(B) The bank did not consolidate the VIE on its balance sheet for calendar quarter-end regulatory report dates prior to the implementation date;

(C) The bank must consolidate the VIE on its balance sheet beginning as of the implementation date as a result of its implementation of FAS 167; and

(D) The bank excludes all assets held by VIEs described in paragraphs (b)(1)(i)(A) through (C) of this section 5; and

(ii) Subject to the limitations of paragraph (d) of this section 5, assets held by a VIE that is a consolidated asset-backed commercial paper (ABCP) program, provided that the following conditions are met:

(A) The bank is the sponsor of the ABCP program;

(B) Prior to the implementation date, the bank consolidated the VIE onto its balance sheet under GAAP and excluded the VIE’s assets from the bank’s risk-weighted assets; and

(C) The bank chooses to exclude all assets held by ABCP program VIEs described in paragraphs (b)(1)(i)(A) and (B) of this section 5.

(2) Risk-weighted assets during exclusion period. During the exclusion period, including the two calendar quarter-end regulatory report dates within the exclusion period, a bank adopting the optional provisions of this paragraph (b) of this section 5 must calculate risk-weighted assets for its contractual exposures to the VIEs referenced in paragraph (b)(1) of this section 5 on the implementation date and include this calculated amount in its risk-weighted assets. Such contractual exposures may include direct-credit substitutes, recourse obligations, residual interests, liquidity facilities, and loans.

(3) Inclusion of ALLL in Tier 2 capital for the first and second quarters. During the exclusion period, a bank that excludes VIE assets from risk-weighted assets pursuant to paragraph (b)(1) of this section 5 may include in Tier 2 capital the full amount of the allowance for loan and lease losses (ALLL) calculated as of the implementation date that is attributable to the assets it excludes pursuant to paragraph (b)(1) of this section 5 (inclusion amount). The amount of ALLL includible in Tier 2 capital in accordance with this paragraph shall not be subject to the limitations set forth in section 2(b)(1) of this Appendix A.

(c) Phase-in period. (1) Exclusion amount. For purposes of this paragraph (c), exclusion amount is defined as the amount of risk-weighted assets excluded in paragraph (b)(1) of this section as of the implementation date.

(2) Risk-weighted assets during the third and fourth quarters. A bank that excludes assets of consolidated VIEs from risk-weighted assets pursuant to paragraph (b)(1) of this section may, for the third and fourth quarters after the implementation date (phase-in period), including for the two calendar quarter-end regulatory report dates within those quarters, exclude from risk-weighted assets pursuant to this paragraph an amount less than the aggregate risk-weighted assets calculated pursuant to paragraph (b)(2) of this section.

(3) Inclusion of ALLL in Tier 2 capital during the third and fourth quarters. A bank that excludes assets of consolidated VIEs pursuant to paragraph (c)(2) of this section may, for the phase-in period, include in Tier 2 capital 50 percent of the inclusion amount it included in Tier 2 capital during the exclusion period, notwithstanding the limit on including ALLL in Tier 2 capital in section 2(b)(1) of this Appendix A.

(d) Implicit recourse limitation. Notwithstanding any other provision in this section 5, assets held by a VIE to which the bank has provided recourse through credit enhancement beyond any contractual obligation to support assets it has sold may not be excluded from risk-weighted assets.

[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 at www.fdsys.gov.

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 activity2 (on a worldwide consolidated basis) equals:

\[ \text{Trading activity} = \text{Gross sum of trading assets and liabilities} \]

1 This appendix is based on a framework developed jointly by supervisory authorities from the countries represented on the Basel Committee on Banking Supervision and endorsed by the Group of Ten Central Bank Governors. The framework is described in a Basel 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
Comptroller of the Currency, Treasury

Pt. 3, App. B

(1) 10 percent or more of total assets; or
(2) $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.

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 and commodity prices.

(b) Market risk means the risk of loss resulting from movements in market prices, excluding the risk-weighted asset calculations.

(c) 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.

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:

(i) Adjusted risk-weighted assets. (1) 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 asset calculations of positions outside the trading account and over-the-counter derivatives positions.

(ii) Securities borrowing transactions. In calculating adjusted risk-weighted assets, a bank 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 marketable 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 marking requirement; and

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.

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.
(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(a)(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.

(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 applicable law of the relevant jurisdiction, its rights under the agreement are legal, valid, binding, and enforceable.

(ii) Market risk equivalent assets. 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.

(iii) 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.

(iv) 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.

(a) 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).

(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 36 percent of Tier 1 capital (both allocated and excess).

(iii) 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

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

10 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.

A bank’s internal model may use any generally accepted measurement techniques,
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 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.

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 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.

\(^{13}\) 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.
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 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)(ii) 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 1—Multiplication Factor Based on Results of Backtesting

<table>
<thead>
<tr>
<th>Number of exceptions</th>
<th>Multiplication factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 or fewer</td>
<td>3.00</td>
</tr>
<tr>
<td>5</td>
<td>3.40</td>
</tr>
<tr>
<td>6</td>
<td>3.50</td>
</tr>
<tr>
<td>7</td>
<td>3.65</td>
</tr>
<tr>
<td>8</td>
<td>3.75</td>
</tr>
<tr>
<td>9</td>
<td>3.85</td>
</tr>
<tr>
<td>10 or more</td>
<td>4.00</td>
</tr>
</tbody>
</table>

### Table 2—Specific Risk Weighting Factors for Covered Debt Positions

<table>
<thead>
<tr>
<th>Category</th>
<th>Remaining maturity (contractual)</th>
<th>Weighting factor (in percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>N/A</td>
<td>0.00</td>
</tr>
<tr>
<td>Qualifying</td>
<td>6 months or less</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>Over 6 months to 24 months.</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Over 24 months</td>
<td>1.60</td>
</tr>
</tbody>
</table>

48
TABLE 2—SPECIFIC RISK WEIGHTING FACTORS FOR COVERED DEBT POSITIONS—Continued

<table>
<thead>
<tr>
<th>Category</th>
<th>Remaining maturity (contractual)</th>
<th>Weighting factor (in percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other 1</td>
<td>N/A</td>
<td>8.00</td>
</tr>
</tbody>
</table>

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 any local currency instruments issued by the central government, 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). 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. (1) 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)(ii) 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)(ii) 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

14 A bank may also net positions in depositary receipts against an opposite position in the underlying equity or identical equity in over-the-counter markets.

Pt. 3, App. B

(ii)(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.

(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.