31. May 2001

Baseler Ausschuß für Bankenaufsicht/Basel Committee on Banking Supervision
Bank für Internationalen Zahlungsausgleich/Bank for International Settlements
CH-4051 Basel
Schweiz

Re: The New Basel Capital Accord – Securitisation Aspects of the Internal Ratings Based Approach (IRB) and Appropriate Capital Risk Weightings for Securitisation

Ladies and Gentlemen:

The European Securitisation Forum (the "Forum")\(^1\) appreciates this opportunity to comment on the consultative proposals (the “Consultative Proposals”) regarding the New Basel Capital Accord (the “Accord”) released by the Basel Committee on Banking Supervision (the “Committee”) in January of this year. In response to the Committee and its staff’s requested time table, on May 25, 2001 we submitted a comment letter (our ‘Initial Standardised Comment’) on the Consultative Proposals covering certain comments we had in connection with the application of the proposed standardised approach set forth in the Consultative Proposals.

In this letter we focus on the application of an internal ratings based approach (“IRB”) for securitisation and on appropriate capital requirements for securitisations.\(^2\)

**EXECUTIVE SUMMARY**

**SEURITISATION IRB**

The Forum supports the Committee’s goal of adopting a workable securitisation IRB to be implemented on the same time frame as the standardised approach included in the Consultative Proposals. Our comments on the securitisation IRB being developed by the Committee and its staff are summarised as follows:

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\(^1\) The European Securitisation Forum is a European-based initiative of The Bond Market Association or “TBMA” (the US-based trade association representing banks and broker dealers active in the fixed-income securities markets, including the MBS and ABS markets). The European Securitisation Forum was established to promote the continued growth and development of securitisation and to advocate the positions and represent the interests of the securitisation market throughout Europe. The Forum has a diverse membership which includes banks, securities houses, issuers, investors, rating agencies, legal and accounting firms and other professional participants active in the European securitisation markets. More information about the Forum, including its purpose and mission, its full membership and its current projects and activities, can be obtained from its website at [www.europeansecuritisation.com](http://www.europeansecuritisation.com).

\(^2\) In addition to these submissions by the European Securitisation Forum, TBMA will be submitting separate comments on the securitisation-related aspects of the proposed new Basel Capital Accord. TBMA’s comments, although developed separately by its membership, are materially consistent with those provided by the Forum herein.
A Single Securitisation IRB

The final Accord should contain only a single securitisation IRB. Given our expectation that the formulaic foundation IRB as proposed will not prove attractive to banks active in securitisation, and our belief that those banks will work toward having the necessary internal systems in place by the end of applicable transition periods to move directly into a securitisation IRB generally consistent with the approach outlined in this comment letter, we believe that it would be more effective to focus all available resources on developing a comprehensive and workable securitisation IRB and adopt it as the single standard for securitisation transactions.

Available to All Participants

The minimum adoption requirements should permit all securitisation participants—originators, investors and sponsors alike—to qualify for the securitisation IRB. The current focus on “bottom-up” obligor analysis needs to be prudently expanded, to avoid inappropriately excluding investors or sponsors from IRB.

Permitting a Variety of Systems to Assess Risk and Determine Capital

The securitisation IRB should explicitly contemplate qualification under a variety of risk analysis and capital determination systems, subject always to prior and ongoing supervisory review of and satisfaction with such systems. Qualifying banks should be permitted under the securitisation IRB to assign capital to obligations on the basis of external ratings, internal systems which are mapped to external ratings, internal systems which assess the PD/EAD/LGD of positions to determine capital, and internal systems which map directly to capital requirements.

Without a Premium

There is no convincing justification for assessing a premium over $K_{irb}$ when retained first and second loss positions exceed $K_{irb}$. Moreover, a premium would send a signal to the capital markets that the Committee desires to discourage securitisation generally. Originators should not be required to hold more capital after a risk transfer in a securitisation transaction than the on-balance sheet amount held prior to such a transaction.

Under an IRB Tailored to Securitisation Transactions

We believe it appropriate to draw a line between securitisation transactions, on the one hand, and asset-based lending, on the other hand, and believe that only the IRB approach for securitisations should be available for securitisations. The securitisation IRB should recognise the key characteristics of securitisation that are not present in secured corporate lending, in particular legal isolation of assets and credit decisions based on pool characteristics and behaviour (including granularity) rather than those of single assets. By applying a securitisation IRB to securitisations, the final Accord
will more likely accomplish the Committee’s goal of having the capital rules better reflect the relative risk of various assets.

Timing

- A workable and achievable securitisation IRB should be available concurrently with the adoption of the standardised approach, or participants in markets in which external ratings are not as prevalent as in the U.S. will be significantly disadvantaged.

- We understand that the Committee plans to publish formally a revised securitisation IRB for public comment. We would be concerned if the Committee and staff rush to formulate and finalise complex securitisation IRB proposals by the original December deadline. Given the size and importance of the existing European, and indeed global, securitisation market, inadequately—or even incorrectly—conceived revisions to the existing Accord would have significant adverse ramifications for the market and its diverse participants (including recipients of credits as well as retail and wholesale investors in both the primary and secondary markets).

**APPROPRIATE CAPITAL REQUIREMENTS FOR SECURITISATIONS**

- Based on our experience and our analysis of available statistical information, including that discussed below, we believe that the Committee’s expectation as to the amount of capital that would be prescribed for securitisation positions using either the standardised approach or a securitisation IRB will substantially exceed the amount that is justified by the credit risk inherent in these positions.

- We further expect that capital treatment under a securitisation IRB will recognise finer distinctions between ratings levels than those specified in the standardised approach included in the Consultative Proposals. This will avoid anomalies where a small distinction between ratings creates a large difference in risk-based capital requirements and reduce the incentives to game the system that are created by such anomalies.

- At a minimum, the risk weight for securitisation positions at a given rating level should never be higher than the risk weight for an identically rated conventional corporate exposure.

**COMMENTS**

1. **Securitisation Market Background**

Securitisation serves as an efficient means of redistributing a bank’s credit risks to other banks and non-bank investors, enabling prudent portfolio and risk management and diversification. Securitisation has also proven its value as an efficient funding mechanism by extending capital sources available to banks and increasing the liquidity of various assets. Finally, securitisation has proven itself to be a source of safe, fixed income assets from the
perspective of various investors, including not only banks but also other retail and wholesale
investors in the primary and the secondary markets.

Securitisation transactions structured as sales subject bank assets to market scrutiny and
should allow reductions in required capital when regulatory levels are proven to be overly
conservative. However, securitisation is also frequently a more efficient and flexible
financing option in comparison with others available to banks. For example, the ability of a
bank issuer to subdivide and redirect cash flows from underlying assets among a range of
sold and retained interests can provide it with both cheaper funding and the ability to achieve
a more precise matching of the duration of its managed assets and liabilities.

From a broader economic and systemic perspective, the existence of efficient securitisation
markets has increased the availability, and reduced the cost, of financing in the primary
lending markets. Efficient securitisation markets serve to reduce disparities in the availability
and cost of credit by linking local credit extension activities to a broader capital market
system. As a result of that linkage, securitisation subjects the credit extension functions of
individual financial institutions to the pricing and valuation discipline of the capital markets.
The securitisation process thus promotes the efficient allocation of capital and management
of risk within those institutions while serving to mitigate systemic risk throughout the
financial system as a whole. In turn, borrowers and other recipients of credit benefit directly
from its increased supply and lower cost.

In view of these important micro- and macro-economic benefits, the Forum regards it as
critically important for regulatory capital regulations to avoid imposing unnecessary
restrictions on the ability of banks to benefit from the application of securitisation techniques
to fund their lending operations efficiently.

2. Comments on IRB Proposals

2.1. Goals of the Accord

Given the significant portfolio and risk management tools provided by securitisation, we
believe that the revised Accord should neither encourage nor discourage banks from
securitising their assets. Rather, the goal of the revised Accord should simply be to better
align regulatory capital requirements with the relative risk of various assets. Based on our
reading of the Consultative Proposals and certain discussions with the Committee’s staff,
however, we are concerned that the proposals are being driven by different concerns, namely
either to motivate banks to transfer “riskier” positions from their books regardless of whether
this is appropriate from an economic standpoint for the bank, or to introduce disincentives to
prevent banks from engaging in securitisation transactions altogether because they may
constitute some form of “capital arbitrage” rather than permit prudent and effective risk
management.

