APPENDIX 1

Modifications to the New Basel Capital Accord

The following table provides a summary of modifications made by the Basel Committee on Banking Supervision (Committee) to its proposal for a New Basel Capital Accord (New Accord). Since release of its first consultative paper in June 1999, the Committee has been engaged in extensive dialogue with banking organizations and other interested parties regarding the new capital adequacy framework. These consultations have included release of three consultative papers as well as the completion of several quantitative impact studies in which banks were asked to assess the impact of the Committee's proposal on their current portfolios.

In many instances, the additional information obtained from market participants was instrumental to additional analyses conducted by the Committee. The table captures changes made to the approaches to be implemented in the United States: the Advanced Internal Ratings Based (A-IRB) approach to credit risk and the Advanced Measurement Approach (AMA) to operational risk. Modifications to the Standardized approach to credit risk, as well as the Basic Indicator and Standardized approach to operational risk are not featured.

	Proposals contained in the Committee's first consultative paper (CP1) issued June 1999	Modifications captured in the Committee's second consultative paper (CP2) issued January 2001	Modifications captured in the Committee's third consultative paper (CP3) issued April 2003
Minimum Capital Requirements (Pillar 1 of the proposed New Accord)			
Advanced Internal Ratings-based (IRB) Approach to Credit Risk: General Comments	The Committee's first consultative paper (CP1) introduced the possibility of an IRB approach for calculating minimum capital requirements for credit risk. The concept of an IRB approach was meant to allow banks' own estimates of key risk drivers to serve as primary inputs to the capital calculation, subject to minimum standards. CP1 made reference to further work of the Committee (in consultation with the industry) on key issues related to the IRB approach. The remainder of that section of CP1 highlighted some of the issues the Committee expected to consider.	The Committee's second consultative paper (CP2) described the IRB framework in detail. Among other elements, CP2 defined the various portfolios and outlined the mechanics of how to calculate the IRB capital charges. Another critical element was presentation of the minimum qualifying criteria that banks would have to satisfy to be able to use the IRB approach to credit risk. CP2 also outlined expectations regarding adoption of the advanced IRB approach across all material exposure types of a banking organization. A floor on the minimum capital requirement was specified.	After consideration of the feedback provided by industry participants, particularly that gathered through quantitative impact studies, the Committee made adjustments to the level of capital required by the IRB approaches. Among other elements (as described below), the IRB approach was refined to allow for greater differentiation of risk. For example, the Committee approved a new, more appropriate treatment of loans made to small- and medium-enterprises (SMEs). The retail portfolio was divided into three subcategories. CP3 also outlined a treatment for specialized lending. The qualifying criteria for the IRB approach have been streamlined. The criteria are now described in a principles-based manner. CP3 also simplified the floor capital requirement such that there will be one floor that applies to banks adopting the IRB approach to credit risk and advanced measurements approaches (AMA) to operational risk for the first two years following implementation of the proposed Accord.

Exposure Type: **1. Wholesale (corporate, sovereign and bank)**	Not specified in CP1.	Wholesale exposures were defined to include corporate, sovereign and bank exposures. Banks are expected to assess the risk of each individual wholesale exposure. CP2 described the mechanism for assessing the risk of each wholesale exposure. The quantitative inputs (probability of default (PD), loss given default (LGD), exposure at default (EAD) and effective remaining maturity (M)) by exposure type were specified. Additionally, CP2 relates the quantitative inputs to the risk weight formula applicable for all three wholesale exposures. Further, minimum qualifying standards for use of the IRB approach were described in detail. An adjustment was introduced for reflecting in regulatory capital any concentrations a bank may have to a single borrower within its wholesale portfolio.	Based on findings from the impact studies conducted by the Basel Committee, and in response to industry concerns about the potential for cyclical capital requirements and the treatment of SMEs, the slope of the wholesale risk weight function has been flattened. This has the effect of producing capital requirements that differ by a smaller amount as the estimated PD of an exposure increases. CP3 confirmed that banks making use of the advanced IRB approach would need to take account of a loan's effective remaining maturity (M) when determining regulatory capital, but that supervisors may exempt smaller domestic borrowers from that requirement. As part of the treatment of corporate exposures, another adjustment to the risk weight formula has been made that results in a lower amount of required capital for credit extended to SMEs versus that extended to larger firms. In response to industry feedback, the proposed adjustment for single borrower concentrations has been eliminated given the additional complexity it would introduce into the IRB framework. That said, banks would be expected to evaluate concentrations of credit risk under Pillar 2 of the proposed Accord.

