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

Risk-Based Capital Guidelines: Market Risk
(Docket No. R-1401) (RIN 7100-AD61)

Summary

The Board of Governors of the Federal Reserve System, under delegated authority from the Office of Management and Budget (OMB), proposes to reinstate, with revision, the 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] This information collection is included in proposed amendments to Regulations H and Y.

The Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System (Federal Reserve), and the Federal Deposit Insurance Corporation (FDIC) (the agencies) published a joint final rule (77 FR 53060) on August 30, 2012, to revise the market risk capital rule, which was effective January 1, 1997. This final rule would revise the market risk capital rule to better capture positions for which the market risk capital rule is appropriate, reduce procyclicality, enhance the rule's sensitivity to risks that are not adequately captured under the current methodologies, and increase transparency through enhanced disclosures. The final rule does not include all of the methodologies adopted by the Basel Committee on Banking Supervision (BCBS) for calculating the standardized specific risk capital requirements for debt and securitization positions due to their reliance on credit ratings, which is impermissible under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Instead, the final rule includes alternative methodologies for calculating standardized specific risk capital requirements for debt and securitization positions. The final rule is effective on January 1, 2013.

The final rule contains requirements subject to the PRA. The reporting, recordkeeping, and disclosure requirements are found in sections 3, 4, 5, 6, 7, 8, 9, 10, and 12. These requirements would 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 51,064 hours for the 26 financial institutions 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 first international capital framework for banks[2] entitled *International Convergence of Capital Measurement and Capital Standards* (1988 Capital Accord) was developed by the BCBS and endorsed by the G–10 governors in 1988. The agencies implemented the 1988 Capital Accord in 1989 through the issuance of the general risk-based capital rules. In 1996, the BCBS

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[1] See 44 U.S.C. § 3501 et seq.
[2] The term bank includes banks, savings associations, and bank holding companies.

amended the 1988 Capital Accord to require banks to measure and hold capital to cover their exposure to market risk associated with foreign exchange and commodity positions and positions located in the trading account (the Market Risk Amendment (MRA) or market risk framework). The agencies implemented the MRA with an effective date of January 1, 1997 (market risk capital rule).

In June 2004, the BCBS issued a document entitled *International Convergence of Capital Measurement and Capital Standards: A Revised Framework* (New Accord or Basel II), which was intended for use by individual countries as the basis for national consultation and implementation. The New Accord sets forth a "three-pillar" framework that includes (1) risk-based capital requirements for credit risk, market risk, and operational risk (Pillar 1); (2) supervisory review of capital adequacy (Pillar 2); and (3) market discipline through enhanced public disclosures (Pillar 3). The New Accord retained much of the MRA; however, after its release, the BCBS announced that it would develop improvements to the market risk framework, especially with respect to the treatment of specific risk, which refers to the risk of loss on a position due to factors other than broad-based movements in market prices. As a result, in July 2005, the BCBS and the International Organization of Securities Commissions (IOSCO) published *The Application of Basel II to Trading Activities and the Treatment of Double Default Effects*. The BCBS incorporated the July 2005 changes into the June 2006 comprehensive version of the New Accord and follow its "three-pillar" structure. Specifically, the Pillar 1 changes narrowed the types of positions that are subject to the market risk framework and revise modeling standards and procedures for calculating minimum regulatory capital requirements; the Pillar 2 changes required banks to conduct internal assessments of their capital adequacy with respect to market risk, taking into account the output of their internal models, valuation adjustments, and stress tests; and the Pillar 3 changes required banks to disclose certain quantitative and qualitative information, including their valuation techniques for covered positions, the soundness standard used for modeling purposes, and their internal capital adequacy assessment methodologies.

On September 25, 2006, the agencies issued a joint notice of proposed rulemaking (2006 proposal) (71 FR 55958) in which they proposed amendments to their market risk capital rules that would implement the BCBS's changes to the market risk framework. The BCBS began work on significant changes to the market risk framework in 2007 due to issues highlighted by the financial crisis. As a result, the agencies did not finalize the 2006 proposal. The January 2011 notice of proposed rulemaking incorporates aspects of the agencies' 2006 proposal as well as further revisions to the New Accord (and associated guidance) published by the BCBS in July 2009. These publications include *Revisions to the Basel II Market Risk Framework, Guidelines for Computing Capital for Incremental Risk in the Trading Book,* and *Enhancements to the Basel II Framework* (collectively, the 2009 revisions).