We do not believe that these goals should be driving the establishment of minimum
regulatory capital requirements, and hope they are not the underlying intent of the
Committee. We sincerely hope that the Committee and staff will continue to work as they
develop a final Accord with the goal in mind of developing a better, and more neutral, alignment of regulatory capital requirements with the underlying risks of various assets.

2.2. Single Securitisation IRB

We believe that the final Accord should only contain a single securitisation IRB. We anticipate that the formulaic foundation IRB as proposed will not prove attractive to banks active in securitisation, and believe that they will be able to adopt the necessary internal systems by the end of applicable transition periods to move directly into the securitisation IRB. In addition, other than the premium in the formulaic foundation proposal which we believe is inappropriate for the reasons discussed in Section 2.3 below and the more extensive qualification criteria which we do not propose to restrict, the two approaches in our view already contain many similarities and are likely to remain so as they are developed. Finally, there may be regulatory benefits obtained by obligating securitisation market participants to move directly into the securitisation IRB from the standardised approach, because of the greater complexity of securitisation products generally and the more sophisticated internal risk management systems an advanced standard would require. For these reasons, we would suggest that a more effective approach may be for all participants to focus their available resources on developing a comprehensive and workable securitisation IRB and for the Committee to adopt it as the single standard for securitisation transactions.

We believe it essential that the Committee not postpone the development and adoption of a workable securitisation IRB. Establishing regulatory capital requirements via an IRB reflecting the unique characteristics of the securitisation business will simply be more effective. A workable securitisation IRB can more accurately assign appropriate levels of regulatory capital to the risks inherent in various securitisation positions than application of the general IRB will ever be able to do. In addition, leaving banks to determine regulatory capital for securitisation positions solely via the standardised approach will, by levying inappropriately high levels of capital against securitisation positions, undermine significantly the continued development of securitisation products and as a result deny banks the important risk management tools and other benefits those products provide.

In addition, we understand that, as an alternative to applying the proposed securitisation IRB, the staff currently contemplates that a bank may alternatively qualify and apply an asset-based lending IRB approach to securitisation transactions. Quite frankly, we believe the development and implementation of even one IRB approach for securitisations will prove time consuming and complicated enough for both regulators and securitisation departments of banks. Therefore, we believe that an appropriate line be drawn between securitisations, on the one hand, and asset-based lending, on the other hand, and that only the IRB approach for securitisations be available for securitisations.

The line between the two should be based upon the characteristics that distinguish securitisation from asset-based lending. In particular, securitisation is characterised by the legal isolation of assets and credit assessments based on the characteristics and behaviour of pools of assets rather than single assets. Thus, if the underlying collateral is legally isolated and sufficiently granular in credit risk so that a prudent credit analysis can be conducted at
the pool level, rather than at the level of each individual obligor, then the transaction should be treated under the securitisation IRB rather than the general asset-based lending IRB.

We hope that the Committee appropriately recognises these differences in the final Accord by requiring that only the IRB approach for securitisations will be available for securitisation transactions.

2.3. Premium

The Forum is aware that the Committee has held discussions with a limited number of securitisation market participants regarding a formulaic foundation IRB that proposes to assess a premium over $K_{irb}$ in circumstances where an originating bank’s subordinated retained loss position exceeds $K_{irb}$. The Forum would object strongly to such an approach as both unnecessary and unduly harsh and distortive. Such a rule would also send a clear signal to the capital markets that the Committee is discouraging securitisation by originators using IRB. A rule imposing capital in excess of $K_{irb}$ for retained interests would represent a regulatory overreaction to hypothetical concerns that a bank operating under the securitisation IRB will somehow not be able accurately to assess the appropriate level of on-balance sheet capital of a pool of assets.

First, the Committee should have confidence that the determination of $K_{irb}$ will be substantially correct. The Forum believes—based upon the direct experience of many of our bank members—that most regulated financial institutions who are significantly engaged in asset securitisation activities have established and effectively carry out appropriate policies and procedures for valuing retained residual interests and managing liquidity, concentration and other related risks. The appropriate approach is to address such concerns systemically, both as banks qualify for IRB and thereafter, by setting qualification standards (and testing banks’ ability to meet them) which are sufficiently comprehensive and rigorous to provide the required comfort that internal determinations of $K_{irb}$ will be substantially correct. In addition, national supervisors always have the ability pursuant to their general supervisory powers to address either idiosyncratic or systemic inaccuracies in the determination of $K_{irb}$ under IRB should any arise.

Second, a bank might retain a residual interest in a securitisation transaction for a number of reasons. Retaining a position does not necessarily mean that the instrument or the assets that underlie it are exceptionally risky. Neither does it suggest that the bank is unable accurately to assign a value to the interest, or to sell it to an investor should it choose to do so. Instead, the decision to sell or retain a residual interest on balance sheet is largely driven by cost-of-funds, liquidity, balance sheet presentation, asset/liability management and other considerations peculiar to the institution and individual securitisation transactions. Accordingly, the retention of a residual interest should not automatically signify the need for additional regulatory capital beyond what would otherwise be required under the Accord had the assets remained on balance sheet.

For these reasons, we find flawed the view that, if a bank retains first and second loss positions that exceed $K_{irb}$ in connection with the sale of more senior positions in a
securitisation transaction, such retained positions have somehow thereby been “marked to market” by the rating agencies and, accordingly, that additional capital should be held against them. The essence of IRB is a bank’s reliance (subject to supervisory oversight) on its internal credit analysis, client knowledge and risk management. Suddenly to abandon this reliance purely as a result of a securitisation having taken place strikes us as inconsistent with the Committee’s overall approach to IRB and creating incentives for banks to invest in the internal systems to move to it from the standardised approach.

The Forum’s concern with this aspect of the informal IRB proposals is that it could impose more capital on an originating bank following a securitisation transaction than would be the case had the securitised assets remained on balance sheet, even where an originating bank had significantly reduced its retained risk position with respect to such assets as a result of the securitisation transaction. Such a rule would, inappropriately and unnecessarily in our view, provide a significant disincentive to securitisation, requiring originating banks either to retain second loss positions and hold capital against them which is disproportionately large relative to the capital held by third party purchasers of the same position, or sell the second loss positions into a market which knows that the originators have unique costs if they hold onto the retained loss positions, or abandon the securitisation transaction altogether.

This divergence in capital treatments creates a tremendous artificial incentive for originating banks to sell second loss positions, even when those second loss positions bear a market coupon that is higher than the originator’s on-book cost of funds. This incentive exists under the current rules, will continue even under the securitisation IRB and has a significant observable effect on banks’ issuing activity. Specifically, most banks that issue asset-backed securities sell subordinated tranches rated down to BBB (or even BB) or its equivalent, in order to avoid the excessive capital charges that would result if they retained those tranches. This issuance pattern is common even where the issuing banks have unsecured investment grade ratings and could generally raise funds on balance sheet at a lower cost than the coupon on BBB or A category tranches.

As the Committee moves towards its commendable goal of more closely aligning regulatory capital requirements with risk, these types of artificial distinctions and the distortions they create should be eliminated. The capital requirement for retained positions determined pursuant to the bank’s IRB systems should be recognised, and an unnecessary and distorting securitisation “premium” should not be additionally imposed. Under the securitisation IRB, positions bearing similar risks should be the same for any bank, regardless of whether or not it is the originator.

2.4. Risk and Capital Allocation Systems

The securitisation IRB should explicitly permit banks to qualify using a variety of internal systems for analysing the risks of positions and for determining the appropriate level of regulatory capital that should support such positions, subject to the integrity of the systems and the criteria and procedures used being appropriately demonstrated to the supervisor and to customary supervisory oversight powers. Permitting a variety of reliable, internal systems will be necessary in order that the securitisation IRB is usable by banks in each of the
capacities identified by the Committee: as originators, as investors and as sponsors of securitisation conduits. Among other things, this means that there need to be methods of determining capital under the securitisation IRB (at least for investing banks and, possibly, sponsors) that do not require a bottom-up analysis based upon individual internal risk ratings for every obligor in a securitised pool.

The Forum proposes that qualifying banks should be permitted under the securitisation IRB to assess internally the risk of their positions and to assign capital to those positions under at least four options: (a) internal modelling systems which map directly to capital requirements, (b) internal systems which either assess the PD, EAD and LGD of positions to determine capital or assess EL directly to determine capital, (c) internal systems which are mapped to external ratings, and (d) external ratings.

