

# Proposed Rules

Federal Register

Vol. 61, No. 46

Thursday, March 7, 1996

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF THE TREASURY

### Office of the Comptroller of the Currency

#### 12 CFR Part 3

[Docket No. 96-05]

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-AB72

### Risk-Based Capital Standards; Market Risk; Internal Models Backtesting

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

**ACTION:** Joint notice of proposed rulemaking.

**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) (Agencies) are proposing to amend their July 25, 1995, proposal to incorporate a measure for market risk into their respective risk-based capital standards. The proposed amendment would provide additional guidance to an institution about how the multiplication factor used to calculate capital requirements for market risk under the internal models approach would be adjusted if comparisons of its internal model's previous estimates with actual trading results indicate that the internal model is inaccurate. The proposed amendment would increase the market risk capital charge for an institution with an inaccurate model.

**DATES:** Comments must be received on or before April 5, 1996.

**ADDRESSES:** Comments should be directed to:

OCC: Comments may be submitted to Docket No. 96-05, Communications Division, Third Floor, Office of the Comptroller of the Currency, 250 E Street, S.W., Washington, D.C., 20219. Comments will be available for inspection and photocopying at that address. In addition, comments may be sent by facsimile transmission to FAX number (202) 874-5274, or by electronic mail to REGS.COMMENTS@OCC.TREAS.GOV.

**Board:** Comments directed to the Board should refer to Docket No. R-0884 and may be mailed to William W. Wiles, Secretary, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, N.W., Washington, D.C., 20551. Comments may also be delivered to Room B-2222 of the Eccles Building between 8:45 a.m. and 5:15 p.m. weekdays, or to the guard station in the Eccles Building courtyard on 20th Street, N.W., (between Constitution Avenue and C Street) at any time. Comments may be inspected in Room MP-500 of the Martin Building between 9 a.m. and 5 p.m. weekdays, except as provided in 12 CFR 261.8 of the Board's rules regarding availability of information.

**FDIC:** Written comments should be sent to Jerry L. Langley, Executive Secretary, Attention: Room F-402, Federal Deposit Insurance Corporation, 550 17th Street N.W., Washington, D.C. 20429. Comments may be hand delivered to Room F-402, 1776 F Street N.W., Washington, D.C. 20429 on business days between 8:30 a.m. and 5 p.m. (Fax number (202) 898-3838; Internet address: comments@fdic.gov). Comments will be available for inspection and photocopying in Room 7118, 550 17th Street, N.W., Washington, D.C. 20429, between 9 a.m. and 4:30 p.m. on business days.

#### FOR FURTHER INFORMATION CONTACT:

OCC: Margot Schwadron, Financial Analyst, or Christina Benson, Capital Markets Specialist (202/874-5070), Office of the Chief National Bank Examiner. For legal issues, Ronald Shimabukuro, Senior Attorney, or Andrew Gutierrez, Attorney (202/874-5090), Legislative and Regulatory Activities Division.

**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, Dorothea Thompson (202/452-3544).

**FDIC:** William A. Stark, Assistant Director, (202/898-6972), Miguel D. Browne, Deputy Assistant Director, (202/898-6789), or Kenton Fox, Senior Capital Markets Specialist, (202/898-7119), Division of Supervision; Jamey Basham, Counsel, (202/898-7265) Legal Division, FDIC, 550 17th Street N.W., Washington, D.C. 20429.

#### SUPPLEMENTARY INFORMATION:

##### Background

The Agencies' risk-based capital standards are based upon principles contained in the agreement on International Convergence of Capital Measurement and Capital Standards (Accord) issued in July 1988. The Accord, proposed 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</sup> assesses an institution's capital adequacy by weighting its assets and off-balance-sheet exposures on the basis of credit risk. In April 1995, the Committee issued a consultative proposal to supplement the Accord to cover market risk, specifically market risk in foreign exchange and commodity activities and in debt and equity instruments held in trading portfolios, in addition to credit risk.<sup>2</sup> On July 25, 1995, the Board, the OCC, and the FDIC issued a joint proposal to amend their respective risk-based capital standards in accordance

