Federal Deposit Insurance Corporation
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Division of Supervision

KEY ASPECTS OF THE ADVANCE NOTICE OF PROPOSED RULEMAKING ON RISK-BASED CAPITAL GUIDELINES; IMPLEMENTATION OF NEW BASEL CAPITAL ACCORD

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Risk-Based Capital Requirements Under the New Capital Accord

The Basel Committee on Banking Supervision is proposing to replace the capital standards embodied in the 1988 Accord. The 1988 Accord[1], as applied to large and complex, internationally active financial institutions, is in need of revision. The New Capital Accord would bring a new approach to the regulatory capital framework intended to create incentives for advancement in risk measurement and management processes at these institutions.

Under the New Capital Accord, capital requirements are calculated for credit risk and operational risk. Under the advanced internal ratings-based (A-IRB) approach being proposed for the U.S., an institution's internal assessments of key risk elements serve as primary inputs to the capital calculation. Generally, regulator-supplied formulas use these bank-estimated inputs to derive a specific capital requirement. These inputs include the probability of default (PD), the loss given default (LGD), the exposure at default (EAD) and, for certain portfolios, maturity (M). The formulas generally rely on a statistical or probability-based assessment of credit risk. Various assumptions regarding the maturity of assets and the correlation of the default behavior of assets in given categories are included in the formulas.

The total capital requirement for a bank subject to the advanced approaches includes the amount of capital driven by these A-IRB formulas, and also includes an amount for operational risk under the advanced measurement approach (AMA) (and, for banks subject to the market risk capital standards, a market risk capital charge). Under the AMA, the regulatory capital requirement will be generated by the bank's internal operational risk measurement system, subject to supervisory approval.

Under the A-IRB, banks must assign assets into one of three portfolios: wholesale (corporate, interbank and sovereign), retail, and equities. The retail category is further divided into mortgages, qualifying revolving exposures, and other retail. A detailed overview of each A-IRB portfolio and examples of how to calculate capital under the advanced approaches is provided in the Advance Notice of Proposed Rulemaking (ANPR) and on the Federal Deposit Insurance Corporation's (FDIC's) Web site at www.fdic.gov.

The FDIC, the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision (Agencies) are creating, and issuing for public comment at the same time as the ANPR, detailed standards banks must satisfy prior to implementing the advanced approaches for credit and operational risk. The first set of guidance to be issued will address wholesale exposures (corporate and industrial lending) and operational risk. These standards are specifically intended to define "stretch goals" for the U.S.

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banking industry and encourage them to enhance and improve risk management systems beyond the current state of the art.

Finally, market discipline is a key component of the New Capital Accord. Increased disclosures, especially regarding a bank's use of the A-IRB approach for credit risk and the AMA for operational risk, are required under the ANPR. These new disclosure requirements are intended to allow an institution's private sector stakeholders to more fully evaluate the institution's financial condition, including its capital adequacy.

Domestic Implementation

The ANPR proposes that the advanced approaches be implemented for a core group of U.S. banks. The ANPR identifies three types of U.S. banking organization: (1) institutions subject to the advanced approaches on a mandatory basis (core banks); (2) institutions not subject to the advanced approaches on a mandatory basis, but that choose to voluntarily apply those approaches (opt-in banks); and (3) institutions that are not subject to and do not apply the advanced approaches (general banks). Core banks would be those with total banking assets in excess of $250 billion or those with total foreign exposure in excess of $10 billion. All other banks (general banks) would continue to apply the existing risk-based capital rules. Because the current risk-based framework in the U.S. includes a buffer for risks not easily quantified (e.g., operational risk and concentration risk), general banks would not be subject to an additional direct charge for operational risk.

Under the new framework, all U.S. institutions would continue to calculate the numerator of the regulatory risk-based capital ratios as they do now. In other words, the elements of Tier 1, Tier 2 and Tier 3 capital would be unchanged under the proposals. Importantly, all U.S. banking organizations would continue to comply with the existing leverage ratio requirements under existing Prompt Corrective Action (PCA) legislation and implementing regulations.

