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13. January 2003

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

Re: The New Basel Capital Accord – Quantitative Impact Study 3 and Working Paper 2

Ladies and Gentlemen:

The European Securitisation Forum,¹ the American Securitization Forum², the International Swaps and Derivatives Association, Inc.³ and the International Association of Credit Portfolio Managers, Inc.⁴ (the “*Commenting Parties*” or “*we*”) appreciate this opportunity to provide

¹ The European Securitisation Forum (the “*Forum*”) is a European financial markets trade association sponsored by The Bond Market Association (“*TBMA*”). The Forum was established to promote the continued growth and development of securitisation and to advocate the positions and represent the interests of the securitisation market throughout Europe. The Forum has a diverse membership from across Europe which includes banks, securities houses, issuers and originators, investors, trustees, rating agencies, legal and accounting firms and other professional participants active in the European securitisation markets. More information about the Forum, including its purpose and mission, its full membership and its current projects and activities, can be obtained from its website at www.europansecuritisation.com.

² The American Securitization Forum (the “*ASF*”) is a broadly-based professional forum of participants in the U.S. securitization market. Among other roles the ASF members act as issuers, underwriters, dealers, investors, servicers and professional advisors working on transactions involving securitizations. The views expressed in this letter are based upon input received from a broad range of ASF members including members of the ASF Regulatory Subcommittee. More information about the ASF, its members and activities may be obtained from the ASF website at www.americansecuritization.com.

³ International Swaps and Derivatives Association, Inc. (“*ISDA*”) represents leading participants in the privately negotiated derivatives industry and includes most of the world's major financial institutions, as well as many of the businesses, governmental entities and other end users that rely on over-the-counter derivatives to manage efficiently the financial market risks inherent in their core economic activities. ISDA produces the standard documentation used in cross-border OTC derivatives trading, and has in particular published credit derivatives definitions referenced in a vast majority of credit derivative trades, a number of which are entered into as part of wider securitisation transactions. More information about ISDA can be obtained from its website at www.isda.org.

⁴ Founded in 2001, the International Association of Credit Portfolio Managers is a not-for-profit professional association dedicated to the advancement of credit portfolio management. The Association's focus is on the promulgation of sound practices for credit portfolio management and on the dissemination of relevant specialized information (e.g., recent research results, policy papers, regulatory issues and discussions, market survey data, and accounting discussions). In its first year, IACPM has attracted 24 member organizations repre-

calibration comments and other input on Quantitative Impact Study 3 (“*QIS 3*”) and the Second Working Paper on Securitisation (“*WP 2*”), both released in October 2002 by the Securitisation Group (the “*Securitisation Group*”) of the Basel Committee on Banking Supervision (the “*Committee*”) in furtherance of the Committee’s work on the consultative proposals (the “*Consultative Proposals*”) regarding the New Basel Capital Accord (the “*Accord*”) released in January 2001.

With over \$1.6 trillion of new issuance in 2001 alone, securitisation has become an essential contributor to the stability and effective functioning of the financial sector, broadly defined, affecting nearly every one of its participants directly or indirectly – from originators to investors to end users of credit. Securitisation has proven its value as an efficient funding and risk management tool. Securitisation permits banks to achieve a more precise matching of the duration of their assets and liabilities. Securitisation is a source of safe, fixed income assets for investors, and provides additional fee-based revenues to banks. Securitisation has increased the availability, and reduced the cost, of financing in the primary lending markets for corporate and retail borrowers all over the world.

While we support the Committee’s objective that the capital adequacy framework should better reflect the relative risks of assets, for the reasons discussed in detail in this comment letter we believe that the securitisation proposals in their current form do not satisfy that essential standard. Instead, the proposals have become increasingly complex, burdensome and unworkable in material ways. We believe that the results of QIS 3, as we preliminarily understand them, support that observation.

As currently formulated, the securitisation proposals do not align risks with regulatory capital in a sufficiently accurate or sensitive manner, and that misalignment if unchecked will result in misallocations of capital and other inefficiencies, will impair banks’ ability to use securitisation as a risk management and financial tool, will distort the pricing of financial products, and will ultimately distort business opportunities for banks *vis-à-vis* their non-financial counterparts.

Rather than triggering significant market disruption by imposing capital rules that are not in line with the actual risks of those positions, we strongly recommend that the Securitisation Group return to basic principles by simplifying the proposals and aligning them more closely with the underlying credit function. We have made several concrete proposals in this comment letter that would further those objectives.

1. EXECUTIVE SUMMARY

We summarise below the main recommendations set forth herein:

Generally

- Most market participants will prefer the ratings based approach (“*RBA*”) because it will be more widely available and is more straight-forward to use than the supervisory

formula approach (“SFA”). However, a workable SFA and a workable top-down approach are nevertheless also needed because not all positions will be rated.

- For policy and other reasons, the Committee should continue to work toward the objective that banks be permitted to adopt and use reliable internal risk models and risk analysis tools for determining regulatory capital for their own securitisation exposures. Certain banks already reliably use internal models with the approval of national regulators in the conduit area, so accomplishing such an objective is already very close. We propose below that this current activity and additional interim steps be reflected in the current proposals.
- Each bank should have full freedom to apply either the SFA (if such bank’s regulator has approved its use) or the RBA as such bank sees fit, including applying the RBA for positions below K_{IRB} and applying the SFA for rated positions above K_{IRB} .
- ABCP conduit sponsors and the other parties grouped with them in the proposals should not be treated as originators, since commercially they are not.

Ratings Based Approach

- The proposed risk weightings for lower rated tranches under the RBA remain higher than justified, which will cause significant market disruption. Our preliminary understanding of the QIS 3 results appears to bear out that observation. We also attach empirical analyses that support the same conclusion.
- As a result, we strongly recommend that the Securitisation Group return to basic principles by aligning the RBA more closely with the underlying credit function and the actual practices of banks and by harmonising ABS risk weights with the Committee’s proposals for corporate positions.
- We describe below new analytical work evaluating appropriate risk weights for securitisation positions. On the basis of that new data and the other grounds described below, we have proposed risk weights for both the standardised and the IRB approaches. In a number of cases, the proposed risk weights are lower than those suggested by the Securitisation Group.
- The reasons given by the Securitisation Group for discriminating against ABS positions are not persuasive. LGD assumptions for ABS should be no worse than for like-rated corporate positions because such ABS and corporate positions are themselves structurally comparable in many significant respects. In addition, for several reasons, no regulatory capital distinction should be made on the basis of marginal contribution to portfolio risk.

Supervisory Formula Approach

- The present SFA formulas are unduly complex and burdensome, but can be simplified without sacrificing their accuracy. The SFA formulas contain add-ons that are unrelated to the risk function and add significantly to their complexity, but if the add-ons were eliminated the SFA formulas would become much easier to use without impairing their accuracy.

- In particular, positions below K_{IRB} should not simply be deducted from capital, and the capital floor and the tau (τ) factor should be eliminated. If not eliminated entirely, the floor should be reduced to a few basis points, consistent with the treatment of corporate positions.
- We are concerned that, despite everyone's best intentions, the QIS 3 data may not be comparable between banks. There is a significant risk that uncertainties in applying the complex SFA formulas may not always have been resolved by banks in a uniform manner during the QIS 3 process. Until there is reliable data, the SFA formulas should not be finalised.
- Further work on the top-down approach is needed.