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

<sup>2</sup> The Committee's document is entitled "Proposal to issue a Supplement to the Basle Capital Accord to cover market risk." On December 11, 1995, the G-10 Governors endorsed a final supplement to the Accord incorporating a measure for market risk, subject to the completion of rulemaking procedures in countries that require such action. The final supplement is entitled "Amendment to the Capital Accord to incorporate market risks." The proposal and the final supplement are available through the Board's and the OCC's Freedom of Information Office and the FDIC's Reading Room.

with the consultative proposal (60 FR 38082) (July 1995 proposal). Under the July 1995 proposal, an institution with relatively large trading activities would calculate a capital charge for market risk using either its own internal value-at-risk (VAR)<sup>3</sup> model (internal models approach) or, alternatively, risk measurement techniques that were developed by the Committee (standardized approach). The institution would integrate the market risk capital charge into its risk-based capital ratios.

Under the internal models approach, an institution would calculate a VAR amount using its internal model, subject to certain qualitative and quantitative regulatory parameters. The institution's capital charge for market risk would equal the greater of (1) its previous day's VAR amount (calculated based upon a 99 percent confidence level and a ten-day holding period); or (2) an average of the daily VAR amounts over the preceding 60 business days multiplied by a minimum *multiplication* factor of three.

The July 1995 proposal also provides that the Agencies could adjust the multiplication factor to increase an institution's capital requirement based on an assessment of the quality and historical accuracy of the institution's risk management system. One of the proposal's qualitative criteria, which supervisors would use to evaluate the quality and accuracy of a risk management system, is that an institution would have to conduct regular backtesting. Backtesting involves comparing the VAR amounts generated by the institution's internal model against its actual daily profits and losses (outcomes).

#### Supervisory Framework for the Use of Backtesting

Since issuing its consultative proposal, the Committee developed a framework that more explicitly incorporates backtesting into the internal models approach and directly links backtesting results to required capital levels.<sup>4</sup> This framework recognizes that backtesting can be useful in evaluating the accuracy of an institution's internal model, and also acknowledges that even accurate models

(i.e., models whose true coverage level is 99 percent) can perform poorly under certain conditions.

The Agencies agree with the Committee that backtesting can be a useful tool in evaluating the performance of an institution's internal model but recognize that backtesting techniques are still evolving and that they differ among institutions. The Agencies believe that the framework for backtesting developed by the Committee adequately recognizes the limitations of backtesting, while providing incentives for institutions to improve the efficiency of their internal models. The Agencies, therefore, are proposing to amend their July 1995 proposal to incorporate a backtesting framework similar to the one endorsed by the G-10 Governors, as described later in the supplementary information.

Under the supervisory framework for backtesting, an institution must compare its internal model's daily VAR amount with the following day's trading outcome. The institution must use the daily VAR amount generated for internal risk measurement purposes, not the daily VAR amount generated for supervisory capital purposes. Moreover, when making this comparison, the institution must first adjust the VAR amount, if necessary, to correspond to an assumed one-day holding period and a 99 percent confidence level.

An institution must count the number of times that the magnitude of trading losses on a single day, if any, exceeds the corresponding day's adjusted VAR amount during the most recent 250 business days (approximately one year) to determine the number of exceptions. The number of exceptions, in turn, will determine whether and how much an institution must adjust the multiplication factor it would use when calculating capital requirements for market risk. However, if the institution demonstrates to its supervisor's satisfaction that an exception resulted from an accurate model affected by unusual events, the supervisor may allow the institution to disregard that exception.

The Agencies recognize that there may be several explanations for exceptions. For example, an exception may result when an institution's internal model does not capture the risk of certain positions or when model volatilities or correlations are not calculated correctly. This type of exception reflects a problem with the basic integrity of the model. In other cases, the model may not measure market risk with sufficient precision, implying the need to refine the model. Other types of exceptions, on the other

hand, may occur occasionally even with accurate models, such as exceptions resulting from unexpected market volatility or large intra-day changes in the institution's portfolio.

