

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

DIVISION OF BANKING SUPERVISION AND REGULATION

Date: March 22, 2006
To: Board of Governors of the Federal Reserve System
From: Staff¹
Subject: Notice of Proposed Rulemaking Implementing New Risk-Based Capital Framework in the United States

ACTION REQUESTED

Board approval to issue for public comment a notice of proposed rulemaking (NPR) implementing a new risk-based capital framework based on the Basel Committee on Banking Supervision's (BCBS) 2005 revised capital accord. Staff also requests Board approval to make non-substantive edits to the proposal prior to its publication to accommodate further interagency discussion. Staff notes that the other banking agencies (the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), and the Office of Thrift Supervision (OTS)) are not expected to complete their internal review and approval procedures for some time. If approved by the Board, the NPR would be published jointly by the agencies in the Federal Register after all of the agencies have completed their procedures. In the event that substantive issues arise during this time, staff would circulate a revised proposal to the Board for consideration. A draft of the NPR is attached.

BACKGROUND

General

In the United States, banks, thrifts and bank holding companies (collectively referred to herein as banks or institutions) are subject to minimum regulatory capital requirements that include a minimum leverage ratio requirement, as well as minimum risk-based ratio

requirements.² The current U.S. risk-based capital requirements are based on an internationally agreed framework for capital measurement that was developed by the BCBS and endorsed by the G-10 Governors in 1988.³ This framework is referred to as the Basel Accord or Basel I framework. The Basel I framework was intended to strengthen capital levels at large, internationally active banks and foster international consistency through a common definition of capital and a common methodology for measuring capital relative to broad categories of risk. The Basel Accord also reduced disincentives for banks to hold liquid, low-risk assets and factored off-balance sheet exposures into regulatory capital requirements, representing a significant step forward for regulatory capital measurement.

Although the 1988 Basel Accord served its intended purposes well, it does not incorporate innovations in financial products and services and improvements in risk measurement and management practices developed by large, internationally active banks since the 1980s. Federal Reserve staff has been working for a number of years with staffs from the OCC, FDIC, and the OTS, as well as the member countries on the BCBS, to modify the Basel Accord to recognize new developments in financial products and advances in risk measurement and management practices. In this regard, 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).

The New Accord encompasses three pillars: minimum regulatory capital requirements (pillar 1), supervisory review (pillar 2), and market discipline through enhanced public disclosure (pillar 3). Under the first pillar, a bank must calculate risk-based capital requirements for

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² The Board’s capital rules may be found at 12 CFR Part 208, Appendices A, B and E (for state member banks) and 12 CFR part 225, Appendices A, D and E (for bank holding companies).

³ The BCBS is a committee of banking supervisory authorities that was established by the central bank governors of the G-10 countries in 1975. It consists of senior representatives of bank supervisory authorities and central banks

exposure to credit risk and operational risk. Banks with significant trading activities also must factor in a measure for exposure to market risk. For both credit risk and operational risk Basel II provides several methodologies for determining risk-based capital requirements.

For credit risk there is a standardized approach, essentially a package of modifications to the Basel I framework, and two internal ratings-based (IRB) approaches, which use an institution's internal estimates of key risk parameters in combination with risk-based capital formulas specified by the agencies to derive capital requirements. The foundation IRB approach employs risk parameters that are partly provided by supervisors and partly by the institutions. The advanced IRB approach allows institutions to provide all of the risk parameters.

For operational risk the New Accord provides three methodologies: the basic indicator approach, the standardized approach, and the advanced measurement approaches (AMA). Under the basic indicator and standardized approaches, capital requirements are fixed percentages of gross income. The AMA permits a bank to develop its individual approach for measuring and managing operational risk and determining the associated capital requirement, subject to supervisory oversight. The advanced IRB approach and the AMA, together, are referred to as the advanced approaches.

On August 4, 2003, the U.S. federal banking agencies (the Board, the OCC, the FDIC, and the OTS -- collectively, the agencies) issued for public comment an advance notice of proposed rulemaking (ANPR) (68 FR 45900) seeking public comment on a preliminary Basel II framework developed on the basis of a consultative paper issued by the BCBS that same year. The ANPR only proposed the advanced approaches of Basel II, reflecting the agencies' belief that Basel II's most advanced risk management and measurement methodologies are the most appropriate for large, internationally active U.S. banks. Together, the agencies received

from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

approximately 100 public comments on the ANPR. Commenters generally supported the overall direction of the ANPR but raised a number of conceptual and technical issues they believed required additional consideration.⁴

Since the issuance of the ANPR, the agencies have worked domestically and with other BCBS member countries to modify the methodologies in the Basel II framework; these efforts culminated in the New Accord. The New Accord is intended for use by individual countries as the basis for national consultation and implementation. In the fall of 2004, the agencies conducted a quantitative impact study (QIS4) to assess the potential impact of the New Accord on U.S. institutions. In April 2005, the agencies announced they intended to further analyze the QIS4 data before issuing an NPR, the next step in the implementation process. In September 2005, the agencies announced their intention to move forward with an NPR, subject to additional prudential safeguards. The September 2005 press release noted the agencies' expectation that a proposal would be available in the first quarter of 2006. On February 24, 2006, the agencies released to the public a summary of the QIS4 findings.⁵

The agencies now are preparing to move ahead with issuance of an NPR that includes certain prudential safeguards addressing concerns identified in the QIS4 analysis. These safeguards are described in more detail in the discussion section of this memorandum. Board staff believes it is important to move forward with the Basel II implementation process to further industry dialogue on the proposed framework with the goal of ensuring that the Basel II risk-based capital regime is appropriate and cost effective for large, sophisticated U.S. institutions and for U.S. institutions operating on a global basis.

⁴ A number of commenters opposed certain aspects of the ANPR, such as a capital requirement based on expected loss plus unexpected loss and a pillar 1 operational risk capital requirement.

⁵ The interagency press releases and BCBS documents referred to may be found on or through the Federal Reserve's public website at www.federalreserve.gov. The draft NPR includes a brief discussion of QIS4 results on pages 79 through 83 of the attachment. That discussion is not repeated in this memorandum.

Procedural Considerations

As noted, the other agencies have not yet completed their internal review procedures and approval processes, and it is not certain how much additional time will be needed to finish them. One procedural requirement for the OCC and OTS is review by the Office of Management and Budget (OMB) pursuant to Executive Order 12866. In general, these agencies must allow for up to a 90-day OMB review. Comments received during the OMB review process would be addressed by the agencies prior to publication of the NPR in the Federal Register. However, because the NPR is lengthy, complex and technical, Board staff believes it is important for the public to have ample opportunity to review the proposal. Presenting the draft NPR to the Board for its consideration serves the purpose of disseminating the proposal to the public prior to its final interagency clearance and publication in the Federal Register. Further, this is consistent with the agencies' stated expectation regarding availability of the proposal. Board staff expects that this opportunity for preliminary review will assist commenters in their assessment of the proposal and help to provide sufficient time for interested parties to develop comprehensive comments. After each agency obtains final approval and the document is issued in the Federal Register, Board staff expects the NPR will provide a 120-day formal comment period.

In addition to the attached NPR on credit risk and operational risk (Basel II NPR), Board staff is working with the other agencies to develop an NPR addressing risk-based capital requirements for market risk (market risk NPR). The BCBS issued the market risk amendment to Basel I (MRA) in 1996.⁶ It was designed to impose a risk-based capital requirement on a bank's exposure to market risk in trading activities. The Board adopted the MRA in August 1996. The market risk NPR would take into account modifications to the MRA issued by the BCBS in July 2005. Board staff expects the market risk NPR will be ready for the Board's

⁶ 61 FR 47358, September 6, 1996. The MRA generally would apply to banks that use the Basel II rules and to some that do not. Banks that are subject to the MRA and do not implement the Basel II rules would continue to be subject to the MRA, subject to any modifications that may be adopted.

consideration in the upcoming weeks and, if approved by the Board and the other agencies, Board staff would expect the market risk NPR to be issued in the Federal Register for public comment at the same time as the Basel II NPR.

Board staff also is working with the other agencies to develop a package of supervisory reporting schedules that would be required for institutions using the advanced approaches. Part of this reported information would be available to the public and part would be confidential supervisory information. Board staff expects the reporting package will be ready for the Board's consideration in the upcoming weeks and, if approved by the Board and the other agencies, Board staff would expect the reporting package to be issued in the Federal Register for public comment at the same time as the Basel II NPR.

In addition, agency staffs are revising and enhancing the supervisory guidance related to IRB rating systems for corporate exposures and retail exposures, and for operational risk. Staff expects that a complete package of supervisory guidance addressing these areas as well as equity and securitization exposures would be issued for public comment soon after the issuance of the Basel II NPR and the other proposals noted above.⁷

Finally, staff notes that in October 2005 the agencies issued an ANPR related to possible modifications to the existing risk-based capital rules (general risk-based capital rules).⁸ This proposal is referred to as the Basel IA ANPR. The Basel IA ANPR was intended to solicit comment on ways the general risk-based capital rules might be enhanced to improve risk-sensitivity and to mitigate potential competitive disparities between banks applying the Basel II advanced approaches and those using the general risk-based capital rules. The comment period on the Basel IA ANPR ended in mid-January 2006. Agency staffs are currently assessing the

⁷ Draft supervisory guidance related to corporate exposures and operational risk was issued for public comment on August 4, 2003 (68 FR 45949). Draft supervisory guidance on retail exposures was issued for public comment on October 27, 2004 (69 FR 62748).

