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31. July 2003

Baseler Ausschuß für Bankenaufsicht/Basel Committee on Banking Supervision
Bank für Internationalen Zahlungsausgleich/Bank for International Settlements
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Re: The New Basel Capital Accord

The American Securitization Forum, the Australian Securitisation Forum, The Bond Market Association, the European Securitisation Forum, the International Association of Credit Portfolio Managers, Inc. the International Swaps and Derivatives Association, Inc. and the Japanese Bankers Association (the "*Commenting Parties*" or "*we*") appreciate this opportunity to provide comments on the revised Consultative Document (the "*Consultative Document*") which sets out the proposed new Basel Capital Accord (the "*Accord*") issued by the Basel Committee on Banking Supervision (the "*Committee*") in April 2003.

The securitisation industry has developed as a large market that provides an efficient funding mechanism for originators of receivables, loans, bonds, mortgages and other financial assets. The industry performs a crucial role by providing liquidity to nearly all major sectors of the global economy including the residential and commercial mortgage industry, the automobile industry, the consumer credit industry, the leasing industry, the bank commercial loan markets and the corporate bond market. Additionally, securitisation has provided a means for banks to effectively shed credit and other risks by transferring those risks to other regulated banks as well as other non-regulated institutions who have an appetite for such risks. To the extent that true economic risk has been transferred by a regulated entity to a third party, the capital requirements for that regulated entity must also be commensurately reduced.

While a properly revised Accord has the potential to move regulatory capital requirements in the right direction, we continue to hold fundamental concerns with the proposals. We believe these concerns must be addressed if the Committee is to achieve its stated goals without disrupting the liquidity and risk dispersion roles that securitisation now performs.

We believe that the revised Accord, if adopted for securitisation as proposed, will in many instances result in regulatory capital requirements that diverge from accurate economic capital calculations. The result of this will be to motivate a bank to make decisions that are not based on a sound economic analysis of transactions or consistent with the risk management frameworks used by regulated entities and supervised by the regulators pursuant to Pillar 2. Simply put, we believe the proposed Accord would perpetuate, albeit in a different form, capital arbitrage issues that were among the primary reasons for the currently contemplated reforms.

Our comments are intended to highlight six key areas where we believe modifications are necessary to allow for a more appropriate alignment of risk and *minimum* required capital. The six key areas are as follows:

- (i) We believe that the risk weights under the IRB are too high in many critical areas based on our analysis of empirical data and we propose a more appropriate calibration of risk weights under the internal approach. Our discussions of this issue are in Part 1 of this letter. Page 3.
- (ii) We believe that the supervisory floor under the SFA is too high because the risk weights for senior tranches under the RBA upon which the floor is based are too high. Our analysis of this issue is in Part 2 of this letter. Page 8.
- (iii) We think that the current proposal unduly penalises synthetic securitisations and we highlight the reasons that cause the problems in the current proposal in Part 3 of this letter. Page 9.
- (iv) We do not believe that a full deduction of capital is appropriate for all interest only strips as solely credit enhancing interest only strips have the volatility and sizing concerns that might justify some deduction from capital. Our analysis of this issue is in Part 4 of this letter. Page 10.
- (v) We are concerned that the current approach for revolving transactions does not have enough flexibility to provide appropriate capital calibrations and suggest an approach tailored with sufficient flexibility in Part 5 of this letter. Page 10.
- (vi) We believe that the current proposal does not present a workable internal approach for the calculation of capital for ABCP conduit facilities and that the resulting capital requirements significantly overstate the risks of these facilities. We outline our concerns over the problems inherent in the current approach, along with alternatives that we believe will result in more appropriate capital requirements in Part 6 of this letter. Page 11.

In addition, we make several technical suggestions in Appendix A and Appendix C of this letter. Although we believe that these suggestions should not be controversial, we note that we feel the proposed changes are critical if the proposal is to work in a practical and realistic manner for securitisation transactions.

Although we have tried to organise our discussion of these key points in a logical fashion, the order of presentation is not indicative of our priorities on these issues. We believe that all issues presented are of equal importance.

We expect to supplement this letter with further data and mathematical analysis to support our positions and concrete examples of the adverse effects of the current proposals which we will be working to collect over the next several weeks.

1. Calibration of each of the proposed risk weight standards under the IRB is too high at many critical levels

We believe that the risk weights applied to most securitisation positions under the RBA (whether under the standardised or the IRB approach) are too high based on the evidence we have reviewed showing the risks of these positions.¹ We feel that there are a number of reasons leading to the risk weights that have been proposed which we will address below. First, we understand that the risk weights under the RBA were mainly based on an analysis of CDO and corporate exposures, which we believe results in too much capital for other asset exposures. We also note that capital is most excessive for senior tranches of securitisations, including senior tranches of CDO and corporate exposures. Second, while we understand regulators' intended use of appropriately conservative assumptions to deal with uncertainty for regulatory purposes, we believe that several assumptions are unreasonably conservative, the cumulative effect of which has led to unjustifiable and punitive capital requirements for securitisations.

We believe that the proposed Accord will make securitisations less efficient for regulated originators and regulated investors alike (in comparison with their unregulated counterparts) resulting in fewer effective risk dispersing transactions. To address these concerns, in Paragraph 1.C. below, we propose further analysis to refine the RBA approach.

In addition, in order for the rules to produce correct results, there must be sufficient flexibility within the final Accord for a regulator to adjust the framework set forth in the Accord in circumstances where the regulator feels differing treatment is appropriate after discussion with a bank on particular issues on a transaction-by-transaction basis.

¹ Our concerns that the proposed Accord requires too much capital apply equally to the Standardised Approach. To the extent a recalibration under the IRB results in lower risk weights we believe comparable adjustments need to be made under the Standardised Approach.

(A) *Calibration of the proposed risk weight standards amongst different asset classes is too high*

While we believe that the Perraudin and Peretyatkin approach is in certain circumstances an appropriate approach/model to estimate the risk of a position, we do not believe that it was utilised appropriately to broadly calibrate risk weights for all securitisation transactions and positions. We understand that the risk weights under the RBA were mainly based on an analysis of CDO and corporate exposures. We believe the overall approach used results in excessive capital for all senior positions (including CDO and corporate exposures) and at most other levels for retail asset exposures.

In choosing our empirical evidence (which is attached as Appendix A), we examined three distinct categories of retail asset classes:

- Asset backed securities based on retail revolving exposures (often containing a large excess spread component flowing back to the originator, and consisting of a highly granular consumer portfolio);
- Asset backed securities based on non-revolving retail exposures such as auto loans; and
- Asset backed securities in the residential mortgage market (typically less granular than auto loans or consumer loans, but more granular than corporate exposures).

We devised these categories on the basis that the market and regulators already view these asset classes as distinct examples. Our initial empirical evidence indicates that in all cases, regardless of asset class, the required capital at the highest ratings level in the RBA is significantly higher than that which is supported by historical performance data.² The data suggests that the actual risk of these positions is de minimis in all cases—generally not more than a basis point. While we are aware of regulators' concern about the reliability of data at the end of the tail for these transactions, a proxy of approximately 50 times the calculated risk seems punitive, and not appropriately conservative.

In particular we note that the risk weights are distorted significantly by the failure of the different proposed approaches to fully take into account the impact of trapping excess spread and establishing spread/reserve accounts in securitisations. While paragraphs 299 and 300 of the proposed Accord expressly state the function of future margin income (FMI) for qualifying revolving retail exposures on the bank's balance sheet, such treatment is not accorded for FMI for other retail assets. Additionally, we believe that an approach applying a 75% haircut and two times the standard deviation of the expected loss rate is overly conservative.

² In our analysis of the empirical data, we utilised a sample size of three residential mortgage transactions, six retail revolving / credit card transactions and six other retail / auto transactions.

Furthermore, the credit given for FMI does not capture the need to take into account the mitigating effect of excess spread for any asset class in a legal framework of a securitisation. We believe that excess spread and unfunded spread/reserve accounts should be taken into account in certain circumstances based on conservative assumptions and we propose new wording to replace paragraph 594 of the Accord to effect this recommended change in Appendix A. Our view is that distortion of the risk weights will lead to adverse flow-through effects in the wider retail markets as consumers are directly affected by the cumulative punitive effect of overly conservative assumptions on regulated firms. We also believe that that the combined effect of paragraph 300 (and the function of FMI) and our proposed revised paragraph 594 will better account for the function of excess spread as a first layer of investor protection in securitisation transactions.

For the mezzanine levels, our data showed significant variations for risk weightings allocated to this class. We believe that further analysis on unrated tranches will indicate a similar result.

While we have to date reviewed only a relatively small sampling of transactions, we believe that our initial findings are consistent with historical performance data for the securitisation market as a whole.

(B) *Some assumptions used in calibrating the required capital under the RBA are overly conservative*

As noted above, we understand the intended use of conservative assumptions for regulatory purposes. However, the cumulative effect of the many conservative assumptions embedded within the Accord would set the “minimum” requirements at or beyond what banks currently hold for economic capital purposes.

First, we are concerned with the use of a methodology that assumes that a particular rating has a particular EL (and LGD) regardless of the thinness or thickness of a tranche assigned such a rating. Perraudin and Peretyatkin describe their rationale for using this approach in their paper. They clearly understand the importance and impact of the assumption, and make arguments for their assumption that are quite valid. Their approach and rationale are perhaps best illustrated in the CDO market. CDOs have, among other things, two characteristics that generally lead to the conclusion that the Perraudin and Peretyatkin approach is reasonable. First, the underlying collateral is generally rated with significant amounts of performance history as it relates to loss, PD's and LGDs. Second, structuring tends to follow the Moody's approach that sets EL constant per rating category. To the extent that this approach is applied to transactions that are relatively thin and carry lower ratings, we find that the results generally make sense. However, we note that the Perraudin and Peretyatkin approach introduces substantial distortions for transactions that are driven by other types of ratings methodologies or represent substantial portions of the capital structure (i.e. thick tranches).

The securitisation market has equally embraced Standard & Poor's and Fitch as experts in rating securitisation transactions and very often Standard & Poor's and Fitch are asked to rate deals along with Moody's. Consequently, the securitisation market and in particular the senior tranches of the securitisation market can often solve for the "lowest common denominator" credit enhancement requirement among the various rating agencies. In cases that involve S&P or Fitch, the credit enhancement level will involve a "first dollar of loss" approach and, as a result, a PD-based ratings methodology. This introduces significant capital issues if we are meant to capitalise these positions based on a Perraudin and Peretyatkin approach. The obvious result will be an excessive capital requirement for senior positions which have the same rating (and PD) but have a far smaller EL.

As a result of the assumption of a constant EL in the Perraudin paper, the model assumes an LGD of 50% for senior positions and a PD that is consistent with the PD for a like-rated corporate asset. We do not believe that an assumption of 50% loss in a senior securitisation tranche is supportable. In the world of non-CDO securitisations, the EL (and LGD) of a position will vary dramatically based on whether it is senior or subordinated in the structure of the transaction as well as the credit enhancement attachment points. Our data suggests that the expected LGD for senior tranches is significantly less than 50%, indicating a lower capital requirement from that proposed by the Committee.

Working with sample transactions, we have developed distributions of LGD's for senior positions. We can show that with 99.9% confidence, a senior single "A" rated auto loan tranche would have an LGD of less than 6%. Similarly, we can show that with 99.9% confidence a single "A" rated residential mortgage/home equity securitisation would have an LGD of less than 19%. The expected LGD's are a small fraction of these values: less than 2% for the auto loan position and less than 5% for the home equity position. Given the "EL-constant" approach followed in the paper, the Perraudin model calculates capital for these transactions that is a multiple of the appropriate value. This is because, while the PD assumed may be in the ballpark, the LGD assumed for these positions is 50%. Given the fact that the actual LGD in these cases might be less than 1/10th of the value assumed in the model, we come to the conclusion that the capital allocated for senior non-CDO positions by the model in the Perraudin paper is at least 3 times too high. Graphs depicting the relationship of LGD to tranche thickness are attached in Appendix B.

