

March 18, 2005

Office of the Comptroller of the Currency 250 E Street, S.W. Public Information Room Mailstop 1-5 Washington, DC 20219

Attention: Docket No. 04-22 regs.comments@occ.treas.gov

Robert E. Feldman Executive Secretary Attention: Comments/Legal ESS Federal Deposit Insurance Corp. 550 17th Street, N.W. Washington, DC 20429

comments@FDIC.gov

Jennifer J. Johnson, Secretary Board of Governors of the Federal Reserve System 20th Street and Constitution Ave., N.W. Washington, DC 20551

Attention: Docket No. OP-1215 regs.comments@federalreserve.gov

Regulation Comments Chief Counsel's Office Office of Thrift Supervision 1700 G Street, N.W. Washington, DC 20552

Attention: No. 2004-48

regs.comments@ots.treas.gov

Re: Internal Ratings-Based Systems for Retail Credit Risk for Regulatory Capital ("Retail Guidance")

Summary

Citigroup supports the philosophy underlying Basel II and the Retail Guidance, and the efforts to move the industry to a more risk-based perspective on capital requirements.

While we appreciate the effort behind this "first draft" of the Retail Guidance, we believe there are substantive improvements that could be made to the document, as well as the retail portions of the June 2004 Final Accord as published by the Basel Committee. We highlight the latter because the US Agencies have incorporated several important retail model changes prescribed by the Basel Committee in the recent US QIS4 exercise—in advance of this summer's Notice of Proposed Rulemaking comment period, and without mention in the Retail Guidance.

Regarding the Retail Guidance itself, we have two primary concerns:

Imposition of floors regarding the calculation of PDs, LGDs and EADs. We understand the desire for floors that are applied to the average risk parameters of a country/product portfolio. However, we find little economic logic to apply floors to the constituent segments of a broad portfolio. The application of floors to the segmented portfolio level may inhibit portfolio segmentation and may decrease the incentive to reduce risk beyond a certain level.



Imposition of Stressed LGDs. We are concerned that the US Agencies intend to require a theoretical mapping function between average and portfolio-specific "downturn" LGDs across all portfolios, regardless of a firm's historical experience. We would also emphasize the need for any downturn LGDs to incorporate the benefits of diversification. Ignoring diversification in this case would disadvantage banks that have built diverse portfolios as part of their advanced risk management practices.

With regard to the Retail models delineated by the Basel Committee and the US Agencies in QIS4, we are concerned that they will create an un-level playing field for some banks, and possible industry dislocation.

- Credit card parameters. Our empirical evidence, dating as far back as the 1970s for some portfolios, indicates that the AVC of 4% for large QRE portfolios is too high. We believe an AVC of 1-2% (in-line with industry estimates) is more appropriate for such portfolios. Instituting an AVC of 4% would likely raise the capital requirements for the credit card industry, leading to either reduced returns (if investors are willing) or higher prices to US consumers. For multi-line banks involved in credit cards, this will lead to an un-level playing field with other multi-line banks that choose not to compete in this product line.
- Expected Loss vs. Reserve. The formula used to compare the difference between loan loss reserves and the 12-month EL for retail credit is inconsistent with industry practice and sound risk management. First, the full financial resources of a firm should be considered, such as unrealized gains on the balance sheet or 12-months of margin income. Second, the 12-month time frame should be made consistent with typical industry reserving practices, supervisory standards and accounting conventions, especially for portfolios which write-off in 4 months.

While we believe that moving to a risk-sensitive capital framework will provide important benefits to the banking system, we also hope that the US Agencies realize the scope of the disruptions they could inadvertently create if they allow the above-mentioned issues to go unresolved.

Yours Sincerely,

Sallie Krawcheck Chief Financial Officer



COMMENTS REQUESTED BY AGENCIES ON SPECIFIC ISSUES

Following are comments on the particular issues identified by the Agencies in their request for comments:

1. Qualifying Revolving Exposures ("QRE") Volatility Requirement Paragraph 234 (d) of the Final Framework states that:

Because the asset correlation assumptions for the QRRE risk-weight function are markedly below those for the other retail risk-weight function at low PD values, banks must demonstrate that the use of the QRRE risk-weight function is constrained to portfolios that have exhibited low volatility of loss rates, relative to their average level of loss rates, especially within the low PD bands. Supervisors will review the relative volatility of loss rates across the QRRE sub-portfolios, as well as the aggregate QRRE portfolio, and intend to share information on the typical characteristics of QRRE loss rates across jurisdictions.

