment-grade rating categories for long-term ratings/highest investment-grade rating category for short-term ratings.	≤ 1 year	0.005	0.01
	>1 year, ≤ 5 years	0.02	0.04
	> 5 years	0.04	0.08
Two lowest investment-grade rating categories for both short- and long-term ratings.	≤ 1 year	0.01	0.02
	> 1 year, ≤ 5 years	0.03	0.06
	> 5 years	0.06	0.12
One rating category below investment grade	All	0.15	0.25
Main index equities (including convertible bonds) and gold		0.15	

TABLE 3—STANDARD SUPERVISORY MARKET PRICE VOLATILITY HAIRCUTS [1]—Continued

Applicable external rating grade category for debt securities	Residual maturity for debt securities	Issuers exempt from the 3 basis point floor	Other issuers
Other publicly traded equities (including convertible bonds), conforming residential mortgages, and nonfinancial collateral.		0.25	
Mutual funds		Highest haircut applicable to any security in which the fund can invest.	
Cash on deposit with the Federal savings association (including a certificate of deposit issued by the savings association).		0	

[1] The market price volatility haircuts in Table 3 are based on a ten-business-day holding period.

(*2*) For currency mismatches, a Federal savings association must use a haircut for foreign exchange rate volatility (Hfx) of 8 percent, as adjusted in certain circumstances as provided in paragraph (b)(2)(ii)(A)(*3*) and (*4*) of this section.

(*3*) For repo-style transactions, a Federal savings association may multiply the supervisory haircuts provided in paragraphs (b)(2)(ii)(A)(*1*) and (*2*) of this section by the square root of ½ (which equals 0.707107).

(*4*) A Federal savings association 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) where and as appropriate to take into account the illiquidity of an instrument.

(iii) *Own internal estimates for haircuts.* With the prior written approval of the OCC, a Federal savings association may calculate haircuts (Hs and Hfx) using its own internal estimates of the volatilities of market prices and foreign exchange rates.

(A) To receive the OCC's approval to use its own internal estimates, a Federal savings association must satisfy the following minimum quantitative standards:

(*1*) A Federal savings association 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. When a Federal savings association 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:

$$H_M = H_N \sqrt{\frac{T_M}{T_N}}, \text{ where}$$

(*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 savings association to derive H_N; and

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

(*3*) A Federal savings association must adjust holding periods upwards where and as appropriate to take into account the illiquidity of an instrument.

(*4*) The historical observation period must be at least one year.

(*5*) A Federal savings association must update its data sets and recompute 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 have an applicable external rating of investment grade, a Federal savings association may calculate haircuts for categories of securities. For a category of securities, the savings association 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 savings association has lent, sold subject to repurchase, posted as collateral, borrowed, purchased subject to resale, or taken as collateral. In determining relevant categories, the savings association must at a minimum take into account:

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

(*2*) The applicable external rating 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 have an applicable external rating of below investment grade and equity securities, a Federal savings association 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 Federal savings association 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) A Federal savings association'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 approval of the OCC, a Federal savings association 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 savings association must set EAD equal to max $\{0, [(\Sigma E - \Sigma C) + PFE]\}$, where:

(i) ΣE equals the value of the exposure (the sum of the current market values of all instruments, gold, and cash the savings association 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 market values of all instruments, gold, and cash the savings association 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 savings association's empirically based best estimate of the 99th percentile, one-tailed confidence interval for an increase in the value of $(\Sigma E - \Sigma C)$ over a five-business-day holding period for repo-style transactions or over a ten-business-day holding period for eligible margin loans using a minimum one-year historical observation period of price data representing the instruments that the savings association has lent, sold subject to repurchase, posted as collateral, borrowed, purchased subject to resale, or taken as collateral. The savings association must validate its VaR model, including by establishing and maintaining a rigorous and regular backtesting regime.

(c) *EAD for OTC derivative contracts.* (1) A Federal savings association must determine the EAD for an OTC derivative contract that is not subject to a qualifying master netting agreement using the current exposure methodology in paragraph (c)(5) of this section or using the internal models methodology described in paragraph (d) of this section.

(2) A Federal savings association must determine the EAD for multiple OTC derivative contracts that are subject to a qualifying master netting agreement using the current exposure methodology in paragraph (c)(6) of this section or using the internal models methodology described in paragraph (d) of this section.

(3) *Counterparty credit risk for credit derivatives.* Notwithstanding the above:

(i) A Federal savings association that purchases a credit derivative that is recognized under section 33 or 34 of this appendix as a credit risk mitigant for an exposure that is not a covered position under any applicable market risk rule need not compute a separate

counterparty credit risk capital requirement under this section so long as the savings association 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.

(ii) A Federal savings association that is the protection provider in a credit derivative must treat the credit derivative as a wholesale exposure to the reference obligor and need not compute 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 (unless the savings association is treating the credit derivative as a covered position under any applicable market risk rule, in which case the savings association must compute a supplemental counterparty credit risk capital requirement under this section).

(4) *Counterparty credit risk for equity derivatives.* A Federal savings association must treat an equity derivative contract as an equity exposure and compute a risk-weighted asset amount for the equity derivative contract under part VI (unless the savings association is treating the contract as a covered position under any applicable market risk rule). In addition, if the savings association is treating the contract as a covered position under any applicable market risk rule and in certain other cases described in section 55 of this appendix, the savings association must also calculate a risk-based capital requirement for the counterparty credit risk of an equity derivative contract under this part.

(5) *Single OTC derivative contract.* Except as modified by paragraph (c)(7) of this section, the EAD for a single OTC derivative contract that is not subject to a qualifying master netting agreement is equal to the sum of the Federal savings association's current credit exposure and potential future credit exposure (PFE) on the derivative contract.

(i) *Current credit exposure.* The current credit exposure for a single OTC derivative contract is the greater of the mark-to-market value of the derivative contract or zero.

(ii) *PFE.* The PFE for a single OTC derivative contract, including an OTC derivative contract with a negative mark-to-market value, is calculated by multiplying the notional principal amount of the derivative contract by the appropriate conversion factor in Table 4. For purposes of calculating either the PFE under this paragraph or the gross PFE under paragraph (c)(6) of this section for exchange rate contracts and other similar contracts in which the notional principal amount is equivalent to the cash flows, notional principal amount is the net receipts to each party falling due on each value date in each currency. For any OTC derivative contract that does not fall within one of the specified categories in Table 4, the PFE must be calculated using the ''other'' conversion factors. A Federal savings association must use an OTC derivative contract's effective notional principal amount (that is, its apparent or stated notional principal amount multiplied by any multiplier in the OTC derivative contract) rather than its apparent or stated notional principal amount in calculating PFE. PFE of the protection provider of a credit derivative is capped at the net present value of the amount of unpaid premiums.

TABLE 4—CONVERSION FACTOR MATRIX FOR OTC DERIVATIVE CONTRACTS[1]

Remaining maturity[2]	Interest rate	Foreign exchange rate and gold	Credit (investment-grade reference obligor)[3]	Credit (non-investment-grade reference obligor)	Equity	Precious metals (except gold)	Other
One year or less	0.00	0.01	0.05	0.10	0.06	0.07	0.10
Over one to five years	0.005	0.05	0.05	0.10	0.08	0.07	0.12
Over five years	0.015	0.075	0.05	0.10	0.10	0.08	0.15

[1] For an OTC derivative contract with multiple exchanges of principal, the conversion factor is multiplied by the number of remaining payments in the derivative contract.

[2] For an OTC derivative contract that is structured such that on specified dates any outstanding exposure is settled and the terms are reset so that the market value of the contract is zero, the remaining maturity equals the time until the next reset date. For an interest rate derivative contract with a remaining maturity of greater than one year that meets these criteria, the minimum conversion factor is 0.005.

[3] A Federal savings association must use the column labeled ''Credit (investment-grade reference obligor)'' for a credit derivative whose reference obligor has an outstanding unsecured long-term debt security without credit enhancement that has a long-term applicable external rating of at least investment grade. A savings association must use the column labeled ''Credit (non-investment-grade reference obligor)'' for all other credit derivatives.

(6) *Multiple OTC derivative contracts subject to a qualifying master netting agreement.* Except as modified by paragraph (c)(7) of this section, the EAD for multiple OTC derivative contracts subject to a qualifying master netting agreement is equal to the sum of the net current credit exposure and the adjusted sum of the PFE exposure for all OTC derivative contracts subject to the qualifying master netting agreement.

(i) *Net current credit exposure.* The net current credit exposure is the greater of:

(A) The net sum of all positive and negative mark-to-market values of the individual OTC derivative contracts subject to the qualifying master netting agreement; or

(B) Zero.

(ii) *Adjusted sum of the PFE.* The adjusted sum of the PFE, Anet, is calculated as Anet = (0.4 × Agross)+(0.6 × NGR × Agross), where:

(A) Agross = the gross PFE (that is, the sum of the PFE amounts (as determined under paragraph (c)(5)(ii) of this section) for each individual OTC derivative contract subject to the qualifying master netting agreement); and

(B) NGR = the net to gross ratio (that is, the ratio of the net current credit exposure to the gross current credit exposure). In calculating the NGR, the gross current credit exposure equals the sum of the positive current credit exposures (as determined under paragraph (c)(5)(i) of this section) of all individual OTC derivative contracts subject to the qualifying master netting agreement.

(7) *Collateralized OTC derivative contracts.* A Federal savings association may recognize the credit risk mitigation benefits of financial collateral that secures an OTC derivative contract or single-product netting set of OTC derivatives by factoring the collateral into its LGD estimates for the contract or netting set. Alternatively, a Federal savings association may recognize the credit risk mitigation benefits of financial collateral that secures such a contract or netting set that is marked to market on a daily basis and subject to a daily margin maintenance requirement by estimating an unsecured LGD for the contract or netting set and adjusting the EAD calculated under paragraph (c)(5) or (c)(6) of this section using the collateral haircut approach in paragraph (b)(2) of this section. The savings association must substitute the EAD calculated under paragraph (c)(5) or (c)(6) of this section for ΣE in the equation in paragraph (b)(2)(i) of this section and must use a ten-business-day minimum holding period (T_M= 10).

(d) *Internal models methodology.* (1) With prior written approval from the OCC, a Federal savings association may use the internal models methodology in this paragraph (d) to determine EAD for counterparty credit risk for OTC derivative contracts (collateralized or uncollateralized) and single-product netting sets thereof, for eligible margin loans and single-product netting sets thereof, and for repo-style transactions and single-product netting sets thereof. A Federal savings association that uses the internal models methodology for a particular transaction type (OTC derivative contracts, eligible margin loans, or repo-style transactions) must use the internal models methodology for all transactions of that transaction type. A Federal savings association may choose to use the internal models methodology for one or two of these three types of exposures and not the other types. A Federal savings association may also use the internal models methodology for OTC derivative contracts, eligible margin loans, and repo-style transactions subject to a qualifying cross-product netting agreement if:

(i) The savings association effectively integrates the risk mitigating effects of cross-product netting into its risk management and other information technology systems; and

(ii) The savings association obtains the prior written approval of the OCC. A savings association that uses the internal models methodology for a transaction type must receive approval from the OCC to cease using the methodology for that transaction type or to make a material change to its internal model.

(2) Under the internal models methodology, a Federal savings association uses an internal model to estimate the expected exposure (EE) for a netting

set and then calculates EAD based on that EE.

(i) The savings association must use its internal model's probability distribution for changes in the market value of a netting set that are attributable to changes in market variables to determine EE.

(ii) Under the internal models methodology, EAD = α x effective EPE, or, subject to the OCC's approval as provided in paragraph (d)(7), a more conservative measure of EAD.

$$(A)\ \text{Effective EPE}_{t_k} = \sum_{k=1}^{n} \text{Effective EE}_{t_k} \times \Delta t_k$$

(that is, effective EPE is the time-weighted average of effective EE where the weights are the proportion that an individual effective EE represents in a one-year time interval) where:

(*1*) Effective EE_tk = max (Effective $EE_tk - 1$, EE_tk) (that is, for a specific $date_tk$, effective EE is the greater of EE at that date or the effective EE at the previous date); and

(*2*) $_tk$ represents the kth future time period in the model and there are n time periods represented in the model over the first year; and

(B) α = 1.4 except as provided in paragraph (d)(6), or when the OCC has determined that the Federal savings association must set α higher based on the savings association's specific characteristics of counterparty credit risk.

(iii) A Federal savings association may include financial collateral currently posted by the counterparty as collateral (but may not include other forms of collateral) when calculating EE.

(iv) If a Federal savings association hedges some or all of the counterparty credit risk associated with a netting set using an eligible credit derivative, the savings association may take the reduction in exposure to the counterparty into account when estimating EE. If the savings association recognizes this reduction in exposure to the counterparty in its estimate of EE, it must also use its internal model to estimate a separate EAD for the savings association's exposure to the protection provider of the credit derivative.

(3) To obtain the OCC's approval to calculate the distributions of exposures upon which the EAD calculation is based, the Federal savings association must demonstrate to the satisfaction of the OCC that it has been using for at least one year an internal model that broadly meets the following minimum standards, with which the savings association must maintain compliance:

(i) The model must have the systems capability to estimate the expected exposure to the counterparty on a daily basis (but is not expected to estimate or report expected exposure on a daily basis).

(ii) The model must estimate expected exposure at enough future dates to reflect accurately all the future cash flows of contracts in the netting set.

(iii) The model must account for the possible non-normality of the exposure distribution, where appropriate.

(iv) The savings association must measure, monitor, and control current counterparty exposure and the exposure to the counterparty over the whole life of all contracts in the netting set.

(v) The savings association must be able to measure and manage current exposures gross and net of collateral held, where appropriate. The savings association must estimate expected exposures for OTC derivative contracts both with and without the effect of collateral agreements.

(vi) The savings association must have procedures to identify, monitor, and control specific wrong-way risk throughout the life of an exposure. Wrong-way risk in this context is the risk that future exposure to a counterparty will be high when the counterparty's probability of default is also high.

(vii) The model must use current market data to compute current exposures. When estimating model parameters based on historical data, at least three years of historical data that cover a wide range of economic conditions must be used and must be updated quarterly or more frequently if market conditions warrant. The savings association should consider using model parameters based on forward-looking measures, where appropriate.

(viii) A savings association must subject its internal model to an initial validation and annual model review process. The model review should consider whether the inputs and risk factors, as well as the model outputs, are appropriate.

(4) *Maturity*. (i) If the remaining maturity of the exposure or the longest-dated contract in the netting set is greater than one year, the Federal savings association must set M for the exposure or netting set equal to the lower of five years or M(EPE)[3] where:

$$(A)\ M(EPE) = 1 + \frac{\sum_{t_k > 1\,year}^{maturity} EE_k \times \Delta t_k \times df_k}{\sum_{k=1}^{t_k \le 1\,year} effectiveEE_k \times \Delta t_k \times df_k}$$

(B) dfk is the risk-free discount factor for future time period tk; and

(C) Δt k = t k − t k − 1.

(ii) If the remaining maturity of the exposure or the longest-dated contract in the netting set is one year or less, the savings association must set M for the exposure or netting set equal to one year, except as provided in paragraph (d)(7) of section 31 of this appendix.

