Pt. 3, App. B

12 U.S.C. 1831b(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:

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

(ii) 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.

(b) The allowance for loan and lease losses can be included in total capital up to a maximum of 15% of a bank's risk-weighted assets, including the portion that can be borrowed to make up Tier 1.

(c) 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.

(d) 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.

(e) 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.

(f) 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.
Comptroller of the Currency, Treasury

(a) Covered positions means all positions in a bank's trading account, and all foreign exchange and commodity positions, whether or not in the trading account. 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.

(i) 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.

(ii) 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 not secured; 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 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:

(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 amount of all covered positions (except foreign exchange positions outside the trading account and over-the-counter derivatives positions).

(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) 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 402-407 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

(ii) If the transaction does not meet the criteria set forth in paragraph (a)(3)(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:

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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.
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

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

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
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, 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) TheVAR 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) TheVAR measures must be based on an 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) TheVAR 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) TheVAR 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 theVAR measures do not incorporate empirical correlations across risk categories, then the bank must add the separateVAR measures for the four major risk categories to determine its aggregateVAR 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 loss13 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)(ii)(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>
<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>

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.

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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.

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.
(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)(ii), 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)(i) 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)(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.

(i) Covered debt positions. (A) 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)(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>
<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>
<tr>
<td>Other</td>
<td>N/A</td>
<td>8.00</td>
</tr>
</tbody>
</table>

1The “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.

2The “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.

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

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.