

May 31, 2001

BY FACSIMILE AND E-MAIL

Basel Committee Secretariat
Bank for International Settlements
CH-4002
Basel, Switzerland

RE: *Comment on the New Basel Capital Accord*

Dear Sir or Madam:

On behalf of GE Capital Mortgage Corporation, the residential mortgage insurance, lending and services affiliate of GE Capital, one of the largest financial services companies in the world, we are pleased to submit additional comments to the Basel Committee on Bank Supervision (the "Committee") with regard to proposed revisions to the 1988 Accord on bank regulatory capital rules (the "Proposal")¹. As a global provider of residential mortgage loans and mortgage guaranty products, we have a keen interest in how the capital requirements suggested in the Proposal will affect residential mortgage finance and those lenders and investors engaged in that activity. To that end, our suggestions are intended to enhance the Committee's efforts regarding credit risk reduction, operational efficiency, transparent supervisory review and market discipline for the regulated institutions.

We commend the Committee for the revisions in its Proposal and continue to urge rapid but thoughtful action on it. We are particularly interested in four aspects of the Proposal relating to residential mortgage finance and the Committee's goal of encouraging utilization of recognized credit risk mitigation ("CRM") measures.

First, the current bank regulatory capital system established by the 1988 Accord established a general risk weighting of 50% for residential mortgage loans. The Committee proposes to maintain this uniform risk weighting, but we believe that this "one risk fits all" approach is inconsistent with the Committee's efforts to introduce more risk sensitivity in its risk categories even under the standardized approach (the "Standardized Approach") that is intended to serve as a transitional means to a regulatory approach characterized by use of internal models (the "IRB Approaches"). In addition, mortgage originators, CRM providers and investors recognize that all residential mortgage loans are not alike in terms of credit risk.

For this reason, we are suggesting two further revisions to the Standardized Approach. Based on substantial empirical data that reflect the significant differences in default probability and loss severity between loans with a loan-to-value ("LTV") greater or less than 80% that mortgage investors have experienced in a variety of markets, we strongly recommend creation of a 100%

¹ We submitted comments, dated March 31, 2000, during the Committee's first request for consultation. A copy of our earlier comment is attached for your convenience.

risk weighting for residential mortgage loans greater than 80% LTV. Further, for reasons discussed at length in our original Comment, we also recommend that the Committee expand this concept further through establishment of a new risk weighting of 20% for the least risky (*i.e.*, equal to or less than 60% LTV) loans. With both suggestions, we believe that a bank should be able to reduce the risk weighting of a mortgage loan by lowering its “effective LTV” through the use of CRM. Thus, under the Standardized Approach, the additional risk weighting categories would allow a better reflection of the credit risks present in a bank’s residential mortgage asset portfolio – a result similar to that expected by the Committee from its use of external rating assessments for other asset categories. We believe that recognition of the role of LTV as a major factor in determining credit risk will have considerable benefits in the implementation of the IRB Approaches as well.

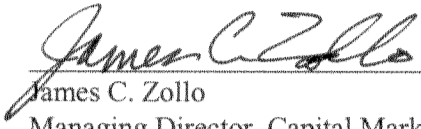
Second, and related to our desire to better align regulatory capital with economic risk, we believe that the Proposal’s approach to CRM might undermine efforts to reduce credit risk (and regulatory capital) through the use of CRM. The proposed inclusion of a hair cut factor, denoted “w”, will act as a penalty on CRM providers that are neither banks nor securities firms, which we believe will have deleterious effects on the bank regulatory system. Banks will be encouraged to retain credit risk within the bank system. Finally, in simple financial strength terms, banks will be incented to use less financially secure credit counterparties. We recommend that the Committee drop the proposed “w” factor, and instead rely on external ratings given by independent, internationally recognized rating agencies (“Rating Agencies”) or some other quantitatively derived measure of financial strength.

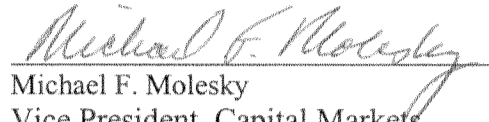
Third, we remain supportive of the Committee’s efforts to use Rating Agency ratings as a way to reduce limitations inherent in the static risk categories used in the Standardized Approach. However, we believe that the Committee has ignored substantial differences in default probability and ratings migration by failing to distinguish between AAA and AA rated instruments. The developing IRB Approaches provide for a finer differentiation of risk than the five risk weights proposed in the Standardized Approach to reflect a larger spectrum of credit risk, and this differentiation reflects existing regulatory and capital markets practices. Rather than sharpen the differences between the Standardized and IRB Approaches indirectly (and also discourage purchase of AAA rated instruments and use of similarly rated counterparties), we strongly recommend creation of a 10% risk weighting for AAA rated instruments.

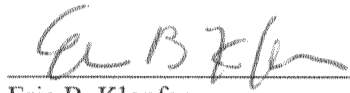
Fourth, we offer our observations on the application of the IRB Approaches to residential mortgage lending. More specifically, although general unsecured “retail” lending is of short duration, we recommend that the IRB Approaches recognize two fundamental concerns: (a) mortgage lending has a longer duration, and hence a different loss profile than other consumer lending, and (b) the long-dated nature of mortgage obligations typically reflects some periods of economic stress. If the capital requirements embedded in the IRB Approaches are based on short-term time periods, the resulting capital requirements will mimic the economic cycle rather than acting as a counterweight and may be insufficient to cover economic downturns. Thus, the “new” capital requirements might recreate the worst errors of the past (increasing credit in good times and decreasing it in bad times). We do not think that the IRB Approaches need to produce capital levels sufficient to withstand “stress tests” of prolonged economic distress, but in order to be accepted, they should be based on experience and analytics which accurately reflect the long-dated nature of mortgage assets and the likely cycle of economic expansion and contraction that these assets endure.