The Basel Committee has proposed an effective date for the New Capital Accord of year-end 2006. Based on the Agencies' current assessment of institutions' overall readiness for the advanced approaches, it is anticipated that some core banking organizations would not be fully able or prepared by that date to operate under the A-IRB or AMA capital methodologies. All institutions would need to submit an implementation plan for approval to their primary supervisors.

The ANPR would require A-IRB banks to run parallel systems during the first years of IRB implementation, calculating capital requirements under the existing 1988 Accord framework and under the new standards. Also, during this transition period, capital levels at the affected banking institutions would not be allowed to fall below 90 percent of the current minimum risk-based capital requirement in the first year, nor below 80 percent of the current minimum requirement in the following year. Thereafter, there would be no floors on minimum risk-based capital requirements.

Table 1 summarizes selected changes to regulatory capital standards that are being discussed in the ANPR and identifies how the new proposals compare to general capital rules. As reflected in the table, no changes are presently contemplated to the risk-based capital framework of general banks.

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Table 1
Comparison of Selected Changes
Core and Opt-In Banks vs. General Banks

Regulatory Requirements	Core and Opt-In Banks	General Banks
Credit Risk Capital Charge	Internal Ratings Based Approach	Existing Standards
Explicit Operational Risk Charge by Advanced Measurement Approach	Yes	Charge is Implicit in Overall Requirement
Requires Advanced Risk Measurement Systems subject to ongoing Supervisory Qualification and Assessment	Yes	No
New Risk Management Requirements	Yes	No
Significant Infrastructure Investment	Yes	No
New Capital Requirements for: -Unused Lines<1yr -Liquidity Facilities -Early Amortization	 Yes Yes Yes	 No No No
Securitization -Residual Interests	Capital Requirement Limited to Amount of Capital Required on Underlying Assets plus Capitalized Assets	Most Positions Fully Deducted from Capital
Leverage Requirements	Yes	Yes
Qualifying Future Margin Income, and Excess Reserves[2]	Dollar for Dollar Offset Against Capital Requirements	No Dollar for Dollar Offset Against Capital Requirements
Credit Risk Mitigation	Wide Recognition of Counterparties,Insurance, and Collateral	Recognition Restricted to Banks, Cash, and Government Securities
Enhanced Disclosures	Yes	No

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Comments Sought on Key Issues and Concerns

The ANPR seeks comments regarding all aspects of the proposal. Comments are especially sought on two key areas that have a bearing on the desirability of implementing the New Capital Accord: (1) the impact of adopting the advanced approaches on capital levels at individual U.S. institutions and the domestic banking industry as a whole; and (2) competitive implications of a bifurcated capital framework.

Impact on Capital Levels

It is difficult to estimate the impact of these proposals on risk-based capital requirements, either for individual banks or in aggregate. The proposals have been, to some extent, in flux. Bank risk inputs will determine the ultimate capital impact, but inputs subject to a realistic level of supervisory validation do not exist for testing purposes. Judgments about capital impacts on the large banks subject to these proposals must be based on two sources: the results of a recent quantitative study described below and inspection of the output of the capital formulas themselves, also presented below.

In the fall of 2002, the Basel Committee conducted the third in a series of quantitative impact studies of the proposed changes to the regulatory capital framework. This study, known as QIS-3, surveyed top international banks in order to judge the impact of the new framework. Evidence from QIS-3 suggested a 17 percent reduction in the credit risk-based capital requirements for the 20 large U.S. banks that were surveyed. This decrease in capital requirements was partially offset by an increase in overall capital from the new operational risk charge of 11 percent.

More detail is provided in Table 2. The first column shows the fraction of total exposures represented by various exposure types. The second column shows the average change in minimum capital requirements by type of exposure. For example, minimum capital requirements for residential mortgages decreased by an average of 53 percent compared to current capital rules. These mortgages on average represented 13 percent of total current risk-weighted assets.