We have been asked to comment on ways to implement the "low volatility" requirement for QRE portfolios.

Let us define the <u>loss rate volatility ratio</u> as the volatility (i.e. standard deviation) of the loss rate divided by the average loss rate.

In the context of the assumptions underlying the Basel model, the requirement that QRE portfolios should have a relatively low loss rate volatility ratio makes sense. All else held constant, the loss rate volatility ratio, for a properly segmented portfolio (i.e. a portfolio dynamically segmented over time according to the standards described in the Retail Guidance), should be proportional to the relative size of the systematic component – i.e. proportional to the AVC.

The problem in applying this reasoning to an actual credit card portfolio is that several factors could cause the loss rate volatility ratio of a credit card portfolio to change over time:

- a) The risk characteristics of the portfolio could change over time as a consequence of
 - i) Acquisitions or divestitures.
 - ii) Changes in underwriting standards and target market.
 - iii) Changes in account management practices.
- b) State, provincial, or national personal bankruptcy laws can change over time

There also are factors that could cause the loss rate volatility ratio of a portfolio to be high, even if the AVC were low:

- c) Statistical noise may be material for a small portfolio. Banks will be required to segment portfolios within national boundaries. The number of credit card facilities within a particular country may not be large enough for the asymptotic limit to apply. As a result, over time the loss rate volatility ratio may exhibit a large amount of statistical noise, even if the AVC were low.
- d) Portfolios in countries with different average default rates will exhibit different levels of loss rate volatility (on a normalized basis) even if they have similar, low AVCs.



As a consequence of a) and b), the loss rate volatility ratio of an individual credit card portfolio or the credit card portfolio as a whole may vary over time for reasons other than changes in the state of the economy.

In principle the factors listed under a) and b) can be taken into account by the type of dynamic and risk sensitive segmentation that the Retail Guidance requires. However, most banks will unlikely be able to dynamically segment their portfolio retrospectively, to take into account the effect of these factors in the past.

We therefore believe it is premature to specify a definition of "low-volatility" until banks have sufficiently long time series of dynamically segmented credit card portfolios, as required by the Retail Guidance.

Even when there is sufficient time series for a dynamically segmented portfolio, points c) and d) also need to be taken into account:

- Allowances need to be made for a credit card portfolio in a country affected by a material amount of statistical noise and/or for which there is not a sufficient number of accounts to do fine segmentation.
- Allowances need to be made for credit card portfolios in countries whose economic cycles are more severe in percentage terms than the US

2) Definition of Default

The proposed retail IRB guidance provides a three-part definition of default, stipulating that a retail exposure will be in default if any one of three "loss recognition events" occurs. One of the three "loss recognition events" is "The exposure is put on a non-accrual basis". The agencies have asked banks to comment on this, particularly in light of the fact that a) there is no requirement for placing delinquent retail exposures on non-accrual status for either Call Report/Thrift Financial Report purposes or for GAAP.

Citigroup believes that including non-accrual status as an event of default will create problems because of the variation in the timing of non-accrual across the industry. We recommend removing non-accrual as a loss recognition event and recommend limiting the definition of default to the first two criteria listed in paragraph 98 of the Retail Guidance.

3) LGD Estimation

The agencies want comment on LGD for periods when credit losses for a particular portfolio (e.g. residential mortgages) are substantially higher than the average over the last N years. Several questions are asked:

- a) How should "substantially higher than average" be defined?
- What methods could be used to estimate an LGD appropriate to periods of high credit loss.
- Should the LGD adjustment for high credit losses reflect the likely LGD when credit losses are high at the product or the portfolio level for the particular bank (legal entity) or for a nationally diversified portfolio.
- d) How will a bank ensure that the LGD will reflect any unique or predictive risk characteristics of individual segments or small groups of segments if the period of high credit losses is defined at an aggregated level?
- e) If segments are defined across multiple legal entities, how will the banking organization ensure that the capital levels accurately reflect the unique risk of assets held by each legal entity?



In the Basel committee's original single factor asymptotic limit model, PDs but not LGDs were assumed to have a systematic component. As a consequence the Basel risk weight was defined to be a function of the time average expected LGD.

We appreciate the Basel Committee's concern that some LGDs, for some portfolios may have a systematic component.