We have attached a more detailed presentation of our assessments of these four aspects of the Proposal, and would welcome an opportunity to discuss our views with you and your colleagues.

Sincerely yours,


James C. Zollo
Managing Director, Capital Markets


Michael F. Molesky
Vice President, Capital Markets


Eric B. Klopfer,
Vice President and Senior Counsel

COMMENT

1. Residential Mortgage Risk Should Be Differentiated

The Proposal makes many suggestions that reflect a more thorough understanding of credit risk and the innovative loan products and risk mitigation tools that have been developed since 1988. Indeed, the rationale for Basel 2 is to replace the “broad brush” approach with a more “risk sensitive” approach that aligns regulatory capital with banks’ economic risks. However, the Committee’s treatment of residential mortgage lending has not changed. The Standardized Approach leaves unchanged the 50% risk weighting for residential mortgage assets. Presumably, this inaction is based on the assumption that all residential mortgage loans constitute a very low risk to banks relative to other forms of lending, including unsecured “retail” lending and mortgage lending secured by commercial real estate. We agree with this fundamental assumption, but urge the Committee to refine its analysis – and risk-weighting scheme -- further.

All residential mortgage assets are not alike: some are significantly riskier than others. We believe that these differences in relative risk should be reflected in the Committee’s proposed risk weighting methodology. Our experience managing mortgage credit risk in various countries (Australia, New Zealand, Canada, France, Poland, Thailand, Mexico, Hong Kong, the United Kingdom and the United States) causes us to suggest the use of LTV ratio as a general standard by which risk-weights for residential mortgage assets are determined. Rather than a uniform 50% risk weight, we would recommend that residential mortgage loans with LTVs greater than 80% (“High LTVs”) receive a risk weight of 100%, and residential mortgage loans with LTVs equal to or less than 80% receive a risk weight of 50%.² Further, and related to our comments below on CRM, we recommend that banks should be able to reduce the 100% risk weight for High LTV residential mortgage loans by obtaining a third party guarantee that limits credit exposure to levels expected for loans with LTVs equal to or less than 80%.³

LTV as a Credit Risk Indicator

Although governmental statistical bureaus sometimes gather loan performance data regarding residential mortgage lending, the development of secondary mortgage markets of private investors has encouraged Rating Agencies to gather loan performance information to assist themselves (as well as educate investors) in developing sophisticated mortgage risk models to assess the relative risk of loans pooled to form mortgage-related securities. While lending markets are not identical (indeed, sub-markets within countries may be dramatically different), Rating Agency default probability assumptions demonstrate a consistent pattern of relative risk by LTV even after one considers differences in underwriting procedures, foreclosure processes and fluctuations in property values.

² Our proposal assumes that bank supervisors will ensure that such assets are “prudently underwritten” (*i.e.*, the borrower has sufficient credit capacity, etc.) regardless of LTV. In the interest of simplicity, our proposal also assumes borrowers of average credit quality. Traditionally, LTV and credit quality are correlated, with borrowers of lower credit quality unable to obtain high (>80%) LTV loans, but sometimes able to obtain lower LTV loans. Increasingly, however, banks are willing to make High LTV loans available to borrowers of lower credit quality, a trend that should be acknowledged and accounted for explicitly in the IRB Approaches.

³ The wide acceptance of the Accord rests in large part on its simplicity. We have attempted to maintain this spirit with our suggestion by only recognizing higher risks from a capital adequacy perspective in this Comment. However, in our original Comment on the Proposal (March 31, 2000), we also suggested creation of a *lower* risk weighting for residential mortgage assets with (1) LTV ratios equal to or less than 60%, or (2) High LTVs supplemented by credit risk mitigation that reduced the effective LTV to 60% or less – a suggestion that rests on substantial empirical evidence, and which we continue to urge consideration of as complementary to our High LTV risk weight proposal.

Table 1 shows the foreclosure frequencies assumed by one Rating Agency's mortgage risk models for a BBB rated mortgage-backed security⁴ in six different countries. The expected foreclosure rate varies from country to country, but **the increase in relative frequency between loans with LTVs between 85-90% averages 1.48 times higher than the frequency on 75-80% LTV loans, 1.88 times higher for 90-95% LTVs, and 2.69 times higher for 98-100% LTVs.** Thus, Rating Agency data indicate that LTV is a powerful predictor of default probability.

Table 1.

Rating Agency Default Probability Assumptions By LTV By Country For BBB Rating

LTV Ranges	Default Probabilities						Six Country Averages Relative To 75.01 – 80%
	Australia	Germany	Holland	Spain	UK	US	
<= 40	2.0%	2.0%	3.0%	3.0%	2.0%	1.2%	0.39
40.01 – 50	3.0%	3.0%	3.0%	3.0%	3.0%	1.8%	0.49
50.01 – 60	3.0%	3.0%	3.0%	4.0%	4.0%	2.5%	0.56
60.01 – 65	4.0%	3.0%	3.0%	4.0%	5.0%	3.0%	0.62
65.01 – 70	4.0%	4.0%	4.0%	4.0%	6.0%	3.7%	0.73
70.01 – 75	6.0%	4.0%	4.0%	5.0%	6.0%	4.6%	0.84
75.01 – 80	6.0%	5.0%	5.0%	6.0%	7.0%	6.0%	1.00
80.01 – 85	7.0%	6.0%	6.0%	7.0%	8.0%	8.1%	1.20
85.01 – 90	9.0%	7.0%	7.0%	8.0%	10.0%	11.0%	1.48
90.01 – 95	11.0%	9.0%	8.0%	10.0%	13.0%	15.1%	1.88
95.01 – 98	14.0%	10.0%	9.0%	12.0%	16.0%	20.6%	2.31
98.01 - 100	16.0%	12.0%	10.0%	16.0%	18.0%	23.2%	2.69