The Forum supports the recognition of internal risk modelling systems capable of assessing the risks of positions and mapping directly to capital requirements with sufficient robustness and reliability. For example, we understand that the ISDA comment letter supports explicit recognition of the Merton framework, which is employed by a large number of internationally active banks to model corporate portfolio losses. We would support the inclusion of the Merton framework as one of several options in the securitisation IRB for setting regulatory capital charges against corporate exposures. For retail exposures, a Merton-type approach should be considered, provided that it could be calibrated to deliver regulatory capital charges commensurate with the risks embedded in those positions.

With respect to internal systems other than modelling systems, our preference would be for the securitisation IRB to permit capital to be determined from internal ratings without any requirement to map the internal ratings to an external rating system. Once a bank’s regulator is satisfied that such bank’s internal rating system appropriately assesses the risk of a particular position and is satisfied with the relationship between various rating levels and specific risk weights, we believe that a requirement to “map” internal ratings to external ratings to determine required capital adds a layer of complexity to the system that is unnecessary and opens the door to idiosyncratic variations in application that could otherwise be avoided. If the Committee nevertheless requires mapping to external ratings, the mapping should require only that a satisfactory level of correlation be demonstrated between internal and external ratings. Banks should not be required actually to adopt the criteria of external rating agencies.

Most banks that are active in the securitisation market have developed sophisticated internal systems for assessing the risk of securitisations. Originating banks will be in the best position to have detailed pool information for each transaction enabling it to make an informed credit decision. Conduit sponsors may also be similarly well-positioned. In fact, rating agencies have long relied on sponsor banks to structure and map transactions to particular credit rating requirements. Rating agencies allow many multi-seller conduits to enter into transactions without prior agency review. This procedure has been successful precisely because of the ability of the sponsor bank to structure its transactions in accordance with standards necessary to maintain a desired rating. Furthermore, rating agencies have consistently used internal bank risk scores as proxies for ratings of otherwise unrated borrowers in
collateralised loan obligation transactions. For these reasons, we believe that most originator and sponsor banks currently active in the securitisation markets should be able to qualify for the securitisation IRB and we encourage the Committee to set the qualifying standards accordingly.

We acknowledge that investors may lack the same level of detailed information regarding asset pools underlying asset-backed securities compared with the originators of such assets or sponsor banks, but we believe that it is very important that investors are not excluded from using the securitisation IRB. Instead, the securitisation IRB should include one or more mechanisms for investing banks to determine capital internally.

One approach is to permit an “external ratings” IRB option. Under that option, banks qualifying for IRB treatment generally (and not just for their securitisation activities) would, subject to supervisory oversight, be able to link external ratings in a transaction to uniform risk weights. Unlike in the standardised approach, however, banks operating under this option would have access to a greater number of external rating levels to determine the regulatory capital of their securitisation positions than the five categories allowed under the standardised approach.

Finally, the Forum supports permitting inferred ratings to be used to assess IRB capital. For instance, if an unrated tranche held by a bank is senior to a rated ABS, a shadow or implied rating for capital purposes should be permitted if it is sufficiently reliable. Similarly, this approach should be extended to unrated tranches that are junior to rated ABS, acknowledging however that the determination of an inferred rating in such a circumstance may become more difficult.

2.5. Application Of Securitisation IRB To Liquidity Commitments

We believe it is important that risk weights assigned to liquidity commitments to multi-seller conduits under the securitisation IRB reflect the relatively low PD and LGD that we believe to be associated with these liquidity commitments. We feel that the structure and purpose of these liquidity commitments (i) reduce substantially the risk that these commitments will actually be drawn in a particular transaction and (ii) protect these commitments from funding against non-performing assets. We believe that the effect of these features is to cause the PD and LGD for liquidity commitments to be lower than that for the underlying asset pools. Therefore, we believe that it is imperative that any IRB approach for liquidity commitments be calibrated to reflect the relatively low risk of these commitments.

2.6. Miscellaneous Comments

At a more detailed and technical level, we have the following suggestions for the securitisation IRB:

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3 We fully discuss these structural features and performance data that supports our beliefs in Section 4.2 of our Initial Comment.
• The definition of “default”: A 90 day past due concept is not meaningful for securitisations (as opposed to individual underlying receivables). Rather, a default at the securitisation level should be deemed to occur only upon either (i) failure of an issuer to make required payments when due or (ii) a determination that there are insufficient assets to provide for payment of all or a portion of outstandings in a transaction. Furthermore, we note that the restructuring of a securitisation transaction can actually enhance the full collectibility of an obligation. For that reason, a restructuring in and of itself should not be considered a default.

• Maturity: A contractual maturity is inappropriate in securitisation transactions because of the common occurrence of “tails” in the ultimate liquidation of term assets. An average life concept is much more relevant than the legal final maturity for a transaction. Also, a uniform three year average maturity (which we believe has been discussed by the Committee) will overcapitalise short term assets, such as trade receivables, while undercapitalising long term assets, such as collateralised debt obligations, thereby creating unwanted capital arbitrage opportunities.

• Borrower vs. facility ratings: We strongly disagree with the notion in the Consultative Proposals that a borrower rating should not be “tainted” by consideration of structure. Structure is the major determinant of what level of risk is being taken by a bank in any securitisation position, and a bank would be unable to accurately assess the risk of a securitisation position if it were not able to take into consideration the structural features supporting a position.

• 30% limit: The 30% limit for exposures in any one risk grade should either be excluded entirely from securitisations or apply to a bank’s portfolio as a whole, as opposed to each business segment. A 30% cap would not work at the securitisation level as conduit transactions are typically structured to the same narrow (and relatively high) ratings range.

2.7. Time Frame for Adoption

Although we have not seen an official statement from the Committee confirming this point, we understand that the Committee intends to publish a formal securitisation IRB proposal for public comment this summer. We strongly encourage the Committee to do so. The securitisation markets are very important to internationally active banks and to their corporate customers. Given the central role envisioned for the IRB in the new Accord, it is important that the securitisation IRB receive full public review and comment and that the Committee and its staff have time to take those comments into consideration.

We would be greatly concerned if the current December deadline for adoption of a revised Accord causes complex matters to be handled with too much haste. We believe that it is extremely important that the staff be given adequate time to thoughtfully consider and draft concrete proposals and that banks and other interested parties be given adequate time to thoughtfully consider and formally comment on these proposals. While we appreciate the opportunity to have worked with the staff as they have formulated and refined their draft.
proposals for the Committee’s consideration, we do not believe that this adequately substitutes for a formal comment process on fully developed proposals.

Furthermore, we do not believe that the use of “conservative placeholders” in a final Accord (as has been suggested as a potential alternative in formulating an IRB for securitisation within the December deadline) is appropriate for the large, well-established securitisation market. The uncertainty during the period prior to the replacement of these conservative placeholders with more finely tuned capital requirements could unnecessarily threaten the attractiveness of this efficient funding source. As mentioned above, due to the size and importance of the existing securitisation market and potential ramifications to this market posed by premature, incomplete and possibly inappropriate revisions to the Accord, we strongly urge the Committee to allow a further formal comment period this summer on a fully developed IRB approach for securitisation transactions.

Finally, we strongly oppose the imposition of the standardised approach, which imposes unfairly high capital treatment on banks’ securitisation positions, unless a workable IRB alternative is concurrently available to a suitably broad group of bank originators, investors and sponsors experienced in the securitisation market. First, as we have noted in our Initial Comment and below, many of the risk weights proposed in the standardised approach are too high, particularly for unrated securitisation positions, and the distinctions between risk weight categories are too great, for the standardised approach to be suitably attractive or fair to sophisticated participants in the securitisation markets. Second, a securitisation IRB should be available concurrently with the standardised approach, or participants in markets in which external ratings are not as prevalent as in the U.S. will be significantly disadvantaged. Finally, concurrent adoption of a workable securitisation IRB would avoid practical problems with a revised Accord that did not provide access to an IRB to most banks currently experienced in the securitisation market. The increased flow of transactions submitted to rating agencies for review under a system requiring external review for favourable capital treatment would present a significant practical challenge to all participants (borrowers, banks and rating agencies alike), and may result in delays having an impact on the cost and availability of funds to borrowers under a regulatory scheme that penalises banks for entering into unrated transactions.

