take advantage of that business opportunity for personal profit. Recommendations to customers to buy insurance should be based on the benefits of the policy, not the commissions received from the sale.

(c) Except as provided in §§2.4 and 2.5(b), and paragraph (d) of this section, a director, officer, employee, or principal shareholder of a national bank, or an entity in which such person owns an interest of more than ten percent, may not retain commissions or other income from the sale of credit life insurance in connection with any loan made by that bank, and income from credit life insurance sales to loan customers must be credited to the income accounts of the bank.

(d) The requirements of paragraph (c) of this section do not apply to a director, officer, employee, or principal shareholder if:

(1) The person is employed by a third party that has contracted with the bank on an arm's-length basis to sell financial products on bank premises; and

(2) The person is not involved in the bank's credit decision process.

§ 2.4 Bonus and incentive plans.

A bank employee or officer may participate in a bonus or incentive plan based on the sale of credit life insurance if payments to the employee or officer in any one year do not exceed the greater of:

(a) Five percent of the recipient's annual salary; or

(b) Five percent of the average salary of all loan officers participating in the plan.

§ 2.5 Bank compensation.

(a) Nothing contained in this part prohibits a bank employee, officer, director, or principal shareholder who holds an insurance agent's license from agreeing to compensate the bank for the use of its premises, employees, or good will. However, the employee, officer, director, or principal shareholder shall turn over to the bank as compensation all income received from the sale of the credit life insurance to the bank's loan customers.

(b) Income derived from credit life insurance sales to loan customers may be credited to an affiliate operating under the Bank Holding Company Act of 1956, 12 U.S.C. 1841 *et seq.*, or to a trust for the benefit of all shareholders, provided that the bank receives reasonable compensation in recognition of the role played by its personnel, premises, and good will in credit life insurance sales. Reasonable compensation generally means an amount equivalent to at least 20 percent of the affiliate's net income attributable to the bank's credit life insurance sales.

PART 3—MINIMUM CAPITAL RATIOS; ISSUANCE OF DIRECTIVES

APPENDIX C TO PART 3—CAPITAL ADEQUACY GUIDELINES FOR [BANKS]: INTERNAL-RATINGS-BASED AND ADVANCED MEASUREMENT APPROACHES

AUTHORITY: 12 U.S.C. 93a, 161, 1818, 1828(n), 1828 note, 1831n note, 1835, 3907, and 3909.

SOURCE: 50 FR 10216, Mar. 14, 1985, unless otherwise noted.

Subpart A—Authority and Definitions

§ 3.1 Authority.

This part is issued under the authority of 12 U.S.C. 1 *et seq.*, 93a, 161, 1818, 3907 and 3909.

[59 FR 64563, Dec. 15, 1994]

§ 3.2 Definitions.

For the purposes of this part:

(a) *Adjusted total assets* means the average total assets figure required to be computed for and stated in a bank's most recent quarterly *Consolidated Report of Condition and Income* (Call Report) minus end-of-quarter intangible assets, deferred tax assets, and credit-enhancing interest-only strips, that are deducted from Tier 1 capital, and minus nonfinancial equity investments for which a Tier 1 capital deduction is required pursuant to section 2(c)(5) of appendix A of this part 3. The OCC reserves the right to require a bank to compute and maintain its capital ratios on the basis of actual, rather than average, total assets when necessary to carry out the purposes of this part.

(b) *Bank* means a national banking association or District of Columbia Bank.

(c) *Tier 1 capital* means *Tier 1 capital* as determined according to section 2 of appendix A of this part, including the deductions described therein.

(d) *Tier 2 capital* means *Tier 2 capital* as determined according to section 2 of appendix A of this part, including the limitations described therein.

(e) *Total capital* means *Total capital* as determined according to section 1(25) and section 2 of appendix A of this part, including the deductions described therein.

[55 FR 38800, Sept. 21, 1990, as amended at 60 FR 7907, Feb. 10, 1995; 67 FR 3795, Jan. 25, 2002]

§ 3.3 Transitional rules.

Intangible assets, other than mortgage servicing rights, purchased prior to April 15, 1985, and accounted for in accordance with the instruction of the OCC, need not be deducted from Tier 1 capital until December 31, 1992. However, when combined with other qualifying intangible assets, these intangibles may not exceed 25 percent of Tier 1 capital. After December 31, 1992, only those intangible assets that meet the criteria contained in section 2(c)(2) of appendix A will not be deducted from Tier 1 capital.

[55 FR 38800, Sept. 21, 1990]

§ 3.4 Reservation of authority.

(a) *Deductions from capital.* Notwithstanding the definitions of *Tier 1 capital* and *Tier 2 capital* in §3.2 (c) and (d), the OCC may find that a newly developed or modified capital instrument constitutes *Tier 1 capital* or *Tier 2 capital*, and may permit one or more banks to include all or a portion of funds obtained through such capital instruments as Tier 1 or Tier 2 capital, permanently or on a temporary basis, for the purposes of compliance with this part or for other purposes. Similarly, the OCC may find that a particular intangible asset, deferred tax asset or credit-enhancing interest-only strip need not be deducted from Tier 1 or Tier 2 capital. Conversely, the OCC may find that a particular intangible asset, deferred tax asset, credit-enhancing interest-only strip or other Tier 1 or Tier 2 capital component has characteristics or terms that diminish its contribution to a bank's ability to absorb losses, and may require the deduction from Tier 1 or Tier 2 capital of all of the component or of a greater portion of the component than is otherwise required.

(b) *Risk weight categories.* Notwithstanding the risk categories in sections 3 and 4 of appendix A to this part, the OCC will look to the substance of the transaction and may find that the assigned risk weight for any asset or the credit equivalent amount or credit conversion factor for any off-balance sheet item does not appropriately reflect the risks imposed on a bank and may require another risk weight, credit equivalent amount, or credit conversion factor that the OCC deems appropriate. Similarly, if no risk weight, credit equivalent amount, or credit conversion factor is specifically assigned, the OCC may assign any risk weight, credit equivalent amount, or credit conversion factor that the OCC deems appropriate. In making its determination, the OCC considers risks associated with the asset or off-balance sheet item as well as other relevant factors.

[55 FR 38800, Sept. 21, 1990, as amended at 66 FR 59630, Nov. 29, 2001]

Subpart B—Minimum Capital Ratios

§ 3.5 Applicability.

This subpart is applicable to all banks unless the Office determines, pursuant to the procedures set forth in subpart C, that different minimum capital ratios are appropriate for an individual bank based upon its particular circumstances, or unless different minimum capital ratios have been established or are established for an individual bank in a written agreement or a temporary or final order pursuant to 12 U.S.C. 1818 (b) or (c), or as a condition for approval of an application.

§ 3.6 Minimum capital ratios.

(a) *Risk-based capital ratio.* All national banks must have and maintain the minimum risk-based capital ratio as set forth in appendix A (and, for certain banks, in appendix B).

(b) *Total assets leverage ratio.* All national banks must have and maintain Tier 1 capital in an amount equal to at least 3.0 percent of adjusted total assets.

(c) *Additional leverage ratio requirement.* An institution operating at or near the level in paragraph (b) of this section should have well-diversified risks, including no undue interest rate risk exposure; excellent control systems; good earnings; high asset quality; high liquidity; and well managed on-and off-balance sheet activities; and in general be considered a strong banking organization, rated composite 1 under the Uniform Financial Institutions Rating System (CAMELS) rating system of banks. For all but the most highly-rated banks meeting the conditions set forth in this paragraph (c), the minimum Tier 1 leverage ratio is 4 percent. In all cases, banking institutions should hold capital commensurate with the level and nature of all risks.

[55 FR 38800, Sept. 21, 1990, as amended at 61 FR 47367, Sept. 6, 1996; 64 FR 10199, Mar. 2, 1999]

§ 3.7 Plan to achieve minimum capital ratios.

Effective December 31, 1990, any bank having capital ratios less than the minimums required under § 3.6 (a) and (b) shall, within 60 days, submit to the OCC a plan describing the means and schedule by which the bank shall achieve the applicable minimum capital ratios. The plan may be considered acceptable unless the bank is notified to the contrary by the OCC. A bank in compliance with an acceptable plan to achieve the applicable minimum capital ratios will not be deemed to be in violation of § 3.6.

[55 FR 38800, Sept. 21, 1990]

§ 3.8 Reservation of authority.

When, in the opinion of the Office the circumstances so require, a bank may be authorized to have less than the minimum capital ratios in § 3.6 during a time period specified by the Office.

Subpart C—Establishment of Minimum Capital Ratios for an Individual Bank

§ 3.9 Purpose and scope.

The rules and procedures specified in this subpart are applicable to a proceeding to establish required minimum capital ratios that would otherwise be applicable to a bank under § 3.6. The OCC is authorized under 12 U.S.C. 3907 (a)(2) to establish such minimum capital requirements for a bank as the OCC, in its discretion, deems appropriate in light of the particular circumstances at that bank. Proceedings under this subpart also may be initiated to require a bank having capital ratios above those set forth in § 3.6, or other legal authority to continue to maintain those higher ratios.

[55 FR 38800, Sept. 21, 1990]

§ 3.10 Applicability.

The OCC may require higher minimum capital ratios for an individual bank in view of its circumstances. For example, higher capital ratios may be appropriate for:

(a) A newly chartered bank;

(b) A bank receiving special supervisory attention;

(c) A bank that has, or is expected to have, losses resulting in capital inadequacy;

(d) A bank with significant exposure due to the risks from concentrations of credit, certain risks arising from nontraditional activities, or management's overall inability to monitor and control financial and operating risks presented by concentrations of credit and nontraditional activities;

(e) A bank with significant exposure to declines in the economic value of its capital due to changes in interest rates;

(f) A bank with significant exposure due to fiduciary or operational risk;

(g) A bank exposed to a high degree of asset depreciation, or a low level of liquid assets in relation to short term liabilities;

(h) A bank exposed to a high volume or, or particularly severe, problem loans;

(i) A bank that is growing rapidly, either internally or through acquisitions; or

(j) A bank that may be adversely affected by the activities or condition of its holding company, affiliate(s), or other persons or institutions including chain banking organizations, with which it has significant business relationships.

[60 FR 39493, Aug. 2, 1995]

§ 3.11 Standards for determination of appropriate individual minimum capital ratios.

The appropriate minimum capital ratios for an individual bank cannot be determined solely through the application of a rigid mathematical formula or wholly objective criteria. The decision is necessarily based in part on subjective judgment grounded in agency expertise. The factors to be considered in the determination will vary in each case and may include, for example:

(a) The conditions or circumstances leading to the Office's determination that higher minimum capital ratios are appropriate or necessary for the bank;

(b) The exigency of those circumstances or potential problems;

(c) The overall condition, management strength, and future prospects of the bank and, if applicable, its holding company and/or affiliate(s);

(d) The bank's liquidity, capital, risk asset and other ratios compared to the ratios of its peer group; and

(e) The views of the bank's directors and senior management.

§ 3.12 Procedures.

(a) *Notice*. When the OCC determines that minimum capital ratios above those set forth in § 3.6 or other legal authority are necessary or appropriate for a particular bank, the OCC will notify the bank in writing of the proposed minimum capital ratios and the date by which they should be reached (if applicable) and will provide an explanation of why the ratios proposed are considered necessary or appropriate for the bank.

(b) *Response*. (1) The bank may respond to any or all of the items in the notice. The response should include any matters which the bank would have the Office consider in deciding whether individual minimum capital ratios should be established for the bank, what those capital ratios should be, and, if applicable, when they should be achieved. The response must be in writing and delivered to the designated OCC official within 30 days after the date on which the bank received the notice. The Office may shorten the time period when, in the opinion of the Office, the condition of the bank so requires, provided that the bank is informed promptly of the new time period, or with the consent of the bank. In its discretion, the Office may extend the time period for good cause.

(2) Failure to respond within 30 days or such other time period as may be specified by the Office shall constitute

a waiver of any objections to the proposed minimum capital ratios or the deadline for their achievement.

(c) *Decision.* After the close of the bank's response period, the Office will decide, based on a review of the bank's response and other information concerning the bank, whether individual minimum capital ratios should be established for the bank and, if so, the ratios and the date the requirements will become effective. The bank will be notified of the decision in writing. The notice will include an explanation of the decision, except for a decision not to establish individual minimum capital requirements for the bank.

(d) *Submission of plan.* The decision may require the bank to develop and submit to the Office, within a time period specified, an acceptable plan to reach the minimum capital ratios established for the bank by the date required.

(e) *Change in circumstances.* If, after the Office's decision in paragraph (c) of this section, there is a change in the circumstances affecting the bank's capital adequacy or its ability to reach the required minimum capital ratios by the specified date, either the bank or the Office may propose to the other a change in the minimum capital ratios for the bank, the date when the minimums must be achieved, or the bank's plan (if applicable). The Office may decline to consider proposals that are not based on a significant change in circumstances or are repetitive or frivolous. Pending a decision on reconsideration, the Office's original decision and any plan required under that decision shall continue in full force and effect.

[50 FR 10216, Mar. 14, 1985, as amended at 55 FR 38800, Sept. 21, 1990]

§ 3.13 Relation to other actions.

In lieu of, or in addition to, the procedures in this subpart, the required minimum capital ratios for a bank may be established or revised through a written agreement or cease and desist proceedings under 12 U.S.C. 1818 (b) or (c) (12 CFR 19.0 through 19.21), or as a condition for approval of an application.

Subpart D—Enforcement

§ 3.14 Remedies.

A bank that does not have or maintain the minimum capital ratios applicable to it, whether required in subpart B of this part, in a decision pursuant to subpart C of this part, in a written agreement or temporary or final order under 12 U.S.C. 1818 (b) or (c), or in a condition for approval of an application, or a bank that has failed to submit or comply with an acceptable plan to attain those ratios, will be subject to such administrative action or sanctions as the OCC considers appropriate. These sanctions may include the issuance of a Directive pursuant to subpart E of this part or other enforcement action, assessment of civil money penalties, and/or the denial, conditioning, or revocation of applications. A national bank's failure to achieve or maintain minimum capital ratios in § 3.6 (a) or (b) may also be the basis for an action by the Federal Deposit Insurance Corporation to terminate federal deposit insurance. See 12 CFR 325.4.

[55 FR 38801, Sept. 21, 1990]

Subpart E—Issuance of a Directive

§ 3.15 Purpose and scope.

This subpart is applicable to proceedings by the Office to issue a directive under 12 U.S.C. 3907(b)(2). A directive is an order issued to a bank that does not have or maintain capital at or above the minimum ratios set forth in § 3.6, or established for the bank under subpart C, by a written agreement under 12 U.S.C. 1818(b), or as a condition for approval of an application. A directive may order the bank to:

(a) Achieve the minimum capital ratios applicable to it by a specified date;

(b) Adhere to a previously submitted plan to achieve the applicable capital ratios;

(c) Submit and adhere to a plan acceptable to the Office describing the means and time schedule by which the bank shall achieve the applicable capital ratios;

(d) Take other action, such as reduction of assets or the rate of growth of assets, or restrictions on the payment of dividends, to achieve the applicable capital ratios; or

(e) A combination of any of these or similar actions.

A directive issued under this rule, including a plan submitted under a directive, is enforceable in the same manner and to the same extent as an effective and outstanding cease and desist order which has become final as defined in 12 U.S.C. 1818(k). Violation of a directive may result in assessment of civil money penalties in accordance with 12 U.S.C. 3909(d).

§ 3.16 Notice of intent to issue a directive.

The Office will notify a bank in writing of its intention to issue a directive. The notice will state:

(a) Reasons for issuance of the directive; and

(b) The proposed contents of the directive.

§ 3.17 Response to notice.

(a) A bank may respond to the notice by stating why a directive should not be issued and/or by proposing alternative contents for the directive. The response should include any matters which the bank would have the Office consider in deciding whether to issue a directive and/or what the contents of the directive should be. The response may include a plan for achieving the minimum capital ratios applicable to the bank. The response must be in writing and delivered to the designated OCC official within 30 days after the date on which the bank received the notice. The Office may shorten the 30-day time period:

(1) When, in the opinion of the Office, the condition of the bank so requires, provided that the bank shall be informed promptly of the new time period;

(2) With the consent of the bank; or

(3) When the bank already has advised the Office that it cannot or will not achieve its applicable minimum capital ratios. In its discretion, the Office may extend the time period for good cause.

(b) Failure to respond within 30 days or such other time period as may be specified by the Office shall constitute a waiver of any objections to the proposed directive.

§ 3.18 Decision.

After the closing date of the bank's response period, or receipt of the bank's response, if earlier, the Office will consider the bank's response, and may seek additional information or clarification of the response. Thereafter, the Office will determine whether or not to issue a directive, and if one is to be issued, whether it should be as originally proposed or in modified form.

§ 3.19 Issuance of a directive.

(a) A directive will be served by delivery to the bank. It will include or be accompanied by a statement of reasons for its issuance.

(b) A directive is effective immediately upon its receipt by the bank, or upon such later date as may be specified therein, and shall remain effective and enforceable until it is stayed, modified, or terminated by the Office.

§ 3.20 Change in circumstances.

Upon a change in circumstances, a bank may request the Office to reconsider the terms of its directive or may propose changes in the plan to achieve the bank's applicable minimum capital ratios. The Office also may take such action on its own motion. The Office may decline to consider requests or proposals that are not based on a significant change in circumstances or are repetitive or frivolous. Pending a decision on reconsideration, the directive and plan shall continue in full force and effect.

§ 3.21 Relation to other administrative actions.

A directive may be issued in addition to, or in lieu of, any other action authorized by law, including cease and desist proceedings, civil money penalties, or the conditioning or denial of applications. The Office also may, in its discretion, take any action authorized by law, in lieu of a directive, in response to a bank's failure to achieve or maintain the applicable minimum capital ratios.

INTERPRETATIONS

§ 3.100 Capital and surplus.

For purposes of determining statutory limits that are based on the amount of bank's *capital* and/or *surplus*, the provisions of this section are to be used, rather than the definitions of capital contained in § 3.2.

(a) *Capital*. The term *capital* as used in provisions of law relating to the capital of national banking associations shall include the amount of common stock outstanding and unimpaired plus the amount of perpetual preferred stock outstanding and unimpaired.

(b) *Capital Stock*. The term *capital stock* as used in provisions of law relating to the capital stock of national banking associations, other than 12 U.S.C. 101, 177 and 178, shall have the same meaning as the term *capital* set forth in paragraph (a) of this section.

(c) *Surplus*. The term *surplus* as used in provisions of law relating to the surplus of national banking associations means the sum of paragraphs (c) (1), (2), (3) and (4) of this section:

(1) Capital surplus; undivided profits; reserves for contingencies and other capital reserves (excluding accrued dividends on perpetual and limited life preferred stock); net worth certificates issued pursuant to 12 U.S.C. 1823(i); minority interests in consolidated subsidiaries; and allowances for loan and lease losses; minus intangible assets;

(2) Mortgage servicing assets;

(3) Mandatory convertible debt to the extent of 20% of the sum of paragraphs (a) and (c) (1) and (2) of this section;

(4) Other mandatory convertible debt, limited life preferred stock and subordinated notes and debentures to the extent set forth in paragraph (f)(2) of this section.

(d) *Unimpaired Surplus Fund*. The term *unimpaired surplus fund* as used in provisions of law relating to the unimpaired surplus fund of national banking associations shall have the same meaning as the term *surplus* set forth in paragraph (c) of this section.

(e) *Definitions*. (1) *Allowance for loan and lease losses* means the balance of the valuation reserve on December 31, 1968, plus additions to the reserve charged to operations since that date, less losses charged against the allowance net of recoveries.

(2) *Capital surplus* means the total of those accounts reflecting:

(i) Amounts paid in in excess of the par or stated value of capital stock;

(ii) Amounts contributed to the bank other than for capital stock;

(iii) amounts transferred from undivided profits pursuant to 12 U.S.C. 60; and

(iv) Other amounts transferred from undivided profits.

(3) *Intangible assets* means those purchased assets that are to be reported as intangible assets in accordance with the *Instructions—Consolidated Reports of Condition and Income* (Call Report).

(4) *Limited Life preferred stock* means preferred stock which has a maturity or which may be redeemed at the option of the holder.

(5) *Mandatory convertible debt* means subordinated debt instruments which unqualifiedly require the issuer to exchange either common or perpetual preferred stock for such instruments by a date at or before the maturity of the instrument. The maturity of these instruments must be 12 years or less. In addition, the instrument must meet the requirements of paragraphs (f)(1)(i) through (v) of this section for subordinated notes and debentures or other requirements published by the OCC.

(6) *Minority interest in consolidated subsidiaries* means the portion of equity capital accounts of all consolidated subsidiaries of the bank that is allocated to minority shareholders of such subsidiaries.

(7) *Mortgage servicing assets* means the bank-owned rights to service for a fee mortgage loans that are owned by others.

(8) *Perpetual preferred stock* means preferred stock that does not have a stated maturity date and cannot be redeemed at the option of the holder.

(f) *Requirements and restrictions: Limited life preferred stock, mandatory convertible debt, and other subordinated debt*—(1) *Requirements*. Issues of limited life preferred stock and subordinated notes and debentures (except mandatory convertible debt) shall have original weighted average maturities of at least five years to be included in the definition of *surplus*. In addition, a subordinated note or debenture must also:

(i) Be subordinated to the claims of depositors;

(ii) State on the instrument that it is not a deposit and is not insured by the FDIC;

(iii) Be unsecured;

(iv) Be ineligible as collateral for a loan by the issuing bank;

(v) Provide that once any scheduled payments of principal begin, all scheduled payments shall be made at least annually and the amount repaid in each year shall be no less than in the prior year; and

(vi) Provide that no prepayment (including payment pursuant to an acceleration clause or redemption prior to maturity) shall be made without prior OCC approval unless the bank remains an eligible bank, as defined in 12 CFR 5.3(g), after the prepayment.

(2) *Restrictions*. The total amount of mandatory convertible debt not included in paragraph (c)(3) of this section, limited life preferred stock, and subordinated notes and debentures considered as surplus is limited to 50 percent of the sum of paragraphs (a) and (c) (1), (2) and (3) of this section.

(3) *Reservation of authority*. The OCC expressly reserves the authority to waive the requirements and restrictions set forth in paragraphs (f) (1) and (2) of this section, in order to allow the inclusion of other limited life preferred stock, mandatory convertible notes and subordinated notes and debentures in the capital base of any national bank for capital adequacy purposes or for purposes of determining statutory limits. The OCC further expressly reserves the authority to impose more stringent conditions than those set forth in paragraphs (f) (1) and (2) of this section to exclude any component of Tier 1 or Tier 2 capital, in whole or in part, as part of a national bank's capital and surplus for any purpose.

(g) *Transitional rules*. (1) Equity commitment notes approved by the OCC as capital and issued prior to April 15, 1985, may continue to be included in paragraph (c)(3) of this section. All other instruments approved by the OCC as capital and issued prior to April 15, 1985, are to be included in paragraph (c)(4) of this section.

(2) Intangible assets (other than mortgage servicing assets) purchased prior to April 15, 1985, and accounted for in accordance with OCC instructions, may continue to be included as surplus up to 25% of the sum of paragraphs (a) and (c)(1) of this section.

