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Part IV

Department of the Treasury
Office of the Comptroller of the Currency

12 CFR Part 3

Federal Reserve System

12 CFR Parts 208 and 225

Federal Deposit Insurance Corporation

12 CFR Part 325

Risk-Based Capital Standards: Market Risk; Joint Final Rule

DEPARTMENT OF THE TREASURY

Office of the Comptroller of the Currency

12 CFR Part 3

[Docket No. 96-18]
RIN 1557-AB14

FEDERAL RESERVE SYSTEM

12 CFR Parts 208 and 225

[Regulations H and Y; Docket No. R-0884]

FEDERAL DEPOSIT INSURANCE CORPORATION

12 CFR Part 325

RIN 3064-AB64

Risk-Based Capital Standards: Market Risk

AGENCIES: Office of the Comptroller of the Currency, Treasury; Board of Governors of the Federal Reserve System; and Federal Deposit Insurance Corporation.

ACTION: Joint final rule.

SUMMARY: The Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System (Board), and the Federal Deposit Insurance Corporation (FDIC) (collectively, the Agencies) are amending their respective risk-based capital standards to incorporate a measure for market risk to cover all positions located in an institution's trading account and foreign exchange and commodity positions wherever located. The final rule implements an amendment to the Basle Capital Accord that sets forth a supervisory framework for measuring market risk. The effect of the final rule is that any bank or bank holding company (institution) regulated by the OCC, the Board, or the FDIC, with significant exposure to market risk must measure that risk using its own internal value-at-risk model, subject to the parameters contained in this final rule, and must hold a commensurate amount of capital.

DATES: Effective date: January 1, 1997.
Compliance date: Mandatory compliance January 1, 1998.

FOR FURTHER INFORMATION CONTACT:
OCC: Margot Schwadron, Financial Analyst, Roger Tufts, Senior Economic Advisor, or Christina Benson, Capital Markets Specialist, Office of the Chief National Bank Examiner (202/874-5070). For legal issues, Andrew Gutierrez, Attorney, or Ron Shimabukuro, Senior Attorney, Legislative and Regulatory Activities Division (202/874-5090), Office of the Comptroller of the Currency, 250 E Street, SW, Washington, D.C. 20219.
Board: Roger Cole, Deputy Associate Director (202/452-2618), James Houpt, Assistant Director (202/452-3358), Barbara Bouchard, Supervisory Financial Analyst (202/452-3072), Division of Banking Supervision and Regulation; or Stephanie Martin, Senior Attorney (202/452-3198), Legal Division. For the Hearing impaired only, Telecommunication Device for the Deaf (TDD), Dorothea Thompson (202/452-3544), Federal Reserve Board, 20th and C Streets, NW, Washington, D.C. 20551.
FDIC: William A. Stark, Assistant Director (202/898-6972), Miguel Browne, Deputy Assistant Director (202/898-6789), Kenton Fox, Senior Capital Markets Specialist (202/898-7119), Division of Supervision; Jamey Basham, Counsel (202/898-7265), Legal Division, Federal Deposit Insurance Corporation, 550 17th Street, NW, Washington, D.C. 20429.

SUPPLEMENTARY INFORMATION:

I. Background

The Agencies' risk-based capital standards are based upon principles contained in the July 1988 agreement entitled ``International Convergence of Capital Measurement and Capital Standards'' (Accord). The Accord, developed by the Basle Committee on Banking Supervision (Committee) and endorsed by the central bank governors of the Group of Ten (G-10) countries,<SUP>1 provides a framework for assessing an institution's capital adequacy by weighting its assets and off-balance-sheet exposures on the basis of counterparty credit risk. In April 1995, the Committee issued a consultative

proposal to amend the Accord and require institutions to measure and hold capital to cover their exposure to market risk, specifically, market risk associated with foreign exchange and commodity positions, and with debt and equity positions located in the trading account.<SUP>2

\1\ The G-10 countries are Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, the United Kingdom, and the United States. The Committee is comprised of representatives of the central banks and supervisory authorities from the G-10 countries and Luxembourg. The Agencies each adopted risk-based capital standards implementing the Accord in 1989.

\2\ Market risk consists of general market risk and specific risk. General market risk refers to changes in the market value of on-balance-sheet assets and liabilities and off-balance-sheet items resulting from broad market movements, such as changes in the general level of interest rates, equity prices, foreign exchange rates, and commodity prices. Specific risk refers to changes in the market value of individual positions due to factors other than broad market movements and includes such risks as the credit risk of an instrument's issuer.

Market Risk Proposal

On July 25, 1995, the Agencies published a joint proposal to amend their respective risk-based capital standards in accordance with the Committee's consultative proposal (60 FR 38082) (market risk proposal). Under the market risk proposal, an institution with significant trading activity must calculate a capital charge for market risk using either its own internal risk measurement model (internal models approach) or a risk-weighting process developed by the Committee (standardized approach). The market risk proposal requires an institution to integrate the market risk capital charge into its risk-based capital ratios used for supervisory purposes no later than year-end 1997.

The proposed internal models approach requires an institution to employ an internal model to calculate daily value-at-risk (VAR) measures <SUP>3 for each of four risk categories: interest rates, equity prices, foreign exchange rates, and commodity prices, including related options in each category. For regulatory capital purposes, the market risk proposal requires an institution to calibrate VAR measures to a ten-day movement in rates and prices and a 99 percent confidence level. An institution must base its VAR measures upon rates and prices observed over a period of at least one year. In deriving the overall VAR measure, an institution could take into account historical correlations within a risk category (e.g., between interest rates), but not across risk categories (e.g., not between interest rates and equity prices); in other words, the overall VAR measure equals the sum of the VAR measures for each risk category. An institution's capital charge for general market risk equals the greater of (1) the previous day's overall VAR measure, or (2) the average of the preceding 60 days' overall VAR measures multiplied by a factor of three (the multiplication factor). Moreover, the market risk proposal requires an institution to hold additional capital for specific risk associated

with debt and equity positions in the trading account to the extent that its internal model does not incorporate that risk.

\3\ The VAR measure represents an estimate of the amount by which an institution's positions in a risk category could decline due to general market movements during a given holding period, measured with a specified confidence level.

Under the market risk proposal, an institution's supervisor evaluates its internal modeling and risk management process to ensure that the institution is,

in fact, using its internal model for risk management purposes, that the calculation of VAR for capital purposes conforms with the specified quantitative criteria, and that the risk management process meets certain qualitative criteria, such as requiring independent model validations <SUP>4 and having an independent risk management unit. The market risk proposal allows an institution's supervisor to increase its multiplication factor (which applies to the 60-day VAR average) if backtesting results suggest problems with the institution's internal model or risk management process.

\4\ The proposed qualitative criteria identify backtesting and stress testing as two model validation techniques. Backtests provide information about the accuracy of an internal model by comparing an institution's daily VAR measures to its corresponding daily trading profits and losses. Stress tests provide information about the impact of adverse market events on an institution's positions.

The standardized approach, the market risk proposal's alternative to the internal models approach, requires an institution to apply certain uniform techniques to calculate a capital charge for the general market risk of positions in the four risk categories, as well as for the specific risk of debt and equity positions located in the trading account. The total capital charge is the sum of the capital charges for each risk category.

An institution supports its market risk capital charges using a combination of Tier 1 and Tier 2 capital instruments (as defined in the credit risk-based capital standards), as well as a proposed new type of capital (Tier 3). Generally, Tier 3 capital consists of short-term subordinated debt subject to certain criteria, including a lock-in provision that prevents the issuer from repaying the debt even at maturity if the issuer's risk-based capital ratio is less than 8.0 percent following the payment.

In December 1995, the G-10 Governors endorsed a final amendment to the Accord adopting, with some modification, the Committee's market risk consultative proposal. At that same time, the Committee issued

supervisory guidance specifying the effect of backtesting results on an institution's multiplication factor.

Backtesting Proposal

On March 7, 1996, the Agencies published for public comment a joint proposal on backtesting (61 FR 9114) (backtesting proposal) that reflected the Committee's backtesting guidance. The backtesting proposal requires an institution to compare its daily net profits and losses for the most recent 250 business days to the corresponding daily VAR measures generated for internal risk management purposes, using a 99 percent confidence level and a one-day period of rate and price movement. Each day for which a net trading loss exceeds the corresponding VAR measure is counted as an exception. An institution with five or more exceptions is presumed to have an inaccurate internal model and must increase its multiplication factor from three up to a maximum of four, depending on the number of exceptions. The backtesting proposal requires an institution to begin backtesting one year after it begins to calculate market risk capital charges. The delayed effective date for backtesting provides an institution with sufficient time to accumulate the required data for 250 business days.

II. Comment Summary

Market Risk Proposal

Together, the Agencies received 33 public comments on the market risk proposal. Commenters strongly supported the proposed internal models approach.<SUP>5 Most commenters believed that approach provides greater accuracy in measuring market risk than the standardized approach and creates incentives for institutions to continue improving their risk modeling and management techniques. Nevertheless, most commenters stated that the proposed modeling constraints were unnecessarily rigid and, especially when combined with the multiplication factor of three, result in excessive capital charges. The following discussion summarizes the responses to the Agencies' specific questions about the proposal.