3. **Appropriate Capital Requirements for Securitisations**

In general, we believe that the amount of capital that should be prescribed for securitisation positions under IRB should be substantially less than that provided under the standardised approach, because a lower amount of capital is the amount that is in fact justified by the credit risk inherent in these positions. In addition, we believe that capital treatment under the securitisation IRB should recognise finer distinctions between ratings levels than those specified in the standardised approach. These positive developments will have the twin benefits of better aligning regulatory capital with the risks inherent in various positions and avoiding anomalies where a small distinction between ratings creates a large difference in risk-based capital requirements. As a result, the securitisation IRB will reduce the incentives to game the system that are created by excessive capital requirements and overly large rating
distinctions. This comment applies no matter what method is used for assigning various positions to particular risk-based capital categories.

While we are convinced that the Committee also recognises the desirability of achieving the twin benefits described above, we are concerned that the Committee’s expectation as to the amount of capital that would be prescribed for securitisation positions under IRB will continue to exceed substantially the amount that is justified by the credit risk inherent in these positions. Although the Committee has not at this point made any [formal] [specific] proposals regarding capital requirements to be applied under a final IRB, our concern arises from the conservative placeholders set forth for securitisation positions under IRB.

On the basis of the data provided below, we believe the risk weight for securitisation positions at a given rating level could prudently be lower than the risk weight for identically rated conventional corporate exposures. In any event, under no circumstances should securitisation positions have a higher risk weight than identically rated corporate exposures for several reasons. First, we believe that, as secured positions, securitisations will have a lower LGD than a comparably rated unsecured corporate credit. We note that secured credits have higher recovery rates in bankruptcy scenarios than unsecured credits. In addition to the presence of collateral supporting a position, securitisations typically benefit from additional structural protections (e.g., isolation of assets from the bankruptcy estate of an originator). We believe that these additional structural features of securitisations would result in even higher recovery rates than those experienced with secured credits.

In order to assist the Committee in its work formulating capital risk weights under the securitisation IRB, we have assembled below a variety of data from Forum members and other sources regarding the performance of various asset-backed securities and certain of the assets underlying them. These data consist of:

- rating agency transition and default studies, which provide a comparative view of the performance of asset-backed securities with the performance of corporate bonds over comparable periods,

- default indices for residential mortgages, credit cards and auto loans, which provide insight into the loss performance of retail assets underlying asset-backed securities,

- FFIEC loan loss statistics and a related bank loan loss study by a senior financial economist at the Office of Thrift Supervision, both of which provide insight into the actual loss performance of bank assets in a variety of classes,

- rating agency modelling principles used to determine the amount of credit enhancement required to achieve specified rating levels in an asset-backed transaction, which (subject to certain technical adjustments) can be viewed as a proxy for determining the amount of regulatory capital that could be required to achieve similar results, and

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4 See Moody’s Special Comment, *Bankrupt Bank Loan Recoveries* (June 1998).
CDO performance modelling and statistics, which provide insight into the structuring and performance of asset-backed securities backed by corporate credits.

### 3.1. Rating Agency Studies

The most recent publicly available studies by the rating agencies support our request for more favourable treatment of securitisations. Here are some highlights:

- Moody’s shows no defaults for ABS in its historical database from 1985 to the present, regardless of rating.
- S&P’s study shows no European investment grade defaults since the market’s inception.
- S&P shows some BB defaults but at a rate approximately \( \frac{1}{2} \) that of corporate BB exposures. S&P shows no defaults at the B level.
- Investment grade ABS transactions show noticeably lower downgrade risk than corporate transactions over a five-year timeframe, and sub-investment grade transactions show somewhat lower downgrade risk as well.

### Fitch Study

The key points of the Fitch Default Study are as follows:

- The study covers more than $1.5 trillion of securities, including asset-backed securities (ABS), residential mortgage-backed securities (RMBS), and commercial mortgage-backed securities (CMBS).
- From 1989 to June 30, 2000, the annual default rate for Fitch rated structured finance securities averaged 0.01% of original principal balance. For comparison, from 1990 to 1999, the average annual default rate for U.S. corporate bonds equaled 0.77%. On an adjusted basis (see below), the corporate default rate was about 0.23% per annum – still 2,000% greater than the structured finance rate.
- Structured Finance Securities
  - The cumulative default rate for Fitch-rated structured finance securities over the study period totalled 0.05% of original principal balance. The cumulative

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5 The study from Standard & Poor’s (“S&P”) was published in late October 2000, and the studies from Fitch IBCA, Duff & Phelps (“Fitch”) and Moody’s Investors Services (“Moody’s”) were each published in January 2001.

default rate for Fitch-rated ABS over the study period was 0.07%, CMBS 0.04%, and RMBS 0.02%.

- The annual average default rate for each sector was less than 0.01%.

- Corporate Bonds
  - From 1990 to 1999, investment-grade bonds defaulted on average 0.08% per year. Non-investment grade bonds defaulted at an average annual rate of 3.07%.
  - With 23% of outstanding corporate bonds rated non-investment grade, the weighted average annual default for corporate bonds as a whole was 0.77%.
  - Only 5% of the structured finance market is made up of non-investment grade securities, but 23% of corporate bonds are rated non-investment grade. Recalculating the corporate figures in the preceding paragraph to achieve the same ratio of investment/non-investment grade ratings yields a corporate default rate of about 0.23% per annum.

- Fitch concludes from its study that:
  
  “[t]he very low incidence of default for structured finance securities supports the concept that isolating a pool of assets from an originator or seller does significantly reduce default risk.”

- A copy of the Fitch Default Study is attached at Tab 1 to this comment letter.

**Standard & Poor’s Study**

The key points of the S&P Transition Study are as follows:

- The study covers transitions and defaults on 423 long-term transaction ratings or 717 long-term classes for the period from 1987 to the first half of 2000.

- No European investment grade asset-backed transaction defaults since the market’s inception.

- As of the first half of 2000, all European asset-backed transaction downgrades occurred as a result of supporting party downgrades
o 73% of these were a direct result of one single factor: the downgrading of a number of major insurance companies in the early 1990s.

o 21% were from downgrades of other third parties to the transaction.

o 6% were as a result of the introduction of EMU when six AAA local currency ratings converged to AA for sovereigns supporting asset-backed transactions.

• The European asset-backed market has reduced its reliance on third-party credit support through the introduction of a number of new structural features. The widespread use of subordinated classes to replace pool insurance was a significant market development to diminish the effects of third party events.

• Lower-rated asset classes have been the most stable to date. (However, these lower-rated classes did not exist in great number until 1997, and have only existed during a period of very favourable economic conditions.)

• A copy of the S&P Transition Study is attached at Tab 2 to this comment letter. ⁸

Moody’s Study ⁹

The key points of the Moody’s Transition Study are as follows:

• The report is the first complete historical study of ratings transitions in the U.S. asset-backed securities market.

• Moody’s ratings address expected loss, encompassing both the likelihood of default as well as the severity of loss should a default occur. Thus, the study provides a reasonable proxy for both PD and LGD of ABS during the study period.

• Asset-backed security ratings experienced lower transition rates than corporate ratings since 1986.

• The study also points out that:

  o On average, asset-backed security ratings overall have been quite stable since the market’s inception in 1986 with, for most rating categories, over 90% ratings staying the same over one-year periods.

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⁸ Since publication of the S&P Transition Study, a handful of CBO/CLO transactions have been downgraded as a result of collateral deterioration.

o For those rating categories that have shown somewhat higher rating transitions, most of the changes were caused by rating changes to entities related to the transactions.

- Over the long run, Moody’s expects asset-backed transitions to lead to credit losses roughly equal to those of corporate securities. This expectation could arise for a number of reasons:

  o Moody’s cites the following: (i) the historical transition rates for some categories are based on a limited number of ratings which should be viewed with caution, (ii) the future economic environment is not likely to be as favourable as the conditions that have prevailed during the study period, and (iii) issuer support for under-performing transactions might not be as forthcoming as it may have been in the past.

  o Moody’s expectation could also be a simple expression of its intention that ratings categories should, in theory, yield equivalent loss results over time, irrespective of the type of security involved.

- A copy of the Moody’s Transition Study is attached at Tab 3 to this comment letter.

### 3.2. Loss Data

We provide below loss data for both a number of retail asset categories and for certain asset-backed securities supported by such assets. Losses even for the subordinated pieces on asset-backed securities are dramatically below the regulatory capital suggested by the Committee to date. We emphasise that the figures presented below and in the attachments in many cases do not represent “net losses” from an originator’s perspective, but rather “defaults” of or “charge-offs” against the principal amounts of such assets. In many cases, the profit margin retained by the originator (i.e., the margin between interest income received and total expenses including charge-offs) is significant.