In addition to default probability, LTV also provides a reliable indication of expected loss severity (*i.e.*, “loss given default”). Table 2 below shows a Rating Agency's loss severity assumptions for the same six countries as those shown in Table 1. Again, severity levels differ from country to country, but **the increase in relative severity between loans with LTVs between 85-90% averages 1.29 times higher than the loss severity on 75-80% LTV loans, 1.41 times higher for 90-95% LTVs, and 1.52 times higher for 98-100% LTVs.** Thus, Rating Agency data indicate that LTV is a powerful predictor of loss severity as well.

⁴ BBB securities are considered investment grade securities and are given a 100% risk weighting in the Standardized Approach guidelines. We hold this assumption constant in Tables 1-3, and we use the same Rating Agency's data as well – Fitch IBCA, a major European Rating Agency. We have limited presentation of data from other sources in order to keep our Comment brief, but similar patterns can be observed in the data and models used by other Rating Agencies.

Table 2.

Rating Agency Loss Severity Assumptions By LTV By Country For BBB Rating

LTV Ranges	Loss Severity						Six Country Averages Relative To 75.01 – 80%
	Australia	Germany	Holland	Spain	UK	US	
<= 40	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%	0.00
40.01 - 50	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%	0.00
50.01 - 60	7.5%	3.9%	10.1%	12.7%	0.00%	0.00%	0.15
60.01 - 65	16.5%	12.7%	18.0%	22.3%	8.54%	6.54%	0.40
65.01 - 70	24.3%	20.2%	24.8%	30.6%	16.29%	14.29%	0.63
70.01 - 75	31.0%	26.8%	30.6%	37.7%	23.00%	21.00%	0.83
75.01 - 80	36.9%	32.5%	35.8%	44.0%	28.88%	26.88%	1.00
80.01 - 85	42.1%	37.5%	40.3%	49.5%	34.06%	32.06%	1.15
85.01 - 90	46.7%	42.0%	44.4%	54.4%	38.67%	36.67%	1.29
90.01 - 95	50.8%	46.0%	48.0%	58.8%	42.79%	40.79%	1.41
95.01 - 98	52.3%	47.5%	49.3%	60.5%	44.32%	42.32%	1.46
98.01 - 100	54.5%	49.6%	51.2%	62.8%	46.50%	44.50%	1.52

Multiplying default probability times loss severity generates expected loss levels. Analyzing expected losses yields even more emphatic support for the use of LTV as an indicator of relative risk. Table 3 below shows a Rating Agency's expected loss levels for the same six countries shown in Tables 1 and 2. Expected loss levels differ from country to country, but **the increase in expected loss between loans with LTVs between 85-90% averages 1.92 times higher than the expected loss on 75-80% LTV loans, 2.67 times higher for 90-95% LTVs, and 4.14 times higher for 98-100% LTVs.** Thus, Rating Agency data indicate that LTV is a very powerful predictor of expected loss levels, a central concern under both the Standardized and IRB Approaches.

Table 3.

Rating Agency Expected Losses By LTV By Country For BBB Ratings

LTV Range	Expected Losses (Default Frequency X Loss Severity)						Six Country Averages Relative To 75.01 - 80%
	Australia	Germany	Holland	Spain	UK	US	
<= 40	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00
40.01 - 50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00
50.01 - 60	0.23%	0.12%	0.30%	0.51%	0.00%	0.00%	0.09
60.01 - 65	0.66%	0.38%	0.54%	0.89%	0.43%	0.20%	0.25
65.01 - 70	0.97%	0.81%	0.99%	1.22%	0.98%	0.53%	0.46
70.01 - 75	1.86%	1.07%	1.23%	1.89%	1.38%	0.97%	0.70
75.01 - 80	2.21%	1.62%	1.79%	2.64%	2.02%	1.61%	1.00
80.01 - 85	2.94%	2.25%	2.42%	3.47%	2.72%	2.60%	1.39
85.01 - 90	4.20%	2.94%	3.11%	4.36%	3.87%	4.03%	1.92
90.01 - 95	5.59%	4.14%	3.84%	5.88%	5.56%	6.16%	2.67
95.01 - 98	7.32%	4.75%	4.44%	7.26%	7.09%	8.72%	3.40
98.01 - 100	8.72%	5.95%	5.12%	10.05%	8.37%	10.31%	4.14

Finally, extremely robust loan-level data available in the United States⁵ confirm the importance of LTV as a credit risk indicator even during periods of outstanding macroeconomic performance. Table 4, which includes recent four-year average data on fixed rate loans by LTV, shows increasing rates of expected one-year losses⁶ by LTV regardless of the age of the loan. Indeed, even given some of the lowest unemployment rates in US history as well as significant house price appreciation, **expected losses for 81-90% LTV loans still range between 3 to 4 times higher than 76-80% LTV loans.**

Table 4.