\5\ Early versions of the Basle Committee's market risk amendment did not allow for the use of internal models to determine capital charges.

General Topics

The Agencies asked commenters about the proposed criteria for determining which institutions must calculate capital charges for market risk. As proposed, the rule applied to: (1) Any institution with total assets exceeding $5 billion and either trading activity totaling at least 3 percent of total assets or the notional amount of trading account derivative contracts in excess of $5 billion; and (2) any institution with total assets of $5 billion or less and trading activity representing at least 10 percent of total assets. Commenters generally agreed that an institution with significant exposure to market risk should hold capital against that exposure. However, some

believed it inappropriate to use the notional amount of trading account derivative contracts as a criterion. Further, some objected to different criteria for institutions of different asset size.

The Agencies asked about the burden associated with applying the market risk measure to both banks and bank holding companies and, with regard to bank holding companies, the burden associated with applying the measure both with and without Section 20 subsidiaries. The Agencies received mixed comments on the bank and bank holding company issue. Some believed the measure should apply only at the bank holding company level, pointing out that market risk usually is managed on a consolidated basis at the bank holding company level. Some favored applying the measure at the bank level. Others believed that an institution should have a choice, depending on how it manages risk. Most commenters discussing the Section 20 subsidiary issue supported applying the rule on a fully consolidated basis (i.e., including Section 20 subsidiaries).

The Agencies also asked whether to allow an institution to choose either the standardized or internal models approaches, whether to allow an institution to combine the two approaches for different risk categories, and whether the two approaches result in similar capital charges. While some commenters supported the flexibility of choosing between the internal models and standardized approaches, those commenters who anticipated that they would be subject to the market risk capital requirements indicated that they intend to use only the internal models approach. Other commenters thought that a choice of approaches could be useful in certain situations, for example, when an institution suddenly meets the applicability criteria but does not have a completely developed internal model. Several commenters expressed concerns about the accuracy of the standardized approach and urged its elimination. The few commenters that addressed the question about combining the two approaches supported the flexibility that this could provide. A few commenters stated that capital charges would be higher under the internal models approach than under the standardized approach.<SUP>6

\6\ The summary does not include comments on particular issues that might arise in applying the standardized approach (other than comments on specific risk) because, as discussed below, the Agencies have decided not to adopt the standardized approach in the final rule. Public comments are available from the Board's and OCC's Freedom of Information Office and the FDIC's Reading Room.

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The Internal Models Approach

The market risk proposal imposed several quantitative standards on VAR measures used for regulatory capital purposes. The Agencies asked about the potential burden associated with these standards and whether the resulting capital charge sufficiently covered market risk. Commenters overwhelmingly responded that the proposed modeling constraints were unnecessarily rigid and would result in an excessive capital charge. Many commenters suggested the Agencies allow an

institution to use the same internal modeling parameters for regulatory capital purposes as for internal risk management.

Modeling Constraints. With regard to the proposed modeling constraints, a few commenters supported basing capital charges on a ten-day period of rate and price movements. Others indicated that the period was too long, with most suggesting a one-day period. Some commenters objected to any specified period. Several commenters opposed the proposed 99 percent confidence level, noting that many institutions use lower confidence levels. Others supported the proposed level and still others suggested that regulators should not specify a confidence level.

Many commenters strongly asserted that the proposed multiplication factor of three was too high and suggested, instead, a minimum factor of one. Most of these commenters believed that the proposal did not adequately explain the rationale for a multiplication factor greater than one. Several asked for clarification about how the Agencies will measure a model's accuracy and adjust an institution's multiplication factor. They advocated objective, well-defined criteria to ensure that the Agencies apply the rules consistently.

Commenters strongly opposed the proposal's requirement that an institution aggregate VAR measures by simple summation across the risk categories. They asserted that ignoring the effects of cross correlation among risk categories overstates exposure and understates the merits of diversified portfolios.

The Agencies asked whether to require an institution to calculate VARs using two observation periods. Specifically, the Agencies asked about the tradeoff between enhanced prudential coverage and additional burden associated with requiring an institution to make two VAR measures, one based on a short observation period and one based on a longer (over one year) period. Most commenters believed dual observation periods would result in unnecessary costs and operational burden. Commenters had varying opinions about the optimal length of time for an observation period. Some commenters suggested that the Agencies allow an institution to choose an appropriate observation period.

Backtesting. The Agencies asked for comments about the potential burden associated with backtesting to evaluate the accuracy of an institution's internal model. Commenters generally viewed backtesting as a useful tool for model validation purposes. Most believed that backtesting should compare an institution's VAR calculated for internal risk management purposes (rather than for regulatory capital purposes) with actual profits and losses. A few commenters, noting the developing nature of backtesting generally, urged regulators not to prescribe specific regulations, guidelines, or methodologies for backtesting.

The Agencies also asked for comment about the types of stress tests institutions should perform as part of their internal risk management process. Several commenters recognized generally the importance of stress testing. These and other commenters responded that the Agencies should allow an institution to choose its methodology. Other commenters questioned whether a stress testing requirement was necessary.

Specific Risk. The Agencies noted that the internal models approach requires an institution to add a specific risk capital charge calculated using the standardized approach if its internal model does not adequately capture specific risk, and asked what modeling techniques the Agencies should consider when evaluating an institution's model for specific risk. While commenters generally agreed that an institution should integrate specific risk into its

internal model, several objected to using capital charges calculated under the standardized approach as the benchmark for specific risk under the internal models approach. A few commenters asked for clarification about what constitutes sufficient integration of specific risk into a model to avoid the add-on capital charge. Some commenters noted that internal models that incorporate specific risk elements are still in the development stage, and stated that the Agencies should not include a specific risk requirement in the internal models approach.

The Agencies asked whether they should specifically define the term ``liquid and well-diversified,'' as applied to specific risk in equities, entitling an institution to a lower capital charge under the standardized approach. Commenters differed as to the appropriate degree of specificity. Some preferred a qualitative definition, as proposed, and others supported a more explicit and objective definition.

Other Issues

Some commenters raised issues not directly addressed in the Agencies' specific questions on the market risk proposal. One commenter suggested that an institution could determine internally whether to classify a debt instrument as qualifying or non-qualifying for purposes of determining the applicable specific risk weight factor (qualifying instruments receive a lower specific risk charge than non-qualifying instruments). Another commenter recommended a zero percent specific risk charge for debt instruments issued by local and regional governments. Another recommended a zero percent specific risk charge for instruments tracking an equity index.

Several commenters said that the proposed qualitative standards for an institution's risk management system were reasonable. One institution noted the qualitative standards provided a comprehensive set of guidelines. Some commenters questioned the marketability of short-term subordinated debt included as Tier 3 capital. A few commenters discussed the relationship between market risk and credit risk, with some arguing that when aggregating capital charges for credit and market risk the Agencies should permit an institution to recognize correlations between the two types of risk.

Backtesting Proposal

Together, the Agencies received 17 public comments on the backtesting proposal. Commenters to that proposal generally supported backtesting as a useful component of risk management. Several expressed concern that the proposal was unnecessarily rigid, noting that backtesting techniques are evolving, and suggested that the Agencies reexamine backtesting prior to implementation of the final rule. A few commenters questioned linking backtesting results to capital requirements. Some commenters expressed the view that the Agencies should take into account the severity of an exception, not just the number of exceptions. Other commenters believed that the Agencies should base capital requirements on an overall evaluation of an institution's risk management process and not merely on the number of exceptions. A few commenters suggested that the Agencies retain the

flexibility to adjust the multiplication factor below three if an institution's model exhibits superior performance.

Among other specific questions, the Agencies asked about the merits and problems associated with backtesting hypothetical trading outcomes

(profits and losses) versus backtesting actual trading outcomes.<SUP>7 Almost all commenters supported using actual trading outcomes for backtesting purposes rather than hypothetical outcomes. One commenter supported giving an institution the option of what type of outcomes it will backtest. Commenters who supported using actual trading outcomes believed that these results appropriately included such factors as gains and losses from trading activity, fee income, net interest income, and management responses to changing portfolio conditions. Commenters who objected to using hypothetical results noted that costs associated with creating and operating a system for determining hypothetical results were significant. Other commenters discussed the potential burden of requiring an institution to calculate daily profits and losses with an unreasonable degree of exactness. They noted that global VARs are calculated by simulating changes in all market factors and calculating resulting changes in portfolio values. They suggested letting an institution estimate daily profit and losses using a consistent, reasonable methodology.

\7\ Generally, hypothetical outcomes are trading outcomes that would result if the trading position as of the end of one business day went unchanged during the next business day. Hypothetical outcomes differ from actual outcomes because of the effects of such items as changes in portfolio composition over the holding period, fee income, commissions, and income from trading.

The Agencies asked for comment on what types of events or regime shifts (i.e., dramatic changes in market conditions that result in numerous exceptions in a short period of time for the same reason) might generate exceptions that do not warrant an increase in an institution's multiplication factor. Several commenters asserted that the Agencies should not list the types of regime shifts in advance. Two commenters suggested that the Agencies should treat any market-wide or asset-class event affecting a large number of institutions as a regime shift. Commenters suggested the following examples of regime shifts: sudden abnormal changes in interest or exchange rates, major political events, and natural disasters. Some commenters suggested that the Agencies should take into account an institution's reaction to unanticipated trading results, such as how it adapts its internal model to take into account changed conditions. A few commenters stated the Agencies should not penalize an institution for exceptions after it adjusts its model.