⁸ 70 FR 61068 (October 20, 2005).

comments and considering ways to move forward with a Basel IA NPR that would put forth a more fully developed risk-based capital proposal for banks not using the advanced approaches.

To facilitate the public comment process, agency staffs have developed a common draft regulatory text. Unless specifically indicated in the proposal, the term “bank” includes banks, savings associations, and bank holding companies (BHCs). Also, in the proposed rule the term “[AGENCY]” refers to the primary federal supervisor of the bank applying the rule. The proposal does not restate the elements of tier 1 and tier 2 capital, which generally remain the same as under the general risk-based capital rules. Adjustments to the definitions of tier 1 and tier 2 capital are explained in more detail below.

The proposed rule is structured in eight broad parts. Part I identifies criteria for determining which banks are subject to the rule, provides key definitions, and sets forth the minimum risk-based capital ratios. Part II describes adjustments to the numerator. Part III describes the qualification process and criteria for obtaining supervisory approval to use the advanced approaches. Parts IV through VII address the calculation of risk-weighted assets. Part VIII provides public disclosure requirements for banks using the advanced approaches. This memorandum follows the structure of the Basel II NPR preamble and identifies the pages in the attached preamble where more detailed discussion may be found.

DISCUSSION

Overview of the Proposed Rule (NPR attachment pages 72 through 77)

The capital adequacy framework in the Basel II NPR is intended to produce risk-based capital requirements that are more risk-sensitive than the agencies’ general risk-based capital rules, which are based on Basel I.⁹ The proposed rule maintains the general risk-based capital rules’ minimum tier 1 risk-based capital ratio of 4.0 percent and total risk-based capital ratio of

⁹ An overview of the proposal’s conceptual foundations is provided on pages 60 through 72 of the draft Basel II NPR attachment.

8.0 percent. The numerator of the ratios -- the components of regulatory capital -- also is generally the same. The primary difference between the proposed rule and the general risk-based capital rules is the methodology used for calculating the denominator of the ratios -- risk-weighted assets.

Broadly speaking, banks applying the proposed rule would use their internal risk measurement systems to estimate risk parameters for exposures. The bank would use specific risk-based capital formulas to transform these risk parameters into risk-weighted-asset amounts for (1) general credit risk (including wholesale and retail exposures), (2) securitization exposures, and (3) equity exposures. Credit risk-weighted assets would be the sum of these three amounts, multiplied by 1.06.¹⁰ Credit risk-weighted assets plus operational risk-weighted assets would be a bank's total risk-weighted asset amount. Banks using the MRA would continue to be subject to the MRA and would factor their market risk-equivalent assets into their total risk-weighted asset amount. A bank's risk-based capital ratio is calculated by dividing its qualifying capital by its total risk-weighted assets.

Banks would be required to assess their overall capital position relative to total risk and would be subject to supervisory review of their comprehensive capital adequacy (pillar 2). Banks also would be subject to certain public disclosure requirements (pillar 3), as well as to supplemental supervisory reporting requirements as determined by the agencies. All banks using the advanced approaches would continue to be subject to the applicable tier 1 leverage ratio requirements and each depository institution (DI) would continue to be subject to the prompt corrective action thresholds.

Under the proposed rule, a bank would classify each of its on- and off-balance sheet exposures as a wholesale, retail, securitization or equity exposure. Exposures that do not fit in

these categories (and certain non-material portfolios of exposures) generally would be assigned risk-weighted asset amounts equal to their carrying value (for on-balance sheet exposures) or notional value (for off-balance sheet exposures) – in effect, they would be risk-weighted at 100 percent.

Wholesale exposures would include most credit exposures to companies and governmental entities. Wholesale exposures would be subcategorized as high volatility commercial real estate (HVCRE) exposures or non-HVCRE exposures. For each wholesale exposure, a bank would assign five quantitative risk parameters: probability of default (PD, which measures the likelihood that an obligor will default over a one-year horizon); expected loss given default (ELGD, which is an estimate of the economic loss if a default does occur); loss given default (LGD, which is an estimate of the economic loss if a default occurs during downturn economic conditions); exposure at default (EAD, which is measured in dollars and is an estimate of the amount that would be owed to the bank at the time of default); and effective maturity (M, which is measured in years and reflects the effective remaining maturity of the exposure).

A bank would be able to factor into its risk parameter estimates the risk mitigating effects of collateral, eligible credit derivatives, and eligible guarantees subject to certain criteria and explicit measurement methodologies. Banks would input the risk parameter estimates for each wholesale exposure into an IRB risk-based capital formula to determine the risk-based capital requirement for the exposure. The proposal contains a different IRB risk-based capital formula for HVCRE and non-HVCRE exposures to reflect different asset value correlation assumptions for the two subcategories of wholesale exposures.

¹⁰ The New Accord identifies the 1.06 multiplier as the current best estimate of a scaling factor that broadly maintains the aggregate amount of risk-based capital under Basel II, relative to Basel I. The Basel II NPR includes the multiplier as a placeholder, pending review and overall calibration of the framework during the transition period.

Retail exposures would include most credit exposures to individuals and to small businesses that are managed as part of a segment of exposures with similar risk characteristics, rather than on an individual-exposure basis. A bank would classify retail exposures into three subcategories – residential mortgage exposures, qualifying revolving exposures (QREs, such as credit cards), and other retail exposures. Within these subcategories a bank would group exposures into segments with homogeneous risk characteristics. The bank would then assign the risk parameters PD, ELGD, LGD and EAD to each retail segment. The risk parameter M would not be directly assigned for retail segments, but the effects of maturity would be reflected through the asset value correlations used in the retail IRB formulas. Like wholesale exposures, the risk parameters for each retail segment would be used as inputs into an IRB risk-based capital formula to determine the risk-based capital requirement for each segment. Again, the proposal contains a different IRB risk-based capital formula for each of the three subcategories of retail exposures to reflect different asset value correlation assumptions for the subcategories.

Securitization exposures generally would include all asset-backed and mortgage-backed securities held by a bank and any other tranching credit exposures of a bank. The bank would apply one of three general approaches to compute risk-based capital requirements for securitization exposures, subject to various conditions and qualifying criteria: the Ratings-Based Approach (RBA), which uses external ratings to risk-weight exposures; the Internal Assessment Approach (IAA), which uses internal ratings to risk-weight exposures to asset-backed commercial paper programs (ABCP programs); or the Supervisory Formula Approach (SFA), which uses a supervisory formula to risk-weight exposures. Securitization exposures that are in the form of gain-on-sale or credit-enhancing interest-only strips (CEIOs) and securitization

exposures that do not qualify for the approaches noted above would be deducted from regulatory capital.¹¹

Equity exposures generally would include securities and instruments that represent a direct or indirect ownership interest in, and a residual claim on, the assets and income of a company. Banks would be able to use an internal model approach (IMA) for determining risk-based capital requirements for equity exposures, subject to certain qualifying criteria and floors. Alternatively, a bank could use a simple risk weight approach (SRWA), in which publicly traded equity exposures generally would be subject to a 300 percent risk weight and non-publicly traded equity exposures generally would be subject to a 400 percent risk weight, although equity exposures under a threshold level would be subject to a 100 percent risk weight. Under both approaches, equity exposures made to certain entities or pursuant to certain statutory authorities would be subject to a zero to 100 percent risk weight.

For operational risk, a bank would have to develop qualifying AMA systems to determine its risk-based capital requirements. Under the AMA, a bank would use its own methodology to identify operational loss events, measure exposure to operational risk, and assess a risk-based capital charge for that risk.

Scope of Application (NPR attachment pages 90 through 93)

The proposal identifies three groups of banks: (1) banks that would be required to adopt the advanced approaches (core banks); (2) banks that voluntarily adopt the advanced approaches (opt-in banks); and (3) banks that do not adopt the advanced approaches (general banks). Under the proposal, a DI would be a core bank if its consolidated total assets are \$250 billion or more, its consolidated on-balance sheet foreign exposure is \$10 billion or more, or it is a subsidiary of another DI or BHC that uses the advanced approaches. A BHC would be a core bank if its

¹¹ Gain-on-sale refers to an increase in equity capital that arises at the inception of a securitization. A CEIO is an asset that represents the contractual right to receive interest payments from a securitization and exposes the holder to credit risk that exceeds its pro rata claim on the underlying exposures.

consolidated total assets (excluding assets held by an insurance underwriting subsidiary) are \$250 billion or more, its consolidated on-balance sheet foreign exposure is \$10 billion or more, or it has a subsidiary DI that uses the advanced approaches. U.S. banks that are owned by a foreign banking organization generally would be subject to the same threshold criteria as U.S. banks owned by U.S. investors.

The proposed approach for BHCs is different than what the agencies proposed in the ANPR, which applied the first criterion only to total consolidated DI assets of a BHC, rather than to the BHC's consolidated total assets (minus insurance). This proposed change recognizes that BHCs can hold similar assets within and outside DIs and reduces potential incentives to structure BHC assets and activities to arbitrage capital regulations. Assets held in an insurance underwriting subsidiary of a BHC are excluded from the threshold calculation because Basel II was not designed to address insurance underwriting exposures.

The proposal recognizes there may be cases where a primary federal supervisor determines that application of the advanced approaches is not appropriate for an institution in light of the institution's asset size, level of complexity, risk profile, or scope of operations. Further, the proposal restates the agencies' supervisory authority to require a bank to hold an amount of capital greater than would be required under the proposed rule.