In order to allocate capital consistently with the characteristics of the collateral and the transaction capital structure, we recommend that the RBA be modified to give more benefit to tranche thickness, as suggested by the attached analyses. Even a conservative interpretation of these recommendations would suggest lower floor requirements for senior tranches where banks can demonstrate adherence to a particular credit enhancement methodology.

An additional level of conservatism is the required deduction from capital at the BB and below levels for investors and for all positions within Kirb for originators. While we

concede that it is appropriate for a conservative treatment of true first loss positions, we believe that both originators and investors should be able to use a risk weight based on the RBA approach for any rated position that is not such a true first loss position. We believe that credit must be given for positions that have the benefit of credit enhancement, whether through the subordination of another position or through the existence of excess spread or other credit enhancement not currently recognised under the SFA.

The fact that it is an originator who holds such a position does not make the ratings for that position unreliable; there is no difference in the risk associated with a particular position simply because it is retained rather than acquired. Provided the final RBA risk weights will be correctly calibrated, application of the RBA to a rated position that is not a true first loss position should result in the appropriate amount of regulatory capital being held, regardless of who is taking the position or at what level such position is rated.³ To address concerns that a bank might “cherry pick” between the RBA and the SFA by choosing to have a position rated or not, we would also propose that banks be required to adopt a policy setting forth consistent terms upon which it will determine to have a position rated or not.

As risk weights under the proposed Accord are calibrated with a range of important assumptions, we believe that it is essential that these assumptions not be overly conservative but rather be appropriately conservative. We strongly recommend that all assumptions be published and debated in an open public forum to allow for input from a broad range of experts in this area. We intend to do our own further analysis of the performance data and underlying data. We believe that it is imperative that the Committee and its staff should itself continue further follow-up analysis promptly and that this review should be completed before the Accord is finalised.

(C) *Further Changes to the RBA*

We believe that there needs to be additional analysis completed by the Committee and its staff prior to the finalisation of the Accord to address the appropriate calibration of risk weights for the RBA. We will make ourselves available to the extent there are areas in which we can provide assistance to the Committee in this analysis.

Based on historical data and our quantitative work done to date, our data indicates that the proposed RBA risk weights are inappropriate for the senior tranches and the floor. Our work on the mezzanine tranches indicate significant variation on the risk weights allocated to mezzanine tranches.

³ We note the logic of equal treatment of all holders of rated positions is recognised by the US regulators in the new “Risk-Based Capital Guidelines; Capital Adequacy Guidelines; Capital Maintenance: Capital Treatment of Recourse, Direct Credit Substitutes and Residual Interests in Asset Securitisations”, Federal Reserve Board, Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation, Office of Thrift Supervision, effective January 1, 2001.

Our preliminary data and analysis discussed above, indicates that the following adjustments to the RBA are appropriate:

- Separate RBA tables for each of five primary asset classes that comprise a significant majority of all securitisation issuance, namely: (1) retail revolving credit cards, (2) other retail non-revolving/ auto loans, (3) residential mortgages, (4) corporate exposures / commercial mortgages and (5) collateralised debt obligations
- Adjustment of the risk weight for thick tranches to reflect the markedly lower risk of these positions
- Risk weight levels based on *appropriately* conservative assumptions that more accurately reflect the evidence of the risks at each level.
- Risk weight levels that take into account the availability of excess spread and unfunded reserve accounts in certain circumstances based on conservative assumptions of appropriate risk weights for positions rated B or below rather than the blanket deduction from capital contained in the proposed Accord.

We note that we believe it should be left to individual regulators' discretion, after consultation with a bank, as to where asset types that do not fit neatly into one of the proposed asset classes (such as trade receivable transactions) should be placed.

Our view is that the complexity of separate RBA tables for each of the five primary asset classes will more than be outweighed by the benefits of the accuracy of separate categories of risk weightings.

2. **The floor capital charge under the SFA is too high**

We believe that the proposed floor capital charge under the SFA of 56 basis points is too high resulting in much higher risk weights than merited by the risks of these transactions. We understand that the RBA risk weight for AAA granular pools serves to calibrate the floor under the SFA approach. As discussed in Paragraph 1, we believe that these tranches should attract capital that is a fraction of that suggested by the current RBA risk weights and therefore the floor under the SFA should also be calibrated at a fraction of the 56 basis points proposed.

While we recognise that any established floor will be arbitrary, we urge the committee to consider a more realistic calibration of the floor consistent with the lower proposed risk weights under our RBA proposal. Furthermore, since the regulators have made a distinction for the floors applicable to retail exposures and corporate exposures under the IRB approach, consistency argues for similar distinctions to be made in establishing floors for each primary asset type of securitisation exposures.

3. Synthetics should not be discriminated against vs. cash transactions

The proposed Accord imposes calibration distortions on synthetic securitisations over and above those imposed on cash securitisations. Conceptually there should be no discrepancy between the capital relief provided under a synthetic structure versus a cash securitisation to the extent the risks retained or transferred are comparable.

Currently the proposals for the risk weighting for super senior tranches do not reflect the superior quality of such tranches as compared with senior tranches below the super senior tranches. Commercially the market and investors acknowledge that super senior tranches are those tranches that rank above the highest rated tranche and thus are priced accordingly, yet the proposals appear to distort commercial reality by imposing a regulatory cost on such tranches that is excessive when compared to actual risk. This in turn discriminates against synthetic transactions by making them inefficient when compared to cash transactions.

In a joint letter from the European Securitisation Forum and the International Swaps and Derivatives Associations, Inc., delivered to the Committee in March 2002, data was provided that compared the amount of capital relief achieved by using synthetic and cash securitisations on generic portfolios of 'A2' and 'Baa2' corporate bond/loans, as well as residential mortgages. If substitution applies, a synthetic transaction involving corporate bonds under the standardised approach only releases between 41% and 73% of the amount of capital released in a cash transaction involving the same assets, reflecting the additional capital charge (1.47% and 1.40% respectively) applied on the super-senior position. We believe that a comparable conclusion would be reached if this comparison were to be made under the IRB approach.

Finally, the substitution approach to credit risk mitigation gives rise to significant discrepancy between the regulatory capital cost of hedges and their internal cost, causing distortion of pricing and risk management, and depriving regulated entities of business opportunities that will instead go to their non-regulated competitors. By merely substituting the risk weighting of a guarantor or credit protection provider for that of the underlying assets, the proposals overstate the double default probability and understate the protection provided by the hedge acquired on the super senior tranche. This unduly conservative correlation assumption is economically unrealistic and produces onerous results. A more risk-sensitive capital treatment can be found in the previous proposals of the International Swaps and Derivatives Association, Inc. These issues and an alternative proposal are also set forth in the recently released paper on this topic from the staff of the Federal Reserve Board⁴. We note this comment applies equally to traditional cash transactions, as well as synthetic transactions.

⁴ "Treatment of Double-Default and Double-Recovery Effects for Hedged Exposures under Pillar I of the Proposed New Basel Capital Accord—A White Paper by the staff of the Board of Governors of the Federal Reserve System in support of the forthcoming Advance Notice of Proposed Rulemaking" June 2003.

By the same token, if a seller of receivables guarantees the dilution risk, the purchasing bank will have to substitute the risk weighting of the seller (guarantor of dilution risk) for that of the dilution risk. By assuming perfect correlation, this once again brings about serious consequences in the calculation of the capital charge of purchased receivables exposure and obviously contradicts the conservative assumptions made in the first-to-default credit derivatives.

4. Expected future margin income should be deducted only if it serves a credit enhancing role

We believe that there should be a full deduction of "expected future margin income" positions only if they are credit enhancing. We further feel that this deduction should only apply to the extent such positions exceed 25% of Tier 1 capital as currently in effect in the United States. Such a limitation would appropriately address volatility concerns while not overly penalising originators who retain credit enhancing interest only positions as part of an overall portfolio of Tier 1 capital assets. Finally, we believe that non-credit enhancing interest only strips should be treated like any other securitisation position.

We believe that the volatility and sizing concerns of regulators are only relevant to interest only strips that are credit enhancing to other positions in a securitisation. These volatility and sizing concerns arise because embedded within these residual positions is a significant level of credit and prepayment risk that make their valuation extremely sensitive to changes in underlying assumptions. This same volatility is not seen in non-credit enhancing interest only positions that have been sold in the market. In the case of these positions, a true gain is recognised by the originator for cash received and the originator is not accelerating future income. As currently proposed⁵, even highly rated senior interest only strips would be required to be deducted from capital - a result that is markedly at odds with the goals of the revised Accord. The deduction from capital for all interest only strips would increase the costs of securitisations for originators and decrease the attractiveness of these positions for bank investors. Therefore, we believe the deduction from capital should apply to only those positions that bear the volatility and sizing concerns—credit enhancing interest only positions.

5. Rules for revolving assets need to be improved

Under the current proposal, the trigger point for calibration of step functions for all revolving assets is established at a level of 450 basis points. While this level may be appropriate for revolving credit card receivable transactions, it is not appropriate for all revolving transactions.

⁵ Paragraphs 522 and 523.

A significant number of revolving asset securitisations involve assets possessing economic properties quite different than those of credit card receivables. In particular, assets such as personal or consumer loans, and some corporate loans, are often securitised by way of a revolving structure due to their short-term nature, yet the starting spread on such assets is generally significantly lower than the starting spread on credit card receivables.

Rather than set a fixed trigger point for all classes of revolving assets, we believe that the correct approach should be to use a gradient approach that establishes levels for a particular transaction comparable to the level at which excess spread is trapped in order to provide for a full funding of reserve accounts in that transaction.

Additionally, although the existence of early amortisation triggers raises regulatory concerns relating to originating banks, their presence in a transaction benefits investors in that they allow for the application of excess spread to pay out the investors positions more rapidly. Consequently we believe that the presence of such early amortisation triggers need to be reflected properly when assessing risk weightings for investors in revolving structures. As discussed in Paragraph 1 above, an appropriate means of addressing the presence of these triggers would be to more fully take excess spread into account in assessing the risk weighting of the actual investor tranches for all revolving structures.

6. Calculation of required capital for ABCP conduit facilities should be improved

Our principal concern relating to the application of the proposed new Accord to asset-backed commercial paper programmes is that we do not believe that the proposed Accord provides a viable method for effectively measuring required capital for ABCP positions, particularly liquidity and programme wide credit enhancement positions, under the IRB. In order to use the RBA, banks would have to have liquidity and credit enhancement facilities rated in order to avoid the over conservative and burdensome calculation of Kirb under the SFA approach. The ratings process would be time-consuming and add costs for each transaction while providing relatively little benefit given the relatively low risk of a liquidity facility, infrequency of draws and very low losses under these facilities historically. Alternatively, a bank could use the SFA, a complicated, burdensome and unworkable approach that results in an overstatement of the minimum levels of capital for exposures to ABCP conduit facilities in its current form.

We believe that the actual risks of both liquidity and credit enhancement exposures are relatively small and both should qualify for required capital at the supervisory floor. Based on the results of QIS3, we are concerned that significantly more capital than the floor may be required to be held for these exposures. This capital is in excess of a floor that we have already argued was itself excessive.