In June 2010, the BCBS published additional revisions to the market risk framework that included establishing a floor on the risk-based capital requirement for modeled correlation trading positions. On January 11, 2011, the agencies issued a joint notice of proposed rulemaking (2011 proposal) (76 FR 1890) to revise their market risk capital rules to modify their scope to better capture positions for which the market risk capital rules are appropriate; reduce procyclicality in market risk capital requirements; enhance the rules' sensitivity to risks that are

not adequately captured under the current regulatory measurement methodologies; and increase transparency through enhanced disclosures. On December 21, 2011, the agencies published an amendment (76 FR 79380) to the 2011 proposal to incorporate into the proposed market risk capital rules certain alternative methodologies for calculating specific risk capital requirements for debt and securitization positions that do not rely on credit ratings.

The collection of information contained in the final rule is necessary to ensure banks' capital adequacy according to their level of market risk.

Description of Information Collection

The final rule would apply to any bank 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. The proposed revisions would apply to a bank meeting the market risk capital rule applicability threshold regardless of whether the institution would adopt the proposed advanced capital adequacy framework or remain under the general risk-based capital rule.

The Federal Reserve may apply the final rule to any bank if the Federal Reserve deems it necessary or appropriate because of the level of market risk of the bank or to ensure safe and sound banking practices. Also, the Federal Reserve may exclude a bank 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 bank or to ensure safe and sound banking practices.

The final rule includes certain reporting, recordkeeping, and disclosure requirements. These requirements are described in sections 3, 4, 5, 6, 7, 8, 9, 10, and 12 of the final rule. Details of the information collection requirements of each section are provided below.

Reporting Requirements

Prior Written Approvals (Sections 8 and 9). Section 8(a) requires prior written approvals for models measuring incremental risk. With the prior approval of the Federal Reserve, a bank 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 bank internally measures and manages the incremental risk of such positions at the portfolio level.

Section 9(a) requires prior approval of the Federal Reserve so that a bank may use the method in this section to measure comprehensive risk, that is, all price risk, for one or more portfolios of correlation trading positions.

Recordkeeping Requirements

Policies and Procedures (Sections 3 and 6). Section 3(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.

Section 3(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 bank'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 certain information; (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 6(b)(3) requires policies and procedures that describe how the bank 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 policies and procedures must address (1) how the bank 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 bank'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 bank's current portfolio.

Trading and Hedging Strategy (Section 3). Section 3(a)(2) requires clearly defined trading and hedging strategies for trading positions approved by senior management of the bank. 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 bank is willing to accept and must detail the instruments, techniques, and strategies the bank will use to hedge the risk of the portfolio.

Internal Models (Sections 3, 5, and 7). Sections 3(c)(4) through 3(c)(10) requires the annual review of internal models and include certain requirements that the models must meet. The bank 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 bank's covered positions. The bank 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 bank's internal models must be commensurate with the complexity and amount of its covered positions. A bank'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 bank's internal models must properly measure all of the material risks in the covered positions to which they are applied. The bank's internal models must conservatively assess the risks arising from less liquid positions and positions with limited price transparency under

realistic market scenarios. The bank 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 bank uses internal models to measure specific risk, the internal models must also satisfy the requirements in paragraph (b)(1) of section 7 of the final rule.

Section 3(d)(4) requires at least an annual report to the bank's board of directors on the effectiveness of controls supporting the bank'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 bank's measure for market risk.

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

Section 7(b)(1) requires either the use of internal models or the standard method set forth in section 5 to measure the specific risk of each of its portfolios of covered debt and equity positions. If a bank uses internal models to measure the specific risk of a portfolio of covered debt or equity 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 debt and equity 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 4, 5 and 9). Section 4(b) requires a bank 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 bank 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 bank 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 bank in writing that a different adjustment or other action is appropriate.

Section 5(c) requires a bank 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 bank 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 bank's covered positions. The bank 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 9(c) requires that a bank 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 bank 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 bank's comprehensive risk model. A bank must report to the Federal Reserve promptly any instances where the stress tests indicate any material deficiencies in the comprehensive risk model.