The Agencies asked about the proposed sample size of 250 independent observations. While several commenters on this question responded that the proposed sample size was appropriate, some believed that an institution should have flexibility to increase or decrease the sample size. A few commenters asserted that all institutions should use the same sample size.

Finally, the Agencies asked whether to require an institution to backtest against its VAR measures generated for internal risk management purposes, or against VAR measures calculated for market risk capital requirements. Most commenters supported the former approach.

III. Final Rule

The Agencies believe it is important for an institution with significant market risk to measure its exposure and hold commensurate amounts of capital. The Agencies support the market risk amendment to the Accord and are now issuing uniform market risk standards that will implement that amendment for institutions regulated by the Agencies. The final rule incorporates a measure for exposure to market risk into the Agencies' credit risk-based capital standards. By January 1, 1998, an institution that meets the applicability criteria must use its internal model to measure its exposure to market risk and hold capital in support of that exposure. The Agencies concur with commenters that an institution with significant exposure to market risk can most accurately measure that risk using detailed information available to the institution about its particular portfolio processed by its own risk measurement model. The final rule does not include the proposed standardized approach for measuring general market risk. The final rule does retain, however, the standardized approach methodologies for determining capital charges for specific risk, which an institution must use as the basis for its specific risk charge for debt and equity positions in its trading account.

The final rule supplements the existing credit risk-based capital standards by requiring an affected institution to adjust its risk-based capital ratio to reflect market risk. Specifically, an institution must adjust its risk-based capital ratio to take into account the general market risk of all positions located in its trading account and of foreign exchange and commodity positions, wherever located. Additionally, the institution must account for the specific risk of debt and equity positions located in its trading account. The positions covered by this final rule (except for foreign exchange positions outside the trading account and over-the-counter (OTC) derivatives) are excluded from the credit risk capital charge. Foreign exchange positions outside the trading account and OTC derivatives are subject to the market risk capital charge, as well as the credit risk capital charge.

Thus, the minimum capital charge for an institution that meets the applicability criteria is its credit risk capital charge as calculated under the Agencies' credit risk-based capital standards (excluding the positions previously noted) plus its measure for market risk as calculated under this final rule. The institution's risk-based capital ratio adjusted for market risk is its risk-based capital ratio for purposes of prompt corrective action and other statutory and regulatory purposes.

Subject to supervisory approval that its internal model and risk management processes meet the final rule's regulatory criteria, an institution may choose to comply with the final rule as early as January 1, 1997. Any institution that voluntarily complies with the final rule prior to January 1, 1998, must comply with all of its provisions, except for the backtesting provisions, which apply one year after the institution begins to comply with the other provisions of the final rule.

Institutions Subject to the Final Rule (Section 1(b))

The Agencies agree with commenters that all institutions with significant market risk, regardless of size, should measure their exposure and hold appropriate levels of capital. Thus, the Agencies have revised the applicability criteria to eliminate the differential

criteria based on total asset size. The Agencies believe that the capital requirements are appropriate both for an institution whose trading activity is large relative to its total assets, and for an institution with a substantial volume of trading activity.

The final rule applies to any bank or bank holding company whose trading activity equals 10 percent or more of its total assets, or whose trading activity equals $1 billion or more.<SUP>8 For purposes

of these criteria, an institution's trading activity is defined as the sum of its trading assets and trading liabilities as reported in its most recent Consolidated Report of Condition and Income (Call Report) for a bank, or its most recent Y-9C Report for a bank holding company. Total assets means quarter-end total assets as most recently reported by the institution.

\8\ The Federal Reserve agrees with commenters that since market risk usually is managed on a consolidated basis at the bank holding company level, market risk should be measured at that level for risk-based capital purposes. Thus, the final rule applies to bank holding companies on a fully consolidated basis. In addition, because the Accord applies to internationally active banks, the final rule applies to consolidated banks. The Agencies may monitor the market risk exposure of institutions on a non-consolidated basis to ensure that significant imbalances within an organization do not avoid supervision.

In addition, on a case-by-case basis, an Agency may require an institution that does not meet the applicability criteria to comply with the final rule if the Agency deems it necessary for safety and soundness purposes, or may exclude an institution that meets the applicability criteria. For example, an Agency may require an institution with trading activity less than $1 billion and less than 10 percent of total assets, but with significant foreign exchange exposure outside of its trading account to comply with the provisions of the final rule. On the other hand, an Agency may exempt an institution with trading activity that exceeds 10 percent of its total assets as a result of accounting, operational, or similar considerations, provided this does not raise safety and soundness concerns.

An institution that does not meet the applicability criteria may, subject to supervisory approval, comply voluntarily with the market risk rule, but only if it complies with all of the final rule's provisions (e.g., the backtesting requirements, after accumulating sufficient trading outcomes).

Covered Positions (Section 2(a))

An institution subject to the final rule must hold capital to support its exposure to general market risk arising from fluctuations in interest rates, equity prices, foreign exchange rates, and commodity prices and its exposure to specific risk associated with certain debt and equity positions. Covered positions include all positions in an

institution's trading account and foreign exchange and commodity positions throughout the institution (whether or not in the trading account).

For market risk capital purposes, an institution's trading account is defined in the instructions to the Call Report. For example, the trading account includes on- and off-balance-sheet positions in financial instruments acquired with the intent to resell in order to profit from short-term price or rate movements (or other price or rate variations). An institution may include in its measure for general market risk certain non-trading account instruments that it deliberately uses to hedge trading positions. Those instruments are not subject to a specific risk capital charge, but instead, remain subject to the credit risk capital requirements. An institution may not include items in, or exclude items from, its trading account to manipulate associated capital charges. All positions included in the trading account must be marked to market and reflected in an institution's earnings statement.

The market risk capital charge applies to all of an institution's foreign exchange and commodities positions. An institution's foreign exchange positions include, for each currency, such items as its net spot position (including ordinary assets and liabilities denominated in a foreign currency), forward positions, guarantees that are certain to be called and likely to be unrecoverable, and any other items that react primarily to changes in exchange rates. An institution may, subject to supervisory approval, exclude from the market risk measure any structural positions in foreign currencies. For this purpose, structural positions include transactions designed to hedge an institution's capital ratios against the effect of adverse exchange rate movements on (1) subordinated debt, equity, or minority interests in consolidated subsidiaries and capital assigned to foreign branches that are denominated in foreign currencies, and (2) any positions related to unconsolidated subsidiaries and other items that are deducted from an institution's capital when calculating its capital base. An institution's commodity positions include all positions that react primarily to changes in commodity prices.

Adjustment to the Risk-Based Capital Ratio Calculation (Section 3)

An institution subject to the final rule must measure its market risk and hold capital on a daily basis to maintain an overall minimum 8.0 percent ratio of total qualifying capital to risk-weighted assets adjusted for market risk.

Risk-Based Capital Ratio Denominator (Section 3(a))

An institution's risk-based capital ratio denominator equals its adjusted risk-weighted assets plus its market risk equivalent assets. Adjusted risk-weighted assets are risk-weighted assets, as determined under the credit risk-based capital standards, less the risk-weighted amounts of all covered positions other than foreign exchange positions outside the trading account and OTC derivatives. Covered positions (except for foreign exchange positions outside the trading account and OTC derivatives) are no longer subject to a credit risk capital charge. An institution's market risk equivalent assets equals the measure for market risk, as determined under this final rule, multiplied by 12.5 (the reciprocal of the minimum 8.0 percent capital ratio).

Measure for Market Risk (Section 3(a)(2))

The measure for market risk consists of an institution's VAR-based capital charge plus an add-on capital charge for specific risk.\9\ The

VAR-based capital charge is the larger of either (1) the average VAR measure for the last 60 business days, calculated under the regulatory criteria and increased by a multiplication factor of between three and four; or (2) the previous day's VAR, calculated under the regulatory criteria but without the multiplication factor. An institution's multiplication factor is three unless its backtesting results indicate that a higher factor is appropriate or unless the institution's supervisor determines that another action is appropriate.

\9\ The final rule also provides that, on a case-by-case basis, an Agency may permit an institution to measure de minimis exposures to market risk using other techniques, provided the exposure is truly de minimis, the associated risk is adequately measured, and integration of the exposure into the institution's internal model would impose an unnecessary regulatory burden.

The Agencies believe this comparative approach will result in an institution holding capital sufficient to cover peak levels of market volatility. While the Agencies acknowledge some commenters' concerns that a multiplication factor of three (or higher) imposes excessive capital charges, the Agencies believe that adjustments in the final rule to the internal models approach (e.g., requiring only a single observation period and recognizing cross correlations among risk categories) result in capital charges that are appropriate, given existing industry practices. As institutions implement the final rule, the Agencies will monitor resulting capital charges, will continue to evaluate the appropriateness of the multiplication factor, and may consider further refinements or adjustments to the final rule.