Qualification Process and Transition Rules (NPR attachment pages 94 through 101)

Qualification process (pages 94 – 97)

Under the proposed rule, a bank preparing to implement the advanced approaches would have to adopt a written implementation plan, approved by its board of directors, describing in detail how the bank complies, or intends to comply, with the rule's qualification requirements. The bank would have to establish and maintain a comprehensive and sound planning and governance process to oversee implementation efforts described in its plan and demonstrate to its primary federal supervisor that it meets the qualification requirements for the advanced

approaches. In addition, a bank would have to complete a satisfactory parallel run, as described below. A core bank would have to adopt an implementation plan no later than six months after it becomes a core bank. An opt-in bank would be able to adopt an implementation plan at any time, but it would have to give written notice to its primary federal supervisor at least twelve months before it proposes to move to the first transitional floor period, as described below.

A bank's implementation plan would have to assess its state of readiness relative to the qualification requirements for the advanced approaches and include a gap analysis that identifies areas where additional work is needed. The plan would need to address all consolidated subsidiaries and any proposed temporary or permanent exclusion of an immaterial business line, portfolio, or exposure from the advanced approaches. The plan also would have to include objective, measurable milestones, including delivery dates, and a target date when the bank expects its advanced approaches to be fully operational. For core banks, the proposal provides that the plan would have to include a first transitional floor period start date that is no later than thirty-six months after the effective date of the final rule or the date the bank becomes a core bank (although this period could be extended by the bank's primary federal supervisor). A bank's primary federal supervisor would, through ongoing supervisory dialogue and review, assess the bank's progress relative to its plan and its readiness to move to the advanced approaches.

Transition rules (pages 97 – 101)

Before moving to the advanced approaches for risk-based capital purposes, a bank would have to complete a satisfactory parallel run that is at least four consecutive calendar quarters, and during which the bank's primary federal supervisor deems the bank's compliance with the qualification requirements to be satisfactory. Under the proposal, the first opportunity for a bank to begin a parallel run would be January 1, 2008. During the parallel run, a bank would remain subject to the general risk-based capital rules for all applicable regulatory and supervisory

purposes, but the bank also would calculate its capital ratios using the advanced approaches and would report pertinent information to its primary federal supervisor. In addition to assessing the bank’s readiness to move to the advanced approaches, the agencies would use this information to further assess the advanced approaches and the extent to which modifications to the framework might be necessary.

A bank’s primary federal supervisor would notify the bank of the date when it may begin to use the advanced approaches for risk-based capital purposes. To ensure a smooth transition to the advanced approaches, the proposed rule would impose temporary floors on the amount by which a bank’s risk-based capital requirements could decline relative to the general risk-based capital rules, over a period of at least three years. A bank would have to progress through the three transitional floor periods, each of which must last at least one year. The bank’s primary federal supervisor would advise the bank when it is able to move to a subsequent floor period or out of the transitional floor periods altogether. Table A sets forth the proposed transitional floor periods.

Table A – Transitional Floors

Transitional floor period	Transitional floor percentage
First floor period	95 percent
Second floor period	90 percent
Third floor period	85 percent

During the transitional floor periods, a bank would calculate its risk-weighted assets under the general risk-based capital rules and multiply that amount by the appropriate floor percentage from Table A. This product would be the bank’s “floor-adjusted” risk-weighted assets. The bank would calculate its tier 1 and total risk-based capital ratios using the general risk-based capital rules for the numerator values and floor-adjusted risk-weighted assets for the denominator values. The bank also would calculate its tier 1 and total risk-based capital ratios using the definitions and rules in this proposal (referred to as the advanced approaches risk-based

capital ratios). In addition, the bank would calculate a tier 1 leverage ratio using tier 1 capital as defined in the proposal for the ratio's numerator and total average assets as the denominator.

The bank would publicly report all five ratios described above – two floor-adjusted risk-based capital ratios, two advanced approaches risk-based capital ratios, and one leverage ratio. A bank would have to meet all applicable regulatory and supervisory requirements that are linked to tier 1 and total risk-based capital ratios using the lower of the respective floor-adjusted risk-based capital ratio and the advanced approaches risk-based capital ratio for each applicable ratio. Thus, for a DI using the advanced approaches, the applicable PCA category during the transition period would be determined by reference to the lower of the two tier 1 and total risk-based capital ratios. During the transition period, a bank's tier 1 and tier 2 capital for all non-risk-based-capital purposes (such as Regulation W quantitative limits) would be the bank's tier 1 and tier 2 capital as calculated under the advanced approaches. Given the same capital elements, tier 1 and tier 2 capital would typically be lower under the proposed rule than under the general risk-based capital rules due to certain numerator adjustments described below.

This proposed transition approach is different from that provided in the New Accord. Under the New Accord, a bank would have a two-year transition period and would be able to begin a parallel run in 2007. During the first transition year (2008 under the New Accord) the dollar amount of a bank's minimum capital requirement (that is, its effective minimum required capital or EMRC)¹² could not be less than 90 percent of EMRC as calculated under Basel I. During the second transition year (2009 under the New Accord), EMRC could not be less than 80 percent of EMRC as calculated under Basel I. In some cases, the Basel II approach could permit an actual decrease in the amount of minimum required capital in excess of 10 percent or 20 percent, the intended limitations. Board staff believes the approach in the Basel II NPR

¹² EMRC is the dollar amount of the elements of tier 1 and tier 2 capital (excluding reserves) that a bank must hold to meet an 8.0 percent risk-based capital ratio.

provides an easier-to-understand link between the general risk-based capital rules and the proposed rules and will facilitate the transition process while ensuring capital requirements do not decline precipitously.

Staff notes that the proposed transition rules would result in a one-year delay for U.S. banks to begin a parallel run relative to the timeline provided in the New Accord and would impose a longer and more gradual transition period with applicable floors relative to the New Accord. Staff believes this prudential approach is appropriate to ensure the agencies have sufficient opportunity to assess bank implementation of the framework and its overall impact on regulatory capital.

Qualification Requirements (NPR attachment pages 101 through 147)

Because Basel II uses banks' estimates of certain key risk parameters to determine risk-based capital requirements, the advanced approaches introduce greater complexity to the regulatory framework and would require banks using those approaches to have a high level of sophistication in risk measurement and management systems. The qualification requirements are written broadly to accommodate the many ways a bank may design and implement robust internal credit and operational risk measurement and management systems and to permit industry practice to evolve. A bank seeking to use the advanced approaches would have to meet the qualification requirements in the proposed rule (as supplemented by supervisory guidance) to the satisfaction of its primary federal supervisor and complete a satisfactory parallel run.

Specifically, a bank's advanced approach systems would have to incorporate five interdependent components in a framework for evaluating credit and operational risk and measuring regulatory capital:

(1) A risk rating and segmentation system that assigns ratings to individual wholesale obligors and exposures and assigns individual retail exposures to segments;

(2) A quantification process that translates the risk characteristics of wholesale obligors and exposures and segments of retail exposures into numerical risk parameters that are used as inputs to the IRB risk-based capital formulas;

(3) An ongoing process that validates the accuracy of the ratings assignments, segmentations and risk parameters;

(4) A data management and maintenance system that supports the advanced approach systems; and

(5) Oversight and control mechanisms that ensure the advanced approach systems are functioning effectively and producing accurate results.

General process and systems requirements (pages 102 –105)

One of the principal objectives of the proposed framework is to provide appropriate incentives for banks to enhance techniques for measuring and managing their risks. The proposed rule would require a bank to have a rigorous process for assessing its overall capital adequacy in relation to its total risk profile and a comprehensive strategy for maintaining sufficient capital levels. While recognizing that not every risk can be measured precisely, the following risks, at a minimum, would be expected to be factored into a bank's internal capital assessment process: credit risk, market risk, operational risk, interest rate risk in the banking book, liquidity risk, concentration risk, reputational risk and strategic risk.

The proposed rule also would require that the systems and processes a bank uses for risk-based capital purposes be sufficiently consistent with its internal risk management processes and management information reporting system such that data from the latter processes and systems can be used to verify the reasonableness of the inputs the bank uses for risk-based capital purposes. Consistent with pillar 2 of the New Accord and existing U.S. supervisory expectations and guidance, a bank would have to internally assess its capital adequacy relative to its overall risk profile. The bank's primary federal supervisor would evaluate how well the bank is

assessing its capital needs relative to its risks and, if deficiencies are identified, the supervisor would take necessary action to ensure that appropriate and prudent levels of capital are maintained.

Risk rating and segmentation systems for wholesale and retail exposures (pages 105 – 113)

Wholesale exposures

For wholesale exposures, a bank would have to have an internal risk rating system that indicates the likelihood of default of each individual obligor. A bank would assign an internal risk rating to each wholesale obligor, which should reflect the obligor's PD. In making this assignment, the bank would consider key obligor attributes, both qualitative and quantitative, such as historic and projected financial performance, trends in key financial performance ratios, financial contingencies, and an assessment of the quality of the obligor's management capabilities. The bank would have to assign each legal entity wholesale obligor to a single risk rating grade. Thus, if a single wholesale exposure of the bank is in default, all of the bank's wholesale exposures to that obligor would be treated as defaulted for risk-based capital purposes. In addition, the proposed rule provides that a bank's internal rating system must have at least seven discrete grades for non-defaulted obligors and at least one grade for defaulted obligors.