US Recent Four-Year Average Expected Losses By LTV and Age of Loan							
LTV Range	< 1 Year	1-2 Years	2-3 Years	3-4 Years	4-5 Years	5-6 Years	6-7 Years
71-75	0.01%	0.02%	0.05%	0.07%	0.07%	0.06%	0.08%
76-80	0.01%	0.03%	0.06%	0.09%	0.10%	0.09%	0.11%
81-90	0.04%	0.13%	0.24%	0.33%	0.33%	0.30%	0.34%
91-95	0.05%	0.22%	0.44%	0.65%	0.67%	0.63%	0.61%
96-105	0.09%	0.42%	0.86%	1.25%	1.36%	1.16%	1.22%
Ratio							
81-90/76-80	4.07	3.80	3.69	3.53	3.39	3.39	2.94

The Rating Agency overview of the mortgage credit risk in six countries and the recent US data each provide strong support for conventional assumptions regarding the role of LTV as an indicator of relative credit risk in residential mortgage lending – which is why bank regulators in countries with active mortgage bond markets limit reference pool collateral to mortgage assets with a *maximum* LTV of 60% (*e.g.*, the German Pfandbriefe and variants). Other regulators allow loans *up to 80%* LTV for reference pool collateral, but nothing greater than 80% LTV (*e.g.*, the French Obligations Foncières, Japanese Government Housing Loan MBS). Spain discourages any residential mortgage lending above 80% LTV.

Alternatively, rather than outright prohibition, regulators require credit enhancement for high LTV loans to reduce the “effective LTV” of the loans. Canadian banks are required by legislation to obtain mortgage insurance on all residential mortgages with LTVs exceeding 75%. Fannie Mae and the Federal Home Loan Mortgage Corporation, two of the largest mortgage-investors in the world, are required to obtain third party credit enhancement on any mortgage loans purchased with LTVs exceeding 80%. Similar guarantee facilities for high LTV loans have been established for lenders in the Netherlands, Belgium (on a regional basis), Hong Kong and elsewhere.

Thus, historical experience and current prudential practices underline the very significant differences in risk for loans with LTVs greater than 80%. We strongly recommend that the Committee establish at least two risk weights for residential mortgage assets under the Standardized Approach: a 50% risk weight for mortgages with LTVs of 80% or less, and a 100% risk weight for mortgages with LTVs greater than 80%. In addition, as noted in our original Comment, we urge consideration for a third risk

⁵ The data are provided by the Mortgage Information Corporation of America (“MIC”), the preeminent source of loan-level mortgage data in the US, with a database that includes nearly 28 million loans. Among other things, MIC accumulates delinquency data for residential mortgage loans at various stages of delinquency by product types, LTV, age of loan and other borrower and loan characteristics.

⁶ This Table uses the Committee’s definition of one-year defaults as equal to 90 day plus delinquency rates, and also includes all elements of the Committee’s definition of loss severity.

weight for residential mortgage assets under the Standardized Approach: a 20% risk weight for mortgages with LTVs of 60% or less. These different risk weights might not address the principal shortcoming of the Standardized Approach (*i.e.*, reliance on a fixed number of static categories), but our recommendation would be consistent with the Committee's objective of aligning regulatory capital and economic risk and basing such alignments on significant, measurable differences in risk. In addition, increasing the number of risk-sensitive categories would tend to reduce the arbitrage activity that has so bedeviled bank regulators under the Accord. Finally, we believe that an explicit recognition of LTV in risk weighting would provide a transition mechanism to the more sensitive credit risk measures that should characterize the IRB Approaches, where we would expect (and strongly recommend) that regulators will ensure use of LTV as one of the key factors in a bank's determination of residential mortgage loan default frequencies and loss severities.

2. All Regulated CRM Providers Should Get Equal Treatment

As a global guarantor of residential mortgages originated or held by banks, we applaud the Committee's efforts to recognize a broad range of CRM techniques, including insurance provided by non-bank entities. Providing capital relief when CRM is obtained creates a positive incentive for banks to reduce their risk profile. Indeed, together with securitization, CRM provides the principal means by which a bank may reshape its balance sheet and credit risk profile, so it is critical that the Proposal establishes incentives to use CRM prudently. Thus, we agree that the CRM must be direct, explicit, irrevocable and unconditional in order to provide capital relief.

However, the Committee has proposed use of a haircut factor denoted "w", which reduces counter-party benefits, whose merits seem unproved, unfair and unnecessary. In the Proposal, the CRM provided by banks and securities firms carries with it a zero "w" factor, similar to the treatment of CRM provided by a sovereign, while a 15% "w" is included for "corporate" guarantees or insurance from parties rated A or better. The rationale for this difference is that banks and securities firms are extensively regulated and supervised, in contrast to corporate backers.

Unfortunately, the rationale, while well intentioned, might produce three unintended effects. First, the Proposal embeds a preference for keeping economic risk within the bank regulatory system (since, *ceteris paribus*, a bank will enjoy a 15% advantage). Our reading of financial history reveals very few, if any, instances of a banking collapse instigated by the failure of a guarantee or insurance issued by a non-bank or non-securities firm – but many instances of where one bank's difficulties have caused wider effects within the banking system.

Second, exempting securities firms from the "w" factor might export credit risk to an untested source of CRM. The capital markets are a seemingly endless source of innovation and creativity, but also quick judgment and overreaction when available liquidity dries up due to economic or political uncertainty. In our original Comment, we contrasted our mortgage guaranty product favorably with emerging mortgage credit derivatives. More than self-interest causes us to press the comparison again. Mortgage insurance is a "flow" product used on a loan level basis, and priced for the long cycle (10 years) of gain and loss. Consequently, this pricing approach ensures that a steady flow of credit enhancement capacity and funds to pay claims are available to support mortgage finance in all market cycles – including periods of significant default and financial loss⁷ -- which provides ballast when the capital market waters become choppy.

⁷ The losses can be substantial. US mortgage insurers paid out more than \$US 14 billion in claims in the last twenty years.