(5) *Collateral agreements*. A Federal savings association may capture the effect on EAD of a collateral agreement that requires receipt of collateral when exposure to the counterparty increases but may not capture the effect on EAD of a collateral agreement that requires receipt of collateral when counterparty credit quality deteriorates. For this purpose, a collateral agreement means a legal contract that specifies the time when, and circumstances under which, the counterparty is required to pledge collateral to the savings association for a single financial contract or for all financial contracts in a netting set and confers upon the savings association a perfected, first priority security interest (notwithstanding the prior security interest of any custodial agent), or the legal equivalent thereof, in the collateral posted by the counterparty under the agreement. This security interest must provide the savings association with a right to close out the financial positions and liquidate the collateral upon an event of default of, or failure to perform by, the counterparty under the collateral agreement. A contract would not satisfy this requirement if the savings association's exercise of rights under the agreement may be stayed or avoided under applicable law in the relevant jurisdictions. Two methods are available to capture the effect of a collateral agreement:

(i) With prior written approval from the OCC, a savings association may include the effect of a collateral agreement within its internal model used to calculate EAD. The savings association may set EAD equal to the expected exposure at the end of the margin period of risk. The margin period of risk means, with respect to a netting set subject to a collateral agreement, the time period from the most recent exchange of collateral with a counterparty until the next required exchange of collateral plus the period of time required to sell and realize the

[3] Alternatively, a Federal savings association that uses an internal model to calculate a one-sided credit valuation adjustment may use the effective credit duration estimated by the model as M(EPE) in place of the formula in paragraph (d)(4).

proceeds of the least liquid collateral that can be delivered under the terms of the collateral agreement and, where applicable, the period of time required to re-hedge the resulting market risk, upon the default of the counterparty. The minimum margin period of risk is five business days for repo-style transactions and ten business days for other transactions when liquid financial collateral is posted under a daily margin maintenance requirement. This period should be extended to cover any additional time between margin calls; any potential closeout difficulties; any delays in selling collateral, particularly if the collateral is illiquid; and any impediments to prompt re-hedging of any market risk.

(ii) A savings association that can model EPE without collateral agreements but cannot achieve the higher level of modeling sophistication to model EPE with collateral agreements can set effective EPE for a collateralized netting set equal to the lesser of:

(A) The threshold, defined as the exposure amount at which the counterparty is required to post collateral under the collateral agreement, if the threshold is positive, plus an add-on that reflects the potential increase in exposure of the netting set over the margin period of risk. The add-on is computed as the expected increase in the netting set's exposure beginning from current exposure of zero over the margin period of risk. The margin period of risk must be at least five business days for netting sets consisting only of repo-style transactions subject to daily re-margining and daily marking-to-market, and ten business days for all other netting sets; or

(B) Effective EPE without a collateral agreement.

(6) *Own estimate of alpha.* With prior written approval of the OCC, a Federal savings association may calculate alpha as the ratio of economic capital from a full simulation of counterparty exposure across counterparties that incorporates a joint simulation of market and credit risk factors (numerator) and economic capital based on EPE (denominator), subject to a floor of 1.2. For purposes of this calculation, economic capital is the unexpected losses for all counterparty credit risks measured at a 99.9 percent confidence level over a one-year horizon. To receive approval, the savings association must meet the following minimum standards to the satisfaction of the OCC:

(i) The savings association's own estimate of alpha must capture in the numerator the effects of:

(A) The material sources of stochastic dependency of distributions of market values of transactions or portfolios of transactions across counterparties;

(B) Volatilities and correlations of market risk factors used in the joint simulation, which must be related to the credit risk factor used in the simulation to reflect potential increases in volatility or correlation in an economic downturn, where appropriate; and

(C) The granularity of exposures (that is, the effect of a concentration in the proportion of each counterparty's exposure that is driven by a particular risk factor).

(ii) The savings association must assess the potential model uncertainty in its estimates of alpha.

(iii) The savings association must calculate the numerator and denominator of alpha in a consistent fashion with respect to modeling methodology, parameter specifications, and portfolio composition.

(iv) The savings association must review and adjust as appropriate its estimates of the numerator and denominator of alpha on at least a quarterly basis and more frequently when the composition of the portfolio varies over time.

(7) *Other measures of counterparty exposure.* With prior written approval of the OCC, a Federal savings association may set EAD equal to a measure of counterparty credit risk exposure, such as peak EAD, that is more conservative than an alpha of 1.4 (or higher under the terms of paragraph (d)(2)(ii)(B) of this section) times EPE for every counterparty whose EAD will be measured under the alternative measure of counterparty exposure. The savings association must demonstrate the conservatism of the measure of counterparty credit risk exposure used for EAD. For material portfolios of new

OTC derivative products, the savings association may assume that the current exposure methodology in paragraphs (c)(5) and (c)(6) of this section meets the conservatism requirement of this paragraph for a period not to exceed 180 days. For immaterial portfolios of OTC derivative contracts, the savings association generally may assume that the current exposure methodology in paragraphs (c)(5) and (c)(6) of this section meets the conservatism requirement of this paragraph.

Section 33. Guarantees and Credit Derivatives: PD Substitution and LGD Adjustment Approaches

(a) *Scope*. (1) This section applies to wholesale exposures for which:

(i) Credit risk is fully covered by an eligible guarantee or eligible credit derivative; or

(ii) Credit risk is covered on a pro rata basis (that is, on a basis in which the Federal savings association and the protection provider share losses proportionately) by an eligible guarantee or eligible credit derivative.

(2) Wholesale exposures on which there is a tranching of credit risk (reflecting at least two different levels of seniority) are securitization exposures subject to the securitization framework in part V.

(3) A Federal savings association may elect to recognize the credit risk mitigation benefits of an eligible guarantee or eligible credit derivative covering an exposure described in paragraph (a)(1) of this section by using the PD substitution approach or the LGD adjustment approach in paragraph (c) of this section or, if the transaction qualifies, using the double default treatment in section 34 of this appendix. A savings association's PD and LGD for the hedged exposure may not be lower than the PD and LGD floors described in paragraphs (d)(2) and (d)(3) of section 31 of this appendix.

(4) If multiple eligible guarantees or eligible credit derivatives cover a single exposure described in paragraph (a)(1) of this section, a Federal savings association may treat the hedged exposure as multiple separate exposures each covered by a single eligible guarantee or eligible credit derivative and may calculate a separate risk-based capital requirement for each separate exposure as described in paragraph (a)(3) of this section.

(5) If a single eligible guarantee or eligible credit derivative covers multiple hedged wholesale exposures described in paragraph (a)(1) of this section, a Federal savings association must treat each hedged exposure as covered by a separate eligible guarantee or eligible credit derivative and must calculate a separate risk-based capital requirement for each exposure as described in paragraph (a)(3) of this section.

(6) A Federal savings association must use the same risk parameters for calculating ECL as it uses for calculating the risk-based capital requirement for the exposure.

(b) *Rules of recognition*. (1) A Federal savings association may only recognize the credit risk mitigation benefits of eligible guarantees and eligible credit derivatives.

(2) A Federal savings association may only recognize the credit risk mitigation benefits of an eligible credit derivative to hedge an exposure that is different from the credit derivative's reference exposure used for determining the derivative's cash settlement value, deliverable obligation, or occurrence of a credit event if:

(i) The reference exposure ranks pari passu (that is, equally) with or is junior to the hedged exposure; and

(ii) The reference exposure and the hedged exposure are exposures to the same legal entity, and legally enforceable cross-default or cross-acceleration clauses are in place to assure payments under the credit derivative are triggered when the obligor fails to pay under the terms of the hedged exposure.

(c) *Risk parameters for hedged exposures*—(1) *PD substitution approach*—(i) *Full coverage*. If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is greater than or equal to the EAD of the hedged exposure, a Federal savings association may recognize the guarantee or credit derivative in determining the savings association's risk-based capital requirement for the hedged exposure by substituting the

PD associated with the rating grade of the protection provider for the PD associated with the rating grade of the obligor in the risk-based capital formula applicable to the guarantee or credit derivative in Table 2 and using the appropriate LGD as described in paragraph (c)(1)(iii) of this section. If the savings association determines that full substitution of the protection provider's PD leads to an inappropriate degree of risk mitigation, the savings association may substitute a higher PD than that of the protection provider.

(ii) *Partial coverage.* If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is less than the EAD of the hedged exposure, the Federal savings association must treat the hedged exposure as two separate exposures (protected and unprotected) in order to recognize the credit risk mitigation benefit of the guarantee or credit derivative.

(A) The savings association must calculate its risk-based capital requirement for the protected exposure under section 31 of this appendix, where PD is the protection provider's PD, LGD is determined under paragraph (c)(1)(iii) of this section, and EAD is P. If the savings association determines that full substitution leads to an inappropriate degree of risk mitigation, the savings association may use a higher PD than that of the protection provider.

(B) The savings association must calculate its risk-based capital requirement for the unprotected exposure under section 31 of this appendix, where PD is the obligor's PD, LGD is the hedged exposure's LGD (not adjusted to reflect the guarantee or credit derivative), and EAD is the EAD of the original hedged exposure minus P.

(C) The treatment in this paragraph (c)(1)(ii) is applicable when the credit risk of a wholesale exposure is covered on a partial pro rata basis or when an adjustment is made to the effective notional amount of the guarantee or credit derivative under paragraph (d), (e), or (f) of this section.

(iii) *LGD of hedged exposures.* The LGD of a hedged exposure under the PD substitution approach is equal to:

(A) The lower of the LGD of the hedged exposure (not adjusted to reflect the guarantee or credit derivative) and the LGD of the guarantee or credit derivative, if the guarantee or credit derivative provides the Federal savings association with the option to receive immediate payout upon triggering the protection; or

(B) The LGD of the guarantee or credit derivative, if the guarantee or credit derivative does not provide the Federal savings association with the option to receive immediate payout upon triggering the protection.

(2) *LGD adjustment approach*—(i) *Full coverage.* If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is greater than or equal to the EAD of the hedged exposure, the Federal savings association's risk-based capital requirement for the hedged exposure is the greater of:

(A) The risk-based capital requirement for the exposure as calculated under section 31 of this appendix, with the LGD of the exposure adjusted to reflect the guarantee or credit derivative; or

(B) The risk-based capital requirement for a direct exposure to the protection provider as calculated under section 31 of this appendix, using the PD for the protection provider, the LGD for the guarantee or credit derivative, and an EAD equal to the EAD of the hedged exposure.

(ii) *Partial coverage.* If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is less than the EAD of the hedged exposure, the Federal savings association must treat the hedged exposure as two separate exposures (protected and unprotected) in order to recognize the credit risk mitigation benefit of the guarantee or credit derivative.

(A) The savings association's risk-based capital requirement for the protected exposure would be the greater of:

(*1*) The risk-based capital requirement for the protected exposure as calculated under section 31 of this appendix, with the LGD of the exposure adjusted to reflect the guarantee or credit derivative and EAD set equal to P; or

(*2*) The risk-based capital requirement for a direct exposure to the guarantor as calculated under section 31 of this appendix, using the PD for the protection provider, the LGD for the guarantee or credit derivative, and an EAD set equal to P.

(B) The savings association must calculate its risk-based capital requirement for the unprotected exposure under section 31 of this appendix, where PD is the obligor's PD, LGD is the hedged exposure's LGD (not adjusted to reflect the guarantee or credit derivative), and EAD is the EAD of the original hedged exposure minus P.

(3) *M of hedged exposures*. The M of the hedged exposure is the same as the M of the exposure if it were unhedged.

(d) *Maturity mismatch*. (1) A Federal savings association that recognizes an eligible guarantee or eligible credit derivative in determining its risk-based capital requirement for a hedged exposure must adjust the effective notional amount of the credit risk mitigant to reflect any maturity mismatch between the hedged exposure and the credit risk mitigant.

(2) A maturity mismatch occurs when the residual maturity of a credit risk mitigant is less than that of the hedged exposure(s).

(3) The residual maturity of a hedged exposure is the longest possible remaining time before the obligor is scheduled to fulfill its obligation on the exposure. If a credit risk mitigant has embedded options that may reduce its term, the savings association (protection purchaser) must use the shortest possible residual maturity for the credit risk mitigant. If a call is at the discretion of the protection provider, the residual maturity of the credit risk mitigant is at the first call date. If the call is at the discretion of the savings association (protection purchaser), but the terms of the arrangement at origination of the credit risk mitigant contain a positive incentive for the savings association to call the transaction before contractual maturity, the remaining time to the first call date is the residual maturity of the credit risk mitigant. For example, where there is a step-up in cost in conjunction with a call feature or where the effective cost of protection increases over time even if credit quality remains the same or improves, the residual maturity of the credit risk mitigant will be the remaining time to the first call.

(4) A credit risk mitigant with a maturity mismatch may be recognized only if its original maturity is greater than or equal to one year and its residual maturity is greater than three months.

(5) When a maturity mismatch exists, the savings association must apply the following adjustment to the effective notional amount of the credit risk mitigant: $Pm = E \times (t - 0.25)/(T - 0.25)$, where:

(i) Pm = effective notional amount of the credit risk mitigant, adjusted for maturity mismatch;

(ii) E = effective notional amount of the credit risk mitigant;

(iii) t = the lesser of T or the residual maturity of the credit risk mitigant, expressed in years; and

(iv) T = the lesser of five or the residual maturity of the hedged exposure, expressed in years.

(e) *Credit derivatives without restructuring as a credit event*. If a Federal savings association recognizes an eligible credit derivative that does not include as a credit event a restructuring of the hedged exposure involving forgiveness or postponement of principal, interest, or fees that results in a credit loss event (that is, a charge-off, specific provision, or other similar debit to the profit and loss account), the savings association must apply the following adjustment to the effective notional amount of the credit derivative: $Pr = Pm \times 0.60$, Where:

(1) Pr = effective notional amount of the credit risk mitigant, adjusted for lack of restructuring event (and maturity mismatch, if applicable); and

(2) Pm = effective notional amount of the credit risk mitigant adjusted for maturity mismatch (if applicable).

(f) *Currency mismatch.* (1) If a Federal savings association recognizes an eligible guarantee or eligible credit derivative that is denominated in a currency different from that in which the hedged exposure is denominated, the savings association must apply the following formula to the effective notional amount of the guarantee or credit derivative: $Pc = Pr \times (1 - H_{FX})$, where:

(i) Pc = effective notional amount of the credit risk mitigant, adjusted for currency mismatch (and maturity mismatch and lack of restructuring event, if applicable);

(ii) Pr = effective notional amount of the credit risk mitigant (adjusted for maturity mismatch and lack of restructuring event, if applicable); and

(iii) H_{FX} = haircut appropriate for the currency mismatch between the credit risk mitigant and the hedged exposure.

(2) A Federal savings association must set H_{FX} equal to 8 percent unless it qualifies for the use of and uses its own internal estimates of foreign exchange volatility based on a ten-business-day holding period and daily marking-to-market and remargining. A savings association qualifies for the use of its own internal estimates of foreign exchange volatility if it qualifies for:

(i) The own-estimates haircuts in paragraph (b)(2)(iii) of section 32 of this appendix;

(ii) The simple VaR methodology in paragraph (b)(3) of section 32 of this appendix; or

(iii) The internal models methodology in paragraph (d) of section 32 of this appendix.

(3) A Federal savings association must adjust H_{FX} calculated in paragraph (f)(2) of this section upward if the savings association revalues the guarantee or credit derivative less frequently than once every ten business days using the square root of time formula provided in paragraph (b)(2)(iii)(A)(*2*) of section 32 of this appendix.

Section 34. Guarantees and Credit Derivatives: Double Default Treatment

(a) *Eligibility and operational criteria for double default treatment.* A Federal savings association may recognize the credit risk mitigation benefits of a guarantee or credit derivative covering an exposure described in paragraph (a)(1) of section 33 of this appendix by applying the double default treatment in this section if all the following criteria are satisfied.

(1) The hedged exposure is fully covered or covered on a pro rata basis by:

(i) An eligible guarantee issued by an eligible double default guarantor; or

(ii) An eligible credit derivative that meets the requirements of paragraph (b)(2) of section 33 of this appendix and is issued by an eligible double default guarantor.