(Approved by the Office of Management and Budget under control number 1557–0166)

[50 FR 10216, Mar. 14, 1985, as amended at 55 FR 38801, Sept. 21, 1990; 60 FR 39229, Aug. 1, 1995; 61 FR 60363, Nov. 27, 1996; 63 FR 42674, Aug. 10, 1998]

Appendix A to Part 3—Risk-Based Capital Guidelines

Section 1. Purpose, Applicability of Guidelines, and Definitions.

(a) *Purpose*. (1) An important function of the Office of the Comptroller of the Currency (*OCC*) is to evaluate the adequacy of capital maintained by each national bank. Such an evaluation involves the consideration of numerous factors, including the riskiness of a bank's assets and off-balance sheet items. This appendix A implements the OCC's risk-based capital guidelines. The risk-based capital ratio derived from those guidelines is more systematically sensitive to the credit risk associated with various bank activities than is a capital ratio based strictly on a bank's total balance sheet assets. A bank's risk-based capital ratio is obtained by dividing its capital base (as defined in section 2 of this appendix A) by its risk-weighted assets (as calculated pursuant to section 3 of this appendix A). These guidelines were created within the framework established by the report issued by the Committee on Banking Regulations and Supervisory Practices in July 1988. The OCC believes that the risk-based capital ratio is a useful tool in evaluating the capital adequacy of all national banks, not just those that are active in the international banking system.

(2) The purpose of this appendix A is to explain precisely (i) how a national bank's risk-based capital ratio is determined and (ii) how these risk-based capital guidelines are applied to national banks. The OCC will review these guidelines periodically for possible adjustments commensurate with its experience with the risk-based capital ratio and with changes in the economy, financial markets and domestic and international banking practices.

(b) *Applicability*. (1) The risk-based capital ratio derived from these guidelines is an important factor in the OCC's evaluation of a bank's capital adequacy. However, since this measure addresses only credit risk, the 8% minimum ratio should not be viewed as the level to be targeted, but rather as a floor.

The final supervisory judgment on a bank's capital adequacy is based on an individualized assessment of numerous factors, including those listed in 12 CFR 3.10. With respect to the consideration of these factors, the OCC will give particular attention to any bank with significant exposure to declines in the economic value of its capital due to changes in interest rates. As a result, it may differ from the conclusion drawn from an isolated comparison of a bank's risk-based capital ration to the 8% minimum specified in these guidelines. In addition to the standards established by these risk-based capital guidelines, all national banks must maintain a minimum capital-to-total assets ratio in accordance with the provisions of 12 CFR part 3.

(2) Effective December 31, 1990, these risk-based capital guidelines will apply to all national banks. In the interim, banks must maintain minimum capital-to-total assets ratios as required by 12 CFR part 3, and should begin preparing for the implementation of these risk-based capital guidelines. In this regard, each national bank that does not currently meet the final minimum ratio established in section 4(b)(1) of this appendix A should begin planning for achieving that standard.

(3) These risk-based capital guidelines will not be applied to federal branches and agencies of foreign banks.

(c) *Definitions.* For purposes of this appendix A, the following definitions apply:

(1) *Adjusted carrying value* means, for purposes of section 2(c)(5) of this appendix A, the aggregate value that investments are carried on the balance sheet of the bank reduced by any unrealized gains on the investments that are reflected in such carrying value but excluded from the bank's Tier 1 capital and reduced by any associated deferred tax liabilities. For example, for investments held as available-for-sale (AFS), the adjusted carrying value of the investments would be the aggregate carrying value of the investments (as reflected on the consolidated balance sheet of the bank) less any unrealized gains on those investments that are included in other comprehensive income and that are not reflected in Tier 1 capital, and less any associated deferred tax liabilities. Unrealized losses on AFS nonfinancial equity investments must be deducted from Tier 1 capital in accordance with section 1(c)(8) of this appendix A. The treatment of small business investment companies that are consolidated for accounting purposes under generally accepted accounting principles is discussed in section 2(c)(5)(ii) of this appendix A. For investments in a nonfinancial company that is consolidated for accounting purposes, the bank's adjusted carrying value of the investment is determined under the equity method of accounting (net of any intangibles associated with the investment that are deducted from the bank's Tier 1 capital in accordance with section 2(c)(2) of this appendix A). Even though the assets of the nonfinancial company are consolidated for accounting purposes, these assets (as well as the credit equivalent amounts of the company's off-balance sheet items) are excluded from the bank's risk-weighted assets.

(2) *Allowances for loan and lease losses* means the balance of the valuation reserve on December 31, 1968, plus additions to the reserve charged to operations since that date, less losses charged against the allowance net of recoveries.

(3) *Asset-backed commercial paper program* means a program that primarily issues externally rated commercial paper backed by assets or other exposures held in a bankruptcy-remote, special-purpose entity.

(4) *Asset-backed commercial paper sponsor* means a bank that:

(i) Establishes an asset-backed commercial paper program;

(ii) Approves the sellers permitted to participate in an asset-backed commercial paper program;

(iii) Approves the asset pools to be purchased by an asset-backed commercial paper program; or

(iv) Administers the asset-backed commercial paper program by monitoring the assets, arranging for debt placement, compiling monthly reports, or ensuring compliance with the program documents and with the program's credit and investment policy.

(5) *Associated company* means any corporation, partnership, business trust, joint venture, association or similar organization in which a national bank directly or indirectly holds a 20 to 50 percent ownership interest.

(6) *Banking and finance subsidiary* means any subsidiary of a national bank that engages in banking- and finance-related activities.

(7) *Cash items in the process of collection* means checks or drafts in the process of collection that are drawn on another depository institution, including a central bank, and that are payable immediately upon presentation in the country in which the reporting bank's office that is clearing or collecting the check or draft is located; U.S. Government checks that are drawn on the United States Treasury or any other U.S. Government or Government-sponsored agency and that are payable immediately upon presentation; broker's security drafts and commodity or bill-of-lading drafts payable immediately upon presentation in the United States or the country in which the reporting bank's office that is handling the drafts is located; and unposted debits.

(8) *Central government* means the national governing authority of a country; it includes the departments, ministries and agencies of the central government and the central

bank. The U.S. Central Bank includes the 12 Federal Reserve Banks. The definition of central government does not include the following: State, provincial, or local governments; commercial enterprises owned by the central government, which are entities engaged in activities involving trade, commerce, or profit that are generally conducted or performed in the private sector of the United States economy; and non-central government entities whose obligations are guaranteed by the central government.

(9) *Commitment* means any arrangement that obligates a national bank to: (i) Purchase loans or securities; or (ii) extend credit in the form of loans or leases, participations in loans or leases, overdraft facilities, revolving credit facilities, home equity lines of credit, liquidity facilities, or similar transactions.

(10) *Common stockholders' equity* means common stock, common stock surplus, undivided profits, capital reserves, and adjustments for the cumulative effect of foreign currency translation, less net unrealized holding losses on available-for-sale equity securities with readily determinable fair values.

(11) *Conditional guarantee* means a contingent obligation of the United States Government or its agencies, or the central government of an OECD country, the validity of which to the beneficiary is dependent upon some affirmative action—*e.g.*, servicing requirements—on the part of the beneficiary of the guarantee or a third party.

(12) *Deferred tax assets* means the tax consequences attributable to tax carryforwards and deductible temporary differences. Tax carryforwards are deductions or credits that cannot be used for tax purposes during the current period, but can be carried forward to reduce taxable income or taxes payable in a future period or periods. Temporary differences are financial events or transactions that are recognized in one period for financial statement purposes, but are recognized in another period or periods for income tax purposes. Deductible temporary differences are temporary differences that result in a reduction of taxable income in a future period or periods.

(13) *Derivative contract* means generally a financial contract whose value is derived from the values of one or more underlying assets, reference rates or indexes of asset values. Derivative contracts include interest rate, foreign exchange rate, equity, precious metals and commodity contracts, or any other instrument that poses similar credit risks.

(14) *Depository institution* means a financial institution that engages in the business of banking; that is recognized as a bank by the bank supervisory or monetary authorities of the country of its incorporation and the country of its principal banking operations; that receives deposits to a substantial extent in the regular course of business; and that has the power to accept demand deposits. In the U.S., this definition encompasses all federally insured offices of commercial banks, mutual and stock savings banks, savings or building and loan associations (stock and mutual), cooperative banks, credit unions, and international banking facilities of domestic depository institution. Bank holding companies are excluded from this definition. For the purposes of assigning risk weights, the differentiation between OECD depository institutions and non-OECD depository institutions is based on the country of incorporation. Claims on branches and agencies of foreign banks located in the United States are to be categorized on the basis of the parent bank's country of incorporation.

(15) *Equity investment* means, for purposes of section 1(c)(19) and section 2(c)(5) of this appendix A, any equity instrument including warrants and call options that give the holder the right to purchase an equity instrument, any equity feature of a debt instrument (such as a warrant or call option), and any debt instrument that is convertible into equity. An investment in any other instrument, including subordinated debt or other types of debt instruments, may be treated as an equity investment if the OCC determines that the instrument is the functional equivalent of equity or exposes the bank to essentially the same risks as an equity instrument.

(16) *Exchange rate contracts* include: Cross-currency interest rate swaps; forward foreign exchange rate contracts; currency options purchased; and any similar instrument that, in the opinion of the OCC, gives rise to similar risks.

(17) *Goodwill* means an intangible asset that represents the excess of the purchase price over the fair market value of tangible and identifiable intangible assets acquired in purchases accounted for under the purchase method of accounting.

(18) *Intangible assets* include mortgage and non-mortgage servicing assets (but exclude any interest only (IO) strips receivable related to these mortgage and nonmortgage servicing assets), purchased credit card relationships, goodwill, favorable leaseholds, and core deposit value.

(19) *Interest rate contracts* include: Single currency interest rate swaps; basis swaps; forward rate agreements; interest rate options purchased; forward forward deposits accepted; and any similar instrument that, in the opinion of the OCC, gives rise to similar risks, including when-issued securities.

(20) *Liquidity facility* means a legally binding commitment to provide liquidity to various types of transactions, structures or programs. A liquidity facility that supports asset-backed commercial paper, in any amount, by lending to, or purchasing assets

from any structure, program, or conduit constitutes an *asset-backed commercial paper liquidity facility*.

(21) *Multifamily residential property* means any residential property consisting of five or more dwelling units including apartment buildings, condominiums, cooperatives, and other similar structures primarily for residential use, but not including hospitals, nursing homes, or other similar facilities.

(22) *Nationally recognized statistical rating organization (NRSRO)* means an entity recognized by the Division of Market Regulation of the Securities and Exchange Commission (or any successor Division) (Commission or SEC) as a nationally recognized statistical rating organization for various purposes, including the Commission's uniform net capital requirements for brokers and dealers.

(23) *Nonfinancial equity investment* means any equity investment held by a bank in a nonfinancial company through a small business investment company (SBIC) under section 302(b) of the Small Business Investment Act of 1958 (15 U.S.C. 682(b)) or under the portfolio investment provisions of Regulation K (12 CFR 211.8(c)(3)). An equity investment made under section 302(b) of the Small Business Investment Act of 1958 in a SBIC that is not consolidated with the bank is treated as a nonfinancial equity investment in the manner provided in section 2(c)(5)(ii)(C) of this appendix A. A nonfinancial company is an entity that engages in any activity that has not been determined to be permissible for a bank to conduct directly or to be financial in nature or incidental to financial activities under section 4(k) of the Bank Holding Company Act (12 U.S.C. 1843(k)).

(24) The *OECD-based group of countries* comprises all full members of the Organization for Economic Cooperation and Development (OECD) regardless of entry date, as well as countries that have concluded special lending arrangements with the International Monetary Fund (IMF) associated with the IMF's General Arrangements to Borrow,[1] but excludes any country that has rescheduled its external sovereign debt within the previous five years. These countries are hereinafter referred to as *OECD countries*. A rescheduling of external sovereign debt generally would include any renegotiation of terms arising from a country's inability or unwillingness to meet its external debt service obligations, but generally would not include renegotiations of debt in the normal course of business, such as a renegotiation to allow the borrower to take advantage of a decline in interest rates or other change in market conditions.

(25) *Original maturity* means, with respect to a commitment, the earliest possible date after a commitment is made on which the commitment is scheduled to expire (*i.e.*, it will reach its stated maturity and cease to be binding on either party), *provided that* either:

(i) The commitment is not subject to extension or renewal and will actually expire on its stated expiration date; or

(ii) If the commitment is subject to extension or renewal beyond its stated expiration date, the stated expiration date will be deemed the original maturity only if the extension or renewal must be based upon terms and conditions independently negotiated in good faith with the customer at the time of the extension or renewal and upon a new, *bona fide* credit analysis utilizing current information on financial condition and trends.

(26) *Preferred stock* includes the following instruments: (i) *Convertible preferred stock*, which means preferred stock that is mandatorily convertible into either common or perpetual preferred stock; (ii) *Intermediate-term preferred stock*, which means preferred stock with an original maturity of at least five years, but less than 20 years; (iii) *Long-term preferred stock*, which means preferred stock with an original maturity of 20 years or more; and (iv) *Perpetual preferred stock*, which means preferred stock without a fixed maturity date that cannot be redeemed at the option of the holder, and that has no other provisions that will require future redemption of the issue. For purposes of these instruments, preferred stock that can be redeemed at the option of the holder is deemed to have an *original maturity* of the earliest possible date on which it may be so redeemed.

(27) *Public-sector entities* include states, local authorities and governmental subdivisions below the central government level in an OECD country. In the United States, this definition encompasses a state, county, city, town, or other municipal corporation, a public authority, and generally any publicly-owned entity that is an instrumentality of a state or municipal corporation. This definition does not include commercial companies owned by the public sector.[1a]

[1] As of November 1995, the OECD included the following countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States; and Saudi Arabia had concluded special lending arrangements with the IMF associated with the IMF's General Arrangements to Borrow.

[1a] *See* Definition (5), *Central government*, for further explanation of commercial companies owned by the public sector.

(28) *Reciprocal holdings of bank capital instruments* means cross-holdings or other formal or informal arrangements in which two or more banking organizations swap, exchange, or otherwise agree to hold each other's capital instruments. This definition does not include holdings of capital instruments issued by other banking organizations that were taken in satisfaction of debts previously contracted, provided that the reporting national bank has not held such instruments for more than five years or a longer period approved by the OCC.

(29) *Replacement cost* means, with respect to interest rate and exchange rate contracts, the loss that would be incurred in the event of a counterparty default, as measured by the net cost of replacing the contract at the current market value. If default would result in a theoretical profit, the replacement value is considered to be zero. The mark-to-market process should incorporate changes in both interest rates and counterparty credit quality.

(30) *Residential properties* means houses, condominiums, cooperative units, and manufactured homes. This definition does not include boats or motor homes, even if used as a primary residence.

(31) *Risk-weighted assets* means the sum of total risk-weighted balance sheet assets and the total of risk-weighted off-balance sheet credit equivalent amounts. Risk-weighted balance sheet and off-balance sheet assets are calculated in accordance with section 3 of this appendix A.

(32) *State* means any one of the several states of the United States of America, the District of Columbia, Puerto Rico, and the territories and possessions of the United States.

(33) *Subsidiary* means any corporation, partnership, business trust, joint venture, association or similar organization in which a national bank directly or indirectly holds more than a 50% ownership interest. This definition does not include ownership interests that were taken in satisfaction of debts previously contracted, provided that the reporting bank has not held the interest for more than five years or a longer period approved by the OCC.

(34) *Total capital* means the sum of a national bank's core (Tier 1) and qualifying supplementary (Tier 2) capital elements.

(35) *Unconditionally cancelable* means, with respect to a commitment-type lending arrangement, that the bank may, at any time, with or without cause, refuse to advance funds or extend credit under the facility. In the case of home equity lines of credit, the bank is deemed able to unconditionally cancel the commitment if it can, at its option, prohibit additional extensions of credit, reduce the line, and terminate the commitment to the full extent permitted by relevant Federal law.

(36) *United States Government or its agencies* means an instrumentality of the U.S. Government whose debt obligations are fully and explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the United States Government.

(37) *United States Government-sponsored agency* means an agency originally established or chartered to serve public purposes specified by the United States Congress, but whose obligations are not explicitly guaranteed by the full faith and credit of the United States Government.

(38) *Walkaway clause* means a provision in a bilateral netting contract that permits a nondefaulting counterparty to make a lower payment than it would make otherwise under the bilateral netting contract, 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 bilateral netting contract.

Section 2. Components of Capital.

A national bank's qualifying capital base consists of two types of capital—core (Tier 1) and supplementary (Tier 2).

(a) *Tier 1 Capital.* The following elements comprise a national bank's Tier 1 capital:

(1) Common stockholders' equity;

(2) Noncumulative perpetual preferred stock and related surplus; and [2]

(3) Minority interests in the equity accounts of consolidated subsidiaries, except that the following are not included in Tier 1 capital or total capital:

(i) Minority interests in a small business investment company or investment fund that holds nonfinancial equity investments and minority interests in a subsidiary that is engaged in a nonfinancial activities and is held under one of the legal authorities listed in section 1(c)(23) of this appendix A.

(ii) Minority interests in consolidated asset-backed commercial paper programs sponsored by a bank if the consolidated assets are excluded from risk-weighted assets pursuant to section 3(a)(5)(i) of this appendix A.

(b) *Tier 2 Capital.* The following elements comprise a national bank's Tier 2 capital:

[2] Preferred stock issues where the dividend is reset periodically based upon current market conditions and the bank's current credit rating, including but not limited to, auction rate, money market or remarketable preferred stock, are assigned to Tier 2 capital, regardless of whether the dividends are cumulative or noncumulative.

(1) Allowance for loan and lease losses, up to a maximum of 1.25% of risk-weighted assets,[3] subject to the transition rules in section 4(a)(2) of this appendix A;

(2) Cumulative perpetual preferred stock, long-term preferred stock, convertible preferred stock, and any related surplus, without limit, if the issuing national bank has the option to defer payment of dividends on these instruments. For long-term preferred stock, the amount that is eligible to be included as Tier 2 capital is reduced by 20% of the original amount of the instrument (net of redemptions) at the beginning of each of the last five years of the life of the instrument;

(3) Hybrid capital instruments, without limit. Hybrid capital instruments are those instruments that combine certain characteristics of debt and equity, such as perpetual debt. To be included as Tier 2 capital, these instruments must meet the following criteria:[4]

(i) The instrument must be unsecured, subordinated to the claims of depositors and general creditors, and fully paid-up;

(ii) The instrument must not be redeemable at the option of the holder prior to maturity, except with the prior approval of the OCC;

(iii) The instrument must be available to participate in losses while the issuer is operating as a going concern (in this regard, the instrument must automatically convert to common stock or perpetual preferred stock, if the sum of the retained earnings and capital surplus accounts of the issuer shows a negative balance); and

(iv) The instrument must provide the option for the issuer to defer principal and interest payments, if

(A) The issuer does not report a net profit for the most recent combined four quarters, and

(B) The issuer eliminates cash dividends on its common and preferred stock.

(4) Term subordinated debt instruments, and intermediate-term preferred stock and related surplus are included in Tier 2 capital, but only to a maximum of 50% of Tier 1 capital as calculated after deductions pursuant to section 2(c) of this appendix. To be considered capital, term subordinated debt instruments shall meet the requirements of §3.100(f)(1). However, pursuant to 12 CFR 5.47, the OCC may, in some cases, require that the subordinated debt be approved by the OCC before the subordinated debt may qualify as Tier 2 capital or may require prior approval for any prepayment (including payment pursuant to an acceleration clause or redemption prior to maturity) of the subordinated debt. Also, at the beginning of each of the last five years for the life of either type of instrument, the amount that is eligible to be included as Tier 2 capital is reduced by 20% of the original amount of that instrument (net of redemptions).

(5) Up to 45 percent of the pretax net unrealized holding gains (that is, the excess, if any, of the fair value over historical cost) on available-for-sale equity securities with readily determinable fair values.[5] Unrealized gains (losses) on other types of assets, such as bank premises and available-for-sale debt securities, are not included in Tier 2 capital, but the OCC may take these unrealized gains (losses) into account as additional factors when assessing a bank's overall capital adequacy.

(c) *Deductions from Capital*. The following items are deducted from the appropriate portion of a national bank's capital base when calculating its risk-based capital ratio:

(1) *Deductions from Tier 1 Capital*. The following items are deducted from Tier 1 capital before the Tier 2 portion of the calculation is made:

(i) Goodwill;

(ii) Other intangible assets, except as provided in section 2(c)(2) of this appendix A;

(iii) Deferred tax assets, except as provided in section 2(c)(3) of this appendix A, that are dependent upon future taxable income, which exceed the lesser of either:

(A) The amount of deferred tax assets that the bank could reasonably expect to realize within one year of the quarter-end Call Report, based on its estimate of future taxable income for that year; or

[3] The amount of the allowance for loan and lease losses that may be included in capital is based on a percentage of risk-weighted assets. The gross sum of risk-weighted assets used in this calculation includes all risk-weighted assets, with the exception of the assets required to be deducted under section 3 in establishing risk-weighted assets (*i.e.*, the assets required to be deducted from capital under section 2(c)) of this appendix. A banking organization may deduct reserves for loan and lease losses in excess of the amount permitted to be included as capital, as well as allocated transfer risk reserves and reserves held against other real estate owned, from the gross sum of risk-weighted assets in computing the denominator of the risk-based capital ratio.

[4] Mandatory convertible debt instruments that meet the requirements of 12 CFR 3.100(e)(5), or that have been previously approved as capital by the OCC, are treated as qualifying hybrid capital instruments.

[5] The OCC reserves the authority to exclude all or a portion of unrealized gains from Tier 2 capital if the OCC determines that the equity securities are not prudently valued.

(B) 10% of Tier 1 capital, net of goodwill and all intangible assets other than purchased credit card relationships, mortgage servicing assets and non-mortgage servicing assets; and

(iv) Credit-enhancing interest-only strips (as defined in section 4(a)(3) of this appendix A), as provided in section 2(c)(4).

(v) Nonfinancial equity investments as provided by section 2(c)(5) of this appendix A.

(2) *Qualifying intangible assets.* Subject to the following conditions, mortgage servicing assets, nonmortgage servicing assets[6] and purchased credit card relationships need not be deducted from Tier 1 capital:

(i) The total of all intangible assets that are included in Tier 1 capital is limited to 100 percent of Tier 1 capital, of which no more than 25 percent of Tier 1 capital can consist of purchased credit card relationships and non-mortgage servicing assets in the aggregate. Calculation of these limitations must be based on Tier 1 capital net of goodwill and all other identifiable intangibles, other than purchased credit card relationships, mortgage servicing assets and non-mortgage servicing assets.

(ii) Banks must value each intangible asset included in Tier 1 capital at least quarterly at the lesser of:

(A) 90 percent of the fair value of each intangible asset, determined in accordance with section 2(c)(2)(iii) of this appendix A; or

(B) 100 percent of the remaining unamortized book value.

(iii) The quarterly determination of the current fair value of the intangible asset must include adjustments for any significant changes in original valuation assumptions, including changes in prepayment estimates.

(iv) Banks may elect to deduct disallowed servicing assets on a basis that is net of any associated deferred tax liability. Deferred tax liabilities netted in this manner cannot also be netted against deferred tax assets when determining the amount of deferred tax assets that are dependent upon future taxable income.

