

Supporting Statement for the Risk-Based Capital Guidelines: Market Risk (FR 4201; OMB No. 7100-0314)

Summary

The Board of Governors of the Federal Reserve System, under delegated authority from the Office of Management and Budget (OMB), proposes to extend for three years, without revision, the mandatory Risk-Based Capital Guidelines: Market Risk (FR 4201; OMB No. 7100-0314). The Paperwork Reduction Act (PRA) classifies reporting, recordkeeping, or disclosure requirements of a regulation as an information collection.¹

The market risk rule is an important component of the Board's regulatory capital framework (12 C.F.R. part 217; Regulation Q) that instructs banks to require banking organizations to measure and hold capital to cover their exposure to market risk.²

On July 2, 2013, the Federal Reserve adopted a revised regulatory capital framework, including the market risk rule, which was expanded to include certain savings and loan holding companies.³

The market risk rule contains requirements subject to the PRA. The reporting, recordkeeping, and disclosure requirements are found in sections 12 C.F.R. 217.203-217.210, and 217.212 (all references to sections hereinafter are from 12 C.F.R. part 217). These requirements enhance risk sensitivity and introduce requirements for public disclosure of certain qualitative and quantitative information about a financial institution's market risk. The Federal Reserve's total annual burden for this information collection is estimated to be 54,992 hours for the 28 banking organizations (22 bank holding companies and 6 state member banks) it supervises that are deemed respondents for purposes of the PRA. [There are no required reporting forms associated with this information collection.]

Background and Justification

The market risk rule is an integral part of the Board's regulatory capital framework. The collection of information permits the Federal Reserve to monitor the market risk profile of banking organizations that it regulates that have significant market risk and evaluate the impact and competitive implications of the market risk rule on those banking organizations⁴ and the industry as a whole. The collection of information provides the most current statistical data available to identify areas of market risk on which to focus for onsite and offsite examinations

¹ See 44 U.S.C. § 3501 *et seq.*

² See 61 FR 47358 (September 6, 1996).

³ The Board issued this rule jointly with the OCC on October 11, 2013 (78 FR 62018), and the FDIC issued a substantially identical interim final rule on September 10, 2013 (78 FR 55340). In April 2014, the FDIC adopted the interim final rule as a final rule with no substantive changes. See 79 FR 20754 (April 14, 2014). On December 18, 2013, the Federal Reserve adopted revisions, including related to timely quantitative and qualitative disclosures, to the market risk rule to align it with other elements of the revised capital framework. See 78 FR 76521 (December 18, 2013).

⁴ For purposes of this notice, banking organizations include bank holding companies, savings and loan holding companies, and state member banks that are subject to the market risk rule.

and allows the Federal Reserve to assess and monitor the levels and components of each reporting institution's risk-based capital requirements for market risk and the adequacy of the institution's capital under the market risk rule. Finally, the collection of information contained in the market risk rule is necessary to ensure capital adequacy of banking organizations according to their level of market risk and assists the Board in implementing and validating the market risk framework.

Description of Information Collection

The market risk rule applies to any banking organization with aggregate trading assets and trading liabilities equal to (1) 10 percent or more of quarter-end total assets or (2) \$1 billion or more.⁵ The Federal Reserve may apply the market risk rule to any banking organization if the Federal Reserve deems it necessary or appropriate because of the level of market risk of the banking organization or to ensure safe and sound banking practices.⁶ Also, the Federal Reserve may exclude a banking organization that meets the threshold criteria from the rule if the Federal Reserve determines that the exclusion is appropriate based on the level of market risk of the banking organization or to ensure safe and sound banking practices.⁷ The market risk rule includes certain reporting, recordkeeping, and disclosure requirements. These requirements are described in sections 203 through 210 and 212. Details of the information collection requirements of each section are provided below.

Reporting Requirements

Prior Approvals (Sections 208 and 209). Section 208(a) requires banking organizations to obtain prior approvals for models measuring incremental risk. With the prior approval of the Federal Reserve, a banking organization may choose to include portfolios of equity positions in its incremental risk model, provided that it consistently includes such equity positions in a manner that is consistent with how the banking organization internally measures and manages the incremental risk of such positions at the portfolio level.