(2) The guarantee or credit derivative is:

(i) An uncollateralized guarantee or uncollateralized credit derivative (for example, a credit default swap) that provides protection with respect to a single reference obligor; or

(ii) An nth-to-default credit derivative (subject to the requirements of paragraph (m) of section 42 of this appendix).

(3) The hedged exposure is a wholesale exposure (other than a sovereign exposure).

(4) The obligor of the hedged exposure is not:

(i) An eligible double default guarantor or an affiliate of an eligible double default guarantor; or

(ii) An affiliate of the guarantor.

(5) The Federal savings association does not recognize any credit risk mitigation benefits of the guarantee or credit derivative for the hedged exposure other than through application of the double default treatment as provided in this section.

(6) The Federal savings association has implemented a process (which has received the prior, written approval of the OCC) to detect excessive correlation between the creditworthiness of the obligor of the hedged exposure and the protection provider. If excessive correlation is present, the savings association may not use the double default treatment for the hedged exposure.

(b) *Full coverage.* If the transaction meets the criteria in paragraph (a) of this section and the protection amount (P) of the guarantee or credit derivative is at least equal to the EAD of the hedged exposure, the Federal savings association may determine its risk-weighted asset amount for the hedged exposure under paragraph (e) of this section.

(c) *Partial coverage.* If the transaction meets the criteria in paragraph (a) of this section and the protection amount (P) of the guarantee or credit derivative is less than the EAD of the hedged exposure, the Federal savings association must treat the hedged exposure as two separate exposures (protected and unprotected) in order to recognize double default treatment on the protected portion of the exposure.

(1) For the protected exposure, the savings association must set EAD equal to P and calculate its risk-weighted asset amount as provided in paragraph (e) of this section.

(2) For the unprotected exposure, the savings association must set EAD equal to the EAD of the original exposure minus P and then calculate its risk-weighted asset amount as provided in section 31 of this appendix.

(d) *Mismatches.* For any hedged exposure to which a Federal savings association applies double default treatment, the savings association must make applicable adjustments to the protection amount as required in paragraphs (d), (e), and (f) of section 33 of this appendix.

(e) *The double default dollar risk-based capital requirement.* The dollar risk-based capital requirement for a hedged exposure to which a Federal savings association has applied double default treatment is K_{DD} multiplied by the EAD of the exposure. K_{DD} is calculated according to the following formula: $K_{DD} = K_o \times (0.15 + 160 \times PD_g)$,

Where:

(1)

$$K_O = LGD_g \times \left[N\left(\frac{N^{-1}(PD_o) + N^{-1}(0.999)\sqrt{\rho_{os}}}{\sqrt{1-\rho_{os}}} \right) - PD_o \right] \times \left[\frac{1+(M-2.5)\times b}{1-1.5\times b} \right]$$

(2) PD_g = PD of the protection provider.

(3) PD_o = PD of the obligor of the hedged exposure.

(4) LGD_g = (i) The lower of the LGD of the hedged exposure (not adjusted to reflect the guarantee or credit derivative) and the LGD of the guarantee or credit derivative, if the guarantee or credit derivative provides the savings association with the option to receive immediate payout on triggering the protection; or

(ii) The LGD of the guarantee or credit derivative, if the guarantee or credit derivative does not provide the savings association with the option to receive immediate payout on triggering the protection.

(5) ρ_{OS} (asset value correlation of the obligor) is calculated according to the appropriate formula for (R) provided in Table 2 in section 31 of this appendix, with PD equal to PD_o.

(6) b (maturity adjustment coefficient) is calculated according to the formula for b provided in Table 2 in section 31 of this appendix, with PD equal to the lesser of PD_o and PD_g.

(7) M (maturity) is the effective maturity of the guarantee or credit derivative, which may not be less than one year or greater than five years.

Section 35. Risk-Based Capital Requirement for Unsettled Transactions

(a) *Definitions.* For purposes of this section:

(1) *Delivery-versus-payment (DvP) transaction* means a securities or commodities transaction in which the buyer is obligated to make payment only if the seller has made delivery of the securities or commodities and the seller is obligated to deliver the securities or commodities only if the buyer has made payment.

(2) *Payment-versus-payment (PvP) transaction* means a foreign exchange transaction in which each counterparty is obligated to make a final transfer of one or more currencies only if the other counterparty has made a final transfer of one or more currencies.

(3) *Normal settlement period*. A transaction has a *normal settlement period* if the contractual settlement period for the transaction is equal to or less than the market standard for the instrument underlying the transaction and equal to or less than five business days.

(4) *Positive current exposure*. The positive current exposure of a Federal savings association for a transaction is the difference between the transaction value at the agreed settlement price and the current market price of the transaction, if the difference results in a credit exposure of the savings association to the counterparty.

(b) *Scope*. This section applies to all transactions involving securities, foreign exchange instruments, and commodities that have a risk of delayed settlement or delivery. This section does not apply to:

(1) Transactions accepted by a qualifying central counterparty that are subject to daily marking-to-market and daily receipt and payment of variation margin;

(2) Repo-style transactions, including unsettled repo-style transactions (which are addressed in sections 31 and 32 of this appendix);

(3) One-way cash payments on OTC derivative contracts (which are addressed in sections 31 and 32 of this appendix); or

(4) Transactions with a contractual settlement period that is longer than the normal settlement period (which are treated as OTC derivative contracts and addressed in sections 31 and 32 of this appendix).

(c) *System-wide failures*. In the case of a system-wide failure of a settlement or clearing system, the OCC may waive risk-based capital requirements for unsettled and failed transactions until the situation is rectified.

(d) *Delivery-versus-payment (DvP) and payment-versus-payment (PvP) transactions*. A Federal savings association must hold risk-based capital against any DvP or PvP transaction with a normal settlement period if the savings association's counterparty has not made delivery or payment within five business days after the settlement date. The savings association must determine its risk-weighted asset amount for such a transaction by multiplying the positive current exposure of the transaction for the savings association by the appropriate risk weight in Table 5.

TABLE 5—RISK WEIGHTS FOR UNSETTLED DVP AND PVP TRANSACTIONS

Number of business days after contractual settlement date	Risk weight to be applied to positive current exposure (percent)
From 5 to 15	100
From 16 to 30	625
From 31 to 45	937.5
46 or more	1,250

(e) *Non-DvP/non-PvP (non-delivery-versus-payment/non-payment-versus-payment) transactions*. (1) A Federal savings association must hold risk-based capital against any non-DvP/non-PvP transaction with a normal settlement period if the savings association has delivered cash, securities, commodities, or currencies to its counterparty but has not received its corresponding deliverables by the end of the same business day. The savings association must continue to hold risk-based capital against the transaction until the savings association has received its corresponding deliverables.

(2) From the business day after the savings association has made its delivery until five business days after the counterparty delivery is due, the savings association must calculate its risk-based capital requirement for the transaction by treating the current market value of the deliverables owed to the savings association as a wholesale exposure.

(i) A savings association may assign an obligor rating to a counterparty for which it is not otherwise required under this appendix to assign an obligor rating on the basis of the applicable external rating of any outstanding unsecured long-term debt security without credit enhancement issued by the counterparty.

(ii) A savings association may use a 45 percent LGD for the transaction rather than estimating LGD for the transaction provided the savings association uses the 45 percent LGD for all transactions described in paragraphs (e)(1) and (e)(2) of this section.

(iii) A savings association may use a 100 percent risk weight for the transaction provided the savings association uses this risk weight for all transactions described in paragraphs (e)(1) and (e)(2) of this section.

(3) If the savings association has not received its deliverables by the fifth business day after the counterparty delivery was due, the savings association must deduct the current market value of the deliverables owed to the savings association 50 percent from tier 1 capital and 50 percent from tier 2 capital.

(f) *Total risk-weighted assets for unsettled transactions.* Total risk-weighted assets for unsettled transactions is the sum of the risk-weighted asset amounts of all DvP, PvP, and non-DvP/non-PvP transactions.

PART V. RISK-WEIGHTED ASSETS FOR SECURITIZATION EXPOSURES

Section 41. Operational Criteria for Recognizing the Transfer of Risk

(a) *Operational criteria for traditional securitizations.* A Federal savings association that transfers exposures it has originated or purchased to a securitization SPE or other third party in connection with a traditional securitization may exclude the exposures from the calculation of its risk-weighted assets only if each of the conditions in this paragraph (a) is satisfied. A savings association that meets these conditions must hold risk-based capital against any securitization exposures it retains in connection with the securitization. A savings association that fails to meet these conditions must hold risk-based capital against the transferred exposures as if they had not been securitized and must deduct from tier 1 capital any after-tax gain-on-sale resulting from the transaction. The conditions are:

(1) The transfer is considered a sale under GAAP;

(2) The savings association has transferred to third parties credit risk associated with the underlying exposures; and

(3) Any clean-up calls relating to the securitization are eligible clean-up calls.

(b) *Operational criteria for synthetic securitizations.* For synthetic securitizations, a Federal savings association may recognize for risk-based capital purposes the use of a credit risk mitigant to hedge underlying exposures only if each of the conditions in this paragraph (b) is satisfied. A savings association that fails to meet these conditions must hold risk-based capital against the underlying exposures as if they had not been synthetically securitized. The conditions are:

(1) The credit risk mitigant is financial collateral, an eligible credit derivative from an eligible securitization guarantor or an eligible guarantee from an eligible securitization guarantor;

(2) The savings association transfers credit risk associated with the underlying exposures to third parties, and the terms and conditions in the credit risk mitigants employed do not include provisions that:

(i) Allow for the termination of the credit protection due to deterioration in the credit quality of the underlying exposures;

(ii) Require the savings association to alter or replace the underlying exposures to improve the credit quality of the pool of underlying exposures;

(iii) Increase the savings association's cost of credit protection in response to deterioration in the credit quality of the underlying exposures;

(iv) Increase the yield payable to parties other than the savings association in response to a deterioration in the credit quality of the underlying exposures; or

(v) Provide for increases in a retained first loss position or credit enhancement provided by the savings association after the inception of the securitization;

(3) The savings association obtains a well-reasoned opinion from legal counsel that confirms the enforceability of the credit risk mitigant in all relevant jurisdictions; and

(4) Any clean-up calls relating to the securitization are eligible clean-up calls.

Section 42. Risk-Based Capital Requirement for Securitization Exposures

(a) *Hierarchy of approaches.* Except as provided elsewhere in this section:

(1) A Federal savings association must deduct from tier 1 capital any after-tax gain-on-sale resulting from a securitization and must deduct from total capital in accordance with paragraph (c) of this section the portion of any CEIO that does not constitute gain-on-sale.

(2) If a securitization exposure does not require deduction under paragraph (a)(1) of this section and qualifies for the Ratings-Based Approach in section 43 of this appendix, a Federal savings association must apply the Ratings-Based Approach to the exposure.

(3) If a securitization exposure does not require deduction under paragraph (a)(1) of this section and does not qualify for the Ratings-Based Approach, the Federal savings association may either apply the Internal Assessment Approach in section 44 of this appendix to the exposure (if the savings association, the exposure, and the relevant ABCP program qualify for the Internal Assessment Approach) or the Supervisory Formula Approach in section 45 of this appendix to the exposure (if the savings association and the exposure qualify for the Supervisory Formula Approach).

(4) If a securitization exposure does not require deduction under paragraph (a)(1) of this section and does not qualify for the Ratings-Based Approach, the Internal Assessment Approach, or the Supervisory Formula Approach, the Federal savings association must deduct the exposure from total capital in accordance with paragraph (c) of this section.

(5) If a securitization exposure is an OTC derivative contract (other than a credit derivative) that has a first priority claim on the cash flows from the underlying exposures (notwithstanding amounts due under interest rate or currency derivative contracts, fees due, or other similar payments), with approval of the OCC, a Federal savings association may choose to set the risk-weighted asset amount of the exposure equal to the amount of the exposure as determined in paragraph (e) of this section rather than apply the hierarchy of approaches described in paragraphs (a)(1) through (4) of this section.

(b) *Total risk-weighted assets for securitization exposures.* A Federal savings association's total risk-weighted assets for securitization exposures is equal to the sum of its risk-weighted assets calculated using the Ratings-Based Approach in section 43 of this appendix, the Internal Assessment Approach in section 44 of this appendix, and the Supervisory Formula Approach in section 45 of this appendix, and its risk-weighted assets amount for early amortization provisions calculated in section 47 of this appendix.

(c) *Deductions.* (1) If a Federal savings association must deduct a securitization exposure from total capital, the savings association must take the deduction 50 percent from tier 1 capital and 50 percent from tier 2 capital. If the amount deductible from tier 2 capital exceeds the savings association's tier 2 capital, the savings association must deduct the excess from tier 1 capital.

(2) A Federal savings association may calculate any deduction from tier 1 capital and tier 2 capital for a securitization exposure net of any deferred tax liabilities associated with the securitization exposure.

(d) *Maximum risk-based capital requirement.* Regardless of any other provisions of this part, unless one or more underlying exposures does not meet the definition of a wholesale, retail, securitization, or equity exposure, the total risk-based capital requirement for all securitization exposures held by a single Federal savings association associated with a single securitization (including any risk-based capital requirements that relate to an early amortization provision of the securitization but excluding any risk-based capital requirements that relate to the savings association's gain-on-sale or CEIOs associated with the securitization) may not exceed the sum of:

(1) The savings association's total risk-based capital requirement for the underlying exposures as if the savings

association directly held the underlying exposures; and

(2) The total ECL of the underlying exposures.

(e) *Amount of a securitization exposure.* (1) The amount of an on-balance sheet securitization exposure that is not a repo-style transaction, eligible margin loan, or OTC derivative contract (other than a credit derivative) is:

(i) The Federal savings association's carrying value minus any unrealized gains and plus any unrealized losses on the exposure, if the exposure is a security classified as available-for-sale; or

(ii) The Federal savings association's carrying value, if the exposure is not a security classified as available-for-sale.

(2) The amount of an off-balance sheet securitization exposure that is not an OTC derivative contract (other than a credit derivative) is the notional amount of the exposure. For an off-balance-sheet securitization exposure to an ABCP program, such as a liquidity facility, the notional amount may be reduced to the maximum potential amount that the Federal savings association could be required to fund given the ABCP program's current underlying assets (calculated without regard to the current credit quality of those assets).

(3) The amount of a securitization exposure that is a repo-style transaction, eligible margin loan, or OTC derivative contract (other than a credit derivative) is the EAD of the exposure as calculated in section 32 of this appendix.

(f) *Overlapping exposures.* If a Federal savings association has multiple securitization exposures that provide duplicative coverage of the underlying exposures of a securitization (such as when a savings association provides a program-wide credit enhancement and multiple pool-specific liquidity facilities to an ABCP program), the savings association is not required to hold duplicative risk-based capital against the overlapping position. Instead, the savings association may apply to the overlapping position the applicable risk-based capital treatment that results in the highest risk-based capital requirement.

(g) *Securitizations of non-IRB exposures.* If a Federal savings association has a securitization exposure where any underlying exposure is not a wholesale exposure, retail exposure, securitization exposure, or equity exposure, the savings association must:

(1) If the Federal savings association is an originating savings association, deduct from tier 1 capital any after-tax gain-on-sale resulting from the securitization and deduct from total capital in accordance with paragraph (c) of this section the portion of any CEIO that does not constitute gain-on-sale;

(2) If the securitization exposure does not require deduction under paragraph (g)(1), apply the RBA in section 43 of this appendix to the securitization exposure if the exposure qualifies for the RBA;

(3) If the securitization exposure does not require deduction under paragraph (g)(1) and does not qualify for the RBA, apply the IAA in section 44 of this appendix to the exposure (if the Federal savings association, the exposure, and the relevant ABCP program qualify for the IAA); and

(4) If the securitization exposure does not require deduction under paragraph (g)(1) and does not qualify for the RBA or the IAA, deduct the exposure from total capital in accordance with paragraph (c) of this section.