Under the proposal, a wholesale obligor would be in default if, for any credit exposure of the bank to the obligor, the bank has placed the exposure on non-accrual status, taken a full or partial charge-off or write-down on the exposure due to the distressed condition of the obligor, or incurred a credit-related loss of 5 percent or more of the exposure's initial carrying value in connection with the sale of the exposure or the transfer of the exposure to the held-for-sale, available-for sale, trading account, or other reporting category. This proposed definition is different from the proposed definition of default in the ANPR and in Basel II, which is linked to a bank's determination that a borrower is unlikely to pay its obligations in full, or that the borrower is more than 90 days past due on principal or interest on any material obligation to the

bank. The Basel II NPR changes were made in response to issues raised by commenters on the ANPR – commenters encouraged the agencies to use a definition of default that was closer to that used by bank managers. The Basel II NPR seeks comment on the revised definition and on what issues may arise because it is different from the definition of default that may be used in other national jurisdictions.

A bank would capture the estimated loss severity upon default of a wholesale exposure by either directly assigning an ELGD and LGD estimate to the exposure or by grouping the exposure with other wholesale exposures into loss severity rating grades (reflecting the bank's estimate of the ELGD or LGD of the exposure). PD, ELGD, and LGD are discussed in more detail below.

Retail exposures

For retail exposures, a bank would assign the risk parameters to segments of exposures with homogeneous risk characteristics, rather than to individual exposures. Risk characteristics could include, for example, loan-to-value ratios, credit scores, loan terms and structure, geographic location, and collateral type. Retail exposures in each retail subcategory (residential mortgages, QRE, and other retail) would have to be segmented separately. In addition, defaulted retail exposures would have to be segmented separately from non-defaulted retail exposures.

Under the proposal, the definition of default for retail exposures is consistent with the Federal Financial Institutions Examination Council's (FFIEC) Uniform Retail Credit Classification and Account Management Policy.¹³ Thus, revolving retail exposures and residential mortgages would be in default at 180 days past due and other retail exposures would be in default at 120 days past due. In addition, a retail exposure would be in default if the bank has taken a full or partial charge-off or write-down of principal for credit-related reasons.

¹³ FFIEC, "Uniform Retail Credit Classification and Account Management Policy," 65 FR 36903 (June 12, 2000).

Default on one retail exposure would not require a bank to treat all other obligations of the same obligor to the bank as defaulted.

Quantification of risk parameters for wholesale and retail exposures (pages 114 – 129)

Probability of default (PD)

As noted above, under the proposal a bank would assign each wholesale exposure to an internal rating grade and would associate a PD with each rating grade. PD for a wholesale exposure to a non-defaulted obligor would be the bank's empirically-based best estimate of the long-run average of one-year default rates for the rating grade over a mix of economic conditions.

A bank also must assign a PD to each segment of retail exposures. For retail exposures, the definition of PD would depend on the materiality of seasoning effects for the segment. Where seasoning is not a material consideration, PD would be the bank's empirically-based best estimate of the long-run average of one-year default rates for the exposures in the segment over a mix of economic conditions. Where seasoning effects are material, PD would be the bank's empirically-based best estimate of the annualized cumulative default rate over the expected remaining life of the exposures over a mix of economic conditions.

For both wholesale exposures and segments of retail exposures, PD may not be less than 0.03 percent, except for exposures to, or guaranteed by, a sovereign entity and certain other organizations such as the Bank for International Settlements and the International Monetary Fund. PD estimates would be converted into PDs reflecting economic downturn conditions as part of the IRB risk-based capital formulas. For wholesale exposures to defaulted obligors and for segments of defaulted retail exposures, PD would be 100 percent.

Expected loss given default and loss given default (ELGD and LGD)

Under the proposal, a bank would have to assign an ELGD and LGD risk parameter for each wholesale exposure (or loss severity grade) and each segment of retail exposures. The LGD

of a segment of residential mortgage exposures (unless principal is guaranteed by the full faith and credit of a sovereign entity) may not be less than 10 percent. The proposal would define ELGD as the bank's empirically-based best estimate of the default-weighted average economic loss per dollar of EAD the bank expects to incur in the event an exposure defaults within a one-year horizon over a mix of economic conditions. LGD is the bank's empirically-based best estimate of the economic loss on an exposure, per dollar of EAD, in the event of default within a one-year horizon during economic downturn conditions. The LGD of an exposure or segment may never be less than the ELGD of that exposure or segment.

The economic loss amount on an exposure would have to capture all material credit-related losses on the exposure (including accrued but unpaid interest or fees, losses on the sale of repossessed collateral, direct workout costs, and an appropriate allocation of indirect workout costs). Economic downturn conditions for an exposure generally would be those conditions in which the aggregate default rates for the exposure's entire wholesale or retail subcategory held by the bank in the exposure's national jurisdiction are significantly higher than average.

The proposal provides two methods of generating LGD estimates for wholesale and retail exposures. First, a bank would be able to use its own estimates of LGD for a subcategory of exposures if the bank has prior written approval from its primary federal supervisor. As an alternative to own estimates of LGD, the proposal provides a supervisory mapping function for converting ELGD into LGD for risk-based capital purposes. A bank that does not qualify to use its own estimates of LGD for a subcategory of exposures would instead compute LGD by applying the mapping function to its internal estimates of ELGD for such exposures. The proposed mapping function is: $LGD = 0.08 + 0.92 \times ELGD$. Under this mapping function, for example, an ELGD of 0 percent is converted to an LGD of 8 percent and an ELGD of 20 percent is converted to an LGD of 26.4 percent.

Board staff believes this supervisory mapping function is a necessary component of the Basel II NPR because it may be difficult for banks currently to produce internal estimates of LGD that are sufficient for risk-based capital purposes. LGD data for important portfolios may be sparse and there is limited industry experience with incorporating downturn conditions into LGD estimates. Although an explicit mapping function is not set forth in the New Accord, Board staff believes it is consistent with the BCBS guidance issued in July 2005 that provides national discretion to supervisors to establish conservative and temporary measures for reflecting downturn LGDs when supervisory LGDs are not specified.¹⁴ The Basel II NPR seeks comment on the proposed mapping function as well as on other aspects of LGD-related definitions and estimation.

Exposure at default (EAD)

Under the proposal, the EAD for the on-balance sheet component of a wholesale or retail exposure generally would be the bank's carrying value, including net accrued but unpaid interest and fees (less unrealized gains and plus unrealized losses for available-for-sale securities). For the off-balance sheet component of a wholesale or retail exposure that is a loan commitment or line of credit, EAD generally would be the bank's best estimate of net additions to the outstanding amount owed the bank, including future additional draws, that are likely to occur over the remaining life of the exposure assuming it goes into default. The estimate of net additions would have to reflect what would be expected during a period of economic downturn conditions. For other types of off-balance sheet wholesale or retail exposures, such as guarantees, EAD would be the notional amount of the exposure. EAD for OTC derivative contracts, repo-style transactions, and eligible margin loans is discussed below in the credit risk mitigation section. For a segment of retail exposures, EAD would be the sum of the EADs for each individual exposure in the segment.

¹⁴ BCBS, Guidance on Paragraph 468 of the Framework Document, July 2005.

Effective maturity (M)

A bank also must calculate the effective maturity (M) for each wholesale exposure. For wholesale exposures other than repo-style transactions, eligible margin loans, and OTC derivative contracts subject to a qualifying master netting agreement, M would be the weighted-average remaining maturity (measured in years) of the expected contractual cash flows from the exposure, using the undiscounted amounts of the cash flows as weights. A bank could, at its option, use the nominal remaining maturity (measured in years) of the exposure. The M for repo-style transactions, eligible margin loans, and OTC derivative contracts subject to a qualifying master netting agreement would be the weighted-average remaining maturity (measured in years) of the individual transactions subject to the qualifying master netting agreement, with the weight of each individual transaction equal to the notional amount of the transaction.

For most exposures, M would be capped at five years and floored at one year. For exposures that have an original maturity of less than one year and are not part of a bank's ongoing financing of the obligor, however, M would be floored at one day. Examples of transactions that may qualify for the exemption from the one-year maturity floor include, but are not limited to, due from other banks, bankers' acceptances, and sovereign exposures.

In all cases, the data a bank uses to estimate risk parameters would have to be relevant to the bank's actual wholesale and retail exposures and of sufficient quality to support the determination of risk-based capital requirements for the exposures. A bank would be expected to use the best available data for quantifying the risk parameters, including internal data, external data, or pooled data combining internal and external data elements.

Operational risk (pages 129 – 139)

Under the proposal, operational risk would be defined as the risk of loss from inadequate or failed internal processes, people, and systems or from external events (including legal risk but

excluding strategic and reputational risk). Operational loss would be defined as a loss resulting from an operational loss event, including all expenses associated with an operational loss event except for opportunity costs, foregone revenue, and costs related to risk management and control enhancements implemented to prevent future operational losses. An operational loss event would be an event that results in loss and is associated with internal fraud; external fraud; employment practices and workplace safety; clients, products, and business practices; damage to physical assets; business disruption and system failures; or execution, delivery and process management. A bank would be required to have qualifying operational risk management processes, data and assessment systems, and quantification systems to measure operational risk and determine an appropriate risk-based capital requirement for that risk.

A bank would be required to have an operational risk management function independent from business line management. The operational risk management function would be responsible for the design, implementation, and oversight of the bank's operational risk data and assessment systems, operational risk quantification systems, and related processes. A bank also would be required to have a process to identify, measure, monitor, and manage operational risk in bank products, activities, processes, and systems. This process would have to provide for the consistent and comprehensive collection of the data needed to estimate the bank's exposure to operational risk. A bank's operational risk management processes would be expected to reflect the scope and complexity of its business lines, as well as its corporate organizational structure.