Liquidity Facilities

- Under the standardised approach, the Committee should adopt a simple rule to determine regulatory capital for eligible liquidity facilities: (i) a conversion factor of 5% for commitments of one year or less and 10% for commitments in excess of one year multiplied by (ii) the effective risk weight of the pool multiplied by (iii) the notional amount of the pool.
- Under the IRB approach, for policy and other reasons the regulatory capital rules should reflect the important structural differences between liquidity facilities and credit enhancement, which they do not now do. As a consequence, the capital calculation method recommended above for standardised banks, including the 5% and 10% conversion factors, should be adopted for eligible liquidity facilities under the IRB approach as well.
- In each case, the risk weight of a transaction-specific pool should be determined on the basis of either the implied rating or the relevant bank's internal inputs for such pool, and the risk weight of a programme pool should be the weighted-average of the transaction-specific pool weights.
- The conditions for eligible liquidity facilities should be reduced to (i) a reasonable good asset test and (ii) draws on the facilities and fees not being subordinated to the interests of investors.
- In determining capital under the SFA, liquidity and programme-wide credit enhancement provided to an ABCP conduit should be allocated to each transaction in the conduit in a manner that does not result in any duplicative capital. Consistent with the existing securitisation proposals, a conduit sponsor should not be required to hold more capital in the aggregate than K_{IRB} for the assets in the conduits it sponsors against all of its exposures to such conduits.

Synthetic Securitisation

- Regulatory capital requirements for synthetic securitisations remain too high and discriminate against synthetic transactions as compared with traditional securitisations.
- A requirement that the originating bank obtain third party credit risk mitigation in order to obtain risk sensitive ratings for super-senior positions is not needed to achieve

the Committee's objective of reliability, and originating banks should not be burdened with the unnecessary expense of acquiring credit protection for that position. Instead, we have proposed below methods by which originating banks should be entitled to determine the regulatory capital applicable to super-senior tranches.

- The substitution approach under the credit risk mitigation rules is not sufficiently risk sensitive and should be modified. We have outlined below a concrete proposal for consideration.
- The requirement that clean-up calls must reference specific protected credit risk exposures, and not just categories of claims against entities, should be eliminated.

Revolving amortisations

- The requirement that there be a *pro rata* sharing of interest, principal, expenses, losses and recoveries based on the beginning of the month balance of receivables outstanding is redundant and too restrictive and should be eliminated.
- The 100% credit conversion factor (80% for controlled amortisation) for committed retail and all non-retail exposures implies that no risk is transferred to investors. This requirement should be reduced significantly or at least explained, as it is clear that risk is indeed transferred.
- The capital requirements for originators should not be greater than the IRB capital requirement in the underlying pool of exposures.

We have made additional comments in this letter that have not been highlighted above. We may also make additional or further comments following our upcoming Roundtable.

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2. INTRODUCTORY COMMENTS

2.1. Securitisation markets generally

As the Committee itself recognises, securitisation can serve as an efficient means of redistributing a bank's credit risk to other banks and non-bank investors.⁴ Securitisation permits banks to achieve a more precise matching of the duration of its managed assets and its liabilities. Securitisation has also proven its value as an efficient funding and capital management tool. Securitisation is frequently a more efficient and flexible financing option in comparison with others available to banks. Securitisation is a source of safe, fixed income assets for banks as investors. Securitisation transactions subject bank assets to market scrutiny, and can result in capital allocations that better reflect the relative risks of positions. Securitisation provides additional revenues to banks in the form of ABCP dealer fees, term ABS underwriting fees, arrangement fees and similar income.

From a broader economic and systemic⁵ perspective, the existence of efficient securitisation markets has increased the availability, and reduced the cost, of financing in the primary lending markets. Efficient securitisation markets serve to reduce disparities in the availability and cost of credit by linking local credit extension activities to a broader capital market system. As a result of that linkage, securitisation subjects the credit extension functions of individual financial institutions to the pricing and valuation discipline of the capital markets. The securitisation process thus promotes the efficient allocation of capital and management of risk within originating banks while serving to disburse risk throughout, and outside of, the financial system broadly defined. In turn, borrowers and other recipients of credit benefit directly from its increased supply and lower cost.

Because of its many benefits to banks, investors and recipients of credit, securitisation has grown significantly over the past two decades, as the tables below demonstrate. Further data is provided in Annex A. Not only has securitisation grown in absolute terms, but also in its importance to the smooth functioning of the capital markets.

⁴ See paragraph 14 of the *Overview of the New Basel Capital Accord* included in the Consultative Proposals.

⁵ We believe that national boundaries constitute the relevant "system" for purposes of the Accord and implementing national legislation, particularly as most banks' international exposures are generally less than 10% of their total portfolio.

TABLE 1A:

Cash Annual New Issuance by Region (in millions of US Dollars)

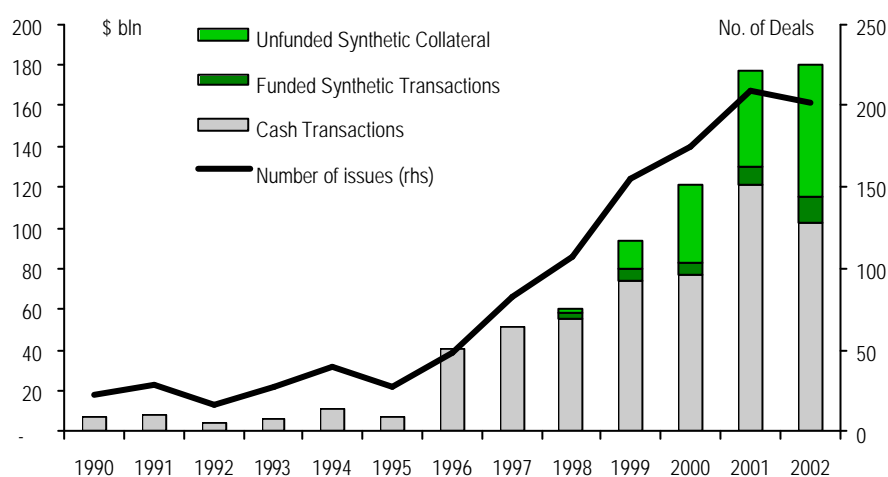
	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>
USA	1,471,419	823,558	1,024,757	1,048,032	618,100	564,208
Europe	130,311	83,274	79,897	58,397	50,783	40,285
Japan	26,304	23,462	19,488	8,135	5,881	996
Asia (Offshore excl. Japan & Aus)	2,733	1,468	2,216	2,870	3,807	1,745
Australia & NZ	13,966	11,348	9,525	6,341	8,287	3,345

Asset Composition (2001) (in millions of US Dollars)

	<u>Europe</u>	<u>Japan</u>	<u>Aust. & NZ</u>	<u>Asia (offs. ex. Jap. & Aust.)</u>
ABS	40,685	15,865	432	2,139
CDO	23,426	1,701	0	594
CMBS	19,273	4,896	599	
MBS	46,927	3,842	12,935	
Total	130,311	26,304	13,966	2,733

Source: Merrill Lynch

TABLE 1B:

Annual Public New Issuance in Europe Since 1990⁶

⁶ In addition to the public transaction volumes mentioned in the chart, Moody's informs us that private synthetic transactions reached \$80 billion in 2001.