Backtesting results also could prompt the supervisor to require improvements in an institution's risk measurement and management systems or additional capital for market risk. When considering supervisory responses, the Agencies would take into account the extent to which trading losses exceed the VAR amounts, since exceptions that greatly exceed VAR amounts are of greater concern than are exceptions that exceed them only slightly. The Agencies also could consider, for example, other statistical test results provided by the institution, documented explanations for individual exceptions, and the institution's compliance with applicable qualitative and quantitative internal model standards. The first backtesting for regulatory capital purposes is scheduled to begin in January 1999, using VAR amounts and trading outcomes beginning in January 1998.

#### Framework for Interpreting Backtesting Results

This framework attempts to balance the possibility that an accurate risk model would be determined inaccurate (Type I error) and the possibility that an inaccurate model would be determined accurate (Type II error). Consequently, it divides the number of possible exceptions into three zones:

(1) The green zone (four or fewer exceptions)—Backtest results do not themselves suggest a problem with the quality or accuracy of the institution's internal model. In these cases, backtest results are viewed as acceptable, given the supervisors' concerns of committing a Type I error. Within this zone, there is no presumed increase to an institution's multiplication factor.

(2) The yellow zone (five through nine exceptions)—Backtest results raise questions about a model's accuracy, but could be consistent with either an accurate or inaccurate model. If the number of exceptions places an institution into the yellow zone, then it must adjust its multiplication factor. Because a larger number of exceptions carries a stronger presumption that the model is inaccurate, the adjustment to an institution's multiplication factor increases with the number of exceptions. Accordingly, the institution would adjust its multiplication factor by the amount corresponding to the number of exceptions as shown in Table 1.

(3) The red zone (ten or more exceptions)—Backtest results indicate a

<sup>3</sup> Generally, the VAR is an estimate of the maximum amount that could be lost on a set of positions due to general market movements over a given holding period, measured with a specified confidence level.

<sup>4</sup> The Committee sets out this framework in a document entitled "Supervisory framework for the use of 'backtesting' in conjunction with the internal models approach to market risk capital requirements," which accompanies the document entitled "Amendment to the Capital Accord to incorporate market risks," *supra* note 2.

problem with the institution's internal model, and the probability that the model is accurate is remote. Unless the high number of exceptions is attributed to a *regime shift* involving dramatic

changes in financial market conditions that result in a number of exceptions for the same reason in a short period of time, the institution must increase its multiplication factor from three to four,

and improve its risk measurement and management system.  
The presumed adjustments to an institution's multiplication factor based on the number of exceptions follow:

TABLE 1—ADJUSTMENT IN MULTIPLICATION FACTOR FROM RESULTS OF BACKTESTING BASED ON 250 TRADING OUTCOMES<sup>1</sup>

| Zone              | No. of exceptions | Adjustment to multiplication factor | Cumulative probability (in percent) |
|-------------------|-------------------|-------------------------------------|-------------------------------------|
| Green Zone .....  | 4 or fewer ..     | 0.00                                | 89.22                               |
|                   | 5 .....           | 0.40                                | 95.88                               |
|                   | 6 .....           | 0.50                                | 98.63                               |
| Yellow Zone ..... | 7 .....           | 0.65                                | 99.60                               |
|                   | 8 .....           | 0.75                                | 99.89                               |
|                   | 9 .....           | 0.85                                | 99.97                               |
| Red Zone .....    | 10 or more        | 1.00                                | 99.99                               |

<sup>1</sup> The zones are defined according to the cumulative probability of obtaining up to a given number of exceptions in a sample of 250 independent observations when the true level of coverage is 99 percent. The yellow zone begins where the cumulative probability equals or exceeds 95 percent, and the red zone begins where the cumulative probability equals or exceeds 99.99 percent.

The Agencies urge institutions to continue working on improving the accuracy of backtests that use actual trading outcomes and to develop the capability to perform backtests based on the hypothetical changes in portfolio value that would occur if there were no intra-holding period changes (e.g., from fee income or intra-holding period changes in portfolio composition).

