

of contracts, even if the scenario analysis indicates a lower amount. A scenario qualifying for use under this Appendix E must include:

(i) A set of pricing equations for the positions or derivatives based on, for example, arbitrage relations, statistical analysis, historic relationships, merger evaluation, or fundamental valuation of an offering of securities;

(ii) A range of adverse movements of risk factors, prices, or spreads that moved by the greatest amounts over the past 5 years or a 3 standard deviation movement in those risk factors, prices, or spreads over a ten day period;

(iii) Auxiliary relationships mapping risk factors to prices; and

(iv) Data demonstrating the effectiveness of the scenario in capturing market risk; and

(6) For all other positions, the broker or dealer must compute a market risk capital charge pursuant to § 240.15c3-1(c)(2)(vi) and applicable Appendices.

Credit Risk

(d) A broker or dealer whose application, including amendments, has been approved under paragraph (a) of this Appendix E shall compute its credit risk capital charge daily on credit exposures to all counterparties arising from the broker's or dealer's transactions in derivatives instruments (if this Appendix E is used to calculate the market risk capital charge on those instruments) that is the sum of: A counterparty exposure charge to each counterparty, concentration charges by counterparty, and a portfolio concentration charge across all counterparties, determined as follows:

(1) For each counterparty, the *counterparty exposure charge* is:

(i) The net replacement value in the account of the counterparty that is insolvent, or in bankruptcy, or that has senior unsecured long-term debt in default; or

(ii) As to a counterparty not otherwise described in paragraph (d)(1)(i) of this Appendix E, the credit equivalent amount of the broker's or dealer's exposure to the counterparty, as defined in paragraph (d)(2) of this Appendix E, multiplied by the credit risk weight of the counterparty, as determined according to paragraph (d)(7) of this Appendix E, multiplied by 8%;

(2) The *credit equivalent amount* of the broker's or dealer's exposure to a counterparty is the sum of the broker's or dealer's maximum potential exposure to the counterparty, as defined in paragraph (d)(4) of this Appendix E, multiplied by the appropriate multiplication factor, and the broker's or dealer's current exposure to the

counterparty, as defined in paragraph (d)(3) of this Appendix E. The broker or dealer must use the multiplication factor determined according to paragraph (e)(1)(iv) of this Appendix E, except that the initial multiplication factor shall be one, unless the Commission determines, based on a review of the broker's or dealer's internal risk management control system and practices, including a review of the VaR models, that another multiplication factor is appropriate;

(3) The *current exposure* of the broker or dealer to a counterparty is the current replacement value of the counterparty's positions with the broker or dealer, after applying netting agreements with the counterparty meeting the requirements of paragraph (d)(5) of this Appendix E and taking into account the value of collateral from the counterparty held by the broker or dealer in accordance with paragraph (d)(6) of this Appendix E;

(4) The *maximum potential exposure* of the broker or dealer to a counterparty is the increase in the replacement value of the counterparty's positions with the broker or dealer, after applying netting agreements with the counterparty meeting the requirements of paragraph (d)(5) of this Appendix E and taking into account the value of collateral from the counterparty held by the broker or dealer in accordance with paragraph (d)(6) of this Appendix E, that is computed daily using approved VaR models meeting the applicable quantitative and qualitative requirements of paragraph (e) of this Appendix E;

(5) *Netting agreements*. When calculating current exposure or maximum potential exposure, a broker or dealer may include the effect of netting agreements that allow a broker or dealer to net gross receivables and gross payables with a counterparty upon default of the counterparty if:

(i) The netting agreement is legally enforceable in each relevant jurisdiction, including in insolvency proceedings;

(ii) The gross receivables and gross payables subject to the netting agreement with a counterparty can be determined at any time; and

(iii) For internal risk management purposes, the broker or dealer monitors and controls its exposure to the counterparty on a net basis;

(6) *Collateral*. When calculating current exposure and maximum potential exposure, the fair market value of collateral pledged and held may be taken into account provided:

(i) The collateral is marked to market each day and is subject to a daily margin maintenance requirement;

(ii) The collateral has a ready market or consists of major market foreign currency as defined in § 240.15c3-1a(b)(1)(i)(C) or United States currency;

(iii) The collateral agreement is legally enforceable by the broker or dealer against the counterparty and any other parties to the agreement;

(iv) The collateral does not consist of securities issued by the counterparty or a party related to the broker or dealer or to the counterparty;

(v) The Commission has approved the broker's or dealer's use of a VaR model to calculate market risk capital charges for the type of security used as collateral in accordance with § 240.15c3-1(a)(7) and paragraphs (g)(2) and (g)(3) of this Appendix E; and

(vi) The collateral is not used in determining the credit rating of the counterparty;

(7) *Credit risk weights of counterparties*. A broker or dealer that computes its credit risk capital charges pursuant to this Appendix E shall determine the credit risk weight of a counterparty as follows:

(i) 20% credit risk weight for transactions with counterparties with ratings for senior unsecured long-term debt or commercial paper in one of the two highest rating categories by an NRSRO or equivalent internal rating, if applicable;

(ii) 50% credit risk weight for transactions with counterparties with ratings for senior unsecured long-term debt or commercial paper in the third and fourth highest rating categories by an NRSRO or equivalent internal rating, if applicable;

(iii) 150% credit risk weight for transactions with counterparties with ratings for senior unsecured long-term debt or commercial paper below the fourth highest rating category by an NRSRO or equivalent internal rating, if applicable;

(iv) As part of its initial application or in an amendment, the broker or dealer may request Commission approval to determine credit ratings using internal calculations for counterparties that are not rated by an NRSRO, and the broker or dealer may use these internal credit ratings in lieu of ratings issued by an NRSRO for purposes of determining credit risk weights. Based on the strength of the broker's or dealer's internal credit risk management system, the Commission may approve the application. The broker or dealer must make and keep current a record of the basis for the credit rating for each counterparty. The record must be preserved for a period of not less than three years, the first two years in an easily accessible place; and