2.2. Regulatory response

Given the important micro- and macro-economic benefits of securitisation, we are concerned that the Securitisation Group's various securitisation proposals since January 2001 (collectively, the "Proposals") have become increasingly complex, unduly burdensome and unworkable in material respects. While we support the Committee's objective that the capital adequacy framework better reflects the relative risks of various assets, for the reasons discussed in detail below we believe that the Proposals in their current form do not satisfy that essential standard.

More importantly, we are concerned that the Proposals, if adopted without further modification, will have a significant, adverse and unwarranted impact on *all* participants in the market – originators, investors and, as a result of the foregoing both corporate and retail borrowers. The Proposals will, if not modified, impair banks' ability to use securitisation as a risk management and financial tool and distort business opportunities for banks *vis-à-vis* their non-financial counterparts. Unduly high capital charges will also distort pricing, causing a significant and unwarranted disruption in the investor base for new ABS issuance and secondary trading activity.

Since 1996, there have been approximately \$26 billion equivalent of BBB-rated tranches and approximately \$4 billion equivalent of BB-rated tranches issued in European securitisation transactions.⁷ In the U.S., since 1994 there have been approximately \$273 billion of BBB-rated tranches, approximately \$47 billion of BB-rated tranches and approximately \$13 billion of B-rated tranches issued in U.S. structured finance transactions.⁸ It is not appropriate that the securitisation market is being singled out for unduly harsh treatment, since the Proposals, if adopted in their current form, will provide no similar impairment to a bank's ability to *lend* to B-, BB- and BBB-rated corporate borrowers.

Investor banks acquiring non-investment grade positions would demand higher returns to compensate them for the additional required regulatory capital, causing some transactions not to be completed because they would be uneconomic for the originators. Other investors might exit the market altogether. Moreover, this liquidity crunch would ultimately expand to insurance investors, because the convergence of banking and insurance capital rules appears likely to occur over the medium term. The FSA in the United Kingdom and the BAFin in Germany already regulate both banks and insurers, and we expect other countries to follow suit. It seems self-evident that the capital rules in the new Accord will significantly influence insurance regulators as they determine the appropriate level of capital to be held against investments made by insurance companies. Accordingly, it is essential that the Accord be more accurately calibrated with respect to securitisation exposures.

Ultimately, it would be unwise regulatory policy to rely on a relative few financial entities whose capital is unregulated, such as hedge funds, to acquire the lion's share of non-investment grade securitisation positions. It will be better from a systemic perspective to set

⁷ Source: Merrill Lynch.

⁸ Source: Standard & Poor's.

capital weights at more realistic and risk sensitive levels, in order to encourage the spread of such investments over the entire financial sector, broadly defined.

Rather than triggering these market disruptions by imposing capital weights for non-investment grade positions that are not in line with the actual risks of those positions, we strongly recommend that the Securitisation Group return to basic principles by simplifying the Proposals, by aligning them more closely with the underlying credit function and the actual practices of banks, and by harmonising them with the Committee's proposals for corporate positions.

3. RATINGS BASED APPROACH

3.1. Availability

It is essential for several reasons that the Committee permit all parties to use the RBA to determine regulatory capital for all rated positions, including those that are rated less than investment grade and including positions held by originators that fall below K_{IRB} .

As discussed above, a workable RBA is necessary to prevent significant and unwarranted disruption in the investor base for new ABS issuance and secondary trading activity. We believe that most bank investors will not be able to use the SFA because they will not have access to the necessary SFA formula inputs due to client confidentiality and bank secrecy rules. This concern is particularly acute in Europe where fewer of the necessary inputs are available to investors for bank secrecy and other reasons.

We do not believe that proposing that investors use K_{IRB} as determined by originators is a viable alternative. We believe that originators will be unwilling to share their determinations of K_{IRB} due to confidentiality and potential issuer liability concerns. In addition, there are no mechanisms currently in place (such as a Bloomberg listing) for K_{IRB} determinations – and as a result total capital calculations – to be made available to investors on an on-going basis, and for the reasons we have mentioned above it is likely that this will never occur.

In furtherance of our recommendation above that the RBA be available to all parties for all rated positions, we have two specific comments. First, for several reasons, originators should be entitled to use the RBA for all rated non-investment grade positions, to the same extent permitted to investors. The Committee has acknowledged its satisfaction with investors making regulatory capital determinations for rated positions between BB+ and BB-. The risks of such positions are the same for originators as they are for investors – the risk of a position does not change if it was retained rather than acquired. Of equal importance, the reliability of the ratings of such positions are no different if they are held by originators rather than investors. Finally, once the RBA risk weights have been finally calibrated, the Committee should have full confidence that the regulatory capital required at any particular ratings level will fairly reflect the risks of positions having such ratings. We note that the new US rules⁹ rec-

⁹ “Risk-Based Capital Guidelines; Capital Adequacy Guidelines; Capital Maintenance: Capital Treatment of Recourse, Direct Credit Substitutes and Residual Interests in Asset Securitizations,” Federal Reserve Board, Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation, Office of Thrift Supervision, effective January 1, 2002.

ognise the logic of this position by providing the same treatment to all banks, whether originators or investors.

Second, there is no justification for requiring that a rated position be deducted from capital just because it falls below or straddles K_{IRB} . Instead, the bank holding such a position should be entitled to determine its regulatory capital on the basis of the RBA. For various reasons, including the method and assumptions used in determining K_{IRB} under the SFA, an RBA determination of regulatory capital on the basis of an external rating might be the most accurate result. In addition, as mentioned above, the Committee has acknowledged its satisfaction with regulatory capital determinations for rated positions between BB+ and BB-. Once the RBA risk weights have been finally calibrated, the Committee should have full confidence in them. In short, there is no reason to abandon the RBA solely because a rated position might straddle or fall below K_{IRB} under the SFA.

Making the RBA available at all ratings levels does not mean that investors will fail to conduct prudent due diligence on their investments (a concern expressed in prior communications from the Securitisation Group). In the existing market, banks conduct due diligence on non-investment grade rated positions prior to investing, even if they are not able to obtain (because of client confidentiality and bank secrecy rules) all of the information needed to adopt an SFA analysis of the portfolio (such as the identities of the obligors in the pool). In our experience, banks acquiring positions rated below investment grade are in fact more expert in making such investments than those that only acquire positions above investment grade.

In addition, permitting use of the RBA for below-investment grade positions would not result in originators “gaming” the regulatory capital rules (a concern expressed in prior communications from the Securitisation Group). Gaming occurs when there is the possibility of obtaining a different result by no objective difference other than form. We are proposing that banks, whether they retain or acquire rated positions, be entitled to hold capital against those positions based on applying the RBA. That is not gaming the system because the capital is justified not by manipulating form but by applying a perfectly valid (and possibly in this instance more accurate) means of measurement.

3.2. Proposed RBA risk weights

a. QIS 3 feedback

Feedback from our member banks about their QIS 3 responses appears to demonstrate that capital weights determined pursuant to the RBA, whether under the standardised or the IRB approach, are often too high in comparison with the required regulatory capital determined pursuant to the SFA formulas.¹⁰ The SFA risk weights should become somewhat lower as the formulas are simplified (as proposed in Item 4.4 below), highlighting the excessiveness of the RBA risk weights even further.

¹⁰ The exception to this observation appears to be some (but not all) BB-rated positions straddling K_{IRB} , for which capital under RBA and SFA appears to be comparable. We are not surprised at such a result, given that positions under K_{IRB} are, as we have discussed in Item 4.4(a) below, fully deducted from capital which we believe to be excessive.