(h) *Implicit support.* If a Federal savings association provides support to a securitization in excess of the savings association's contractual obligation to provide credit support to the securitization (implicit support):

(1) The savings association must hold regulatory capital against all of the underlying exposures associated with the securitization as if the exposures had not been securitized and must deduct from tier 1 capital any after-tax gain-on-sale resulting from the securitization; and

(2) The savings association must disclose publicly:

(i) That it has provided implicit support to the securitization; and

(ii) The regulatory capital impact to the savings association of providing such implicit support.

(i) *Eligible servicer cash advance facilities.* Regardless of any other provisions of this part, a Federal savings association is not required to hold risk-based capital against the undrawn portion of

an eligible servicer cash advance facility.

(j) *Interest-only mortgage-backed securities*. Regardless of any other provisions of this part, the risk weight for a non-credit-enhancing interest-only mortgage-backed security may not be less than 100 percent.

(k) *Small-business loans and leases on personal property transferred with recourse*. (1) Regardless of any other provisions of this appendix, a Federal savings association that has transferred small-business loans and leases on personal property (small-business obligations) with recourse must include in risk-weighted assets only the contractual amount of retained recourse if all the following conditions are met:

(i) The transaction is a sale under GAAP.

(ii) The savings association establishes and maintains, pursuant to GAAP, a non-capital reserve sufficient to meet the savings association's reasonably estimated liability under the recourse arrangement.

(iii) The loans and leases are to businesses that meet the criteria for a small-business concern established by the Small Business Administration under section 3(a) of the Small Business Act (15 U.S.C. 632).

(iv) The savings association is well capitalized, as defined in the OCC's prompt corrective action regulation at 12 CFR part 165. For purposes of determining whether a savings association is well capitalized for purposes of this paragraph, the savings association's capital ratios must be calculated without regard to the capital treatment for transfers of small-business obligations with recourse specified in paragraph (k)(1) of this section.

(2) The total outstanding amount of recourse retained by a Federal savings association on transfers of small-business obligations receiving the capital treatment specified in paragraph (k)(1) of this section cannot exceed 15 percent of the savings association's total qualifying capital.

(3) If a Federal savings association ceases to be well capitalized or exceeds the 15 percent capital limitation, the preferential capital treatment specified in paragraph (k)(1) of this section will continue to apply to any transfers of small-business obligations with recourse that occurred during the time that the savings association was well capitalized and did not exceed the capital limit.

(4) The risk-based capital ratios of the savings association must be calculated without regard to the capital treatment for transfers of small-business obligations with recourse specified in paragraph (k)(1) of this section as provided in 12 CFR 167.6(b)(5)(v).

(l) *Nth-to-default credit derivatives*—(1) *First-to-default credit derivatives*—(i) *Protection purchaser*. A Federal savings association that obtains credit protection on a group of underlying exposures through a first-to-default credit derivative must determine its risk-based capital requirement for the underlying exposures as if the savings association synthetically securitized the underlying exposure with the lowest risk-based capital requirement and had obtained no credit risk mitigant on the other underlying exposures.

(ii) *Protection provider*. A Federal savings association that provides credit protection on a group of underlying exposures through a first-to-default credit derivative must determine its risk-weighted asset amount for the derivative by applying the RBA in section 43 of this appendix (if the derivative qualifies for the RBA) or, if the derivative does not qualify for the RBA, by setting its risk-weighted asset amount for the derivative equal to the product of:

(A) The protection amount of the derivative;

(B) 12.5; and

(C) The sum of the risk-based capital requirements of the individual underlying exposures, up to a maximum of 100 percent.

(2) *Second-or-subsequent-to-default credit derivatives*—(i) *Protection purchaser*. (A) A Federal savings association that obtains credit protection on a group of underlying exposures through a nth-to-default credit derivative (other than a first-to-default credit derivative) may recognize the credit risk mitigation benefits of the derivative only if:

(*1*) The savings association also has obtained credit protection on the same underlying exposures in the form of

first-through-(n-1)-to-default credit derivatives; or

(*2*) If n-1 of the underlying exposures have already defaulted.

(B) If a savings association satisfies the requirements of paragraph (m)(2)(i)(A) of this section, the savings association must determine its risk-based capital requirement for the underlying exposures as if the savings association had only synthetically securitized the underlying exposure with the nth lowest risk-based capital requirement and had obtained no credit risk mitigant on the other underlying exposures.

(ii) *Protection provider*. A savings association that provides credit protection on a group of underlying exposures through a nth-to-default credit derivative (other than a first-to-default credit derivative) must determine its risk-weighted asset amount for the derivative by applying the RBA in section 43 of this appendix (if the derivative qualifies for the RBA) or, if the derivative does not qualify for the RBA, by setting its risk-weighted asset amount for the derivative equal to the product of:

(A) The protection amount of the derivative;

(B) 12.5; and

(C) The sum of the risk-based capital requirements of the individual underlying exposures (excluding the n-1 underlying exposures with the lowest risk-based capital requirements), up to a maximum of 100 percent.

Section 43. Ratings-Based Approach (RBA)

(a) *Eligibility requirements for use of the RBA*—(1) *Originating Federal savings association*. An originating Federal savings association must use the RBA to calculate its risk-based capital requirement for a securitization exposure if the exposure has two or more external ratings or inferred ratings (and may not use the RBA if the exposure has fewer than two external ratings or inferred ratings).

(2) *Investing Federal savings association*. An investing Federal savings association must use the RBA to calculate its risk-based capital requirement for a securitization exposure if the exposure has one or more external or inferred ratings (and may not use the RBA if the exposure has no external or inferred rating).

(b) *Ratings-based approach*. (1) A Federal savings association must determine the risk-weighted asset amount for a securitization exposure by multiplying the amount of the exposure (as defined in paragraph (e) of section 42 of this appendix) by the appropriate risk weight provided in Table 6 and Table 7.

(2) A Federal savings association must apply the risk weights in Table 6 when the securitization exposure's applicable external or applicable inferred rating represents a long-term credit rating, and must apply the risk weights in Table 7 when the securitization exposure's applicable external or applicable inferred rating represents a short-term credit rating.

(i) A Federal savings association must apply the risk weights in column 1 of Table 6 or Table 7 to the securitization exposure if:

(A) N (as calculated under paragraph (e)(6) of section 45 of this appendix) is six or more (for purposes of this section only, if the notional number of underlying exposures is 25 or more or if all of the underlying exposures are retail exposures, a Federal savings association may assume that N is six or more unless the savings association knows or has reason to know that N is less than six); and

(B) The securitization exposure is a senior securitization exposure.

(ii) A Federal savings association must apply the risk weights in column 3 of Table 6 or Table 7 to the securitization exposure if N is less than six, regardless of the seniority of the securitization exposure.

(iii) Otherwise, a Federal savings association must apply the risk weights in column 2 of Table 6 or Table 7.

TABLE 6—LONG-TERM CREDIT RATING RISK WEIGHTS UNDER RBA AND IAA

Applicable external or inferred rating (illustrative rating example)	Column 1	Column 2	Column 3	Applicable external or inferred rating (illustrative rating example)
	Risk weights for senior securitization exposures backed by granular pools	Risk weights for non-senior securitization exposures backed by granular pools	Risk weights for securitization exposures backed by non-granular pools	
Highest investment grade (for example, AAA).	7%	12%	20%	
Second highest investment grade (for example, AA).	8%	15%	25%	
Third-highest investment grade—positive designation (for example, A+).	10%	18%	35%	
Third-highest investment grade (for example, A).	12%	20%		
Third-highest investment grade—negative designation (for example, A−).	20%	35%		
Lowest investment grade—positive designation (for example, BBB+).	35%	50%		
Lowest investment grade (for example, BBB).	60%	75%		
Lowest investment grade—negative designation (for example, BBB−).	100%			
One category below investment grade—positive designation (for example, BB+).	250%			
One category below investment grade (for example, BB).	425%			
One category below investment grade—negative designation (for example, BB−).	650%			
More than one category below investment grade.	Deduction from tier 1 and tier 2 capital.			

TABLE 7—SHORT-TERM CREDIT RATING RISK WEIGHTS UNDER RBA AND IAA

Applicable external or inferred rating (illustrative rating example)	Column 1	Column 2	Column 3	Applicable external or inferred rating (illustrative rating example)
	Risk weights for senior securitization exposures backed by granular pools	Risk weights for non-senior securitization exposures backed by granular pools	Risk weights for securitization exposures backed by non-granular pools	
Highest investment grade (for example, A1).	7%	12%	20%	
Second highest investment grade (for example, A2).	12%	20%	35%	
Third highest investment grade (for example, A3).	60%	75%	75%	
All other ratings	Deduction from tier 1 and tier 2 capital.			

Section 44. Internal Assessment Approach (IAA)

(a) *Eligibility requirements.* A Federal savings association may apply the IAA to calculate the risk-weighted asset amount for a securitization exposure that the savings association has to an ABCP program (such as a liquidity facility or credit enhancement) if the savings association, the ABCP program, and the exposure qualify for use of the IAA.

(1) *Federal savings association qualification criteria.* A Federal savings association qualifies for use of the IAA if the savings association has received the prior written approval of the OCC. To receive such approval, the savings association must demonstrate to the OCC's satisfaction that the savings association's internal assessment process meets the following criteria:

(i) The savings association's internal credit assessments of securitization exposures must be based on publicly available rating criteria used by an NRSRO.

(ii) The savings association's internal credit assessments of securitization exposures used for risk-based capital purposes must be consistent with those used in the savings association's internal risk management process, management information reporting systems, and capital adequacy assessment process.

(iii) The savings association's internal credit assessment process must have sufficient granularity to identify gradations of risk. Each of the savings association's internal credit assessment categories must correspond to an external rating of an NRSRO.

(iv) The savings association's internal credit assessment process, particularly the stress test factors for determining credit enhancement requirements, must be at least as conservative as the most conservative of the publicly available rating criteria of the NRSROs that have provided external ratings to the commercial paper issued by the ABCP program.

(A) Where the commercial paper issued by an ABCP program has an external rating from two or more NRSROs and the different NRSROs' benchmark stress factors require different levels of credit enhancement to achieve the same external rating equivalent, the savings association must apply the NRSRO stress factor that requires the highest level of credit enhancement.

(B) If any NRSRO that provides an external rating to the ABCP program's commercial paper changes its methodology (including stress factors), the savings association must evaluate whether to revise its internal assessment process.

(v) The Federal savings association must have an effective system of controls and oversight that ensures compliance with these operational requirements and maintains the integrity and accuracy of the internal credit assessments. The savings association must have an internal audit function independent from the ABCP program business line and internal credit assessment process that assesses at least annually whether the controls over the internal credit assessment process function as intended.

(vi) The Federal savings association must review and update each internal credit assessment whenever new material information is available, but no less frequently than annually.

(vii) The Federal savings association must validate its internal credit assessment process on an ongoing basis and at least annually.

(2) *ABCP-program qualification criteria.* An ABCP program qualifies for use of the IAA if all commercial paper issued by the ABCP program has an external rating.

(3) *Exposure qualification criteria.* A securitization exposure qualifies for use of the IAA if the exposure meets the following criteria:

(i) The Federal savings association initially rated the exposure at least the equivalent of investment grade.

(ii) The ABCP program has robust credit and investment guidelines (that is, underwriting standards) for the exposures underlying the securitization exposure.

(iii) The ABCP program performs a detailed credit analysis of the sellers of the exposures underlying the securitization exposure.

(iv) The ABCP program's underwriting policy for the exposures underlying the securitization exposure establishes minimum asset eligibility criteria that include the prohibition of the purchase of assets that are significantly past due or of assets that are defaulted (that is, assets that have been charged off or written down by the seller prior to being placed into the ABCP program or assets that would be charged off or written down under the program's governing contracts), as well as limitations on concentration to individual obligors or geographic areas

and the tenor of the assets to be purchased.

(v) The aggregate estimate of loss on the exposures underlying the securitization exposure considers all sources of potential risk, such as credit and dilution risk.

(vi) Where relevant, the ABCP program incorporates structural features into each purchase of exposures underlying the securitization exposure to mitigate potential credit deterioration of the underlying exposures. Such features may include wind-down triggers specific to a pool of underlying exposures.

(b) *Mechanics.* A Federal savings association that elects to use the IAA to calculate the risk-based capital requirement for any securitization exposure must use the IAA to calculate the risk-based capital requirements for all securitization exposures that qualify for the IAA approach. Under the IAA, a savings association must map its internal assessment of such a securitization exposure to an equivalent external rating from an NRSRO. Under the IAA, a savings association must determine the risk-weighted asset amount for such a securitization exposure by multiplying the amount of the exposure (as defined in paragraph (e) of section 42 of this appendix) by the appropriate risk weight in Table 6 and Table 7 in paragraph (b) of section 43 of this appendix.

Section 45. Supervisory Formula Approach (SFA)

(a) *Eligibility requirements.* A Federal savings association may use the SFA to determine its risk-based capital requirement for a securitization exposure only if the savings association can calculate on an ongoing basis each of the SFA parameters in paragraph (e) of this section.

(b) *Mechanics.* Under the SFA, a securitization exposure incurs a deduction from total capital (as described in paragraph (c) of section 42 of this appendix) and/or an SFA risk-based capital requirement, as determined in paragraph (c) of this section. The risk-weighted asset amount for the securitization exposure equals the SFA risk-based capital requirement for the exposure multiplied by 12.5.

(c) *The SFA risk-based capital requirement.* (1) If K_{IRB} is greater than or equal to L + T, the entire exposure must be deducted from total capital.

(2) If K_{IRB} is less than or equal to L, the exposure's SFA risk-based capital requirement is UE multiplied by TP multiplied by the greater of:

(i) 0.0056 * T; or

(ii) S[L + T] − S[L].

(3) If K_{IRB} is greater than L and less than L + T, the Federal savings association must deduct from total capital an amount equal to UE*TP*(K_{IRB} − L), and the exposure's SFA risk-based capital requirement is UE multiplied by TP multiplied by the greater of:

(i) 0.0056 * (T − (K_{IRB} − L)); or

(ii) S[L + T] − S[K_{IRB}].

(d) *The supervisory formula:*

$$(1)\ S[Y] = \begin{cases} Y & \text{when } Y \le K_{IRB} \\ K_{IRB} + K[Y] - K[K_{IRB}] + \dfrac{d \cdot K_{IRB}}{20}\left(1 - e^{\frac{20 \cdot (K_{IRB} - Y)}{K_{IRB}}}\right) & \text{when } Y > K_{IRB} \end{cases}$$

$$(2)\ K[Y] = (1-h) \cdot \left[\left(1 - \beta[Y; a, b]\right) \cdot Y + \beta[Y; a+1, b] \cdot c\right]$$

$$(3)\ h = \left(1 - \frac{K_{IRB}}{EWALGD}\right)^N$$

$$(4)\ a = g \cdot c$$

$$(5)\ b = g \cdot (1-c)$$

$$(6)\ c = \frac{K_{IRB}}{1-h}$$

$$(7)\ g = \frac{(1-c) \cdot c}{f} - 1$$

$$(8)\ f = \frac{v + K_{IRB}^{\ 2}}{1-h} - c^2 + \frac{(1-K_{IRB}) \cdot K_{IRB} - v}{(1-h) \cdot 1000}$$

$$(9)\ v = K_{IRB} \cdot \frac{(EWALGD - K_{IRB}) + .25 \cdot (1 - EWALGD)}{N}$$

$$(10)\ d = 1 - (1-h) \cdot (1 - \beta[K_{IRB}; a, b]).$$

(1) In these expressions, β[Y; a, b] refers to the cumulative beta distribution with parameters a and b evaluated at Y. In the case where N = 1 and EWALGD = 100 percent, S[Y] in formula (1) must be calculated with K[Y] set equal to the product of K_{IRB} and Y, and d set equal to 1 − K_{IRB}.