Operational risk data and assessment system

Under the proposal, a bank must have an operational risk data and assessment system that incorporates on an ongoing basis the following four elements: (i) internal operational loss event data; (ii) external operational loss event data; (iii) results of scenario analysis; and (iv) assessments of the bank's business environment and internal controls. Internal operational loss event data would include data relating to gross operational loss amounts, dates, recoveries,

and relevant causal information for operational loss events occurring at the bank. External loss event data would encompass the same general information for operational loss events at organizations other than the bank. Scenario analysis would be a systematic process of obtaining expert opinions to derive reasoned estimates of the likelihood and loss impact of plausible high severity operational loss events. A business environment and internal control factor analysis would require a bank to identify and assess the level and trends in operational risk and related control structures at the bank.

Operational risk quantification system

A bank's operational risk quantification system would have to measure operational risk exposure, using the operational risk data and assessment system, at the 99.9th percentile of the distribution of potential aggregate operational losses over a one-year horizon. The mean of such a total loss distribution would be the bank's expected operational loss (EOL). A bank's unexpected operational loss (UOL) would be the difference between its operational risk exposure and its EOL.

A bank may use its internal estimates of dependence among operational losses within and across business lines and operational loss event types if the bank can demonstrate to the satisfaction of its primary federal supervisor that its process for estimating dependence is sound, robust to a variety of scenarios, and implemented with integrity, and allows for the uncertainty surrounding the estimates.

In limited circumstances there may not be sufficient data available for a bank to generate a credible estimate of its own operational risk exposure at the 99.9 percent confidence level. In these limited cases, a bank may use an alternative operational risk quantification system subject to approval by the bank's primary federal supervisor. The alternative approach would not be available at the BHC level. The agencies would not approve a bank's proposed alternative

approach that includes an allocation of operational risk capital requirements that includes non-DI entities or the benefits of diversification across entities.

Data management and maintenance (pages 139 – 140)

A bank would be required to have data management and maintenance systems that adequately support all aspects of the bank's advanced IRB systems for wholesale and retail credit risk, operational risk-related systems, and other systems permitted under the proposed rules (such as the IAA for ABCP programs and the IMA for equity exposures). The bank's data management and maintenance systems would have to ensure the timely and accurate reporting of risk-based capital requirements. The bank would have to retain sufficient data elements to permit monitoring, validation and refinement of the bank's advanced systems.

Control and oversight mechanisms and documentation (pages 140 – 147)

Under the proposal, bank senior management would be responsible for ensuring that all components of systems used under the advanced approaches function effectively and are in compliance with the qualification requirements of the advanced approaches. A bank's board of directors (or designated committee) would have to evaluate at least annually the effectiveness of, and approve, the bank's advanced systems. To support these responsibilities, a bank must have effective controls and oversight to ensure ongoing compliance with the qualification requirements and maintenance of the integrity, reliability and accuracy of the bank's advanced systems. The oversight process should be sufficiently independent of the advanced systems development, implementation, and operation.

Validation

A bank would have to independently validate its advanced systems on an ongoing basis. Validation would include three broad components: (i) evaluation of the conceptual soundness of the advanced systems; (ii) ongoing monitoring that includes process verification and comparison of the bank's internal estimates with relevant internal and external data sources or results using

other estimation techniques (for example, benchmarking); and (iii) outcomes analysis that includes comparisons of actual outcomes to the bank's internal estimates by backtesting and other methods.

Internal audit

A bank would have to have an internal audit function independent of business line management that assesses at least annually the effectiveness of the controls supporting the bank's advanced systems. Internal audit would have to review the validation process including validation procedures, responsibilities, results, timelines, and responsiveness to findings. Further, internal audit would have to evaluate the depth, scope, and quality of the risk management system review process.

Stress testing

Under the proposal, a bank would have to periodically stress test its advanced systems. Stress testing analysis provides one way of understanding how economic cycles might affect risk-based capital requirements, including migration across rating grades or segments. Banks would have to periodically stress test their advanced systems and manage their regulatory capital position so that they remain at least adequately capitalized during all phases of the economic cycle, including during an economic downturn. The scope of the stress testing would have to be broad and include all material portfolios.

Documentation

Finally, a bank would be required to document all material aspects of its advanced systems, including, but not limited to, its internal risk rating and segmentation systems, risk parameter quantification systems, model design, assumptions, and validation results. Documentation would be expected to support the requirements for quantification, validation, and control and oversight mechanisms, as well as the bank's broader risk management and reporting

needs. Banks would have to document all material assumptions underpinning their analytical framework and would have to support any subsequent changes to those assumptions.

Banks would be required to meet the qualification requirements on an ongoing basis. In addition, banks would be expected to improve their systems as they improve data collection and as industry practice evolves. To facilitate supervisory oversight of such system changes, a bank would have to notify its primary federal supervisor when it makes material changes to its advanced approach systems or modeling assumptions. If a bank falls out of compliance with the qualification requirements for the advanced approaches, the bank would have to establish an acceptable remedial plan and would have to disclose publicly its areas of non-compliance.

Calculation of Tier 1 Capital and Total Qualifying Capital (NPR attachment pages 150 through 158)

Under the proposal, a bank's total qualifying capital would be the sum of its tier 1 capital elements and tier 2 capital elements, subject to various limits and restrictions, minus certain deductions. The tier 1 and tier 2 capital elements generally remain the same as they are currently in the general risk-based capital rules.

A bank would continue to deduct from tier 1 capital goodwill, other intangible assets, and deferred tax assets to the same extent that those are currently deducted under the general risk-based capital rules. Qualifying intangible assets and deferred tax assets that meet the conditions and limits in the general risk-based capital rules would not have to be deducted from tier 1 capital. In addition, a bank would not have to deduct from tier 1 capital certain percentages of the adjusted carrying value of its nonfinancial equity investments as it does under the general risk-based capital rules. Instead, the bank's equity exposures would be subject to the equity treatment in the proposed rule.

Under the general risk-based capital rules, a bank generally may include in tier 2 capital its allowance for loan and lease losses (ALLL) up to 1.25 percent of risk-weighted assets. Under

the proposal, the ALLL is treated differently. The proposal includes a methodology for adjusting risk-based capital requirements based on a comparison of the bank's eligible credit reserves to its expected credit losses (ECL). Eligible credit reserves are defined as all general allowances, including the ALLL, that have been established through a charge against earnings to absorb credit losses associated with on- and off-balance sheet wholesale and retail exposures. If the bank has a shortfall of eligible credit reserves compared to ECL, the bank would deduct 50 percent of the shortfall from tier 1 capital and 50 percent from tier 2 capital. If eligible credit reserves exceed ECL, the excess portion of eligible credit reserves may be included in tier 2 capital up to 0.6 percent of credit risk-weighted assets.

The agencies' ANPR on Basel II would have required a bank to hold capital against its measured amount of unexpected credit loss (UCL) plus ECL. Many commenters on the ANPR objected to this treatment arguing that capital should cover UCL only and reserves typically cover ECL. In October 2003, the BCBS announced its decision to remove ECL from the capital calculation in the New Accord. The treatment described above for ECL and eligible credit reserves reflects this shift to a UCL-only approach. It is intended to maintain appropriate incentives to reserve prudently, while ensuring that capital and reserves together are sufficient to support both ECL and UCL. The 0.6 percent limit on the inclusion of excess reserves in tier 2 capital is approximately as restrictive as the existing cap on the inclusion of the ALLL in the general risk-based capital rules.

A bank also would have to deduct from tier 1 capital any gains-on-sale and certain other high risk securitization exposures. Certain other low-rated or unrated securitization exposures would be deducted from tier 1 and tier 2 capital (50 percent from each category). In addition, under the proposal, a bank would deduct its exposures on certain unsettled and failed capital markets transactions 50 percent from tier 1 and 50 percent from tier 2 capital.

For BHCs with consolidated insurance underwriting subsidiaries that are functionally regulated, the BHC would consolidate the assets of that subsidiary for the purpose of determining risk-weighted assets, but would deduct from regulatory capital an amount equal to the insurance underwriting subsidiary's minimum regulatory capital requirement as determined by its functional regulator. This approach is different from the New Accord, which broadly endorses a deconsolidation and deduction approach for insurance underwriting subsidiaries. Board staff believes a full deconsolidation and deduction approach may not fully capture the credit, market and operational risk in insurance underwriting subsidiaries at the BHC level and, thus, has proposed the alternative approach outlined above.

Categorization of Exposures (NPR attachment pages 159 through 168)

Under the proposal, a bank would have to group its exposures into four general categories: wholesale, retail, securitization, and equity.

Wholesale exposures (pages 159 – 162)

Wholesale exposures include credit exposures to a company, individual, sovereign or governmental entity. As noted, wholesale exposures would be further identified as HVCRE or non-HVCRE exposures. An HVCRE exposure would be defined as a credit facility that finances the acquisition, development, or construction of real property, excluding facilities used to finance (i) one- to-four family residential property or (ii) commercial real estate projects meeting certain LTV specifications and capital contribution conditions.