In contrast, the mortgage credit derivatives that we have seen to date are “transaction” specific products that appear as opportunistic as the capital markets that they represent. In good economic times, the pricing for such derivatives might be better than insurance alternatives, but this pricing (and even availability) might be worse in deteriorating economic conditions. Thus, in terms of macroeconomic public policy, it is unclear to us why the Committee would want to encourage a pro-cyclical form of CRM at the expense of more durable alternatives.

Third, the relative advantage conferred by “w” might cause a bank to choose a financially weaker counter-party (*e.g.*, a AA rated bank or securities firm could outbid a AAA rated insurer as a guarantor), which again raises the question of why the Committee would create incentives to diminish prudent use of CRM.

None of these effects should be encouraged, and we believe that the Proposal’s “w” factor does just that. All CRM providers should be judged individually on an objective basis, because otherwise some CRM providers become “more equal” than their competitors.

Indeed, our understanding of global trends in financial services regulation suggests that distinctions based on different regulators or regulatory frameworks might be outmoded by the time home country regulators fully implement the Accord’s successor. Denmark, Norway and Sweden long have integrated financial supervision of banks, investment firms and insurance companies. The United Kingdom has concentrated responsibility for “financial services regulation” under the aegis of a single regulator, the Financial Services Authority. Likewise, banks and insurance companies in Canada are supervised by the Office of the Superintendent of Financial Institutions (Canada), and similar efforts are afoot in Australia and other countries. So, in the UK, Canada and Australia, where we offer mortgage guarantee insurance coverage to banks, we would find ourselves at a “w” disadvantage even when supervised by the same regulator!

Single regulators aside, it is theoretically possible to assess the strengths of various regulatory regimes on a comparative basis, but we think that ratings provided by Rating Agencies might provide a more consistent and easily implemented means of assessing counter-party risk. The Standardized Approach already incorporates the use of ratings, and financial strength ratings provide the “financial Esperanto” necessary to avoid arbitrary judgments. After all, at its most basic, the Proposal seeks to establish or suggest prudent levels of regulatory capital, and the Committee’s recognition of CRM allows regulatory capital to be reduced in proportion to the ability of the CRM provider to substitute for that regulatory capital. Under those circumstances, an assessment based on a CRM counter-party’s individual attributes seems preferable to a more general judgment regarding the relative rigor of a regulatory system. In the United States, for example, we hold capital as a AAA rated mortgage insurer that is substantially greater than that required by our regulator (or any US bank or securities regulator, for that matter)⁸. We urge the Committee to remove the 15% haircut for non-bank CRM providers and strongly recommend an alternative based on external ratings as a counterweight⁹.

Finally, we believe that this alternative would provide a useful supplement to the Committee’s efforts under Pillar 3 to encourage the development of consistent standards of disclosure. Rating Agency assessments of CRM counterparties’ financial strength are unlikely to vary as much as

⁸ Again, our suggestion is motivated by a desire to retain the Accord’s simplicity and universality. Alternatives can be devised, particularly in countries where capital markets have not encouraged the spread of external ratings.

⁹ This alternative would need its own controls (*e.g.*, using the lower of two ratings, distinguishing between issuer debt and financial strength ratings), on which the Committee already has made a good start in its effort to encourage responsible use of Rating Agencies.

comparative regulatory judgments – unless such regulatory judgments rely heavily on externally verifiable quantitative measures like US bank regulators’ CAMELS approach.

3. *The Proposal Should Distinguish Between AAA and AA Ratings*

We presented in our original Comment on the Proposal the data supporting a distinction between AAA and AA rated entities and obligations¹⁰. We will briefly reprise our argument for two reasons. First, there is a clear, objective difference in the relative risk of AAA and AA in terms of default probability and ratings migration that is significantly larger in both absolute and relative measures than the differences between AA and A. The Standardized Approach recognizes the AA/A distinction with a significant difference in risk weighting, but ignores the AAA/AA distinction.

Second, given the additional emphasis in the revised Proposal on the IRB Approaches, which will recognize the differences between AAA and AA, we see no reason why the Standardized Approach should not be calibrated more consistently. Thus, we request that the Committee reconsider this issue, and suggest that the Committee provide a new, more favorable, 10% risk weighting for AAA rated instruments.

Using an undifferentiated AAA/AA risk bucket has two significant shortcomings. First, in terms of simple risk concerns, AAA and AA rated instruments and entities have different default probabilities, as Tables 5, 6, 7, and 8 demonstrate.

Table 5.

Cumulative Average Corporate Default Rates By Rating By Number of Years Following Given Rating

	Year 1	Year 2	Year 3	Year 4	Year 5
AAA	0.00%	0.00%	0.02%	0.09%	0.20%
AA	0.08%	0.25%	0.41%	0.61%	0.97%
A	0.08%	0.27%	0.60%	0.97%	1.37%
BBB	0.30%	0.94%	1.73%	2.62%	3.51%
BB	1.43%	3.45%	5.57%	7.80%	10.04%
B	4.48%	9.16%	13.73%	17.56%	20.89%

Ratios of AAA Default Probability By Rating Category

AAA	NA	NA	1.00	1.00	1.00
AA			20.50	6.78	4.85
A			30.00	10.78	6.85
BBB			86.50	29.11	17.55
BB			278.50	86.67	50.20
B			686.50	195.11	104.45

¹⁰ Our data are taken from US sources, but our argument can be sustained with data drawn from other countries. We concentrated on the US in order to present the analytical underpinnings (default probability, rating migration, differences between issuers and issues, and credit enhancement levels needed to sustain a rating) of our approach succinctly.