(2) [Reserved]

(e) *SFA parameters*—(1) *Amount of the underlying exposures (UE).* UE is the EAD of any underlying exposures that are wholesale and retail exposures (including the amount of any funded spread accounts, cash collateral accounts, and other similar funded credit enhancements) plus the amount of any underlying exposures that are securitization exposures (as defined in paragraph (e) of section 42 of this appendix) plus the adjusted carrying value of any underlying exposures that are equity exposures (as defined in paragraph (b) of section 51 of this appendix).

(2) *Tranche percentage (TP).* TP is the ratio of the amount of the Federal savings association's securitization exposure to the amount of the tranche that contains the securitization exposure.

(3) *Capital requirement on underlying exposures (K_{IRB}).* (i) $K_{IRB}$is the ratio of:

(A) The sum of the risk-based capital requirements for the underlying exposures plus the expected credit losses of the underlying exposures (as determined under this appendix as if the underlying exposures were directly held by the Federal savings association); to

(B) UE.

(ii) The calculation of K_{IRB} must reflect the effects of any credit risk

mitigant applied to the underlying exposures (either to an individual underlying exposure, to a group of underlying exposures, or to the entire pool of underlying exposures).

(iii) All assets related to the securitization are treated as underlying exposures, including assets in a reserve account (such as a cash collateral account).

(4) *Credit enhancement level (L).* (i) L is the ratio of:

(A) The amount of all securitization exposures subordinated to the tranche that contains the Federal savings association's securitization exposure; to

(B) UE.

(ii) A Federal savings association must determine L before considering the effects of any tranche-specific credit enhancements.

(iii) Any gain-on-sale or CEIO associated with the securitization may not be included in L.

(iv) Any reserve account funded by accumulated cash flows from the underlying exposures that is subordinated to the tranche that contains the Federal savings association's securitization exposure may be included in the numerator and denominator of L to the extent cash has accumulated in the account. Unfunded reserve accounts (that is, reserve accounts that are to be funded from future cash flows from the underlying exposures) may not be included in the calculation of L.

(v) In some cases, the purchase price of receivables will reflect a discount that provides credit enhancement (for example, first loss protection) for all or certain tranches of the securitization. When this arises, L should be calculated inclusive of this discount if the discount provides credit enhancement for the securitization exposure.

(5) *Thickness of tranche (T).* T is the ratio of:

(i) The amount of the tranche that contains the Federal savings association's securitization exposure; to

(ii) UE.

(6) *Effective number of exposures (N).* (i) Unless the Federal savings association elects to use the formula provided in paragraph (f) of this section,

$$N = \frac{(\sum_i EAD_i)^2}{\sum_i EAD_i^2}$$

Where EAD_i represents the EAD associated with the ith instrument in the pool of underlying exposures.

(ii) Multiple exposures to one obligor must be treated as a single underlying exposure.

(iii) In the case of a re-securitization (that is, a securitization in which some or all of the underlying exposures are themselves securitization exposures), the savings association must treat each underlying exposure as a single underlying exposure and must not look through to the originally securitized underlying exposures.

(7) *Exposure-weighted average loss given default (EWALGD).* EWALGD is calculated as:

$$EWALGD = \frac{\sum_i LGD_i \cdot EAD_i}{\sum_i EAD_i}$$

Where LGD_i represents the average LGD associated with all exposures to the ith obligor. In the case of a re-securitization, an LGD of 100 percent must be assumed for the underlying exposures that are themselves securitization exposures.

(f) *Simplified method for computing N and EWALGD.* (1) If all underlying exposures of a securitization are retail exposures, a Federal savings association may apply the SFA using the following simplifications:

(i) h = 0; and

(ii) v = 0.

(2) Under the conditions in paragraphs (f)(3) and (f)(4) of this section, a Federal savings association may employ a simplified method for calculating N and EWALGD.

(3) If C_1 is no more than 0.03, a Federal savings association may set EWALGD = 0.50 if none of the underlying exposures is a securitization exposure or EWALGD = 1 if one or more of the underlying exposures is a securitization exposure, and may set N equal to the following amount:

$$N = \frac{1}{C_1 C_m + \left(\frac{C_m - C_1}{m-1}\right)\max(1 - mC_1, 0)}$$

Where:

(i) C_m is the ratio of the sum of the amounts of the 'm' largest underlying exposures to UE; and

(ii) The level of m is to be selected by the Federal savings association.

(4) Alternatively, if only C_1 is available and C_1 is no more than 0.03, the Federal savings association may set EWALGD = 0.50 if none of the underlying exposures is a securitization exposure or EWALGD = 1 if one or more of the underlying exposures is a securitization exposure and may set N = $1/C_1$.

Section 46. Recognition of Credit Risk Mitigants for Securitization Exposures

(a) *General.* An originating Federal savings association that has obtained a credit risk mitigant to hedge its securitization exposure to a synthetic or traditional securitization that satisfies the operational criteria in section 41 of this appendix may recognize the credit risk mitigant, but only as provided in this section. An investing savings association that has obtained a credit risk mitigant to hedge a securitization exposure may recognize the credit risk mitigant, but only as provided in this section. A savings association that has used the RBA in section 43 of this appendix or the IAA in section 44 of this appendix to calculate its risk-based capital requirement for a securitization exposure whose external or inferred rating (or equivalent internal rating under the IAA) reflects the benefits of a credit risk mitigant provided to the associated securitization or that supports some or all of the underlying exposures may not use the credit risk mitigation rules in this section to further reduce its risk-based capital requirement for the exposure to reflect that credit risk mitigant.

(b) *Collateral*—(1) *Rules of recognition.* A Federal savings association may recognize financial collateral in determining the savings association's risk-based capital requirement for a securitization exposure (other than a repo-style transaction, an eligible margin loan, or an OTC derivative contract for which the savings association has reflected collateral in its determination of exposure amount under section 32 of this appendix) as follows. The savings association's risk-based capital requirement for the collateralized securitization exposure is equal to the risk-based capital requirement for the securitization exposure as calculated under the RBA in section 43 of this appendix or under the SFA in section 45 of this appendix multiplied by the ratio of adjusted exposure amount (SE*) to original exposure amount (SE), where:

(i) SE* = max {0, [SE—C x (1 − Hs − Hfx)]};

(ii) SE = the amount of the securitization exposure calculated under paragraph (e) of section 42 of this appendix;

(iii) C = the current market value of the collateral;

(iv) Hs = the haircut appropriate to the collateral type; and

(v) Hfx = the haircut appropriate for any currency mismatch between the collateral and the exposure.

(2) *Mixed collateral.* Where the collateral is a basket of different asset types or a basket of assets denominated in different currencies, the haircut on the basket will be

$$H = \sum_i a_i H_i,$$

Where a_i is the current market value of the asset in the basket divided by the current market value of all assets in the basket and H_i is the haircut applicable to that asset.

(3) *Standard supervisory haircuts.* Unless a Federal savings association qualifies for use of and uses own-estimates haircuts in paragraph (b)(4) of this section:

(i) A savings association must use the collateral type haircuts (Hs) in Table 3;

(ii) A savings association must use a currency mismatch haircut (Hfx) of 8 percent if the exposure and the collateral are denominated in different currencies;

(iii) A savings association must multiply the supervisory haircuts obtained in paragraphs (b)(3)(i) and (ii) by the square root of 6.5 (which equals 2.549510); and

(iv) A savings association must adjust the supervisory haircuts upward on the basis of a holding period longer than 65 business days where and as appropriate to take into account the illiquidity of the collateral.

(4) *Own estimates for haircuts.* With the prior written approval of the OCC, a Federal savings association may calculate haircuts using its own internal estimates of market price volatility and foreign exchange volatility, subject to paragraph (b)(2)(iii) of section 32 of this appendix. The minimum holding period (TM) for securitization exposures is 65 business days.

(c) *Guarantees and credit derivatives*—(1) *Limitations on recognition.* A Federal savings association may only recognize an eligible guarantee or eligible credit derivative provided by an eligible securitization guarantor in determining the savings association's risk-based capital requirement for a securitization exposure.

(2) *ECL for securitization exposures.* When a Federal savings association recognizes an eligible guarantee or eligible credit derivative provided by an eligible securitization guarantor in determining the savings association's risk-based capital requirement for a securitization exposure, the savings association must also:

(i) Calculate ECL for the protected portion of the exposure using the same risk parameters that it uses for calculating the risk-weighted asset amount of the exposure as described in paragraph (c)(3) of this section; and

(ii) Add the exposure's ECL to the Federal savings association's total ECL.

(3) *Rules of recognition.* A Federal savings association may recognize an eligible guarantee or eligible credit derivative provided by an eligible securitization guarantor in determining the savings association's risk-based capital requirement for the securitization exposure as follows:

(i) *Full coverage.* If the protection amount of the eligible guarantee or eligible credit derivative equals or exceeds the amount of the securitization exposure, the Federal savings association may set the risk-weighted asset amount for the securitization exposure equal to the risk-weighted asset amount for a direct exposure to the eligible securitization guarantor (as determined in the wholesale risk weight function described in section 31 of this appendix), using the savings association's PD for the guarantor, the savings association's LGD for the guarantee or credit derivative, and an EAD equal to the amount of the securitization exposure (as determined

in paragraph (e) of section 42 of this appendix).

(ii) *Partial coverage*. If the protection amount of the eligible guarantee or eligible credit derivative is less than the amount of the securitization exposure, the savings association may set the risk-weighted asset amount for the securitization exposure equal to the sum of:

(A) *Covered portion*. The risk-weighted asset amount for a direct exposure to the eligible securitization guarantor (as determined in the wholesale risk weight function described in section 31 of this appendix), using the Federal savings association's PD for the guarantor, the savings association's LGD for the guarantee or credit derivative, and an EAD equal to the protection amount of the credit risk mitigant; and

(B) *Uncovered portion*. (*1*) 1.0 minus the ratio of the protection amount of the eligible guarantee or eligible credit derivative to the amount of the securitization exposure); multiplied by

(*2*) The risk-weighted asset amount for the securitization exposure without the credit risk mitigant (as determined in sections 42–45 of this appendix).

(4) *Mismatches*. The Federal savings association must make applicable adjustments to the protection amount as required in paragraphs (d), (e), and (f) of section 33 of this appendix for any hedged securitization exposure and any more senior securitization exposure that benefits from the hedge. In the context of a synthetic securitization, when an eligible guarantee or eligible credit derivative covers multiple hedged exposures that have different residual maturities, the savings association must use the longest residual maturity of any of the hedged exposures as the residual maturity of all the hedged exposures.

Section 47. Risk-Based Capital Requirement for Early Amortization Provisions

(a) *General*. (1) An originating Federal savings association must hold risk-based capital against the sum of the originating savings association's interest and the investors' interest in a securitization that:

(i) Includes one or more underlying exposures in which the borrower is permitted to vary the drawn amount within an agreed limit under a line of credit; and

(ii) Contains an early amortization provision.

(2) For securitizations described in paragraph (a)(1) of this section, an originating Federal savings association must calculate the risk-based capital requirement for the originating savings association's interest under sections 42–45 of this appendix, and the risk-based capital requirement for the investors' interest under paragraph (b) of this section.

(b) *Risk-weighted asset amount for investors' interest*. The originating Federal savings association's risk-weighted asset amount for the investors' interest in the securitization is equal to the product of the following 5 quantities:

(1) The investors' interest EAD;

(2) The appropriate conversion factor in paragraph (c) of this section;

(3) K_{IRB}(as defined in paragraph (e)(3) of section 45 of this appendix);

(4) 12.5; and

(5) The proportion of the underlying exposures in which the borrower is permitted to vary the drawn amount within an agreed limit under a line of credit.

(c) *Conversion factor*. (1) (i) Except as provided in paragraph (c)(2) of this section, to calculate the appropriate conversion factor, a Federal savings association must use Table 8 for a securitization that contains a controlled early amortization provision and must use Table 9 for a securitization that contains a non-controlled early amortization provision. In circumstances where a securitization contains a mix of retail and nonretail exposures or a mix of committed and uncommitted exposures, a Federal savings association may take a pro rata approach to determining the conversion factor for the securitization's early amortization provision. If a pro rata approach is not feasible, a Federal savings association must treat the mixed securitization as a securitization of nonretail exposures if a single underlying exposure is a nonretail exposure and must treat the mixed securitization as a securitization of committed exposures

if a single underlying exposure is a committed exposure.

(ii) To find the appropriate conversion factor in the tables, a Federal savings association must divide the three-month average annualized excess spread of the securitization by the excess spread trapping point in the securitization structure. In securitizations that do not require excess spread to be trapped, or that specify trapping points based primarily on performance measures other than the three-month average annualized excess spread, the excess spread trapping point is 4.5 percent.

TABLE 8—CONTROLLED EARLY AMORTIZATION PROVISIONS

	Uncommitted	Committed
Retail Credit Lines	Three-month average annualized excess spread Conversion Factor (CF). 133.33% of trapping point or more, 0% CF. less than 133.33% to 100% of trapping point, 1% CF. less than 100% to 75% of trapping point, 2% CF. less than 75% to 50% of trapping point, 10% CF. less than 50% to 25% of trapping point, 20% CF. less than 25% of trapping point, 40% CF.	90% CF
Non-retail Credit Lines	90% CF	90% CF

TABLE 9—NON-CONTROLLED EARLY AMORTIZATION PROVISIONS

	Uncommitted	Committed
Retail Credit Lines	Three-month average annualized excess spread Conversion Factor (CF). 133.33% of trapping point or more, 0% CF. less than 133.33% to 100% of trapping point, 5% CF. less than 100% to 75% of trapping point, 15% CF. less than 75% to 50% of trapping point, 50% CF. less than 50% of trapping point, 100% CF.	100% CF
Non-retail Credit Lines	100% CF	100% CF

(2) For a securitization for which all or substantially all of the underlying exposures are residential mortgage exposures, a Federal savings association may calculate the appropriate conversion factor using paragraph (c)(1) of this section or may use a conversion factor of 10 percent. If the savings association chooses to use a conversion factor of 10 percent, it must use that conversion factor for all securitizations for which all or substantially all of the underlying exposures are residential mortgage exposures.

PART VI. RISK-WEIGHTED ASSETS FOR EQUITY EXPOSURES

Section 51. Introduction and Exposure Measurement

(a) *General*. To calculate its risk-weighted asset amounts for equity exposures that are not equity exposures to investment funds, a Federal savings association may apply either the Simple Risk Weight Approach (SRWA) in section 52 of this appendix or, if it qualifies to do so, the Internal Models Approach (IMA) in section 53 of this appendix. A Federal savings association must use the look-through approaches in section 54 of this appendix to calculate its risk-weighted asset amounts for equity exposures to investment funds.

(b) *Adjusted carrying value*. For purposes of this part, the adjusted carrying value of an equity exposure is:

(1) For the on-balance sheet component of an equity exposure, the savings association's carrying value of the exposure reduced by any unrealized gains on the exposure that are reflected in such carrying value but excluded from the savings association's tier 1 and tier 2 capital; and

(2) For the off-balance sheet component of an equity exposure, the effective notional principal amount of the exposure, the size of which is equivalent to a hypothetical on-balance sheet position in the underlying equity instrument that would evidence the same

change in fair value (measured in dollars) for a given small change in the price of the underlying equity instrument, minus the adjusted carrying value of the on-balance sheet component of the exposure as calculated in paragraph (b)(1) of this section. For unfunded equity commitments that are unconditional, the effective notional principal amount is the notional amount of the commitment. For unfunded equity commitments that are conditional, the effective notional principal amount is the savings association's best estimate of the amount that would be funded under economic downturn conditions.