Questions on Which the Agencies Specifically Request Comment

1. Some industry participants have argued that VAR measures cannot be compared against actual trading outcomes because the actual outcomes will be contaminated by intra-day trading and the inclusion of fee income booked in connection with the sale of new products. The results of intra-day trading, they believe, will tend to increase the volatility of trading outcomes while the inclusion of fee income may mask problems with the internal model. Others have argued that the actual trading outcomes experienced by the bank are the most important and relevant figures for risk management and backtesting purposes.

What are the merits and problems associated with performing backtesting on the basis of hypothetical outcomes (e.g., the changes in portfolio values that would occur if end-of-day positions remained unchanged with no intra-day trading or fee income)?

What are the merits and problems associated with performing backtesting on the basis of actual trading profits and losses?

2. What, if any, operational problems may institutions encounter in implementing the proposed backtesting framework? What changes, if any,

should the Agencies consider to alleviate those problems?

3. What type of events or regime shifts might generate exceptions that the Agencies should view as not warranting an increase in an institution's multiplication factor? How should the Agencies factor in or exclude the effects of regime shifts from subsequent backtesting exercises?

4. The adjustments to the multiplication factor set forth in Table 1 of the proposal are based on the number of exceptions in a sample of 250 independent observations. Should the Agencies permit institutions to use other sample sizes and, if so, what degree of flexibility should be provided?

5. The Agencies recognize that an institution may utilize different parameters (e.g., historical observation period) for the VAR model that it employs for its own risk management purposes than for the VAR model that determines its market risk capital requirements (as specified in the July 1995 proposal). Should the adjustment to an institution's multiplication factor be determined using trading outcomes backtested against the institution's VAR amounts generated for internal risk management purposes or against the VAR amounts generated for market risk capital requirements? Should the Agencies permit an institution to choose? Should backtesting be required against both sets of VAR amounts?

Regulatory Flexibility Act Analysis

OCC Regulatory Flexibility Act Analysis

Pursuant to section 605(b) of the Regulatory Flexibility Act, the Comptroller of the Currency certifies that this proposal would 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 proposal on banks regardless of size is expected to be minimal. Further, this proposal generally would apply to larger banks with significant trading activities and would cover only trading activities and foreign exchange and commodity positions throughout the bank.

Board Regulatory Flexibility Act Analysis

Pursuant to section 605(b) of the Regulatory Flexibility Act, the Board does not believe this proposal would 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. 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 proposal would 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 proposal would not have a significant impact on a substantial number of small entities.

Paperwork Reduction Act

The Agencies have determined that this proposal would 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.*).

OCC Executive Order 12866 Determination

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

OCC Unfunded Mandates Reform Act of 1995 Determination

The OCC has determined that this proposal would 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.

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.

Authority and Issuance

Office of the Comptroller of the Currency

12 CFR CHAPTER I

For the reasons set out in the preamble, part 3 of title 12 of chapter I of the Code of Federal Regulations, as proposed to be amended at 60 FR 38082, is further proposed to be amended as follows:

**PART 3—MINIMUM CAPITAL RATIOS; ISSUANCE OF DIRECTIVES**

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

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

2. Appendix B to part 3 as proposed to be added at 60 FR 38095 would be amended by revising paragraph (a)(2) of section 4 and by adding a new paragraph (d) to section 5 to read as follows:

Appendix B to Part 3—Market Risk

\* \* \* \* \*

Section 4. Market Risk Exposure

\* \* \* \* \*

(a) \* \* \*

(2) The average of the daily value-at-risk amounts for each of the preceding 60 business days times a multiplication factor of three, except as provided in section 5(d).