In our view, that the top down approach leads to capital for these positions above the supervisory floor is more indicative of the fundamental flaws in the top down approach

than of the risk of these positions. Our concern with the top down approach is the implication that deals cannot be structured properly, nor monitored adequately, without access to prescribed information. Industry performance bears witness to the fact that deals have been successfully structured for years without such prescribed information. To be simplistic, the Committee is asking banks to find a way to fit performance data (a square peg) into a highly formulaic methodology (the round hole). Conversely, what the banks, rating agencies and market have done is to build a sound methodology around the way that records are kept in the real world and in a manner that allows performance data to be easily placed into the context of a desired structuring result.

We believe that the regulatory concern over the validation of internal systems in this area is unwarranted. Banks' internal systems have been developed over many years and are subject to rigorous independent third party validation as well as subject to periodic regulatory review. The validation now in place provides for reviews of the reliability of the inputs that go into a bank's internal model, the accuracy of the operation and calibration of that model, the bank's policies regarding the frequency of testing of a portfolio and a number of other critical areas of the operation of a bank's internal system. In contrast to the top down approach, there is a strong validation system currently in place that would be at the disposal of regulators.

We hope that our suggestions below provide the Committee with viable alternatives to the current approach that balance both regulatory concerns with our concern that the revised Accord more closely calibrate the risk of a transaction.

(A) *Issues with the top down approach*

Quite frankly, we do not believe the top down approach works for ABCP conduit transactions. Although the top down approach is meant to provide an alternative to the bottom up approach, we have found it to be very complex, costly and inaccurate, in major part because it is not reflective of the way the conduit business operates. In particular, the top down approach overstates appropriate capital as a result of layers of overly conservative calculations, the attempt to use performance data in ways that are unworkable and the lack of credit given for many structural enhancements found in conduit transactions.

The costs and burdens necessary to both fix the top down approach as well as to modify systems to be able to apply a top down approach in practice are significant. While the increased cost could be justified if the resulting analysis resulted in a corresponding increase in the accuracy of the risk analysis, we do not believe the top down approach provides such a result. Given the success of the methodology currently employed by banks to analyse and structure conduit transactions, as measured by the successful track record of the business, the imposition of the radically different and untested top down approach is unwarranted. For these reasons, we continue to strongly encourage the adoption of an internal bank rating approach described in Paragraph 6.B. below. The balance of this paragraph is meant to highlight our core issues with the top down approach.

To apply the top down approach a bank must decompose expected loss (“EL”) into its probability of default (“PD”) and loss given default (“LGD”) components. If these numbers cannot be derived in a “reliable” manner extremely conservative 100% LGD and EAD assumptions must be applied, as dictated in paragraph 322 of the QIS3 Technical Guidance.

First, many originators do not track the information necessary to calculate the PD in the manner or at the level contemplated by the top down approach. This does not mean that they don’t track pool performance, rather that they don’t track the particular components the Accord requires. In most cases, an originator will track the EL of a pool, not the PD and LGD of that pool. Second, the detailed information an organisation needs in order to “reliably” segment PD into bands is often subject to confidentiality requirements that prohibit information sharing or is considered highly confidential proprietary information by the originator of the assets.

Even if an originator were able to share the information, the detailed reporting required could greatly diminish the attractiveness of an ABCP funding alternative—the Committee is asking not only that banks change the way that they do business, they are also asking banks’ customers (who may not be regulated) to change the way they do business as well. Consequently, lacking the detail necessary to decompose EL into its PD and LGD components in a reliable manner, sponsors and other providers of liquidity and credit enhancement positions to multi-seller conduits would determine an appropriate “proxy” methodology to derive a PD from reported data. It is inevitable that such an exercise would be open to wide interpretation.

These proxy-derived PDs, conservative LGD and EAD assumptions are fed into models which lead to Kirb calculations which may be more or less conservative based on the asset class being modelled. The use of the top down proxy approach led to a near doubling of Kirb as opposed to the Kirb calculated using the bottom up approach in a credit card transaction modelled by one respondent bank. In the above example, the bank used an annualised average gross charge off number as the proxy for PD and a 100% LGD, as dictated by paragraph 322 of the QIS3 Technical Guidance, assuming it could not “reliably” breakdown EL into its component parts.

Next, after the underlying portfolio’s risk is quantified in the form of Kirb, the required capital for a particular position is determined by layering the tranches of credit enhancement in order of seniority. This layering process, however, ignores many of the structural protections that both the rating agencies and the market have accepted as legitimate credit enhancement tools. For example, sufficient credit will not be given to unfunded reserve accounts or locked-in excess spread (see Paragraph 1 above and Appendix A for our empirical work relating to the effect of spread capture on risk weights). Furthermore, this process does not take into account a myriad of structural protections that do not lend themselves to quantification

Finally, the proposed Accord treats dilution risk extremely conservatively. The current proposal does not give any credit to contractual recourse to the seller for dilution in asset types such as trade receivables and credit card receivables where dilution risk is relevant. Paragraph 338 dictates that when calculating capital for asset pools that have

dilution risk, there is a requirement to use the expected loss from dilution as the PD and 100% for LGD which results a grossly overstated Kirb. For example, in a trade receivables example where the EL was 3.5%, the proposed formula requires the 100% LGD and a PD of 3.5% which leads to a Kirb of 24%. A requirement of 7 times the EL is a proxy that grossly overstates UL. This is contrary to rating agency and industry practice that acknowledges that contractual recourse for dilution is the risk equivalent of an unsecured loan to the seller of the receivables. We intend to outline an approach to more appropriately capture the risk of dilution under the top down approach in a supplement to this letter.

The effect of these multiple layers of conservatism is an overstatement of Kirb. The results of QIS3 indicated that the top down approach as currently formulated would lead to deductions from capital for a portion of many liquidity and program credit enhancement commitments. This grossly exaggerates the risks of these positions, particularly liquidity commitments as evidenced by their historically low probability of draw and low losses.

We strongly urge the Committee to recognise that, because of the flaws mentioned above, the top down approach as currently proposed cannot assess required capital of liquidity or credit enhancement facilities in a sufficiently risk-sensitive manner because it does not appropriately analyse performance data within the context of a securitisation transaction. The time that would be required first to fix the top down approach and second to attempt to adapt both banks' and their customers' systems to accommodate the approach is not warranted given the existence of a proven method of estimating the risk of a pool and structuring transactions to desired credit enhancement levels.

(B) *Internal ratings approach should be available*

Because of the problems inherent in the proposed top down approach and for the reasons discussed below, we believe that banks should be permitted to produce their own internal ratings and systems, an internal bank rating approach, to determine required capital for liquidity and credit enhancement positions supporting ABCP conduit transactions so long as the position is investment grade. We believe this approach allows for a more robust validation process based on the long history over which the internal ratings methodologies have been used.

First, these systems allow a bank to use performance data to assess the risk of a transaction in the very context of the structure of the transaction in a way that the top down approach cannot. The banking industry's current internal risk rating systems are most often based on third party published rating agency criteria that have been developed over time and that allow for true risk measurement of a transaction given various structural features. The use of a bank's internal ratings would give regulators the benefit of the rating agencies' long validation processes in evaluating the risks inherent in these transactions in direct contrast to the uncertainty and complexity that is introduced in the top down approach—a methodology new to both regulators and industry participants alike.

Second, an internal bank rating approach would permit an analysis of many credit enhancement features and structural protections that cannot be quantified or recognised under the SFA approach. For instance, conduit deals are often structured by stressing historic loss data on pools of receivables meeting certain eligibility criteria. Credit enhancement, performance triggers, etc. are set accordingly to achieve certain rating levels, whether hard or inferred. Performance data is monitored as appropriate, sometimes as frequently as daily, in keeping with the requirements of the structured transaction and reflective of the specific triggers. Triggers are set to ensure that action will be taken in timely fashion to protect the interests of the creditors by allowing proactive measures to be taken to protect the portfolio and amortise deals while performance is still at a level to ensure maximum payback.

This type of analysis includes important elements of credit risk mitigation that external rating agencies rely upon in their rating methodologies. We find it inappropriate for credit to be given for these features in the RBA by virtue of the rating agency analysis but no credit to be given for the same analysis under the top down approach.

Third, the use of models generally aligned with rating agency methodology provides for less potential for abuse by an individual bank and more consistency in determining regulatory capital throughout the industry resulting in a more level playing field. This is in contrast to the top down approach, the application of which is subject to varying interpretations relating to the appropriate inputs to determine EL (as we believe QIS3 evidenced) at the bank and regulator levels.

Finally, an approach that distorts required minimum capital, as we believe both the standardised and internal approaches currently do, will perpetuate the arbitrariness of the current Accord and undermine rational decision making within firms.

As a result, we recommend that banks be permitted to produce their own internal ratings and systems to determine required capital for liquidity and credit enhancement positions supporting ABCP conduit transactions so long as the ratings of a position is at least investment grade. This proposal expands to liquidity commitments the internal approach currently in place in the United States for credit enhancement positions where U.S. regulators have already shown their satisfaction with the ability of ABCP conduit sponsors to analyse positions constituting and supporting the conduit's asset pool using a variety of models and methods of analysis that have proven highly reliable.

Under our proposal, a bank that qualifies for the IRB Approach would be permitted to produce their own internal ratings generated from one or more risk assessment models used by recognised external credit assessment institutions or models and methods of analysis employed in an internal system, provided that such bank has received specific approval from its regulator to do so. Approval would be subject to a regulator's complete satisfaction with a bank's ability to apply such models in a reliable manner and the regulator's ability to validate it.

(C) *Credit should be given for funding formula adjustment in liquidity positions*

We also believe that the current proposal does not give appropriate credit to the existence of asset quality tests in liquidity positions that protect them from funding against bad assets when determining required capital for these positions. We have found that under the SFA Approach, as proposed, banks generally would be required to hold more capital than the floor requirement—a result that is inappropriate for these well protected low risk positions. The resulting overstated capital requirements have two key distortive effects on the market: (i) banks will become less incentivised to continue to structure liquidity with asset quality tests that protect these positions from funding bad assets insofar as there is no regulatory incentive for this risk management and (ii) by increasing the costs of conduit funding, both banks and originators will have less incentive continue to utilise the efficient low risk ABCP market to effectively disperse the risks of an underlying transaction throughout the market.

Although the SFA gives credit for the asset quality test over time as a pool is deteriorating through the shrinking of the Kirb, it does not appropriately credit these commitments upfront for the greater likelihood that during the length of its exposure it will remain more protected in the future by virtue of not having to fund against bad assets in the way that credit enhancement is required.

In the past, the utilisation history of liquidity commitments (including parallel purchase commitments) of the conduits responding to an industry survey has demonstrated the likelihood of draw is extremely low and the incidence of credit losses is equally low. We are currently updating that survey and expect that the results under this update will be consistent—although we do anticipate a slight increase in draws from prior surveys given the downturn in the economy over the last several years. We intend to supplement this letter with the results of that survey and make recommendations for appropriate adjustments to the required capital calculations for liquidity at that time.

(D) *Comments on application of the look through approach under the Internal Approach*

Under the Internal Approach if a liquidity position is not rated, we believe that a bank should have the option to look-through to the risk weight assigned to the underlying tranche that the liquidity supports if that underlying transaction has been externally rated, whether publicly or privately by one eligible ECAI. Given that the underlying tranche reflects the ultimate risk of a liquidity position, we see no reason not to permit the reliance on that rating if a liquidity position itself is not rated. We propose the Accord allow regulators the flexibility to maintain a list of “eligible” ECAIs that are well established, of sufficiently high calibre, and have demonstrated expertise in securitisation to warrant recognition of their private letter ratings in this context.