The New Accord identifies five subclasses of specialized lending for which the primary source of repayment of the obligation is the income generated by the financed assets, rather than the independent capacity of a broader commercial enterprise. The subclasses are project finance, object finance, commodities finance, income-producing real estate, and HVCRE. The New Accord also provides a methodology (the supervisory slotting approach) for banks that cannot estimate PD for these exposure types. Board staff believes that sophisticated banks that would

apply the advanced approaches in the United States should be able to estimate all risk parameters for specialized lending exposures and, therefore, the proposal does not include a separate treatment for these exposures beyond the different IRB risk-based capital formula for HVCRE.

In contrast to the New Accord, the proposal also does not include an adjustment that would result in a lower risk weight for a loan to a small or medium-size enterprise that has the same risk parameter values as a loan to a larger firm. Board staff is not aware of compelling evidence that smaller firms with the same PD and LGD as a larger firm present less systematic risk. As mentioned above and discussed below in more detail, some small business loans may be treated as retail exposures. The Basel II NPR seeks comment specifically on the treatment of small business exposures.

Retail exposures (pages 162 – 164)

Retail exposures generally include exposures to an individual or small business that are managed as part of a segment of similar exposures -- that is, not on an individual exposure basis.

The Basel II NPR would provide for the following subcategories of retail exposures:

(1) residential mortgage exposures; (2) QREs; and (3) other retail exposures. Residential mortgage exposures would include any exposure that is primarily secured by a first or subsequent lien on a one-to-four family property (including term loans and revolving home equity lines of credit). An exposure primarily secured by a first or subsequent lien on residential property that is not one-to-four family (that is, multifamily) also could be included as a residential mortgage exposure as long as the exposure has both an original and outstanding balance of no more than \$1 million.

QREs would include exposures to individuals that are revolving, unsecured, and unconditionally cancelable by the bank; have a maximum exposure amount of up to \$100,000; and are managed as part of a segment of exposures with homogeneous risk characteristics. This

category would include most credit card exposures to individuals and overdraft lines on individual checking accounts.

Other retail would include exposures to individuals for non-business purposes that are not in the other two retail subcategories and are managed as part of a segment of similar exposures. This would include, for example, personal term loans, margin loans, auto loans and leases, credit card accounts above \$100,000, and student loans. Also included in this subcategory would be exposures for business purposes up to a single borrower threshold of \$1 million if the exposures are managed as part of a segment of similar exposures.

Securitization exposures (pages 164 – 167)

Securitization exposures would include on-balance sheet and off-balance sheet credit exposures that arise from a traditional or synthetic securitization. A securitization transaction generally is one in which: (i) all or a portion of the credit risk on one or more underlying exposures is transferred to a third party; (ii) the credit risk associated with the underlying exposures has been separated into at least two tranches reflecting different levels of seniority; (iii) performance of the securitization exposure depends on the performance of the underlying exposures; and (iv) all or substantially all of the underlying exposures are financial assets. Securitization exposures could take the form of, among other things, asset-backed and mortgage-backed securities, loans, lines of credit, liquidity facilities, financial standby letters of credit, credit derivatives and guarantees, servicing assets, servicer cash advance facilities, reserve accounts, credit-enhancing representations and warranties, and CEIOs.¹⁵ Exposures resulting from the tranching of the risks of nonfinancial assets (such as project or object finance) generally would be treated under the wholesale rules, rather than the securitization rules.

¹⁵ Mortgage-backed pass-through securities guaranteed by Fannie Mae or Freddie Mac would be securitization exposures.

Equity exposures (pages 167 – 168)

Equity exposures generally would include a security or instrument that represents a direct or indirect ownership interest in, and residual claim on, the assets and income of a company; a security or instrument that is mandatorily convertible into an equity exposure; an option or warrant that is exercisable for an equity exposure; and any other security or instrument (other than a securitization exposure) to the extent that its return is based on the performance of an equity exposure.

Risk Weighted Assets for Wholesale Exposures and Retail Exposures (NPR attachment pages 170 through 191)

The first step in the risk-weighting process is for a bank to determine which of its exposures falls into each of the categories described above. The second step involves assigning the wholesale exposures to obligor rating grades and loss severity grades and assigning retail exposures to segments. During the third step, the quantification phase, the bank would assign the risk parameters (PD, ELGD, LGD, EAD, and, where applicable, M) to the wholesale exposures and retail segments. The quantification phase would include obtaining historical reference data, estimating risk parameters for the reference data, mapping the historical reference data to the bank's current exposures, and assigning the risk parameters to those exposures.

After assigning the risk parameters, the bank would calculate the dollar risk-based capital requirement for each wholesale exposure and retail segment. The bank would insert the risk parameters into the appropriate IRB risk-based capital formula as specified in Table B and then would multiply the output of the formula (K) by the EAD of the exposure or segment.¹⁶

¹⁶ The New Accord calls for the use of LGD (reflecting downturn scenarios) in calculating ECL, one variable in the IRB formulas. The proposed rule would use ELGD rather than LGD in this calculation as agency staffs believe it better reflects the bank's expectations of the amount of loss in the event of default, that is, ECL.

Table B – IRB risk-based capital formulas for wholesale exposures to non-defaulted obligors and segments of non-defaulted retail exposures*

Retail	Capital Requirement (K) Non-Defaulted Exposures	$K = \left[LGD \times N \left(\frac{N^{-1}(PD) + \sqrt{R} \times N^{-1}(0.999)}{\sqrt{1-R}} \right) - (ELGD \times PD) \right]$
	Correlation Factor (R)	For residential mortgage exposures: $R = 0.15$
		For other retail exposures: $R = 0.03 + 0.13 \times e^{-35 \times PD}$
Wholesale	Capital Requirement (K) Non-Defaulted Exposures	$K = \left[LGD \times N \left(\frac{N^{-1}(PD) + \sqrt{R} \times N^{-1}(0.999)}{\sqrt{1-R}} \right) - (ELGD \times PD) \right] \times \left(\frac{1 + (M - 2.5) \times b}{1 - 1.5 \times b} \right)$
	Correlation Factor (R)	For HVCRE exposures: $R = 0.12 + 0.18 \times e^{-50 \times PD}$
		For wholesale exposures other than HVCRE exposures: $R = 0.12 + 0.12 \times e^{-50 \times PD}$
Maturity Adjustment (b)	$b = (0.11852 - 0.05478 \times \ln(PD))^2$	

* N(.) means the cumulative distribution function for a standard normal random variable. N⁻¹(.) means the inverse cumulative distribution function for a standard normal random variable. The symbol e refers to the base of the natural logarithm, and the function ln(.) refers to the natural logarithm of the expression within parentheses.

For defaulted exposures, the capital requirement generally would be 8 percent multiplied by the EAD of the exposure or segment. For defaulted wholesale exposures, however, if the capital requirement for the exposure immediately before default is greater than 8 percent, the requirement prior to default generally would apply.

Credit Risk Mitigation (CRM) Techniques (NPR attachment pages 192 through 240)

Under the proposal a bank would be able to recognize the risk-mitigating effects of both financial collateral and nonfinancial collateral, as well as guarantees and credit derivatives, for risk-based capital purposes. The bank must have operational procedures and risk management processes that ensure that all documentation used in collateralizing or guaranteeing a transaction is legal, valid, binding, and enforceable under applicable law in the relevant jurisdictions.

Although CRM techniques may reduce or transfer credit risk, they simultaneously may increase other risks such as operational, liquidity, and market risks. Accordingly, banks would have to have robust procedures and processes to control risks, and to monitor the implications of using CRM techniques for the bank's overall credit risk profile.

Collateral (pages 192 – 194)

In general, a bank would recognize collateral that secures a wholesale exposure as part of the ELGD and LGD estimation process and collateral that secures a retail exposure as part of the PD, ELGD, and LGD estimation process. The bank would have to consider the relation (that is, correlation) between the obligor and collateral, as well as any currency and/or maturity mismatch between the hedged exposure and the collateral. Further, the bank would have to take into account the time and cost needed to realize the liquidation proceeds and the potential for a decline in the collateral value over this time period. The bank would need to have in place systems for promptly requesting and receiving additional collateral for transactions whose terms require maintenance of collateral values at specified thresholds. In some limited circumstances, discussed below, a bank may reflect the risk-mitigating effects of financial collateral through an adjustment to the exposure's EAD.

EAD for counterparty credit risk (pages 194 – 221)

Under the proposal, a bank may use one of three EAD methodologies – a collateral haircut approach, a simple VaR methodology, or an internal models methodology – instead of an ELGD/LGD estimation methodology to recognize the benefits of financial collateral in mitigating the counterparty credit risk associated with repo-style transactions, eligible margin loans, collateralized OTC derivative contracts, and groups of such transactions with a single counterparty subject to a qualifying master netting agreement (netting set). The simple VaR methodology is available only for single product netting sets of repo-style transactions and

eligible margin loans. The internal models methodology also would be available for determining EAD for OTC derivatives whether or not they are collateralized.

Financial collateral generally would be defined as cash on deposit with the bank, gold bullion, certain highly-rated long-term debt securities, investment grade short-term debt instruments, publicly-traded equity securities, publicly-traded convertible bonds, and certain mutual fund shares.

Collateral haircut approach

Under the collateral haircut approach, a bank would set EAD equal to the sum of three quantities: (i) the value of the exposure less the value of the collateral; (ii) the net position in a given security multiplied by the market price volatility haircut appropriate to that security; and (iii) the net position of both cash and securities in each currency that is different from the settlement currency, multiplied by a haircut appropriate to each currency mismatch. To determine the appropriate haircuts, a bank could use standard supervisory haircuts or its own estimates of haircuts. Use of own estimates would be subject to prior written approval of the bank's primary federal supervisor and would need to reflect certain minimum qualitative and quantitative standards.