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Risk-Based Capital Ratio Numerator (Section 3(b))

An institution's risk-based capital ratio numerator consists of a combination of core (Tier 1) capital, supplemental (Tier 2) capital\10\ and a third tier of capital (Tier 3), which consists of short-term subordinated debt that meets certain conditions. Specifically, Tier 3 capital must have an original maturity of at least two years; it must be unsecured and fully paid up; it must be subject to a lock-in clause that prevents the issuer from repaying the debt even at maturity if the issuer's capital ratio is, or with repayment would become, less than the minimum 8.0 percent risk-based capital ratio; it must not be redeemable before maturity without the prior approval of the institution's supervisor; and it must not contain or be covered by any covenants, terms, or restrictions that may be inconsistent with safe and sound banking practices. An institution may use Tier 3 capital only to meet market risk capital requirements.

\10\ Tier 1 and Tier 2 capital components are discussed in the Agencies' credit risk capital standards. Generally, Tier 1 includes common stockholder's equity, noncumulative perpetual preferred stock, and minority equity interests in consolidated subsidiaries,

less goodwill and other deductions. Bank holding companies may include certain amounts of cumulative perpetual preferred stock in Tier 1. Tier 2 includes the allowance for loan and lease losses, other preferred stock, and subordinated debt with an original average maturity of at least five years.

To determine its risk-based capital ratio numerator, an institution should first allocate Tier 1 and Tier 2 capital equal to 8.0 percent of its risk-weighted assets (adjusted for the positions that are no longer subject to the credit risk rules). Next, the institution should allocate Tier 1, Tier 2, and Tier 3 capital to support its measure for market risk. The risk-based capital ratio numerator (i.e., total qualifying capital), is the sum of Tier 1 capital (whether or not allocated for credit risk or market risk), Tier 2 capital (whether or not allocated for credit risk or market risk and subject to certain limits), and Tier 3 capital (allocated for market risk and subject to certain limits).

The Agencies continue to believe that Tier 1 capital should constitute a substantial proportion of an institution's total capital. Thus, the final rule includes the existing credit risk-based capital constraints that at least 50 percent of an institution's total qualifying capital must be Tier 1 capital, and that term subordinated debt (and intermediate-term preferred stock and related surplus) may not exceed 50 percent of Tier 1 capital. In addition, 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 an institution must support at least 28.6 percent of its measure for market risk with Tier 1 capital.

Internal Models (Section 4)

The Agencies recognize that institutions can and will use different assumptions and modeling techniques and that such differences often reflect distinct business strategies and approaches to risk management. For example, an institution may calculate VAR using internal models based on variance-covariance matrices, historical simulations, Monte Carlo simulations, or other statistical approaches. In all cases, however, the model must cover the institution's material risks.\11\ While the Agencies are not specifying modeling parameters for internal risk management purposes, the final rule does include minimum qualitative requirements for internal risk management processes, as well as certain quantitative requirements for the parameters and assumptions for internal models used to measure market risk exposure for regulatory capital purposes.

\11\ For an institution using an externally developed or outsource risk measurement model, the model may be used for risk-based capital purposes provided it complies with the requirements of the final rule, management fully understands the model, the model is integrated into the institution's daily risk management, and the institution's overall risk management process is sound.

Qualitative Requirements (Section 4(b))

The qualitative requirements reiterate several basic components of sound risk management. For example, one of the final rule's qualitative requirements is that an institution must have a risk control unit that reports directly to senior management and that is independent from business trading functions. The Agencies expect that a risk control unit will conduct regular backtests to evaluate the model's accuracy and stress tests to identify the impact of adverse market events on the institution's portfolio.

The other qualitative requirements in the final rule are also elements of sound risk management practices. For example, an institution must have an internal model that is integrated into its daily management, must have policies and procedures for conducting appropriate stress tests and backtests and for responding to the results of those tests, and must conduct independent reviews of its risk measurement and management systems at least annually.

The Agencies agree with commenters that an institution should develop and use stress tests appropriate to its particular situation. Thus, the final rule does not require specific stress test methodologies. The Agencies expect an institution to conduct stress tests that are rigorous and comprehensive and that cover a range of factors that could create extraordinary losses in a trading portfolio, or make the control of risk in a portfolio difficult. The Agencies believe stress tests should be both qualitative and quantitative, should incorporate both market risk and liquidity aspects of market disturbances, and should reflect the impact of an event on positions with linear and non-linear price characteristics. Where stress tests reveal a particular vulnerability, the institution should take effective steps to appropriately manage those risks.

An institution's independent review of its risk management process should include both the activities of business trading units and the risk control unit. For example, the Agencies expect that an institution's review would include assessing whether its risk management system is fully integrated into the daily management process and whether its risk management system is adequately documented. The review should evaluate the organizational structure of the risk control unit and analyze the approval process for risk pricing models and valuation systems. The review should also consider the scope of market risks captured by the risk measurement model, the accuracy and completeness of position data, the verification of the consistency, timeliness, and reliability of data sources used to run the internal model, the accuracy and appropriateness of volatility and correlation assumptions, and the validity of valuation and risk transformation calculations.

Market Risk Factors (Section 4(c))

The final rule provides that an institution's internal model must use risk factors that address market risk associated with interest rates, equity prices, exchange rates, and commodity prices, including the market risk associated with options in each of these risk categories. Although an institution has discretion to use market risk factors that it has determined affect the value of its positions and the risks to which it is exposed, the Agencies expect an institution to use sufficient risk factors to cover the risks inherent in its portfolio.

For example, the Agencies believe that interest rate risk factors should correspond to interest rates in each currency in which the institution has interest-rate-sensitive positions. The risk measurement system should model the yield curve using one of a number of generally accepted approaches, such as by estimating forward rates or zero coupon yields, and should incorporate risk factors to capture spread risk. The yield curve should be divided into various maturity segments to capture variation in the volatility of rates along the yield curve. For material exposures to interest rate movements in the major currencies and markets, modeling techniques should capture at least six segments of the yield curve.

The risk measurement system should incorporate risk factors corresponding to individual foreign currencies in which the institution's positions are denominated, to each of the equity markets in which the institution has significant positions (at a minimum, a risk factor should capture market-wide movements in equity prices), and to each of the commodity markets in which the institution has significant positions. Risk factors should measure the volatilities of rates and prices underlying option positions. An institution with a large or complex options portfolio should measure the volatilities of options positions by different maturities. The sophistication and nature of the modeling techniques should correspond to the level of the institution's exposure.

Quantitative Requirements (Section 4(d))

While an institution has flexibility in developing the precise nature of its model for internal risk management purposes, the Agencies continue to believe that when determining capital charges for exposure to market risk an institution's VAR measures should meet certain quantitative requirements. Such requirements are designed to ensure that an institution with significant market risk holds prudential levels of capital and that capital charges are sufficiently consistent across institutions with similar exposures. The Agencies have considered commenters' concerns that the proposed modeling constraints, when combined, would result in excessive capital charges. The Agencies believe that certain of the proposed constraints, such as a 99 percent (one-tailed) confidence level and a ten-day movement in rates and prices, are appropriate and therefore they have been retained in the final rule. However, the Agencies agree with commenters that other proposed or considered requirements are not necessary. For example, the Agencies have determined that a dual observation period would unnecessarily increase regulatory burden without providing a substantial benefit. Thus, the final rule employs a single observation period.

The Agencies also agree with commenters that, for regulatory capital purposes, an institution should be permitted to use models that recognize cross correlations among risk categories. The final rule permits an institution to recognize cross correlations. The Agencies believe this revision eliminates a significant source of rigidity in the market risk proposal and should result in internal modeling for capital purposes that is more consistent with observed industry practice. The Agencies also believe this revision will appropriately recognize and reward portfolio diversification. These adjustments to the quantitative requirements are consistent with the final amendment to the Accord.

The final rule contains the following quantitative requirements for an institution's VAR measures, upon which regulatory capital

requirements are based:

(1) VAR measures must be computed each business day based on a 99 percent (one-tailed) confidence level of estimated maximum loss.

(2) VAR measures must be based on a price shock equivalent to a ten-day movement in rates or prices. An institution may adjust VAR measures (including VAR measures for options) based on shorter periods to a ten-day standard (e.g., by multiplying by the square root of time).<SUP>12 The Agencies do not believe that a price or rate movement period less than ten days is sufficient to reflect the risk associated with options positions (or other instruments with non-linear price characteristics), but recognize that it may be overly burdensome for an institution to apply a ten-day price or rate movement to such positions at this time. The Agencies expect an institution with concentrations of options to make substantive progress in developing a modeling system that measures the non-linear price characteristics of options positions (or other instruments with non-linear price characteristics), over a full ten-day period.

\12\ For example, under certain statistical assumptions, an institution can estimate the ten-day price volatility of an instrument by multiplying the volatility calculated on one-day changes by the square root of ten (approximately 3.16).

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(3) Internal models must include the non-linear price characteristics of options positions and the sensitivity of the market value of those positions to changes in the volatility of the option's underlying rates and prices.

(4) VAR measures must be based on a minimum historical observation period of at least one year for estimating future price and rate changes. A model that uses a weighting scheme or other method for the historical observation period must use an effective observation period of at least one year. That is, the weighted average time lag of the individual observations must be at least six months, the figure that would prevail in an equally weighted one-year observation period.

(5) An institution must update its model data at least once every three months and more frequently if market conditions warrant.