We note that when looking to the underlying rating of a tranche (whether private or public), we believe that the short term equivalent of that rating is the appropriate proxy for determining the risk weight for a related liquidity position that is for one year or less. Because of the short-term nature of the risk to a bank under a one year

commitment, were a bank to have a rating assigned to a liquidity position directly, it would appropriately request a short-term rating to be assigned to such a position.

While we believe that such a look-through approach might still result in capital greater than that necessitated by the risk of a liquidity position, in that it does not give credit for the structural protection provided by a dynamic asset quality test in the liquidity position itself, we feel that it is a viable alternative that should be available to banks to avoid the burdens of the application of the SFA approach and the resulting negative impact on the multi-seller conduit ABCP market while still providing regulators with reassurance that a rating agency has reviewed the underlying risk exposure of a position.

7. **Additional Comments**

In addition, to our key points set out above, we have also set out additional technical comments on various aspects of the proposed Accord in Appendix C to this letter.

8. **Conclusion**

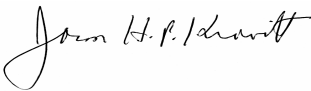
While we continue to support the Committee's efforts to reform regulatory capital requirements, we remain quite concerned that there are a number of problems in the current proposal that lead to inappropriate capital requirements for securitisation positions. Although we understand the desire for finalisation of the revised Accord within a relatively short time frame, we believe that there needs to be extensive further analysis of the underlying assumptions and data relating to securitisations prior to the finalisation of the Accord. We strongly feel that this further analysis will result in significant changes to the proposed Accord to more appropriately calibrate the regulatory capital requirements. We intend to continue our dialogue with the Committee and its staff and to provide more specific data and analysis to support the issues addressed in this letter.



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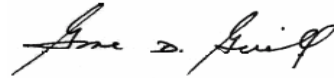
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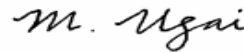
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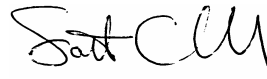
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APPENDIX A

For the purpose of the empirical work, we collected publicly available data on 15 European transactions, covering the following types of assets:

1. Residential Mortgages (3 transactions),
2. Retail Revolving/Credit Cards (6 transactions),
3. Other Retail/Auto Loans (6 transactions) and

We also relied on publicly available information regarding losses, recoveries and yield spreads. We note however that for the purposes of calculation of the Risk Weights below, we utilised quantities of excess spread that were significantly lower than the yield spreads from publicly available information.

We calculated the Risk Weights using three different formulae:

4. SFA,
5. RBA and
6. Perraudin & Peretyatkin or Pyhktin & Dev.

The results are presented into two attached schedules. The first schedule is called *Summary Ex. Excess Spread*, where the Risk Weights are calculated without the use of the Excess Spread that the transaction is expected to generate. The second schedule is called *Summary with Excess Spread*, where we have used a conservative portion of the Excess Spread to offset losses.

The following assumptions have been taken in all our calculations.

- **Kirb for Credit Cards (revolving retail)**

In calculating the Kirb, we have empirically checked that the revolving retail pools generate enough income to offset 75% of expected losses (i.e. Future Margin Income > 2 * Sigma of Charge-Offs).

- **Excess Spread, Reserve Account and Trapping**

1. **Credit Cards (revolving retail)**

Excess Spread is generally defined as finance charge collections minus note interest, servicing fees, and charge-offs allocated to the series. It is the first layer of protection for note holders.

A portion of the excess spread is deposited into a Spread/Reserve Account and regulated by the terms of an agreement. Typically, the agreement requires a target reserve balance (trapping mechanism) based on the current level of excess spread. Amounts are isolated legally from the originator and are available first to service amounts owing to the investor.

An indicative example of a trapping mechanism would work as follows:

Three Month Average Excess Spread	Reserve Fund Target
4.5%	0.0%
4.0% - 4.5%	1.5%
3.5% - 4.0%	2.0%
3.0% - 3.5%	3.0%
3.0%	4.0%

Should the 3-month average excess spread (after covering charge-offs) drop below 3.5%, excess spread is trapped into the Spread/Reserve Account until the Spread/Reserve Account reaches 2.0%.

In the model we produced, we assumed that the excess spread is between 4% and 3% p.a., and thus, it is trapped into a reserve account until the Spread/Reserve reaches 2.5%. We believe 2.5% is a very conservative assumption, given that the excess spread (after covering charge-offs) has experienced a range of values between 6% and 12%⁶.

We also verified that the excess spread of 2.5% is sufficient to cover the Kirb condition that allows offsetting 75% of expected losses in the following manner:

$$\text{Future Margin Income} > [2 * \text{Sigma of Charge-Offs} + 2.5\%]$$

2. **Auto Loans (Other Retail)**

In the 5 auto loan transactions, the Spread/Reserve Accounts are built up with excess spread during the revolving period (3 years in each deal considered) and are assumed to reach their maximum targets (3.5%-5%) in a few months from the closing data.

The minimum excess spread (after the Spread/Reserve Accounts are built) recognised by the rating agencies varies between 2% and 3%. For Auto Loan 2, information on the excess spread was not available.

Auto loan 1 and 3 have also a Trapping Mechanism that traps the excess spreads in case the delinquency or default rate triggers are hit. In those cases the trapping mechanism redirects the excess spread to the Spread/Reserve Account until the latter reaches 6%. As with credit cards, amounts are isolated legally and available first to the investor.

In our exercises we have used excess spread of 1%. We believe this to be a very conservative assumption given the experience of excess spread generated in auto loan transactions in Europe.

In term of definition, the excess spread is defined as yield income minus note interest, servicing fees, and losses.

⁶ We have collected, from several credit card transactions launched in the European market, data covering a period of 3 years, and this is available on request.

3. Residential MBS (Mortgages)

The two MBS transactions benefit from two types of Reserve Funds:

- First Reserve Funds, which are partially funded at the closing date, and built up to the required amounts within few months;
- Second Reserve Funds, funded at the closing date, which compensate for the loss of spread. In case spread reduces below a certain threshold (MBS 2 below 1.05%, MBS 3 below 0.95%), they will build up according to a trapping mechanism.

In general, measuring the impact of excess spread in a MBS transaction, so to give the correct benefit to the Second Reserve Fund, is difficult. Excess Spread varies according to prepayments, loan substitution and the collateral mix. Moreover, as the senior notes amortise, the excess spread left in the transaction drops. However, the presence of trapping mechanism avoids it dropping below a prudent percentage without replenishing Second Reserve Fund.

As a result we gave a conservative benefit to the excess spread by allowing 0.50% p.a..

- **Losses in MBS**

Moody's published a paper titled "Performance of UK Residential Mortgages 1985-2000" on 2 September 2003. In this report, Moody's estimated that the projected lifetime loss in a pool of UK residential mortgages with an average life of 8 years has a mean of 1.14% with a standard deviation of 1.24% (the worst performing origination year was in 1989 with a lifetime loss of 4.5%). The average severity rate was estimated to be 24%.

Moody's also calculated that the credit enhancement of 10.3% is required to achieve a Aaa rated note on a pool with expected losses, standard deviation and average life above reported.

The three MBS transactions used in our empirical study are all UK originated and have a Aaa enhancement level in the region of 9%-12%. Therefore they are very close to the Moody's results.

As result, we have used the following inputs in the MBS calculation:

PD rate p.a. = 0.59% (1.14%/8/LGD) and LGD = 24%.

- **Losses in Retail Revolving/Credit Cards**

The PD rate p.a. was recovered from the transaction charge-offs published in the Moody's Performance Overviews, and using an LGD of 75%.

- **Losses in Other Retail/Auto Loans**

Default Statistics in our possession show that the cumulative default rate in a pool of European Auto Loans has a mean of 3.4% with an Average Life of 6 years.

As result, we have used the following inputs in all Other Retail calculations:

PD rate p.a. = 0.57% = 3.4%/6 and LGD = 75%.

- **Capital Structure**

The Excess Spread and the Reserve Account were treated as the unrated tranche of the securitisation.

To arrive to the new capital structure, expressed in percentages, the Excess Spread and the Reserve Account were multiplied by the collateral size at the closing date of the transaction and added to the same collateral.

The new collateral was used as the denominator for calculating the new percentages of the rated and unrated tranche (Excess Spread and Spread/Reserve Account).

For example, the transaction Auto Loan 1 had a collateral with the value of Euro 511m at the closing date.

The capital structure was the following:

1. 96% of Aaa note,
2. 4% of A2 note,
3. 3.25% as the maximum of initial balance of the Reserve Account, and
4. 1.0% as Excess Spread.

The final capital structure became:

5. Aaa 92.08%,
6. A2 3.84% and
7. 4.08% as Unrated.

In those examples where the excess spread is excluded, only the Spread/Reserve Account is treated as the unrated tranche.

- **Correlation in the Pool**

It is also surprising to see that credit cards experience PD's between 4%-6.7% and correlation of 2%-3.2%, while the MBS have PD's of 0.6% and reach correlation of 15%. From our experience the average borrower first defaults on his credit card payments, and only as a last option defaults on his mortgage payment. In credit cards the correlation is a function of the assumed PD, that is lower PD would produce a lower correlation number; while MBS (despite much lower PD than credit cards) face a constant 15% correlation. This is reflected in the higher PD in credit card transactions. But on the correlation side, we were confident we should be less conservative and impose lower correlation for the MBS transaction, especially after reading the Moody's report mentioned previously.

- **Perraudin - Peretyatkin or Pyhktin - Dev formula**

With the P&P/P&D formula, we calculated the Expected Losses in the senior tranches for all transactions.

We understand that this is the formula used for calibrating the RBA weights.

We would like to point out that the model showed that even when excluding excess spread only 4 of 15 transactions have a regulatory capital greater than the floor of 0.56% and (with the exception of Credit Card 1) none of these were MBS or Credit Card transactions.

Comparing the risk weights calculated with P&P/P&D formula in transactions with the same asset type and a very similar capital structure, we are uncomfortable with the wide difference among the calculated risk weights (see Credit Card 1 and Credit Card 3).

In addition to the Pyhktin-Dev model, the ESF Quant Group also used a proprietary model and applied it the same sample pool of transactions. In this alternative a single factor model was applied to the securitised pool of assets for each sample transaction. The correlation of a tranche from this pool with the Basel superportfolio was then determined. This was then used to find the Unexpected Loss Contribution of this tranche. After multiplication with the Capital Multiple, that follows from the superportfolio parameterisation, and after addition of the Expected Loss part of the tranche, an Economic Capital figure follows and thus the equivalent RW can be derived.

That alternative methodology formulated by members of the ESF Quant Group produces results, which quite precisely replicate the Pyhktin-Dev and Perraudin-Peretyakin models' results.

- **RBA and SFA**

We compared the SFA with RBA from the point of view of the originator bank. Our conclusions for this comparison included the following:

1. **Aaa/AAA**

Even in the examples where no benefit is given to the excess spread, the Risk Weights calculated with the SFA do not justify a floor of 7% for the senior notes.

2. **A1/A+ to Baa3/BBB-**

The inclusion of the excess spread as the unrated piece brings a huge drop of risk weights in respect of the A1/A+ to Baa3/BBB- category.

3. **Unrated/MBS 3**

The inclusion of the excess spread as the unrated piece achieves a reduction of risk weights from 1039% to 880% for the MBS 3.

- **Paragraph 594 of April 2003 Consultative Document**

Paragraph 594 expressly states that reserve accounts that are funded may be included in the calculation of Loss and that unfunded reserve accounts may not be included if funded from future receipts. We note however that the wording of the paragraph fails to take into account the significant risk mitigation provided by both express spread and reserve accounts that are funded through a target reserve balance (a trapping mechanism), as reflected by our data and discussion above. Further we note that in residential mortgage transactions, excess spread is

accumulated in the legal structure as a deliberate form of credit enhancement, yet this is not taken into account in Paragraph 594.