Models approaches

With prior written supervisory approval, a bank would be able to use the simple VaR methodology for repo-style transactions and eligible margin loans that are subject to a single product qualifying master netting agreement. Under the simple VaR methodology a bank's EAD for the transactions would be equal to the value of the exposures minus the value of the collateral plus a VaR-based estimate of the potential future exposure (PFE), that is, the maximum exposure expected to occur on a future date with high level of confidence. The VaR model would have to meet certain estimation and holding period requirements and would be subject to regular backtesting.

The internal models methodology would be available for OTC derivative contracts, eligible margin loans, and repo-style transactions. This methodology would require an internal risk model that captures counterparty credit risk and estimates EAD at the level of a netting set. The internal models methodology makes use of variables identified as expected exposure (EE) and expected positive exposure (EPE). EE is the probability-weighted average exposure to a counterparty estimated to exist at any specified future date. EPE is the time-weighted average of individual expected exposures estimated for a given forecasting horizon (proposed to be one year). Under the proposal, a bank would adjust its EPE calculation to address the concern that EPE may not capture risk arising from the replacement of existing short-term positions over the one-year horizon (rollover risk) or may underestimate the exposures arising from eligible margin loans, repo-style transactions, and OTC derivatives with short-term maturities. This adjusted EPE is called effective EPE. EAD would be calculated as a multiple of effective EPE. The internal models methodology also includes an adjustment factor for maturity and permits the recognition of collateral agreements subject to various conditions.

Current exposure methodology

A bank also would be able to use the current exposure methodology to determine EAD for OTC derivative contracts. The current exposure methodology for a single OTC derivative contract is similar to the methodology in the general risk-based capital rules, where the EAD is equal to the sum of the bank's current credit exposure and an estimate of the bank's PFE on the derivative contract. The current credit exposure would be the greater of the mark-to-market value of the derivative contract or zero. PFE is determined by multiplying the notional amount of a contract by a credit conversion factor (CCF). The methodology for OTC derivative contracts subject to master netting agreements also is generally the same as the treatment in the general risk-based capital rules. Banks would continue to calculate net current exposure and adjust the gross PFE using a formula that includes the net-to-gross current exposure ratio. The

CCFs used to determine PFE are the same as those in the general risk-based capital rules except for certain credit derivative contracts and floating/floating basis swaps.

Guarantees and credit derivatives that cover wholesale exposures (pages 221 – 236)

Under the proposal, a bank may use either a PD substitution or an LGD adjustment approach to recognize the risk-mitigating effects of an eligible guarantee or eligible credit derivative on a wholesale exposure, and in certain cases may use a prescribed double default treatment. Eligible guarantees must be in writing, unconditional, non-cancelable by the protection provider, legally enforceable against the protection provider, and must give the beneficiary a direct claim against the protection provider. Eligible credit derivatives must be in the form of a credit default swap, nth-to-default swap, or total return swap and must meet a variety of additional requirements. Under both the PD substitution and LGD adjustment approaches, the protection amount would be the effective notional amount of the guarantee or credit derivative reduced by applicable haircuts for maturity mismatch, lack of restructuring coverage, and currency mismatch.

PD substitution and LGD adjustment approaches

Under the PD substitution approach, if the protection amount is greater than or equal to the EAD of the hedged exposure, a bank would substitute for the PD associated with the rating grade of the obligor the PD associated with the rating grade of the protection provider. If the protection amount is less than the EAD of the hedged exposure, the bank would treat the hedged exposure as two separate exposures – protected and unprotected.

Under the LGD adjustment approach, if the protection amount is greater than or equal to the EAD of the hedged exposure, the bank's risk-based capital requirement for the hedged exposure would be the greater of (i) the risk-based capital requirement for the exposure as calculated under the proposal with the ELGD and LGD adjusted by the bank to reflect the guarantee or credit derivative, and (ii) the risk-based capital requirement for a comparable direct

exposure to the protection provider. If the protection amount is less than the EAD of the hedged exposure, the bank would treat the hedged exposure as two separate exposures – protected and unprotected.

Double default treatment

The proposed rule also contains a separate risk-based capital methodology for hedged exposures eligible for double default treatment. This treatment is intended to recognize that the PD substitution approach and LGD adjustment approach do not fully reflect the risk-mitigating benefits of certain types of guarantees and credit derivatives because the resulting risk-based capital requirement does not consider the joint probability of default of the obligor and the protection provider.

To be eligible for double default treatment, a hedged exposure must be fully covered, or covered on a pro rata basis, by an uncollateralized single-reference-obligor credit derivative or guarantee provided by an eligible double default guarantor. An eligible double default guarantor would be a creditworthy, regulated financial firm whose normal business includes the provision of credit protection and the management of a diversified portfolio of credit risk. In addition, before applying double default treatment, a bank would have to determine that there is not excessive correlation between the creditworthiness of the protection provider and the obligor of the hedged exposure. The bank's process for making this determination would be subject to supervisory approval.

The risk-based capital requirement for a hedged exposure subject to double default treatment would be calculated by multiplying the risk-based capital requirement for the hedged exposure (as if it were unhedged) by an adjustment factor that considers the PD of the protection provider. Thus, the PDs of both obligor and protection provider are factored into the risk-based capital requirement.

Guarantees and credit derivatives that cover retail exposures (pages 236 – 240)

The proposed rule does not specify a methodology for taking guarantees and credit derivatives into account in the segmentation of retail exposures. Likewise, the proposal does not explicitly limit the extent to which a bank may reflect guarantees and credit derivatives in the estimation of PD, ELGD, and LGD of retail segments, except by the application of the overall floors on PD and LGD assignments noted above. The proposal recognizes, however, that the agencies have concerns that this approach may provide banks with substantial discretion to incorporate double default and double recovery effects in the segmentation process and would be inconsistent with the treatment for wholesale exposures.

The proposal outlines two possible approaches for addressing this concern. The first approach would specifically identify certain guarantees as eligible retail guarantees and permit a bank to adjust its ELGD and LGD (but not PD) to reflect the credit protection from such guarantees. The other approach would allow for recognition of a broader range of retail-related guarantees, but would subject the bank's risk-based capital requirement for a segment of guaranteed retail exposures to a floor (for example, between 2 percent and 6 percent on a retail segment).

Unsettled Securities, Foreign Exchange and Commodity Transactions (NPR attachment pages 240 through 243)

The proposed rule sets forth the risk-based capital requirements for unsettled and failed securities, foreign exchange, and commodities transactions. It has different treatments for delivery-versus-payment (DvP) and payment-versus-payment (PvP) transactions with a normal settlement period, and non-DvP/non-PvP transactions with a normal settlement period. DvP transactions are those in which the buyer must make payment only if the seller has made delivery of the securities or commodities and vice versa. A PvP transaction is a foreign exchange transaction in which one party must make a final transfer of currencies only if the other party has

made a final transfer of currencies. A normal settlement period is one that is equal to or less than the market standard for the underlying instrument and equal to or less than five business days.

For DvP or PvP transactions with a normal settlement period, if the bank's counterparty has not made payment or delivery within five business days after the settlement date, the bank would determine its capital charge by multiplying the positive current market value of the transaction by a risk weight that reflects the number of days the settlement is past due. For non-DvP/non-PvP transactions with a normal settlement period, a bank would have to hold risk-based capital if the bank has made a delivery to its counterparty, but has not received its corresponding deliverables by the end of the same business day. Until five business days after the deliverable is due, the risk-based capital requirement is determined by treating the current market value of the deliverable as a wholesale exposure. Thereafter, the current market value of the deliverable would be deducted from capital.

Securitization Exposures (NPR attachment pages 243 through 295)

There are three proposed general approaches for determining the risk-based capital requirement for a securitization exposure: a Ratings-Based Approach (RBA), an Internal Assessment Approach (IAA), and a Supervisory Formula Approach (SFA). Under the proposal, a bank would apply the following hierarchy. First, as noted above, a bank would make deductions from tier 1 and tier 2 capital for gains-on sale and CEIOs. Second, if an exposure has an external rating from a nationally recognized statistical rating organization (NRSRO) or has an inferred rating (that is, the exposure is senior to another securitization exposure in the transaction that has an external rating from an NRSRO) it generally would be subject to the RBA.

If a securitization exposure does not qualify for the RBA but is an exposure to an ABCP program – such as a credit enhancement or liquidity facility – the bank would apply the IAA or the SFA. As a general matter, a bank may use the IAA if it has an internal risk rating system for exposures to ABCP programs that has been approved by its primary federal supervisor. A bank

may use the SFA for exposures not subject to the RBA or IAA if it can calculate a set of risk factors relating to the securitization, including the risk-based capital requirement for the underlying exposures as if they were held directly by the bank.

If a securitization exposure is not a gain-on-sale or CEIO, does not qualify for the RBA, and is not an exposure to an ABCP program, the bank may apply the SFA if it is able to calculate the SFA risk factors for the securitization. If the bank cannot calculate the SFA risk factors, the bank would have to deduct the securitization exposure from tier 1 and tier 2 capital.