Table 2
Estimated Changes to Risk-Weighted Assets under the A-IRB Formulas
(Overall U.S. Results from QIS-3)

Type of Exposure	Percentage of Current Risk-Weighted Assets	Percentage Change in Risk-Weighted Assets
Corporate	37%	**-26%**
Sovereign	2%	**12%**
Bank	3%	**-28%**
Retail: (of which)	29%	**-27%**
- Mortgage	13%	**-53%**
- Non-Mortgage (ex-SME)	8%	**-25%**
- Revolving	8%	**16%**
SME (total)	11%	**-33%**
Equity	2%	**232%**

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Trading Book	7%	**2%**
Securitized Assets	7%	**-10%**
- AAA rated MBS	---	**-65%**
Other portfolios	3%	**33%**
Overall Credit Risk		**-17%**
Operational Risk		**11%**
Overall Change		**-6%**

The evidence from this study must be regarded with considerable caution as banks' risk inputs were provided on a preliminary, best estimates basis. The impact on minimum risk-based capital requirements for the various exposures would ultimately depend on the risk inputs that banks actually use as inputs to the A-IRB formulas. Some changes in the proposals compared to those that formed the basis for the study would tend towards higher capital, while other changes may have the opposite effect. Moreover, the impact on individual banks could be materially different than these overall composite results. More information describing the QIS-3 results can be found on the FDIC's Website at http://www.fdic.gov/deposit/deposits/international/qis3_website.pdf.

All these disclaimers notwithstanding, it is clear that the formulas underlying the advanced approaches give substantial latitude to change risk-based capital requirements, and the regulatory capital impact on some portfolios of exposures would probably be significant. To help commenters form their own judgments about risk-based capital requirements under these proposals, we have excerpted selected tables from the ANPR. The tables provide, for specific representative values of the risk inputs, the capital required for various activities.

Wholesale Exposures

This category includes corporate, sovereign and bank exposures, as well as specialized lending and loans to small businesses, other than those that are eligible for inclusion as retail exposures.

The following table presents the capital requirement for a range of values of Probability of Default (PD) and Maturity (M) for wholesale exposures. In this table, Exposure at Default (EAD) is assumed to equal $100 and Loss Given Default (LGD) is assumed to equal 45 percent, consistent with typical LGD values for senior unsecured, commercial loans. For comparison purposes, the general risk-based capital rules assign a capital requirement of 8 percent for most commercial loans.

Capital requirements are directly proportional to LGD. For example, if LGD were 22.5 percent rather than 45 percent, all capital requirements in this table would be half as much. If LGD were zero, all capital requirements in the table would be zero.

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Table 3
Capital Requirement for
Wholesale Exposures (corporate, sovereign, inter-bank, specialized lending)
(in percentage points)

Effective Remaining Maturity (M)				
PD	**1 month**	**1 year**	**3 years**	**5 years**
0.05 percent	0.50	0.92	1.83	2.74
0.10 percent	1.00	1.54	2.71	3.88
0.25 percent	2.17	2.89	4.44	5.99
0.50 percent	3.57	4.40	6.21	8.03
1.00 percent	5.41	6.31	8.29	10.27
2.00 percent	7.65	8.56	10.56	12.56
5.00 percent	11.91	12.80	14.75	16.69
10.00 percent	17.67	18.56	20.50	22.45
20.00 percent	26.01	26.84	28.65	30.47

Small and Medium-Sized Enterprise (SME) Exposures

The Agencies are considering a feature that would effectively lower the wholesale IRB capital requirements on loans to companies whose annual sales (or assets) are less than $50 million. The maximum reduction is achieved when borrower size is $5 million. The adjustment shrinks to zero as borrower size approaches $50 million. The following table illustrates the practical effect of the SME adjustment by depicting the capital requirements across a range of PDs and borrower sizes (S). As in the previous table, EAD is assumed to equal $100 and LGD is assumed to equal 45 percent. For this table, M is assumed to be equal to three years. As in the wholesale table above, capital requirements are directly proportional to LGD.