However, in general, we have not seen consistent evidence across retail portfolios that LGDs vary systematically over time with periods of "substantially higher" credit losses. While we will continue to investigate the historical relationship between number of defaults in a year and LGD, employing various methodologies including regression-type analysis, to date, we have not found any consistent pattern that would allow us to map average LGDs into LGDs for periods of very high defaults. We believe more time and study is needed for best practices to evolve in the industry.

More generally, we are very concerned with the implications of employing a universal mapping function of average LGDs into "downturn" or stressed LGDs. Even if some portfolios show a relationship between larger LGDs and periods of high credit write-offs, a universal mapping function implicitly assumes perfect correlation of periods of high credit write off for all portfolios, across all products, all customer segments and all countries. It ignores the actual degree of diversification in a large bank's retail credit exposure across products, customer segments and countries. This might be an example of unrealistic conservatism in Basel II.

An internationally active, geographically dispersed firm such as Citigroup will be subject to macroeconomic conditions and economic downturns in each country in which it operates. This international geographical diversification mitigates the effect of an economic downturn in any particular country. Even if LGDs did increase during periods of higher than expected credit losses, the consequence on the economic risk of the firm as a whole might still be very small.

More generally, the single factor asymptotic limit assumptions that underlie the various Basel risk weight formulae do not differentiate the relative degree of risk diversification or risk concentration across banks. The Basel risk weight formulae are a one-size fits all set of analytical equations. For a very large internationally active bank, the lack of recognition in Basel II of the relative degree to which banks have portfolio diversification across geographies is a material shortcoming. The use of a universal LGD mapping function would be another example of failing to take the actual degree of diversification into account for an internationally active bank.

Any mapping of average LGDs into downturn LGDs should be done at the bank holding company level by a firm using its own historical data.

4) Criteria for Assigning Exposures to Retail Categories

Agencies request comment on whether the criteria for assigning exposures to retail categories are appropriate the credit risk of the exposures – e.g. is four units the appropriate limit on the number of units in a residential property, to meet the definition of a residential mortgage loan.

No comment.

COMMENTS ON RETAIL STANDARDS ("RS")

The agencies have requested comment on whether any of the standards set forth in the proposed retail IRB guidance should be revised, deleted or supplemented. We were also asked to specify which standards we thought should be mandatory minimum requirements vs. criteria for



supervisory guidance only. We classify the RS's into those categories below, in a separate section.

RS-4:

Banks must clearly define and document the criteria for assigning an exposure to a particular retail risk segment. The risk factors used for IRB risk segmentation purposes must be consistent with internal methods of assessing credit risk for retail exposures.

We recognize the importance of a "use test" for the risk parameters that are input into the Basel A-IRB risk weight functions to measure Risk Weighted Assets. We recognize that the risk parameters used for Basel II should be consistent with the parameters used to calculate internal economic capital and should also be generally consistent with the risk factors used for portfolio risk management by the business. However, for some retail products, risk assessment may be based on additional factors (other than those used in Basel II) or human judgment. Consequently while general consistency is attainable, the rules should not be intended or interpreted in an onerously prescriptive manner that would prevent a bank from making rational methodological decisions regarding risk management.

RS-12

Quantification must be based upon the best available data for the accurate estimation of IRB risk parameters.

We are concerned with a potential conflict between the need to have consistent data used for each of the risk parameters and the requirement that a bank employ the "best data" in estimating risk parameters. For some portfolios, internal data may be "best" but an external data set may by larger and more consistent across all risk parameters (e.g. behavioral vs. FICO scores). Thus we would encourage clarification of the terms "best data".

RS-20

PD estimates for all retail segments cannot be less than 0.03 percent (3 basis points)

This is a disincentive to more refined segmentation. For example, it may be a disincentive to differentiate portfolios by higher/lower LTV or higher/lower credit scores. The reason is that a floor on PD can cause the total RWA to increase under finer segmentation (rather than stay constant or fall).

As an example, assume a large retail portfolio has an average PD of 4bp. Assume the large portfolio is segmented into two equal sized constituent portfolios A and B, for which the validated PD of A is 7bp and the validated PD of B is 1bp. The effect of the 3bp floor means that the average PD of the two portfolios after segmentation and imposition of the floor increases from 4bp to 5bp!