(6) VAR measures may incorporate empirical correlations (calculated from historical data on rates and prices) both within broad risk categories and across broad risk categories, subject to agreement by the institution's supervisor that the model's system for measuring such correlation is sound. If an institution's model does not incorporate empirical correlations across risk categories, then the bank must calculate the VAR measures used for regulatory capital purposes by summing the separate VAR measures for the four broad risk categories (i.e., interest rates, equity prices, foreign exchange rates, and commodity prices).

The Agencies believe that, taken together, the modeling parameters are appropriate for regulatory capital purposes and also that they are compatible, as much as practicable, with existing modeling procedures. During the examination process, the Agencies will review an institution's risk management process and internal model to ensure that the model processes all relevant data and that modeling and risk management practices conform to the parameters and requirements of the

final rule.<SUP>13

\13\ When reviewing an institution's internal model for risk-based capital purposes, the Agencies may consider reports and opinions about the accuracy of the model that have been generated by external auditors or qualified consultants.

Backtesting (Section 4(e))

The Agencies have considered commenters' responses to the backtesting proposal. The Agencies believe backtesting can be a useful tool for internal model validation, and have determined to include the backtesting provisions in the final rule, as proposed. An institution subject to the final rule must perform backtests of its VAR measures as calculated for internal risk management purposes. The backtests must compare daily VAR measures

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calibrated to a one-day movement in rates and prices and a 99 percent (one-tailed) confidence level against the institution's actual daily net trading profit or loss (trading outcome) for each of the preceding 250 business days. The backtests must be performed once each quarter.<SUP>14 Net trading outcomes include such items as fees and commissions associated with trading activities, as well as changes in market valuations associated with changing portfolio positions.

\14\ An institution's obligation to backtest for regulatory capital purposes does not arise until the institution has been subject to the final rule for 250 business days (approximately one year) and, thus, has accumulated the requisite number of observations to be used in backtesting.

An institution must identify the number of occurrences when its net trading loss (if any) for a particular day exceeds the corresponding daily VAR measure. In general, an institution's multiplication factor increases incrementally beginning with five or more exceptions during the previous 250 business days, and rises to a multiplication factor of four for an institution with 10 or more exceptions during the period. While the number of exceptions creates a presumption as to an institution's multiplication factor, the institution's supervisor may make other adjustments to the multiplication factor or may take other appropriate actions. For example, the supervisor may exclude exceptions that result from regime shifts, such as sudden abnormal changes in interest rates or exchange rates, major political events, or natural disasters. The supervisor may also consider such other factors as the magnitude of an exception (that is, the extent of the difference between the VAR measure and the actual trading loss), and an institution's reaction in response to an exception.

The Agencies recognize that backtesting is evolving and acknowledge commenters' concerns that it may not be appropriate to penalize an institution by applying a higher multiplication factor if the institution has refined the accuracy of its model in response to an exception or has taken other action to improve its risk management processes. The Agencies emphasize that they will implement the backtesting requirements of the final rule with significant flexibility and examiner judgment. The Agencies will continue to monitor industry progress in developing backtesting methodologies and may consider adjusting the backtesting requirements in the near future.

Specific Risk (Section 5)

The Agencies agree with the provisions in the final amendment to the Accord that require an institution to hold capital in support of the specific risk associated with debt and equity positions in an institution's trading account. Thus, the final rule provides that an institution must measure and hold capital in support of specific risk associated with those positions. The capital charge for specific risk is determined either by an institution's internal model or by the standardized risk measurement techniques specified by the Agencies (the standardized approach).

Standardized Approach

Under the standardized approach, the specific risk charge for debt positions is calculated by multiplying the current market value of each net long or short position in a trading account debt instrument by the appropriate specific risk weighting factor as set forth in the final rule, based on the identity of the obligor, and in the case of some instruments such as corporate debt, on the credit rating and remaining maturity of the instrument. An institution must risk weight derivatives (e.g., swaps, futures, forwards, or options on certain debt instruments) according to the relevant underlying instrument. For example, for a forward contract, an institution must risk weight the market value of the effective notional amount of the underlying instrument (or index portfolio). An institution may net long and short positions in identical debt instruments with exactly the same issuer, coupon, currency, and maturity. An institution may also offset a matched position in a derivative instrument and its corresponding underlying instrument. The specific risk weighting factor for debt instruments of OECD <SUP>15 central governments is zero percent. Other debt instruments with qualifying ratings (essentially investment grade corporate securities) receive risk weights ranging from 0.25 percent to 1.6 percent, depending on remaining maturity. Nonqualifying debt instruments receive a risk weight of 8.0 percent.

\15\ The Organization for Economic Cooperation and Development (OECD) is defined in the credit risk-based capital standards.

The specific risk charge for equity positions is based on an institution's gross equity position for each national market. The gross equity position is defined as the sum of all long and short equity positions, including positions arising from derivatives such as equity swaps, forwards, futures, and options. An institution must risk weight

the current market value of each gross equity position by the appropriate factor. An institution must risk weight derivatives according to the relevant underlying equity instrument. An institution may net long and short positions in identical equity issues or indices in each national market. An institution may also offset a matched position in a derivative instrument and its corresponding underlying instrument.

The specific risk charge is 8.0 percent of the gross equity position, unless the institution's portfolio is both liquid and well-diversified, in which case the capital charge is 4.0 percent. A portfolio is liquid and well-diversified if: (1) it is characterized by a limited sensitivity to price changes of any single equity or closely related group of equity issues held in a 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.

For positions in an index comprising a diversified portfolio of equities, the specific risk charge is 2.0 percent of the net long or short position in the index. In addition, a 2.0 percent specific risk charge applies to only one side (long or short) in the case of certain futures-related arbitrage strategies (for instance, long and short positions in the same index at different dates or different market centers, and long and short positions at the same date in different, but similar indices). Finally, under certain conditions, futures positions on a broadly-based index that are matched against positions in the equities comprising the index are subject to a specific risk charge of 2.0 percent against each side of the transaction.

Internal Models Approach

The final rule permits an institution to use its internal model to determine capital charges for specific risk if it can demonstrate to its supervisor that the modeling process adequately addresses elements of specific risk for debt and/or equity positions. In particular, an institution may use the model-based estimates of specific risk in place of the standardized capital charge. However, if the specific risk component of the institution's VAR measure (when multiplied by the backtesting multiplication factor, with respect to a

60-day average VAR figure) is not equal to at least 50 percent of the specific risk charge resulting from the standardized calculation, then the institution has a specific risk add-on in the amount of the difference. For example, if the standardized approach indicates a specific risk charge of $100, but the institution's 60-day average VAR figure includes only $10 for specific risk, then the institution has a specific risk add-on of $20 (that is, 50 percent of $100 minus three times $10). However, if the 60-day average VAR figure includes $20 from specific risk, then the institution would have no specific risk add-on because the VAR-based charge (three times $20) exceeds 50 percent of $100.

An institution (in conjunction with its supervisor) must separately determine whether its model incorporates specific risk for debt positions and equity positions. For instance, if the model addresses

the specific risk of debt positions but not equity positions, then the institution can use the model-based specific risk charge (subject to the limitations described earlier) for debt positions, but must use the full standard specific risk charge for equity positions. If, however, the model addresses the specific risk of both debt and equity positions, then the institution must make the comparison based on the total specific risk figure for debt and equity positions, taking into account any correlations between the specific risk of debt and equity positions that are built into the model.

This treatment provides an institution with an incentive to incorporate specific risk into its internal model, while maintaining an overall floor on the amount of capital it must hold against specific risk. The Agencies believe that a minimum requirement for specific risk is useful, at least for an initial period, since methods for incorporating specific risk into VAR models are still in a process of development at many institutions. The Agencies will continue to study these developments and likely will issue further guidance on these procedures as institutions implement this final rule in the coming months.

IV. Regulatory Flexibility Act Analysis

OCC Regulatory Flexibility Act Analysis

Pursuant to section 605(b) of the Regulatory Flexibility Act, the OCC certifies that this final rule will not have a significant impact on a substantial number of small business entities in accord with the spirit and purposes of the Regulatory Flexibility Act (5 U.S.C. 601 et seq.). Accordingly, a regulatory flexibility analysis is not required. The impact of this final rule on banks regardless of size is expected to be minimal. Further, the OCC's comparison of the applicability section of this final rule to Call Report data on all existing banks shows that application of the rule to small banks will be the rare exception.

Board Regulatory Flexibility Act Analysis

Pursuant to section 605(b) of the Regulatory Flexibility Act, the Board does not believe this final rule will have a significant impact on a substantial number of small business entities in accord with the spirit and purposes of the Regulatory Flexibility Act (5 U.S.C. 601 et seq.). The Board's comparison of the applicability section of this final rule to Call Report data on all existing banks shows that application of the rule to small entities will be the rare exception. Accordingly, a regulatory flexibility analysis is not required. In addition, because the risk-based capital standards generally do not apply to bank holding companies with consolidated assets of less than $150 million, this rule will not affect such companies.

FDIC Regulatory Flexibility Act Analysis

Pursuant to section 605(b) of the Regulatory Flexibility Act (Pub. L. 96-354, 5 U.S.C. 601 et seq.), it is certified that the final rule will not have a significant impact on a substantial number of small entities. The FDIC's comparison of the applicability section of this final rule to Call Report data on all existing banks shows that application of the rule to small entities will be the rare exception.