We are not surprised at such a result. As we have explained in some detail in earlier comment letters, we do not believe the Accord should discriminate against ABS positions compared with like-rated corporate positions, which attract much lower regulatory capital.

In addition, the Committee has used the SFA to benchmark risk weights under the RBA. Because the SFA formulas include add-ons that unnecessarily increase required capital (see Item 4.4 below) and because K_{IRB} is itself too high (see Item 4.5 below), the RBA weights are also too high, particularly for lower-rated positions.

b. IACPM data

That the Proposals mandate excessive regulatory capital (under each of the standardised approach, the RBA and the SFA) is also demonstrated by our work with the International Association of Credit Portfolio Managers (the 'IACPM'). The IACPM has recently developed empirical data comparing required regulatory capital levels for certain transaction models determined both before securitisation and afterwards pursuant to the standardised approach and the foundation and advanced IRB approaches. A description of that work and the resulting data are set out in Annex B.

As the summary table below shows, under the proposed standardised approach, the minimum required regulatory capital relating to specified portfolios jumps by almost 80% for originating banks and over 50% for investing banks simply as a result of securitising those portfolios. Under the RBA, the minimum regulatory capital (if all tranches are sold to investors) jumps by 60% to 75% as a result of securitisation. Finally, under the SFA, minimum regulatory capital increases by approximately 20% as a result of securitisation.

TABLE 2:

Minimum Regulatory Capital Requirements (Millions of Euro)

	<u>Investment Grade</u>			<u>Non-Investment Grade</u>			
	RWA	Regulatory Capital	% Change Req Cap	RWA	Regulatory Capital	% Change Req Cap	
Standardized Approach							
Before Securitization	1,270.19	101.61		1,921.90	153.75		
After Securitization - Originating	369.36	88.95	-12.5	328.02	273.66	78.0	*
After Securitization - Investing	413.46	79.88	-21.4	513.38	235.53	53.2	*
Foundation IRB Approach							
Before Securitization	720.24	57.62		1,582.50	126.60		
After Securitization - RBA Originating (with Cap)*	147.90	57.62	--	1,181.19	126.60	--	
After Securitization - RBA Originating (w/o Cap)*	147.90	69.45	20.5	1,181.19	221.09	74.6	
After Securitization - RBA Investing*	283.12	69.45	20.5	332.86	221.09	74.6	
Supervisory Formula (SFA) *	242.31	77.00	33.6	326.63	152.73	20.6	
Advanced IRB Approach							
Before Securitization	722.31	57.79		1,713.50	137.08		
After Securitization - RBA Originating (with Cap)*	147.49	57.79	--	1,050.14	137.08	--	
After Securitization - RBA Originating (w/o Cap)*	147.49	69.58	20.4	1,050.14	221.09	61.3	
After Securitization - RBA Investing*	284.74	69.58	20.4	332.86	221.09	61.3	
Supervisory Formula (SFA) *	242.49	77.18	33.6	335.58	163.93	19.6	

* RWA is reported "Before Deduction"
Regulatory Capital is reported "After Deduction"

These results demonstrate that the securitisation "premium" in the Proposals is too high across the board, but is particularly burdensome under the standardised approach and the

RBA and is too harsh for transactions involving non-investment grade assets. Because the Proposals do not preserve capital neutrality, they will impair banks' ability to use securitisation as a risk management tool.

c. Results of standard credit portfolio modelling

In addition to our work with IACPM, we have also worked with our member banks to evaluate the proposed risk weights by employing standard credit portfolio techniques to determine the relationship among the risk characteristics of various rating categories of structured transactions. The analysis employs a table of probabilities of default (five year annualised) commensurate with industry practice for corporate entities, and recovery rates by rating category and granularity that are in line with the simulation analysis results. Correlation assumptions are representative of average pairwise correlations that would be calculated by the KMV Portfolio Manager software for large corporate loan portfolios characteristic of large money-centre banks.

The "base case" scenario assumes that all rating categories would experience 50% LGD. The "granular pool" scenario assumes that "A" rated tranches would experience 25% LGD and that pools rated "AA" and above would experience 5% LGD. Lower rated tranches are assigned 50% LGD. No further calibration was employed after assuming that these risk weights are relative to an 8% minimum capital requirement.

The results of our portfolio modelling work are contained in Table 3B below, which sets out our proposed risk weights for positions with long-term ratings. Please note that the risk weights in Table 3B for positions rated Aaa through B3 simply set out the raw results produced by our credit portfolio modelling.

The risk weights below would generate values for "EL + UL" that would be commensurate with industry practice at the "AA" confidence threshold. Note that for many asset types (*i.e.*, retail traditional ABS), the use of corporate default rates especially in the higher rating categories is quite conservative.

d. Commenting party proposed risk weights

Based upon (i) the new data described above, (ii) our understanding of the underlying ratings methodologies, the structural comparability of like-rated ABS and corporate positions and all available data, (iii) our own members' existing practices regarding their own economic capital and (iv) our initial understanding of the QIS 3 results, it appears to us that the RBA risk weights are too high across all tranches (even higher-rated ones) by not less than 30% and more typically by at least 100%. For the same reasons, we are also convinced that full deduction for B-rated positions is unduly harsh and would distort originator and investor behaviour because such a capital level does not accurately reflect the risks of such positions.

Instead of the RBA risk weights for exposures with long-term ratings¹¹ described in the Proposals, we recommend the weights set forth in the two tables below, one for standardised approach and one for the IRB approach. Our proposals are preliminary and subject to further

¹¹ We have no alternative risk weights to propose for positions with short-term ratings at this time.

work, and we look forward to refining them during discussions with the Securitisation Group at our Roundtable.

We are of course aware that some of our proposed risk are meaningfully lower than those proposed by the Securitisation Group. As mentioned above, the proposed IRB risk weights for the Aaa- through B3-rated positions simply reflect the results of the standard credit portfolio modelling referred to in Item 3.2(c) above. We also note that, with respect to the risk weight proposals for highly granular pools, granularity effects are focused entirely in the higher-rated tranches because granularity serves to reduce the tail in loss distribution. We would like to discuss with you at our upcoming Roundtable the portfolio characteristics that will lend themselves to such an analysis and such risk weights.

TABLE 3A:

STANDARDISED APPROACH

**Commenting Parties'
 recommended risk weights for
 exposures with long-term ratings**

External rating	Risk weights proposed by Basel Committee (Corporate)	Risk weights proposed by Basel Committee (Securitisation)	Risk weights proposed by Commenting Parties (Securitisation)
AAA to AA-	20%	20%	20%
A+ to A-	50%	50%	50%
BBB+ to BBB-	100%	100%	100%
BB+ to BB-	100%	350%	100%
B+ to B-	150%	Deducted from capital	150%
Below B- or Unrated	100% ¹²	Deducted from capital	Deducted

¹² We do not make any recommendations regarding whether corporate risk weights should be higher or lower.