Copies of the full studies on which this data is based are, where available, attached at Tab 4 to this comment letter.

- **Mortgage Markets**

  The following chart provides not only loss data for residential mortgage asset-backed securities for seven countries over the multi-year periods listed below, but also the levels of credit enhancement required by the rating agencies in order to achieve the respective ratings on the asset-backed securities listed below. As we discuss in more detail below, subject to making the adjustments described in Section 3.4 below, we view the amount of rating agency

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10 Source: Merrill Lynch.
required credit enhancement in asset-backed transactions as a conservative proxy for a regulatory capital requirement to achieve comparable ratings levels.\footnote{At each rating level, the cited subordination level is cumulative, but is exclusive of any credit enhancement provided by the reserve account and the excess spread. For example, in the case of the United Kingdom, in order to achieve a AAA rating on the senior security, all lower-rated tranches need to provide 7\% to 12\% subordination in total.}

<table>
<thead>
<tr>
<th>Mortgage Markets</th>
<th>Period</th>
<th>Average</th>
<th>Worst (Year)</th>
<th>Losses</th>
<th>Required Support Level (Subordination)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1985 - 1999</td>
<td>0.02%</td>
<td>n/a</td>
<td>1 - 5%</td>
<td>1 - 3%</td>
<td>0 - 2%</td>
</tr>
<tr>
<td>Belgium</td>
<td>1989 - 1994</td>
<td>0.01%</td>
<td>0.03%</td>
<td>1994</td>
<td>4 - 7%</td>
<td>n/a</td>
</tr>
<tr>
<td>France</td>
<td>1989 - 1994</td>
<td>0.02%</td>
<td>0.23%</td>
<td>1994</td>
<td>4 - 6%</td>
<td>n/a</td>
</tr>
<tr>
<td>Germany</td>
<td>1988 - 1998</td>
<td>0.05%</td>
<td>0.12%</td>
<td>1988</td>
<td>4 - 6%</td>
<td>n/a</td>
</tr>
<tr>
<td>Italy</td>
<td>1990 - 1994</td>
<td>0.03%</td>
<td>0.06%</td>
<td>1990</td>
<td>8 - 12%</td>
<td>5 – 8%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1980 - 1998</td>
<td>n/a</td>
<td>0.08%</td>
<td>n/a</td>
<td>6 - 8%</td>
<td>4 – 5%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1989 - 1998</td>
<td>n/a</td>
<td>0.95%</td>
<td>1992</td>
<td>7 - 12%</td>
<td>5 – 6%</td>
</tr>
</tbody>
</table>

The following chart sets out the claims experiences of mortgage insurers in Australia over the period from 1970 to 1997.\footnote{Source: Standard & Poors.}

![Chart showing claims experiences of mortgage insurers in Australia](chart.jpg)

\[\text{Loss frequency (number of defaults as a proportion of total loans insured).} \]
\[\text{Loss severity (value of defaults as a proportion of total value of loans insured).} \]
\[\text{Loans written in year immediately preceding sharp interest rate rising} \]
\[\text{Property prices skike} \]
\[\text{Stock market crash} \]
\[\text{Recession} \]
\[\text{Property Crash/Interest Rates rising sharply} \]

b. Credit Card Indices

A recent Moody’s credit card index\footnote{Credit Card Credit Indexes: November 2000, Global Credit Research Special Comment, Moody’s Investors Service, January 2001.} cites a charge-off rate in November 2000 (i.e., the amount of bad loans written off as uncollectible, as an annualised percentage of total loans) of 5.24\%. The same Moody’s study cited a delinquency rate (defined as the proportion of U.S. credit card loan balances in which a monthly payment was 30 or more days past due, as
a percentage of total loans) of 4.91% in November 2000. The Moody’s index is based on credit performance data for more than 255 individual credit-card backed securities rated by Moody’s. The index sample includes over $325 billion of bank credit card receivables, which back securities rated by Moody’s. Moody’s excludes from the index securities that have been outstanding for less than one year.

Similarly, a recent Fitch credit card index\textsuperscript{14} covering $310 billion in credit card receivables backing more than $217 billion in credit card asset-backed securities cites a charge-off rate through the October 2000 collection period of 5.20%. An updated Fitch credit card index available on their Web site (and provided below) cites a charge-off rate through the April 2001 collection period of 5.48%. The historical charge-off figures leading to the April 2001 number, as well as other related figures, are set out in the following two charts:

The following chart\(^\text{15}\) provides both loss data for UK credit card asset-backed securities, as well as the levels of credit enhancement required by the rating agencies in order to achieve the respective ratings on the asset-backed securities listed below.\(^\text{16}\)

<table>
<thead>
<tr>
<th>Credit Card Markets</th>
<th>Period</th>
<th>Average</th>
<th>Worst</th>
<th>Losses (Year)</th>
<th>Required Support Level (Subordination)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>1998-2001</td>
<td>4.00%</td>
<td>4.50%</td>
<td>1998 11 - 14%</td>
<td>AAA 11-14% AA 4-6% A 4-6% BBB n/a BB n/a Res. Acc. 0 – 4% Exc. Spread 4 - 8%</td>
<td></td>
</tr>
</tbody>
</table>

\(^\text{c. Auto Loan Indices}\)

A recent Moody’s prime auto loan credit index\(^\text{17}\) cites an industry-wide net cumulative loss rate of 0.91% in the first quarter 2000. The average annualised net loss rate was 1.24% in the fourth quarter 1999 and 1.31% in the first quarter 2000. The index measures average credit performance of pools of prime quality auto loans backing all rated securities. (Moody’s notes that there is no uniform definition for “prime” quality loans used to assemble data in the index.). Moody’s only includes deals that have aged at least 3 months. Used car loans are also included, which the index notes typically have a higher frequency of default but lower severity of loss.

A recent Moody’s sub-prime auto loan credit index\(^\text{18}\) cites a cumulative net loss projection for its high-loss index of 12.3% and for its low-loss index of 5.3% of the original pool balance, respectively. The all pool index, which combines both, cites a projected lifetime loss of approximately 7.6%. Moody’s notes that recent data suggests that the aggregate loss curve may have become more “back-ended” than at the time the benchmark curve, which is used to derive the index, was created. This implies that a greater percentage of a pool’s lifetime losses will occur later in the life of the pool. Moody’s suggests that a potential explanation for the shift to a more back-ended loss curve might be longer maturities on loans in more recent pools compared with loans in the pools used to create the benchmark curve. The index tracks cumulative net charge-off rates, adjusted for the effects of seasoning, for 188 loan pools backing securitisations totalling just under $46.9 billion at issuance. Of the total, 82 issues, representing more than $30.3 billion, are low-loss pools, with lifetime expected cumulative losses of less than 6%. The rest of the pools are high-loss pools, with expected

\(^\text{15}\) Source: Merrill Lynch.

\(^\text{16}\) At each rating level, the cited subordination level is cumulative, but is exclusive of any credit enhancement provided by the reserve account and the excess spread. For example, in the case of the United Kingdom, in order to achieve a AAA rating on the senior security, all lower-rated tranches need to provide 11% to 14% subordination in total.


cumulative losses ranging between 6% and 25%. Every month, additional pools backing securitisations issued seven months earlier are added to the indexes.

3.3. FFIEC and Other Bank Loan Loss Data

Attached to this comment letter at Tab 5 are tables setting out the charge-off rates (i.e., the value of loans removed from the books and charged against loss reserves, measured net of recoveries as a percentage of average loans and annualised) for all insured U.S. chartered commercial banks for the period from the first quarter of 1985 through the fourth quarter of 2000 for a variety of asset categories, including residential and commercial real estate, credit cards and commercial and industrial loans.

We also note a recent study\(^\text{19}\) by a senior financial economist at the Office of Thrift Supervision providing extensive data on the loan loss experience of U.S. banks and a summary of various methodological considerations. The main conclusions of the Bank Loss Paper, attached as Tab 6, are as follows:

- First, that the cross-sectional distributions of both charge-off and delinquency rates for all loan types are extremely leptokurtic (peaked), with a surprising number of institutions reporting very low charge-offs and/or delinquencies. The chief cause of the leptokurtosis appears to be a cross-sectional mixture of distributions, in which many institutions hold very small, very undiversified (“lumpy”) portfolios of certain loan types (producing in any given year either a very high or very low percentage of problem loans); other institutions, of course, hold better diversified – and more predictable – portfolios.