Securitizations (Section 10). Section 10(f) requires that a bank must 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 bank'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 bank 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 12). Section 12(b) requires that the bank must have a formal disclosure policy approved by the board of directors that addresses the bank'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 bank must attest that the disclosures meet the requirements of the final 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 12). Section 12(c) requires certain quantitative disclosures be made public each calendar quarter. For each material portfolio of covered positions, the bank 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 bank 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 12(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 bank'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 this final rule; (4) a description of the approaches used for validating and evaluating the accuracy of internal models and modeling processes for purposes of this final 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 bank's internal estimates for purposes of this final rule with actual outcomes during a sample period not used in model development; (7) the soundness standard on which the bank's internal capital adequacy assessment under this final 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 bank'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 bank'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 and 12 U.S.C. § 1844(c) authorize the Board to require the information collection. Under the Freedom of Information Act (FOIA), 5 U.S.C. § 552, Board records generally must be disclosed unless they are determined to fall, in whole or in part, within the scope of one or more of the FOIA exemptions from disclosure. See 5 U.S.C. § 552(b)(1)-(9). The exempt categories include, but are not limited to,

"trade secrets and commercial or financial information obtained from a person and privileged or confidential" (exemption 4). A submitter of information to the Board may request confidential treatment for any portion of the information collected that the reporter believes is exempt from disclosure under FOIA. The submitter must follow the steps outlined in the Board's Rules Regarding Availability of Information. See 12 CFR § 261. Additionally, to the extent that such information may be contained in an examination report such information maybe also be withheld from the public. See 5 U.S.C. § 552 (b)(8).

Consultation Outside the Agency

On September 25, 2006, the agencies published a joint notice of proposed rulemaking in the *Federal Register* (71 FR 55958) in which they proposed amendments to their market risk capital rules that would implement the BCBS's changes to the market risk framework. The BCBS began work on significant changes to the market risk framework in 2007 due to the issues highlighted by the financial crisis. As a result, the agencies did not finalize the 2006 proposal. The 2011 notice of proposed rulemaking incorporated aspects of the 2006 proposal as well as further revisions to the New Accord (and associated guidance) published by the BCBS in July 2009. On January 11, 2011, the agencies published the 2011 proposed rule in the *Federal Register* (76 FR 1890) requesting public comment for 90 days. The comment period for this notice expired on April 11, 2011. On December 21, 2011, the agencies published an amendment to the 2011 proposed rule in the *Federal Register* (76 FR 79380) requesting public comment for 45 days. The comment period for this notice expired on February 3, 2012. No comments concerning PRA were received in response to the notice of proposed rulemaking. On August 30, 2012, the agencies published the final rule in the *Federal Register* (77 FR 53060) and is effective on January 1, 2013.

Estimate of Respondent Burden

The total annual burden for the FR 4201 is 51,064 hours, as shown in the table below. The Federal Reserve estimates that it will take each of the 26 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 will only occur during the first year of implementation or once a bank meets the qualification criteria.

The Federal Reserve estimates each respondent will take 16 hours per quarter to complete the backtesting required under section 4(b) and 104 hours annually to complete the backtesting and stress testing under Sections 5(c) and 9(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.

	Number of respondents[3]	*Annual frequency*	*Estimated average hours per response*	*Estimated annual burden hours*
Reporting				
Prior Written Approvals	26	1	960	24,960
Recordkeeping				
Policies and Procedures	26	1	96	2,496
Trading and Hedging Strategy	26	1	16	416
Internal Models	26	1	128	3,328
Backtesting and Stress Testing				
Section 4(b)	26	4	16	1,664
Sections 5(c) and 9(c)	26	1	104	2,704
Securitizations	26	4	120	12,480
Disclosure Policy	26	1	40	1,040
Disclosure				
Quantitative	26	4	16	1,664
Qualitative	26	1	12	312
Total				51,064

The total annual cost to the public for this information collection is estimated to be $2,290,220.[4]

Sensitive Questions

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.

[3] Of these respondents, none are small entities as defined by the Small Business Administration (i.e., entities with less than $175 million in total assets) www.sba.gov/content/table-small-business-size-standards.

[4] Total cost to the public was estimated using the following formula: percent of staff time, multiplied by annual burden hours, multiplied by hourly rate (30% Office & Administrative Support @ $17, 45% Financial Managers @ $52, 15% Legal Counsel @ $55, and 10% Chief Executives @ $81). Hourly rate for each occupational group are the median hourly wages (rounded up) from the Bureau of Labor and Statistics (BLS), *Occupational Employment and Wages 2011*, www.bls.gov/news.release/ocwage.nr0.htm. Occupations are defined using the BLS Occupational Classification System, www.bls.gov/soc/.