2. Retail	Not specified in CP1.	Retail was identified as a single exposure type. The risk weight formula, the inputs to be provided by banks and minimum qualifying criteria also were specified. In contrast to the individual evaluation required for wholesale exposures, it is proposed that banks assess retail exposures on a pool basis.	Retail has been sub-divided into three separate exposure types (residential mortgages, qualifying revolving exposures (e.g. credit cards), and other retail exposures). Each of the three exposure types has its own risk weight formula in recognition of differences in their risk characteristics. Qualifying criteria pertaining to retail exposures have been further defined.
3. Specialized Lending	Not specified in CP1.	The second consultative paper provided a definition of project finance. An IRB risk weight formula for this exposure type was not specified.	Specialized lending (SL) has been defined to include various financing arrangements (project, object and commodities). Additionally, this exposure category has been defined to include income producing real estate and the financing of commercial real estate that exhibits higher loss rate volatility. For all but one SL category, qualifying banks may use the corporate risk weight formula to determine the risk of each exposure. When this is not possible, an additional option only requires banks to classify SL exposures into five distinct quality grades with specific capital requirements associated with each. A forthcoming Federal Reserve white paper will explore issues surrounding the valuation of commercial real estate.

4. Equity	Not specified in CP1.	A definition of equity exposures was provided in CP2. Reference was made to treating such holdings in a manner similar to that required of banks' investments in securities firms or insurance companies.	The definition of equity exposures has been expanded. CP3 outlines two specific approaches to determining capital for equity exposures. One builds on the IRB treatment of corporate exposures. The second provides banks with opportunity to model the potential decrease in the market value of their holdings. CP3 also described the qualifying criteria for such exposures.
5. Purchased Receivables	Not specified in CP1.	Not specified in CP2.	CP3 describes a capital treatment for purchased receivables (retail and corporate). Subject to certain qualifying criteria, banks will be permitted to assess capital on a pool basis for corporate receivables as they are permitted to do for retail exposures and purchased retail receivables.
Qualifying Criteria for Use of the Advanced IRB Approach	Qualifying criteria were not specified in CP1. However, a sound practice paper on the management of credit risk was issued shortly after CP1.	Qualifying criteria were developed to ensure an appropriate degree of consistency in banks' use of their own estimates of key risk drivers in calculating regulatory capital. The qualifying criteria for corporate exposures were provided in detail with less discussion of those pertaining to retail, sovereign and bank exposures.	The qualifying criteria have been streamlined. In response to industry feedback, the criteria are now described in a principles-based manner for all IRB exposure types. The intent is to allow for consistent application of the requirements, as well as for innovation and appropriate differences in the way in which banking organizations operate.
Other Elements of the IRB Framework	Not specified in CP1.	Not specified in CP2.	The IRB capital requirement includes components to cover both expected and unexpected losses. CP3 specified methods for recognizing loan loss reserves as an offset to the expected loss component of risk weighted assets by exposure type. CP3 also specified a definition of default and factors to be considered for use in the IRB approach.