- Second, annual cross-sectional histograms reveal that real estate in general, and 1-4 family mortgages in particular, consistently pose the least credit risk of the six loan categories considered. Commercial and consumer loans typically pose the greatest risk.

- Third, industry consolidation over the sample period has reduced the number of small loan portfolios and raised the average portfolio size, thus steadily reducing the proportion of institutions with extreme charge-off or delinquency events.

- In light of its loan loss findings, the principal observation of the Bank Loss Paper is that:

  “We find that the Basel risk weights do not accurately track the historical credit experience of U.S. loan portfolios,\(^\text{19}\)

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\(^{19}\) Basel Buckets and Loan Losses: Absolute and relative loan underperformance at banks and thrifts, Mark D. Flood, Senior Financial Economist, Office of Thrift Supervision, March 9, 2001 (the “Bank Loss Paper”). The study notes that “The views expressed are those of the individual author(s) and do not necessarily reflect official positions of the Office of Thrift Supervision or the U.S. Treasury.”
suggesting that some loans may be relatively overburdened by the current standards. Collateralized loans generally pose the smallest credit risk."

3.4. Rating Agency Benchmarking

We have sought to summarise below the general rating agency approach to determining credit enhancement levels in asset-backed transactions. These credit enhancement levels can, subject to adjustment as provided below, be viewed as conservative proxies for the amount of “capital” that rating agencies require to achieve certain rating levels. For example, on a residential mortgage securitisation, the rating agencies may, on a given pool, require 2% capital/credit enhancement be provided for an asset-backed bond supported by such assets to achieve a BBB rating. Credit enhancement can take the form of excess spread, cash, a subordinated class, a surety bond, or other assets.

The ESF recommends that the Committee meet with each of the three major rating agencies to discuss their methodology for each asset class and their data on the credit enhancement levels they have actually required in transactions, either on an aggregate or transactional level basis or both. Representatives of the rating agencies with whom we have spoken indicate a willingness to engage in these discussions with the Committee on a one-on-one basis. We can provide specific contact details if desired.

The rating methodology encompasses not just an analysis of the credit risk embedded in a given asset type but also the range of issues generated by various liability structures, servicer or operator capabilities, jurisdictional requirements and legal and tax constraints that can ultimately impact payment as promised on a debt instrument. It is entirely possible for deals with similar asset types to have very different credit enhancement requirements due to non-asset related concerns, including the nature, completeness and integrity of information provided. Such historic information is not necessarily the best guide for future expectations, and the analysis therefore looks carefully at macroeconomic measures, fundamental changes in culture in customer bases and similar issues in order to guide the context for any stress analysis. The rating methodology is not just quantitative but of necessity has to review various qualitative judgements to arrive at appropriate rating levels. With that in mind, a broad overview of the asset-related methodology for four major asset classes follows:

1. Consumer Assets. This category includes residential mortgages, credit cards, personal loans, home equity loans, auto loans, among others. Where the information exists in appropriate form, the rating agencies typically analyse these asset types based on actual historical delinquency, default, recovery and prepayment statistics for each originator and each transaction, as well the type of collateral/security available, including loan-to-value ratios and consumer debt-to-income underwriting ratios. The agencies then model each transaction, in which they perform “stress scenario” analysis, using the actual historical default experience as a base case where appropriate. All else being equal, this methodology may result in lower credit enhancement levels than for corporate assets, if, for example, obligor concentrations are extremely low, and the obligors (consumers) have a personal incentive to keep
paying on their obligations, since they can otherwise lose their house or personal belongings.

2. Corporate Assets. This category includes commercial loans, trade receivables, leases, and project loans. Corporate assets may be rated using a probabilistic methodology or a more deterministic focus on historical experience and its implications for future performance. The appropriateness of methodology will depend, among other things, on portfolio size and characteristics and obligor type, correlation and concentration.

3. CDOs. CDOs are rated by calculating a rating-dependent gross default rate for a portfolio of obligors. In the case of Standard & Poor’s, for example, this is computed on the basis of their corporate default study, which covers the past 21 years, in conjunction with other financial variables and adjusting for any industry concentrations in consultation with their specialist corporate analysts. Recovery assumptions are then applied to the gross default rate depending upon the seniority of the obligation in the capital structure of the obligor.

4. Commercial Mortgages. Due to the diverse nature of the mortgage pools and underlying collateral, commercial mortgages are rated using deal-specific methodology reflecting the locational and asset specific characteristics of the collateral as well as, where appropriate, the benefits of pool diversity. Loan to value and other financial ratios, type of security, location of property, asset quality, servicers and backup servicers and other considerations are important, as well as an assessment by experienced analysts of the specific risks inherent in commercial investment and development loans.

The credit enhancement levels required by the rating agencies in securitisation transactions in order to achieve certain ratings levels will need to be adjusted in one significant respect before they should be used even as a conservative proxy for regulatory capital requirements. In summary, an adjustment is needed to address the differing ways rating agencies (in determining credit enhancement) and banks (in establishing regulatory capital) deal with losses on the underlying pool of assets over the life of the pool.

In a securitisation transaction, rating agencies require a level of credit enhancement that will produce stability in the resulting rating over, traditionally, the entire life of the asset-backed security. As a result, losses against the pool must be deducted from the available credit enhancement, and the amount of credit enhancement remaining is set at a level sufficient to continue to support the rating on the security until its maturity. In contrast, bank regulatory capital works very differently. On each reporting date, a bank is obligated to maintain regulatory capital at the required level (8% for example) against the asset pool, even after losses on the pool have been written off in each previous reporting period. This results in a bank providing much more than 8% capital (in this example) over the life of the transaction under existing guidelines. In other words, a bank in effect is already required to “top up” its regulatory capital/credit enhancement over the life of the asset pool.
Because rated securitisation positions cannot include such a “top up” feature, the level of credit enhancement that the rating agencies require on a fixed asset pool must be greater from the outset. Thus, the amount of credit enhancement required by rating agencies in asset-backed transactions will overstate significantly the amount of regulatory capital that would be required to bring the same asset pool up to the same rating level. Accordingly, while we recommend that the rating agency requirements be used as one form of proxy for regulatory capital, we do so only after the rating agency requirement is adjusted downward to account for this difference, which will then put the bank regulatory capital and the rating agency required credit enhancement figures on a more comparable basis.

3.5. Application of CDO Methodology

a. Summary

In this section, we have applied a Collateral Debt Obligation (CDO) rating methodology to compare required subordination levels for a series of hypothetical CDOs collateralised by corporate exposures (a “corporate CDO”) and structured finance exposures (a “multi-sector CDO” or an “ABS CDO”). The results indicate that under various realistic assumptions there is absolutely no conclusion or requirement that a CDO collateralised by asset-backed securities will require higher subordination as compared to a CDO collateralised by like-rated corporate exposures.

When utilising the CDO methodology, there are many variables that affect the required subordination levels. In a multi-sector CDO, prepayment and extension characteristics of the collateral must also be considered. Even when the pools were normalised with regard to diversity, and a constant collateral coupon (which would be unlikely in practice) and recovery were assumed, the size of the subordinated pieces required to obtain a Baa2 rating in a CDO using like-rated asset-backed securities and corporate obligations were roughly the same.

b. Assumptions

All of the hypothetical structures modelled below assume floating rate collateral and floating rate liabilities. These assumptions remove the possible interactions that might be introduced by adding an interest rate hedge. The collateral is assumed to be a ten-year bullet. The ongoing fees assumed for every structure are a 7bp administration/trustee fee, a 10bp senior management fee paid before the senior note, and a 40bp subordinate management fee that is paid after the senior note, and thus would have no effect on the required subordination. A forward six-month LIBOR curve has been generated on 14 May 2001 for the cash flow modelling. The rating of the collateral pools is assumed to be Ba2. Each hypothetical deal assumes a two-tier senior/subordinate structure with a rated note supported by an unrated subordinated note.

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20 Source: Société Générale.
c. Rating Methodology

The rating of the senior note was based on Moody’s expected loss derived from the simulation of cash flows under various default rates, default timings, recovery rates, and interest rates. Moody’s employs the binomial expansion technique based upon the diversity score of the collateral and the weighted average default probability of the pool. The diversity score is the number of uncorrelated homogeneous assets that can be condensed from the collateral pool that will have the same default characteristics of the actual collateral pool. For each collateral pool, two structures were created: (a) a senior bond rated to Baa2 and (b) a senior bond rated to A2.

d. Results

Example 1: The first comparison assumes a pool of structured finance securities and a pool of corporate securities of similar characteristics. In each of these examples, the differences between the two transactions is highlighted in bold type.