(3) *Deferred tax assets*—(i) Net unrealized gains and losses on available-for-sale securities. Before calculating the amount of deferred tax assets subject to the limit in section 2(c)(1)(iii) of this appendix A, a bank may eliminate the deferred tax effects of any net unrealized holding gains and losses on available-for-sale debt securities. Banks report these net unrealized holding gains and losses in their Call Reports as a separate component of equity capital, but exclude them from the definition of common stockholders' equity for regulatory capital purposes. A bank that adopts a policy to deduct these amounts must apply that approach consistently in all future calculations of the amount of disallowed deferred tax assets under section 2(c)(1)(iii) of this appendix A.

(ii) *Consolidated groups.* The amount of deferred tax assets that a bank can realize from taxes paid in prior carryback years and from reversals of existing taxable temporary differences generally would not be deducted from capital. However, for a bank that is a member of a consolidated group (for tax purposes), the amount of carryback potential a bank may consider in calculating the limit on deferred tax assets under section 2(c)(1)(iii) of this appendix A, may not exceed the amount that the bank could reasonably expect to have refunded by its parent holding company.

(iii) *Nontaxable Purchase Business Combination.* In calculating the amount of net deferred tax assets under section 2(c)(1)(iii) of this appendix A, a deferred tax liability that is specifically associated with an intangible asset (other than purchased mortgage servicing rights and purchased credit card relationships) due to a nontaxable purchase business combination may be netted against that intangible asset. Only the net amount of the intangible asset must be deducted from Tier 1 capital. Deferred tax liabilities netted in this manner cannot also be netted against deferred tax assets when determining the amount of net deferred tax assets that are dependent upon future taxable income.

(iv) *Estimated future taxable income.* Estimated future taxable income does not include net operating loss carryforwards to be used during that year or the amount of existing temporary differences expected to reverse within the year. A bank may use future taxable income projections for their closest fiscal year, provided it adjusts the projections for any significant changes that occur or that it expects to occur. Such projections must include the estimated effect of tax planning strategies that the bank expects to implement to realize net operating losses or tax credit carryforwards that will otherwise expire during the year.

(4) *Credit-enhancing interest-only strips.* Credit-enhancing interest-only strips, whether purchased or retained, that exceed 25% of Tier 1 capital must be deducted from Tier 1 capital. Purchased and retained credit-enhancing interest-only strips, on a non-tax

[6] Intangible assets are defined to exclude IO strips receivable related to these mortgage and non-mortgage servicing assets. See section 1(c)(14) of this appendix A. Consequently, IO strips receivable related to mortgage and non-mortgage servicing assets are not required to be deducted under section 2(c)(2) of this appendix A. However, credit-enhancing interest-only strips as defined in section 4(a)(3) are deducted from Tier 1 capital in accordance with section 2(c)(4) of this appendix A. Any non credit-enhancing IO strips receivable are subject to a 100% risk weight under section 3(a)(4) of this appendix A.

adjusted basis, are included in the total amount that is used for purposes of determining whether a bank exceeds its Tier 1 capital.

(i) The 25% limitation on credit-enhancing interest-only strips will be based on Tier 1 capital net of goodwill and all identifiable intangibles, other than purchased credit card relationships, mortgage servicing assets and non-mortgage servicing assets.

(ii) Banks must value each credit-enhancing interest-only strip included in Tier 1 capital at least quarterly. The quarterly determination of the current fair value of the credit-enhancing interest-only strip must include adjustments for any significant changes in original valuation assumptions, including changes in prepayment estimates.

(iii) Banks may elect to deduct disallowed credit-enhancing interest-only strips on a basis that is net of any associated deferred tax liability. Deferred tax liabilities netted in this manner cannot also be netted against deferred tax assets when determining the amount of deferred tax assets that are dependent upon future taxable income.

(5) *Nonfinancial equity investments—(i) General.* (A) A bank must deduct from its Tier 1 capital the appropriate percentage, as determined in accordance with Table A, of the adjusted carrying value of all nonfinancial equity investments held by the bank and its subsidiaries.

TABLE A—DEDUCTION FOR NONFINANCIAL EQUITY INVESTMENTS

Aggregate adjusted carrying value of all nonfinancial equity investments held directly or indirectly by banks (as a percentage of the Tier 1 capital of the bank)[1]	Deduction from Tier 1 Capital (as a percentage of the adjusted carrying value of the investment)
Less than 15 percent	8.0 percent.
Greater than or equal to 15 percent but less than 25 percent	12.0 percent.
Greater than or equal to 25 percent	25.0 percent.

[1] For purposes of calculating the adjusted carrying value of nonfinancial equity investments as a percentage of Tier 1 capital, Tier 1 capital is defined as the sum of the Tier 1 capital elements net of goodwill and net of all identifiable intangible assets other than mortgage servicing assets, nonmortgage servicing assets and purchased credit card relationships, but prior to the deduction for disallowed mortgage servicing assets, disallowed nonmortgage servicing assets, disallowed purchased credit card relationships, disallowed credit-enhancing interest only strips (both purchased and retained), disallowed deferred tax assets, and nonfinancial equity investments.

(B) Deductions for nonfinancial equity investments must be applied on a marginal basis to the portions of the adjusted carrying value of nonfinancial equity investments that fall within the specified ranges of the bank's Tier 1 capital. For example, if the adjusted carrying value of all nonfinancial equity investments held by a bank equals 20 percent of the Tier 1 capital of the bank, then the amount of the deduction would be 8 percent of the adjusted carrying value of all investments up to 15 percent of the bank's Tier 1 capital, and 12 percent of the adjusted carrying value of all investments equal to, or in excess of, 15 percent of the bank's Tier 1 capital.

(C) The total adjusted carrying value of any nonfinancial equity investment that is subject to deduction under section 2(c)(5) of this appendix A is excluded from the bank's weighted risk assets for purposes of computing the denominator of the bank's risk-based capital ratio. For example, if 8 percent of the adjusted carrying value of a nonfinancial equity investment is deducted from Tier 1 capital, the entire adjusted carrying value of the investment will be excluded from risk-weighted assets in calculating the denominator of the risk-based capital ratio.

(D) Banks engaged in equity investment activities, including those banks with a high concentration in nonfinancial equity investments (e.g., in excess of 50 percent of Tier 1 capital), will be monitored and may be subject to heightened supervision, as appropriate, by the OCC to ensure that such banks maintain capital levels that are appropriate in light of their equity investment activities, and the OCC may impose a higher capital charge in any case where the circumstances, such as the level of risk of the particular investment or portfolio of investments, the risk management systems of the bank, or other information, indicate that a higher minimum capital requirement is appropriate.

(ii) *Small business investment company investments.* (A) Notwithstanding section 2(c)(5)(i) of this appendix A, no deduction is required for nonfinancial equity investments that are made by a bank or its subsidiary through a SBIC that is consolidated with the bank, or in a SBIC that is not consolidated with the bank, to the extent that such investments, in the aggregate, do not exceed 15 percent of the Tier 1 capital of the bank. Except as provided in paragraph (c)(5)(ii)(B) of this section, any nonfinancial equity investment that is held through or in a SBIC and not deducted from Tier 1 capital will be assigned to the 100 percent risk-weight category and included in the bank's consolidated risk-weighted assets.

(B) If a bank has an investment in a SBIC that is consolidated for accounting purposes but the SBIC is not wholly owned by the bank, the adjusted carrying value of the bank's nonfinancial equity investments held through the SBIC is equal to the bank's proportionate share of the SBIC's adjusted carrying value of its equity investments in nonfinancial companies. The remainder of the SBIC's adjusted carrying value (*i.e.*, the minority interest holders' proportionate share) is excluded from the risk-weighted assets of the bank.

(C) If a bank has an investment in a SBIC that is not consolidated for accounting purposes and has current information that identifies the percentage of the SBIC's assets that are equity investments in nonfinancial companies, the bank may reduce the adjusted carrying value of its investment in the SBIC proportionately to reflect the percentage of the adjusted carrying value of the SBIC's assets that are not equity investments in nonfinancial companies. The amount by which the adjusted carrying value of the bank's investment in the SBIC is reduced under this paragraph will be risk weighted at 100 percent and included in the bank's risk-weighted assets.

(D) To the extent the adjusted carrying value of all nonfinancial equity investments that the bank holds through a consolidated SBIC or in a nonconsolidated SBIC equals or exceeds, in the aggregate, 15 percent of the Tier 1 capital of the bank, the appropriate percentage of such amounts, as set forth in Table A, must be deducted from the bank's Tier 1 capital. In addition, the aggregate adjusted carrying value of all nonfinancial equity investments held through a consolidated SBIC and in a nonconsolidated SBIC (including any nonfinancial equity investments for which no deduction is required) must be included in determining, for purposes of Table A the total amount of nonfinancial equity investments held by the bank in relation to its Tier 1 capital.

(iii) *Nonfinancial equity investments excluded.* (A) Notwithstanding section 2(c)(5)(i) and (ii) of this appendix A, no deduction from Tier 1 capital is required for the following:

(1) Nonfinancial equity investments (or portion of such investments) made by the bank prior to March 13, 2000, and continuously held by the bank since March 13, 2000.

(2) Nonfinancial equity investments made on or after March 13, 2000, pursuant to a legally binding written commitment that was entered into by the bank prior to March 13, 2000, and that required the bank to make the investment, if the bank has continuously held the investment since the date the investment was acquired.

(3) Nonfinancial equity investments received by the bank through a stock split or stock dividend on a nonfinancial equity investment made prior to March 13, 2000, provided that the bank provides no consideration for the shares or interests received, and the transaction does not materially increase the bank's proportional interest in the nonfinancial company.

(4) Nonfinancial equity investments received by the bank through the exercise on or after March 13, 2000, of an option, warrant, or other agreement that provides the bank with the right, but not the obligation, to acquire equity or make an investment in a nonfinancial company, if the option, warrant, or other agreement was acquired by the bank prior to March 13, 2000, and the bank provides no consideration for the nonfinancial equity investments.

(B) Any excluded nonfinancial equity investments described in section 2(c)(5)(iii)(A) of this appendix A must be included in determining the total amount of nonfinancial equity investments held by the bank in relation to its Tier 1 capital for purposes of Table A. In addition, any excluded nonfinancial equity investments will be risk weighted at 100 percent and included in the bank's risk-weighted assets.

(6) *Deductions from total capital.* The following items are deducted from total capital:

(i) Investments, both equity and debt, in unconsolidated banking and finance subsidiaries that are deemed to be capital of the subsidiary;[7] and

(ii) Reciprocal holdings of bank capital instruments.

Section 3. Risk Categories/Weights for On-Balance Sheet Assets and Off-Balance Sheet Items

The denominator of the risk-based capital ratio, *i.e.*, a national bank's risk-weighted assets,[8] is derived by assigning that bank's assets and off-balance sheet items to one of the four risk categories detailed in section 3(a) of this appendix A. Each category has a specific risk weight. Before an off-balance sheet item is assigned a risk weight, it is converted to an on-balance sheet credit equivalent amount in accordance with section 3(b) of this appendix A. The risk weight assigned to a particular asset or on-balance sheet credit equivalent amount determines the percentage of that asset/credit equivalent that is included in the denominator of the bank's risk-based capital ratio. Any

[7] The OCC may require deduction of investments in other subsidiaries and associated companies, on a case-by-case basis.

[8] The OCC reserves the right to require a bank to compute its risk-based capital ratio on the basis of average, rather than period-end, risk-weighted assets when necessary to carry out the purposes of these guidelines.

asset deducted from a bank's capital in computing the numerator of the risk-based capital ratio is not included as part of the bank's risk-weighted assets.

Some of the assets on a bank's balance sheet may represent an indirect holding of a pool of assets, *e.g.*, mutual funds, that encompasses more than one risk weight within the pool. In those situations, the bank may assign the asset to the risk category applicable to the highest risk-weighted asset that pool is permitted to hold pursuant to its stated investment objectives in the fund's prospectus. Alternatively, the bank may assign the asset on a pro rata basis to different risk categories according to the investment limits in the fund's prospectus. In either case, the minimum risk weight that may be assigned to such a pool is 20%. If a bank assigns the asset on a pro rata basis, and the sum of the investment limits in the fund's prospectus exceeds 100%, the bank must assign the highest pro rata amounts of its total investment to the higher risk category. If, in order to maintain a necessary degree of liquidity, the fund is permitted to hold an insignificant amount of its assets in short-term, highly-liquid securities of superior credit quality (that do not qualify for a preferential risk weight), such securities generally will not be taken into account in determining the risk category into which the bank's holding in the overall pool should be assigned. The prudent use of hedging instruments by a fund to reduce the risk of its assets will not increase the risk weighting of the investment in that fund above the 20% category. However, if a fund engages in any activities that are deemed to be speculative in nature or has any other characteristics that are inconsistent with the preferential risk weighting assigned to the fund's assets, the bank's investment in the fund will be assigned to the 100% risk category. More detail on the treatment of mortgage-backed securities is provided in section 3(a)(3)(vi) of this appendix A.

(a) *On-Balance Sheet Assets.* The following are the risk categories/weights for on-balance sheet assets.

(1) *Zero percent risk weight.* (i) Cash, including domestic and foreign currency owned and held in all offices of a national bank or in transit. Any foreign currency held by a national bank should be converted into U.S. dollar equivalents.

(ii) Deposit reserves and other balances at Federal Reserve Banks.

(iii) Securities issued by, and other direct claims on, the United States Government or its agencies, or the central government of an OECD country.

(iv) That portion of assets directly and unconditionally guaranteed by the United States Government or its agencies, or the central government of an OECD country.[9]

(v) That portion of local currency claims on or unconditionally guaranteed by central governments of non-OECD countries, to the extent the bank has local currency liabilities in that country. Any amount of such claims that exceeds the amount of the bank's local currency liabilities is assigned to the 100% risk category of section 3(a)(4) of this appendix.

(vi) Gold bullion held in the bank's own vaults or in another bank's vaults on an allocated basis, to the extent it is backed by gold bullion liabilities.

(vii) The book value of paid-in Federal Reserve Bank stock.

(viii) That portion of assets and off-balance sheet transactions[9a] collateralized by cash or securities issued or directly and unconditionally guaranteed by the United States Government or its agencies, or the central government of an OECD country, provided that:[9b]

(A) The bank maintains control over the collateral:

(*1*) If the collateral consists of cash, the cash must be held on deposit by the bank or by a third-party for the account of the bank;

(*2*) If the collateral consists of OECD government securities, then the OECD government securities must be held by the bank or by a third-party acting on behalf of the bank;

(B) The bank maintains a daily positive margin of collateral fully taking into account any change in the market value of the collateral held as security;

(C) Where the bank is acting as a customer's agent in a transaction involving the loan or sale of securities that is

[9] For the treatment of privately-issued mortgage-backed securities where the underlying pool is comprised solely of mortgage-related securities issued by GNMA, *see infra* note 10.

[9a] See footnote 22 in section 3(b)(5)(iii) of this appendix A (collateral held against derivative contracts).

[9b] Assets and off-balance sheet transactions collateralized by securities issued or guaranteed by the United States Government or its agencies, or the central government of an OECD country include, but are not limited to, securities lending transactions, repurchase agreements, collateralized letters of credit, such as reinsurance letters of credit, and other similar financial guarantees. Swaps, forwards, futures, and options transactions are also eligible, if they meet the collateral requirements. However, the OCC may at its discretion require that certain collateralized transactions be risk weighted at 20 percent if they involve more than a minimal risk.

collateralized by cash or OECD government securities delivered to the bank, any obligation by the bank to indemnify the customer is limited to no more than the difference between the market value of the securities lent and the market value of the collateral received, and any reinvestment risk associated with the collateral is borne by the customer; and

(D) The transaction involves no more than minimal risk.

(2) *20 percent risk weight.* (i) All claims on depository institutions incorporated in an OECD country, and all assets backed by the full faith and credit of depository institutions incorporated in an OECD country. This includes the credit equivalent amount of participations in commitments and standby letters of credit sold to other depository institutions incorporated in an OECD country, but only if the originating bank remains liable to the customer or beneficiary for the full amount of the commitment or standby letter of credit. Also included in this category are the credit equivalent amounts of risk participations in bankers' acceptances conveyed to other depository institutions incorporated in an OECD country. However, bank-issued securities that qualify as capital of the issuing bank are not included in this risk category, but are assigned to the 100% risk category of section 3(a)(4) of this appendix A.

(ii) Claims on, or guaranteed by depository institutions, other than the central bank, incorporated in a non-OECD country, with a residual maturity of one year or less.

(iii) Cash items in the process of collection.

(iv) That portion of assets collateralized by cash or by securities issued or directly and unconditionally guaranteed by the United States Government or its agencies, or the central government of an OECD country, that does not qualify for the zero percent risk-weight category.

(v) That portion of assets conditionally guaranteed by the United States Government or its agencies, or the central government of an OECD country.

(vi) Securities issued by, or other direct claims on, United States Government-sponsored agencies.

(vii) That portion of assets guaranteed by United States Government-sponsored agencies.[10]

(viii) That portion of assets collateralized by the current market value of securities issued or guaranteed by United States Government-sponsored agencies.

(ix) Claims representing general obligations of any public-sector entity in an OECD country, and that portion of any claims guaranteed by any such public-sector entity. In the U.S., these obligations must meet the requirements of 12 CFR 1.2(b).

(x) Claims on, or guaranteed by, official multilateral lending institutions or regional development institutions in which the United States Government is a shareholder or contributing member.[11]

(xi) That portion of assets collateralized by the current market value of securities issued by official multilateral lending institutions or regional development institutions in which the United States Government is a shareholder or contributing member.

(xii) That portion of local currency claims conditionally guaranteed by central governments of non-OECD countries, to the extent the bank has local currency liabilities in that country. Any amount of such claims that exceeds the amount of the bank's local currency liabilities is assigned to the 100% risk category of section 3(a)(4) of this appendix.

(xiii) Claims on, or guaranteed by, a securities firm incorporated in an OECD country, that satisfies the following conditions:

(A) If the securities firm is incorporated in the United States, then the firm must be a broker-dealer that is registered with the SEC

[10] Privately issued mortgage-backed securities, *e.g.*, CMOs and REMICs, where the underlying pool is comprised solely of mortgage-related securities issued by GNMA, FNMA and FHLMC, will be treated as an indirect holding of the underlying assets and assigned to the 20% risk category of this section 3(a)(2). If the underlying pool is comprised of assets which attract different risk weights, *e.g.*, FNMA securities and conventional mortgages, the bank should generally assign the security to the highest risk category appropriate for any asset in the pool. However, on a case-by-case basis, the OCC may allow the bank to assign the security proportionately to the various risk categories based on the proportion in which the risk categories are represented by the composition cash flows of the underlying pool of assets. Before the OCC will consider a request to proportionately risk-weight such a security, the bank must have current information for the reporting date that details the composition and cash flows of the underlying pool of assets. Furthermore, before a mortgage-related security will receive a risk weight lower than 100%, it must meet the criteria set forth in section 3(a)(3)(vi) of this appendix A.

[11] These institutions include, but are not limited to, the International Bank for Reconstruction and Development (World Bank), the Inter-American Development Bank, the Asian Development Bank, the African Development Bank, the European Investments Bank, the International Monetary Fund and the Bank for International Settlements.

and must be in compliance with the SEC's net capital regulation (17 CFR 240.15c3(1)).

(B) If the securities firm is incorporated in any other OECD country, then the bank must be able to demonstrate that the firm is subject to consolidated supervision and regulation, including its subsidiaries, comparable to that imposed on depository institutions in OECD countries; such regulation must include risk-based capital standards comparable to those applied to depository institutions under the Basel Capital Accord.[11a]

(C) The securities firm, whether incorporated in the United States or another OECD country, must also have a long-term credit rating in accordance with section 3(a)(2)(xiii)(C)(*1*) of this appendix A; a parent company guarantee in accordance with section 3(a)(2)(xiii)(C)(*2*) of this appendix A; or a collateralized claim in accordance with section 3(a)(2)(xiii)(C)(*3*) of this appendix A. Claims representing capital of a securities firm must be risk weighted at 100 percent in accordance with section 3(a)(4) of this Appendix A.

(*1*) *Credit rating.* The securities firm must have either a long-term issuer credit rating or a credit rating on at least one issue of long-term unsecured debt, from a NRSRO that is in one of the three highest investment-grade categories used by the NRSRO. If the securities firm has a credit rating from more than one NRSRO, the lowest credit rating must be used to determine the credit rating under this paragraph.

(*2*) *Parent company guarantee.* The claim on, or guaranteed by, the securities firm must be guaranteed by the firm's parent company, and the parent company must have either a long-term issuer credit rating or a credit rating on at least one issue of long-term unsecured debt, from a NRSRO that is in one of the three highest investment-grade categories used by the NRSRO.

(*3*) *Collateralized claim.* The claim on the securities firm must be collateralized subject to all of the following requirements:

(*i*) The claim must arise from a reverse repurchase/repurchase agreement or securities lending/borrowing contract executed using standard industry documentation.

(*ii*) The collateral must consist of debt or equity securities that are liquid and readily marketable.

(*iii*) The claim and collateral must be marked-to-market daily.

(*iv*) The claim must be subject to daily margin maintenance requirements under standard industry documentation.

(*v*) The contract from which the claim arises can be liquidated, terminated, or accelerated immediately in bankruptcy or similar proceedings, and the security or collateral agreement will not be stayed or avoided under the applicable law of the relevant jurisdiction. To be exempt from the automatic stay in bankruptcy in the United States, the claim must arise from a securities contract or a 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 (912 U.S.C. 4407), or the Regulation EE (12 CFR part 231).

(3) *50 percent risk weight.* (i) Revenue obligations of any public-sector entity in an OECD country for which the underlying obligor is the public-sector entity, but which are repayable solely from the revenues generated by the project financed through the issuance of the obligations.

(ii) The credit equivalent amount of derivative contracts, calculated in accordance with section 3(b)(5) of this appendix A, that do not qualify for inclusion in a lower risk category.

(iii) Loans secured by first mortgages on one-to-four family residential properties, either owner-occupied or rented, provided that such loans are not otherwise 90 days or more past due, or on nonaccrual or restructured. It is presumed that such loans will meet prudent underwriting standards. If a bank holds a first lien and junior lien on a one-to-four family residential property and no other party holds an intervening lien, the transaction is treated as a single loan secured by a first lien for the purposes of both determining the loan-to-value ratio and assigning a risk weight to the transaction. Furthermore, residential property loans made for the purpose of construction financing are assigned to the 100% risk category of section 3(a)(4) of this appendix A; however, these loans may be included in the 50% risk category of this section 3(a)(3) of this appendix A if they are subject to a legally binding sales contract and satisfy the requirements of section 3(a)(3)(iv) of this appendix A.