TABLE 3B:

IRB APPROACH

**Commenting Parties'
 recommended risk weights for
 exposures with long-term ratings**

External rating	Risk weights for highly granular pools proposed by Basel Committee	Risk weights for highly granular pools proposed by Commenting Parties ¹³	Base risk weights proposed by Basel Committee	Base risk weights proposed by Commenting Parties
Aaa	7%	1%	12%	6%
Aa	10%	2%	15%	10%
A	20%	16%	20%	27%
Baa1	50%	41%	50%	41%
Baa2	75%	50%	75%	50%
Baa3	100%	68%	100%	68%
Ba1	250%	110%	250%	110%
Ba2	425%	141%	425%	141%
Ba3	650%	232%	650%	232%
B1	Deduction	317%	Deduction	317%
B2	Deduction	550%	Deduction	550%
B3	Deduction	583%	Deduction	583%
Below B3 and un-rated	Deducted	Deducted	Deducted	Deducted

e. Further IACPM data

We attach as Annex C revised IACPM data incorporating the adjusted risk weights proposed above. As the data in Annex C indicates, the adjusted risk weights go a long way towards protecting the capital neutrality of securitisation and, accordingly, its availability as an important risk management tool by banks.

3.3. Harmonisation of risk weights appropriate

The Securitisation Group has given two reasons to justify the disproportionate burdens placed on ABS positions compared with like-rated corporate positions: (a) the claim that subordinated ABS tranches, which are often "thin" and (by definition) low in the capital structure of most securitisation transactions, exhibit greater loss given default, and (b) the claim that adding one additional ABS position to a well-diversified asset pool of a bank causes a larger

¹³ The IRB risk weight proposed by the Commenting Parties for certain positions may exhibit a bias in favour of banks' adopting the SFA approach over the RBA. We would not object to such a bias from a policy standpoint, as it encourages banks to develop adequate internal risk analysis (and management) resources to qualify for SFA use.

marginal contribution to portfolio risk (defined as EL + UL) than adding one additional corporate position to that same pool.

For several reasons, no regulatory capital distinction should be made on the basis of loss given default assumptions for like-rated ABS and corporate positions,¹⁴ and no regulatory capital distinction can or should be made on the basis of marginal contribution to portfolio risk. We discuss each of these issues in turn below.

a. Loss given default assumptions

Loss given default assumptions for ABS should be no greater than those for like-rated corporate positions for several reasons.

i. Rating agency approaches

Rating agencies employ approaches that vary in a number of respects, both internally between their respective corporate and structured finance departments and products and externally between the rating agencies themselves. Yet, as we have explained in detail in earlier comment letters, the methodologies behind both corporate and structured finance ratings yield fundamentally comparable results, despite these differences in approach. Moreover, the market treats such ratings as comparable generally and, as you have confirmed to us during our earlier Roundtable, so generally do banks' internal economic capital models. The final Accord should do the same.

We urge the Securitisation Group not to ignore important adjustments included in the rating agencies' analyses in order to justify higher capital weights for ABS positions. Both corporate and ABS ratings have, for a starting point a given rating level, which is then notched up or down depending on a number of criteria. The starting point for corporate ratings assumes that the corporate has only one type of liability backed by all of its assets. The differentiation for notching depends on the seniority of each liability type, the expected recovery levels and their allocation across the capital structure, the thickness of each tranche and the amount of cushion below the position. In other words, while the starting rating may be based either on probability of default or expected default of the company's obligation, depending on the rating agency supplying the rating, the ratings along the capital structure reflect the expected levels of recoveries on the underlying asset base of the company.

The starting point for an ABS rating is the average credit quality of the pool of assets that are backing the issuance of the particular ABS tranche. The different levels of the capital structure of the ABS position are effectively notched up or down based on the prioritisation of the cash flows in the transaction, including those from recovery on defaulted assets in the pool. In fact, such recoveries are not only considered in terms of their nominal level, but also in terms of timing. Accordingly, the ABS rating reflects the probability of default along with recovery values, and depends on the tranche's position in the capital structure and its size relative to the total capital structure and the tranches below it.

¹⁴ Our statement is applicable to portfolios comprised of corporate positions compared with ABS backed by corporate positions. The same would be true for retail portfolios comprised of retail positions compared with ABS backed by retail positions.

The differences between corporate and ABS ratings focus on what is actually being rated (an ongoing entity versus a defined pool of assets), the time horizon of the rating (several years versus maturity), and the nature of the ratings process (more qualitative versus more quantitative). Corporate ratings are given *ex-post* – that is they are sensitive to developments in the markets and within the subject company. Corporate ratings are assigned to companies as going concerns, which makes it difficult to determine their horizon, but generally they are assumed to be valid for a two- to three-year period. Corporate ratings can be both issuer and issue specific. They tend to be more qualitative in nature. They tend to be more stable for investment grade companies and more volatile for below-investment grade companies.

ABS ratings are assigned *ex-ante* – that is to a large degree they reflect the characteristics of a given pool of assets, structural features and desired ratings level. They are deal specific and have the time horizon of the given transaction. They tend to be more quantitative in nature, as they reflect the credit characteristics of a given pool of assets which can be easily quantified.

ii. Structural comparability

Second, like-rated corporate and ABS positions are also broadly comparable structurally. Such a result is not surprising, given that rating agencies factor capital structure into ratings analysis to varying degrees. If anything, ABS positions are structured to exhibit less structural variation and less unexpected loss, justifying less regulatory capital for those positions compared with corporate ones.

First, rating agencies analyse six levels of subordination for corporate positions, each with its own assumed loss rate. The tables below illustrate the subordination levels analysed for corporate positions by one major rating agency. Such a subordination structure is very similar to the range of capital structures for ABS transactions.

Class of Debt	Av.Recovery	Loss Severity (as % of par value)	Loss Severity Relative to Senior Sub. Debt
Sr.Secured	64%	36%	-30%
Sr.Unsecured	49%	51%	0%
Sr.Subordinated	28%	72%	40%
Subordinated	22%	78%	52%
Jr. Subordinated	17%	83%	62%
Preferred Stock	5%	95%	85%

Second, corporate and ABS positions are also broadly comparable in their leverage and tranche thinness. The Securitisation Group has assumed that the junior tranches of ABS transactions are generally thin in comparison with the senior tranches and overall liabilities. While such an observation may be accurate for some securitisation transactions in nominal terms, we disagree with it in relative terms compared to corporate positions. Lower rated high-yield corporate positions often reflect very high levels of leverage and are also relatively thin.

Extensive data consisting of select corporate capital ratios using Standard & Poor's creditstats (see table below) supports our point that corporate positions are just as highly leveraged and relatively thin as like-rated ABS positions. For example, the table below shows that for the

selected group the average total debt to market equity value of B-rated corporates is about 680%.

We also draw your attention to the extreme variability for speculative grade corporate bonds. The same ratio of total debt to market equity value for B-rated corporates in the table varies, depending on the corporate issuer surveyed, by over 7,600%! In other words, despite the same rating, such fundamental risk determinants as leverage and capital structure of BB- or B-rated corporate bonds differ dramatically.