Section 209(a) requires a banking organization to obtain prior approval of the Federal Reserve prior to using the method specified in that section to measure comprehensive risk for one or more portfolios of correlation trading positions.

Recordkeeping Requirements

Policies and Procedures (Sections 203 and 206). Section 203(a)(1) requires clearly defined policies and procedures for determining which trading assets and trading liabilities are trading positions and which trading positions are correlation trading positions. These policies and procedures must take into account (1) the extent to which a position, or a hedge of its material risks, can be marked-to-market daily by reference to a two-way market and (2) possible impairments to the liquidity of a position or its hedge.

⁵ See 12 C.F.R. 217.201(b)(1).

⁶ See 12 C.F.R. 217.201(b)(2).

⁷ See 12 C.F.R. 217.201(b)(3).

Section 203(b)(1) requires clearly defined policies and procedures for actively managing all covered positions, and at a minimum, these policies and procedures must require (1) marking positions to market or to model on a daily basis; (2) daily assessment of the banking organization's ability to hedge position and portfolio risks, and of the extent of market liquidity; (3) establishment and daily monitoring of limits on positions by a risk control unit independent of the trading business unit; (4) daily monitoring by senior management of (1) to (3) hereinabove; (5) at least annual reassessment of established limits on positions by senior management; and (6) at least annual assessments by qualified personnel of the quality of market inputs to the valuation process, the soundness of key assumptions, the reliability of parameter estimation in pricing models, and the stability and accuracy of model calibration under alternative market scenarios.

Section 206(b)(3) requires a banking organization to have policies and procedures that describe how the banking organization determines the period of significant financial stress used to calculate its stressed VaR-based measure under this section and must be able to provide empirical support for the period used. The banking organization must obtain the prior approval of the Federal Reserve for, and notify the Federal Reserve if the banking organization makes any material changes to, these policies and procedures. The policies and procedures must address (1) how the banking organization links the period of significant financial stress used to calculate the stressed VaR-based measure to the composition and directional bias of its current portfolio and (2) the banking organization's process for selecting, reviewing, and updating the period of significant financial stress used to calculate the stressed VaR-based measure and for monitoring the appropriateness of the period to the banking organization's current portfolio.

Trading and Hedging Strategy (Section 203). Section 203(a)(2) requires clearly defined trading and hedging strategies for trading positions approved by senior management of the banking organization. The trading strategy must articulate the expected holding period of, and the market risk associated with, each portfolio of trading positions. The hedging strategy must articulate for each portfolio of trading positions the level of market risk the banking organization is willing to accept and must detail the instruments, techniques, and strategies the banking organization will use to hedge the risk of the portfolio.

Internal Models (Sections 203, 205, and 207). Sections 203(c)(4) through 203(c)(10) require the annual review of internal models and include certain requirements that the models must meet. The banking organization must periodically, but no less frequently than annually, review its internal models in light of developments in financial markets and modeling technologies, and enhance those models as appropriate to ensure that they continue to meet the Federal Reserve's standards for model approval and employ risk measurement methodologies that are most appropriate for the banking organization's covered positions. The banking organization must incorporate its internal models into its risk management process and integrate the internal models used for calculating its VaR-based measure into its daily risk management process. The level of sophistication of a banking organization's internal models must be commensurate with the complexity and amount of its covered positions. A banking organization's internal models may use any of the generally accepted approaches, including but not limited to variance-covariance models, historical simulations, or Monte Carlo simulations, to measure market risk. The banking organization's internal models must properly measure all of

the material risks in the covered positions to which they are applied. The banking organization's internal models must conservatively assess the risks arising from less liquid positions and positions with limited price transparency under realistic market scenarios. The banking organization must have a rigorous and well-defined process for re-estimating, re-evaluating, and updating its internal models to ensure continued applicability and relevance. If a banking organization uses internal models to measure specific risk, the internal models must also satisfy the requirements in paragraph (b)(1) of section 207 of the rule.

Section 203(d)(4) requires at least an annual report to the banking organization's board of directors on the effectiveness of controls supporting the banking organization's market risk measurement systems, including the activities of the business trading units and of the independent risk control unit, compliance with policies and procedures, and the calculation of the banking organization's measure for market risk.