Ratios of AA Default Probability By Rating Category						Average
	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
AAA	0.00	0.00	0.05	0.15	0.21	0.08
AA	1.00	1.00	1.00	1.00	1.00	1.00
A	1.00	1.08	1.46	1.59	1.41	1.31
BBB	3.75	3.76	4.22	4.30	3.62	3.93
BB	17.88	13.80	13.59	12.79	10.35	13.68
B	56.00	36.64	33.49	28.79	21.54	35.29

Source: "Historical Default Rates of Corporate Bond Issuers, 1920-1999" - Moody's Investors Service, January 2000

As Table 5 demonstrates, regarding general corporate bond issues, AAA corporate issuers have a significantly different and consistently better default record relative to AA issuers irrespective of the time periods chosen. **“AA” rated issuers had long-term average default rates that are at least 4.85 times that of AAA rated issuers over a period of five years.** Indeed, **although the relative difference in default risk between AA and A issuers averaged only 31% over the same period of time, the Standardized Approach would assign a 60% cut in the risk weight -- from 50% for A rated companies to 20% for AA rated companies.** The underlying reasoning for the Committee’s risk weighting decision (distinguishing between AA and A) and non-decision (not distinguishing between AAA and AA) is unclear, even taking into account limitations of static risk categories.

Table 6.

Corporate Bond Average Rating Transition Matrix, 1980-1999

Rating to:	AAA	AA	A	BBB	BB	B	Probability AA or Higher
Rating AAA	85.88%	9.76%	0.48%	0.00%	0.03%	0.00%	95.64%
From: AA	0.92%	84.87%	9.64%	0.36%	0.15%	0.02%	85.79%
A	0.08%	2.24%	86.24%	6.09%	0.77%	0.21%	2.32%
BBB	0.08%	0.37%	6.02%	79.16%	6.48%	1.30%	0.45%
BB	0.03%	0.08%	0.46%	4.02%	76.76%	7.88%	0.11%
B	0.01%	0.04%	0.16%	0.53%	5.86%	76.07%	0.05%
CCC	0.00%	0.00%	0.00%	1.00%	2.79%	5.38%	0.00%

Source: "Historical Default Rates of Corporate Bond Insurers, 1920-1999", Moody's Investors Service, January 2000.

As Table 6 demonstrates, “ratings migration data,” or the probability of being upgraded or downgraded, also reveal significant differences between AAA and AA rated corporate issuers. Ratings migration data are important, since movement between categories will affect risk weightings under the Proposal.

- In terms of upgrades, A rated companies are 2.43 times more likely to be upgraded to AA than AA being upgraded to AAA.
- **AA rated companies are 20 times more likely to fall to A than a AAA rated company.**

Table 7.

US Residential MBS Rating Changes by Initial Rating 1978-1999

Rating From: (Down)	Rating To: (Across)								Ever-To- Date Default	Probability AA or Higher
		AAA	AA	A	BBB	BB	B	CCC		
	AAA	99.13%	0.76%	0.00%	0.03%	0.03%	0.00%	0.03%	0.00%	99.90%
	AA	16.90%	72.68%	6.68%	1.07%	0.13%	0.07%	1.00%	1.47%	89.58%
	A	2.07%	4.31%	87.76%	4.66%	0.17%	0.00%	0.00%	1.03%	6.38%
	BBB	0.42%	1.68%	4.19%	89.94%	1.47%	0.21%	0.63%	1.47%	2.10%
	BB	0.00%	0.00%	0.00%	0.84%	92.89%	2.93%	0.84%	2.51%	0.00%
	B	0.00%	0.00%	0.00%	0.41%	2.07%	88.84%	2.48%	6.20%	0.00%
	CCC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%

Source: "Performance of US RMBS Credit Ratings, 1978-999" - Standard & Poor's Rating Services

As Table 7 demonstrates, the differences between AAA and AA ratings are even more significant when one examines rated instruments in the form of residential mortgage-backed securities ("RMBS"), which are increasing in popularity as an asset category globally. With RMBS:

- AAA rated RMBS have a zero ever-to-date default compared to the 1.47% default rate of AA rated RMBS.
- AA rated RMBS were 100 times more likely to fall below AA than AAA rated RMBS.

Table 8.
Standard & Poor's
Credit Enhancement Levels
For Residential Mortgage-Backed Securities (RMBS)

LTV	AAA	AA	Ratio: AAA/AA
60	3.00%	1.20%	2.50
65	4.13%	2.00%	2.06
70	5.25%	2.80%	1.88
80	6.45%	4.00%	1.61

Source: "Residential Mortgage Criteria", Standard & Poor's Structured Finance Ratings Group, November, 1999

Finally, as Table 8 demonstrates, **AAA rated instruments carry 1.6 to 2.5 times more credit enhancement than that required for AA rated instruments, which helps to mitigate against default or downgrade.**

Thus, combining AAA and AA entities and instruments in a single risk weighting category is not empirically supported, and a bank regulatory system designed to monitor the financial strength of an asset through the use of risk categories should distinguish between AAA and AA rated instruments.

Indeed, not distinguishing between AAA and AA reintroduces the problem most consistently mentioned regarding the Accord – that providing broad risk buckets creates a perverse incentive for banks to value higher yields (for lower rated assets) more than superior credit risk profiles. It is hard to see why a bank would purchase a AAA asset, credit enhance an asset to a AAA level, or seek a guarantee from a AAA rated guarantor when its capital requirement would be no less than if only a AA credit enhancement were in place. Conversely, as a guarantor, it would be hard to justify the additional capital and other criteria needed to maintain a AAA rating when only a AA rating would suffice. Not every bank would behave this way, of course, but general incentives do matter in competitive financial markets.