Section 52. Simple Risk Weight Approach (SRWA)

(a) *General*. Under the SRWA, a Federal savings association's aggregate risk-weighted asset amount for its equity exposures is equal to the sum of the risk-weighted asset amounts for each of the savings association's individual equity exposures (other than equity exposures to an investment fund) as determined in this section and the risk-weighted asset amounts for each of the savings association's individual equity exposures to an investment fund as determined in section 54 of this appendix.

(b) *SRWA computation for individual equity exposures*. A Federal savings association must determine the risk-weighted asset amount for an individual equity exposure (other than an equity exposure to an investment fund) by multiplying the adjusted carrying value of the equity exposure or the effective portion and ineffective portion of a hedge pair (as defined in paragraph (c) of this section) by the lowest applicable risk weight in this paragraph (b).

(1) *0 percent risk weight equity exposures*. An equity exposure to an entity whose credit exposures are exempt from the 0.03 percent PD floor in paragraph (d)(2) of section 31 of this appendix is assigned a 0 percent risk weight.

(2) *20 percent risk weight equity exposures*. An equity exposure to a Federal Home Loan Bank or Farmer Mac is assigned a 20 percent risk weight.

(3) *100 percent risk weight equity exposures*. The following equity exposures are assigned a 100 percent risk weight:

(i) An equity exposure that is designed primarily to promote community welfare, including the welfare of low- and moderate-income communities or families, such as by providing services or jobs, excluding equity exposures to an unconsolidated small business investment company and equity exposures held through a consolidated small business investment company described in section 302 of the Small Business Investment Act of 1958 (15 U.S.C. 682).

(ii) *Effective portion of hedge pairs*. The effective portion of a hedge pair.

(iii) *Non-significant equity exposures*. Equity exposures, excluding exposures to an investment firm that would meet the definition of a traditional securitization were it not for the OCC's application of paragraph (8) of that definition and has greater than immaterial leverage, to the extent that the aggregate adjusted carrying value of the exposures does not exceed 10 percent of the savings association's tier 1 capital plus tier 2 capital.

(A) To compute the aggregate adjusted carrying value of a Federal savings association's equity exposures for purposes of this paragraph (b)(3)(iii), the savings association may exclude equity exposures described in paragraphs (b)(1), (b)(2), (b)(3)(i), and (b)(3)(ii) of this section, the equity exposure in a hedge pair with the smaller adjusted carrying value, and a proportion of each equity exposure to an investment fund equal to the proportion of the assets of the investment fund that are not equity exposures or that meet the criterion of paragraph (b)(3)(i) of this section. If a savings association does not know the actual holdings of the investment fund, the savings association may calculate the proportion of the assets of the fund that are not equity exposures based on the terms of the prospectus, partnership agreement, or similar contract that defines the fund's permissible investments. If the sum of the investment limits for all exposure classes within the fund exceeds 100 percent, the savings association must assume for purposes of this paragraph (b)(3)(iii) that the investment fund invests to the maximum extent possible in equity exposures.

(B) When determining which of a Federal savings association's equity exposures qualify for a 100 percent risk weight under this paragraph, a savings association first must include equity exposures to unconsolidated small business investment companies or held through consolidated small business investment companies described in section 302 of the Small Business Investment Act of 1958 (15 U.S.C. 682), then must include publicly traded equity exposures (including those held indirectly through investment funds), and then must include non-publicly traded equity exposures (including those held indirectly through investment funds).

(4) *300 percent risk weight equity exposures.* A publicly traded equity exposure (other than an equity exposure described in paragraph (b)(6) of this section and including the ineffective portion of a hedge pair) is assigned a 300 percent risk weight.

(5) *400 percent risk weight equity exposures.* An equity exposure (other than an equity exposure described in paragraph (b)(6) of this section) that is not publicly traded is assigned a 400 percent risk weight.

(6) *600 percent risk weight equity exposures.* An equity exposure to an investment firm that:

(i) Would meet the definition of a traditional securitization were it not for the OCC's application of paragraph (8) of that definition; and

(ii) Has greater than immaterial leverage is assigned a 600 percent risk weight.

(c) *Hedge transactions*—(1) *Hedge pair.* A hedge pair is two equity exposures that form an effective hedge so long as each equity exposure is publicly traded or has a return that is primarily based on a publicly traded equity exposure.

(2) *Effective hedge.* Two equity exposures form an effective hedge if the exposures either have the same remaining maturity or each has a remaining maturity of at least three months; the hedge relationship is formally documented in a prospective manner (that is, before the Federal savings association acquires at least one of the equity exposures); the documentation specifies the measure of effectiveness (E) the Federal savings association will use for the hedge relationship throughout the life of the transaction; and the hedge relationship has an E greater than or equal to 0.8. A Federal savings association must measure E at least quarterly and must use one of three alternative measures of E:

(i) Under the dollar-offset method of measuring effectiveness, the Federal savings association must determine the ratio of value change (RVC). The RVC is the ratio of the cumulative sum of the periodic changes in value of one equity exposure to the cumulative sum of the periodic changes in the value of the other equity exposure. If RVC is positive, the hedge is not effective and E equals 0. If RVC is negative and greater than or equal to −1 (that is, between zero and −1), then E equals the absolute value of RVC. If RVC is negative and less than −1, then E equals 2 plus RVC.

(ii) Under the variability-reduction method of measuring effectiveness:

$$E = 1 - \frac{\sum_{t=1}^{T}\left(X_t - X_{t-1}\right)^2}{\sum_{t=1}^{T}\left(A_t - A_{t-1}\right)^2}, \text{ where}$$

(A) $X_t = A_t - B_t$;

(B) A_t = the value at time t of one exposure in a hedge pair; and

(C) B_t = the value at time t of the other exposure in a hedge pair.

(iii) Under the regression method of measuring effectiveness, E equals the coefficient of determination of a regression in which the change in value of one exposure in a hedge pair is the dependent variable and the change in value of the other exposure in a hedge

pair is the independent variable. However, if the estimated regression coefficient is positive, then the value of E is zero.

(3) The effective portion of a hedge pair is E multiplied by the greater of the adjusted carrying values of the equity exposures forming a hedge pair.

(4) The ineffective portion of a hedge pair is (1 − E) multiplied by the greater of the adjusted carrying values of the equity exposures forming a hedge pair.

Section 53. Internal Models Approach (IMA)

(a) *General.* A Federal savings association may calculate its risk-weighted asset amount for equity exposures using the IMA by modeling publicly traded and non-publicly traded equity exposures (in accordance with paragraph (c) of this section) or by modeling only publicly traded equity exposures (in accordance with paragraph (d) of this section).

(b) *Qualifying criteria.* To qualify to use the IMA to calculate risk-based capital requirements for equity exposures, a Federal savings association must receive prior written approval from the OCC. To receive such approval, the savings association must demonstrate to the OCC's satisfaction that the savings association meets the following criteria:

(1) The savings association must have one or more models that:

(i) Assess the potential decline in value of its modeled equity exposures;

(ii) Are commensurate with the size, complexity, and composition of the savings association's modeled equity exposures; and

(iii) Adequately capture both general market risk and idiosyncratic risk.

(2) The savings association's model must produce an estimate of potential losses for its modeled equity exposures that is no less than the estimate of potential losses produced by a VaR methodology employing a 99.0 percent, one-tailed confidence interval of the distribution of quarterly returns for a benchmark portfolio of equity exposures comparable to the savings association's modeled equity exposures using a long-term sample period.

(3) The number of risk factors and exposures in the sample and the data period used for quantification in the savings association's model and benchmarking exercise must be sufficient to provide confidence in the accuracy and robustness of the savings association's estimates.

(4) The savings association's model and benchmarking process must incorporate data that are relevant in representing the risk profile of the savings association's modeled equity exposures, and must include data from at least one equity market cycle containing adverse market movements relevant to the risk profile of the savings association's modeled equity exposures. In addition, the savings association's benchmarking exercise must be based on daily market prices for the benchmark portfolio. If the savings association's model uses a scenario methodology, the savings association must demonstrate that the model produces a conservative estimate of potential losses on the savings association's modeled equity exposures over a relevant long-term market cycle. If the savings association employs risk factor models, the savings association must demonstrate through empirical analysis the appropriateness of the risk factors used.

(5) The savings association must be able to demonstrate, using theoretical arguments and empirical evidence, that any proxies used in the modeling process are comparable to the savings association's modeled equity exposures and that the savings association has made appropriate adjustments for differences. The savings association must derive any proxies for its modeled equity exposures and benchmark portfolio using historical market data that are relevant to the savings association's modeled equity exposures and benchmark portfolio (or, where not, must use appropriately adjusted data), and such proxies must be robust estimates of the risk of the savings association's modeled equity exposures.

(c) *Risk-weighted assets calculation for a Federal savings association modeling publicly traded and non-publicly traded equity exposures.* If a Federal savings association models publicly traded and non-publicly traded equity exposures, the savings association's aggregate

risk-weighted asset amount for its equity exposures is equal to the sum of:

(1) The risk-weighted asset amount of each equity exposure that qualifies for a 0 percent, 20 percent, or 100 percent risk weight under paragraphs (b)(1) through (b)(3)(i) of section 52 (as determined under section 52 of this appendix) and each equity exposure to an investment fund (as determined under section 54 of this appendix); and

(2) The greater of:

(i) The estimate of potential losses on the savings association's equity exposures (other than equity exposures referenced in paragraph (c)(1) of this section) generated by the savings association's internal equity exposure model multiplied by 12.5; or

(ii) The sum of:

(A) 200 percent multiplied by the aggregate adjusted carrying value of the savings association's publicly traded equity exposures that do not belong to a hedge pair, do not qualify for a 0 percent, 20 percent, or 100 percent risk weight under paragraphs (b)(1) through (b)(3)(i) of section 52 of this appendix, and are not equity exposures to an investment fund;

(B) 200 percent multiplied by the aggregate ineffective portion of all hedge pairs; and

(C) 300 percent multiplied by the aggregate adjusted carrying value of the savings association's equity exposures that are not publicly traded, do not qualify for a 0 percent, 20 percent, or 100 percent risk weight under paragraphs (b)(1) through (b)(3)(i) of section 52 of this appendix, and are not equity exposures to an investment fund.

(d) *Risk-weighted assets calculation for a Federal savings association using the IMA only for publicly traded equity exposures.* If a Federal savings association models only publicly traded equity exposures, the savings association's aggregate risk-weighted asset amount for its equity exposures is equal to the sum of:

(1) The risk-weighted asset amount of each equity exposure that qualifies for a 0 percent, 20 percent, or 100 percent risk weight under paragraphs (b)(1) through (b)(3)(i) of section 52 (as determined under section 52 of this appendix), each equity exposure that qualifies for a 400 percent risk weight under paragraph (b)(5) of section 52 or a 600 percent risk weight under paragraph (b)(6) of section 52 (as determined under section 52 of this appendix), and each equity exposure to an investment fund (as determined under section 54 of this appendix); and

(2) The greater of:

(i) The estimate of potential losses on the Federal savings association's equity exposures (other than equity exposures referenced in paragraph (d)(1) of this section) generated by the savings association's internal equity exposure model multiplied by 12.5; or

(ii) The sum of:

(A) 200 percent multiplied by the aggregate adjusted carrying value of the Federal savings association's publicly traded equity exposures that do not belong to a hedge pair, do not qualify for a 0 percent, 20 percent, or 100 percent risk weight under paragraphs (b)(1) through (b)(3)(i) of section 52 of this appendix, and are not equity exposures to an investment fund; and

(B) 200 percent multiplied by the aggregate ineffective portion of all hedge pairs.

Section 54. Equity Exposures to Investment Funds

(a) *Available approaches.* (1) Unless the exposure meets the requirements for a community development equity exposure in paragraph (b)(3)(i) of section 52 of this appendix, a Federal savings association must determine the risk-weighted asset amount of an equity exposure to an investment fund under the Full Look-Through Approach in paragraph (b) of this section, the Simple Modified Look-Through Approach in paragraph (c) of this section, the Alternative Modified Look-Through Approach in paragraph (d) of this section, or, if the investment fund qualifies for the Money Market Fund Approach, the Money Market Fund Approach in paragraph (e) of this section.

(2) The risk-weighted asset amount of an equity exposure to an investment fund that meets the requirements for a community development equity exposure in paragraph (b)(3)(i) of section 52 of this appendix is its adjusted carrying value.

(3) If an equity exposure to an investment fund is part of a hedge pair and

the Federal savings association does not use the Full Look-Through Approach, the savings association may use the ineffective portion of the hedge pair as determined under paragraph (c) of section 52 of this appendix as the adjusted carrying value for the equity exposure to the investment fund. The risk-weighted asset amount of the effective portion of the hedge pair is equal to its adjusted carrying value.

(b) *Full Look-Through Approach*. A Federal savings association that is able to calculate a risk-weighted asset amount for its proportional ownership share of each exposure held by the investment fund (as calculated under this appendix as if the proportional ownership share of each exposure were held directly by the savings association) may either:

(1) Set the risk-weighted asset amount of the Federal savings association's exposure to the fund equal to the product of:

(i) The aggregate risk-weighted asset amounts of the exposures held by the fund as if they were held directly by the savings association; and

(ii) The savings association's proportional ownership share of the fund; or

(2) Include the savings association's proportional ownership share of each exposure held by the fund in the savings association's IMA.

(c) *Simple Modified Look-Through Approach*. Under this approach, the risk-weighted asset amount for a Federal savings association's equity exposure to an investment fund equals the adjusted carrying value of the equity exposure multiplied by the highest risk weight in Table 10 that applies to any exposure the fund is permitted to hold under its prospectus, partnership agreement, or similar contract that defines the fund's permissible investments (excluding derivative contracts that are used for hedging rather than speculative purposes and that do not constitute a material portion of the fund's exposures).

TABLE 10—MODIFIED LOOK-THROUGH APPROACHES FOR EQUITY EXPOSURES TO INVESTMENT FUNDS

Risk weight (percent)	Exposure class
0	Sovereign exposures with a long-term applicable external rating in the highest investment-grade rating category and sovereign exposures of the United States.
20	Non-sovereign exposures with a long-term applicable external rating in the highest or second-highest investment-grade rating category; exposures with a short-term applicable external rating in the highest investment-grade rating category; and exposures to, or guaranteed by, depository institutions, foreign banks (as defined in 12 CFR 211.2), or securities firms subject to consolidated supervision and regulation comparable to that imposed on U.S. securities broker-dealers that are repo-style transactions or bankers' acceptances.
50	Exposures with a long-term applicable external rating in the third-highest investment-grade rating category or a short-term applicable external rating in the second-highest investment-grade rating category.
100	Exposures with a long-term or short-term applicable external rating in the lowest investment-grade rating category.
200	Exposures with a long-term applicable external rating one rating category below investment grade.
300	Publicly traded equity exposures.
400	Non-publicly traded equity exposures; exposures with a long-term applicable external rating two rating categories or more below investment grade; and exposures without an external rating (excluding publicly traded equity exposures).
1,250	OTC derivative contracts and exposures that must be deducted from regulatory capital or receive a risk weight greater than 400 percent under this appendix.