We believe that Paragraph 594 must be redrafted to recognise both existing excess spread and the ability to trap future excess spread (in effect an amortising method of credit enhancement). Where any form of excess spread is to be trapped in future (and there is an express legal mechanism for doing so, which commences on the closing date) or where excess spread is available in any given period for utilisation in that period (a form of amortising enhancement), such enhancement must be taken into account.

Accordingly we believe that the wording of paragraph 594 should be revised as follows to include the risk mitigation for investors of excess spread and reserve trapping mechanisms:

"Where there are the following legal features of the structure:

- (a) a reserve account funded by accumulated cash flows from the underlying exposures; or
- (b) a reserve account with a target reserve balance which is funded by accumulating cash flows from the underlying exposures up to a target balance upon the happening of a specific documented event, such documented event to be legally binding as of the commencement of the transaction; or
- (c) excess spread (defined as a yield income minus note interest, costs, expenses, servicing fees and incurred losses) which is either: (1) available in a given period for immediate utilisation in such period, or (2) accumulated for use in future periods to offset losses,

in each case more junior than the tranche in question, then:

- (d) in the case of (a), this may be included in the calculation of Loss;
- (e) in the case of (b), the documented target reserve balance may be included in the calculation of loss; and
- (f) in the case of (c), the excess spread (based on historical data of a minimum of two years for the asset class in question) may be included in the calculation of loss."

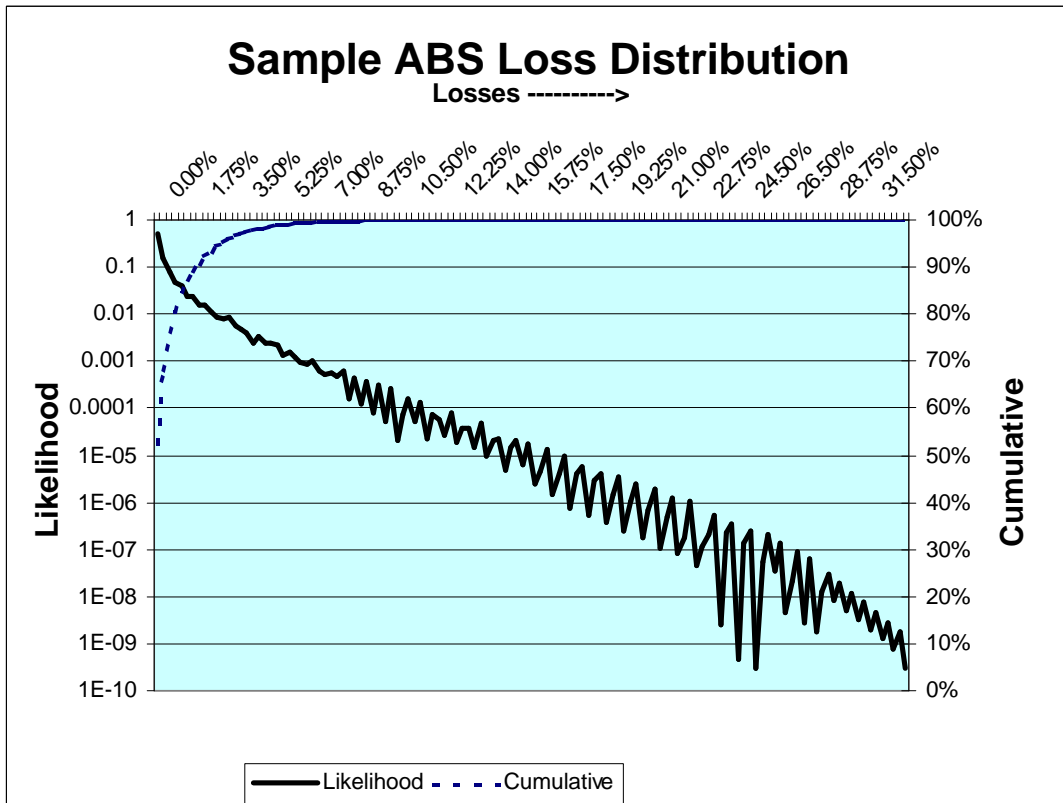
ESF Quant Group															
Summary of transactions: ESF Quant Group, RBA, SFA and P - P (without excess spread benefit or trapping mechanisms)															
Type	Other Retail						Revolving Retail					Residential Mortgages			
	Auto Loan 1	Auto Loan 2	Auto Loan 3	Auto Loan 4	Auto Loan 5	Auto Loan 6	Credit Cards 1	Credit Cards 2	Credit Cards 3	Credit Cards 4	Credit Cards 5	MBS 1	MBS 2	MBS 3	
Transaction	0.57%	0.57%	0.57%	0.57%	0.57%	2.78%	6.67%	4.00%	6.67%	4.23%	4.00%	0.59%	0.59%	0.59%	
Pool PD	75%	75%	75%	75%	75%	30%	75%	75%	75%	75%	75%	24%	24%	24%	
Pool LGD	5	5	5	5	5	5	1	1	1	1	1	1	1	1	
Pool Maturity															
Risk Weights															
Corporate (TO > 50)	14.04%	14.04%	14.04%	14.04%	14.04%	9.18%	24.76%	19.18%	24.76%	19.68%	19.18%	2.58%	2.58%	2.58%	
Residential Mortgages (para 288)	5.53%	5.53%	5.53%	5.53%	5.53%	6.54%	27.81%	20.55%	27.81%	21.25%	20.55%	1.83%	1.83%	1.83%	
Qualifying revolving exposures (para 289)	3.08%	3.08%	3.08%	3.08%	3.08%	2.25%	7.9988%	6.15%	7.40%	6.24%	6.15%	1.01%	1.01%	1.01%	
Other retail (para 301)	5.28%	5.28%	5.28%	5.28%	5.28%	4.06%	12.96%	11.13%	12.96%	11.29%	11.13%	1.73%	1.73%	1.73%	
Correlations															
Corporate (TO > 50)	21.04%	21.04%	21.04%	21.04%	21.04%	14.99%	12.43%	13.62%	12.43%	13.45%	13.62%	20.92%	20.92%	20.92%	
Residential Mortgages (para 288)	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	
Qualifying revolving exposures (para 289)	8.78%	8.78%	8.78%	8.78%	8.78%	4.24%	2.3205%	3.22%	2.32%	3.09%	3.22%	8.69%	8.69%	8.69%	
Other retail (para 301)	14.30%	14.30%	14.30%	14.30%	14.30%	7.67%	3.45%	5.70%	3.45%	5.42%	5.70%	14.19%	14.19%	14.19%	
N (or -1 indicates retail treatment)	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
K_IRB	5.28%	5.28%	5.28%	5.28%	5.28%	4.06%	7.3968%	6.15%	7.40%	6.24%	6.15%	1.83%	1.83%	1.83%	
Correlation in pool	14.30%	14.30%	14.30%	14.30%	14.30%	7.67%	2.32%	3.22%	2.32%	3.09%	3.22%	15.00%	15.00%	15.00%	
Tranche structure															
Aaa	AAA	92.98%	92.75%	92.98%	90.38%	90.48%	91.84%	90.00%	87.00%	88.00%	88.00%	84.00%	89.95%	90.14%	88.20%
Aa1	AA+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa2	AA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa3	AA-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.94%	3.35%	2.93%
A1	A+	0.00%	0.00%	0.00%	5.77%	4.76%	5.34%	5.00%	5.00%	5.00%	4.00%	0.00%	0.00%	0.00%	3.22%
A2	A	3.87%	3.86%	3.87%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.48%	5.03%	0.00%
A	A-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A3	BBB+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Baa1	BBB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	8.00%	7.00%	8.00%	9.00%	0.00%	0.00%	0.00%
Baa2	BBB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.25%	0.00%	3.22%
Baa3	BB+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba1	BB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba2	BB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba3	B+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba3	B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Unrated	Unrated	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%	1.48%	2.44%
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cumulative Tranche Structure															
Aaa	AAA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Aa1	AA+	7.02%	7.25%	7.02%	9.62%	9.52%	8.16%	10.00%	13.00%	12.00%	12.00%	16.00%	10.05%	9.86%	11.80%
Aa2	AA	7.02%	7.25%	7.02%	9.62%	9.52%	8.16%	10.00%	13.00%	12.00%	12.00%	16.00%	10.05%	9.86%	11.80%
Aa3	AA-	7.02%	7.25%	7.02%	9.62%	9.52%	8.16%	10.00%	13.00%	12.00%	12.00%	16.00%	10.05%	9.86%	11.80%
A1	A+	7.02%	7.25%	7.02%	9.62%	9.52%	8.16%	10.00%	13.00%	12.00%	12.00%	16.00%	6.11%	6.51%	8.88%
A2	A	7.02%	7.25%	7.02%	9.62%	9.52%	8.16%	10.00%	13.00%	12.00%	12.00%	16.00%	6.11%	6.51%	8.88%
A	A-	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	5.00%	8.00%	7.00%	8.00%	9.00%	4.63%	1.48%	5.66%
A3	BBB+	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	5.00%	8.00%	7.00%	8.00%	9.00%	4.63%	1.48%	5.66%
Baa1	BBB	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	5.00%	8.00%	7.00%	8.00%	9.00%	4.63%	1.48%	5.66%
Baa2	BBB-	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	0.00%	0.00%	0.00%	0.00%	0.00%	4.63%	1.48%	5.66%
Baa3	BB+	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%	1.48%	2.44%
Ba1	BB	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%	1.48%	2.44%
Ba2	BB-	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%	1.48%	2.44%
Ba3	B+	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%	1.48%	2.44%
Ba3	B	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%	1.48%	2.44%
Unrated	Unrated	3.15%	3.38%	3.15%	3.85%	4.76%	2.82%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%	1.48%	2.44%
Perraudin - Peretyatkin or Pyhkin - Dev formula															
Aaa	AAA	1.12%	0.97%	1.12%	0.20%	0.21%	0.00%	7.02%	0.00%	0.90%	0.02%	0.00%	0.00%	0.00%	
Aa1	AA+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Aa2	AA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Aa3	AA-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
A1	A+	0.00%	0.00%	0.00%	11.43%	74.71%	112.87%	1025.40%	47.53%	617.02%	73.94%	10.97%	0.00%	0.00%	
A2	A	233.66%	204.51%	233.66%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.26%	36.10%	0.02%	
A	A-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
A3	BBB+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Baa1	BBB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1249.99%	1043.22%	1246.91%	1069.73%	946.20%	0.00%	0.00%	
Baa2	BBB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	65.43%	9.40%	
Baa3	BB+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Ba1	BB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Ba2	BB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Ba3	B+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Ba3	B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Unrated	Unrated	1014.92%	982.35%	1014.92%	918.89%	802.51%	1126.46%	0.00%	0.00%	0.00%	0.00%	0.00%	896.23%	858.85%	583.18%
P.P Expected Loss (BP)		0.05	0.04	0.05	0.01	0.01	0.00	0.53	0.00	0.04	0.00	0.00	0.00	0.00	
ESF Quant Group ULC model															
Aaa	AAA	0.34%	0.30%	0.30%	0.13%	0.14%	0.00%	15.32%	0.00%	0.36%	0.02%	0.00%	0.00%	0.00%	
Aa1	AA+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Aa2	AA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Aa3	AA-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
A1	A+	0.00%	0.00%	0.00%	57.51%	38.31%	61.86%	1250.00%	24.05%	552.51%	37.71%	5.87%	0.00%	0.00%	
A2	A	83.97%	72.52%	76.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.29%	17.70%	0.01%	
A	A-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
A3	BBB+	0.00%	0.00%												