(iv) Loans to residential real estate builders for one-to-four family residential property construction, if the bank obtains sufficient documentation demonstrating that the buyer of the home intends to purchase the home (*i.e.,* a legally binding written sales contract) and has the ability to obtain a mortgage loan sufficient to purchase the home (*i.e.,* a firm written commitment for

[11a] *See* Accord on International Convergence of Capital Measurement and Capital Standards as adopted by the Basle Committee on Banking Regulations and Supervisory Practices (renamed as the Basel Committee on Banking Supervision), dated July 1988 (amended 1998).

permanent financing of the home upon completion), subject to the following additional criteria:

(A) The builder must incur at least the first 10% of the direct costs (*i.e.*, actual costs of the land, labor, and material) before any drawdown is made under the construction loan and the construction loan may not exceed 80% of the sales price of the resold home;

(B) The individual purchaser has made a substantial "earnest money deposit" of no less than 3% of the sales price of the home that must be subject to forfeiture by the individual purchaser if the sales contract is terminated by the individual purchaser; however, the earnest money deposit shall not be subject to forfeiture by reason of breach or termination of the sales contract on the part of the builder;

(C) The earnest money deposit must be held in escrow by the bank financing the builder or by an independent party in a fiduciary capacity; the escrow agreement must provide that in the event of default the escrow funds must be used to defray any cost incurred relating to any cancellation of the sales contract by the buyer;

(D) If the individual purchaser terminates the contract or if the loan fails to satisfy any other criterion under this section, then the bank must immediately recategorize the loan at a 100% risk weight and must accurately report the loan in the bank's next quarterly Consolidated Reports of Condition and Income (Call Report);

(E) The individual purchaser must intend that the home will be owner-occupied;

(F) The loan is made by the bank in accordance with prudent underwriting standards;

(G) The loan is not more than 90 days past due, or on nonaccrual; and

(H) The purchaser is an individual(s) and not a partnership, joint venture, trust, corporation, or any other entity (including an entity acting as a sole proprietorship) that is purchasing one or more of the homes for speculative purposes.

(v) Loans secured by a first mortgage on multifamily residential properties: [11b]

(A) The amortization of principal and interest occurs in not more than 30 years;

(B) The minimum original maturity for repayment of principal is not less than 7 years;

(C) All principal and interest payments have been made on a timely basis in accordance with the terms of the loan for at least one year immediately preceding the risk weighting of the loan in the 50% risk weight category, and the loan is not otherwise 90 days or more past due, or on nonaccrual status;

(D) The loan is made in accordance with all applicable requirements and prudent underwriting standards;

(E) If the rate of interest does not change over the term of the loan:

(I) The current loan amount outstanding does not exceed 80% of the current value of the property, as measured by either the value of the property at origination of the loan (which is the lower of the purchase price or the value as determined by the initial appraisal, or if appropriate, the initial evaluation) or the most current appraisal, or if appropriate, the most current evaluation; and

(II) In the most recent fiscal year, the ratio of annual net operating income generated by the property (before payment of any debt service on the loan) to annual debt service on the loan is not less than 120%;[11c]

(F) If the rate of interest changes over the term of the loan:

(I) The current loan amount outstanding does not exceed 75% of the current value of the property, as measured by either the value of the property at origination of the loan (which is the lower of the purchase price or the value as determined by the initial appraisal, or if appropriate, the initial evaluation) or the most current appraisal, or if appropriate, the most current evaluation; and

[11b] The portion of multifamily residential property loans that is sold subject to a pro rata loss sharing arrangement may be treated by the selling bank as sold to the extent that the sales agreement provides for the purchaser of the loan to share in any loss incurred on the loan on a pro rata basis with the selling bank. The portion of multifamily residential property loans sold subject to any loss sharing arrangement other than *pro rata* sharing of the loss shall be accorded the same treatment as any other asset sold under an agreement to repurchase or sold with recourse under section 4(b) of this appendix A.

[11c] For the purposes of the debt service requirements in sections 3(a)(3)(v)(E)(II) and 3(a)(3)(v)(F)(II) of this appendix A, other forms of debt service coverage that generate sufficient cash flows to provide comparable protection to the institution may be considered for (a) a loan secured by cooperative housing or (b) a multifamily residential property loan if the purpose of the loan is for the development or purchase of multifamily residential property primarily intended to provide low- to moderate-income housing, including special operating reserve accounts or special operating subsidies provided by federal, state, local or private sources. However, the OCC reserves the right, on a case-by-case basis, to review the adequacy of any other forms of comparable debt service coverage relied on by the bank.

(II) In the most recent fiscal year, the ratio of annual net operating income generated by the property (before payment of any debt service on the loan) to annual debt service on the loan is not less than 115%; and

(G) If the loan was refinanced by the borrower:

(I) All principal and interest payments on the loan being refinanced which were made in the preceding year prior to refinancing shall apply in determining the one-year timely payment requirement under paragraph (a)(3)(v)(C) of this section; and

(II) The net operating income generated by the property in the preceding year prior to refinancing shall apply in determining the applicable debt service requirements under paragraphs (a)(3)(v)(E) and (a)(3)(v)(F) of this section.

(vi) Privately-issued mortgage-backed securities, *i.e.* those that do not carry the guarantee of a government or government-sponsored agency, if the privately-issued mortgage-backed securities are at the time the mortgage-backed securities are originated fully secured by or otherwise represent a sufficiently secure interest in mortgages that qualify for the 50% risk weight under paragraphs (a)(3) (iii), (iv) and (v) of this section,[12] provided that they meet the following criteria:

(A) The underlying assets must be held by an independent trustee that has a first priority, perfected security interest in the underlying assets for the benefit of the holders of the security;

(B) The holder of the security must have an undivided pro rata ownership interest in the underlying assets or the trust that issues the security must have no liabilities unrelated to the issued securities;

(C) The trust that issues the security must be structured such that the cash flows from the underlying assets fully meet the cash flows requirements of the security without undue reliance on any reinvestment income; and

(D) There must not be any material reinvestment risk associated with any funds awaiting distribution to the holder of the security.

(4) *100 percent risk weight.* All other assets not specified above, [12a] including:

(i) Claims on or guaranteed by depository institutions incorporated in a non-OECD country, as well as claims on the central bank of a non-OECD country, with a residual maturity exceeding one year.

(ii) All non-local currency claims on non-OECD central governments, as well as local currency claims on non-OECD central governments that are not included in section 3(a)(1)(v) of this appendix A.

(iii) Asset-or mortgage backed securities that are externally rated are risk weighted in accordance with section 4(d) of this appendix A.

(iv) All stripped mortgage-backed securities, including interest only portions (IOs), principal only portions (POs) and other similar instruments, regardless of the issuer or guarantor.

(v) Obligations issued by any state or any political subdivision thereof for the benefit of a private party or enterprise where that party or enterprise, rather than the issuing state or political subdivision, is responsible for the timely payment of principal and interest on the obligation, *e.g.*, industrial development bonds.

(vi) Claims on commercial enterprises owned by non-OECD and OECD central governments.

(vii) Any investment in an unconsolidated subsidiary that is not required to be deducted from total capital pursuant to section 2(c)(3) of this appendix A.

(viii) Instruments issued by depository institutions incorporated in OECD and non-OECD countries that qualify as capital of the issuer.

(ix) Investments in fixed assets, premises, and other real estate owned.

(x) Claims representing capital of a securities firm notwithstanding section 3(a)(2)(xiii) of this appendix A.

(5) *Asset-backed commercial paper programs subject to consolidation.* (i) A bank that qualifies as a primary beneficiary and must consolidate an asset-backed commercial paper program as a variable interest entity under generally accepted accounting principles may exclude the consolidated asset-backed commercial paper program assets from risk-weighted assets if the bank is the sponsor of the consolidated asset-backed commercial paper program.

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[12] If all of the underlying mortgages in the pool do not qualify for the 50% risk weight, the bank should generally assign the entire value of the security to the 100% risk category of section 3(a)(4) of this appendix A; however, on a case-by-case basis, the OCC may allow the bank to assign only the portion of the security which represents an interest in, and the cash flows of, nonqualifying mortgages to the 100% risk category, with the remainder being assigned a risk weight of 50%. Before the OCC will consider a request to risk weight a mortgage-backed security on a proportionate basis, the bank must have current information for the reporting date that details the composition and cash flows of the underlying pool of mortgages.

[12a] A bank subject to the market risk capital requirements pursuant to appendix B of this part 3 may calculate the capital requirement for qualifying securities borrowing transactions pursuant to section 3(a)(1)(ii) of appendix B of this part 3.

(ii) If a bank excludes such consolidated asset-backed commercial paper program assets from risk-weighted assets, the bank must assess the appropriate risk-based capital charge against any risk exposures of the bank arising in connection with such asset-backed commercial paper program, including direct credit substitutes, recourse obligations, residual interests, asset-backed commercial paper liquidity facilities, and loans, in accordance with section 3 and section 4 of this appendix A.

(iii) If a bank either is not permitted to exclude consolidated asset-backed commercial paper program assets or elects not to exclude consolidated asset-backed commercial paper program assets from its risk-weighted assets, the bank must assess a risk-based capital charge based on the appropriate risk weight of the consolidated asset-backed commercial paper program assets in accordance with sections 3(a) and 4 of this appendix A. Any direct credit substitutes and recourse obligations (including residual interests and asset-backed commercial paper liquidity facilities), and loans that sponsoring banks provide to such asset-backed commercial paper programs are not subject to a capital charge under this section 4 of this appendix A.

(iv) If a bank has multiple overlapping exposures (such as a program-wide credit enhancement and an asset-backed commercial paper liquidity facility) to an asset-backed commercial paper program that is not consolidated for risk-based capital purposes, the bank must apply the highest capital charge applicable to the exposures but is not required to hold capital multiple times for the overlapping exposures under section 4 of this appendix A.

(6) *Other variable interest entities subject to consolidation.* If a bank is required to consolidate the assets of a variable interest entity other than an asset-backed commercial paper program under generally accepted accounting principles, the bank must assess a risk-based capital charge based on the appropriate risk weight of the consolidated assets in accordance with sections 3(a) and 4 of this appendix A. Any direct credit substitutes and recourse obligations (including residual interests), and loans that a bank may provide to such a variable interest entity are not subject to any capital charge under section 4 of this appendix A.

(b) *Off-Balance Sheet Activities.* The risk weight assigned to an off-balance sheet item is determined by a two-step process. First, the face amount of the off-balance sheet item is multiplied by the appropriate credit conversion factor specified in this section. This calculation translates the face amount of an off-balance sheet item into an on-balance sheet credit equivalent amount. Second, the resulting credit equivalent amount is then assigned to the proper risk category using the criteria regarding obligors, guarantors, and collateral listed in section 3(a) of this appendix A, or external credit rating in accordance with section 4(d), if applicable. Collateral and guarantees are applied to the face amount of an off-balance sheet item; however, with respect to derivative contracts under section 3(b)(5) of this appendix A, collateral and guarantees are applied to the credit equivalent amounts of such derivative contracts. The following are the credit conversion factors and the off-balance sheet items to which they apply. However, direct credit substitutes, recourse obligations, and securities issued in connection with asset securitizations are treated as described in section 4 of this appendix A.

(1) *100 percent credit conversion factor.* (i) [Reserved][13]

(ii) Risk participations purchased in bankers' acceptances;

(iii) [Reserved][14]

(iv) Contingent obligations with a certain draw down, *e.g.*, legally binding agreements to purchase assets as a specified future date.

(v) Indemnification of customers whose securities the bank has lent as agent. If the customer is not indemnified against loss by the bank, the transaction is excluded from the risk-based capital calculation.[15]

(2) *50 percent credit conversion factor.* (i) Transaction-related contingencies including, among other things, performance bonds and performance-based standby letters of credit related to a particular transaction.[16] To the extent permitted by law or regulation, performance-based standby letters of credit include such things as arrangements backing subcontractors' and suppliers' performance, labor and materials contracts, and construction bids;

[13] [Reserved]

[14] [Reserved]

[15] When a bank lends its own securities, the transaction is treated as a loan. When a bank lends its own securities or, acting as agent, agrees to indemnify a customer, the transaction is assigned to the risk weight appropriate to the obligor or collateral that is delivered to the lending or indemnifying institution or to an independent custodian acting on their behalf.

[16] For purposes of this section 3(b)(2)(i), a ''performance-based standby letter of credit'' is any letter of credit, or similar arrangement, however named or described, which represents an irrevocable obligation to the beneficiary on the part of the issuer to make payment on account of any default by the account party in the performance of a non-financial or commercial obligation. Participations in performance-based standby letters of credit are treated in accordance with section 4 of this appendix A.

(ii) Unused portion of commitments with an original maturity exceeding one-year;[17] however, commitments that are asset-backed commercial paper liquidity facilities must satisfy the eligibility requirements under section 3(b)(6)(ii) of this appendix A;

(iii) Revolving underwriting facilities, note issuance facilities, and similar arrangements pursuant to which the bank's customer can issue short-term debt obligations in its own name, but for which the bank has a legally binding commitment to either:

(A) Purchase the obligations the customer is unable to sell by a stated date; or

(B) Advance funds to its customer, if the obligations cannot be sold.

(3) *20 percent credit conversion factor.* (i) Trade-related contingencies. These are short-term self-liquidating instruments used to finance the movement of goods and are collateralized by the underlying shipment. A commercial letter of credit is an example of such an instrument.

(4) *10 percent credit conversion factor.* Unused portion of asset-backed commercial paper liquidity facilities with an original maturity of one year or less that satisfy the eligibility requirements under section 3(b)(6)(ii) of this appendix A.

(5) *Zero percent credit conversion factor.* (i) Unused portion of commitments with an original maturity of one year or less, but excluding any asset-backed commercial paper liquidity facilities;

(ii) Unused portion of commitments with an original maturity of greater than one year, if they are unconditionally cancelable[18] at any time at the option of the bank and the bank has the contractual right to make, and in fact does make, either—

(A) A separate credit decision based upon the borrower's current financial condition, before each drawing under the lending facility; or

(B) An annual (or more frequent) credit review based upon the borrower's current financial condition to determine whether or not the lending facility should be continued; and

(iii) The unused portion of retail credit card lines or other related plans that are unconditionally cancelable by the bank in accordance with applicable law.

(6) *Liquidity facility provided to asset-backed commercial paper.* (i) *Noneligible asset-backed commercial paper liquidity facilities treated as recourse or direct credit substitute.* Unused portion of asset-backed commercial paper liquidity facilities that do not meet the criteria for an eligible liquidity facility provided to asset-backed commercial paper in accordance with section 3(b)(6)(ii) of this appendix A must be treated as recourse or as a direct credit substitute, and assessed the appropriate risk-based capital charge in accordance with section 4 of this appendix A.

(ii) *Eligible asset-backed commercial paper liquidity facility.* Except as provided in section 3(b)(6)(iii) of this appendix A, in order for the unused portion of an asset-backed commercial paper liquidity facility to be eligible for either the 50 percent or 10 percent credit conversion factors under section 3(b)(2)(ii) or 3(b)(4) of this appendix A, the asset-backed commercial paper liquidity facility must satisfy the following criteria:

(A) At the time of draw, the asset-backed commercial paper liquidity facility must be subject to an asset quality test that:

(*1*) Precludes funding of assets that are 90 days or more past due or in default; and

(*2*) If the assets that an asset-backed commercial paper liquidity facility is required to fund are externally rated securities at the time they are transferred into the program, the asset-backed commercial paper liquidity facility must be used to fund only securities that are externally rated investment grade at the time of funding. If the assets are not externally rated at the time they are transferred into the program, then they are not subject to this investment grade requirement.

(B) The asset-backed commercial paper liquidity facility must provide that, prior to any draws, the bank's funding obligation is reduced to cover only those assets that satisfy the funding criteria under the asset quality test as provided in section 3(b)(6)(ii)(A) of this appendix A.

(iii) *Exception to eligibility requirements for assets guaranteed by the United States Government or its agencies, or the central government of an OECD country.* Notwithstanding the eligibility requirements for asset-backed commercial paper program liquidity facilities in section 3(b)(6)(ii), the unused portion of an asset-backed commercial paper liquidity facility may still qualify for either the 50 percent or 10 percent credit conversion factors under section 3(b)(2)(ii) or 3(b)(4) of this appendix A, if the assets required to be funded by the asset-back commercial paper liquidity facility are guaranteed, either conditionally or unconditionally, by the United States Government or its agencies, or the central government of an OECD country.

(iv) *Transition period for asset-backed commercial paper liquidity facilities.* Notwithstanding the eligibility requirements for asset-backed commercial paper program liquidity facilities in section 3(b)(6)(i) of this appendix A, the unused portion of an asset-backed commercial paper liquidity will be treated as eligible liquidity facilities pursuant to section 3(b)(6)(ii) of this appendix A

[17] Participations in commitments are treated in accordance with section 4 of this Appendix A.

[18] See section 1(c)(26) of appendix A to this part.

regardless of their compliance with the definition of eligible liquidity facilities until September 30, 2005. On that date and thereafter, the unused portions of asset-backed commercial paper liquidity facilities that do not meet the eligibility requirements in section 3(b)(6)(i) of this appendix A will be treated as recourse obligations or direct credit substitutes.

(7) *Derivative contracts*—(i) *Calculation of credit equivalent amounts.* The credit equivalent amount of a derivative contract equals the sum of the current credit exposure and the potential future credit exposure of the derivative contract. The calculation of credit equivalent amounts must be measured in U.S. dollars, regardless of the currency or currencies specified in the derivative contract.

(A) *Current credit exposure.* The current credit exposure for a single derivative contract is determined by the mark-to-market value of the derivative contract. If the mark-to-market value is positive, then the current credit exposure equals that mark-to-market value. If the mark-to-market is zero or negative, then the current credit exposure is zero. The current credit exposure for multiple derivative contracts executed with a single counterparty and subject to a qualifying bilateral netting contract is determined as provided by section 3(b)(5)(ii)(A) of this appendix A.

(B) *Potential future credit exposure.* The potential future credit exposure for a single derivative contract, including a derivative contract with negative mark-to-market value, is calculated by multiplying the notional principal[19] of the derivative contract by one of the credit conversion factors in Table A—Conversion Factor Matrix of this appendix A, for the appropriate category.[20] The potential future credit exposure for gold contracts shall be calculated using the foreign exchange rate conversion factors. For any derivative contract that does not fall within one of the specified categories in Table A—Conversion Factor Matrix of this appendix A, the potential future credit exposure shall be calculated using the other commodity conversion factors. Subject to examiner review, banks should use the effective rather than the apparent or stated notional amount in calculating the potential future credit exposure. The potential future credit exposure for multiple derivatives contracts executed with a single counterparty and subject to a qualifying bilateral netting contract is determined as provided by section 3(b)(5)(ii)(A) of this appendix A.

TABLE B—CONVERSION FACTOR MATRIX[1]

Remaining maturity[2]	Interest rate	Foreign exchange rate and gold	Equity[2]	Precious metals	Other commodity
One year or less	0.0	1.0	6.0	7.0	10.0
Over one to five years	0.5	5.0	8.0	7.0	12.0
Over five years	1.5	7.5	10.0	8.0	15.0

[1] For derivative contracts with multiple exchanges of principal, the conversion factors are multiplied by the number of remaining payments in the derivative contract.

[2] For derivative contracts that automatically reset to zero value following a payment, the remaining maturity equals the time until the next payment. However, interest rate contracts with remaining maturities of greater than one year shall be subject to a minimum conversion factor of 0.5 percent.

(ii) *Derivative contracts subject to a qualifying bilateral netting contract*—(A) *Netting calculation.* The credit equivalent amount for multiple derivative contracts executed with a single counterparty and subject to a qualifying bilateral netting contract as provided by section (3)(b)(5)(ii)(B) of this appendix A is calculated by adding the net current credit exposure and the adjusted sum of the potential future credit exposure for all derivative contracts subject to the qualifying bilateral netting contract.

(*1*) *Net current credit exposure.* The net current credit exposure is the net sum of all positive and negative mark-to-market values of the individual derivative contracts subject to a qualifying bilateral netting contract. If the net sum of the mark-to-market value is positive, then the net current credit exposure equals that net sum of the mark-to-market value. If the net sum of the mark-to-

[19] For purposes of calculating either the potential future credit exposure under section 3(b)(5)(i)(B) of this appendix A or the gross potential future credit exposure under section 3(b)(5)(ii)(A)(2) of this appendix A for foreign exchange contracts and other similar contracts in which the notional principal is equivalent to the cash flows, total notional principal is the net receipts to each party falling due on each value date in each currency.

[20] No potential future credit exposure is calculated for single currency interest rate swaps in which payments are made based upon two floating indices, so-called floating/floating or basis swaps; the credit equivalent amount is measured solely on the basis of the current credit exposure.

market value is zero or negative, then the net current credit exposure is zero.

(*2*) *Adjusted sum of the potential future credit exposure*. The adjusted sum of the potential future credit exposure is calculated as:

$$A_{net}=0.4\times A_{gross}+(0.6\times NGR\times A_{gross})$$

A_{net} is the adjusted sum of the potential future credit exposure, A_{gross} is the gross potential future credit exposure, and NGR is the net to gross ratio. A_{gross} is the sum of the potential future credit exposure (as determined under section 3(b)(5)(i)(B) of this appendix A) for each individual derivative contract subject to the qualifying bilateral netting contract. The NGR 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 section 3(b)(5)(i)(A) of this appendix A) of all individual derivative contracts subject to the qualifying bilateral netting contract.

(B) *Qualifying bilateral netting contract*. In determining the current credit exposure for multiple derivative contracts executed with a single counterparty, a bank may net derivative contracts subject to a qualifying bilateral netting contract by offsetting positive and negative mark-to-market values, provided that:

(*1*) The qualifying bilateral netting contract is in writing.

(*2*) The qualifying bilateral netting contract is not subject to a walkaway clause.

(*3*) The qualifying bilateral netting contract creates a single legal obligation for all individual derivative contracts covered by the qualifying bilateral netting contract. In effect, the qualifying bilateral netting contract must provide that the bank would have a single claim or obligation either to receive or to pay only the net amount of the sum of the positive and negative mark-to-market values on the individual derivative contracts covered by the qualifying bilateral netting contract. The single legal obligation for the net amount is operative in the event that a counterparty, or a counterparty to whom the qualifying bilateral netting contract has been assigned, fails to perform due to any of the following events: default, insolvency, bankruptcy, or other similar circumstances.

(*4*) The bank obtains a written and reasoned legal opinion(s) that represents, with a high degree of certainty, that in the event of a legal challenge, including one resulting from default, insolvency, bankruptcy, or similar circumstances, the relevant court and administrative authorities would find the bank's exposure to be the net amount under:

(*i*) The law of the jurisdiction in which the counterparty is chartered or the equivalent location in the case of noncorporate entities, and if a branch of the counterparty is involved, then also under the law of the jurisdiction in which the branch is located;

(*ii*) The law of the jurisdiction that governs the individual derivative contracts covered by the bilateral netting contract; and

(*iii*) The law of the jurisdiction that governs the qualifying bilateral netting contract.

(*5*) The bank establishes and maintains procedures to monitor possible changes in relevant law and to ensure that the qualifying bilateral netting contract continues to satisfy the requirement of this section.

(*6*) The bank maintains in its files documentation adequate to support the netting of a derivative contract.[21]

(iii) *Risk weighting*. Once the bank determines the credit equivalent amount for a derivative contract or a set of derivative contracts subject to a qualifying bilateral netting contract, the bank assigns that amount to the risk weight category appropriate to the counterparty, or, if relevant, the nature of any collateral or guarantee.[22] However, the maximum weight that will be applied to the credit equivalent amount of such derivative contract(s) is 50 percent.

(iv) *Exceptions*. The following derivative contracts are not subject to the above calculation, and therefore, are not part of the denominator of a national bank's risk-based capital ratio:

[21] By netting individual derivative contracts for the purpose of calculating its credit equivalent amount, a bank represents that documentation adequate to support the netting of a set of derivative contract is in the bank's files and available for inspection by the OCC. Upon determination by the OCC that a bank's files are inadequate or that a qualifying bilateral netting contract may not be legally enforceable in any one of the bodies of law described in section 3(b)(5)(ii)(B)(*3*)(*i*) through (*iii*) of this appendix A, the underlying derivative contracts may not be netted for the purposes of this section.