V. Paperwork Reduction Act

OCC Paperwork Reduction Act

The OCC has determined that his final rule does not increase the regulatory paperwork burden of banking organizations pursuant to the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.).

Board Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. Ch. 3506; 5 CFR 1320 Appendix A.1), the Board reviewed the proposed rule under the authority delegated to the Board by the Office of Management and Budget. No collections of information pursuant to the Paperwork Reduction Act are contained in the final rule.

FDIC Paperwork Reduction Act

The FDIC has determined that this final rule does not contain any collections of information as defined by the Paperwork Reduction Act (44 U.S.C. 3501 et seq.).

VI. OCC Executive Order 12866 Determination

The OCC has determined that this final rule is not a significant regulatory action under Executive Order 12866.

VII. OCC Unfunded Mandates Reform Act of 1995 Determination

The OCC has determined that this final rule will not result in expenditures by state, local, and tribal governments, or by the private sector, of $100 million or more in any one year. Accordingly, a budgetary impact statement is not required under section 202 of the Unfunded Mandates Reform Act of 1995. This final rule will apply only to a small number of national banks. Moreover, most (if not all) of those banks already have internal VAR models that measure market risk, thus reducing this final rule's implementation costs.

List of Subjects

12 CFR Part 3

Administrative practice and procedure, Capital, National banks, Reporting and recordkeeping requirements, Risk.

12 CFR Part 208

Accounting, Agriculture, Banks, banking, Confidential business information, Crime, Currency, Federal Reserve System, Mortgages, Reporting and recordkeeping requirements, Securities.

12 CFR Part 225

Administrative practice and procedure, Banks, banking, Federal Reserve System, Holding companies, Reporting and recordkeeping requirements, Securities.

12 CFR Part 325

Administrative practice and procedure, Banks, banking, Capital adequacy, Reporting and recordkeeping requirements, Savings associations, State non-member banks.

Office of the Comptroller of the Currency

12 CFR CHAPTER I

Authority and Issuance

For the reasons set out in the joint preamble, part 3 of title 12, chapter I of the Code of Federal Regulations is amended as follows:

PART 3--[AMENDED]

1. The authority citation for part 3 continues to read as follows:

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

2. Section 3.6 is amended by revising paragraph (a) to read as follows:

Sec. 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).
* * * * *

3. A new appendix B is added to part 3 to read as follows:

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.<SUP>1 This appendix supplements and adjusts the risk-based capital ratio calculations under appendix A of this part with respect to those banks.

\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.

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

\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).

(i) 10 percent or more of total assets; <SUP>3 or

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

(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.<SUP>4

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

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 <SUP>5 and commodity positions, whether or not in the trading account.<SUP>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.

\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.

(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 such risk as the credit risk of an instrument's issuer.

(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 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. Calculate adjusted risk-weighted assets, which equals risk-weighted assets (as determined in accordance with appendix A of this part), excluding the risk-weighted amounts of all covered positions (except foreign exchange positions outside the trading account and over-the-counter derivative positions).<SUP>7

\7\ Foreign exchange positions 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.

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(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).<SUP>8

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

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(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).<SUP>9

\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.

(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.<SUP>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.

\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.

(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.<SUP>11 The bank's policies and procedures must identify the procedures to follow in response to the results of such tests.

\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.

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(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,<SUP>12 equity price risk, foreign exchange rate risk, and commodity price risk.

\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.

(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 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 <SUP>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.

\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.

(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 add-on. For purposes of section 3(a)(2)(ii) of this appendix, a bank's specific risk add-on equals the standard specific risk capital charge calculated under paragraph (c) of this section. If, however, a bank can demonstrate to the OCC that its internal model measures the specific risk of covered debt and/or equity positions and that those measures are included in the VAR-based capital charge in section 3(a)(2)(i) of this appendix, then the bank may reduce or eliminate its specific risk add-on under this section. The determination as to whether a model incorporates specific risk must be made separately for covered debt and equity positions.

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

(2) If a model addresses the specific risk of both covered debt and equity positions, then the bank can reduce its specific risk charge for both covered debt and equity positions under paragraph (b) of this section. In this case, the comparison described in

paragraph (b) of this section must be based on the total VAR-based figure for the specific risk of debt and equity positions, taking into account any correlations that are built into the model.

(b) VAR-based specific risk capital charge. In all cases where a bank measures specific risk in its internal model, the total capital charge for specific risk (i.e., the VAR-based specific risk capital charge plus the specific risk add-on) must equal at least 50 percent of the standard specific risk capital charge (this amount is the minimum specific risk charge).

(1) If the portion of a bank's VAR measure that is attributable to specific risk (multiplied by the bank's multiplication factor if required in section 3(a)(2) of this appendix) is greater than or equal to the minimum specific risk charge, then the bank has no specific risk add-on and its capital charge for specific risk is the portion included in the VAR measure.

(2) If the portion of a bank's VAR measure that is attributable to specific risk (multiplied by the bank's multiplication factor if required in section 3(a)(2) of this appendix) is less than the minimum specific risk charge, then the bank's specific risk add-on is the difference between the minimum specific risk charge and the specific risk portion of the VAR measure (multiplied by the bank's multiplication factor if required in section 3(a)(2) of this appendix).

(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)(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.<SUP>14

\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.

(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.<SUP>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.

\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.

Dated: August 6, 1996.
Eugene A. Ludwig,
Comptroller of the Currency.

Federal Reserve System

12 CFR CHAPTER II

For the reasons set out in the joint preamble, parts 208 and 225 of title 12 of chapter II of the Code of Federal Regulations are amended as follows:

PART 208--MEMBERSHIP OF STATE BANKING INSTITUTIONS IN THE FEDERAL RESERVE SYSTEM (REGULATION H)

1. The authority citation for part 208 is revised to read as follows:

Authority: 12 U.S.C. 36, 248(a), 248(c), 321-338a, 371d, 461, 481-486, 601, 611, 1814, 1823(j), 1828(o), 1831o, 1831p-1, 3105, 3310, 3331-3351, and 3906-3909; 15 U.S.C. 78b, 78l(b), 78l(g), 78l(i), 78o-4(c)(5), 78q, 78q-1, and 78w; 31 U.S.C. 5318; 42 U.S.C. 4012a, 4104a, 4104b, 4106, and 4128.

2. Section 208.13 is revised to read as follows:

Sec. 208.13 Capital Adequacy.

The standards and guidelines by which the capital adequacy of state member banks will be evaluated by the Board are set forth in appendix A and appendix E for risk-based capital purposes, and, with respect to the ratios relating capital to total assets, in appendix B to part 208 and in appendix B to the Board's Regulation Y, 12 CFR part 225.

3. Appendix A is amended in the introductory text by adding a new

paragraph after the second undesignated paragraph to read as follows:

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Appendix A to Part 208--Capital Adequacy Guidelines for State Member Banks; Risk Based Measure

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In addition, when certain banks that engage in trading activities calculate their risk-based capital ratio under this appendix A, they must also refer to appendix E of this part, which incorporates capital charges for certain market risks into the risk-based capital ratio. When calculating their risk-based capital ratio under this appendix A, such banks are required to refer to appendix E of this part for supplemental rules to determine qualifying and excess capital, calculate risk-weighted assets, calculate market risk equivalent assets, and calculate risk-based capital ratios adjusted for market risk.

* * * * *

4. A new appendix E is added to read as follows:

Appendix E to Part 208--Capital Adequacy Guidelines for State Member Banks; Market Risk Measure

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.<SUP>1 This appendix supplements and adjusts the risk-based capital ratio calculations under appendix A of this part with respect to those banks.

\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.

(b) Applicability. (1) This appendix applies to any insured state member bank whose trading activity <SUP>2 (on a worldwide consolidated basis) equals:

\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).

(i) 10 percent or more of total assets; <SUP>3 or

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

(ii) $1 billion or more.

(2) The Federal Reserve may additionally apply this appendix to any insured state member bank if the Federal Reserve deems it necessary or appropriate for safe and sound banking practices.

(3) The Federal Reserve may exclude an insured state member 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 Federal Reserve 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.<SUP>4

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

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 <SUP>5 and commodity positions, whether or not in the trading account.<SUP>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.

\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.

(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 such risk as the credit risk of an instrument's issuer.

(c) Tier 1 and Tier 2 capital are 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 Federal Reserve; 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:

(1) Adjusted risk-weighted assets. Calculate adjusted risk-weighted assets, which equals risk-weighted assets (as determined in accordance with appendix A of this part), excluding the risk-weighted amounts of all covered positions (except foreign exchange positions outside the trading account and over-the-counter derivative positions).<SUP>7

\7\ Foreign exchange positions 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.

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(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 exposures (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).<SUP>8

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

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(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).<SUP>9

\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.

(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.<SUP>10 The Federal Reserve 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.

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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.

(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.<SUP>11 The bank's policies and procedures must identify the procedures to follow in response to the results of such tests.

\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.

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(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,<SUP>12 equity price risk, foreign exchange rate risk, and commodity price risk.

\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.

(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 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 <SUP>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.

\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.