Corporate CDO
Diversity: 40
Collateral Coupon: LIBOR + 290
Rating Score: 1350 (Ba2)
Assumed Recovery Rate: 30% (Aaa level), 33% (A level), 36.3% (Baa level)

<table>
<thead>
<tr>
<th>Class</th>
<th>Face</th>
<th>Liability Margin</th>
<th>Rating</th>
<th>Subordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>92,000,000</td>
<td>LIBOR + 250 bp</td>
<td>Baa2</td>
<td>8.00%</td>
</tr>
<tr>
<td>B</td>
<td>8,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ABS CDO
Diversity: 40
Collateral Coupon: LIBOR + 290
Rating Score: 1350 (Ba2)
Assumed Recovery Rate: 30%

<table>
<thead>
<tr>
<th>Class</th>
<th>Face</th>
<th>Liability Margin</th>
<th>Rating</th>
<th>Subordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93,500,000</td>
<td>LIBOR + 250 bp</td>
<td>Baa2</td>
<td>6.50%</td>
</tr>
<tr>
<td>B</td>
<td>6,500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The difference in required subordination level in this first example results from the different way Moody’s evaluates the underlying assets. First, Moody’s recovery rates differ for corporate CDOs and for multi-sector CDOs. In corporate CDOs, the assumed recovery rate for cash flow simulations is allowed to increase as the targeted rating of the tranche decreases. Such an increase is not permitted for multi-sector CDOs. Even with this less favourable recovery treatment, required subordination for an ABS CDO is lower. Second, the different subordination levels can also be traced to differing ratings methodologies. In a multi-sector CDO, the assumed default probability of the pool is reduced by a ratio based upon the collateral recovery. For example, a ten-year Ba2 collateral pool has a 13.5%
probability of default. This rate, multiplied by the relevant stress factors (1.31 for A targeted tranches and 1.23 for Baa targeted tranches), is used to expand the binomial probability distribution. In a multi-sector CDO, the 13.5% default probability is first reduced by the ratio of the generic collateral severity to the specific collateral severity (13.5% x 55% / 70% = 10.6%). This lower pool default probability is what is driving the lower subordination levels required to elevate asset-backed securities to the same rating level as like-rated corporate obligations.

**Example 2:** It may not be appropriate to assume that the diversity of the collateral for both types of deals is equal. Corporate diversity is based on distinct industries. Moody’s believes that there is greater correlation for industries in an ABS CDO due to higher linkage to broad economic trends. For example, the performance of an asset-backed security backed by manufactured housing assets may be more correlated to the performance of an asset-backed security backed by home equity loans than the performance correlation of an automobile corporate bond to a healthcare corporate bond. Therefore Moody’s has established a separate diversity calculation that incorporates the correlation, which can range from 0% to 40%. Moody’s breaks up ABS into 27 distinct industries. Each industry is further divided into investment grade and below investment grade. There are 33 corporate industry sectors.

Moody’s Industry Sectors for Multi-Sector CDOs

<table>
<thead>
<tr>
<th>Auto</th>
<th>CMBS Conduit</th>
<th>Multi Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft Lease</td>
<td>CMBS CTL</td>
<td>Office</td>
</tr>
<tr>
<td>Credit Card</td>
<td>CMBS Large Loan</td>
<td>Retail</td>
</tr>
<tr>
<td>Entertainment</td>
<td>SBL</td>
<td>Industrial</td>
</tr>
<tr>
<td>Home Equity</td>
<td>Tax Liens</td>
<td>Healthcare</td>
</tr>
<tr>
<td>Manufactured Housing</td>
<td>Mutual Fund Fees</td>
<td>Self-Storage</td>
</tr>
<tr>
<td>Student Loan</td>
<td>Structured Settlements</td>
<td>Diversified</td>
</tr>
<tr>
<td>Residential A</td>
<td>Utility</td>
<td>EM CBO</td>
</tr>
<tr>
<td>Residential B&amp;C</td>
<td>Hotel</td>
<td>HY CBO</td>
</tr>
</tbody>
</table>

Moody’s Industry Sectors for Corporate CDOs

<table>
<thead>
<tr>
<th>Aerospace and Defense</th>
<th>Ecological</th>
<th>Mining, Steel, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile</td>
<td>Electronics</td>
<td>Oil and Gas</td>
</tr>
<tr>
<td>Banking</td>
<td>Finance</td>
<td>Personal and Misc. Services</td>
</tr>
<tr>
<td>Beverage, Food, and Tobacco</td>
<td>Farming and Agriculture</td>
<td>Printing and Publishing</td>
</tr>
<tr>
<td>Buildings and Real Estate</td>
<td>Grocery</td>
<td>Cargo Transport</td>
</tr>
<tr>
<td>Chemicals, Plastics, and Rubber</td>
<td>Healthcare, Education</td>
<td>Retail Stores</td>
</tr>
<tr>
<td>Containers, Packaging, and Glass</td>
<td>Home and Office Furnishing, etc.</td>
<td>Telecommunications</td>
</tr>
<tr>
<td>Consumer Products (Manuf.)</td>
<td>Hotels and Gaming</td>
<td>Textiles and Leather</td>
</tr>
<tr>
<td>Conglomerate (Manuf.)</td>
<td>Insurance</td>
<td>Personal Transportation</td>
</tr>
<tr>
<td>Conglomerate (Services)</td>
<td>Leisure, Entertainment, etc.</td>
<td>Utilities</td>
</tr>
<tr>
<td>Nat. Resources, Metals, Minerals</td>
<td>Machinery</td>
<td>Broadcasting and Entertainment</td>
</tr>
</tbody>
</table>

For example, if a hypothetical collateral pool contained 108 credits of equal par value, four credits in each of the 27 ABS industries, the diversity score would be 30. If the pool of corporate credits contained 108 credits from a subset of 27 of the 33 corporate industry categories, four credits in each industry, the diversity score would be 58.
The following charts illustrate the effect of diversity on the level of required credit enhancement.

**Corporate CDO**

**Diversity: 58**

Collateral Coupon: LIBOR + 290
Rating Score: 1350 (Ba2)
Assumed Recovery Rate: 30% (Aaa level), 33% (A level), 36.3% (Baa level)

<table>
<thead>
<tr>
<th>Class</th>
<th>Face</th>
<th>Liability Margin</th>
<th>Rating</th>
<th>Subordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>92,500,000</td>
<td>LIBOR + 250 bp</td>
<td>Baa2</td>
<td>7.50%</td>
</tr>
<tr>
<td>B</td>
<td>7,500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ABS CDO**

**Diversity: 30**

Collateral Coupon: LIBOR + 450
Rating Score: 1350 (Ba2)
Assumed Recovery Rate: 30%

<table>
<thead>
<tr>
<th>Class</th>
<th>Face</th>
<th>Liability Margin</th>
<th>Rating</th>
<th>Subordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>97,750,000</td>
<td>LIBOR + 275 bp</td>
<td>Baa2</td>
<td>2.25%</td>
</tr>
<tr>
<td>B</td>
<td>2,250,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the above example, we have attempted to utilise realistic market-based assumptions regarding the asset margin and the liability margin on each of the two structures, in order to illustrate the overall effect of the change in diversity on credit enhancement. The impact of this difference in excess spread, as in any securitisation, will also affect the credit enhancement figures, and these differences are included in the above results.

**Example 3:** Lastly we can vary the recovery assumption. In a corporate CDO, this would occur if the collateral was of a higher priority than subordinated debt, such as senior loans.

**Corporate CDO**

Diversity: 58
Collateral Coupon: LIBOR + 290
Rating Score: 1350 (Ba2)

**Assumed Recovery Rate: 50% (Aaa level), 55% (A level), 60.5% (Baa level)**

<table>
<thead>
<tr>
<th>Class</th>
<th>Face</th>
<th>Liability Margin</th>
<th>Rating</th>
<th>Subordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>96,500,000</td>
<td>LIBOR + 250 bp</td>
<td>Baa2</td>
<td>3.50%</td>
</tr>
<tr>
<td>B</td>
<td>3,500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In a multi-sector CDO, the changing recovery rate would change cash flows for the default simulations, and it would also change the pool probability of default for purposes of the Binomial Expansion. To calculate the proper weighted average recovery, a recovery for each
underlying tranche is calculated based upon industry, rating, and the percentage the tranche makes up in the capital structure. If we sample the highest recovery for Ba tranches, the average for the pool would be 45%, and the lowest recovery is 14%.