[22] Derivative contracts are an exception to the general rule of applying collateral and guarantees to the face value of off-balance sheet items. The sufficiency of collateral and guarantees is determined on the basis of the credit equivalent amount of derivative contracts. However, collateral and guarantees held against a qualifying bilateral netting contract is not recognized for capital purposes unless it is legally available for all contracts included in the qualifying bilateral netting contract.

(A) An exchange rate contract with an original maturity of 14 calendar days or less;[23] and

(B) A derivative contract that is traded on an exchange requiring the daily payment of any variations in the market value of the contract.

Section 4. Recourse, Direct Credit Substitutes and Positions in Securitizations

(a) *Definitions.* For purposes of this section 4 of this appendix A, the following definitions apply:

(1) *Credit derivative* means a contract that allows one party (the protection purchaser) to transfer the credit risk of an asset or off-balance sheet credit exposure to another party (the protection provider). The value of a credit derivative is dependent, at least in part, on the credit performance of a ''reference asset.''

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

(i) Represents the contractual right to receive some or all of the interest due on transferred assets; and

(ii) Exposes the bank to credit risk directly or indirectly associated with the transferred assets that exceeds its *pro rata* claim on the assets whether through subordination provisions or other credit enhancing techniques.

(3) *Credit-enhancing representations and warranties* means representations and warranties that are made or assumed in connection with a transfer of assets (including loan servicing assets) and that obligate a bank to protect investors from losses arising from credit risk in the assets transferred or the loans serviced. Credit-enhancing representations and warranties include promises to protect a party from losses resulting from the default or nonperformance of another party or from an insufficiency in the value of the collateral. Credit-enhancing representations and warranties do not include:

(i) Early-default clauses and similar warranties that permit the return of, or premium refund clauses covering, 1–4 family residential first mortgage loans (as described in section 3(a)(3)(iii) of this appendix A) for a period not to exceed 120 days from the date of transfer. These warranties may cover only those loans that were originated within 1 year of the date of transfer;

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

(iii) Warranties that permit the return of assets in instances of fraud, misrepresentation or incomplete documentation.

(4) *Direct credit substitute* means an arrangement in which a bank assumes, in form or in substance, credit risk associated with an on- or off-balance sheet asset or exposure that was not previously owned by the bank (third-party asset) and the risk assumed by the bank exceeds the *pro rata* share of the bank's interest in the third-party asset. If a bank has no claim on the third-party asset, then the bank's assumption of any credit risk is a direct credit substitute. Direct credit substitutes include:

(i) Financial standby letters of credit that support financial claims on a third party that exceed a bank's *pro rata* share in the financial claim;

(ii) Guarantees, surety arrangements, credit derivatives and similar instruments backing financial claims that exceed a bank's *pro rata* share in the financial claim;

(iii) Purchased subordinated interests that absorb more than their *pro rata* share of losses from the underlying assets;

(iv) Credit derivative contracts under which the bank assumes more than its *pro rata* share of credit risk on a third-party asset or exposure;

(v) Loans or lines of credit that provide credit enhancement for the financial obligations of a third party;

(vi) Purchased loan servicing assets if the servicer is responsible for credit losses or if the servicer makes or assumes credit-enhancing representations and warranties with respect to the loans serviced. Mortgage servicer case advances that meet the conditions of section 4(a)(8)(i) and (ii) of this appendix A, are not direct credit substitutes;

(vii) Clean-up calls on third-party assets. Clean-up calls that are 10% or less of the original pool balance and that are exercisable at the option of the bank are not direct credit substitutes; and

(viii) Unused portion of noneligible asset-backed commercial paper liquidity facilities.

(5) *Externally rated* means that an instrument or obligation has received a credit rating from at least one nationally recognized statistical rating organization.

(6) *Face amount* means the notional principal, or face value, amount of an off-balance sheet item; the amortized cost of an asset not held for trading purposes; and the fair value of a trading asset.

(7) *Financial asset* means cash or other monetary instrument, evidence of debt, evidence of an ownership interest in an entity, or a contract that conveys a right to receive or exchange cash or another financial instrument from another party.

(8) *Financial standby letter of credit* means a letter of credit or similar arrangement that represents an irrevocable obligation to a third-party beneficiary:

[23] Notwithstanding section 3(b)(5)(B) of this appendix A, gold contracts do not qualify for this exception.

(i) To repay money borrowed by, or advanced to, or for the account of, a second party (the account party); or

(ii) To make payment on behalf of the account party, in the event that the account party fails to fulfill its obligation to the beneficiary.

(9) *Mortgage servicer cash advance* means funds that a residential mortgage servicer advances to ensure an uninterrupted flow of payments, including advances made to cover foreclosure costs or other expenses to facilitate the timely collection of the loan. A mortgage servicer cash advance is not a recourse obligation or a direct credit substitute if:

(i) The servicer is entitled to full reimbursement and this right is not subordinated to other claims on the cash flows from the underlying asset pool; or

(ii) For any one loan, the servicer's obligation to make nonreimbursable advances is contractually limited to an insignificant amount of the outstanding principal amount of that loan.

(10) *Nationally recognized statistical rating organization (NRSRO)* means an entity recognized by the Division of Market Regulation of the Securities and Exchange Commission (or any successor Division) (Commission) as a nationally recognized statistical rating organization for various purposes, including the Commission's uniform net capital requirements for brokers and dealers.

(11) *Recourse* means a bank's retention, in form or in substance, of any credit risk directly or indirectly associated with an asset it has sold that exceeds a *pro rata* share of that bank's claim on the asset. If a bank has no claim on a sold asset, then the retention of any credit risk is recourse. A recourse obligation typically arises when a bank transfers assets and retains an explicit obligation to repurchase assets or to absorb losses due to a default on the payment of principal or interest or any other deficiency in the performance of the underlying obligor or some other party. Recourse may also exist implicitly if a bank provides credit enhancement beyond any contractual obligation to support assets it has sold. The following are examples of recourse arrangements:

(i) Credit-enhancing representations and warranties made on transferred assets;

(ii) Loan servicing assets retained pursuant to an agreement under which the bank will be responsible for losses associated with the loans serviced. Mortgage servicer cash advances that meet the conditions of section 4(a)(9)(i) and (ii) of this appendix A, are not recourse arrangements;

(iii) Retained subordinated interests that absorb more than their *pro rata* share of losses from the underlying assets;

(iv) Assets sold under an agreement to repurchase, if the assets are not already included on the balance sheet;

(v) Loan strips sold without contractual recourse where the maturity of the transferred portion of the loan is shorter than the maturity of the commitment under which the loan is drawn;

(vi) Credit derivatives issued that absorb more than the bank's pro rata share of losses from the transferred assets;

(vii) Clean-up calls. Clean-up calls that are 10% or less of the original pool balance and that are exercisable at the option of the bank are not recourse arrangements; and

(viii) Noneligible asset-backed commercial paper liquidity facilities.

(12) *Residual interest* means any on-balance sheet asset that represents an interest (including a beneficial interest) created by a transfer that qualifies as a sale (in accordance with generally accepted accounting principles) of financial assets, whether through a securitization or otherwise, and that exposes a bank to any credit risk directly or indirectly associated with the transferred asset that exceeds a *pro rata* share of that bank's claim on the asset, whether through subordination provisions or other credit enhancement techniques. Residual interests generally include credit-enhancing interest-only strips, spread accounts, cash collateral accounts, retained subordinated interests (and other forms of overcollateralization) and similar assets that function as a credit enhancement. Residual interests further include those exposures that, in substance, cause the bank to retain the credit risk of an asset or exposure that had qualified as a residual interest before it was sold. Residual interests generally do not include interests purchased from a third party.

(13) *Risk participation* means a participation in which the originating party remains liable to the beneficiary for the full amount of an obligation (*e.g.* a direct credit substitute) notwithstanding that another party has acquired a participation in that obligation.

(14) *Securitization* means the pooling and repackaging by a special purpose entity of assets or other credit exposures that can be sold to investors. Securitization includes transactions that create stratified credit risk positions whose performance is dependent upon an underlying pool of credit exposures, including loans and commitments.

(15) *Structured finance program* means a program where receivable interests and asset-backed securities issued by multiple participants are purchased by a special purpose entity that repackages those exposures into securities that can be sold to investors. Structured finance programs allocate credit risks, generally, between the participants and credit enhancement provided to the program.

(16) *Traded position* means a position retained, assumed or issued in connection with a securitization that is externally rated, where there is a reasonable expectation that,

in the near future, the rating will be relied upon by:

(i) Unaffiliated investors to purchase the position; or

(ii) An unaffiliated third party to enter into a transaction involving the position, such as a purchase, loan or repurchase agreement.

(b) *Credit equivalent amounts and risk weights of recourse obligations and direct credit substitutes*—(1) *Credit-equivalent amount.* Except as otherwise provided, the credit-equivalent amount for a recourse obligation or direct credit substitute is the full amount of the credit-enhanced assets for which the bank directly or indirectly retains or assumes credit risk multiplied by a 100% conversion factor.

(2) *Risk-weight factor.* To determine the bank's risk-weighted assets for off-balance sheet recourse obligations and direct credit substitutes, the credit equivalent amount is assigned to the risk category appropriate to the obligor in the underlying transaction, after considering any associated guarantees or collateral. For a direct credit substitute that is an on-balance sheet asset (*e.g.*, a purchased subordinated security), a bank must calculate risk-weighted assets using the amount of the direct credit substitute and the full amount of the assets it supports, *i.e.*, all the more senior positions in the structure.

(c) *Credit equivalent amount and risk weight of participations in, and syndications of, direct credit substitutes.* The credit equivalent amount for a participation interest in, or syndication of, a direct credit substitute is calculated and risk weighted as follows:

(1) In the case of a direct credit substitute in which a bank has conveyed a risk participation, the full amount of the assets that are supported by the direct credit substitute is converted to a credit equivalent amount using a 100% conversion factor. The *pro rata* share of the credit equivalent amount that has been conveyed through a risk participation is then assigned to whichever risk-weight category is lower: the risk-weight category appropriate to the obligor in the underlying transaction, after considering any associated guarantees or collateral, or the risk-weight category appropriate to the party acquiring the participation. The *pro rata* share of the credit equivalent amount that has not been participated out is assigned to the risk-weight category appropriate to the obligor after considering any associated guarantees or collateral.

(2) In the case of a direct credit substitute in which the bank has acquired a risk participation, the acquiring bank's *pro rata* share of the direct credit substitute is multiplied by the full amount of the assets that are supported by the direct credit substitute and converted using a 100% credit conversion factor. The resulting credit equivalent amount is then assigned to the risk-weight category appropriate to the obligor in the underlying transaction, after considering any associated guarantees or collateral.

(3) In the case of a direct credit substitute that takes the form of a syndication where each bank or participating entity is obligated only for its *pro rata* share of the risk and there is no recourse to the originating entity, each bank's credit equivalent amount will be calculated by multiplying only its *pro rata* share of the assets supported by the direct credit substitute by a 100% conversion factor. The resulting credit equivalent amount is then assigned to the risk-weight category appropriate to the obligor in the underlying transaction, after considering any associated guarantees or collateral.

(d) *Externally rated positions: credit-equivalent amounts and risk weights.*—(1) *Traded positions.* With respect to a recourse obligation, direct credit substitute, residual interest (other than a credit-enhancing interest-only strip) or asset- or mortgage-backed security that is a ''traded position'' and that has received an external rating on a long-term position that is one grade below investment grade or better or a short-term position that is investment grade, the bank may multiply the face amount of the position by the appropriate risk weight, determined in accordance with Tables C or D of this Appendix A.[24] If a traded position receives more than one external rating, the lowest single rating will apply.

TABLE C

Long-term rating category	Examples	Risk weight (In percent)
Highest or second highest investment grade	AAA, AA	20
Third highest investment grade	A	50
Lowest investment grade	BBB	100
One category below investment grade	BB	200

[24] Stripped mortgage-backed securities or other similar instruments, such as interest-only or principal-only strips, that are not credit enhancing must be assigned to the 100% risk category.

TABLE D

Short-term rating category	Examples	Risk weight (In percent)
Highest investment grade	A–1, P–1	20
Second highest investment grade	A–2, P–2	50
Lowest investment grade	A–3, P–3	100

(2) *Non-traded positions.* A recourse obligation, direct credit substitute, residual interest (but not a credit-enhancing interest-only strip) or asset- or mortgage-backed security extended in connection with a securitization that is not a ''traded position'' may be assigned a risk weight in accordance with section 4(d)(1) of this appendix A if:

(i) It has been externally rated by more than one NRSRO;

(ii) It has received an external rating on a long-term position that is one category below investment grade or better or a short-term position that is investment grade by all NRSROs providing a rating;

(iii) The ratings are publicly available; and

(iv) The ratings are based on the same criteria used to rate traded positions.

If the ratings are different, the lowest rating will determine the risk category to which the recourse obligation, residual interest or direct credit substitute will be assigned.

(e) *Senior positions not externally rated.* For a recourse obligation, direct credit substitute, residual interest or asset- or mortgage-backed security that is not externally rated but is senior or preferred in all features to a traded position (including collateralization and maturity), a bank may apply a risk weight to the face amount of the senior position in accordance with section 4(d)(1) of this appendix A, based upon the traded position, subject to any current or prospective supervisory guidance and the bank satisfying the OCC that this treatment is appropriate. This section will apply only if the traded position provides substantive credit support to the unrated position until the unrated position matures.

(f) *Residual Interests*—(1) *Concentration limit on credit-enhancing interest-only strips.* In addition to the capital requirement provided by section 4(f)(2) of this appendix A, a bank must deduct from Tier 1 capital all credit-enhancing interest-only strips in excess of 25 percent of Tier 1 capital in accordance with section 2(c)(2)(iv) of this appendix A.

(2) *Credit-enhancing interest-only strip capital requirement.* After applying the concentration limit to credit-enhancing interest-only strips in accordance with section (f)(1), a bank must maintain risk-based capital for a credit-enhancing interest-only strip equal to the remaining amount of the credit-enhancing interest-only strip (net of any existing associated deferred tax liability), even if the amount of risk-based capital required to be maintained exceeds the full risk-based capital requirement for the assets transferred. Transactions that, in substance, result in the retention of credit risk associated with a transferred credit-enhancing interest-only strip will be treated as if the credit-enhancing interest-only strip was retained by the bank and not transferred.

(3) *Other residual interests capital requirement.* Except as provided in sections (d) or (e) of this section, a bank must maintain risk-based capital for a residual interest (excluding a credit-enhancing interest-only strip) equal to the face amount of the residual interest that is retained on the balance sheet (net of any existing associated deferred tax liability), even if the amount of risk-based capital required to be maintained exceeds the full risk-based capital requirement for the assets transferred. Transactions that, in substance, result in the retention of credit risk associated with a transferred residual interest will be treated as if the residual interest was retained by the bank and not transferred.

(4) *Residual interests and other recourse obligations.* Where the aggregate capital requirement for residual interests (including credit-enhancing interest-only strips) and recourse obligations arising from the same transfer of assets exceed the full risk-based capital requirement for those assets, a bank must maintain risk-based capital equal to the greater of the risk-based capital requirement for the residual interest as calculated under sections 4(f)(1) through (3) of this appendix A or the full risk-based capital requirement for the assets transferred.

(g) *Positions that are not rated by an NRSRO.* A position (but not a residual interest) extended in connection with a securitization and that is not rated by an NRSRO may be risk-weighted based on the bank's determination of the credit rating of the position, as specified in Table E of this appendix A, multiplied by the face amount of the position. In order to qualify for this treatment, the bank's system for determining the credit rating of the position must meet one of the three alternative standards set out in section 4(g)(1)through (3) of this appendix A.

TABLE E

Rating category	Examples	Risk weight (In percent)
Investment grade	BBB, or better	100
One category below investment grade	BB	200

(1) *Internal risk rating used for asset-backed programs.* A direct credit substitute (but not a purchased credit-enhancing interest-only strip) is assumed by a bank in connection with an asset-backed commercial paper program sponsored by the bank and the bank is able to demonstrate to the satisfaction of the OCC, prior to relying upon its use, that the bank's internal credit risk rating system is adequate. Adequate internal credit risk rating systems usually contain the following criteria:

(i) The internal credit risk system is an integral part of the bank's risk management system that explicitly incorporates the full range of risks arising from a bank's participation in securitization activities;

(ii) Internal credit ratings are linked to measurable outcomes, such as the probability that the position will experience any loss, the position's expected loss given default, and the degree of variance in losses given default on that position;

(iii) The bank's internal credit risk system must separately consider the risk associated with the underlying loans or borrowers, and the risk associated with the structure of a particular securitization transaction;

(iv) The bank's internal credit risk system must identify gradations of risk among ''pass'' assets and other risk positions;

(v) The bank must have clear, explicit criteria that are used to classify assets into each internal risk grade, including subjective factors;

(vi) The bank must have independent credit risk management or loan review personnel assigning or reviewing the credit risk ratings;

(vii) An internal audit procedure should periodically verify that internal risk ratings are assigned in accordance with the bank's established criteria.

(viii) The bank must monitor the performance of the internal credit risk ratings assigned to nonrated, nontraded direct credit substitutes over time to determine the appropriateness of the initial credit risk rating assignment and adjust individual credit risk ratings, or the overall internal credit risk ratings system, as needed; and

(ix) The internal credit risk system must make credit risk rating assumptions that are consistent with, or more conservative than, the credit risk rating assumptions and methodologies of NRSROs.

(2) *Program Ratings.* A direct credit substitute or recourse obligation (but not a residual interest) is assumed or retained by a bank in connection with a structured finance program and a NRSRO has reviewed the terms of the program and stated a rating for positions associated with the program. If the program has options for different combinations of assets, standards, internal credit enhancements and other relevant factors, and the NRSRO specifies ranges of rating categories to them, the bank may apply the rating category applicable to the option that corresponds to the bank's position. In order to rely on a program rating, the bank must demonstrate to the OCC's satisfaction that the credit risk rating assigned to the program meets the same standards generally used by NRSROs for rating traded positions. The bank must also demonstrate to the OCC's satisfaction that the criteria underlying the NRSRO's assignment of ratings for the program are satisfied for the particular position. If a bank participates in a securitization sponsored by another party, the OCC may authorize the bank to use this approach based on a program rating obtained by the sponsor of the program.

(3) *Computer Program.* The bank is using an acceptable credit assessment computer program to determine the rating of a direct credit substitute or recourse obligation (but not a residual interest) extended in connection with a structured finance program. A NRSRO must have developed the computer program and the bank must demonstrate to the OCC's satisfaction that ratings under the program correspond credibly and reliably with the rating of traded positions.

(h) *Limitations on risk-based capital requirements*—(1) *Low-level exposure rule.* If the maximum contractual exposure to loss retained or assumed by a bank is less than the effective risk-based capital requirement, as determined in accordance with section 4(b) of this appendix A, for the asset supported by the bank's position, the risk based capital required under this appendix A is limited to the bank's contractual exposure, less any recourse liability account established in accordance with generally accepted accounting principles. This limitation does not apply when a bank provides credit enhancement beyond any contractual obligation to support assets that it has sold.

(2) *Related on-balance sheet assets.* If an asset is included in the calculation of the risk-based capital requirement under this section 4 of this appendix A and also appears as an asset on a bank's balance sheet, the

asset is risk-weighted only under this section 4 of this appendix A, except in the case of loan servicing assets and similar arrangements with embedded recourse obligations or direct credit substitutes. In that case, both the on-balance sheet servicing assets and the related recourse obligations or direct credit substitutes must both be separately risk weighted and incorporated into the risk-based capital calculation.

(i) *Alternative Capital Calculation for Small Business Obligations*—(1) *Definitions*. For purposes of this section 4(i):

(i) *Qualified bank* means a bank that:

(A) Is well capitalized as defined in 12 CFR 6.4 without applying the capital treatment described in this section 4(i), or

(B) Is adequately capitalized as defined in 12 CFR 6.4 without applying the capital treatment described in this section 4(i) and has received written permission from the appropriate district office of the OCC to apply the capital treatment described in this section 4(i).

(ii) *Recourse* has the meaning given to such term under generally accepted accounting principles.

(iii) *Small business* means a business that meets the criteria for a small business concern established by the Small Business Administration in 13 CFR part 121 pursuant to 15 U.S.C. 632.

(2) *Capital and reserve requirements*. Notwithstanding the risk-based capital treatment outlined in section 2(c)(4) and any other subsection (other than subsection (i)) of this section 4, with respect to a transfer of a small business loan or a lease of personal property with recourse that is a sale under generally accepted accounting principles, a qualified bank may elect to apply the following treatment:

(i) The bank establishes and maintains a non-capital reserve under generally accepted accounting principles sufficient to meet the reasonable estimated liability of the bank under the recourse arrangement; and

(ii) For purposes of calculating the bank's risk-based capital ratio, the bank includes only the face amount of its recourse in its risk-weighted assets.

(3) *Limit on aggregate amount of recourse*. The total outstanding amount of recourse retained by a qualified bank with respect to transfers of small business loans and leases of personal property and included in the risk-weighted assets of the bank as described in section 4(i)(2) of this appendix A may not exceed 15 percent of the bank's total capital after adjustments and deductions, unless the OCC specifies a greater amount by order.

(4) *Bank that ceases to be qualified or that exceeds aggregate limit*. If a bank ceases to be a qualified bank or exceeds the aggregate limit in section 4(i)(3) of this appendix A, the bank may continue to apply the capital treatment described in section 4(i)(2) of this appendix A to transfers of small business loans and leases of personal property that occurred when the bank was qualified and did not exceed the limit.

(5) *Prompt Corrective Action not affected*. (i) A bank shall compute its capital without regard to this section 4(i) for purposes of prompt corrective action (12 U.S.C. 1831o and 12 CFR part 6) unless the bank is an adequately or well capitalized bank (without applying the capital treatment described in this section 4(i)) and, after applying the capital treatment described in this section 4(i), the bank would be well capitalized.

(ii) A bank shall compute its capital without regard to this section 4(i) for purposes of 12 U.S.C. 1831o(g) regardless of the bank's capital level.

Section 5. Implementation, Transition Rules, and Target Ratios

(a) *December 31, 1990 to December 30, 1992*. During this time period:

(1) All national banks are expected to maintain a minimum ratio of total capital (after deductions) to risk-weighted assets of 7.25%.

(i) Fifty percent of this 7.25% must be made up of Tier 1 capital; however, up to 10% of Tier 1 capital can be comprised of Tier 2 capital elements, before any deductions for goodwill. The amount of Tier 2 elements included in Tier 1 will not be subject to the sublimits on the amount of such elements in Tier 2 capital, with the exception of the allowance for loan and lease losses.

(ii) Goodwill that national banks have been allowed to count as capital as a result of the transition rules contained in 12 CFR 3.3 is grandfathered until December 31, 1992, but will be deducted from Tier 1 capital after that date.

(2) The allowance for loan and lease losses can be included in total capital up to a maximum of 1.5% of a bank's risk-weighted assets, including the portion that can be borrowed to make up Tier 1.

(3) Tier 2 capital elements that are not used as part of Tier 1 capital will qualify as part of a national bank's total capital base up to a maximum of 100% of the bank's Tier 1 capital.

(4) In addition to the standards established by these risk-based capital guidelines, all national banks must maintain a minimum capital-to-total assets ratio in accordance with the provisions of 12 CFR part 3.