(d) *Alternative Modified Look-Through Approach*. Under this approach, a Federal savings association may assign the adjusted carrying value of an equity exposure to an investment fund on a pro rata basis to different risk weight categories in Table 10 based on the investment limits in the fund's prospectus, partnership agreement, or similar contract that defines the fund's permissible investments. The risk-weighted asset amount for the savings association's equity exposure to the investment fund equals the sum of each portion of the adjusted carrying value assigned to an exposure class multiplied by the applicable risk weight. If the sum of the investment limits for

exposure classes within the fund exceeds 100 percent, the savings association must assume that the fund invests to the maximum extent permitted under its investment limits in the exposure class with the highest risk weight under Table 10, and continues to make investments in order of the exposure class with the next highest risk weight under Table 10 until the maximum total investment level is reached. If more than one exposure class applies to an exposure, the Federal savings association must use the highest applicable risk weight. A Federal savings association may exclude derivative contracts held by the fund that are used for hedging rather than for speculative purposes and do not constitute a material portion of the fund's exposures.

(e) *Money Market Fund Approach.* The risk-weighted asset amount for a Federal savings association's equity exposure to an investment fund that is a money market fund subject to 17 CFR 270.2a–7 and that has an applicable external rating in the highest investment-grade rating category equals the adjusted carrying value of the equity exposure multiplied by 7 percent.

Section 55. Equity Derivative Contracts

Under the IMA, in addition to holding risk-based capital against an equity derivative contract under this part, a Federal savings association must hold risk-based capital against the counterparty credit risk in the equity derivative contract by also treating the equity derivative contract as a wholesale exposure and computing a supplemental risk-weighted asset amount for the contract under part IV. Under the SRWA, a Federal savings association may choose not to hold risk-based capital against the counterparty credit risk of equity derivative contracts, as long as it does so for all such contracts. Where the equity derivative contracts are subject to a qualified master netting agreement, a Federal savings association using the SRWA must either include all or exclude all of the contracts from any measure used to determine counterparty credit risk exposure.

PART VII. RISK-WEIGHTED ASSETS FOR OPERATIONAL RISK

Section 61. Qualification Requirements for Incorporation of Operational Risk Mitigants

(a) *Qualification to use operational risk mitigants.* A Federal savings association may adjust its estimate of operational risk exposure to reflect qualifying operational risk mitigants if:

(1) The savings association's operational risk quantification system is able to generate an estimate of the savings association's operational risk exposure (which does not incorporate qualifying operational risk mitigants) and an estimate of the savings association's operational risk exposure adjusted to incorporate qualifying operational risk mitigants; and

(2) The savings association's methodology for incorporating the effects of insurance, if the savings association uses insurance as an operational risk mitigant, captures through appropriate discounts to the amount of risk mitigation:

(i) The residual term of the policy, where less than one year;

(ii) The cancellation terms of the policy, where less than one year;

(iii) The policy's timeliness of payment;

(iv) The uncertainty of payment by the provider of the policy; and

(v) Mismatches in coverage between the policy and the hedged operational loss event.

(b) *Qualifying operational risk mitigants.* Qualifying operational risk mitigants are:

(1) Insurance that:

(i) Is provided by an unaffiliated company that has a claims payment ability that is rated in one of the three highest rating categories by a NRSRO;

(ii) Has an initial term of at least one year and a residual term of more than 90 days;

(iii) Has a minimum notice period for cancellation by the provider of 90 days;

(iv) Has no exclusions or limitations based upon regulatory action or for the receiver or liquidator of a failed depository institution; and

(v) Is explicitly mapped to a potential operational loss event; and

(2) Operational risk mitigants other than insurance for which the OCC has given prior written approval. In evaluating an operational risk mitigant other than insurance, the OCC will consider whether the operational risk mitigant covers potential operational losses in a manner equivalent to holding regulatory capital.

Section 62. Mechanics of Risk-Weighted Asset Calculation

(a) If a Federal savings association does not qualify to use or does not have qualifying operational risk mitigants, the savings association's dollar risk-based capital requirement for operational risk is its operational risk exposure minus eligible operational risk offsets (if any).

(b) If a Federal savings association qualifies to use operational risk mitigants and has qualifying operational risk mitigants, the savings association's dollar risk-based capital requirement for operational risk is the greater of:

(1) The Federal savings association's operational risk exposure adjusted for qualifying operational risk mitigants minus eligible operational risk offsets (if any); or

(2) 0.8 multiplied by the difference between:

(i) The Federal savings association's operational risk exposure; and

(ii) Eligible operational risk offsets (if any).

(c) The Federal savings association's risk-weighted asset amount for operational risk equals the savings association's dollar risk-based capital requirement for operational risk determined under paragraph (a) or (b) of this section multiplied by 12.5.

PART VIII. DISCLOSURE

Section 71. Disclosure Requirements

(a) Each Federal savings association must publicly disclose each quarter its total and tier 1 risk-based capital ratios and their components (that is, tier 1 capital, tier 2 capital, total qualifying capital, and total risk-weighted assets).[4]

(b) A Federal savings association must comply with paragraph (c) of section 71 of this appendix unless it is a consolidated subsidiary of a depository institution or bank holding company that is subject to these requirements.

(c)(1) Each consolidated Federal savings association described in paragraph (b) of this section that is not a subsidiary of a non-U.S. banking organization that is subject to comparable public disclosure requirements in its home jurisdiction and has successfully completed its parallel run must provide timely public disclosures each calendar quarter of the information in tables 11.1–11.11 below. If a significant change occurs, such that the most recent reported amounts are no longer reflective of the savings association's capital adequacy and risk profile, then a brief discussion of this change and its likely impact must be provided as soon as practicable thereafter. Qualitative disclosures that typically do not change each quarter (for example, a general summary of the savings association's risk management objectives and policies, reporting system, and definitions) may be disclosed annually, provided any significant changes to these are disclosed in the interim. Management is encouraged to provide all of the disclosures required by this appendix in one place on the savings association's public Web site.[5] The savings association must make these disclosures publicly available for each of the last three years (twelve quarters) or such shorter period since it began its first floor period.

(2) Each Federal savings association is required to have a formal disclosure policy approved by the board of directors that addresses its approach for determining the disclosures it makes.

[4] Other public disclosure requirements continue to apply—for example, Federal securities law and regulatory reporting requirements.

[5] Alternatively, a Federal savings association may provide the disclosures in more than one place, as some of them may be included in public financial reports (for example, in Management's Discussion and Analysis included in SEC filings) or other regulatory reports. The savings association must provide a summary table on its public Web site that specifically indicates where all the disclosures may be found (for example, regulatory report schedules, page numbers in annual reports).

The policy must address the associated internal controls and disclosure controls and procedures. The board of directors and senior management are responsible for establishing and maintaining an effective internal control structure over financial reporting, including the disclosures required by this appendix, and must ensure that appropriate review of the disclosures takes place. One or more senior officers of the savings association must attest that the disclosures required by this appendix meet the requirements of this appendix.

(3) If a Federal savings association believes that disclosure of specific commercial or financial information would prejudice seriously its position by making public information that is either proprietary or confidential in nature, the savings association need not disclose those specific items, but must disclose more general information about the subject matter of the requirement, together with the fact that, and the reason why, the specific items of information have not been disclosed.

TABLE 11.1—SCOPE OF APPLICATION

Qualitative Disclosures	(a) The name of the top corporate entity in the group to which the appendix applies. (b) An outline of differences in the basis of consolidation for accounting and regulatory purposes, with a brief description of the entities[6] within the group that are fully consolidated; that are deconsolidated and deducted; for which the regulatory capital requirement is deducted; and that are neither consolidated nor deducted (for example, where the investment is risk-weighted). (c) Any restrictions, or other major impediments, on transfer of funds or regulatory capital within the group.
Quantitative Disclosures	(d) The aggregate amount of surplus capital of insurance subsidiaries (whether deducted or subjected to an alternative method) included in the regulatory capital of the consolidated group. (e) The aggregate amount by which actual regulatory capital is less than the minimum regulatory capital requirement in all subsidiaries with regulatory capital requirements and the name(s) of the subsidiaries with such deficiencies.

TABLE 11.2—CAPITAL STRUCTURE

Qualitative Disclosures	(a) Summary information on the terms and conditions of the main features of all capital instruments, especially in the case of innovative, complex or hybrid capital instruments.
Quantitative Disclosures	(b) The amount of tier 1 capital, with separate disclosure of: • Common stock/surplus; • Retained earnings; • Minority interests in the equity of subsidiaries; • Regulatory calculation differences deducted from tier 1 capital;[7] and • Other amounts deducted from tier 1 capital, including goodwill and certain intangibles.

[6] Entities include securities, insurance and other financial subsidiaries, commercial subsidiaries (where permitted), and significant minority equity investments in insurance, financial and commercial entities.

TABLE 11.2—CAPITAL STRUCTURE—Continued

	(c) The total amount of tier 2 capital. (d) Other deductions from capital.[8] (e) Total eligible capital.

TABLE 11.3—CAPITAL ADEQUACY

Qualitative disclosures	(a) A summary discussion of the Federal savings association's approach to assessing the adequacy of its capital to support current and future activities.
Quantitative disclosures	(b) Risk-weighted assets for credit risk from: • Wholesale exposures; • Residential mortgage exposures; • Qualifying revolving exposures; • Other retail exposures; • Securitization exposures; • Equity exposures; • Equity exposures subject to the simple risk weight approach; and • Equity exposures subject to the internal models approach. (c) Risk-weighted assets for market risk as calculated under any applicable market risk rule:[9] • Standardized approach for specific risk; and • Internal models approach for specific risk. (d) Risk-weighted assets for operational risk. (e) Total and tier 1 risk-based capital ratios:[10] • For the top consolidated group; and • For each DI subsidiary.

General qualitative disclosure requirement

For each separate risk area described in tables 11.4 through 11.11, the Federal savings association must describe its risk management objectives and policies, including:

- Strategies and processes;
- The structure and organization of the relevant risk management function;
- The scope and nature of risk reporting and/or measurement systems;
- Policies for hedging and/or mitigating risk and strategies and processes for monitoring the continuing effectiveness of hedges/mitigants.

[7] Representing 50 percent of the amount, if any, by which total expected credit losses as calculated within the IRB approach exceed eligible credit reserves, which must be deducted from tier 1 capital.

[8] Including 50 percent of the amount, if any, by which total expected credit losses as calculated within the IRB approach exceed eligible credit reserves, which must be deducted from tier 2 capital.

[9] Risk-weighted assets determined under any applicable market risk rule are to be disclosed only for the approaches used.

[10] Total risk-weighted assets should also be disclosed.

TABLE 11.4 [11]—CREDIT RISK: GENERAL DISCLOSURES

Qualitative Disclosures	(a) The general qualitative disclosure requirement with respect to credit risk (excluding counterparty credit risk disclosed in accordance with Table 11.6), including: • Definitions of past due and impaired (for accounting purposes); • Description of approaches followed for allowances, including statistical methods used where applicable; and • Discussion of the Federal savings association's credit risk management policy.
Quantitative Disclosures	(b) Total credit risk exposures and average credit risk exposures, after accounting offsets in accordance with GAAP,[12] and without taking into account the effects of credit risk mitigation techniques (for example, collateral and netting), over the period broken down by major types of credit exposure.[13] (c) Geographic [14] distribution of exposures, broken down in significant areas by major types of credit exposure. (d) Industry or counterparty type distribution of exposures, broken down by major types of credit exposure. (e) Remaining contractual maturity breakdown (for example, one year or less) of the whole portfolio, broken down by major types of credit exposure.
.....	(f) By major industry or counterparty type: • Amount of impaired loans; • Amount of past due loans; [15] • Allowances; and • Charge-offs during the period.
.....	(g) Amount of impaired loans and, if available, the amount of past due loans broken down by significant geographic areas including, if practical, the amounts of allowances related to each geographical area.[16]
.....	(h) Reconciliation of changes in the allowance for loan and lease losses.[17]

A Federal savings association might choose to define the geographical areas based on the way the company's portfolio is geographically managed. The criteria used to allocate the loans to geographical areas must be specified.

[11] Table 4 does not include equity exposures.

[12] For example, FASB Interpretations 39 and 41.

[13] For example, savings associations could apply a breakdown similar to that used for accounting purposes.

Such a breakdown might, for instance, be (a) loans, off-balance sheet commitments, and other non-derivative off-balance sheet exposures, (b) debt securities, and (c) OTC derivatives.

[14] Geographical areas may comprise individual countries, groups of countries, or regions within countries.

[15] A Federal savings association is encouraged also to provide an analysis of the aging of past-due loans.

[16] The portion of general allowance that is not allocated to a geographical area should be disclosed separately.

[17] The reconciliation should include the following: A description of the allowance; the opening balance of the allowance; charge-offs taken against the allowance during the period; amounts provided (or reversed) for estimated probable loan losses during the period; any other adjustments (for example, exchange rate differences, business combinations, acquisitions and disposals of subsidiaries), including transfers between allowances; and the closing balance of the allowance. Charge-offs and recoveries that have been recorded directly to the income statement should be disclosed separately.

TABLE 11.5—CREDIT RISK: DISCLOSURES FOR PORTFOLIOS SUBJECT TO IRB RISK-BASED CAPITAL FORMULAS

Qualitative disclosures	(a) Explanation and review of the: • Structure of internal rating systems and relation between internal and external ratings; • Use of risk parameter estimates other than for regulatory capital purposes; • Process for managing and recognizing credit risk mitigation (see table 11.7); and • Control mechanisms for the rating system, including discussion of independence, accountability, and rating systems review. (b) Description of the internal ratings process, provided separately for the following: • Wholesale category; • Retail subcategories; • Residential mortgage exposures; • Qualifying revolving exposures; and • Other retail exposures. For each category and subcategory the description should include: • The types of exposure included in the category/subcategories; and • The definitions, methods and data for estimation and validation of PD, LGD, and EAD, including assumptions employed in the derivation of these variables.[18]
Quantitative disclosures: risk assessment.	(c) For wholesale exposures, present the following information across a sufficient number of PD grades (including default) to allow for a meaningful differentiation of credit risk:[19] • Total EAD;[20] • Exposure-weighted average LGD (percentage); • Exposure-weighted average risk weight; and • Amount of undrawn commitments and exposure-weighted average EAD for wholesale exposures. For each retail subcategory, present the disclosures outlined above across a sufficient number of segments to allow for a meaningful differentiation of credit risk.
Quantitative disclosures: historical results.	(d) Actual losses in the preceding period for each category and subcategory and how this differs from past experience. A discussion of the factors that impacted the loss experience in the preceding period—for example, has the Federal savings association experienced higher than average default rates, loss rates or EADs. (e) Federal savings association's estimates compared against actual outcomes over a longer period.[21] At a minimum, this should include information on estimates of losses against actual losses in the wholesale category and each retail subcategory over a period sufficient to allow for a meaningful assessment of the performance of the internal rating processes for each category/subcategory.[22] Where appropriate, the savings association should further decompose this to provide analysis of PD, LGD, and EAD outcomes against estimates provided in the quantitative risk assessment disclosures above.[23]

TABLE 11.6—GENERAL DISCLOSURE FOR COUNTERPARTY CREDIT RISK OF OTC DERIVATIVE CONTRACTS, REPO-STYLE TRANSACTIONS, AND ELIGIBLE MARGIN LOANS

Qualitative Disclosures	(a) The general qualitative disclosure requirement with respect to OTC derivatives, eligible margin loans, and repo-style transactions, including: • Discussion of methodology used to assign economic capital and credit limits for counterparty credit exposures; • Discussion of policies for securing collateral, valuing and managing collateral, and establishing credit reserves; • Discussion of the primary types of collateral taken; • Discussion of policies with respect to wrong-way risk exposures; and • Discussion of the impact of the amount of collateral the Federal savings association would have to provide if the savings association were to receive a credit rating downgrade.
Quantitative Disclosures	(b) Gross positive fair value of contracts, netting benefits, netted current credit exposure, collateral held (including type, for example, cash, government securities), and net unsecured credit exposure.[24] Also report measures for EAD used for regulatory capital for these transactions, the notional value of credit derivative hedges purchased for counterparty credit risk protection, and, for Federal savings associations not using the internal models methodology in section 32(d) of this appendix, the distribution of current credit exposure by types of credit exposure.[25]

[18] This disclosure does not require a detailed description of the model in full—it should provide the reader with a broad overview of the model approach, describing definitions of the variables and methods for estimating and validating those variables set out in the quantitative risk disclosures below. This should be done for each of the four category/subcategories. The Federal savings association should disclose any significant differences in approach to estimating these variables within each category/subcategories.