We believe that there is another alternative based on current regulatory practices under the Accord. Although the Accord is ambiguous on the subject of risk weighting for AAA rated assets, some countries have assigned 10% risk weights to AAA rated mortgage assets like mortgage bonds and mortgage-backed securities¹¹ – based on the logic that the differences in default rates between AAA and AA rated issuers/assets justifies a reduction of the 20% risk weight to 10% for AAA rated instruments. We believe this action reflects a regulatory

¹¹ The best-known include the German Pfandbriefe, the French Obligations Foncières and the Japanese Government Housing Loan Corporation MBS.

acknowledgement of the superior quality of such assets, and believe that a similar approach should be recognized for AAA rated institutions in their role as counterparties to banks.¹²

Unsurprisingly, the capital markets understand this, too, and recognize and price each rating class differently. The price differentials are consistent with how the Rating Agencies evaluate both rated securities and individual companies. Combining AAA and AA into a single category will interfere with this pricing mechanism unnecessarily – and with potentially detrimental results from a bank regulatory capital perspective. Thus, we strongly recommend that the Committee recognize the substantial empirical difference between AAA and AA, and create a 10% risk weighting for AAA rated assets.

4. A Brief Note on the Application of the IRB Approach to Residential Mortgage Lending Exposures

There has been much discussion regarding the increased importance of, and preference for, internal models in the Committee's evolving regulatory framework. We will limit our comments principally to how to best capture residential mortgage credit risk within the IRB Approach. However, we wish to note briefly two other concerns that we believe should be addressed explicitly.

Our view regarding risk weighting in general is grounded in common sense: banks should not be required to obtain external ratings on all assets, but a bank's discretion regarding already externally rated assets should be limited. However, our preliminary work with the Committee's IRB draft has left us uncertain regarding a bank's scope of discretion concerning externally rated assets. We have not found any prohibition against a bank "re-rating" a lesser-rated asset on the basis that the asset's performance will be better than predicted by the Rating Agency. While there should not be any prudential bar to "re-rating" if the asset's performance has been worse than predicted by the Rating Agency, we believe that allowing upgrades (and thus lower capital) would be an invitation to additional complexity at best and perhaps mischief at worst. We recommend incorporation of a default rule prohibiting "re-rating" if the action would diminish capital held against the asset.

In addition, as a related matter, we are unclear regarding a bank's scope of discretion concerning externally rated counterparties. We described above some of our concerns regarding the proposed "w" factor for CRM providers, but we are also concerned regarding how the same counterparty will be assessed between different bank models. Our reading of the IRB Approach suggests that a rated CRM provider using the same CRM form could find its benefits valued differently – perhaps materially so – by two banks. Further, we could envision two identically rated CRM providers using substantially similar forms being treated differently – again, perhaps materially so – by the same internal model. We recommend incorporating a rule requiring harmonization of capital benefits by CRM provider based on the external rating of the CRM provider, which could be monitored at a minimum through periodic disclosure. The presumption would be that the CRM provider (and similarly rated competitors) would be treated similarly in all internal models.

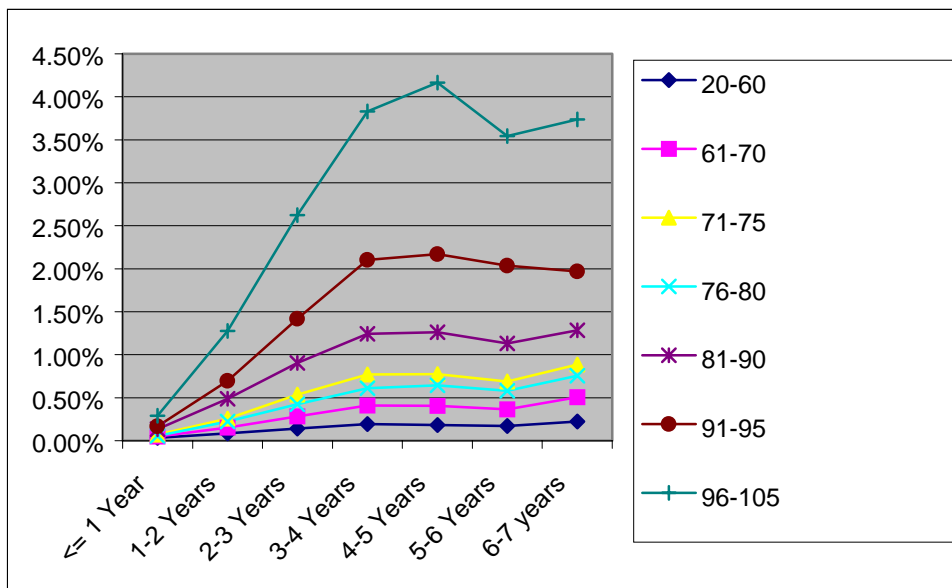
On our primary point regarding the IRB Approach, the Committee has proposed that there will be no "foundation" IRB approach for "retail" exposures. Instead, banks are expected to provide

¹² In addition, in the US, the Office of Federal Housing Enterprise Oversight (the financial safety/soundness regulator for Fannie Mae and Freddie Mac) has proposed risk weightings based upon external ratings that differentiates between AAA and AA in terms of counterparty discounts (10% for AAA over a 10-year period, and 20% for AA).

either a separate estimate for both default probability (“PD”) and loss given default, or an estimate of expected loss (“EL”). The Committee further proposes that loss estimates should be based on a one-year time period. However, given the seasoning properties of certain retail loans, the Committee recognizes that restricting attention to a one-year period may not be appropriate and has requested suggestions regarding the appropriate time periods for use in determining EL. In addition, the Committee has noted considerable differences regarding how banks define PD or EL, with some using the next 12 months, some an annualized default rate over a multi-year period, some a long-run average annual default rates, and others a peak default rate.