(b) *On December 31, 1992*. (1) All national banks are expected to maintain a minimum ratio of total capital (after deductions) to risk-weighted assets of 8.0%.

(2) Tier 2 capital elements qualify as part of a national bank's total capital base up to a maximum of 100% of that bank's Tier 1 capital.

(3) In addition to the standards established by these risk-based capital guidelines, all national banks must maintain a minimum capital-to-total assets ratio in accordance with the provisions of 12 CFR part 3.

[54 FR 4177, Jan. 27, 1989]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting Appendix A to part 3 of title 12, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

APPENDIX B TO PART 3—RISK-BASED CAPITAL GUIDELINES; MARKET RISK ADJUSTMENT

Section 1. Purpose, Applicability, Scope, and Effective Date

(a) *Purpose.* The purpose of this appendix is to ensure that banks with significant exposure to market risk maintain adequate capital to support that exposure.[1] This appendix supplements and adjusts the risk-based capital ratio calculations under appendix A of this part with respect to those banks.

(b) *Applicability.* (1) This appendix applies to any national bank whose trading activity[2] (on a worldwide consolidated basis) equals:

(i) 10 percent or more of total assets;[3] or

(ii) $1 billion or more.

(2) The OCC may apply this appendix to any national bank if the OCC deems it necessary or appropriate for safe and sound banking practices.

(3) The OCC may exclude a national bank otherwise meeting the criteria of paragraph (b)(1) of this section from coverage under this appendix if it determines the bank meets such criteria as a consequence of accounting, operational, or similar considerations, and the OCC deems it consistent with safe and sound banking practices.

(c) *Scope.* The capital requirements of this appendix support market risk associated with a bank's covered positions.

(d) *Effective date.* This appendix is effective as of January 1, 1997. Compliance is not mandatory until January 1, 1998. Subject to supervisory approval, a bank may opt to comply with this appendix as early as January 1, 1997.[4]

Section 2. Definitions

For purposes of this appendix, the following definitions apply:

(a) *Covered positions* means all positions in a bank's trading account, and all foreign exchange[5] and commodity positions, whether or not in the trading account.[6] Positions include on-balance-sheet assets and liabilities and off-balance-sheet items. Securities subject to repurchase and lending agreements are included as if they are still owned by the lender. Asset backed commercial paper liquidity facilities, in form or in substance, in a bank's trading account are excluded from covered positions, and instead, are subject to the risk-based capital requirements as provided in appendix A of this part.

(b) *Market risk* means the risk of loss resulting from movements in market prices. Market risk consists of general market risk and specific risk components.

(1) *General market risk* means changes in the market value of covered positions resulting from broad market movements, such as changes in the general level of interest rates, equity prices, foreign exchange rates, or commodity prices.

(2) *Specific risk* means changes in the market value of specific positions due to factors other than broad market movements and includes default and event risk as well as idiosyncratic variations.

(c) *Tier 1* and *Tier 2* capital are the same as defined in appendix A of this part.

(d) *Tier 3 capital* is subordinated debt that is unsecured; is fully paid up; has an original maturity of at least two years; is not redeemable before maturity without prior approval by the OCC; includes a lock-in clause precluding payment of either interest or principal (even at maturity) if the payment would cause the issuing bank's risk-based capital ratio to fall or remain below the minimum required under appendix A of this part; and does not contain and is not covered by any covenants, terms, or restrictions that are inconsistent with safe and sound banking practices.

(e) *Value-at-risk (VAR)* means the estimate of the maximum amount that the value of

[1] This appendix is based on a framework developed jointly by supervisory authorities from the countries represented on the Basle Committee on Banking Supervision and endorsed by the Group of Ten Central Bank Governors. The framework is described in a Basle Committee paper entitled "Amendment to the Capital Accord to Incorporate Market Risk," January 1996.

[2] Trading activity means the gross sum of trading assets and liabilities as reported in the bank's most recent quarterly Consolidated Report of Condition and Income (Call Report).

[3] Total assets means quarter-end total assets as reported in the bank's most recent Call Report.

[4] A bank that voluntarily complies with the final rule prior to January 1, 1998, must comply with all of its provisions.

[5] Subject to supervisory review, a bank may exclude structural positions in foreign currencies from its covered positions.

[6] The term trading account is defined in the instructions to the Call Report.

covered positions could decline during a fixed holding period within a stated confidence level, measured in accordance with section 4 of this appendix.

Section 3. Adjustments to the Risk-Based Capital Ratio Calculations

(a) *Risk-based capital ratio denominator.* A bank subject to this appendix shall calculate its risk-based capital ratio denominator as follows:

(1) *Adjusted risk-weighted assets.* (i) *Covered positions.* Calculate adjusted risk-weighted assets, which equal risk-weighted assets (as determined in accordance with appendix A of this part), excluding the risk-weighted amount of all covered positions (except foreign exchange positions outside the trading account and over-the-counter derivatives positions).[7]

(ii) *Securities borrowing transactions.* In calculating adjusted risk-weighted assets, a bank also may exclude a receivable that results from the bank's posting of cash collateral in a securities borrowing transaction to the extent that the receivable is collateralized by the market value of the borrowed securities and subject to the following conditions:

(A) The borrowed securities must be includable in the trading account and must be liquid and readily marketable;

(B) The borrowed securities must be marked to market daily;

(C) The receivable must be subject to a daily margining requirement; and

(D) (*1*) The transaction is a securities contract for the purposes of section 555 of the Bankruptcy Code (11 U.S.C. 555), a qualified financial contract for the purposes of 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 for the purposes of sections 401–407 of the Federal Deposit Insurance Corporation Improvement Act of 1991 (12 U.S.C. 4401–4407), or the Board's Regulation EE (12 CFR Part 231); or

(*2*) If the transaction does not meet the criteria set forth in paragraph (a)(1)(ii)(D)(*1*) of this section, then either:

(*i*) The bank has conducted sufficient legal review to reach a well-founded conclusion that:

(*A*) The securities borrowing agreement executed in connection with the transaction provides the bank 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 counterparty default, including in a bankruptcy, insolvency, or other similar proceeding of the counterparty; and

(*B*) Under applicable law of the relevant jurisdiction, its rights under the agreement are legal, valid, binding, and enforceable and any exercise of rights under the agreement will not be stayed or avoided; or

(*ii*) The transaction is either overnight or unconditionally cancelable at any time by the bank, and the bank has conducted sufficient legal review to reach a well-founded conclusion that:

(*A*) The securities borrowing agreement executed in connection with the transaction provides the bank 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 counterparty default; and

(*B*) Under the law governing the agreement, its rights under the agreement are legal, valid, binding, and enforceable.

(2) *Measure for market risk.* Calculate the measure for market risk, which equals the sum of the VAR-based capital charge, the specific risk add-on (if any), and the capital charge for de minimis exposure (if any).

(i) *VAR-based capital charge.* The VAR-based capital charge equals the higher of:

(A) The previous day's VAR measure; or

(B) The average of the daily VAR measures for each of the preceding 60 business days multiplied by three, except as provided in section 4(e) of this appendix;

(ii) *Specific risk add-on.* The specific risk add-on is calculated in accordance with section 5 of this appendix; and

(iii) *Capital charge for de minimis exposure.* The capital charge for de minimis exposure is calculated in accordance with section 4(a) of this appendix.

(3) *Market risk equivalent assets.* Calculate market risk equivalent assets by multiplying the measure for market risk (as calculated in paragraph (a)(2) of this section) by 12.5.

(4) *Denominator calculation.* Add market risk equivalent assets (as calculated in paragraph (a)(3) of this section) to adjusted risk-weighted assets (as calculated in paragraph (a)(1) of this section). The resulting sum is the bank's risk-based capital ratio denominator.

(b) *Risk-based capital ratio numerator.* A bank subject to this appendix shall calculate its risk-based capital ratio numerator by allocating capital as follows:

(1) *Credit risk allocation.* Allocate Tier 1 and Tier 2 capital equal to 8.0 percent of adjusted risk-weighted assets (as calculated in paragraph (a)(1) of this section).[8]

[7] Foreign exchange position outside the trading account and all over-the-counter derivative positions, whether or not in the trading account, must be included in adjusted risk-weighted assets as determined in appendix A of this part 3.

[8] A bank may not allocate Tier 3 capital to support credit risk (as calculated under appendix A).

(2) *Market risk allocation.* Allocate Tier 1, Tier 2, and Tier 3 capital equal to the measure for market risk as calculated in paragraph (a)(2) of this section. The sum of Tier 2 and Tier 3 capital allocated for market risk must not exceed 250 percent of Tier 1 capital allocated for market risk. (This requirement means that Tier 1 capital allocated in this paragraph (b)(2) must equal at least 28.6 percent of the measure for market risk.)

(3) *Restrictions.* (i) The sum of Tier 2 capital (both allocated and excess) and Tier 3 capital (allocated in paragraph (b)(2) of this section) may not exceed 100 percent of Tier 1 capital (both allocated and excess).[9]

(ii) Term subordinated debt (and intermediate-term preferred stock and related surplus) included in Tier 2 capital (both allocated and excess) may not exceed 50 percent of Tier 1 capital (both allocated and excess).

(4) *Numerator calculation.* Add Tier 1 capital (both allocated and excess), Tier 2 capital (both allocated and excess), and Tier 3 capital (allocated under paragraph (b)(2) of this section). The resulting sum is the bank's risk-based capital ratio numerator.

Section 4. Internal Models

(a) *General.* For risk-based capital purposes, a bank subject to this appendix must use its internal model to measure its daily VAR, in accordance with the requirements of this section.[10] The OCC may permit a bank to use alternative techniques to measure the market risk of de minimis exposures so long as the techniques adequately measure associated market risk.

(b) *Qualitative requirements.* A bank subject to this appendix must have a risk management system that meets the following minimum qualitative requirements:

(1) The bank must have a risk control unit that reports directly to senior management and is independent from business trading units.

(2) The bank's internal risk measurement model must be integrated into the daily management process.

(3) The bank's policies and procedures must identify, and the bank must conduct, appropriate stress tests and backtests.[11] The bank's policies and procedures must identify the procedures to follow in response to the results of such tests.

(4) The bank must conduct independent reviews of its risk measurement and risk management systems at least annually.

(c) *Market risk factors.* The bank's internal model must use risk factors sufficient to measure the market risk inherent in all covered positions. The risk factors must address interest rate risk,[12] equity price risk, foreign exchange rate risk, and commodity price risk.

(d) *Quantitative requirements.* For regulatory capital purposes, VAR measures must meet the following quantitative requirements:

(1) The VAR measures must be calculated on a daily basis using a 99 percent, one-tailed confidence level with a price shock equivalent to a ten-business day movement in rates and prices. In order to calculate VAR measures based on a ten-day price shock, the bank may either calculate ten-day figures directly or convert VAR figures based on holding periods other than ten days to the equivalent of a ten-day holding period (for instance, by multiplying a one-day VAR measure by the square root of ten).

(2) The VAR measures must be based on an historical observation period (or effective observation period for a bank using a weighting scheme or other similar method) of at least one year. The bank must update data sets at least once every three months or more frequently as market conditions warrant.

(3) The VAR measures must include the risks arising from the non-linear price characteristics of options positions and the sensitivity of the market value of the positions to changes in the volatility of the underlying

[9] Excess Tier 1 capital means Tier 1 capital that has not been allocated in paragraphs (b)(1) and (b)(2) of this section. Excess Tier 2 capital means Tier 2 capital that has not been allocated in paragraph (b)(1) and (b)(2) of this section, subject to the restrictions in paragraph (b)(3) of this section.

[10] A bank's internal model may use any generally accepted measurement techniques, such as variance-covariance models, historical simulations, or Monte Carlo simulations. However, the level of sophistication and accuracy of a bank's internal model must be commensurate with the nature and size of its covered positions. A bank that modifies its existing modeling procedures to comply with the requirements of this appendix for risk-based capital purposes should, nonetheless, continue to use the internal model it considers most appropriate in evaluating risks for other purposes.

[11] Stress tests provide information about the impact of adverse market events on a bank's covered positions. Backtests provide information about the accuracy of an internal model by comparing a bank's daily VAR measures to its corresponding daily trading profits and losses.

[12] For material exposures in the major currencies and markets, modeling techniques must capture spread risk and must incorporate enough segments of the yield curve—at least six—to capture differences in volatility and less than perfect correlation of rates along the yield curve.

rates or prices. A bank with a large or complex options portfolio must measure the volatility of options positions by different maturities.

(4) The VAR measures may incorporate empirical correlations within and across risk categories, provided that the bank's process for measuring correlations is sound. In the event that the VAR measures do not incorporate empirical correlations across risk categories, then the bank must add the separate VAR measures for the four major risk categories to determine its aggregate VAR measure.

(e) *Backtesting*. (1) Beginning one year after a bank starts to comply with this appendix, a bank must conduct backtesting by comparing each of its most recent 250 business days' actual net trading profit or loss [13] with the corresponding daily VAR measures generated for internal risk measurement purposes and calibrated to a one-day holding period and a 99 percent, one-tailed confidence level.

(2) Once each quarter, the bank must identify the number of exceptions, that is, the number of business days for which the magnitude of the actual daily net trading loss, if any, exceeds the corresponding daily VAR measure.

(3) A bank must use the multiplication factor indicated in Table 1 of this appendix in determining its capital charge for market risk under section 3(a)(2)(i)(B) of this appendix until it obtains the next quarter's backtesting results, unless the OCC determines that a different adjustment or other action is appropriate.

TABLE 1—MULTIPLICATION FACTOR BASED ON RESULTS OF BACKTESTING

Number of exceptions	Multiplication factor
4 or fewer	3.00
5	3.40
6	3.50
7	3.65
8	3.75
9	3.85
10 or more	4.00

Section 5. Specific Risk

(a) *Specific risk surcharge*. For purposes of section 3(a)(2)(ii) of this appendix, a bank shall calculate its specific risk surcharge as follows:

(1) *Internal models that incorporate specific risk*. (i) *No specific risk surcharge required for qualifying internal models*. A bank that incorporates specific risk in its internal model has no specific risk surcharge for purposes of section 3(a)(2)(ii) of this appendix if the bank demonstrates to the OCC that its internal model adequately measures all aspects of specific risk, including default and event risk, of covered debt and equity positions. In evaluating a bank's internal model the OCC will take into account the extent to which the internal model:

(A) Explains the historical price variation in the trading portfolio; and

(B) Captures concentrations.

(ii) *Specific risk surcharge for modeled specific risk that fails to adequately measure default or event risk*. A bank that incorporates specific risk in its internal model but fails to demonstrate that its internal model adequately measures all aspects of specific risk, including default and event risk, as provided by this section 5(a)(1), must calculate its specific risk surcharge in accordance with one of the following methods:

(A) If the bank's internal model separates the VAR measure into a specific risk portion and a general market risk portion, then the specific risk surcharge equals the previous day's specific risk portion.

(B) If the bank's internal model does not separate the VAR measure into a specific risk portion and a general market risk portion, then the specific risk surcharge equals the sum of the previous day's VAR measure for subportfolios of covered debt and equity positions.

(2) *Specific risk surcharge for specific risk not modeled*. If a bank does not model specific risk in accordance with section 5(a)(1) of this appendix, then the bank shall calculate its specific risk surcharge using the standard specific risk capital charge in accordance with section 5(c) of this appendix.

(b) *Covered debt and equity positions*. If a model includes the specific risk of covered debt positions but not covered equity positions (or vice versa), then the bank may reduce its specific risk charge for the included positions under section 5(a)(1)(ii) of this appendix. The specific risk charge for the positions not included equals the standard specific risk capital charge under paragraph (c) of this section.

(c) *Standard specific risk capital charge*. The standard specific risk capital charge equals the sum of the components for covered debt and equity positions as follows:

(1) Covered debt positions. (i) For purposes of this section 5, covered debt positions means fixed-rate or floating-rate debt instruments located in the trading account and instruments located in the trading account with values that react primarily to changes in interest rates, including certain non-convertible preferred stock, convertible bonds, and instruments subject to repurchase and lending agreements. Also included are derivatives (including written and purchased

[13] Actual net trading profits and losses typically include such things as realized and unrealized gains and losses on portfolio positions as well as fee income and commissions associated with trading activities.

options) for which the underlying instrument is a covered debt instrument that is subject to a non-zero specific risk capital charge.

(A) For covered debt positions that are derivatives, a bank must risk-weight (as described in paragraph (c)(1)(iii) of this section) the market value of the effective notional amount of the underlying debt instrument or index portfolio. Swaps must be included as the notional position in the underlying debt instrument or index portfolio, with a receiving side treated as a long position and a paying side treated as a short position; and

(B) For covered debt positions that are options, whether long or short, a bank must risk-weight (as described in paragraph (c)(1)(iii) of this section) the market value of the effective notional amount of the underlying debt instrument or index multiplied by the option's delta.

(ii) A bank may net long and short covered debt positions (including derivatives) in identical debt issues or indices.

(iii) A bank must multiply the absolute value of the current market value of each net long or short covered debt position by the appropriate specific risk weighting factor indicated in Table 2 of this appendix. The specific risk capital charge component for covered debt positions is the sum of the weighted values.

TABLE 2—SPECIFIC RISK WEIGHTING FACTORS FOR COVERED DEBT POSITIONS

Category	Remaining maturity (contractual)	Weighting factor (in percent)
Government [1]	N/A	0.00
Qualifying [2]	6 months or less	0.25
	Over 6 months to 24 months.	1.00
	Over 24 months	1.60
Other [3]	N/A	8.00

[1] The "government" category includes all debt instruments of central governments of OECD countries (as defined in appendix A of this part) including bonds, Treasury bills, and other short-term instruments, as well as local currency instruments of non-OECD central governments to the extent the bank has liabilities booked in that currency.

[2] The "qualifying" category includes debt instruments of U.S. government-sponsored agencies (as defined in appendix A of this part), general obligation debt instruments issued by states and other political subdivisions of OECD countries, multilateral development banks (as defined in appendix A of this part), and debt instruments issued by U.S. depository institutions or OECD-banks (as defined in appendix A of this part) that do not qualify as capital of the issuing institution. This category also includes other debt instruments, including corporate debt and revenue instruments issued by states and other political subdivisions of OECD countries, that are: (1) Rated investment grade by at least two nationally recognized credit rating services; (2) rated investment grade by one nationally recognized credit rating agency and not rated less than investment grade by any other credit rating agency; or (3) unrated, but deemed to be of comparable investment quality by the reporting bank and the issuer has instruments listed on a recognized stock exchange, subject to review by the OCC.

[3] The "other" category includes debt instruments that are not included in the government or qualifying categories.

(2) *Covered equity positions.* (i) For purposes of this section 5, covered equity positions means equity instruments located in the trading account and instruments located in the trading account with values that react primarily to changes in equity prices, including voting or non-voting common stock, certain convertible bonds, and commitments to buy or sell equity instruments. Also included are derivatives (including written and purchased options) for which the underlying is a covered equity position.

(A) For covered equity positions that are derivatives, a bank must risk weight (as described in paragraph (c)(2)(iii) of this section) the market value of the effective notional amount of the underlying equity instrument or equity portfolio. Swaps must be included as the notional position in the underlying equity instrument or index portfolio, with a receiving side treated as a long position and a paying side treated as a short position; and

(B) For covered equity positions that are options, whether long or short, a bank must risk weight (as described in paragraph (c)(2)(iii) of this section) the market value of the effective notional amount of the underlying equity instrument or index multiplied by the option's delta.

(ii) A bank may net long and short covered equity positions (including derivatives) in identical equity issues or equity indices in the same market.[14]

(iii)(A) A bank must multiply the absolute value of the current market value of each net long or short covered equity position by a risk weighting factor of 8.0 percent, or by 4.0 percent if the equity is held in a portfolio that is both liquid and well-diversified.[15] For covered equity positions that are index contracts comprising a well-diversified portfolio of equity instruments, the net long or short position is multiplied by a risk weighting factor of 2.0 percent.

[14] A bank may also net positions in depository receipts against an opposite position in the underlying equity or identical equity in different markets, provided that the bank includes the costs of conversion.

[15] A portfolio is liquid and well-diversified if: (1) It is characterized by a limited sensitivity to price changes of any single equity issue or closely related group of equity issues held in the portfolio; (2) the volatility of the portfolio's value is not dominated by the volatility of any individual equity issue or by equity issues from any single industry or economic sector; (3) it contains a large number of individual equity positions, with no single position representing a substantial portion of the portfolio's total market value; and (4) it consists mainly of issues traded on organized exchanges or in well-established over-the-counter markets.

(B) For covered equity positions from the following futures-related arbitrage strategies, a bank may apply a 2.0 percent risk weighting factor to one side (long or short) of each position with the opposite side exempt from charge:

(*1*) Long and short positions in exactly the same index at different dates or in different market centers; or

(*2*) Long and short positions in index contracts at the same date in different but similar indices.

(C) For futures contracts on broadly-based indices that are matched by offsetting positions in a basket of stocks comprising the index, a bank may apply a 2.0 percent risk weighting factor to the futures and stock basket positions (long and short), provided that such trades are deliberately entered into and separately controlled, and that the basket of stocks comprises at least 90 percent of the capitalization of the index.

(iv) The specific risk capital charge component for covered equity positions is the sum of the weighted values.

Section 6. Reservation of Authority

The OCC reserves the authority to modify the application of any of the provisions in this appendix to any bank, upon reasonable justification.

[61 FR 47367, Sept. 6, 1996, as amended at 62 FR 68067, Dec. 30, 1997; 65 FR 75858, Dec. 5, 2000; 69 FR 44916, July 28, 2004; 71 FR 8936, Feb. 22, 2006]

APPENDIX C TO PART 3—CAPITAL ADEQUACY GUIDELINES FOR [BANKS]: INTERNAL-RATINGS-BASED AND ADVANCED MEASUREMENT APPROACHES

EFFECTIVE DATE NOTES: 1. At 72 FR 69429, Dec. 7, 2007, Part 3 was amended by adding Appendix C, effective Apr. 1, 2008. For the convenience of the user, the added text is set forth as follows:

APPENDIX C TO PART 3—CAPITAL ADEQUACY GUIDELINES FOR [BANKS]: INTERNAL-RATINGS-BASED AND ADVANCED MEASUREMENT APPROACHES

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 [banks] using [bank]-specific internal risk measurement and management processes for calculating risk-based capital requirements;

(2) Methodologies for such [banks] to calculate their risk-based capital requirements; and

(3) Public disclosure requirements for such [banks].

(b) *Applicability.* (1) This appendix applies to a [bank] that:

(i) Has consolidated total assets, as reported on the most recent year-end Consolidated Report of Condition and Income (Call Report) or Thrift Financial Report (TFR), 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 567, 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 [bank] may elect to use this appendix to calculate its risk-based capital requirements.

(3) A [bank] that is subject to this appendix must use this appendix unless the [AGENCY] determines in writing that application of this appendix is not appropriate in light of the [bank]'s asset size, level of complexity, risk profile, or scope of operations. In making a determination under this paragraph, the [AGENCY] will apply notice and response procedures in the same manner and to the same extent as the notice and response procedures in 12 CFR 3.12 (for national banks), 12 CFR 263.202 (for bank holding companies and state member banks), 12 CFR 325.6(c) (for state nonmember banks), and 12 CFR 567.3(d) (for savings associations).