\* \* \* \* \*

Section 5. Qualifying Internal Market Risk Model

\* \* \* \* \*

(d) *Backtesting.* A bank using an internal market risk model shall conduct backtesting as follows:

(1) The bank shall conduct backtesting quarterly;

(2) For each backtesting, the bank shall compare the previous 250 business days' trading outcomes with the corresponding daily value-at-risk measurements generated for its internal risk measurement purposes, calibrated to a one-day holding period and a 99 percent confidence level;

(3) The bank shall consider each business day for which the trading loss, if any, exceeds the daily value-at-risk measurement as an exception; however, the OCC may allow the bank to disregard an exception if it determines that the exception does not reflect an inaccurate model; and

(4) Depending on the number of exceptions, a bank shall adjust the multiplication factor of three described in section 4(a)(2) of this appendix B by the corresponding amount indicated in Section 5(d)(4) Table, and shall use the adjusted multiplication factor when determining its market risk capital requirements until it obtains the next quarter's backtesting results, unless the OCC determines that a different adjustment or other action is appropriate:

SECTION 5(d)(4) TABLE.—ADJUSTMENT TO MULTIPLICATION FACTOR FROM RESULTS OF BACKTESTING BASED ON 250 TRADING OUTCOMES

| No. of exceptions | Adjustment to multiplication factor |
|-------------------|-------------------------------------|
| 4 or fewer        | 0.00                                |
| 5                 | 0.40                                |
| 6                 | 0.50                                |
| 7                 | 0.65                                |
| 8                 | 0.75                                |
| 9                 | 0.85                                |
| 10 or more        | 1.00                                |

\* \* \* \* \*

Dated: February 26, 1996.  
Eugene A. Ludwig,  
Comptroller of the Currency.

Federal Reserve Board

12 CFR CHAPTER II

For the reasons set forth in the preamble, parts 208 and 225 of title 12 of chapter II of the Code of Federal Regulations, as proposed to be amended at 60 FR 38082 (July 25, 1995) are further proposed to be amended as follows:

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

1. The authority citation for part 208 continues 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, 781(b), 781(g), 781(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. In appendix E to part 208 as proposed to be added at 60 FR 38103, section III.B. would be amended by revising paragraph 2.a. and adding a new paragraph 3 to read as follows:

Appendix E to Part 208—Capital Adequacy Guidelines for State Member Banks: Market Risk Measure

\* \* \* \* \*

III. The Internal Models Approach

\* \* \* \* \*

B. \* \* \*

2. \* \* \*

a. A bank must have a risk control unit that is independent from its business trading units and reports directly to senior management of the bank. The unit must be responsible for designing and implementing the bank's risk management system and analyzing daily reports on the output of the bank's risk measurement model in the context of trading limits. The unit must conduct regular backtesting<sup>13</sup> and adjust its multiplication factor, if appropriate, in accordance with section III.B.3. of this appendix E.

\* \* \* \* \*

c. \* \* \*

3. In addition to any backtesting the bank may conduct as part of its internal risk management system, the bank must conduct, for regulatory capital purposes, backtesting that meets the following criteria:

a. The backtesting must be conducted quarterly, using the most recent 250 trading days' outcomes and VAR measures, which encompass approximately twelve months. The VAR measures must be calibrated to a one-day holding period and a 99 percent confidence level.

b. The bank should identify the number of exceptions (that is, cases where the

magnitude of the daily trading loss, if any, exceeds the previous day's VAR measure) to determine its appropriate zone and level

within a zone, as set forth in Table A of section III.B.3.c. of this appendix E.  
 c. A bank should adjust its multiplication factor by the amount indicated in Table A of

this paragraph c., unless the Federal Reserve determines that a different adjustment or other action is appropriate:

TABLE A.—ADJUSTMENT TO MULTIPLICATION FACTOR FROM RESULTS OF BACKTESTING BASED ON 250 TRADING OUTCOMES

| Zone              | Level (No. of exceptions) | Adjustment to multiplication factor | Cumulative <sup>1</sup> probability (in percent) |
|-------------------|---------------------------|-------------------------------------|--|
| Green Zone .....  | 4 or fewer ..             | 0.00                                | 89.22  |
|                   | 5 .....                   | 0.40                                | 95.88  |
|                   | 6 .....                   | 0.50                                | 98.63  |
| Yellow Zone ..... | 7 .....                   | 0.65                                | 99.60  |
|                   | 8 .....                   | 0.75                                | 99.89  |
|                   | 9 .....                   | 0.85                                | 99.97  |
| Red Zone .....    | 10 or more                | 1.00                                | 99.99  |

<sup>1</sup> The zones are defined according to the cumulative probability of obtaining up to a given number of exceptions in a sample of 250 independent observations when the true coverage level is 99 percent. The yellow zone begins where cumulative probability equals or exceeds 95 percent, and the red zone begins where the cumulative probability equals or exceeds 99.99 percent.