ESF Quant Group															
Summary of transactions: ESF Quant Group, RBA, SFA and P - P (with excess spread benefit and trapping mechanisms)															
Type	Other Retail						Revolving Retail				Residential Mortgages				
	Auto Loan 1	Auto Loan 2	Auto Loan 3	Auto Loan 4	Auto Loan 5	Auto Loan 6	Credit Cards 1	Credit Cards 2	Credit Cards 3	Credit Cards 4	Credit Cards 5	MBS 1	MBS 2	MBS 3	
Transaction															
Pool PD	0.57%	0.57%	0.57%	0.57%	0.57%	2.78%	6.67%	4.00%	6.67%	4.23%	4.00%	0.59%	0.59%	0.59%	
Pool LGD	75%	75%	75%	75%	75%	30%	75%	75%	75%	75%	75%	24%	24%	24%	
Pool Maturity	5	5	5	5	5	5	1	1	1	1	1	1	1	1	
Risk Weights															
Corporate (TO > 50)	14.04%	14.04%	14.04%	14.04%	14.04%	9.18%	24.76%	19.18%	24.76%	19.68%	19.18%	2.58%	2.58%	2.58%	
Residential Mortgages (para 268)	5.53%	5.53%	5.53%	5.53%	5.53%	6.54%	27.81%	20.55%	27.81%	21.25%	20.55%	1.83%	1.83%	1.83%	
Qualifying revolving exposures (para 269)	3.08%	3.08%	3.08%	3.08%	3.08%	2.25%	7.3968%	6.15%	7.40%	6.24%	6.15%	1.01%	1.01%	1.01%	
Other retail (para 301)	5.28%	5.28%	5.28%	5.28%	5.28%	4.06%	12.96%	11.13%	12.96%	11.29%	11.13%	1.73%	1.73%	1.73%	
Correlations															
Corporate (TO > 50)	21.04%	21.04%	21.04%	21.04%	21.04%	14.99%	12.43%	13.62%	12.43%	13.45%	13.62%	20.92%	20.92%	20.92%	
Residential Mortgages (para 268)	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	
Qualifying revolving exposures (para 269)	8.78%	8.78%	8.78%	8.78%	8.78%	4.24%	2.3205%	3.22%	2.32%	3.09%	3.22%	8.69%	8.69%	8.69%	
Other retail (para 301)	14.30%	14.30%	14.30%	14.30%	14.30%	7.67%	3.45%	5.70%	3.45%	5.42%	5.70%	14.19%	14.19%	14.19%	
N (or -1 indicates retail treatment)	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
K_IRB	5.28%	5.28%	5.28%	5.28%	5.28%	4.06%	7.3968%	6.15%	7.40%	6.24%	6.15%	1.83%	1.83%	1.83%	
Correlation in pool	14.30%	14.30%	14.30%	14.30%	14.30%	7.67%	2.32%	3.22%	2.32%	3.09%	3.22%	15.00%	15.00%	15.00%	
Tranche structure															
Aaa	AAA	92.09%	91.87%	92.09%	89.52%	89.62%	90.95%	87.80%	84.88%	85.85%	85.85%	81.95%	89.51%	89.70%	87.77%
Aa1	AA+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa2	AA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa3	AA-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.92%	3.34%	2.91%
A1	A+	0.00%	0.00%	0.00%	5.71%	4.72%	5.29%	4.88%	4.88%	4.88%	3.90%	6.83%	0.00%	0.00%	3.20%
A2	A	3.84%	3.83%	3.84%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.47%	5.00%	0.00%
A	A-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A3	BBB+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Baa1	BBB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.88%	7.80%	6.83%	7.80%	8.78%	0.00%	0.00%	0.00%
Baa2	BBB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.24%	0.00%	3.20%
Baa3	BB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba1	BB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba2	BB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba3	B+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Unrated	Unrated	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	2.44%	2.44%	2.44%	2.45%	2.44%	1.86%	1.96%	2.92%
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cumulative Tranche Structure															
Aaa	AAA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Aa1	AA+	7.91%	8.13%	7.91%	10.48%	10.38%	9.05%	12.20%	15.12%	14.15%	14.15%	18.05%	10.49%	10.30%	12.23%
Aa2	AA	7.91%	8.13%	7.91%	10.48%	10.38%	9.05%	12.20%	15.12%	14.15%	14.15%	18.05%	10.49%	10.30%	12.23%
Aa3	AA-	7.91%	8.13%	7.91%	10.48%	10.38%	9.05%	12.20%	15.12%	14.15%	14.15%	18.05%	10.49%	10.30%	12.23%
A1	A+	7.91%	8.13%	7.91%	10.48%	10.38%	9.05%	12.20%	15.12%	14.15%	14.15%	18.05%	6.57%	6.96%	9.32%
A2	A	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	7.32%	10.24%	9.27%	10.25%	11.22%	5.10%	5.96%	6.12%
A	A-	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	7.32%	10.24%	9.27%	10.25%	11.22%	5.10%	5.96%	6.12%
A3	BBB+	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	7.32%	10.24%	9.27%	10.25%	11.22%	5.10%	5.96%	6.12%
Baa1	BBB	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	7.32%	10.24%	9.27%	10.25%	11.22%	5.10%	5.96%	6.12%
Baa2	BBB-	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	7.32%	10.24%	9.27%	10.25%	11.22%	5.10%	5.96%	6.12%
Baa3	BB	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	7.32%	10.24%	9.27%	10.25%	11.22%	5.10%	5.96%	6.12%
Ba1	BB	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	7.32%	10.24%	9.27%	10.25%	11.22%	5.10%	5.96%	6.12%
Ba2	BB-	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	7.32%	10.24%	9.27%	10.25%	11.22%	5.10%	5.96%	6.12%
Ba3	B+	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	7.32%	10.24%	9.27%	10.25%	11.22%	5.10%	5.96%	6.12%
Unrated	Unrated	4.07%	4.30%	4.07%	4.77%	5.66%	3.75%	2.44%	2.44%	2.44%	2.45%	2.44%	1.86%	1.96%	2.92%
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Petraudin - Peretyatkin or Pytkin - Dev formula															
Aaa	AAA	0.62%	0.54%	0.62%	0.11%	0.12%	0.00%	0.70%	0.00%	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa1	AA+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa2	AA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa3	AA-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A1	A+	0.00%	0.00%	0.00%	63.58%	42.42%	34.24%	556.86%	3.01%	183.05%	4.93%	0.51%	0.00%	0.00%	0.01%
A2	A	135.99%	118.50%	135.99%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10%	15.17%	0.00%
A	A-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A3	BBB+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Baa1	BBB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1241.31%	707.83%	1160.84%	740.97%	630.82%	0.00%	0.00%	0.00%
Baa2	BBB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	27.67%	0.00%	3.78%
Baa3	BB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba1	BB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba2	BB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba3	B+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Unrated	Unrated	888.46%	858.93%	888.46%	801.91%	704.78%	958.03%	1250.00%	1250.00%	1250.00%	1250.00%	1250.00%	731.28%	701.89%	494.99%
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
P.P Expected Loss (BP)		0.03	0.02	0.03	0.01	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESF Quant Group ULC model															
Aaa	AAA	0.34%	0.30%	0.34%	0.08%	0.09%	0.00%	0.28%	0.00%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa1	AA+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa2	AA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aa3	AA-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A1	A+	0.00%	0.00%	0.00%	32.64%	22.37%	17.21%	461.32%	2.03%	101.58%	3.23%	0.43%	0.00%	0.00%	0.01%
A2	A	69.81%	60.47%	69.81%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	7.70%	0.00%
A	A-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A3	BBB+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Baa1	BBB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1250.00%	937.40%	1250.00%	994.39%	833.56%	0.00%	0.00%	0.00%
Baa2	BBB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.05%	0.00%	5.28%
Baa3	BB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba1	BB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ba2	BB-	0.00%	0.00%												

Appendix B

1. ACTUAL LOSS DISTRIBUTION FOR US AUTO LOAN TRANSACTION

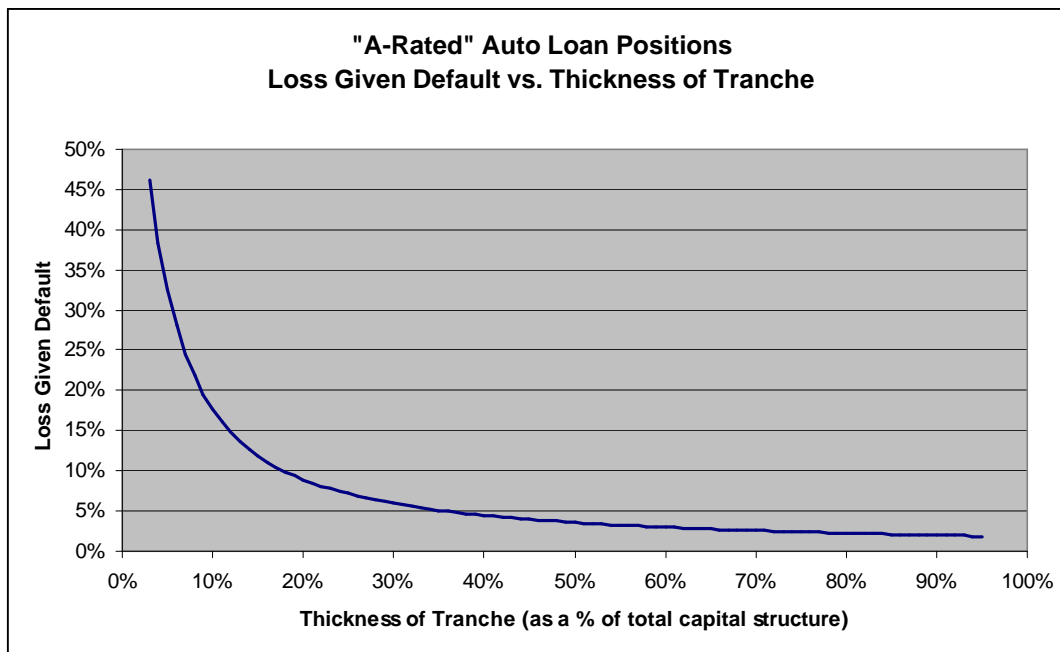
This graph depicts the modeled loss distribution of a representative US auto loan pool. Noting the log scale on the likelihood axis, the likelihood of losses can be seen to drop off dramatically as the losses become larger.