Standard & Poor's Comparative Ratio Analysis									
Long term Debt: Creditstats/Industrials									
5 Year/%	Total Liab/Net Worth			Total Debt/Mkt Value Equity			Total D/Mkt Capitalisation		
	Mean	Variability	Median	Mean	Variability	Median	Mean	Variability	Median
AAA	175.6	220.4	110.2	9.6	16.6	3.4	7.3	10.7	3.3
AA	159.6	92.3	152.8	14.6	16.6	10.6	11.6	8.9	9.6
A	221.1	301.8	151.4	28.8	39.7	19.1	18.8	13.0	16.1
BBB	225.6	375.7	163.2	48.8	42.5	40.0	28.9	15.0	28.8
BB	323.8	894.8	222.8	105.0	101.9	84.5	43.7	19.0	45.8
B	(629.4)	9224.9	204.9	680.9	7609.9	92.3	46.3	25.2	48.0
CCC	139.0	2531.3	177.7	166.2	138.2	140.7	52.4	23.3	58.4
Source: Standard & Poor's									

In fact, lower-rated ABS positions are structurally significantly less variable than similarly subordinated corporate positions in several respects. As shown in the table above, variability in corporate leverage can be remarkable. In comparison, the capital structure of an ABS transaction is determined at inception, unlike corporate structures which are permitted to vary dramatically from company to company, industry to industry, and even (to an important degree) over time at the same company. In addition, structuring eliminates event risk¹⁵ to a greater degree from ABS positions than from corporate positions. Finally, and significantly, the majority of ABS bonds are amortising, delevering their capital structure over time, unlike corporate bonds.

The structural reliability of ABS positions argues for a lower LGD than corporate positions, all other factors being equal. This view is borne out by standard CDO models. For example, if a BB corporate position is in default, the bank holding that position will expect to recover only part of its investment. However, CDO modelling shows that, if corporate bonds in a

¹⁵ Such as environmental or industrial accidents, hostile takeovers and similar operational or other external events.

CDO default, the expected result is simply a downgrade of the BB position but not necessarily a loss.

iii. Data

Third, we believe it is time to conclude that ABS has performed far better than like-rated corporates, even over the two severe economic downturns included in recent ABS transition studies.¹⁶ Not only is there little evidence that lower-rated securitisation exposures carry greater risks than like-rated corporate positions, but the available data suggest the opposite. As mentioned above, a significant amount of data covers two severe economic downturns – one in the early 1990s and the other over the past two years. These data consistently establish the better overall performance of ABS positions compared with like-rated corporates.

Rating agencies have said that ratings transitions may converge over time for like- but lower-rated corporate and ABS positions. This is an implicit acknowledgement that ABS positions are currently structured more conservatively in order to achieve their ratings than like-rated corporate positions and there is no evidence of convergence to this point in time, notwithstanding the approximately 15 year history of the ABS market.

Indeed, we believe it likely that ABS ratings will always be more stable than corporate ratings because the former are based on quantitative analysis and the latter on qualitative analysis. Quantitative analysis will over time always out-perform qualitative analysis.

b. Marginal diversity benefits

In last year's Working Paper on Securitisation circulated in October 2001 (the "WP 1") the Securitisation Group introduced the claim that adding one corporate position to a typical bank's portfolio would create greater marginal diversification benefits compared with adding one ABS position, and that, therefore, the ABS position should attract higher regulatory capital. This year, in WP 2, the Securitisation Group seeks to justify greater capital for lower rated ABS positions by claiming that one additional ABS position will contribute more to portfolio risk than one additional corporate position.

For several reasons, no regulatory capital distinction can or should be made on the basis of marginal contribution to portfolio risk. The various assumptions underlying such a claim are not, in our view, accurate.

i. Characteristics of actual portfolios

First, based on our observation of both ABS and corporate portfolios, we do not believe that the marginal diversification benefit from adding one corporate loan to a typical bank portfolio will be as great as the Securitisation Group has assumed. Many banks hold portfolios of corporate assets that can be skewed to the largest customers, with a considerable percentage of the exposure being concentrated in a limited number of names. We need only look at the

¹⁶ See, e.g., "European Asset-Backed Transactions Transition Study 2001: Volumes Rocket Yet Stability Remains," Standard & Poor's, 14 February 2002; "Structured Finance Rating Transition Study," Fitch, May 8, 2002; "Credit Migration of CDO Notes, 1996-2001," Moody's, February 27, 2002.

events of last year to see that the systemic downturn has again resulted in loan portfolio losses concentrated in a few big names (Enron, WorldCom, etc.). This suggests that the addition of marginal corporate positions to corporate portfolios may contribute more *systematic* risks than the Securitisation Group has presumed in its arguments (rather than reducing risks greatly through further diversification).

This observation argues that the implicit scaling factors reflected in the RBA risk weights are too high.

ii. No correlation

Second, we do not believe that a major assumption in the Proposals – that the systematic factors affecting one ABS asset class will affect all other asset classes to a high degree of correlation – is accurate based on data on historical charge-offs.¹⁷ Instead, even when looking at broad indices of charge-off behaviour, the correlations of charge-offs across asset classes are almost statistically insignificant.

The following tables display correlation information on charge-offs across home-equity, auto loan and credit card ABS positions (provided by Moody's indices), as well as Federal Reserve data on C&I loan charge-offs. Even over long periods of time, the correlations are mostly insignificant. Over some selected shorter periods, there are some non-zero correlations among the indices, but they are modest and suggest that investment in these ABS asset classes represent a *diversification* opportunity.

From this data, one could conclude that adding even a senior structured ABS note to a broad portfolio of assets would result in a marginal diversification *benefit* not unlike the addition of a single corporate loan. The data does not support the Securitisation Group's claim that the addition of one ABS security does not provide any diversification benefit. Accordingly, the data below is further evidence that the scaling factors implied by the RBA risk weights are too high.

¹⁷ We expect to discuss with you at the upcoming Roundtable between the Securitisation Group and the Commenting Parties the extent to which charge-off data should be viewed as a valid proxy for asset returns.

**CONSUMER ASSET BACKED INDICES
 CORRELATIONS OF CHARGE-OFF DATA¹⁸**

Home Equity vs. Auto Loan vs. Credit Card vs. C&I Loans

12/1996 – 3/2002

Correlations not statistically significant @ 95%*

	Home Equity	Auto	Credit Card	C&I Loans
Home Equity	1.00	0.15	-0.45	0.30
Auto	0.15	1.00	0.07	0.23
Credit Card	-0.45	0.07	1.00	-0.13
C&I Loans	0.30	0.23	-0.13	1.00

* except for negative credit card / home equity correlation, and modest C&I Loan to Home Equity correlation

4/2000 – 3/2002

Correlations not statistically significant @ 95%*

	Home Equity	Auto	Credit Card	C&I Loans
Home Equity	1.00	0.35	-0.30	0.12
Auto	0.35	1.00	0.29	0.76
Credit Card	-0.30	0.29	1.00	0.55
C&I Loans	0.12	0.76	0.55	1.00

* except for auto and credit card to C&I correlation

Auto Loan vs. Credit Card vs. C&I Loans

1/1992 – 3/2002

This long term correlation is statistically significant, but modest in magnitude given that these are indices

	Auto	Credit Card	C&I Loans
Auto	1.00	0.52	0.15
Credit Card	0.52	1.00	0.28
C&I Loans	0.15	0.28	1.00

* auto to credit card correlation statistically significant

Rolling 2-yr snapshots

Mostly insignificant correlations when viewed in rolling 2-year windows

Ending	Correlation	Significance
Dec-93	45%	Signif.
Dec-94	-10%	Not signif.
Dec-95	-25%	Not signif.
Dec-96	33%	Not signif.
Dec-97	-8%	Not signif.
Dec-98	-56%	Signif.
Dec-99	14%	Not signif.
Dec-00	28%	Not signif.
Dec-01	24%	Not signif.