\* \* \* \* \*

**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, 1828(o), 1831i, 1831p-1, 1843(c)(8), 1844(b), 1972(1), 3106, 3108, 3310, 3331-3351, 3907, and 3909.

2. In appendix E to part 225 as proposed to be added at 60 FR 38116, section III.B. would be amended by revising paragraph 2.a. and adding a new paragraph 3 to read as follows:

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

\* \* \* \* \*

**III. The Internal Models Approach**

\* \* \* \* \*

B. \* \* \*

2. \* \* \*

a. A institution must have a risk control unit that is independent from its business trading units and reports directly to senior management of the bank holding company. The unit must be responsible for designing and implementing the institution's risk management system and analyzing daily reports on the output of the institution's risk measurement model in the context of trading limits. The unit must conduct regular backtesting<sup>13</sup> and adjust its multiplication factor, if appropriate, in accordance with section III.B.3. of this appendix E.

\* \* \* \* \*

c. \* \* \*

3. In addition to any backtesting the bank holding company may conduct as part of its internal risk management system, the bank holding company must conduct, for regulatory capital purposes, backtesting that meets the following criteria:

a. The backtesting must be conducted quarterly, using the most recent 250 trading days' outcomes and VAR measures, which encompass approximately twelve months. The VAR measures must be calibrated to a one-day holding period and a 99 percent confidence level.

b. The bank holding company should identify the number of exceptions (that is, cases where the magnitude of the daily trading loss, if any, exceeds the previous day's VAR measure) to determine its appropriate zone and level within a zone, as set forth in Table A of section III.B.3.c. of this appendix E.

c. An institution should adjust its multiplication factor by the amount indicated in Table A of this paragraph c., unless the Federal Reserve determines that a different adjustment or other action is appropriate:

TABLE A.—ADJUSTMENT TO MULTIPLICATION FACTOR FROM RESULTS OF BACKTESTING BASED ON 250 TRADING OUTCOMES

| Zone              | Level (No. of exceptions) | Adjustment to multiplication factor | Cumulative <sup>1</sup> probability (in percent) |
|-------------------|---------------------------|-------------------------------------|--|
| Green Zone .....  | 4 or fewer ..             | 0.00                                | 89.22  |
|                   | 5 .....                   | 0.40                                | 95.88  |
|                   | 6 .....                   | 0.50                                | 98.63  |
| Yellow Zone ..... | 7 .....                   | 0.65                                | 99.60  |
|                   | 8 .....                   | 0.75                                | 99.89  |
|                   | 9 .....                   | 0.85                                | 99.97  |
| Red Zone .....    | 10 or more                | 1.00                                | 99.99  |

<sup>1</sup> The zones are defined according to the cumulative probability of obtaining up to a given number of exceptions in a sample of 250 independent observations when the true coverage level is 99 percent. The yellow zone begins where cumulative probability equals or exceeds 95 percent, and the red zone begins where the cumulative probability equals or exceeds 99.99 percent.

\* \* \* \* \*

By order of the Board of Governors of the Federal Reserve System, February 9, 1996.  
William W. Wiles,  
Secretary of the Board.

Federal Deposit Insurance Corporation  
12 CFR CHAPTER III

For the reasons set forth in the preamble, part 325 of title 12 of chapter III of the Code of Federal Regulations, as proposed to be amended at 60 FR 38082 (July 25, 1995), is further proposed to be amended as follows:

**PART 325—CAPITAL MAINTENANCE**

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. In appendix C to part 325 as proposed to be added at 60 FR 38129, section III.B.2. introductory text and section III.B.2.a. would be revised and section III.B.3. would be added to read as follows:

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

\* \* \* \* \*

III. The Internal Models Approach

\* \* \* \* \*

B. \* \* \*

1. \* \* \*

2. A bank must meet the following minimum qualitative criteria before using its internal model to measure its exposure to market risk.<sup>13</sup>

a. A bank must have a risk control unit that is independent from its business trading units and reports directly to senior management of the bank. The unit must be responsible for designing and implementing the bank's risk management system and analyzing daily reports on the output of the bank's risk measurement model in the

context of trading limits. The unit must conduct regular backtesting<sup>14</sup> and adjust its multiplication factor, if appropriate, in accordance with section III.B.3. of this appendix C.