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(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 Federal Reserve 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 add-on. For purposes of section 3(a)(2)(ii) of this appendix, a bank's specific risk add-on equals the standard specific risk capital charge calculated under paragraph (c) of this section. If, however, a bank can demonstrate to the Federal Reserve that its internal model measures the specific risk of covered debt and/or equity positions and that those measures are included in the VAR-based capital charge in section 3(a)(2)(i) of this appendix, then the bank may reduce or eliminate its specific risk add-on under this section. The determination as to whether a model incorporates specific risk must be made separately for covered debt and equity positions.

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

(2) If a model addresses the specific risk of both covered debt and equity positions, then the bank can reduce its specific risk charge for both covered debt and equity positions under paragraph (b) of this section. In this case, the comparison described in paragraph (b) of this section must be based on the total VAR-based figure for the specific risk of debt and equity positions, taking into account any correlations that are built into the model.

(b) VAR-based specific risk capital charge. In all cases where a bank measures specific risk in its internal model, the total capital charge for specific risk (i.e., the VAR-based specific risk capital charge plus the specific risk add-on) must equal at least 50 percent of the standard specific risk capital charge (this amount is the minimum specific risk charge).

(1) If the portion of a bank's VAR measure that is attributable to specific risk (multiplied by the bank's multiplication factor if required in section 3(a)(2) of this appendix) is greater than or equal to the minimum specific risk charge, then the bank has no specific risk add-on and its capital charge for specific risk is the portion included in the VAR measure.

(2) If the portion of a bank's VAR measure that is attributable to specific risk (multiplied by the bank's multiplication factor if required in section 3(a)(2) of this appendix) is less than the minimum specific risk charge, then the bank's specific risk add-on is the difference between the minimum specific risk charge and the specific risk portion of the VAR measure (multiplied by the bank's multiplication factor if required in section 3(a)(2) of this appendix).

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(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)(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	N/A	0.00

Qualifying	6 months or less	0.25
	Over 6 months to 24 months.	1.00
	Over 24 months	1.60
Other	N/A	8.00

(A) The government category includes all debt instruments of central governments of OECD-based countries <SUP>14 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.

\14\ Organization for Economic Cooperation and Development (OECD)-based countries is defined in appendix A of this part.

(B) The qualifying category includes debt instruments of U.S. government-sponsored agencies, general obligation debt instruments issued by states and other political subdivisions of OECD-based countries, multilateral development banks, and debt instruments issued by U.S. depository institutions or OECD-banks that do not qualify as capital of the issuing institution.<SUP>15 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:

\15\ U.S. government-sponsored agencies, multilateral development banks, and OECD banks are defined in appendix A of this part.

(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 Federal Reserve.

(C) 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.<SUP>16

\16\ 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.

(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.<SUP>17 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.

\17\ 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, subject to review by the Federal Reserve:

(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.

PART 225--BANK HOLDING COMPANIES AND CHANGE IN BANK CONTROL (REGULATION Y)

1. The authority citation for part 225 continues to read as follows:

Authority: 12 U.S.C. 1817(j)(13), 1818, 1831i, 1831p-1, 1843(c)(8), 1844(b), 1972(l), 3106, 3108, 3310, 3331-3351, 3907, and 3909.

2. Appendix A is amended in the introductory text, by adding a new paragraph after the second undesignated paragraph to read as follows:

Appendix A to Part 225--Capital Adequacy Guidelines for Bank Holding Companies: Risk-Based Measure

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In addition, when certain organizations that engage in trading activities calculate their risk-based capital ratio under this appendix A, they must also refer to appendix E of this part, which incorporates capital charges for certain market risks into the risk-based capital ratio. When calculating their risk-based capital ratio under this appendix A, such organizations are required to refer to

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appendix E of this part for supplemental rules to determine qualifying and excess capital, calculate risk-weighted assets, calculate market risk equivalent assets, and calculate risk-based capital ratios adjusted for market risk.

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3. A new appendix E is added to read as follows:

Appendix E to Part 225--Capital Adequacy Guidelines for Bank Holding Companies: Market Risk Measure

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

(a) Purpose. The purpose of this appendix is to ensure that bank holding companies (organizations) with significant exposure to market risk maintain adequate capital to support that

exposure.<SUP>1 This appendix supplements and adjusts the risk-based capital ratio calculations under appendix A of this part with respect to those organizations.

\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.

(b) Applicability. (1) This appendix applies to any bank holding company whose trading activity <SUP>2 (on a worldwide consolidated basis) equals:

\2\ Trading activity means the gross sum of trading assets and liabilities as reported in the bank holding company's most recent quarterly Y-9C Report.

(i) 10 percent or more of total assets; <SUP>3 or

\3\ Total assets means quarter-end total assets as reported in the bank holding company's most recent Y-9C Report.

(ii) $1 billion or more.

(2) The Federal Reserve may additionally apply this appendix to any bank holding company if the Federal Reserve deems it necessary or appropriate for safe and sound banking practices.

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

(c) Scope. The capital requirements of this appendix support market risk associated with an organization'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 holding company may opt to comply with this appendix as early as January 1, 1997.<SUP>4

\4\ A bank holding company that voluntarily complies with the final rule prior to January 1, 1998, must comply with all of its

provisions.

Section 2. Definitions

For purposes of this appendix, the following definitions apply:

(a) Covered positions means all positions in an organization's trading account, and all foreign exchange <SUP>5 and commodity positions, whether or not in the trading account.<SUP>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 still owned by the lender.

\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.

(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 such risk as the credit risk of an instrument's issuer.

(c) Tier 1 and Tier 2 capital are 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 Federal Reserve; includes a lock-in clause precluding payment of either interest or principal (even at maturity) if the payment would cause the issuing organization'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 due to market price or rate movements 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. An organization subject to this appendix shall calculate its risk-based capital ratio denominator as follows:

(1) Adjusted risk-weighted assets. Calculate adjusted risk-

weighted assets, which equals risk-weighted assets (as determined in accordance with appendix A of this part) excluding the risk-weighted amounts of all covered positions (except foreign exchange positions outside the trading account and over-the-counter derivative positions).<SUP>7

\7\ Foreign exchange positions 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.

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(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 exposures (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 organization's risk-based capital ratio denominator.

(b) Risk-based capital ratio numerator. An organization 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).<SUP>8

\8\ An institution may not allocate Tier 3 capital to support credit risk (as calculated under appendix A of this part).

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(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).<SUP>9

\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.

(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 organization's risk-based capital ratio numerator.

Section 4. Internal Models

(a) General. For risk-based capital purposes, a bank holding company subject to this appendix must use its internal model to measure its daily VAR, in accordance with

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the requirements of this section.<SUP>10 The Federal Reserve may permit an organization to use alternative techniques to measure the market risk of de minimis exposures so long as the techniques adequately measure associated market risk.

\10\ An organization'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 an organization's internal model must be commensurate with the nature and size of its covered positions. An organization 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.

(b) Qualitative requirements. A bank holding company subject to this appendix must have a risk management system that meets the

following minimum qualitative requirements:

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

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

(3) The organization's policies and procedures must identify, and the organization must conduct, appropriate stress tests and backtests.<SUP>11 The organization's policies and procedures must identify the procedures to follow in response to the results of such tests.

\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 an organization's daily VAR measures to its corresponding daily trading profits and losses.

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

(c) Market risk factors. The organization'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,<SUP>12 equity price risk, foreign exchange rate risk, and commodity price risk.

\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.

(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 organization 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 an organization using a weighting scheme or other similar method) of at least one year. The organization 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. An organization 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 organization's process for measuring correlations is sound. In the event that the VAR measures do not incorporate empirical correlations across risk categories, then the organization 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 holding company starts to comply with this appendix, it must conduct backtesting by comparing each of its most recent 250 business days' actual net trading profit or loss <SUP>13 with the corresponding daily VAR measures generated for internal risk measurement purposes and calibrated to a one-day holding period and a 99th percentile, one-tailed confidence level.

\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.

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(2) Once each quarter, the organization 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 holding company 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 Federal Reserve 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 add-on. For purposes of section 3(a)(2)(ii) of this appendix, a bank holding company's specific risk add-on equals the standard specific risk capital charge calculated under paragraph (c) of this section. If, however, an organization can demonstrate to the Federal Reserve that its internal model measures the specific risk of covered debt and/or equity positions and that those measures are included in the VAR-based capital charge in section 3(a)(2)(i) of this appendix, then it may reduce or eliminate its specific risk add-on under this section. The determination as to whether a model incorporates specific risk must be made separately for covered debt and equity positions.

(1) If a model includes the specific risk of covered debt positions but not covered equity positions (or vice versa), then the organization can reduce its specific risk charge for the included positions under paragraph (b) of this section. The specific risk charge for the positions not included equals the standard specific risk capital charge under paragraph (c) of this section.

(2) If a model addresses the specific risk of both covered debt and equity positions, then the organization can reduce its specific risk charge for both covered debt and equity positions under paragraph (b) of this section. In this case, the comparison described in paragraph (b) of this section must be based on the total VAR-based figure for the specific risk of debt and equity positions, taking account of any correlations that are built into the model.