Therefore we would not object to a floor on the PD of each country/product portfolio but would object to a floor on the PD of each constituent portfolio segment. We would view the latter as a somewhat arbitrary rule which did not take into account the actual riskiness of the obligors and which may be a disincentive for finer risk segmentation.

RS-23

IRB banks have a minimum LGD of 10 percent for residential mortgages.

Similar to our comment regarding RS-20, we think this is an arbitrary requirement that may be a disincentive to finer portfolio segmentation.



We understand the agencies concern that residential home prices potentially could follow a pattern of an extended period of rising prices (and consequently historically low LGDs), followed by a period of a sharp decline in housing prices. However, even in an environment of stable or fluctuating real estate prices, a particular portfolio may have an LGD less than 10% because of a very low LTV ratio. In addition, just as portfolios are required to be dynamically segmented, a sophisticated approach will dynamically calculate the LTV ratio (based on changes in the level of an appropriate housing price index) and update LGD estimates if and when the ratio increases or decreases.

RS-25

The bank must provide an estimate of EAD for each segment in its retail portfolio.

The Retail Guidance states in several places that the EAD for revolving credit must equal the current drawdown plus some non-negative estimate of the potential net additional drawdown. For example, paragraph 148 states in part:

". . . With the exception of portfolios purchased at a discount, the estimated EAD must be at least as large as the currently drawn amount in each segment; therefore, LEQs cannot be negative. . . "

In reality, a bank may objectively measure an EAD that is less than the current outstanding for credit card facilities that are several months late in making a payment but not yet in default. This can occur if the bank has appropriately strong policies and practices in place for managing credit card facilities in that situation.

For example, in that situation a bank's policy and practices may cause several actions to be taken, including a) eliminating the remaining unused line and b) sending the obligor notices regarding his overdue payments. As a consequence of this action, the observed EAD for facilities that are at several months late may be less than 100% of the current exposure at the time the unused line is eliminated – i.e. the LEQ effectively is negative.

Banks that have such policies and practices for managing facilities that are late, but not yet in default, should be allowed to recognize the benefit of those policies and practices.

RS-55

Retail IRB risk parameter estimates must be consistent with risk estimates used to guide day-to-day retail risk management activities.

Our concern is similar to the one we expressed above for RS-4. While we appreciate the "use test", this standard should not be implemented in such a way that it inhibits the development of a more comprehensive and sophisticated modeling of retail credit risk and the calculation of economic capital for retail credit risk. For example, risk parameters might be adjusted for internal risk measurement to reflect expected or worst-case macroeconomic conditions or account for benefits of diversification. Thus we believe it is important that the implementation of this standard not inhibit the evolution and improvement in internal risk measurement and management.

OTHER ISSUES IN RETAIL GUIDANCE

Seasoning (paragraphs 109-112)

Paragraph 110 states:

For segments containing unseasoned loans, a bank should assign a higher PD estimate that reflects the annualized cumulative default rate over the segments' expected



remaining life. For seasoned loans, the bank should use the long-run average of oneyear PDs.

Unseasoned new loans should not be required to have higher PDs than seasoned loans. Seasoning should be taken into account but its effect on PDs should be based on the empirical data and not prescribed by the rules.

OTHER RETAIL ISSUES BEYOND THE RETAIL GUIDANCE

4% AVC For Qualifying Revolving Credit.

We believe the 4% AVC for a large QRE portfolio is too high. We think an AVC of 2% is more realistic and consistent with our analysis of both internal and external card loss data as well as industry benchmarks. Moreover, while we have been able to identify limited research to support and AVC at / below a level of 2%, we have yet to identify much of a basis in support of the 4% level.

Future Margin Income, Provisions and EL

We believe that the formula used to compare the difference between loan loss reserves and EL should be altered to include the future margin income, over a one-year horizon, associated with exposures that are assumed to be present over that year. This is particularly important for retail credit products for which expected loss is included in pricing and for which the bank can demonstrate that historical spreads are more than adequate to cover expected losses.