Sources: Moody's US Credit Card Index, 3/2002; Moody's US Home Equity Index, 3/2002;

Moody's Prime Auto Loan Credit Indices, 1Q02 Update; www.FederalReserve.com data on C & I Loan Charge-offs

iii. Negligible incremental marginal effects

Third, the differential contributions to portfolio risk obtained by adding either an ABS or a corporate position to a large, well-diversified portfolio are in any event so negligible as to be irrelevant. Data show that, for asset pools comprising only a few hundred positions or so, each rated approximately BBB or BB, the marginal contribution to diversity gained by adding another position begins to approach zero. This inflection point differs depending on the rating of the assets, but at no time does it exceed about 500 for assets rated approximately Ba or Baa. Of course, the portfolios of typically active banks contain positions numbering in the millions, not just the 500 or so at which measuring marginal diversity contributions become meaningless.

¹⁸ We note that the correlations for lower-rated tranches are even less than the correlations for more senior tranches – exactly the opposite of the Securitisation Group's assumption in WP 2.

A recent article by Morgan Stanley analysts¹⁹ provides the following data: At a 1.5% cumulative default rate – which corresponds to Moody’s idealised five-year cumulative probability of default for a Baa2 rated portfolio – the inflection point is approximately 150 credits while the “sweet spot” where the addition of further credits produces negligible further diversification benefits is approximately 300 credits. At a 2.5% default rate, the inflection point is approximately 190 credits and the sweet spot is approximately 400 credits. At 3.5% default rate, the inflection point is approximately 210 credits with a sweet spot of 500 credits.

Even if positions are added to typical bank portfolios that are not already well diversified, the sheer size of those portfolios means that distinctions between marginal contribution to portfolio risk are so close to zero as to be meaningless.²⁰

In summary, for the reasons described above, no regulatory capital distinction can or should be made on the basis of marginal contribution to portfolio risk.

3.4. Inferred ratings

We have several comments regarding the proposals regarding inferred ratings. First, banks should be entitled to infer the same rating from any *pari passu* rated tranche in the same transaction. As long as the bank can satisfactorily demonstrate that the position is structurally *pari passu* to the unrated tranche in all respects, it should be entitled to assign the same rating to the unrated tranche as is held by the rated tranche. Such a rule would be of great importance, for example, in establishing the appropriate risk weight for an unrated liquidity facility that is structurally *pari passu* in all respects to a rated position.

Second, we request that the Committee confirm that payment of current interest to holders of a rated subordinated position (absent default) will not jeopardize a bank’s ability to infer a rating for the senior position on the ground that such a provision would render the rated position as not being “subordinate in all respects” to the unrated position. Comparable allowances will also need to be included for *pari passu* positions.

We also believe that inferred ratings should also be permitted in the case of traditional securitisations under the standardised approach and to banks for synthetic securitisation transactions. There is no sound reason to deny such banks the opportunity to use perfectly reliable ratings to determine the regulatory capital on a position that is senior or *pari passu* in all respects to the rated position. There are no risk management issues involved (the benchmark position is externally, not internally, rated) and, in the case of standardised banks, they continue to have more than sufficient financial and other incentives to move to IRB qualification.

¹⁹ Derivatives Week, August 5, 2002.

²⁰ In the case of highly idiosyncratic pools, the marginal diversification benefits might be greater and the inflection point and sweet spot higher. However, extremely idiosyncratic pools should, for obvious reasons, be discouraged by regulators – but under supervisory oversight powers rather than the capital rules that are generally applicable to all banks’ portfolios.

3.5. Other RBA comments

a. Treatment of originating banks

As mentioned above, originators should not be required to deduct non-investment grade positions while investors get different treatment – the risks are the same irrespective of who holds the position or whether it was acquired or retained. The final Accord should provide that both investors and originators should be entitled to assign regulatory capital to non-investment grade positions on the basis of the rating, if they elect to do so.

b. Operating criteria for external ratings

We have two comments on the operating criteria for use of external ratings. First, the Committee should eliminate the requirement that only published, public ratings qualify. The practice of private ratings and ratings that are only made available to limited parties in a transaction have been developed to meet legitimate confidentiality and other needs. That a rating is not published does not indicate that it is any less reliable. If this is the Committee's concern, it should not continue to recognise that ECAI. If the Committee's concern is being able to track transition rates, it should require that the relevant party must consent to the inclusion of such rating in reports provided to regulators as a condition to the rating qualifying for use in the standardised or IRB approaches to securitisation.

Second, the Committee should eliminate the requirement that a bank cannot use one ECAI's rating for one or more tranches of a securitisation and another ECAI's rating for other positions. Certain ECAs will specialise in certain types of tranches (such as subordinated or "equity" tranches in certain sectors), and they may be asked to rate only certain tranches in a transaction. That two or more ECAs have provided ratings in a particular transaction does not mean that any of the ratings are any less reliable. If the Committee is concerned about the reliability of an ECAI's ratings, it should not continue to recognise that ECAI.

The Committee should not be worried about "ratings shopping" as a result of either such change. We believe that each of the main rating agencies would confirm to the Committee, if asked, that there is no reason to expect any meaningful variation in ratings between agencies, and that no specific rating of a specific agency should be viewed as unreliable, if one or more tranches in a securitisation were rated by more than one rating agency.

c. No ECAI oligopoly

Finally, it is crucial that the Accord recognise ECAI's in a manner that is entirely consistent and reliable but will not create or reinforce an oligopoly among them.

4. SUPERVISORY FORMULA APPROACH

4.1. Significant burden

The QIS 3 process demonstrates that the formulas comprising the SFA are too complex and burdensome. Additional complexity should only be justified by a meaningful increase in accuracy (for example, by including a significant risk that would otherwise be ignored).

The complexity of the SFA formulas has had several effects. First, it has unduly strained and will (unless adjusted) continue to strain the resources of banks as they determine regulatory

capital for their securitisation exposures. Second, we suspect that the complexity of the SFA formulas has caused QIS 3 to produce data that may not be comparable between banks in significant respects. Despite everyone's best intentions, there is a significant risk that banks had difficulty applying the SFA rules to their positions, particularly where the rules were not entirely clear or were not sufficiently ready to be applied. Because these uncertainties in applying the SFA formulas may not have been resolved by banks in a uniform manner during the QIS 3 process, inconsistent data may have been produced. Until there is reliable data, the SFA formulas should not be finalised.

We are convinced, however, that these resource and consistency concerns can be resolved if the proposed SFA formulas are adjusted. We have made some proposals in that regard in Item 4.4 below. Not only will the proposed adjusted formulas produce risk-sensitive capital weights consistent with the Committee's reliability requirements, but they will be *significantly* easier to use.

4.2. Internal models

We believe that the Committee and the Securitisation Group both share our view that the ultimate goal is to permit banks to adopt and use internal models for determining regulatory capital for their own securitisation exposures. We understand that the Committee has not yet endorsed this approach, contrary to the greater freedom given to banks to provide key inputs under the IRB for corporate exposures, because it is not convinced that banks can assess correlation effects within underlying asset pools.

We respectfully disagree with the Committee's position, and ask that the Committee not only clarify the basis for its conclusions in light of current practice (see following) but also identify the steps needed in order for banks to be permitted to provide internal inputs for ABS positions under IRB.

Banks that have sufficiently sophisticated internal credit risk models are in the best position to analyse the risk of a position. 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. We are convinced that these and many other banks could demonstrate conclusively their capacity to analyse the credit risk of all securitisation exposures with equal reliability.