[19] The PD, LGD and EAD disclosures in Table 11.5(c) should reflect the effects of collateral, qualifying master netting agreements, eligible guarantees and eligible credit derivatives as defined in part I. Disclosure of each PD grade should include the exposure-weighted average PD for each grade. Where a Federal savings association aggregates PD grades for the purposes of disclosure, this should be a representative breakdown of the distribution of PD grades used for regulatory capital purposes.

[20] Outstanding loans and EAD on undrawn commitments can be presented on a combined basis for these disclosures.

[21] These disclosures are a way of further informing the reader about the reliability of the information provided in the ''quantitative disclosures: risk assessment'' over the long run. The disclosures are requirements from year-end 2010; in the meantime, early adoption is encouraged. The phased implementation is to allow a Federal savings association sufficient time to build up a longer run of data that will make these disclosures meaningful.

[22] This regulation is not prescriptive about the period used for this assessment. Upon implementation, it might be expected that a Federal savings association would provide these disclosures for as long a run of data as possible—for example, if a savings association has 10 years of data, it might choose to disclose the average default rates for each PD grade over that 10-year period. Annual amounts need not be disclosed.

[23] A Federal savings association should provide this further decomposition where it will allow users greater insight into the reliability of the estimates provided in the ''quantitative disclosures: risk assessment.'' In particular, it should provide this information where there are material differences between its estimates of PD, LGD or EAD compared to actual outcomes over the long run. The savings association should also provide explanations for such differences.

TABLE 11.6—GENERAL DISCLOSURE FOR COUNTERPARTY CREDIT RISK OF OTC DERIVATIVE CONTRACTS, REPO-STYLE TRANSACTIONS, AND ELIGIBLE MARGIN LOANS—Continued

	(c) Notional amount of purchased and sold credit derivatives, segregated between use for the Federal savings association's own credit portfolio and for its intermediation activities, including the distribution of the credit derivative products used, broken down further by protection bought and sold within each product group. (d) The estimate of alpha if the Federal savings association has received supervisory approval to estimate alpha.

TABLE 11.7—CREDIT RISK MITIGATION [26] [27] [28]

Qualitative Disclosures	(a) The general qualitative disclosure requirement with respect to credit risk mitigation including: • Policies and processes for, and an indication of the extent to which the Federal savings association uses, on- and off-balance sheet netting; • Policies and processes for collateral valuation and management; • A description of the main types of collateral taken by the Federal savings association; • The main types of guarantors/credit derivative counterparties and their creditworthiness; and • Information about (market or credit) risk concentrations within the mitigation taken.
Quantitative Disclosures	(b) For each separately disclosed portfolio, the total exposure (after, where applicable, on- or off-balance sheet netting) that is covered by guarantees/credit derivatives.

TABLE 11.8—SECURITIZATION

Qualitative Disclosures	(a) The general qualitative disclosure requirement with respect to securitization (including synthetics), including a discussion of:

[24] Net unsecured credit exposure is the credit exposure after considering the benefits from legally enforceable netting agreements and collateral arrangements, without taking into account haircuts for price volatility, liquidity, etc.

[25] This may include interest rate derivative contracts, foreign exchange derivative contracts, equity derivative contracts, credit derivatives, commodity or other derivative contracts, repo-style transactions, and eligible margin loans.

[26] At a minimum, a Federal savings association must provide the disclosures in Table 11.7 in relation to credit risk mitigation that has been recognized for the purposes of reducing capital requirements under this appendix. Where relevant, Federal savings associations are encouraged to give further information about mitigants that have not been recognized for that purpose.

[27] Credit derivatives that are treated, for the purposes of this appendix, as synthetic securitization exposures should be excluded from the credit risk mitigation disclosures and included within those relating to securitization.

[28] Counterparty credit risk-related exposures disclosed pursuant to Table 11.6 should be excluded from the credit risk mitigation disclosures in Table 11.7.

TABLE 11.8—SECURITIZATION—Continued

	• The Federal savings association's objectives relating to securitization activity, including the extent to which these activities transfer credit risk of the underlying exposures away from the savings association to other entities; • The roles played by the Federal savings association in the securitization process[29] and an indication of the extent of the savings association's involvement in each of them; and • The regulatory capital approaches (for example, RBA, IAA and SFA) that the Federal savings association follows for its securitization activities. (b) Summary of the Federal savings association's accounting policies for securitization activities, including: • Whether the transactions are treated as sales or financings; • Recognition of gain-on-sale; • Key assumptions for valuing retained interests, including any significant changes since the last reporting period and the impact of such changes; and • Treatment of synthetic securitizations. (c) Names of NRSROs used for securitizations and the types of securitization exposure for which each agency is used.
Quantitative Disclosures	(d) The total outstanding exposures securitized by the Federal savings association in securitizations that meet the operational criteria in section 41 of this appendix (broken down into traditional/synthetic), by underlying exposure type.[30] [31] [32] (e) For exposures securitized by the Federal savings association in securitizations that meet the operational criteria in Section 41 of this appendix: • Amount of securitized assets that are impaired/past due; and • Losses recognized by the Federal savings association during the current period[33] broken down by exposure type. (f) Aggregate amount of securitization exposures broken down by underlying exposure type. (g) Aggregate amount of securitization exposures and the associated IRB capital requirements for these exposures broken down into a meaningful number of risk weight bands. Exposures that have been deducted from capital should be disclosed separately by type of underlying asset. (h) For securitizations subject to the early amortization treatment, the following items by underlying asset type for securitized facilities: • The aggregate drawn exposures attributed to the seller's and investors' interests; and • The aggregate IRB capital charges incurred by the Federal savings association against the investors' shares of drawn balances and undrawn lines. (i) Summary of current year's securitization activity, including the amount of exposures securitized (by exposure type), and recognized gain or loss on sale by asset type.

[29] For example: originator, investor, servicer, provider of credit enhancement, sponsor of ABCP facility, liquidity provider, or swap provider.

[30] Underlying exposure types may include, for example, one- to four-family residential loans, home equity lines, credit card receivables, and auto loans.

[31] Securitization transactions in which the originating Federal savings association does

Continued

TABLE 11.9—OPERATIONAL RISK

Qualitative Disclosures	(a) The general qualitative disclosure requirement for operational risk. (b) Description of the AMA, including a discussion of relevant internal and external factors considered in the Federal savings association's measurement approach. (c) A description of the use of insurance for the purpose of mitigating operational risk.

TABLE 11.10—EQUITIES NOT SUBJECT TO MARKET RISK RULE

Qualitative Disclosures	(a) The general qualitative disclosure requirement with respect to equity risk, including: • Differentiation between holdings on which capital gains are expected and those held for other objectives, including for relationship and strategic reasons; and • Discussion of important policies covering the valuation of and accounting for equity holdings in the banking book. This includes the accounting techniques and valuation methodologies used, including key assumptions and practices affecting valuation as well as significant changes in these practices.
Quantitative Disclosures	(b) Value disclosed in the balance sheet of investments, as well as the fair value of those investments; for quoted securities, a comparison to publicly quoted share values where the share price is materially different from fair value. (c) The types and nature of investments, including the amount that is: • Publicly traded; and • Non-publicly traded. (d) The cumulative realized gains (losses) arising from sales and liquidations in the reporting period. (e) • Total unrealized gains (losses) [34] • Total latent revaluation gains (losses) [35] • Any amounts of the above included in tier 1 and/or tier 2 capital. (f) Capital requirements broken down by appropriate equity groupings, consistent with the Federal savings association's methodology, as well as the aggregate amounts and the type of equity investments subject to any supervisory transition regarding regulatory capital requirements.[36]

not retain any securitization exposure should be shown separately but need only be reported for the year of inception.

[32] Where relevant, a Federal savings association is encouraged to differentiate between exposures resulting from activities in which they act only as sponsors, and exposures that result from all other Federal savings association securitization activities.

[33] For example, charge-offs/allowances (if the assets remain on the savings association's balance sheet) or write-downs of I/O strips and other residual interests.

[34] Unrealized gains (losses) recognized in the balance sheet but not through earnings.

[35] Unrealized gains (losses) not recognized either in the balance sheet or through earnings.

[36] This disclosure should include a breakdown of equities that are subject to the 0 percent, 20 percent, 100 percent, 300 percent, 400 percent, and 600 percent risk weights, as applicable.

TABLE 11.11—INTEREST RATE RISK FOR NON-TRADING ACTIVITIES

Qualitative Disclosures	(a) The general qualitative disclosure requirement, including the nature of interest rate risk for non-trading activities and key assumptions, including assumptions regarding loan prepayments and behavior of non-maturity deposits, and frequency of measurement of interest rate risk for non-trading activities.
Quantitative Disclosures	(b) The increase (decline) in earnings or economic value (or relevant measure used by management) for upward and downward rate shocks according to management's method for measuring interest rate risk for non-trading activities, broken down by currency (as appropriate).

PART IX—TRANSITION PROVISIONS

Section 81—Optional Transition Provisions Related to the Implementation of Consolidation Requirements Under FAS 167

(a) *Scope, applicability, and purpose.* This section 81 provides optional transition provisions for a Federal savings association that is required for financial and regulatory reporting purposes, as a result of its implementation of Statement of Financial Accounting Standards No. 167, *Amendments to FASB Interpretation No. 46(R)* (FAS 167), to consolidate certain variable interest entities (VIEs) as defined under GAAP. These transition provisions apply through the end of the fourth quarter following the date of a savings association's implementation of FAS 167 (implementation date).

(b) *Exclusion period.*

(1) *Exclusion of risk-weighted assets for the first and second quarters.* For the first two quarters after the implementation date (exclusion period), including for the two calendar quarter-end regulatory report dates within those quarters, a Federal savings association may exclude from risk-weighted assets:

(i) Subject to the limitations in paragraph (d) of section 81, assets held by a VIE, provided that the following conditions are met:

(A) The VIE existed prior to the implementation date,

(B) The savings association did not consolidate the VIE on its balance sheet for calendar quarter-end regulatory report dates prior to the implementation date,

(C) The savings association must consolidate the VIE on its balance sheet beginning as of the implementation date as a result of its implementation of FAS 167, and

(D) The savings association excludes all assets held by VIEs described in paragraphs (b)(1)(i)(A) through (C) of this section 81; and

(ii) Subject to the limitations in paragraph (d) of this section 81, assets held by a VIE that is a consolidated ABCP program, provided that the following conditions are met:

(A) The savings association is the sponsor of the ABCP program,

(B) Prior to the implementation date, the savings association consolidated the VIE onto its balance sheet under GAAP and excluded the VIE's assets from the savings association's risk-weighted assets, and

(C) The savings association chooses to exclude all assets held by ABCP program VIEs described in paragraphs (b)(1)(ii)(A) and (B) of this section 81.

(2) *Risk-weighted assets during exclusion period.* During the exclusion period, including for the two calendar quarter-end regulatory report dates within the exclusion period, a Federal savings association adopting the optional provisions in paragraph (b) of this section must calculate risk-weighted assets for its contractual exposures to the VIEs referenced in paragraph (b)(1) of this section 81 on the implementation date and include this calculated amount in risk-weighted assets. Such contractual exposures may include direct-credit substitutes, recourse obligations, residual interests, liquidity facilities, and loans.

(3) *Inclusion of ALLL in tier 2 capital for the first and second quarters.* During the exclusion period, including for the

two calendar quarter-end regulatory report dates within the exclusion period, a Federal savings association that excludes VIE assets from risk-weighted assets pursuant to paragraph (b)(1) of this section 81 may include in tier 2 capital the full amount of the ALLL calculated as of the implementation date that is attributable to the assets it excludes pursuant to paragraph (b)(1) of this section 81 (inclusion amount). The amount of ALLL includable in tier 2 capital in accordance with this paragraph shall not be subject to the limitations set forth in section 13(A)(2) and 13(b) of this Appendix.

(c) *Phase-in period—*

(1) *Exclusion amount.* For purposes of this paragraph (c), exclusion amount is defined as the amount of risk-weighted assets excluded in paragraph (b)(1) of this section as of the implementation date.

(2) *Risk-weighted assets for the third and fourth quarters.* A Federal savings association that excludes assets of consolidated VIEs from risk-weighted assets pursuant to paragraph (b)(1) of this section may, for the third and fourth quarters after the implementation date (phase-in period), including for the two calendar quarter-end regulatory report dates within those quarters, exclude from risk-weighted assets 50 percent of the exclusion amount, provided that the savings association may not include in risk-weighted assets pursuant to this paragraph an amount less than the aggregate risk-weighted assets calculated pursuant to paragraph (b)(2) of this section 81.

(3) *Inclusion of ALLL in tier 2 capital for the third and fourth quarters.* A Federal savings association that excludes assets of consolidated VIEs from risk-weighted assets pursuant to paragraph (c)(2) of this section may, for the phase-in period, include in tier 2 capital 50 percent of the inclusion amount it included in tier 2 capital, during the exclusion period, notwithstanding the limit on including ALLL in tier 2 capital in section 13(a)(2) and 13(b) of this Appendix.

(d) *Implicit recourse limitation.* Notwithstanding any other provision in this section 81, assets held by a VIE to which the savings association has provided recourse through credit enhancement beyond any contractual obligation to support assets it has sold may not be excluded from risk-weighted assets.

PART 168—SECURITY PROCEDURES

Sec.
168.1 Authority, purpose, and scope.
168.2 Designation of security officer.
168.3 Security program.
168.4 Report.
168.5 Protection of customer information.

AUTHORITY: 12 U.S.C. 1462a, 1463, 1464, 1467a, 1828, 1831p–1, 1881–1884, 5412(b)(2)(B); 15 U.S.C. 1681s and 1681w; 15 U.S.C. 6801 and 6805(b)(1).

SOURCE: 76 FR 49129, Aug. 9, 2011, unless otherwise noted.

§ 168.1 Authority, purpose, and scope.

(a) This part is issued under section 3 of the Bank Protection Act of 1968 (12 U.S.C 1882), sections 501 and 505(b)(1) of the Gramm-Leach-Bliley Act (15 U.S.C. 6801 and 6805(b)(1)), and sections 621 and 628 of the Fair Credit Reporting Act (15 U.S.C. 1681s and 1681w). This part is applicable to Federal savings associations. It requires each Federal savings association to adopt appropriate security procedures to discourage robberies, burglaries, and larcenies and to assist in the identification and prosecution of persons who commit such acts. Section 168.5 of this part is applicable to Federal savings associations and their subsidiaries (except brokers, dealers, persons providing insurance, investment companies, and investment advisers). Section 168.5 of this part requires covered institutions to establish and implement appropriate administrative, technical, and physical safeguards to protect the security, confidentiality, and integrity of customer information.

(b) It is the responsibility of a Federal savings association's board of directors to comply with this regulation and ensure that a written security program for the association's main office and branches is developed and implemented.

§ 168.2 Designation of security officer.

Within 30 days after the effective date of insurance of accounts, the