Classifying Retail Standards

- MIN = Mandatory Minimum Requirements or Blank = Criteria For Supervisory Guidance

RS FOR SEGMENTATION

| MIN RS ? | RS# | Content |
|-------------|-------|---|
| Min | RS-1 | Banks must segment exposures into pools with homogeneous risk characteristics. Banks must separately segment exposures in each distinct product line within each of the three retail risk categories (mortgage, QRE, and other). |
| | RS-2 | Defaulted assets must be segmented on the basis of risk characteristics predictive of loss and recovery rates. |
| Min | RS-3 | A retail IRB risk segmentation system must produce segments within each retail risk category that adequately differentiate risk and produce reliable estimates of the IRB risk parameters. |
| Min | RS-4 | Banks must clearly define and document the criteria for assigning an exposure to a particular retail risk segment. The risk factors used for IRB risk segmentation purposes must be consistent with internal methods of assessing credit risk for retail exposures. |
| Min | RS-5 | Banks must develop and document their policies to ensure that risk driver information is sufficiently accurate and timely to track changes in underlying credit quality and to migrate exposures between segments. |
| | RS-6 | Banks must review their segmentation system at least annually and have clear policies to define the criteria for modifying the system. |
| | RS-7 | Banks that design their risk segmentation systems to realize the benefits of guarantees or other risk mitigants must be able to support their approach. |
| Min | RS-8 | Banks must validate that their retail IRB risk segmentation process separates exposures into segments with homogeneous risk characteristics that generate reliable long-run estimates of the IRB risk parameters. |
| | RS-9 | The ongoing validation process must include the review of developmental evidence, ongoing monitoring, and back-testing. |
| | RS-10 | Banks must establish internal tolerance limits for differences between expected and realized outcomes that require appropriate managerial review. |



RS FOR QUANTIFICATION

| | | Content |
|-------------|-------|--|
| MIN RS ? | RS# | Content |
| Min | RS-11 | Banks must have a fully specified process covering all aspects of retail |
| | | quantification. The quantification process must be fully documented and |
| | | updated periodically. |
| | RS-12 | Quantification must be based upon the best available data for the accurate |
| | | estimation of IRB risk parameters. |
| | RS-13 | The sample period for the reference data must be at least five years and must |
| | | include periods of portfolio stress. |
| | RS-14 | Mapping must be based on a robust comparison of available data elements that |
| | | are common to the existing portfolio and each reference data set. |
| | RS-15 | Mappings must be reviewed regularly and updated as necessary. |
| | RS-16 | Banks that combine estimates from internal and external data or that use |
| | | multiple estimation methods must have a clear policy governing the combination |
| | | process and should examine the sensitivity of the results to alternative |
| | | combinations. |
| | RS-17 | A bank must have a clear, well-documented policy for addressing the absence |
| | | of significant data elements in either the reference dataset or the existing |
| | | portfolio. |
| Min | RS-18 | For estimating the IRB retail risk parameters, qualifying banks must use the IRB |
| | | definition of default. |
| | RS-19 | Estimates of PD must be empirically based and must represent the average |
| | | over time of segment default frequencies on an account basis. The effects of |
| | | seasoning, prepayments, and attrition must be considered in the PD estimates. |
| | RS-20 | PD estimates for all retail segments cannot be less than 0.03 percent (3 basis |
| | DO 04 | points) |
| | RS-21 | The estimates of LGD must reflect the concept of "economic loss." |
| | RS-22 | The estimated LGD must reflect loss severities during periods of high credit losses. |
| | RS-23 | IRB banks have a minimum LGD of 10 percent for residential mortgages. |
| | RS-24 | If banks choose to reflect the risk-mitigating effect of private mortgage |
| | | insurance (PMI) for residential mortgages in their risk estimates, they must do |
| | | so by incorporating these insurance benefits into the quantification of segment- |
| | | level LGD. |
| Min | RS-25 | The bank must provide an estimate of EAD for each segment in its retail |
| | | portfolio. |
| | RS-26 | The estimated LEQ must reflect estimated net additional draws during periods |
| | | of high credit losses. |
| | RS-27 | Quantification of the IRB risk parameters must be adjusted appropriately to |
| | | recognize the risk characteristics of exposures that were removed from |
| | | reference data sets through loan sales or securitizations. |
| | RS-28 | A validation process must cover all aspects of IRB retail quantification. |
| | RS-29 | A bank must establish policies for all aspects of validation. A bank must |
| | | comprehensively validate risk segmentation and quantification at least annually, |
| | DO 55 | document the results, and report its findings to senior management. |
| | RS-30 | Banks must use a variety of validation approaches or tools; no single validation |
| | | tool can completely and conclusively assess IRB quantification. A bank's |
| | | validation processes must include the evaluation of logic, ongoing monitoring, |
| | | and the comparison of estimated parameter values with actual outcomes. |



