

(v) For the portion of a current exposure covered by a guarantee where that guarantee is an unconditional and irrevocable guarantee of the due and punctual payment and performance of the obligation and the broker or dealer can demand immediate payment from the guarantor after any payment is missed without having to make collection efforts, the broker or dealer may substitute the credit risk weight of the guarantor for the credit risk weight of the counterparty if the guarantee is evidenced by a written obligation of the guarantor that allows the broker or dealer to substitute the guarantor for the counterparty upon default or nonpayment by the counterparty;

(8) *Concentration charges by counterparty.* The concentration charge, where the current exposure of the broker or dealer to a counterparty exceeds 5% of the tentative net capital of the broker or dealer, is calculated as follows:

(i) For counterparties with credit risk weights of 20%, 5% of the amount of the current exposure to the counterparty in excess of 5% of the tentative net capital of the broker or dealer;

(ii) For counterparties with credit risk weights of 50%, 20% of the amount of the current exposure to the counterparty in excess of 5% of the tentative net capital of the broker or dealer; and

(iii) For counterparties with credit risk weights of 150%, 50% of the amount of the current exposure to the counterparty in excess of 5% of the tentative net capital of the broker or dealer; and

(9) *Portfolio concentration charge across all counterparties.* The concentration charge across all counterparties for unsecured receivables is 100% of the amount of the broker's or dealer's aggregate current exposure arising from the broker's or dealer's transactions in derivatives instruments across all counterparties in excess of 15% of the tentative net capital of the broker or dealer.

VaR Models

(e) Each VaR model must meet the following minimum qualitative and quantitative requirements:

(1) *Qualitative requirements.* (i) The VaR model used to calculate market or credit risk for a position must be the same model used to report the market or credit risk of that position to senior management and must be integrated into the daily internal risk management system of the firm;

(ii) The VaR model must be reviewed both periodically and annually. The periodic review may be conducted by the firm's internal audit staff, but the

annual review must be conducted by a registered public accounting firm, as that term is defined in section 2(a)(12) of the Sarbanes-Oxley Act of 2002 (Pub. L. 107-204);

(iii) For purposes of computing market risk, the firm must determine the appropriate multiplication factor as follows:

(A) Beginning three months after the firm begins using the VaR model to calculate market risk, the firm must conduct backtesting of the model by comparing its actual daily net trading profit or loss with the corresponding VaR measure generated by the VaR model, using a 99 percent, one-tailed confidence level with price changes equivalent to a one business-day movement in rates and prices, for each of the past 250 business days;

(B) On the last business day of each quarter, the firm must identify the number of backtesting exceptions of the VaR model, that is, the number of business days in the past 250 business days for which the actual net trading loss, if any, exceeds the corresponding VaR measure; and

(C) The firm must use the multiplication factor indicated in Table 1 of this Appendix E in determining its market risk until it obtains the next quarter's backtesting results, unless the Commission determines, based, among other relevant factors, on a review of the firm's internal risk management control system, including a review of its VaR model, that a different adjustment or other action is appropriate; and

TABLE 1.—MULTIPLICATION FACTOR BASED ON THE NUMBER OF BACKTESTING EXCEPTIONS OF THE VaR MODEL IN THE PAST 250 BUSINESS DAYS

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

(iv) For purposes of computing the credit equivalent amount of the firm's exposures to a counterparty, the firm must determine the appropriate multiplication factor as follows:

(A) Beginning three months after the firm begins using the VaR model to calculate maximum potential exposure, the firm must conduct backtesting of the model by comparing, for at least 40 counterparties with widely varying

types and sizes of positions with the firm, the daily change in its current exposure to the counterparty based on the end of the previous day's positions with the corresponding maximum potential exposure for the counterparty generated by the VaR model;

(B) Once each quarter, on the last business day of the quarter, the firm must identify the number of backtesting exceptions of the VaR model, that is, the number of business days in the past 250 business days for which the change in current exposure to a counterparty exceeds the corresponding maximum potential exposure; and

(C) Based on the number of backtesting exceptions of the VaR model, the firm will propose, as part of its application, a schedule of multiplication factors, which must be approved by the Commission. The firm must use the multiplication factor indicated in the approved schedule in determining the credit equivalent amount of the firm's exposures to a counterparty until it obtains the next quarter's backtesting results, unless the Commission determines, based, among other relevant factors, on a review of the firm's internal risk management control system, including a review of the VaR model, that a different adjustment or other action is appropriate;

(2) *Quantitative requirements.* (i) For purposes of determining market risk, the VaR model must use a 99 percent, one-tailed confidence level with price changes equivalent to a ten business-day movement in rates and prices;

(ii) For purposes of determining maximum potential exposure, the VaR model must use a 99 percent, one-tailed confidence level with price changes equivalent to a one-year movement in rates and prices;

(iii) The VaR model must use an effective historical observation period of at least one year. The historical observation period must include periods of market stress. Historical data sets must be updated at least monthly and reassessed whenever market prices or volatilities change significantly; and

(iv) The VaR model must take into account and incorporate all significant, identifiable market risk factors applicable to positions in the accounts of the firm, including:

(A) Risks arising from the non-linear price characteristics of derivatives and the sensitivity of the market value of the positions to changes in the volatility of options positions due to different maturities;

(B) Empirical correlations with and across risk factors or, alternatively, risk factors sufficient to cover all the market risk inherent in the positions in the