Section 205(a)(5) requires the banking organization to demonstrate to the satisfaction of the Federal Reserve the appropriateness of any proxies used to capture the risks of the banking organization's actual positions for which such proxies are used.

Section 207(b)(1) requires either the use of internal models or the standard method set forth in section 205 to measure the specific risk of each of its portfolios of specified covered positions. If a banking organization uses internal models to measure the specific risk of a portfolio of covered positions, the internal models must (1) explain the historical price variation in the portfolio; (2) be responsive to changes in market conditions; (3) be robust to an adverse environment, including signaling rising risk in an adverse environment; and (4) capture all material components of specific risk for the covered positions in the portfolio. Specifically, the internal models must (a) capture event risk and idiosyncratic risk and (b) capture and demonstrate sensitivity to material differences between positions that are similar but not identical and to changes in portfolio composition and concentrations.

Backtesting and Stress Testing (Sections 204, 205, and 209). Section 204(b) requires a banking organization to compare each of its most recent 250 business days' trading losses (excluding fees, commissions, reserves, net interest income, and intraday trading) with the corresponding daily VaR-based measures. Once each quarter, the banking organization must identify the number of exceptions (that is, the number of business days for which the actual daily net trading loss, if any, exceeds the corresponding daily VaR-based measure) that have occurred over the preceding 250 business days. A banking organization must use a multiplication factor that corresponds to the number of exceptions identified to determine its VaR-based capital requirement and its stressed VaR-based capital requirement for market risk until it obtains the next quarter's backtesting results, unless the Federal Reserve notifies the banking organization in writing that a different adjustment or other action is appropriate.

Section 205(c) requires a banking organization to divide its portfolio into a number of significant subportfolios approved by the Federal Reserve for subportfolio backtesting purposes. These subportfolios must be sufficient to allow the banking organization and the Federal Reserve to assess the adequacy of the VaR model at the risk factor level; the Federal Reserve will evaluate the appropriateness of these subportfolios relative to the value and composition of the

banking organization's covered positions. The banking organization must retain and make available to the Federal Reserve the following information for each subportfolio for each business day over the previous two years (500 business days), with no more than a 60-day lag: (1) a daily VaR-based measure for the subportfolio calibrated to a one-tail, 99.0 percent confidence level; (2) the daily profit or loss for the subportfolio (that is, the net change in price of the positions held in the portfolio at the end of the previous business day); and (3) the probability of observing a profit that is less than, or a loss that is greater than, the amount projected for each day.

Section 209(c) requires that a banking organization must at least weekly apply specific, supervisory stress scenarios to its portfolio of correlation trading positions that capture changes in (1) default rates, (2) recovery rates, (3) credit spreads, (4) correlations of underlying exposures, and (5) correlations of a correlation trading position and its hedge. A banking organization must retain and make available to the Federal Reserve the results of the supervisory stress testing, including comparisons with the capital requirements generated by the banking organization's comprehensive risk model. A banking organization must report to the Federal Reserve promptly any instances where the stress tests indicate any material deficiencies in the comprehensive risk model.

Securitizations (Section 210). Section 210(f) requires that a banking organization demonstrate to the satisfaction of the Federal Reserve a comprehensive understanding of the features of a securitization position that would materially affect the performance of the position. The banking organization's analysis must be commensurate with the complexity of the securitization position and the materiality of the position in relation to capital. To support the demonstration of its comprehensive understanding, for each securitization position a banking organization must (1) conduct and document an analysis of the risk characteristics of a securitization position prior to acquiring the position, considering (a) structural features of the securitization that would materially impact the performance of the position, (b) relevant information regarding the performance of the underlying credit exposure(s), (c) relevant market data of the securitization, and (d) for resecuritization positions, performance information on the underlying securitization exposures; and (2) on an on-going basis (no less frequently than quarterly), evaluate, review, and update as appropriate the analysis required above for each securitization position.