2. **RELATIONSHIP BETWEEN LGD AND TRANCHE THICKNESS FOR ACTUAL US AUTO LOAN TRANSACTION**

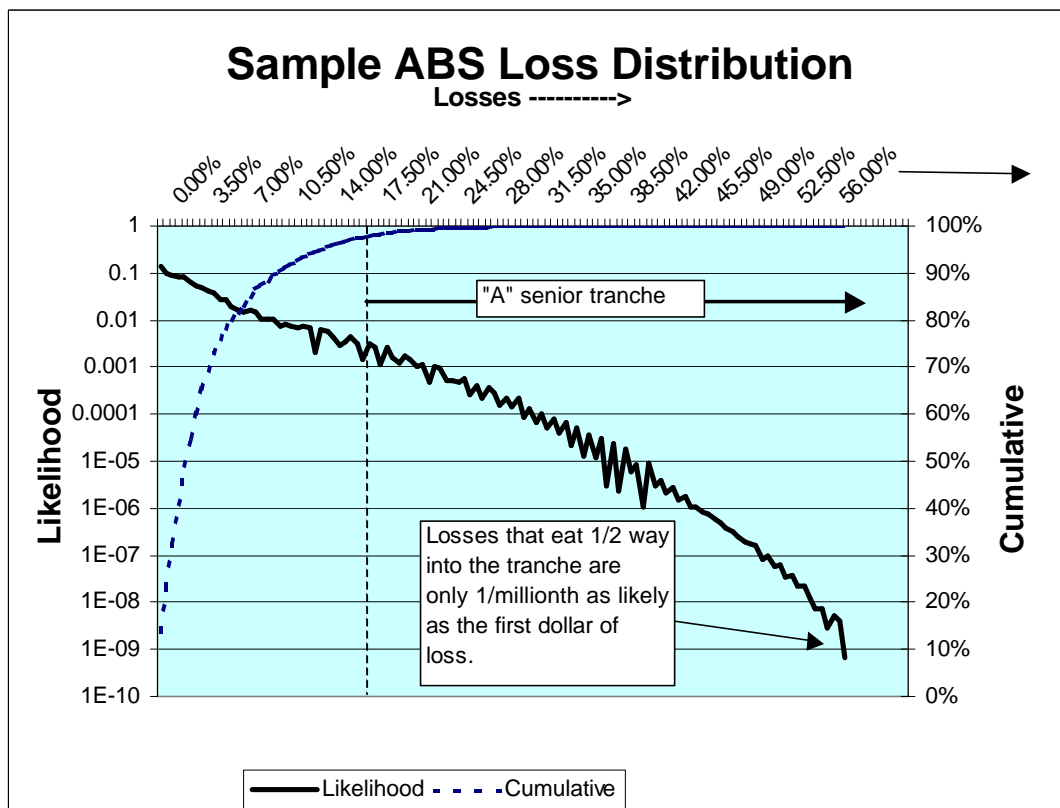
This graph is based on the same data as the previous graph and depicts the loss given default (LGD) of an "A"-rated tranche created from that portfolio using a "PD" based methodology. This methodology simply specifies that the amount of enhancement should be a given multiple of expected loss. The amount of enhancement in this case was 5%.

Note that the LGD for a thin tranche is some 20 times higher than for a senior (and therefore very thick) tranche. Assuming a 50% LGD for a given PD is only valid for very thin tranches.



3. ACTUAL LOSS DISTRIBUTION FOR US HOME EQUITY TRANSACTION

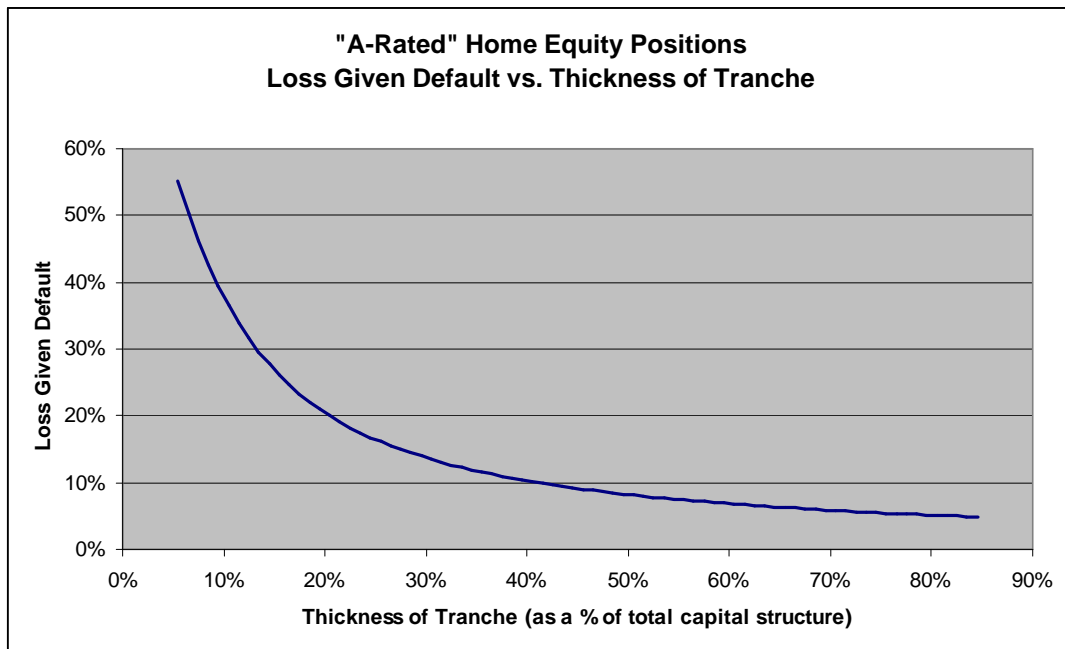
This graph depicts the modelled loss distribution of a representative US home equity pool. As in the previous graph, we can see that the likelihood of losses can be seen to drop off dramatically as the losses become larger. In fact, losses that comprise 50% of a thick tranche are only 1/millionth as likely as small LGD's.



Relationship between LGD and Tranche Thickness for Actual US Home Equity Transaction

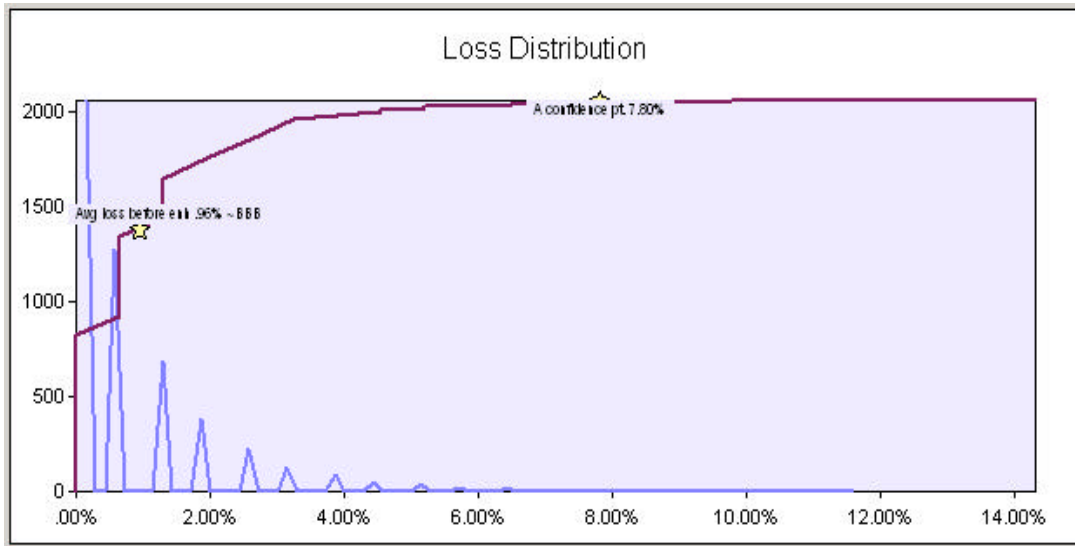
As in the previous set of graphs, this depicts the loss given default (LGD) of an "A"-rated tranche created from the home equity portfolio using a "PD" based methodology. Again, this methodology specifies that the amount of enhancement should be a given multiple of expected loss. The amount of enhancement in this case was 15.5%, as the expected losses in the underlying pool are substantially greater (4.2% vs. 0.7% for the auto pool).

Note that the LGD for a thin tranche is some 10 times higher than for a senior (and therefore very thick) tranche. Assuming a 50% LGD for a given PD is only valid for very thin tranches.



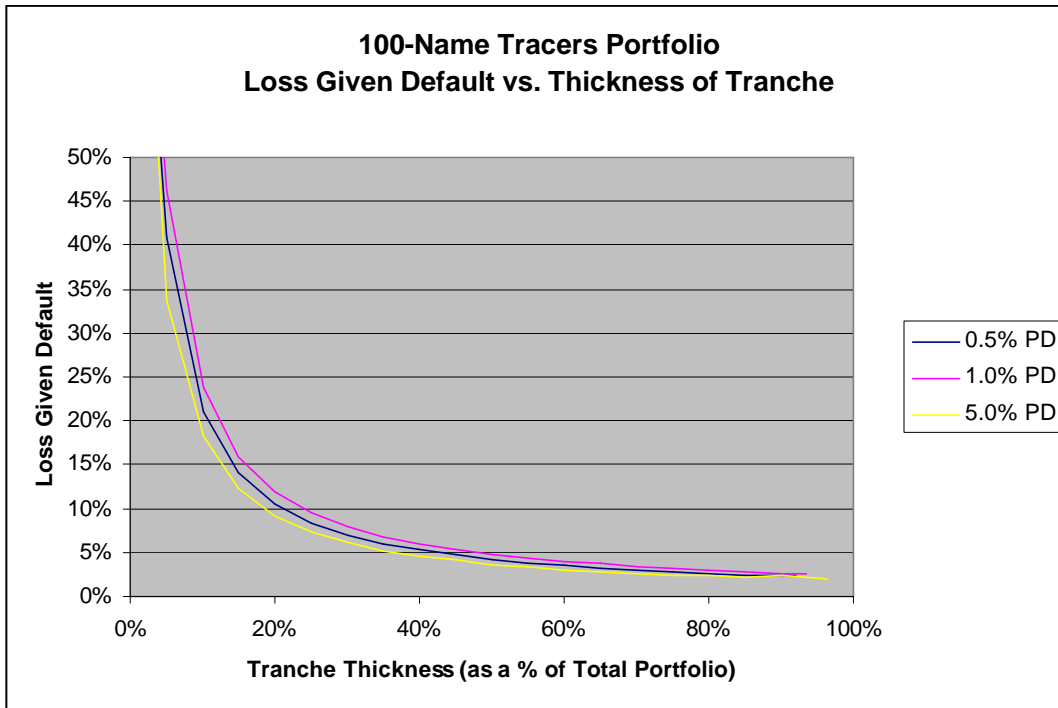
Actual Projected Loss Distribution for 100-Name Corporate Portfolio (Morgan Stanley Tracers Portfolio)

The following graph depicts the loss distribution for a 100-name corporate portfolio, the industry standard 100-name Tracers portfolio created by Morgan Stanley. As before, we can show that tranches created from this portfolio using a PD-based approach would have the same general characteristics as the retail pools. Thick tranches would have a small fraction of the LGD of thin tranches.



Relationship between LGD and Tranche Thickness for Actual 100-Name Corporate Portfolio (Morgan Stanley Tracers Portfolio)

For this analysis, we created three different tranches with PD's of 0.5%, 1.0% and 5.0%. Interestingly, the LGD's for these tranches are related only to their thickness and not to their PD. Again, the thin tranches show 20 times the LGD of the thick senior tranches.



Appendix C

Additional Comments

A. *Conduit Sponsors as Originators*

We continue to feel that it is inappropriate to treat conduit sponsors, liquidity and credit enhancement providers (collectively, "sponsor entities") as originators in many instances in the revised Accord. The references we object to are set forth below:

--Paragraphs 508 and 518, relating to clean-up calls at the discretion of the originating bank. This reference should be solely to the true originator as sponsor entities are irrelevant here.

--Paragraph 514, defining an SPE as being set up isolated from the credit risk of the originator. The sponsor entities are irrelevant to this analysis.

--Paragraph 516, setting forth operational requirements for traditional securitisations. This analysis is looking solely to the relationship between an SPE and the true originator.

-- Paragraph 517, setting forth operational requirements for synthetic securitisations. This analysis is looking solely to the relationship between an SPE and the true originator.

--Paragraph 528, discussing capital treatment for positions retained by originators⁷ and others. We don't believe the inclusion of sponsor entities is appropriate—their capital treatment is separately covered.

--Paragraph 529, allowing third party investors, but not originators, to rely on external ratings for positions at the BB level. Sponsor entities should not be treated differently than other third party investors.