(c) *Reservation of authority*—(1) *Additional capital in the aggregate.* The [AGENCY] may require a [bank] to hold an amount of capital greater than otherwise required under this appendix if the [AGENCY] determines that the [bank]'s risk-based capital requirement under this appendix is not commensurate with the [bank]'s credit, market, operational, or other risks. In making a determination under this paragraph, the [AGENCY] will apply notice and response procedures in the same manner and to the same extent as the notice and response procedures in 12 CFR 3.12 (for national banks), 12 CFR 263.202 (for bank holding companies and state member banks), 12 CFR 325.6(c) (for state nonmember banks), and 12 CFR 567.3(d) (for savings associations).

(2) *Specific risk-weighted asset amounts.* (i) If the [AGENCY] determines that the risk-weighted asset amount calculated under this appendix by the [bank] for one or more exposures is not commensurate with the risks associated with those exposures, the [AGENCY] may require the [bank] 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 [AGENCY].

(ii) If the [AGENCY] determines that the risk-weighted asset amount for operational risk produced by the [bank] under this appendix is not commensurate with the operational risks of the [bank], the [AGENCY] may require the [bank] 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 [bank]'s operational risk management processes, data and assessment systems, or quantification systems, all as specified by the [AGENCY].

(3) *Other supervisory authority.* Nothing in this appendix limits the authority of the [AGENCY] 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 [bank] may choose not to apply a provision of this appendix to one or more exposures, provided that:

(1) The [bank] can demonstrate on an ongoing basis to the satisfaction of the [AGENCY] 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 [bank] appropriately manages the risk of each such exposure;

(3) The [bank] notifies the [AGENCY] in writing prior to applying this principle to each such exposure; and

(4) The exposures to which the [bank] applies this principle are not, in the aggregate, material to the [bank].

Section 2. Definitions

Advanced internal ratings-based (IRB) systems means a [bank]'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 [bank]'s advanced IRB systems, operational risk management processes, operational risk data and assessment systems, operational risk quantification systems, and, to the extent the [bank] 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 [bank] 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 [bank]'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 [bank]'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 [bank]'s operational risk profile that reflect a current and forward-looking assessment of the [bank]'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 [bank], determined in accordance with GAAP.

Clean-up call means a contractual provision that permits an originating [bank] 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 [bank] 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 [bank]'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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] may elect to use the definition of default that is used in that jurisdiction, provided that the [bank] has obtained prior approval from the [AGENCY] to use the definition of default in that jurisdiction.

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

(2) *Wholesale.* (i) A [bank]'s wholesale obligor is in default if:

(A) The [bank] determines that the obligor is unlikely to pay its credit obligations to the [bank] in full, without recourse by the [bank] 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 [bank].[1]

(ii) An obligor in default remains in default until the [bank] has reasonable assurance of repayment and performance for all contractual principal and interest payments on all exposures of the [bank] 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 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

[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.

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 [bank] (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 [bank], 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 [bank]) in the exposure's national jurisdiction (or subdivision of such jurisdiction selected by the [bank]) 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 [bank] 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 [bank] 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 [bank] 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, n^{th}-to-default swap, total return swap, or any other form of credit derivative approved by the [AGENCY], 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 n^{th}-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 n^{th}-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 [bank] records net payments received on the swap as net income, the [bank] 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 allocated transfer risk reserves established pursuant to 12 U.S.C. 3904 and other specific reserves created against recognized losses.

Eligible double default guarantor, with respect to a guarantee or credit derivative obtained by a [bank], 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank], unless the affiliate is an insured depository institution, bank, securities broker or dealer, or insurance company that:

(i) Does not control the [bank]; 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 [bank] 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 [bank] 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.

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 [bank] 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 [bank] 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 [bank] 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 [bank] under GAAP;

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

[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).

(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 part 3, Appendix A, section 3(a)(3)(iii) (for national banks), 12 CFR part 208, Appendix A, section III.C.3. (for state member banks), 12 CFR part 225, Appendix A, section III.C.3. (for bank holding companies), 12 CFR part 325, Appendix A, section II.C.a. (for state nonmember banks), or 12 CFR 567.1 (definition of ''qualifying residential construction loan'') and 12 CFR 567.6(a)(1)(iv) (for savings associations).

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 [bank]'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 [bank] 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 [bank]'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 [bank] 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 [bank]'s carrying value (including net accrued but unpaid interest and fees) for the exposure or segment less any allocated transfer risk reserve 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 [bank]'s carrying value (including net accrued but unpaid interest and fees) for the exposure or segment less any allocated transfer risk reserve 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 [bank] 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 [bank]'s

best estimate of net additions to the outstanding amount owed the [bank], 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 [bank] 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 [bank] 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 [bank] 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 [bank], gross operational loss amounts, dates, recoveries, and relevant causal information for operational loss events occurring at organizations other than the [bank].

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 [bank] (including cash held for the [bank] 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 [bank] 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, Schedule HC of the FR Y–9C Report, or Schedule SC of the Thrift Financial Report) of a [bank] that results from a securitization (other than an increase in equity capital that results from the [bank]'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 [AGENCY]'s real estate lending standards at 12 CFR part

34, Subpart D (OCC); 12 CFR part 208, Appendix C (Board); 12 CFR part 365, Subpart D (FDIC); and 12 CFR 560.100–560.101 (OTS);

(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 [bank] 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 [bank] that provided the ADC facility as long as the permanent financing is subject to the [bank]'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 [bank], gross operational loss amounts, dates, recoveries, and relevant causal information for operational loss events occurring at the [bank].

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

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

(iii) The [bank]'s empirically based best estimate of the economic loss, per dollar of EAD, the [bank] would expect to incur if the obligor (or a typical obligor in the loss severity grade assigned by the [bank] 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 [bank]'s empirically based best estimate of the long-run default-weighted average economic loss, per dollar of EAD, the [bank] 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 [bank]'s empirically based best estimate of the economic loss, per dollar of EAD, the [bank] 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 draw-downs 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 [bank] can demonstrate to the satisfaction of the

[AGENCY] 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 [AGENCY] 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.

N^{th}-to-default credit derivative means a credit derivative that provides credit protection only for the n^{th}-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 [bank] 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 [bank], 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 99.9^{th} percentile of the distribution of potential aggregate operational losses, as generated by the [bank]'s operational risk quantification system over a one-year horizon (and not incorporating eligible operational risk offsets or qualifying operational risk mitigants).

Originating [bank], with respect to a securitization, means a [bank] 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 [bank]'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 [bank]'s empirically based best estimate of the long-run average one-year default rate for the rating grade assigned by the [bank] 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 [bank]'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 [bank]'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 [bank] demonstrates to the satisfaction of the [AGENCY] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank]; and

(*2*) Executed under an agreement that provides the [bank] 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 [bank] 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 [bank]'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 [bank] 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 [the general risk-based capital rules], as modified in part II of this appendix.

Tier 2 capital is defined in [the general risk-based capital rules], 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 [the general risk-based capital rules] (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 qualifies as a community development investment under 12 U.S.C. 24(Eleventh).

(8) The [AGENCY] 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 [AGENCY] 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 [bank]'s operational risk exposure and the [bank]'s expected operational loss.

Unit of measure means the level (for example, organizational unit or operational loss event type) at which the [bank]'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 [bank] on behalf of a company;

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

(3) An exposure that a [bank] treats as a covered position under [the market risk rule] for which there is a counterparty credit risk capital requirement;

(4) A sale of corporate loans by a [bank] to a third party in which the [bank] retains full recourse;

(5) An OTC derivative contract entered into by a [bank] with a company;

(6) An exposure to an individual that is not managed by a [bank] 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 [bank] 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 [bank] must hold capital commensurate with the level and nature of all risks to which the [bank] is exposed.

(c) When a [bank] subject to [the market risk rule] calculates its risk-based capital requirements under this appendix, the [bank] must also refer to [the 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 [bank] that uses this appendix must make the same deductions from its tier 1 capital and tier 2 capital required in [the general risk-based capital rules], except that:

(1) A [bank] is not required to deduct certain equity investments and CEIOs (as provided in section 12 of this appendix); and

(2) A [bank] also must make the deductions from capital required by paragraphs (b) and (c) of this section.

(b) *Deductions from tier 1 capital.* A [bank] 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 [bank] 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 [bank]'s actual tier 2 capital, however, the [bank] 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 [bank]'s exposure on certain failed capital markets transactions.

Section 12. Deductions and Limitations Not Required

(a) *Deduction of CEIOs.* A [bank] is not required to make the deductions from capital for CEIOs in 12 CFR part 3, Appendix A, section 2(c) (for national banks), 12 CFR part 208, Appendix A, section II.B.1.e. (for state member banks), 12 CFR part 225, Appendix A, section II.B.1.e. (for bank holding companies), 12 CFR part 325, Appendix A, section II.B.5. (for state nonmember banks), and 12 CFR 567.5(a)(2)(iii) and 567.12(e) (for savings associations).

(b) *Deduction of certain equity investments.* A [bank] is not required to make the deductions from capital for nonfinancial equity investments in 12 CFR part 3, Appendix A, section 2(c) (for national banks), 12 CFR part 208, Appendix A, section II.B.5. (for state member banks), 12 CFR part 225, Appendix A, section II.B.5. (for bank holding companies), and 12 CFR part 325, Appendix A, section II.B. (for state nonmember banks).

Section 13. Eligible Credit Reserves

(a) *Comparison of eligible credit reserves to expected credit losses*—(1) *Shortfall of eligible credit reserves.* If a [bank]'s eligible credit reserves are less than the [bank]'s total expected credit losses, the [bank] 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 [bank]'s actual tier 2 capital, the [bank] must deduct the excess amount from tier 1 capital.

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

(b) *Treatment of allowance for loan and lease losses.* Regardless of any provision in [the general risk-based capital rules], 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 [bank] 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 [bank] 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 [bank] meets at least one criterion under paragraph (b)(1) of section 1 of this appendix. The [AGENCY] may extend the first floor period start date.

(2) A [bank] 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 [bank]'s implementation plan must address in detail how the [bank] complies, or plans to comply, with the qualification requirements in section 22 of this appendix. The [bank] 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 [bank] and each consolidated subsidiary (U.S. and foreign-based) of the [bank] with respect to all portfolios and exposures of the [bank] 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 [bank]);

(iii) Include the [bank]'s self-assessment of:

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

(B) The consistency of the [bank]'s current practices with the [AGENCY]'s supervisory guidance on the qualification requirements;

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

(v) Describe what specific actions the [bank] 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 [bank]'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 [bank]'s board of directors.

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

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

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

(1) The [bank] fully complies with all the qualification requirements in section 22 of this appendix;

(2) The [bank] has conducted a satisfactory parallel run under paragraph (c) of this section; and

(3) The [bank] 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 [bank] 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 [bank]'s transitional floor periods, the [bank]'s tier 1 risk-based capital ratio is equal to the lower of:

(A) The [bank]'s floor-adjusted tier 1 risk-based capital ratio; or

(B) The [bank]'s advanced approaches tier 1 risk-based capital ratio.

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

(A) The [bank]'s floor-adjusted total risk-based capital ratio; or

(B) The [bank]'s advanced approaches total risk-based capital ratio.

(2) *Floor-adjusted risk-based capital ratios.* (i) A [bank]'s floor-adjusted tier 1 risk-based capital ratio during a transitional floor period is equal to the [bank]'s tier 1 capital as calculated under [the general risk-based capital rules], divided by the product of:

(A) The [bank]'s total risk-weighted assets as calculated under [the general risk-based capital rules]; and

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

(ii) A [bank]'s floor-adjusted total risk-based capital ratio during a transitional floor period is equal to the sum of the [bank]'s tier 1 and tier 2 capital as calculated under [the general risk-based capital rules], divided by the product of:

(A) The [bank]'s total risk-weighted assets as calculated under [the general risk-based capital rules]; and

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

(iii) A [bank] that meets the criteria in paragraph (b)(1) or (b)(2) of section 1 of this appendix as of April 1, 2008, must use [the general risk-based capital rules] 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 percent.
Second floor period	90 percent.
Third floor period	85 percent.

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

(ii) A [bank]'s advanced approaches total risk-based capital ratio equals the [bank]'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 [bank] must report to the [AGENCY] 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 [bank] may not exit a transitional floor period until the [bank] has spent a minimum of four consecutive calendar quarters in the period and the [AGENCY] has determined that the [bank] may exit the floor period. The [AGENCY]'s determination will be based on an assessment of the [bank]'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 [bank] 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 [bank] for risk-based capital purposes under this appendix must be consistent with the [bank]'s internal risk management processes and management information reporting systems.

(3) Each [bank] must have an appropriate infrastructure with risk measurement and management processes that meet the qualification requirements of this section and are appropriate given the [bank]'s size and level of complexity. Regardless of whether the systems and models that generate the risk parameters necessary for calculating a [bank]'s risk-based capital requirements are located at any affiliate of the [bank], the [bank] 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 [bank] must have an internal risk rating and segmentation system that accurately and reliably differentiates among degrees of credit risk for the [bank]'s wholesale and retail exposures.

(2) For wholesale exposures:

(i) A [bank] 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 [bank] may elect, however, not to assign to a rating grade an obligor to whom the [bank] extends credit based solely on the financial strength of a guarantor, provided that all of the [bank]'s exposures to the obligor are fully covered by eligible guarantees, the [bank] applies the PD substitution approach in paragraph (c)(1) of section 33 of this appendix to all exposures to that obligor, and the [bank] immediately assigns the obligor to a rating grade if a guarantee can no longer be recognized under this appendix. The [bank]'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 [bank] has chosen to directly assign LGD estimates to each wholesale exposure, the [bank] must have an internal risk rating system that accurately and reliably assigns each wholesale exposure to a loss severity rating grade (reflecting the [bank]'s estimate of the LGD of the exposure). A [bank] 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 [bank] 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 [bank]'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 [bank]'s internal risk rating policy for wholesale exposures must describe the [bank]'s rating philosophy (that is, must describe how wholesale obligor rating assignments are affected by the [bank]'s choice of the range of economic, business, and industry conditions that are considered in the obligor rating process).

(5) The [bank]'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 [bank] receives new material information, but no less frequently than annually. The [bank]'s retail exposure segmentation system must provide for the review and update (as appropriate) of assignments of retail exposures to segments whenever the [bank] receives new material information, but generally no less frequently than quarterly.

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

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

(3) The [bank]'s risk parameter quantification process must produce appropriately conservative risk parameter estimates where the [bank] 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 [bank]'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 [bank]'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 [bank] 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 [bank] must adjust its estimates of risk parameters to compensate for the lack of data from periods of economic downturn conditions.

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

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

(10) The [bank] must at least annually conduct a comprehensive review and analysis of reference data to determine relevance of reference data to the [bank]'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 [bank] must obtain the prior written approval of the [AGENCY] under section 32 of this appendix to use the internal models methodology for counterparty credit risk.

(e) *Double default treatment.* A [bank] must obtain the prior written approval of the [AGENCY] under section 34 of this appendix to use the double default treatment.

(f) *Securitization exposures.* A [bank] must obtain the prior written approval of the [AGENCY] under section 44 of this appendix to use the Internal Assessment Approach for securitization exposures to ABCP programs.

(g) *Equity exposures model.* A [bank] must obtain the prior written approval of the [AGENCY] under section 53 of this appendix to use the Internal Models Approach for equity exposures.

(h) *Operational risk*—(1) *Operational risk management processes.* A [bank] 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 [bank]'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 [bank]'s operational risk profile) to identify, measure, monitor, and control operational risk in [bank] 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 [bank] must have operational risk data and assessment systems that capture operational risks to which the [bank] is exposed. The [bank]'s operational risk data and assessment systems must:

(i) Be structured in a manner consistent with the [bank]'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 [bank] must have a systematic process for capturing and using internal operational loss event data in its operational risk data and assessment systems.

(*1*) The [bank]'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 [AGENCY] to address transitional situations, such as integrating a new business line).

(*2*) The [bank] must be able to map its internal operational loss event data into the seven operational loss event type categories.

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

(B) *External operational loss event data.* The [bank] 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 [bank] 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 [bank] must incorporate business environment and internal control factors into its operational risk data and assessment systems. The [bank] 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 [bank]'s operational risk quantification systems:

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

(B) Must employ a unit of measure that is appropriate for the [bank]'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 [bank] 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 [bank] can demonstrate to the satisfaction of the [AGENCY] 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 [bank] 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 [bank] becomes aware of information that may have a material effect on the [bank]'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 [AGENCY], a [bank] 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 [bank] proposing to use such an alternative operational risk quantification system must submit a proposal to the [AGENCY]. In determining whether to approve a [bank]'s proposal to use an alternative operational risk quantification system, the [AGENCY] 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 [bank];

(B) The [bank] 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 [bank] 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 [bank] 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 [bank] must retain data using an electronic format that allows timely retrieval of data for analysis, validation, reporting, and disclosure purposes.

(3) A [bank] 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 [bank]'s senior management must ensure that all components of the [bank]'s advanced systems function effectively and comply with the qualification requirements in this section.

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

(3) A [bank] 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 [bank]'s advanced systems; and

(iii) Includes adequate governance and project management processes.

(4) The [bank] must validate, on an ongoing basis, its advanced systems. The [bank]'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 [bank] must have an internal audit function independent of business-line management that at least annually assesses the effectiveness of the controls supporting the [bank]'s advanced systems and reports its findings to the [bank]'s board of directors (or a committee thereof).

(6) The [bank] 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 [bank] must adequately document all material aspects of its advanced systems.

Section 23. Ongoing Qualification

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

(b) *Failure to comply with qualification requirements.* (1) If the [AGENCY] determines that a [bank] 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 [AGENCY] will notify the [bank] in writing of the [bank]'s failure to comply.

(2) The [bank] must establish and submit a plan satisfactory to the [AGENCY] to return to compliance with the qualification requirements.

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

(i) Under [the general risk-based capital rules]; or

(ii) Under this appendix with any modifications provided by the [AGENCY].

Section 24. Merger and Acquisition Transitional Arrangements

(a) *Mergers and acquisitions of companies without advanced systems.* If a [bank] merges with or acquires a company that does not calculate its risk-based capital requirements using advanced systems, the [bank] may use [the general risk-based capital rules] 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 [AGENCY] may extend this transition period for up to an additional 12 months. Within 90 days of consummating the merger or acquisition, the [bank] must submit to the [AGENCY] an implementation plan for using its advanced systems for the acquired company. During the period when [the general risk-based capital rules] apply to the merged or acquired company, any ALLL, net of allocated transfer risk reserves established pursuant to 12 U.S.C. 3904, associated with the merged or acquired company's exposures may be included in the acquiring [bank]'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 [bank]'s eligible credit reserves. In addition, the risk-weighted assets of the merged or acquired company are not included in the [bank]'s credit-risk-weighted assets but are included in total risk-weighted assets. If a [bank] relies on this paragraph, the [bank] must disclose publicly the amounts of risk-weighted assets and qualifying capital calculated under this appendix for the acquiring [bank] and under [the general risk-based capital rules] for the acquired company.

(b) *Mergers and acquisitions of companies with advanced systems*—(1) If a [bank] merges with or acquires a company that calculates its risk-based capital requirements using advanced systems, the [bank] 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 [AGENCY] may extend this transition period for up to an additional 12 months. Within 90 days of consummating the merger or acquisition, the [bank] must submit to the [AGENCY] an implementation plan for using its advanced systems for the merged or acquired company.

(2) If the acquiring [bank] is not subject to the advanced approaches in this appendix at the time of acquisition or merger, during the period when [the general risk-based capital rules] apply to the acquiring [bank], 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 [bank]'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 [bank] 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 [bank] must determine which of its exposures are wholesale exposures, retail exposures, securitization exposures, or equity exposures. The [bank] must categorize each retail exposure as a residential mortgage exposure, a QRE, or an other retail exposure. The [bank] 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 [bank] 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 [bank] 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 [bank] must identify which of its wholesale obligors are in default.

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

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

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

(3) *Eligible purchased wholesale exposures.* A [bank] may group its eligible purchased wholesale exposures into segments that have homogeneous risk characteristics. A [bank] 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 [bank] 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 [bank] 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 [bank] must assign a PD, LGD, EAD, and M to each segment of eligible purchased wholesale exposures. If the [bank] can estimate ECL (but not PD or LGD) for a segment of eligible purchased wholesale exposures, the [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] must calculate its EAD for an OTC derivative contract as provided in paragraphs (c) and (d) of section 32 of this appendix. A [bank] 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 [bank]'s VaR-based measure under [the market risk rule] through an adjustment to EAD as provided in paragraphs (b) and (d) of section 32 of this appendix. A [bank] 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 [bank] 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 [bank]'s ongoing financing of the obligor. An exposure is not part of a [bank]'s ongoing financing of the obligor if the [bank]:

(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 [bank] 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 [bank] 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 [bank] may apply a 300 percent risk weight to the EAD of an eligible margin loan if the [bank] 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**	$K = \left[LGD \times N\left(\frac{N^{-1}(PD) + \sqrt{R} \times N^{-1}(0.999)}{\sqrt{1-R}} \right) - \left(LGD \times PD\right) \right]$
	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**	$K = \left[LGD \times N\left(\frac{N^{-1}(PD) + \sqrt{R} \times N^{-1}(0.999)}{\sqrt{1-R}} \right) - \left(LGD \times PD\right) \right] \times \left(\frac{1 + (M - 2.5) \times b}{1 - 1.5 \times b} \right)$
	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)	$b = \left(0.11852 - 0.05478 \times \ln(PD)\right)^2$

[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 [bank] may assign a risk-weighted asset amount of zero to cash owned and held in all offices of the [bank] or in transit and for gold bullion held in the [bank]'s own vaults, or held in another [bank]'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 [bank] has demonstrated to the [AGENCY]'s satisfaction that the portfolio (when combined with all other portfolios of exposures that the [bank] seeks to treat under this paragraph) is not material to the [bank] 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 [bank] 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 [bank]'s VaR-based measure under [the 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 [bank] also may use the internal models methodology to estimate EAD for qualifying cross-product master netting agreements.

(3) A [bank] 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 [bank]'s VaR-based measure under [the market risk rule]), eligible margin loans, and OTC derivative contracts.

(4) A [bank] 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 [bank] 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 [bank] may estimate an unsecured LGD for the exposure, as well as for any repo-style transaction that is included in the [bank]'s VaR-based measure under [the 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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	
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 [bank] (including a certificate of deposit issued by the [bank])		0	

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

(*2*) For currency mismatches, a [bank] 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 [bank] 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 [bank] 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 [AGENCY], a [bank] may calculate haircuts (Hs and Hfx) using its own internal estimates of the volatilities of market prices and foreign exchange rates.

(A) To receive [AGENCY] approval to use its own internal estimates, a [bank] must satisfy the following minimum quantitative standards:

(*1*) A [bank] 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 [bank] 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 [bank] to derive H_N; and

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

(*3*) A [bank] 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 [bank] 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 [bank] may calculate haircuts for categories of securities. For a category of securities, the [bank] 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 [bank] has lent, sold subject to repurchase, posted as collateral, borrowed, purchased subject to resale, or taken as collateral. In determining relevant categories, the [bank] 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 [bank] 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 [bank] 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 [bank]'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 [AGENCY], a [bank] 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 [bank] must set EAD equal to max {0, [(ΣE—ΣC) + PFE]}, where:

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

(c) *EAD for OTC derivative contracts*. (1) A [bank] 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 [bank] 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 [bank] 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 [the market risk rule] need not compute a separate counterparty credit risk capital requirement under this section so long as the [bank] 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 [bank] 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 [bank] is treating the credit derivative as a covered position under [the market risk rule], in which case the [bank] must compute a supplemental counterparty credit risk capital requirement under this section).