RS FOR QUANTIFICATION

| MIN RS? | RS# | Content |
|------------|-------|---|
| | RS-31 | Banks must evaluate the developmental evidence, or logic, involved with the development of the risk segmentation system and the quantification process |
| | RS-32 | Banks must conduct ongoing process verification on the developed risk segmentation system and quantification process to ensure proper implementation. |
| | RS-33 | Banks must benchmark their risk quantification estimates against other sources. |
| | RS-34 | Banks must develop statistical tests to back-test their IRB risk quantification processes. Banks must establish tolerance limits for differences between expected and actual outcomes, and banks must have a validation policy that requires and outlines remedial actions to be taken when policy tolerances are exceeded. |

RS FOR MAINTENANCE

| MIN | RS# | Content |
|-----|-------|--|
| RS? | | |
| Min | RS-35 | The bank must collect and maintain sufficient data to support its IRB retail credit risk system. |
| | RS-36 | Banks must retain all significant data elements used in the IRB retail credit risk system for at least five years and must include a period of portfolio stress. This data requirement applies to all loans and lines that were open at any time during this period. |
| | RS-37 | Banks must retain refreshed data elements related to key credit risk drivers, performance components, and loan disposition consistent with advanced credit risk management standards and commensurate with the risk and size of the program. |
| | RS-38 | Banks must maintain data to allow for a thorough review of asset sale transactions. |
| Min | RS-39 | Retained data must be sufficient to support IRB validation requirements. |
| | RS-40 | Banks must ensure that outsourced activities performed by third-party vendors are supported by sufficient data to meet IRB requirements. |
| Min | RS-41 | At each reporting period, aggregate exposures across all risk segments must be reconciled to ensure that all exposures are accounted for appropriately. |
| Min | RS-42 | Banks must develop and document the process for ensuring data integrity and for delivering, retaining, and updating inputs to the IRB data warehouse. Also, banks must develop comprehensive definitions for the data elements used for each credit group or business line (a "data dictionary"). |
| | RS-43 | Banks must maintain detailed documentation on changes over time to the risk segmentation system and the quantification process, including data elements, method, and supporting processes. |
| | RS-44 | Banks must store data in a format that allows timely retrieval for analysis and validation of risk segmentation methods and parameter quantification processes. Data systems must be scalable to accommodate the growing needs of the business lines, the centralized data functions, and risk analysis over time. |
| | RS-45 | If data gaps occur, banks must specify interim measures to quantify IRB risk parameters and must establish a plan to meet the data maintenance standards. |



RS FOR CONTROL AND OVERSIGHT

| MIN RS ? | RS# | Content |
|-------------|-------|---|
| Min | RS-46 | IRB banks must implement an effective system of controls and oversight. |
| Min | RS-47 | Banks must have an independent risk management function that provides |
| | | oversight of retail lending activities. |
| | RS-48 | Banks must have an effective loan review function for retail credit portfolios. |
| | RS-49 | A quality control function must confirm that all retail lending activities follow |
| | | established policies. |
| | RS-50 | Management information systems (MIS) must be sufficiently comprehensive to |
| | | monitor and measure credit quality and performance and to allow proactive and |
| | | effective risk management. |
| | RS-51 | Adequate controls and monitoring systems must be in place to effectively |
| | | supervise all third parties involved in the lending process. |
| | RS-52 | Bank policies must identify individuals responsible for all aspects of the retail |
| | | IRB credit risk system. |
| Min | RS-53 | Banks must have a comprehensive, independent review process that is |
| | | responsible for ensuring the integrity of the IRB risk segmentation system and |
| | | quantification process. |
| | RS-54 | IRB banks must have a transparent retail IRB process. |
| | RS-55 | Retail IRB risk parameter estimates must be consistent with risk estimates used |
| | | to guide day-to-day retail risk management activities. |
| Min | RS-56 | Internal and external audit must annually evaluate compliance with the retail |
| | | IRB capital regulations and supervisory guidance. |
| | RS-57 | The full board or a designated committee of the board must review and approve |
| | | key elements of the IRB system. |
| Min | RS-58 | Senior management must ensure that all components of the IRB system, |
| | | including controls, are functioning as intended and comply with the risk-based |
| | | capital regulation and supervisory guidance. |