Disclosure Policy (Section 212). Section 212(b) requires that the banking organization must have a formal disclosure policy approved by the board of directors that addresses the banking organization's approach for determining the market risk disclosures. The policy must address the associated internal controls and disclosure controls and procedures. The board of directors and senior management must ensure that appropriate verification of the disclosures takes place and that effective internal controls and disclosure controls and procedures are maintained. One or more senior officers of the banking organization must attest that the disclosures meet the requirements of the rule and the board of directors and senior management are responsible for establishing and maintaining an effective internal control structure over financial reporting, including the disclosures required by this section.

Disclosure Requirements

Disclosures (Section 212). Section 212(c) requires certain quantitative disclosures be made public each calendar quarter. For each material portfolio of covered positions, the banking organization must publicly disclose the following at least quarterly: (1) the high, low, and mean VaR-based measures over the reporting period and the VaR-based measure at period-end; (2) the high, low, and mean stressed VaR-based measures over the reporting period and the stressed VaR-based measure at period-end; (3) the high, low, and mean incremental risk capital requirements over the reporting period and the incremental risk capital requirement at period-end; (4) the high, low, and mean comprehensive risk capital requirements over the reporting period and the comprehensive risk capital requirement at period-end, with the period-end requirement broken down into appropriate risk classifications; (5) separate measures for interest rate risk, credit spread risk, equity price risk, foreign exchange risk, and commodity price risk used to calculate the VaR-based measure; and (6) a comparison of VaR-based estimates with actual gains or losses experienced by the bank, with an analysis of important outliers. The banking organization must also disclose the following at least quarterly: (1) the aggregate amount of on-balance sheet and off-balance sheet securitization positions by exposure type; and (2) the aggregate amount of correlation trading positions.

Section 212(d) requires the following qualitative disclosures annually, with any significant changes disclosed in the interim: (1) the composition of material portfolios of covered positions; (2) the banking organization's valuation policies, procedures, and methodologies for covered positions including, for securitization positions, the methods and key assumptions used for valuing such positions, any significant changes since the last reporting period, and the impact of such change; (3) the characteristics of the internal models used for purposes of the market risk rule; (4) a description of the approaches used for validating and evaluating the accuracy of internal models and modeling processes for purposes of the market risk rule; (5) for each market risk category (that is, interest rate risk, credit spread risk, equity price risk, foreign exchange risk, and commodity price risk), a description of the stress tests applied to the positions subject to the factor; (6) the results of the comparison of the banking organization's internal estimates for purposes of the market risk rule with actual outcomes during a sample period not used in model development; (7) the soundness standard on which the banking organization's internal capital adequacy assessment under the market risk rule is based, including a description of the methodologies used to achieve a capital adequacy assessment that is consistent with the soundness standard; (8) a description of the banking organization's processes for monitoring changes in the credit and market risk of securitization positions, including how those processes differ for resecuritization positions; and (9) a description of the banking organization's policy governing the use of credit risk mitigation to mitigate the risks of securitization and resecuritization positions.

Time Schedule for Information Collection

This information collection contains reporting, recordkeeping, and disclosure requirements, as mentioned above. The creation of policies and procedures, a trading and hedging strategy, internal models, and a disclosure policy are mandatory one-time recordkeeping requirements, with mandatory updates that are on-occasion. The remaining recordkeeping

requirements are quarterly, annually, and on-occasion. The prior written approvals are all required on-occasion. The disclosures are required quarterly, annually, and on-occasion.

Legal Status

The Board's Legal Division has determined that 12 U.S.C. §§ 324, 1844(c), and 1467a(b)(2)(A) authorize the Board to require the information collection. Information collected pursuant to the reporting requirements of the FR 4201 (specifically, information related to seeking regulatory approval for the use of certain incremental and comprehensive risk models and methodologies under sections 217.208 and 217.209) is exempt from disclosure pursuant to exemption (b)(8) of the Freedom of Information Act (FOIA) (5 U.S.C. § 552(b)(8)), and exemption (b)(4) of FOIA (5 U.S.C. § 552(b)(4)). Exemption (b)(8) applies because the reported information is contained in or related to examination reports. Exemption (b)(4) applies because the information provided to obtain regulatory approval of the incremental or comprehensive risk models is confidential business information the release of which could cause substantial competitive harm to the reporting company. The recordkeeping requirements of the FR 4201 require banking organizations to maintain documentation regarding certain policies and procedures, trading and hedging strategies, and internal models. These documents would remain on the premises of the banking organizations and accordingly would not generally be subject to a FOIA request. To the extent these documents are provided to the regulators, they would be exempt under exemption (b)(8), and may be exempt under exemption (b)(4). Exemption (b)(4) protects from disclosure "trade secrets and commercial or financial information obtained from a person and privileged or confidential." The disclosure requirements of the FR 4201 do not raise any confidentiality issues because they require banking organizations to make certain information public.