Credit Risk Mitigation (e.g. collateral, guarantees, and credit derivatives)	An IRB treatment for recognizing credit risk mitigants was not specified in CP1.	A credit risk mitigation (CRM) framework was introduced in CP2. It allowed banks to recognize collateral in their own estimates of default. Guarantees and credit derivatives remain subject to a treatment where the risk weight of the guarantor is substituted for that of the borrower.	The qualifying criteria concerning recognition of CRM techniques have been further clarified. Banks are provided with greater flexibility to recognize guarantees and credit derivatives in the IRB risk inputs (e.g. PD and LGD). However, banks are not permitted to recognize "double default" effects when determining the impact of CRM techniques on their capital requirements. A Federal Reserve white paper attempts to analyze the issues surrounding default of a borrower and a guarantor ("double default") for losses to be incurred on a hedged credit exposure.
Securitization	An IRB treatment of securitization was not specified in CP1.	CP2 outlined an IRB treatment of securitization. Initial thoughts about how to address exposures held by banks (qualifying for the IRB treatment) that originate securitizations and those that invest in transactions put together by other parties were discussed in general terms. It was indicated that the Committee would continue its work to refine the IRB treatment of securitization during the comment period for CP2.	An IRB treatment of securitization is discussed in detail. Banks may (subject to certain qualifying criteria) base the capital requirement on the external rating of a securitization exposure or the IRB capital requirement for the pool of assets underlying a given securitization. Capital treatments for liquidity facilities and securitizations containing early amortization provisions also have been specified.

Advanced Measurement Approaches (AMA) to Operational Risk	An explicit charge for operational risk was discussed in the context of capital requirements for other risks that the Committee believed to be sufficiently important for banks to devote the necessary resources to quantify and to incorporate into their capital adequacy determinations. Reference was made to a range of possible approaches for assessing capital against this risk.	The internal measurement approach (IMA) was introduced in CP2 for determining capital for operational risk. Subject to meeting a set of qualifying criteria, banks were expected to categorize their operational risk activities into business lines. Based on a number of inputs (some to be supplied by the supervisor and others to be estimated by banks themselves), a capital charge would be determined by business line. A floor was established for banks using the IMA below which minimum capital for operational risk could not fall.	The Committee confirmed that operational risk would be treated under Pillar 1 of the proposed New Accord. After extensive consultation with the industry, the advanced measurement approaches (AMA) for operational risk has been developed. The AMA builds on banks' rapidly developing internal assessment systems. Banks may use their own method for assessing their exposure to operational risk, so long as it is sufficiently comprehensive and systematic, subject to satisfying a set of principles-based qualifying criteria. Banks using the AMA may recognize insurance as an operational risk mitigant when calculating regulatory capital. The separate floor on the capital charges for operational risk introduced in CP2 has been abandoned, as noted in the general discussion of the Advanced IRB approach.
Supervisory Review (Pillar 2 of the proposed New Accord)	Four principles of supervisory review were established. In sum, the principles discuss the need for (i) banks to conduct their own assessments of capital adequacy relative to risk; (ii) supervisors to evaluate such assessments and to take appropriate action when necessary; (iii) supervisors to expect banks to operate above the minimum regulatory capital ratios; and (iv) supervisors to intervene at an early stage to prevent capital from falling below prudent levels.	The four principles of supervisory review were further refined in CP2. Reference was made to existing guidance developed by the Committee relating to the management of banking risks. Supervisory expectations regarding the treatment of interest rate risk in the banking book were outlined in this section of CP2.	To help address potential concerns about the cyclicality of the IRB approach, the Committee agreed that a meaningfully conservative credit risk stress testing by banks using the IRB approach would be required to ensure that they are holding a sufficient capital buffer. Additionally, the section on supervisory review (Pillar 2) discusses the need for banks to consider the definition of default, residual risks, credit risk concentration and the risk associated with securitization exposures.

Market Discipline (Pillar 3 of the proposed New Accord)	Some of the Committee's early expectations regarding bank disclosures were outlined. Reference was made to future work aimed at producing more detailed guidance on disclosures of key information regarding banks' capital structures, risk exposures and capital adequacy levels.	A comprehensive framework regarding banks' disclosures was provided. Qualitative and quantitative disclosures by exposure type were outlined. Distinctions were drawn between core and supplementary disclosure recommendations, and those considered requirements.	In response to industry feedback, the Committee completed efforts to clarify and simplify the market discipline component of the proposed New Accord. The aim was to provide third parties with enough information to understand a bank's risk profile without imposing an undue burden on any institution. The disclosure elements have been streamlined to accomplish this objective, and are now regarded as requirements.