While complete consistency between modeling approaches might be unattainable, material variances in approach would make the IRB Approach complex and confusing, particularly for banks and CRM providers operating in more than one jurisdiction. In the interest of avoiding undue complexity and confusion, we have three recommendations regarding the treatment of residential mortgage loans under the IRB Approach. First, since mortgages tend to be a long-dated asset, we recommend use of a ten-year time period for deriving loss estimates. Table 9 demonstrates the unsuitability of using a one-year time period¹³.

Table 9.



While differences by LTV appear almost immediately, peak loss years are not experienced until three to seven years after origination. Thus, at a minimum, we recommend use of a time period that reflects the loss pattern characteristic of residential mortgage loans – which is why Rating Agencies, mortgage insurers and others experienced in mortgage credit risk modeling generally use a ten-year period to capture loss experience. Further, to keep the risk weighting system simple and to account for the fact that new loans will eventually generate a particular rate of default, we recommend using the highest average annual 90+ delinquency rate for any given loan age for each individual LTV category over the ten-year period.

¹³ Table 9 uses MIC data for US “prudently underwritten” fixed rate loans, and shows four-year (1997-2000) average default rates by LTV and age of loans. “Defaults” are loans greater than 90 days delinquent.

Second, if a ten-year performance period is unavailable, any time period should include a period of economic downturn. Otherwise, shorter time periods might fail to capture the long-term performance of a loan portfolio, as Table 10 demonstrates, which compares differences between maximum four- and ten-year delinquency rates:

Table 10.

Four-Year US Average 90 Day Plus Delinquency Rates 1997-2000								
LTV								Maximum
Range	<= 1 Year	1-2 Years	2-3 Years	3-4 Years	4-5 Years	5-6 Years	6-7 years	Rates
20-60	0.04%	0.09%	0.14%	0.19%	0.18%	0.17%	0.22%	0.22%
61-70	0.05%	0.15%	0.28%	0.41%	0.41%	0.37%	0.51%	0.51%
71-75	0.07%	0.26%	0.54%	0.77%	0.78%	0.69%	0.89%	0.89%
76-80	0.06%	0.22%	0.43%	0.61%	0.65%	0.58%	0.76%	0.76%
81-90	0.14%	0.49%	0.91%	1.24%	1.26%	1.13%	1.28%	1.28%
91-95	0.17%	0.70%	1.42%	2.10%	2.17%	2.04%	1.97%	2.17%
96-105	0.29%	1.28%	2.62%	3.83%	4.17%	3.54%	3.74%	4.17%

Ten-Year US Average 90 Day Plus Delinquency Rates 1991-2000								
LTV								Maximum
Range	<= 1 Year	1-2 Years	2-3 Years	3-4 Years	4-5 Years	5-6 Years	6-7 years	Rates
20-60	0.03%	0.10%	0.24%	0.47%	0.68%	0.80%	0.81%	0.81%
61-70	0.04%	0.20%	0.56%	1.07%	1.50%	1.67%	1.58%	1.67%
71-75	0.07%	0.36%	0.91%	1.59%	2.08%	2.23%	2.16%	2.23%
76-80	0.05%	0.27%	0.69%	1.25%	1.69%	1.75%	1.68%	1.75%
81-90	0.11%	0.46%	1.00%	1.68%	2.21%	2.33%	2.31%	2.33%
91-95	0.14%	0.63%	1.18%	1.76%	2.04%	2.24%	2.30%	2.30%
96-105	0.27%	1.55%	2.46%	3.13%	3.32%	3.20%	3.45%	3.45%

Ratio of Ten-Year Rates to Four-Year Rates

LTV	Maximum
Range	Rates
20-60	3.63
61-70	3.28
71-75	2.52
76-80	2.32
81-90	1.81
91-95	1.06
96-105	0.83
Average Ratio on Equally Weighted LTV Groups	2.21

Although the results by LTV are noteworthy (with delinquencies over 3.6 times higher in some categories), **the average ratio of ten-year delinquencies is 2.21 times higher than the four-**

year comparison, which underlines the importance of capturing general macroeconomic cycles as an aspect of mortgage credit risk modeling. Simply put, the four-year averages reflect a period of robust economic growth, while the ten-year period includes at least one episode of economic non-growth or contraction.

Third, if an actual downturn has not occurred, we recommend inclusion of an artificial economic stress component. That is, in addition to using the highest annual default rate by any loan age for that group, we believe that this result should be at least doubled until the bank's measurement period includes an actual stressed economic environment. Alternatively, the Committee has suggested that bank regulators consider use of a "stress test" similar to those employed by the Rating Agencies to determine capital adequacy. If a "stress-like" capital standard is desired, we recommend for simplicity purposes that the same highest annual default rates by group could be multiplied by a factor of three.

Whatever the level of capital adequacy ultimately chosen by the Committee, both the loss pattern characteristic of residential mortgages and the relation of general economic performance to mortgage credit risk causes us to recommend that the IRB Approach for residential mortgage assets use a methodology that reduces material variations in capital held against a portfolio of mortgage assets. The Committee noted in its Proposal a heavy reliance by banks on the most recent 12-24 months of experience, which we believe would release regulatory capital requirements from their prudential moorings. Given use of a one to two-year time period, capital would be reduced in periods of economic expansion, and increased in periods of economic contraction. Alternatively, banks might be tempted to use different measuring periods depending on current economic conditions (*i.e.*, "looking back past economic stress to better days"), which would strain the credibility of the IRB Approach as an effective measure of the economic risk within a bank's portfolio.