Table 4
Capital Requirement for
Small and Medium-Sized Enterprises
(in percentage points)

	Borrower Size (S)			
PD	**$5 million**	**$20 million**	**$35 million**	**$50 million**
0.05 percent	1.44	1.57	1.70	1.83
0.10 percent	2.14	2.33	2.51	2.71
0.25 percent	3.54	3.83	4.13	4.44
0.50 percent	4.97	5.37	5.79	6.21
1.00 percent	6.63	7.17	7.72	8.29
2.00 percent	8.40	9.11	9.83	10.56
5.00 percent	11.70	12.73	13.74	14.75
10.00 percent	16.76	18.05	19.30	20.50
20.00 percent	24.67	26.08	27.40	28.65

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Specialized Lending

The Specialized Lending (SL) asset class encompasses exposures for which the primary source of repayment is the income generated by the specific asset(s) being financed rather than the financial capacity of a broader commercial enterprise. With the exception of High Volatility Commercial Real Estate (HVCRE), capital for all specialized lending in the U.S. is proposed to be handled using the wholesale exposure risk function. All ADC loans would be treated as high asset correlation loans, unless the borrower has "substantial equity" at risk or the property is pre-sold or sufficiently pre-leased. The following table presents the capital requirement for a range of values of both PD and M. In this table, EAD is assumed to equal $100 and LGD is assumed to equal 45 percent. This LGD is used for consistency with the similar table for wholesale exposures and should not be construed as an indication that 45 percent is a typical LGD for HVCRE exposures.

Table 5
Capital Requirement for
High Volatility Commercial Real Estate
(in percentage points)

PD	1 year	3 years	5 years
0.05 percent	1.24	2.46	3.68
0.10 percent	2.05	3.61	5.16
0.25 percent	3.74	5.76	7.77
0.50 percent	5.52	7.79	10.07
1.00 percent	7.53	9.89	12.25
2.00 percent	9.55	11.79	14.02
5.00 percent	13.12	15.12	17.11
10.00 percent	18.59	20.54	22.49
20.00 percent	26.84	30.47	28.65

Retail Exposures

Core and opt-in banks will use one of three functions for their retail portfolios. The three categories are: 1) residential mortgage exposures, 2) qualifying revolving retail exposures and 3) other retail exposures.

Residential Mortgages

The following table depicts a range of representative capital requirements for residential mortgage and related exposures based on this formula. The EAD is assumed to be equal to $100. Three different illustrative LGD assumptions are shown: 15 percent, 35 percent, and 55 percent. The ANPR proposes a 10 percent floor on LGD for residential mortgages. For comparison purposes, the current capital requirement on most first mortgage loans is 4 percent and on most home equity loans is 8 percent.

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Table 6
Capital Requirement for
Residential Mortgages
(in percentage points)

	LGD		
PD	**15 percent**	**35 percent**	**55 percent**
0.05 percent	0.17	0.41	0.64
0.10 percent	0.30	0.70	1.10
0.25 percent	0.61	1.41	2.22
0.50 percent	1.01	2.36	3.70
1.00 percent	1.65	3.86	6.06
2.00 percent	2.64	6.17	9.70
5.00 percent	4.70	10.97	17.24
10.00 percent	6.95	16.22	25.49
20.00 percent	9.75	22.75	35.75

Qualifying Revolving Exposures (QREs)

The following table depicts a range of representative capital requirements for QREs given a range of PDs. The LGD is assumed to equal 90 percent, consistent with recovery rates for credit card portfolios.

For QREs, the Agencies are proposing to recognize future margin income (FMI) as a credit towards a portion of the "expected loss" component of the capital requirement under certain circumstances. The expected loss component of capital is, by definition, equal to the product of PD*LGD*EAD, which can be interpreted as the average loss expected to be experienced on the portfolio (given the PD, LGD and EAD assumptions).

In the second column of the table, it is assumed that the maximum offset for eligible FMI has been applied. The third column shows the capital requirement if no credit was given for FMI.