**ABS CDO**
Diversity: 30
Collateral Coupon: LIBOR + 350
Rating Score: 1350 (Ba2)
**Assumed Recovery Rate: 45%**

<table>
<thead>
<tr>
<th>Class</th>
<th>Face</th>
<th>Liability Margin</th>
<th>Rating</th>
<th>Subordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>94,500,000</td>
<td>LIBOR + 275 bp</td>
<td>Baa2</td>
<td>5.50%</td>
</tr>
<tr>
<td>B</td>
<td>5,500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ABS CDO**
Diversity: 30
Collateral Coupon: LIBOR + 350
Rating Score: 1350 (Ba2)
**Assumed Recovery Rate: 14%**

<table>
<thead>
<tr>
<th>Class</th>
<th>Face</th>
<th>Liability Margin</th>
<th>Rating</th>
<th>Subordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>94,500,000</td>
<td>LIBOR + 275 bp</td>
<td>Baa2</td>
<td>5.50%</td>
</tr>
<tr>
<td>B</td>
<td>5,500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The change in recovery interacts with the change in the implied default probability of the pool in such a way to have little or no impact on subordination levels (the subordination levels are likely to be within a few basis points of each other).

**e. Summary of CDO Modelling Results**

<table>
<thead>
<tr>
<th>Diversity</th>
<th>Recovery</th>
<th>Collateral Coupon</th>
<th>Corporate CDO</th>
<th>ABS CDO</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>30%</td>
<td>L + 290</td>
<td>8.00%</td>
<td>6.50%</td>
</tr>
<tr>
<td>58</td>
<td>30%</td>
<td>L + 290</td>
<td>7.50%</td>
<td>N.A</td>
</tr>
<tr>
<td>30</td>
<td>30%</td>
<td>L + 450</td>
<td>N.A.</td>
<td>2.25%</td>
</tr>
<tr>
<td>58</td>
<td>50%</td>
<td>L + 290</td>
<td>3.50%</td>
<td>N.A</td>
</tr>
<tr>
<td>30</td>
<td>45%</td>
<td>L + 350</td>
<td>N.A.</td>
<td>5.50%</td>
</tr>
</tbody>
</table>

21 The above chart is intended to illustrate the differences in credit enhancement that result from a change in certain modelling assumptions. We have attempted to use market-based interest rate levels on the asset margins and liability margins, and as a result, the above figures include these differences in excess servicing income in each scenario.
When utilising the CBO methodology it becomes apparent that there are many variables that affect the required subordination levels. In a multi-sector CDO, prepayment and extension characteristics of the collateral must also be considered. The trend illustrated by the above hypothetical structures is that there is no additional subordination penalty that applies to CDOs of structured finance collateral. Even when the pools were normalised with regard to diversity, and an equal collateral coupon (which would be unlikely in practice) and recovery were assumed, the size of the subordinated pieces required to obtain a Baa2 rating in a CDO using like-rated asset-backed securities and corporate obligations were roughly the same. This would imply that the risk of the collateral, in terms of the necessary subordination to create senior bonds with a similar expected loss, is no greater for structured finance securities than for like-rated asset-backed securities.

3.6. LGD Assumptions

With respect to LGD assumptions, neither Moody’s nor Standard & Poor’s make 100% LGD assumptions, even in their stressed scenarios for rating securitisations backed by collateralised debt obligations (CDOs), asset-backed securities, or synthetic CDOs. In particular, we understand that the rating agencies generally make the following assumptions related to LGD for such underlying CDOs or ABS when rating these structures:

<table>
<thead>
<tr>
<th>Position rating</th>
<th>Moody’s LGD assumption</th>
<th>S&amp;P LGD assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaa/AAA</td>
<td>15% to 55%</td>
<td>15% to 25%</td>
</tr>
<tr>
<td>Aa/AA</td>
<td>20% to 65%</td>
<td>25% to 70%</td>
</tr>
<tr>
<td>A/A</td>
<td>30% to 75%</td>
<td>35% to 75%</td>
</tr>
<tr>
<td>Baa/BBB</td>
<td>40% to 80%</td>
<td>35% to 80%</td>
</tr>
<tr>
<td>Ba/BB</td>
<td>50% to 90%</td>
<td>40% to 85%</td>
</tr>
<tr>
<td>B/B</td>
<td>60% to 95%</td>
<td>45% to 90%</td>
</tr>
</tbody>
</table>

The LGD assumptions for asset-backed securities compare favourably with Moody’s and Standard & Poor’s LGD assumptions for corporate senior unsecured securities, which range between 58% to 85% (Moody’s) and 50% to 70% (S&P). Given the comparability of the corporate and securitisation LGD assumptions used in the “stress” scenarios applied by the rating agencies, we strongly encourage the Committee at least to normalise the LGD number to be at least equivalent with similarly rated corporate exposures.

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22 Source: JP Morgan/Chase.

23 We understand that the Committee will not seek to assess a 100% LGD for securitisations, and we do not comment further on such a proposed weighting on the basis of that understanding.
4. Perspective on Data

We understand that one reason the Committee is considering applying greater regulatory capital to BB-rated asset-backed securities than for BB-rated corporate obligations is the belief that the rating agencies would, if rating a CDO supported by such assets, require more credit enhancement for a CDO “re-securitisation” backed by BB-rated asset-backed securities than a CDO securitisation backed by BB-rated corporate obligations in order to achieve the same ratings level for the senior security issued by the CDO. If so, we would offer three observations. First, the Moody’s representatives with whom we spoke in connection with the preparation of this comment letter (and this paragraph in particular) expressly confirmed to us that they view the expected loss of a BB-rated asset-backed security as the same as the expected loss of a BB-rated corporate bond, and that they would require no greater credit enhancement for the securitisation of asset-backed securities compared with similarly-rated corporate obligations, all other factors being equal. Second, the view that BB-rated asset-backed securities should attract greater regulatory capital than like-rated corporate obligations in order to accommodate any greater credit risk of the former is simply not borne out by the CDO examples described above.

Third, looking at the “re-securitisation” value of an asset class is a very different analytical process than assigning a rating to the underlying assets, and it therefore cannot be used to determine the level of regulatory capital that should apply to such assets. The rating agencies evaluate a highly complex mix of factors when determining the required credit enhancement levels for a CDO, any one of which might affect significantly the required credit enhancement in a transaction. One such factor is pool diversity. It is quite easy to imagine a highly correlated pool of BB-rated corporate obligations, all from the same industry, compared with a highly diverse pool of asset-backed securities. In such an example, the corporate pool could well produce a higher credit enhancement figure than the asset-backed portfolio. Were we to follow a “re-securitisation” analysis slavishly, however, we would need to conclude that the corporate portfolio of BB-rated corporate obligations should have a higher regulatory capital charge than a comparably rated asset-backed portfolio, or at least no lesser capital charge. However, because the link between the “re-securitisation” value of an asset class and the rating of the underlying asset pool is so complex and variable, we do not believe that such an analysis should be used to evaluate the appropriate capital risk weight of such asset pool. More specifically, we believe – and have confirmed with both Moody’s and S&P – that a BB rating on an asset-backed security is comparable to a BB rating on a corporate obligation, which is not at all inconsistent with two portfolios having different re-securitisation values.

5. Conclusion

The Forum support the Committee’s continuing efforts to modify capital requirements to truly reflect the relative risk associated with various assets. We look forward to continuing to

24 Of course, all ratings rely on both qualitative and quantitative factors, and adjustments will need to be made in each transaction to account for such factors.
work with the Committee and its staff on the proposals set forth in the Consultative Document. We believe that our continuing dialogue will result in regulatory requirements that provide for the maintenance of prudent levels of capital without disadvantaging banks in the fiercely competitive global capital markets.

Should you wish to communicate with the Forum or any of its members on any issue, please feel free to contact Scott Rankin, Managing Director of the European Securitisation Forum, at +44.20.77 43 93 00 or via email at srankin@bondmarkets.com.

Respectfully submitted,

/s/  
Tamara Adler  
Chair, European Securitisation Forum  
(Deutsche Bank AG)

/s/  
Richard Watson  
Co-Chair, ESF Legal, Regulatory, Accounting and Capital Subcommittee  
(Bear Stearns International)

/s/  
Fabrice Susini  
Co-Chair, ESF Legal, Regulatory, Accounting and Capital Subcommittee  
(BNP Paribas)