(4) *Counterparty credit risk for equity derivatives.* A [bank] 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 [bank] is treating the contract as a covered position under [the market risk rule]). In addition, if the [bank] is treating the contract as a covered position under [the market risk rule] and in certain other cases described in section 55 of this appendix, the [bank] 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 [bank]'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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [AGENCY], a [bank] 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 [bank] 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 [bank] may choose to use the internal models methodology for one or two of these three types of exposures and not the other types. A [bank] 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 [bank] effectively integrates the risk mitigating effects of cross-product netting into its risk management and other information technology systems; and

(ii) The [bank] obtains the prior written approval of the [AGENCY]. A [bank] that uses the internal models methodology for a transaction type must receive approval from the [AGENCY] 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 [bank] uses an internal model to estimate the expected exposure (EE) for a netting set and then calculates EAD based on that EE.

(i) The [bank] 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 [AGENCY] approval as provided in paragraph (d)(7), a more conservative measure of EAD.

$$\text{(A) EffectiveEPE}_{t_k} = \sum_{k=1}^{n} \text{EffectiveEE}_{t_k} \times \Delta t_k$$

(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_{t_k} = max (Effective $EE_{t_{k-1}}$, EE_{t_k}) (that is, for a specific date$_{t_k}$, effective EE is the greater of EE at that date or the effective EE at the previous date); and

(*2*) $_{t_k}$ 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 [AGENCY] has determined that the [bank] must set α higher based on the [bank]'s specific characteristics of counterparty credit risk.

(iii) A [bank] 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 [bank] hedges some or all of the counterparty credit risk associated with a netting set using an eligible credit derivative, the [bank] may take the reduction in exposure to the counterparty into account when estimating EE. If the [bank] 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 [bank]'s exposure to the protection provider of the credit derivative.

(3) To obtain [AGENCY] approval to calculate the distributions of exposures upon which the EAD calculation is based, the [bank] must demonstrate to the satisfaction of the [AGENCY] that it has been using for at least one year an internal model that broadly meets the following minimum standards, with which the [bank] 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 [bank] 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 [bank] must be able to measure and manage current exposures gross and net of collateral held, where appropriate. The [bank] must estimate expected exposures for OTC derivative contracts both with and without the effect of collateral agreements.

(vi) The [bank] 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 [bank] should consider using model parameters based on forward-looking measures, where appropriate.

(viii) A [bank] 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 [bank] must set M for the exposure or netting set equal to the lower of five years or M(EPE),[3] where:

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

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

(C) $\Delta t_k = t_k - t_{k-1}$.

(ii) If the remaining maturity of the exposure or the longest-dated contract in the netting set is one year or less, the [bank] 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 [bank] 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 [bank] for a single financial contract or for all financial contracts in a

[3] Alternatively, a [bank] 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).

netting set and confers upon the [bank] 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 [bank] 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 [bank]'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 [AGENCY], a [bank] may include the effect of a collateral agreement within its internal model used to calculate EAD. The [bank] 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 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 [bank] 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 remargining 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 [AGENCY], a [bank] 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 [bank] must meet the following minimum standards to the satisfaction of the [AGENCY]:

(i) The [bank]'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 [bank] must assess the potential model uncertainty in its estimates of alpha.

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

(iv) The [bank] 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 [AGENCY], a [bank] 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 [bank] must demonstrate the conservatism of the measure of counterparty credit risk exposure used for EAD. For material portfolios of new OTC derivative products, the [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank]'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 [bank] 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 [bank] 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 [bank] 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 [bank] may only recognize the credit risk mitigation benefits of eligible guarantees and eligible credit derivatives.

(2) A [bank] 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 [bank] may recognize the guarantee or credit derivative in determining the [bank]'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 [bank] determines that full substitution of the protection provider's PD leads to an inappropriate degree of risk mitigation, the [bank] 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 [bank] 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 [bank] 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 [bank] determines that full substitution leads to an inappropriate degree of risk mitigation, the [bank] may use a higher PD than that of the protection provider.

(B) The [bank] 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 [bank] 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 [bank] 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 [bank]'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 [bank] 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 [bank]'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 [bank] 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 [bank] 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 [bank] (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 [bank] (protection purchaser), but the terms of the arrangement at origination of the credit risk mitigant contain a positive incentive for the [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] must adjust H_{FX} calculated in paragraph (f)(2) of this section upward if the [bank] 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 [bank] 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 [bank] 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 [bank] has implemented a process (which has received the prior, written approval of the [AGENCY]) to detect excessive correlation between the creditworthiness of the obligor of the hedged exposure and the protection provider. If excessive correlation is present, the [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] applies double default treatment, the [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [AGENCY] 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 [bank] must hold risk-based capital against any DvP or PvP transaction with a normal settlement period if the [bank]'s counterparty has not made delivery or payment within five business days after the settlement date. The [bank] must determine its risk-weighted asset amount for such a transaction by multiplying the positive current exposure of the transaction for the [bank] 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 [bank] must hold risk-based capital against any non-DvP/non-PvP transaction with a normal settlement period if the [bank] 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 [bank] must continue to hold risk-based capital against the transaction until the [bank] has received its corresponding deliverables.

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

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

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

(3) If the [bank] has not received its deliverables by the fifth business day after the counterparty delivery was due, the [bank] must deduct the current market value of the deliverables owed to the [bank] 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 [bank] 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 [bank] that meets these conditions must hold risk-based capital against any securitization exposures it retains in connection with the securitization. A [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] to alter or replace the underlying exposures to improve the credit quality of the pool of underlying exposures;

(iii) Increase the [bank]'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 [bank] 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 [bank] after the inception of the securitization;

(3) The [bank] 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 [bank] 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 [bank] 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 [bank] may either apply the Internal Assessment Approach in section 44 of this appendix to the exposure (if the [bank], 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 [bank] 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 [bank] 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 [AGENCY], a [bank] 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 [bank]'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 [bank] must deduct a securitization exposure from total capital, the [bank] 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 [bank]'s tier 2 capital, the [bank] must deduct the excess from tier 1 capital.

(2) A [bank] 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 [bank] 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 [bank]'s gain-on-sale or CEIOs associated with the securitization) may not exceed the sum of:

(1) The [bank]'s total risk-based capital requirement for the underlying exposures as if the [bank] 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 [bank]'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 [bank]'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 [bank] 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 [bank] has multiple securitization exposures that provide duplicative coverage of the underlying exposures of a securitization (such as when a [bank] provides a program-wide credit enhancement and multiple pool-specific liquidity facilities to an ABCP program), the [bank] is not required to hold duplicative risk-based capital against the overlapping position. Instead, the [bank] 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 [bank] has a securitization exposure where any underlying exposure is not a wholesale exposure, retail exposure, securitization exposure, or equity exposure, the [bank] must:

(1) If the [bank] is an originating [bank], 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 [bank], 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 [bank] provides support to a securitization in excess of the [bank]'s contractual obligation to provide credit support to the securitization (implicit support):

(1) The [bank] 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 [bank] must disclose publicly:

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

(ii) The regulatory capital impact to the [bank] of providing such implicit support.

(i) *Eligible servicer cash advance facilities.* Regardless of any other provisions of this part, a [bank] 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 [bank] 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 [bank] establishes and maintains, pursuant to GAAP, a non-capital reserve sufficient to meet the [bank]'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 [bank] is well capitalized, as defined in the [AGENCY]'s prompt corrective action regulation—12 CFR part 6 (for national banks), 12 CFR part 208, subpart D (for state member banks or bank holding companies), 12 CFR part 325, subpart B (for state nonmember banks), and 12 CFR part 565 (for savings associations). For purposes of determining whether a [bank] is well capitalized for purposes of this paragraph, the [bank]'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 [bank] on transfers of small-business obligations receiving the capital treatment specified in paragraph (k)(1) of this section cannot exceed 15 percent of the [bank]'s total qualifying capital.

(3) If a [bank] 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 [bank] was well capitalized and did not exceed the capital limit.

(4) The risk-based capital ratios of the [bank] 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 part 3, Appendix A (for national banks), 12 CFR part 208, Appendix A (for state member banks), 12 CFR part 225, Appendix A (for bank holding companies), 12 CFR part 325, Appendix A (for state non-member banks), and 12 CFR 567.6(b)(5)(v) (for savings associations).

(l) *Consolidated ABCP programs.* (1) A [bank] that qualifies as a primary beneficiary and must consolidate an ABCP program as a variable interest entity under GAAP may exclude the consolidated ABCP program assets from risk-weighted assets if the [bank] is the sponsor of the ABCP program. If a [bank] excludes such consolidated ABCP program assets from risk-weighted assets, the [bank] must hold risk-based capital against any securitization exposures of the [bank] to the ABCP program in accordance with this part.

(2) If a [bank] either is not permitted, or elects not, to exclude consolidated ABCP program assets from its risk-weighted assets, the [bank] must hold risk-based capital against the consolidated ABCP program assets in accordance with this appendix but is not required to hold risk-based capital against any securitization exposures of the [bank] to the ABCP program.

(m) *N^{th}-to-default credit derivatives*—(1) *First-to-default credit derivatives*—(i) *Protection purchaser.* A [bank] 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 [bank] 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 [bank] 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 [bank] that obtains credit protection on a group of underlying exposures through a n^{th}-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 [bank] 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 [bank] satisfies the requirements of paragraph (m)(2)(i)(A) of this section, the [bank] must determine its risk-based capital requirement for the underlying exposures as if the [bank] had only synthetically securitized the underlying exposure with the n^{th} lowest risk-based capital requirement and had obtained no credit risk mitigant on the other underlying exposures.

(ii) *Protection provider.* A [bank] that provides credit protection on a group of underlying exposures through a n^{th}-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 [bank].* An originating [bank] 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 [bank].* An investing [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] may assume that N is six or more unless the [bank] knows or has reason to know that N is less than six); and

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

(ii) A [bank] 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 [bank] 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 Risk weights for senior securitization exposures backed by granular pools	Column 2 Risk weights for non-senior securitization exposures backed by granular pools	Column 3 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 Risk weights for senior securitization exposures backed by granular pools	Column 2 Risk weights for non-senior securitization exposures backed by granular pools	Column 3 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 [bank] may apply the IAA to calculate the risk-weighted asset amount for a securitization exposure that the [bank] has to an ABCP program (such as a liquidity facility or credit enhancement) if the [bank], the ABCP program, and the exposure qualify for use of the IAA.

(1) *[Bank] qualification criteria.* A [bank] qualifies for use of the IAA if the [bank] has received the prior written approval of the [AGENCY]. To receive such approval, the

[bank] must demonstrate to the [AGENCY]'s satisfaction that the [bank]'s internal assessment process meets the following criteria:

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

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

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

(iv) The [bank]'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 [bank] 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 [bank] must evaluate whether to revise its internal assessment process.

(v) The [bank] 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 [bank] 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 [bank] must review and update each internal credit assessment whenever new material information is available, but no less frequently than annually.

(vii) The [bank] 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 [bank] 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 [bank] 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 [bank] must map its internal assessment of such a securitization exposure to an equivalent external rating from an NRSRO. Under the IAA, a [bank] 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 [bank] may use the SFA to determine its risk-based capital requirement for a securitization exposure only if the [bank] 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 [bank] 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:*

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

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

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

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

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

$$(6)\ c=\frac{K_{IRB}}{1-h}$$

$$(7)\ g=\frac{(1-c)\cdot c}{f}-1$$

$$(8)\ f=\frac{v+K_{IRB}{}^{2}}{1-h}-c^{2}+\frac{(1-K_{IRB})\cdot K_{IRB}-v}{(1-h)\cdot 1000}$$

$$(9)\ v=K_{IRB}\cdot\frac{(EWALGD-K_{IRB})+.25\cdot(1-EWALGD)}{N}$$

$$(10)\ d=1-(1-h)\cdot(1-\beta[K_{IRB};a,b]).$$

(11) 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}.

(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 [bank]'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 [bank]); 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 [bank]'s securitization exposure; to

(B) UE.

(ii) A [bank] 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 [bank]'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 [bank]'s securitization exposure; to

(ii) UE.

(6) *Effective number of exposures (N).* (i) Unless the [bank] elects to use the formula provided in paragraph (f) of this section,

$$N = \frac{\left(\sum_i EAD_i\right)^2}{\sum_i EAD_i^2}$$

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 [bank] 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 [bank] 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 [bank] may employ a simplified method for calculating N and EWALGD.

(3) If C_1 is no more than 0.03, a [bank] 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 [bank].

(4) Alternatively, if only C_1 is available and C_1 is no more than 0.03, the [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] may recognize financial collateral in determining the [bank]'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 [bank] has reflected collateral in its determination of exposure amount under section 32 of this appendix) as follows. The [bank]'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 [bank] qualifies for use of and uses own-estimates haircuts in paragraph (b)(4) of this section:

(i) A [bank] must use the collateral type haircuts (Hs) in Table 3;

(ii) A [bank] must use a currency mismatch haircut (Hfx) of 8 percent if the exposure and the collateral are denominated in different currencies;

(iii) A [bank] 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 [bank] 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 [AGENCY], a [bank] 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 [bank] may only recognize an eligible guarantee or eligible credit derivative provided by an eligible securitization guarantor in determining the [bank]'s risk-based capital requirement for a securitization exposure.

(2) *ECL for securitization exposures.* When a [bank] recognizes an eligible guarantee or eligible credit derivative provided by an eligible securitization guarantor in determining the [bank]'s risk-based capital requirement for a securitization exposure, the [bank] 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 [bank]'s total ECL.

(3) *Rules of recognition.* A [bank] may recognize an eligible guarantee or eligible credit derivative provided by an eligible securitization guarantor in determining the [bank]'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 [bank] 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 [bank]'s PD for the guarantor, the [bank]'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 [bank] 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 [bank]'s PD for the guarantor, the [bank]'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 [bank] 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 [bank] 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 [bank] must hold risk-based capital against the sum of the originating [bank]'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 [bank] must calculate the risk-based capital requirement for the originating [bank]'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 [bank]'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 [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] may calculate the appropriate conversion factor using paragraph (c)(1) of this section or may use a conversion factor of 10 percent. If the [bank] 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 [bank] 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 [bank] 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 [bank]'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 [bank]'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 [bank]'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 [bank]'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 [bank]'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 [bank]'s individual equity exposures to an investment fund as determined in section 54 of this appendix.

(b) *SRWA computation for individual equity exposures.* A [bank] 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) *Community development equity exposures.* An equity exposure that qualifies as a community development investment under 12 U.S.C. 24 (Eleventh), 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 [AGENCY]'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 [bank]'s tier 1 capital plus tier 2 capital.

(A) To compute the aggregate adjusted carrying value of a [bank]'s equity exposures for purposes of this paragraph (b)(3)(iii), the [bank] 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 [bank] does not know the actual holdings of the investment fund, the [bank] 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 [bank] 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 [bank]'s equity exposures qualify for a 100 percent risk weight under this paragraph, a [bank] 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 [AGENCY]'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 [bank] acquires at least one of the equity exposures); the documentation specifies the measure of effectiveness (E) the [bank] 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 [bank] 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 [bank] 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 [bank] 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 [bank] must receive prior written approval from the [AGENCY]. To receive such approval, the [bank] must demonstrate to the [AGENCY]'s satisfaction that the [bank] meets the following criteria:

(1) The [bank] 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 [bank]'s modeled equity exposures; and

(iii) Adequately capture both general market risk and idiosyncratic risk.

(2) The [bank]'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 [bank]'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 [bank]'s model and benchmarking exercise must be sufficient to provide confidence in the accuracy and robustness of the [bank]'s estimates.

(4) The [bank]'s model and benchmarking process must incorporate data that are relevant in representing the risk profile of the [bank]'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 [bank]'s modeled equity exposures. In addition, the [bank]'s benchmarking exercise must be based on daily market prices for the benchmark portfolio. If the [bank]'s model uses a scenario methodology, the [bank] must demonstrate that the model produces a conservative estimate of potential losses on the [bank]'s modeled equity exposures over a relevant long-term market cycle. If the [bank] employs risk factor models, the [bank] must demonstrate through empirical analysis the appropriateness of the risk factors used.

(5) The [bank] must be able to demonstrate, using theoretical arguments and empirical evidence, that any proxies used in the modeling process are comparable to the [bank]'s modeled equity exposures and that the [bank] has made appropriate adjustments for differences. The [bank] must derive any proxies for its modeled equity exposures and benchmark portfolio using historical market data that are relevant to the [bank]'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 [bank]'s modeled equity exposures.

(c) *Risk-weighted assets calculation for a [bank] modeling publicly traded and non-publicly traded equity exposures.* If a [bank] models publicly traded and non-publicly traded equity exposures, the [bank]'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 [bank]'s equity exposures (other than equity exposures referenced in paragraph (c)(1) of this section) generated by the [bank]'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 [bank]'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 [bank]'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 [bank] using the IMA only for publicly traded equity exposures.* If a [bank] models only publicly traded equity exposures, the [bank]'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 [bank]'s equity exposures (other than equity exposures referenced in paragraph (d)(1) of this section) generated by the [bank]'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 [bank]'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 [bank] 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 [bank] does not use the Full Look-Through Approach, the [bank] 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 [bank] 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 [bank]) may either:

(1) Set the risk-weighted asset amount of the [bank]'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 [bank]; and

(ii) The [bank]'s proportional ownership share of the fund; or

(2) Include the [bank]'s proportional ownership share of each exposure held by the fund in the [bank]'s IMA.

(c) *Simple Modified Look-Through Approach.* Under this approach, the risk-weighted asset amount for a [bank]'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	Exposure class
0 percent	Sovereign exposures with a long-term applicable external rating in the highest investment-grade rating category and sovereign exposures of the United States.
20 percent	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 percent	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 percent	Exposures with a long-term or short-term applicable external rating in the lowest investment-grade rating category.
200 percent	Exposures with a long-term applicable external rating one rating category below investment grade.
300 percent	Publicly traded equity exposures.
400 percent	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 percent	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 [bank] 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 [bank]'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 [bank] 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 [bank] must use the highest applicable risk weight. A [bank] 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 [bank]'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 [bank] 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 [bank] 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 [bank] 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 [bank] may adjust its estimate of operational risk exposure to reflect qualifying operational risk mitigants if:

(1) The [bank]'s operational risk quantification system is able to generate an estimate of the [bank]'s operational risk exposure (which does not incorporate qualifying

operational risk mitigants) and an estimate of the [bank]'s operational risk exposure adjusted to incorporate qualifying operational risk mitigants; and

(2) The [bank]'s methodology for incorporating the effects of insurance, if the [bank] 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 [AGENCY] has given prior written approval. In evaluating an operational risk mitigant other than insurance, the [AGENCY] 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 [bank] does not qualify to use or does not have qualifying operational risk mitigants, the [bank]'s dollar risk-based capital requirement for operational risk is its operational risk exposure minus eligible operational risk offsets (if any).

(b) If a [bank] qualifies to use operational risk mitigants and has qualifying operational risk mitigants, the [bank]'s dollar risk-based capital requirement for operational risk is the greater of:

(1) The [bank]'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 [bank]'s operational risk exposure; and

(ii) Eligible operational risk offsets (if any).

(c) The [bank]'s risk-weighted asset amount for operational risk equals the [bank]'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 [bank] 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]

[Disclosure paragraph (b)]

[Disclosure paragraph (c)]

* * * * *

2. At 72 FR 69429 and 69430, Dec. 7, 2007, Part 3 was amended by amending Appendix C, effective Apr. 1, 2008. For the convenience of the user, the revised text is set forth as follows:

APPENDIX C TO PART 3—CAPITAL ADEQUACY GUIDELINES FOR [BANKS]: INTERNAL-RATINGS-BASED AND ADVANCED MEASUREMENT APPROACHES

a. Remove ''[AGENCY]'' and add ''OCC'' in its place wherever it appears.

b. Remove ''[bank]'' and add ''bank'' in its place wherever it appears, remove ''[banks]'' and add ''banks'' in its place wherever it appears, remove ''[Banks]'' and add ''Banks'' in its place wherever it appears, and remove ''[Bank]'' and add ''Bank'' in its place wherever it appears.

c. Remove ''[Appendix__ to Part __]'' and add ''Appendix C to Part 3'' in its place wherever it appears.

d. Remove ''[the general risk-based capital rules]'' and add ''12 CFR part 3, Appendix A'' in its place wherever it appears.

e. Remove ''[the market risk rule]'' and add ''12 CFR part 3, Appendix B'' in its place wherever it appears.

f. In section 1, revise paragraph (b)(1)(i), the last sentence in paragraph (b)(3), and the last sentence in paragraph (c)(1) to read as follows:

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

* * * * *

(b) *Applicability*. (1) * * *

[4] Other public disclosure requirements continue to apply—for example, Federal securities law and regulatory reporting requirements.

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

(3) * * * 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 12 CFR 3.12.

(c) *Reservation of authority*—(1) * * * 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 12 CFR 3.12.

* * * * *

g. In section 2, revise the definition of excluded mortgage exposure, the definition of gain-on-sale, and paragraph (2)(i) of the definition of high volatility commercial real estate (HVCRE) exposure to read as follows:

Section 2. Definitions

* * * * *

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 and 12 CFR part 3, Appendix A, section 3(a)(3)(iii).

* * * * *

Gain-on-sale means an increase in the equity capital (as reported on Schedule RC of the Call Report) of a bank that results from a securitization (other than an increase in equity capital that results from the bank's receipt of cash in connection with the securitization).

* * * * *

High volatility commercial real estate (HVCRE) exposure * * *

(2) * * *

(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 part 34, Subpart D;

* * * * *

h. Revise section 12 to read as follows:

Section 12. Deductions and Limitations Not Required

(a) *Deduction of CEIOs.* A bank is not required to make the deductions from capital for CEIOs in 12 CFR part 3, Appendix A, section 2(c).

(b) *Deduction of certain equity investments.* A bank is not required to make the deductions from capital for nonfinancial equity investments in 12 CFR part 3, Appendix A, section 2(c).

* * * * *

i. Revise the first sentence of paragraph (k)(1)(iv) and paragraph (k)(4) of section 42 to read as follows:

Section 42. Risk-Based Capital Requirement for Securitization Exposures

* * * * *

(k) * * *

(1) * * *

(iv) The bank is well capitalized, as defined in the OCC's prompt corrective action regulation at 12 CFR part 6. * * *

* * * * *

(4) The risk-based capital ratios of the bank 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 part 3, Appendix A.

* * * * *

j. Remove ''[Disclosure paragraph (b)]'' and add in its place ''(b) A bank must comply with paragraph (b) of section 71 of appendix G to the Federal Reserve Board's Regulation Y (12 CFR part 225, appendix G) unless it is a consolidated subsidiary of a bank holding company or depository institution that is subject to these requirements.''

k. Remove ''[Disclosure paragraph (c)].''

PART 4—ORGANIZATION AND FUNCTIONS, AVAILABILITY AND RELEASE OF INFORMATION, CONTRACTING OUTREACH PROGRAM, POST-EMPLOYMENT RESTRICTIONS FOR SENIOR EXAMINERS

Subpart A—Organization and Functions

Sec.