(b) VAR-based specific risk capital charge. In all cases where a bank holding company measures specific risk in its internal model, the total capital charge for specific risk (i.e., the VAR-based specific risk capital charge plus the specific risk add-on) must equal at least 50 percent of the standard specific risk capital charge (this amount is the minimum specific risk charge).

(1) If the portion of an organization's VAR measure that is attributable to specific risk (multiplied by the organization's multiplication factor if required in section 3(a)(2) of this appendix) is greater than or equal to the minimum specific risk charge, then the organization has no specific risk add-on and its capital charge for specific risk is the portion included in the VAR measure.

(2) If the portion of an organization's VAR measure that is attributable to specific risk (multiplied by the organization's multiplication factor if required in section 3(a)(2) of this appendix) is less than the minimum specific risk charge, then the organization's specific risk add-on is the difference between the minimum specific risk charge and the specific risk portion of the VAR measure (multiplied by the multiplication factor if required in section 3(a)(2) of this appendix).

(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 or 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, an organization 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, an organization 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) An organization may net long and short covered debt positions (including derivatives) in identical debt issues or indices.

(iii) An organization 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	N/A	0.00
Qualifying	6 months or less	0.25
	Over 6 months to 24 months.	1.00
	Over 24 months	1.60
Other	N/A	8.00

(A) The government category includes all debt instruments of central governments of OECD-based countries <SUP>14 including bonds, Treasury bills, and other short-term instruments, as well as local currency instruments of non-OECD central governments to the extent

the organization has liabilities booked in that currency.

\14\ Organization for Economic Cooperation and Development (OECD)-based countries is defined in appendix A of this part.

(B) The qualifying category includes debt instruments of U.S. government-sponsored agencies, general obligation debt instruments issued by states and other political subdivisions of OECD-based countries, multilateral development banks, and debt instruments issued by U.S. depository institutions or OECD banks that do not qualify as capital of the issuing institution.<SUP>15 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:

\15\ U.S. government-sponsored agencies, multilateral development banks, and OECD banks are defined in appendix A of this part.

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(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 organization and the issuer has instruments listed on a recognized stock exchange, subject to review by the Federal Reserve.

(C) 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 or purchased options) for which the underlying is a covered equity position.

(A) For covered equity positions that are derivatives, an organization 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, an organization 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) An organization may net long and short covered equity positions (including derivatives) in identical equity issues or equity indices in the same market.<SUP>16

\16\ An organization may also net positions in depository receipts against an opposite position in the underlying equity or identical equity in different markets, provided that the organization includes the costs of conversion.

(iii)(A) An organization 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.<SUP>17 For covered equity positions that are index contracts comprising a well-diversified portfolio of equity instruments, the net long or short position is to be multiplied by a risk weighting factor of 2.0 percent.

\17\ 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, an organization may apply a 2.0 percent risk weighting factor to one side (long or short) of each equity position with the opposite side exempt from charge, subject to review by the Federal Reserve:

(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, an organization 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.

By order of the Board of Governors of the Federal Reserve System, August 29, 1996.
William W. Wiles,
Secretary of the Board.

Federal Deposit Insurance Corporation

12 CFR CHAPTER III

For the reasons indicated in the preamble, the FDIC Board of Directors hereby amends part 325 of chapter III of title 12 of the Code of Federal Regulations as follows.

PART 325--[AMENDED]

1. The authority citation for part 325 continues to read as follows:

Authority: 12 U.S.C. 1815(a), 1815(b), 1816, 1818(a), 1818(b), 1818(c), 1818(t), 1819(Tenth), 1828(c), 1828(d), 1828(i), 1828(n), 1828(o), 1831o, 3907, 3909, 4808; Pub. L. 102-233, 105 Stat. 1761, 1789, 1790 (12 U.S.C. 1831n note); Pub. L. 102-242, 105 Stat. 2236, 2355, 2386 (12 U.S.C. 1828 note).

2. Appendix A to part 325 is amended in the introductory text, by adding a new paragraph after the third undesignated paragraph to read as follows:

Appendix A to Part 325--Statement of Policy on Risk-Based Capital

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In addition, when certain banks that engage in trading activities calculate their risk-based capital ratio under this appendix A, they must also refer to appendix C of this

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part, which incorporates capital charges for certain market risks into the risk-based capital ratio. When calculating their risk-based capital ratio under this appendix A, such banks are required to refer to appendix C of this part for supplemental rules to determine qualifying and excess capital, calculate risk-weighted assets, calculate market risk equivalent assets and add them to risk-weighted assets, and calculate risk-based capital ratios as adjusted for market risk.

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3. A new appendix C is added to part 325 to read as follows:

Appendix C to Part 325--Risk-Based Capital for State Non-Member Banks; Market Risk

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.<SUP>1 This appendix supplements

and adjusts the risk-based capital ratio calculations under appendix A of this part with respect to those banks.

\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.

(b) Applicability. (1) This appendix applies to any insured state nonmember bank whose trading activity <SUP>2 (on a worldwide consolidated basis) equals:

\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).

(i) 10 percent or more of total assets; <SUP>3 or

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

(ii) $1 billion or more.

(2) The FDIC may additionally apply this appendix to any insured state nonmember bank if the FDIC deems it necessary or appropriate for safe and sound banking practices.

(3) The FDIC may exclude an insured state nonmember 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 FDIC 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.<SUP>4

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

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 <SUP>5 and commodity positions, whether or not in the trading account.<SUP>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.

\5\ Subject to FDIC 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.

(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 such risk as the credit risk of an instrument's issuer.

(c) Tier 1 and Tier 2 capital are 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 FDIC; 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:

(1) Adjusted risk-weighted assets. Calculate adjusted risk-weighted assets, which equals risk-weighted assets (as determined in accordance with appendix A of this part), excluding the risk-

weighted amounts of all covered positions (except foreign exchange positions outside the trading account and over-the-counter derivative positions).<SUP>7

\7\ Foreign exchange positions 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.

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(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 exposures (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).<SUP>8

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

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(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).<SUP>9

\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.

(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

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must use its internal model to measure its daily VAR, in accordance with the requirements of this section.<SUP>10 The FDIC 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.

\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.

(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.<SUP>11 The bank's policies and procedures must identify the procedures to follow in response to the results of such tests.

\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.

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(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,<SUP>12 equity price risk, foreign exchange rate risk, and commodity price risk.

\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.

(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 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 <SUP>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.

\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.

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(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 FDIC 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 add-on. For purposes of section 3(a)(2)(ii) of this appendix, a bank's specific risk add-on equals the standard specific risk capital charge calculated under paragraph (c) of this section. If, however, a bank can demonstrate to the FDIC that its internal model measures the specific risk of covered debt and/or equity positions and that those measures are included in the VAR-

based capital charge in section 3(a)(2)(i) of this appendix, then the bank may reduce or eliminate its specific risk add-on under this section. The determination as to whether a model incorporates specific risk must be made separately for covered debt and equity positions.

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

(2) If a model addresses the specific risk of both covered debt and equity positions, then the bank can reduce its specific risk charge for both covered debt and equity positions under paragraph (b) of this section. In this case, the comparison described in paragraph (b) of this section must be based on the total VAR-based figure for the specific risk of debt and equity positions, taking into account any correlations that are built into the model.

(b) VAR-based specific risk capital charge. In all cases where a bank measures specific risk in its internal model, the total capital charge for specific risk (i.e., the VAR-based specific risk capital charge plus the specific risk add-on) must equal at least 50 percent of the standard specific risk capital charge (this amount is the minimum specific risk charge).

(1) If the portion of a bank's VAR measure that is attributable to specific risk (multiplied by the bank's multiplication factor if required in section 3(a)(2) of this appendix) is greater than or equal to the minimum specific risk charge, then the bank has no specific risk add-on and its capital charge for specific risk is the portion included in the VAR measure.

(2) If the portion of a bank's VAR measure that is attributable to specific risk (multiplied by the bank's multiplication factor if required in section 3(a)(2) of this appendix) is less than the minimum specific risk charge, then the bank's specific risk add-on is the difference between the minimum specific risk charge and the specific risk portion of the VAR measure (multiplied by the bank's multiplication factor if required in section 3(a)(2) of this appendix).

(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)(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	N/A	0.00
Qualifying	6 months or less	0.25
	Over 6 months to 24 months.	1.00
	Over 24 months	1.60
Other	N/A	8.00

(A) The government category includes all debt instruments of central governments of OECD-based countries <SUP>14 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.

\14\ Organization for Economic Cooperation and Development (OECD)-based countries is defined in appendix A of this part.

(B) The qualifying category includes debt instruments of U.S. government-sponsored agencies, general obligation debt instruments

issued by states and other political subdivisions of OECD-based countries, multilateral development banks, and debt instruments issued by U.S. depository institutions or OECD-banks that do not qualify as capital of the issuing institution.<SUP>15 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:

\15\ U.S. government-sponsored agencies, multilateral development banks, and OECD banks are defined in appendix A of this part.

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(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 FDIC.

(C) 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.<SUP>16

\16\ 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.

(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.<SUP>17 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.

\17\ 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, subject to review by the FDIC:

(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.

By Order of the Board of Directors.

Dated at Washington, D.C., this 13th day of August, 1996.

Federal Deposit Insurance Corporation.
Jerry L. Langley,
Executive Secretary.
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