Consultation Outside the Agency

On February 23, 2016, the Federal Reserve published a notice in the *Federal Register* (81 FR 8958) requesting public comment for 60 days on the extension, without revision, of this information collection. The comment period for this notice expired on April 25, 2016.

Estimate of Respondent Burden

The total annual burden for the FR 4201 is estimated to be 54,992 hours. The Federal Reserve estimates that it will take each of the current 28 respondents 96 hours to create its policies and procedures, 16 hours to define its trading and hedging strategy, 128 hours to specify what the internal models must include, and 40 hours to develop a disclosure policy. Most of the burden associated with these parts of the information collection occurred during the first year of implementation for those banking organizations subject to the rule at the time or once a banking organization meets the qualification criteria.

The Federal Reserve estimates each respondent will take 16 hours per quarter to complete the backtesting required under section 204(b) and 104 hours annually to complete the backtesting and stress testing under sections 205(c) and 209(c). The Federal Reserve also estimates the securitizations analysis will take each respondent 120 hours per quarter. In addition, the Federal

Reserve estimates respondents will take 960 hours to submit prior written approvals annually. Finally, the Federal Reserve estimates the quantitative disclosures will take respondents 16 hours per quarter and the qualitative disclosures will take respondents 12 hours per year. Note that all of these estimates represent an average across all respondents and represent the incremental burden above and beyond any usual and customary business requirements. This burden represents less than 1 percent of the total Federal Reserve System paperwork burden.

| FR 4201 | <i>Number of respondents⁸</i> | <i>Annual frequency</i> | <i>Estimated average hours per response</i> | <i>Estimated annual burden hours</i> |
|--------------------------------|--|-------------------------|---|--------------------------------------|
| Reporting | | | | |
| Prior Written Approvals | 28 | 1 | 960 | 26,880 |
| Recordkeeping | | | | |
| Policies and Procedures | 28 | 1 | 96 | 2,688 |
| Trading and Hedging Strategy | 28 | 1 | 16 | 448 |
| Internal Models | 28 | 1 | 128 | 3,584 |
| Backtesting and Stress Testing | | | | |
| Section 204(b) | 28 | 4 | 16 | 1,792 |
| Sections 205(c) and 209(c) | 28 | 1 | 104 | 2,912 |
| Securitizations | 28 | 4 | 120 | 13,440 |
| Disclosure Policy | 28 | 1 | 40 | 1,120 |
| Disclosure | | | | |
| Quantitative | 28 | 4 | 16 | 1,792 |
| Qualitative | 28 | 1 | 12 | <u>336</u> |
| <i>Total</i> | | | | <i>54,992</i> |

The total annual cost to the public for this information collection is estimated to be \$2,845,836.⁹

Sensitive Questions

⁸ Of these respondents, none are small entities as defined by the Small Business Administration (i.e., entities with less than \$550 million in total assets) www.sba.gov/content/table-small-business-size-standards.

⁹ Total cost to the public was estimated using the following formula: percent of staff time, multiplied by annual burden hours, multiplied by hourly rates (30% Office & Administrative Support at \$17, 45% Financial Managers at \$63, 15% Lawyers at \$64, and 10% Chief Executives at \$87). Hourly rates for each occupational group are the (rounded) mean hourly wages from the Bureau of Labor and Statistics (BLS), *Occupational Employment and Wages May 2014*, published March 25, 2015, www.bls.gov/news.release/ocwage.t01.htm. Occupations are defined using the BLS Occupational Classification System, www.bls.gov/soc/.

This collection of information contains no questions of a sensitive nature, as defined by OMB guidelines.

Estimate of Cost to the Federal Reserve System

The cost to the Federal Reserve System is negligible.