Table 7
Capital Requirement for
Qualifying Revolving Exposures (e.g., credit card exposures)
(in percentage points)

PD	**Capital With FMI**	**Capital Without FMI**
0.05 percent	.68	.72
0.10 percent	1.17	1.23
0.25 percent	2.24	2.41
0.50 percent	3.44	3.78
1.00 percent	4.87	5.55
2.00 percent	6.21	7.56
5.00 percent	7.89	11.27
10.00 percent	11.12	17.87
20.00 percent	17.23	30.73

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Other Retail

The following table depicts a range of representative capital requirements for other retail exposures. The EAD is assumed to be equal to $100. Three different LGD assumptions are shown: 25 percent, 50 percent, and 75 percent, in order to depict a range of potential outcomes depending on the characteristics of the underlying retail exposure. For comparison purposes, the current capital requirement on most of the exposures likely to be included in the other retail sub-category is 8 percent.

Table 8
Capital Requirement for
Other Retail
(in percentage points)

	LGD		
PD	**25 percent**	**50 percent**	**75 percent**
0.05 percent	0.33	0.66	0.99
0.10 percent	0.56	1.11	1.67
0.25 percent	1.06	2.13	3.19
0.50 percent	1.64	3.28	4.92
1.00 percent	2.35	4.70	7.05
2.00 percent	3.08	6.15	9.23
5.00 percent	3.94	7.87	11.81
10.00 percent	5.24	10.48	15.73
20.00 percent	8.55	17.10	25.64

Competitive Effects

A second concern is the potential competitive impact of the new framework on U.S. banking organizations of various sizes. With some U.S. banks adopting the advanced approaches and others applying the existing risk-based capital rules, the U.S. would have a bifurcated regulatory capital framework.

The FDIC recognizes that differences in the overall capitalization of large and small banks already exist and that loan pricing depends upon a host of factors. Nevertheless, the ANPR seeks views regarding the competitive implications of these proposals in a number of respects. Among the potential concerns are: i) banks subject to the advanced approaches are able to lower the amount of capital they hold, boosting their returns on equity and their profitability and enhancing their competitive posture relative to banks operating under general capital rules; ii) for a given dollar amount of capital, banks operating under the new rules have lower risk-weighted assets, boosting reported capital ratios and enhancing their currency with which to make acquisitions of banks operating under general capital rules; iii) banks operating under general rules that lack the size or scope needed to make qualification cost-effective will make attractive targets for acquisition by banks operating under the new framework seeking to lever newfound excess capital; iv) the public regulatory stamp of approval on risk management systems implicit in the A-IRB and AMA framework's qualification will lead to a marketplace disadvantage for large banks operating under general capital rules; v) lower regulatory capital requirements for specific activities enable banks operating under the new rules to price their

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products more aggressively, reducing the risk-adjusted returns available to their competitors or their ability to compete for attractive business relationships.

Of all these concerns, the one that has been given the most credence by at least some bankers is the possibility that capital efficiencies could be realized in acquisitions of general banks by "Basel banks" which could lead to a "roll-up" of mid-size and small banks. The ANPR requests comment on the potential competitive impact of the proposal on community banks and mid-size regional banks.

The ANPR also seeks comment on alternatives to the internal ratings based approach. The Agencies are particularly interested in approaches that would enhance the risk sensitivity of the current capital regulations without creating a bifurcated regulatory system.

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1. "International Convergence of Capital Measurement," issued in July 1988, describes the framework. The FDIC's risk-based capital standards implementing the 1988 Accord are set forth in 12 CFR part 325.
2. Qualifying future margin income (FMI) is a concept that would be used only for revolving retail exposures, mainly credit cards. It is the amount of income anticipated to be generated by the relevant exposures over the next twelve months that can reasonably be assumed to be available to cover potential credit losses on the exposures, after covering expected business expenses, and after subtracting a cushion to account for potential volatility in credit losses. Excess Reserves represent the portion of general reserves that exceeds 1.25 percent of gross risk-weighted assets and is less than "expected loss" as defined in the ANPR.

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