--Paragraph 530, requiring originating banks, but not third party investors, to deduct all retained exposures rated below investment grade. Sponsor entities should not be treated differently than other third party investors.

--Paragraph 555, setting forth the required capital relating to transactions with amortisation features. This should apply only to true originators as sponsor entities do not share the same risk profile.

B. *Commercial Paper Dealers/Placement Agents as Originators*

We believe that it is inappropriate in any case to treat dealers and placement agents of ABCP as originators⁸ under the revised Accord if these entities do not provide liquidity or credit enhancement and hold no other position in a conduit transaction. These entities simply do not have any credit risk or specific knowledge of transactions being

⁷ We note that this reference and several others are to "originators" as opposed to the defined term "originating banks". However, "originators" is not defined. If it were defined to include only those entities specified in Paragraph 507(a), we believe that the references to originators in the revised Accord would be correct.

⁸ Paragraph 507(b).

securitised and should not be submitted to a regulatory regime that assumes, by defining them as originators, that they do.

C. *Risk Weights Assigned for Second Loss Credit Enhancement and Unrated Liquidity Positions under RBA Look-Through Approach*

Under the Standardised Approach, the risk weight applicable to second loss credit enhancement positions and unrated liquidity positions is the highest risk weight assigned to any of the underlying exposures covered by that position.⁹ We note that the average risk weight is used in the look-through approach for senior positions in paragraph 533 of the Consultative Document. This weighted average risk would reflect the true risks in the portfolio as opposed to an overly conservative estimation of the risks reflected by an assumption that the highest risk asset (regardless of size) is a valid estimate for the risk in the entire portfolio.

Additionally, we note that it does not seem reasonable to enforce a requirement that the credit enhancement must be deemed investment grade in order to utilise this look-through approach.¹⁰ If the risks in the underlying portfolio are appropriately measured in a weighted average risk rating, the appropriate amount of capital should be allocated regardless of what the level of risk is (investment grade or not).

D. *Calculating Average Risk Weight under RBA Look-Through Approach*

We would appreciate clarification on calculating the average risk weight of the underlying pool of exposures for determining a risk weight using the look-through approach.¹¹ We believe that the appropriate calculation would be a weighted average calculation based on the size of the exposures and their applicable risk weights.

E. *Exclusion of Liquidity Positions from “Inferred Rating” Requirement*

We understand that the revised Accord will be modified to clarify that liquidity positions will not be subject to the requirement to “infer” a rating based on a rated subordinated positions for unrated senior positions. We support this modification.

F. *Operation Requirement for Control of Cash Remittances*

The requirement that "under all foreseeable circumstances the bank have effective ownership and control of the cash remittances from the receivables"¹² should be adjusted in several respects. First, this "legal certainty" test should be no more strict than that required currently by rating agencies. Second, the Committee should drop the requirement of ownership of the cash remittances, relying instead on control. In many

9 Paragraphs 535 and 536.

10 Paragraph 534(b)

11 Paragraph 533 and, based on our comments in D. above, 535 and 536.

12 Paragraph 457.

cases, the conduit does not acquire ownership of the receivables themselves, but rather an undivided interest in the receivables. Moreover, until certain negotiated trigger events specified in the contracts occur, cash remittances are commonly co-mingled by the originator, acting as servicer (after those events occur, the conduit has the right to take control over the cash remittances), and the top-down rules should permit such practices to continue. Third, liquidity is often provided to the conduit as a loan, and the liquidity provider is not a purchaser of the receivables and accordingly is not their owner.

In short, it should be acceptable that the conduit has acquired the receivables or an interest therein, and that a servicer collects and distributes the remittances pursuant to a servicing agreement (with the right of the conduit to take control over such remittances after specified trigger events occur). Because the conduit will be structured as a bankruptcy remote entity and its interest in the receivables and remittances will have been the subject of customary legal opinions regarding the enforceability of the contracts, there should be no requirement that the conduit actually own the receivables or that the liquidity facility providers own the receivables, be secured by them or participate in their collection before the trigger events have occurred. The Committee should also clarify that "effective control" can be established by delivery of customary legal opinions regarding the enforceability of the relevant documents with customary assumptions and qualifications.

G. *Clarification on Subordinated Positions for Inferred Ratings Approach*

We request that the Committee confirm that payment of current interest to holders of a rated subordinated position (absent default) will not jeopardise a bank's ability to infer a rating for the senior position¹³ on the ground that such a provision would render the rated position as not being "subordinate in all respects" to the unrated position.

H. *Early Amortisation Capital Requirements*

We support the Committee's proposal recognising early amortisation risks and their associated capital requirements will vary based on both the asset type and the nature of the early amortisation provisions. Nevertheless, there are a number of needed changes to the qualification conditions for controlled early amortisation treatment in paragraph 510.

First, paragraph 510 should be clear that the controlled amortisation requirements would apply only to economic pay-out events and not normal amortisation or accumulation periods. The early amortisation capital charge represents a new capital requirement specifically targeting the credit and liquidity risks associated with early amortisation events – when things go bad. As a result, the controlled amortisation requirements should only apply to the specific economic early amortisation risk. During normal amortisation periods, the loans, by definition, are performing well and liquidity requirements are incorporated into the bank's liquidity planning process.

¹³ Paragraph 588.

Second, we believe clause (b) of paragraph 510 is redundant and too restrictive by requiring that there be a pro rata sharing of interest, principal, expenses, losses and recoveries based on the balance of receivables outstanding at the beginning of the month." Clauses (c) and (d) of paragraph 510 clearly establish the fundamental principles for controlled amortisation. Clauses (c) and (d) state that 1) the amortisation period be sufficiently long so that 90% of the debt outstanding at the beginning of the amortisation period is repaid or recognised as in default and 2) amortisation occurs at a pace no more rapid than straight-line amortisation. We believe that the revised Accord should clearly articulate a guiding principle as it has done in clauses (c) and (d), and not micro-manage the rules. Therefore, clause (b) should be deleted in its entirety.

J. *Flexibility for Exercise of Clean-Up Calls*

Banks should be permitted to exercise a clean-up call when the securitisation exposures fall below 10% of either (i) the original principal amount of exposures issued or (ii) the original pool balance of all assets acquired to support such exposures. The purpose of the clean-up call is administrative convenience when the size of a transaction no longer justifies the servicing costs. We believe that, if appropriately exercised so as to not be implicit support, whether the 10% is based on the size of the pool or the size of the remaining balance of exposures should be irrelevant. We note that many clean-up calls are currently based on the size of the issued exposures and would have to be unnecessarily amended (which can be time consuming and costly in the term market) if our comment were not taken.

K. *Eligible Liquidity Facility Requirements*

While we understand the regulatory concern for limiting the relatively lower regulatory capital requirements for liquidity facilities to only those that do not serve a credit enhancement function, we believe that the currently proposed requirements for "eligible liquidity facilities" in paragraph 538 present significant practical problems. Current market practice is to have liquidity banks fund only non-defaulted assets. We believe that the existence of the asset quality tests that serve to protect against the funding of defaulted assets is the single best method of assuring the risk profile of a liquidity position.

We feel that the requirements in clauses (c) and (e) indirectly address that which is directly addressed by the requirement for an asset quality test set forth in clause (b). As to clause (c), a requirement that there can be no funding once transaction level credit enhancement has been exhausted, could lead to the real possibility of an inability to fund in liquidity during an early amortisation event under the underlying transaction, something that at least one rating agency has informed us would render the underlying transaction unratable. A test on the "underlying pool" as described in clause (e), without regard to credit enhancement, is even more meaningless as many securitisation transactions begin with pools of non-investment grade assets that are structured to investment grade risk through the inclusion of credit enhancement. Under either circumstance, the asset quality test will serve to protect liquidity by only funding against the performing assets in a potentially deteriorating pool and we ask that the Committee

look solely to existence of the asset quality test for eligible facilities to address the concerns currently covered by clauses (b), (c) and (e).

We are concerned that an independent “fair value” test will be difficult as a practical matter to apply and unacceptable to rating agencies. We believe that the “fair value” requirement should be satisfied through the presence of a funding formula that prohibits funding against defaulted assets as required by clause (b). If we are incorrect in this interpretation, we suggest that a requirement that the purchase price should be no more than that which is reasonably expected to permit repayment in full would be a more practical approach to address the underlying concern.

We also believe that clause (d) should include the phrase “to other investor interests at the same ratings level” immediately after the reference to “subordination” as the clause was drafted in QIS3 to clarify that the payment of servicing fees and other fees typically at the top of a waterfall under a transaction would not make a liquidity facility ineligible.

Finally, we believe that a prohibition against a liquidity facility providing credit enhancement, without further limiting the circumstances under which a facility may be drawn, should be sufficient to maintain the integrity of true liquidity positions. Currently, rating agencies are very reluctant to see any limitations, other than an asset quality test and certain bankruptcy issues related to a conduit, on the ability of a bank to draw under liquidity. We are concerned about the practicality of proscribing a comprehensive list of circumstances under which a facility could be drawn which would address all scenarios unrelated to draws for credit enhancement purposes. We believe that the prohibition against funding for credit enhancements, specific language for which we will provide in a supplement to this letter, along with the other requirements for eligible liquidity facilities as discussed above provide a practical approach to preserving the integrity of liquidity commitments.

L. *Treatment of Maturity Mismatch*

The treatment of maturity mismatch set out in paragraphs 548, 549 and 172 to 174 is very conservative and will create a significant commercial disincentive for Banks to manage credit risk using portfolio credit default swaps, which are the primary tool used in synthetic securitisation transactions.

Where the term of an underlying exposure exceeds the term of a credit hedge, there result is a potential forward credit exposure. Though there is no actual credit risk in relation to this forward exposure, capital is still required to be held - presumably to mitigate against the ADI having to raise additional capital in the future.

However, these are only potential forward exposures, as the underlying assets may be prepayable such that the expected life of the asset differs from the contractual life. For example, a pool of housing loans with a 30 year contractual term may have an expected life of around 4 years. If an ADI only sought to hedge the commercial risk of an asset (the expected life), in this scenario the ADI would initially still have to hold 26/30 (86%) of the credit risk capital against the potential forward exposure.

An ADI's ability to raise capital in the future should be considered in the context of its overall capital management strategy – overall balance sheet growth, size of potential forward exposures relative to the overall capital base, the expected forward exposure taking into consideration the prepayment rate on the underlying assets.

The maturity mismatch rules are designed to mitigate against an ADI having to raise capital in the future but are a clumsy tool – since it does not take into consideration an ADI's capital position. As a result, a regional bank seeking to sell down concentration risk to prepayable assets may find it uncommercial to do so, notwithstanding that the potential forward exposures would represent a very small percentage of its overall capital base. By creating a commercial disincentive to carry out portfolio credit default swaps, the risk of having to raise capital in the future becomes more important than the credit risk already on the balance sheet which the institution wants to manage prudently.

Suggested alternatives:

- Retain the requirement to give no recognition for maturity mismatch with less than 12 months to expire, but provide relief for mismatches >1 year subject to approval & monitoring by local regulator of the size of potential forward exposures in context of overall capital management strategy of an ADI; or
- Introduce credit conversion factors for maturity mismatch which reflect the likelihood that an ADI can raise capital (or enter into new credit hedges) in the future as necessary to support the potential forward exposure. Credit conversion factors would reduce as the time to crystallisation of the potential forward exposure increases (i.e. 100% for less than 1 year, 20% for less than 2 years, 0% for greater than 2 years)
- Retain the existing conservative framework but utilise the expected life of an asset rather than its contractual maturity for the purposes of determining whether any maturity mismatch exists.