A number of commenters criticized the complexity of the ANPR's treatment of securitization exposures and the different treatments accorded to originating banks versus investing banks. In response to these comments, the Basel II NPR (like the New Accord) does not generally distinguish between originating and investing banks. The Basel II NPR also provides that if a bank provides support to a securitization exposure in excess of the bank's predetermined contractual obligation, it would have to hold regulatory capital against all of the underlying exposures associated with the securitization as if the exposures had not been securitized and would deduct from tier 1 capital any gain-on-sale resulting from the securitization. The bank also would have to publicly disclose that it has provided such implicit support and the regulatory impact to the bank of providing such support.

Ratings-based approach (RBA) (pages 255 – 263)

Under the RBA, a bank would determine the risk-weighted asset amount for a securitization exposure by multiplying the amount of the exposure by a supervisory-assigned risk weight that depends primarily on the external or inferred rating of the exposure. An originating bank would have to use the RBA if its retained securitization exposure has at least two external ratings or an inferred rating based on at least two external ratings; an investing bank must use the RBA if its securitization exposure has one or more external or inferred ratings. The two-rating requirement for originating banks is the only material difference between the treatment of

originating banks and investing banks under the proposed securitization framework. Although this two-rating requirement is not included in the New Accord, it is generally consistent with the treatment of originating and investing banks in the general risk-based capital rules. Board staff believes that the market discipline evidenced by a third party purchasing a securitization exposure obviates the need for a second rating for an investing bank.

Under the RBA, the risk-based capital requirement per dollar of securitization exposure would depend on four factors: (i) the applicable external or inferred rating of the exposure; (ii) whether the rating reflects a long-term or short-term assessment of the exposure's credit risk; (iii) whether the exposure is a senior exposure (that is, has a first priority claim on the cash flows of the underlying exposures); and (iv) a measure of the effective number of underlying exposures in the securitization pool. The assigned risk weights under the RBA range from 7 percent (for certain AAA-rated exposures) to 650 percent (for exposures rated BB-).

The proposal would also require a bank to deduct from regulatory capital any securitization exposure with an external or inferred rating two or more categories below investment grade for long-term ratings or below investment grade for short-term ratings.

Internal assessment approach (IAA) (pages 263 – 266)

The proposed rule would permit a bank to compute its risk-based capital requirement for a securitization exposure to an ABCP program using the bank's internal assessment of the credit quality of the securitization exposure. The bank's internal assessment process and the ABCP program must meet certain qualification requirements in the proposed rule, and the securitization exposure must initially be internally rated at least equivalent to investment grade. The bank's primary federal supervisor would have to determine, in writing, that a bank meets the qualification requirements. If a bank uses the IAA for any securitization exposure to an ABCP program it would have to use the IAA for all exposures that qualify for the IAA approach. Under the IAA, the bank would map its internal credit assessment to an NRSRO and apply the

appropriate risk weights under the RBA. This approach is similar to an approach already available to qualifying banks under the general risk-based capital rules for credit enhancements to ABCP programs.

Supervisory formula approach (SFA) (pages 267 – 276)

A bank's capital requirement under the SFA depends on a number of inputs, including the amount of the underlying exposures; the securitization's effective number of underlying exposures; the risk-based capital requirement of the underlying exposures as if they were held directly on the bank's balance sheet; the amount of the securitization exposure; and the relative seniority level of the securitization exposure. A bank may only use the SFA if it can calculate each of these inputs on an ongoing basis. Thus, if a bank cannot compute the risk-based capital requirement on the underlying exposures, the bank may not use the SFA. Consistent with the RBA, the SFA imposes a 56 basis point minimum risk-based capital requirement (8 percent of the minimum 7 percent risk weight) per dollar of securitization exposure.

Early amortization provisions (pages 289 – 295)

Under the proposed rule, an early amortization provision is defined as a provision that, when triggered, causes investors in the securitization to be repaid before the stated maturity of the securitization exposures, unless the provision is solely triggered by events not related to the performance of the underlying exposures or the originating bank (such as material changes in tax laws or regulations). An originating bank would have to hold risk-based capital against the sum of its interest and the investors' interest arising from a revolving securitization that contains an early amortization provision. The investors' interest would include both the drawn and undrawn lines of the underlying exposures that are allocated to the investors in the securitization.

The risk-weighted asset amount with respect to the investors' interest would be the product of the following four quantities: (1) the EAD associated with the investors' interest;

(2) an appropriate CCF; (3) the risk-based capital requirement on the underlying exposures; and (4) 12.5. The CCFs vary depending on whether the amortization is controlled or non-controlled and whether the underlying exposures are revolving retail credit facilities that are uncommitted (for example, credit cards) or other revolving facilities (such as a corporate credit facility). Controlled early amortization provisions would be those meeting a set of criteria generally related to the repayment schedule and amortization period. To calculate the appropriate CCF the bank would compare the three-month average excess spread for the securitization to the point at which the bank is required to trap excess spread under the securitization transaction. The bank would divide the three-month average excess spread level by the excess spread trapping point and apply an assigned CCF.

Equities (NPR attachment pages 295 through 313)

Under the proposed rule, a bank would have the option to use either a simple risk-weight approach (SRWA) or in internal models approach (IMA) for equity exposures that are not exposures to an investment fund.

Simple risk-weight approach (SRWA) (pages 300 – 303)

Under the SRWA, a bank would generally assign a 300 percent risk weight to publicly traded equity exposures and a 400 percent risk weight to non-publicly traded equity exposures. Certain equity exposures to sovereigns, multilateral institutions, and public sector entities would have a risk weight of 0 or 20 percent, and certain community development equity investments, hedged equity exposures, and non-significant equity investments up to certain limits would be eligible for a 100 percent risk weight.

Internal models approach (IMA) (pages 303 – 309)

Alternatively, a bank that meets certain minimum quantitative and qualitative requirements on an ongoing basis and obtains written approval from its primary federal supervisor would be able to use the IMA to determine its risk-based capital requirements for

modeled equity exposures. A bank would be able to apply the IMA to only its publicly traded equity exposures or to both its publicly traded and non-publicly traded equity exposures.

However, if the bank applies the IMA to its publicly traded exposures, it must apply the IMA to all such exposures and if the bank applies the IMA to both its publicly traded and non-publicly traded equity exposures, it must use the IMA for all such exposures. The risk-weighted asset amounts of modeled equity exposures would be subject to the following floors: 200 percent for publicly traded equity exposures and 300 percent for non-publicly traded equity exposures.

The proposal includes three approaches for equity exposures to investment funds, each of which is a variation of a look-through approach.

Operational Risk (NPR attachment pages 313 through 318)

As noted above, the proposal includes the AMA for operational risk. Operational risk exposure is the 99.9th percentile of the distribution of potential aggregate operational losses as generated by the bank's operational risk quantification system over a one-year horizon. In general, a bank's risk-based capital requirement for operational risk would be the sum of its expected operational loss (EOL) and unexpected operational loss (UOL). A bank would be able to base its risk-based capital requirement for operational risk on UOL alone if the bank can demonstrate to its primary federal supervisor that it has offset EOL with eligible operational risk offsets. Generally, eligible operational risk offsets would be amounts generated by internal business practices to absorb highly predictable and reasonably stable operational losses, including reserves calculated in a manner consistent with GAAP, and available to cover EOL with a high degree of certainty over a one-year horizon. A bank also could take into account the effects of risk mitigants such as insurance, subject to supervisory approval. A bank would have to estimate its operational risk exposure both with and without such mitigants. The possible reduction in a bank's risk-based capital requirements for operational risk due to risk mitigants may not exceed 20 percent of the bank's risk-based capital requirement for operational risk.

Disclosure (NPR attachment pages 318 through 326)

Pillar 3 of the New Accord, market discipline, complements the risk-based capital requirements and the supervisory review process by encouraging market discipline through enhanced public disclosure. The public disclosure requirements are intended to allow market participants to assess key information about an institution's risk profile and its associated level of capital. Some of the disclosure requirements will be new disclosures for banks. Nonetheless, staff believes that a number of the disclosures are already required by or are consistent with existing GAAP, SEC disclosure requirements, or regulatory reporting requirements.

The public disclosure requirements would apply to the top-tier legal entity that is a core or opt-in bank within a consolidated group. In general, a DI that is a subsidiary of a BHC or another DI would not be subject to the public disclosure requirements except that every DI would have to disclose its total and tier 1 risk-based capital ratios and their components, similar to current requirements. Each bank that is subject to the disclosure requirements would be expected to have a formal disclosure policy that addresses the institution's approach for determining the disclosures it makes. Quantitative disclosures would be required quarterly and qualitative disclosures would be required annually. Significant changes would have to be reported in the interim.

The public disclosure requirements are comprised of 11 tables that provide the following information. Scope of application includes a description of the level of the organization to which the disclosures apply and an outline of any differences in consolidation for accounting and regulatory capital purposes, as well as a description of any restrictions on the transfer of funds and capital within the organization. Capital structure disclosures provide information on various components of regulatory capital. Capital adequacy disclosures provide information about how a bank assesses the adequacy of its capital and require the bank to disclose minimum capital requirements and ratios. Credit risk disclosures provide information on the different types and

concentrations of credit risk and the techniques the bank uses to measure, monitor, and mitigate those risks. In addition, disclosures cover securitization, operational risk, equities and interest rate risk in non-trading activities.

RECOMMENDATION:

For the past several years, staff has been engaged in ongoing dialogue with the industry and other interested parties on developments related to Basel II. Staff believes that it is important to receive further input from the public and the banking industry on the U.S. proposed implementation of Basel II. Thus, staff recommends that the Board approve the issuance of the attached NPR for publication in the Federal Register after all agencies have finished their internal approval procedures.

Attachment