\* \* \* \* \*

3. In addition to any backtesting the bank may conduct as part of its internal risk management system, the bank must conduct, for regulatory capital purposes, backtesting that meets the following criteria:

a. The backtesting must be conducted quarterly, using the most recent 250 trading days' outcomes and VAR measures, which encompass approximately twelve months. The VAR measures must be calibrated to a one-day holding period and a 99 percent confidence level.

b. The bank should identify the number of exceptions (that is, cases where the magnitude of the daily trading loss, if any, exceeds the previous day's VAR measure) to determine its appropriate zone and level within a zone, as set forth in Table A of section III.B.3.c. of this appendix C.

c. A bank should adjust its multiplication factor by the amount indicated in Table A, unless the FDIC determines that a different adjustment or other action is appropriate.

TABLE A.—ADJUSTMENT TO MULTIPLICATION FACTOR FROM RESULTS OF BACKTESTING BASED ON 250 TRADING OUTCOMES

| Zone              | Level No. of exceptions | Adjustment to multiplication factor | Cumulative <sup>1</sup> probability (in percent) |
|-------------------|-------------------------|-------------------------------------|--|
| Green Zone .....  | 4 or fewer ..           | 0.00                                | 89.22  |
|                   | 5 .....                 | 0.40                                | 95.88  |
|                   | 6 .....                 | 0.50                                | 98.63  |
| Yellow Zone ..... | 7 .....                 | 0.65                                | 99.60  |
|                   | 8 .....                 | 0.75                                | 99.89  |
|                   | 9 .....                 | 0.85                                | 99.97  |
| Red Zone .....    | 10 or more              | 1.00                                | 99.99  |

<sup>1</sup> The zones are defined according to the cumulative probability of obtaining up to a given number of exceptions in a sample of 250 independent observations when the true coverage level is 99 percent. The yellow zone begins where cumulative probability equals or exceeds 95 percent, and the red zone begins where the cumulative probability equals or exceeds 99.99 percent.

\* \* \* \* \*

By order of the Board of Directors.  
Dated at Washington, D.C., this 27th day of February 1996.  
Jerry L. Langley,  
Executive Secretary.  
[FR Doc. 96-5235 Filed 3-6-96; 8:45 am]  
BILLING CODE 4810-33-P (1/3), 6210-01-P (1/3), 6714-01-P (1/3)

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. 95-NM-197-AD]

**Airworthiness Directives; Learjet Model 31 and 35A Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.  
**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Learjet Model 31 and 35A airplanes. This proposal would require replacement of two segments of 16 American Wire Gauge (AWG) wire with

8 AWG wire at the connector that is connected to the auxiliary cabin heater relay box. This proposal is prompted by a report that two segments of the 16 AWG wire in the auxiliary cabin heater that were spliced during production do not provide adequate current-carrying capacity. The actions specified by the proposed AD are intended to prevent electrical arcing and a subsequent fire hazard that could result from wiring with inadequate current-carrying capacity.

**DATE:** Comments must be received by April 17, 1996.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 95-NM-197-AD, 1601 Lind Avenue, SW.,

<sup>13</sup> Back-testing includes *ex post* comparisons of the risk measures generated by the model against the actual daily changes in portfolio value.

<sup>13</sup> If the FDIC is not satisfied with the extent to which a bank meets these criteria, the FDIC may adjust the multiplication factor used to calculate market risk capital requirements or otherwise increase capital requirements.

<sup>14</sup> Back-testing includes *ex post* comparisons of the risk measures generated by the model against the actual daily changes in portfolio value.