As a result, we recommend that banks be permitted to produce their own internal ratings generated from recognised rating agency models or an internal approach that can be demonstrated to be equally conservative. The ratings can then be used to derive the PDs and LGDs for the regulatory model.

If the Committee prefers to take an interim step before introducing full internal modelling, we have made a proposal below that would work currently.

As the Committee has recognised by endorsing an external ratings-based approach for both corporate and securitisation exposures, rating agencies are able to assess, to a sufficiently reliable standard, credit risks on securitisation exposures pursuant to their own risk assessment models. Banks, particularly those sophisticated banks active in the securitisation markets, are entirely able to adopt and use with equal reliability one or more rating agency models and other models and methods of analysis which are demonstrably equally reliable to assess such positions as well.

As a result, we propose that each IRB bank be permitted to provide internally determined inputs into any one or more risk assessment models used by recognised external credit assessment institutions and models and methods of analysis which are demonstrably equally reliable (“*Approved Models*”) to determine regulatory capital for such bank’s securitisation exposures, provided that such bank has received specific approval from its regulator to do so. Such approval would be subject to such regulator’s complete satisfaction with such bank’s ability to apply such Approved Model(s) in a reliable manner. If the Committee deems it necessary to prevent internal “model shopping” by banks, rules could be adopted comparable to those applicable where more than one external rating of a securitisation position exists.²¹

4.3. SFA formulas generally

Provided that the simplified model underlying the proposed SFA formulas is consistent with our analysis in Annex D, we agree with the conceptual correctness of the approach, noting its consistency with the IRB for corporate positions.²²

The proposed SFA formulas appear to be the result of a two-step process.²³ First, the key concepts of the IRB corporate approach appear to have been applied consistently to the case of securitisation exposures using a reasonable underlying model. Our analysis of that model is presented in Annex D. Second, it appears that a number of add-ons have then been developed and applied to the simplified model to give the complex SFA formulas actually presented in WP 2 and the QIS 3 Technical Guidance. Our analysis of the add-ons is set out in Item 4.4 below and in Annex E.

4.4. Add-ons

The proposed SFA formulas contain a number of additional factors that should be eliminated in their entirety or at least modified significantly to achieve a workable version of the SFA. These add-ons not only inflate the regulatory capital burden on banks without any reasonable basis, but also render the proposed SFA formulas too complex and burdensome to apply in practice. The revised formulas proposed in this section are also complex, but no more so than for the IRB for corporate positions.

The simplified SFA model referred to in Item 4.3 above and described in Annex D is obtained with no artificial deduction for all positions below K_{IRB} (by setting the omega (ω) factor at infinity), a floor (the h factor) of zero, the beta (β) factor at zero, and the tau (τ) factor at infinity. Regulatory capital calculated pursuant to the adjusted SFA formulas achieves a regulatory confidence level of 99.9%.

²¹ See, e.g., paragraphs 58 to 60 of the Technical Guidance for QIS 3 (the “*QIS 3 Technical Guidance*”).

²² It appears that the Committee and the Securitisation Group intend the model underlying SFA to be consistent with the IRB for corporates. See, e.g., WP 2 at paragraph 38.

²³ We welcome the paper entitled “Capital allocation for securitizations with uncertainty in loss prioritization” by Michael Gordy and David Jones dated December 6, 2002 (“*Gordy and Jones*”), although we have not had an opportunity to analyse Gordy and Jones in the detail we would have liked prior to the finalisation of this comment letter. The paper provides helpful insight into certain aspects of the SFA formulas (such as the h factor). Based on our initial review of Gordy and Jones, we believe our observations regarding the SFA formulas in this comment letter and Annexes D and E continue to be accurate.

We have discussed each of these add-on factors in turn below. In addition, we have included in Annex E a numerical analysis showing the incremental effect of these add-ons to the regulatory capital burden.

a. Deduction below K_{IRB}

As the Securitisation Group is aware, the simplified SFA model does not lead to deduction from capital for positions below K_{IRB} . A deduction for positions below K_{IRB} was only first suggested a little over a year ago in WP 1. We strongly recommend that the Committee adopt the simplified SFA model with respect to this and the other features described below.

Insistence on deducting from capital positions below K_{IRB} has not one but two material costs to banks applying the SFA:

- As with all of the add-ons, it results in an additional capital charge over and above the levels of prudence built into K_{IRB} and the simplified SFA model.²⁴
- Of equal importance, it greatly increases the complexity of the SFA formulas.

The first point is self-explanatory. To enlarge on the second point, we note that in addition to the messy division of the risk weight formulas into regions, and the requirement to separate positions straddling K_{IRB} , the proposed omega (ω) add-on, set at 20 rather than infinity, is needed specifically to ensure that marginal capital immediately above K_{IRB} is set at 1 (*i.e.*, to ensure continuity of marginal capital). If positions below K_{IRB} were not artificially deducted then there would be no need for this add-on, whose effect on capital levels as such is usually insignificant (see Annex E). However, the benefit to simplicity is enormous.

b. Floor

There is no reason to adopt a floor. The simplified SFA model will yield an accurate and appropriate capital weight for all positions from the most junior to the most senior. The floor should be dropped.

If the Committee elects not to adopt our recommendation and eliminate the floor altogether, we suggest that it need not be implemented in the complicated way proposed in WP 2. It would be much preferable to have regulatory capital determined pursuant to the simplified SFA formula, and then simply provide that the capital charge on any securitisation position cannot in any case be less than the floor times the notional amount of such position (times any conversion factor, if appropriate).

The floor could be applied in this manner at the end of the capital calculation, whereas the implementation of the floor in the current SFA proposals requires calculation of “L*” – the point at which the SFA and the floor join up. This approach in turn requires the “solver add-on” approach using the supervisory spreadsheet, and all the attendant complexity.

²⁴ We note incidentally that, were it not for the full deduction of positions below K_{IRB} , the tau (τ) factor and the floor (h) described below would simply redistribute capital from below K_{IRB} to above it.

Our suggestion may produce a result that varies slightly from the proposed SFA formulas in some cases, but the difference is insignificant. However, the benefit to simplicity is, once again, enormous.

c. Tau (τ) factor

The tau (τ) factor has been described by Gordy and Jones²⁵ as present to account for uncertainty in the distribution of payouts. While this is an interesting concept, we note that no peer review has established the tau factor as an appropriate model of this uncertainty.

As with the other premia, the tau factor does not produce extensive changes to the amount of capital assessed against a particular position, and as such is not needed in order for the base SFA formulas to produce regulatory capital that is sensitive to the risks of the relevant positions and should be dropped. However, the benefit to simplicity to dropping the tau factor is, once again, enormous.

4.5. Calculation of K_{IRB}

A number of banks have noted that K_{IRB} is up to twice as high as their economic capital for certain positions, particularly retail positions. The assumptions underlying the determination of K_{IRB} are, in those cases, too conservative, and the unduly high capital resulting from the determination of K_{IRB} in those cases ripples through the SFA formulas in a snowball effect to produce capital for securitisation positions that is excessive. We have identified below some of the reasons why the rules for determining K_{IRB} might result in regulatory capital in excess of economic capital so that these effects can be eliminated or adjusted.

First, banks and the proposed Accord deal with expected losses differently. While regulators want to increase capital to cover some expected as well as the unexpected losses in positions, banks deal fully (and prudently, in their view) with expected losses through the levels of their margins, their loan loss provisions and the size of the first loss position they demand in specific transactions. In addition, the average correlation assumption relied on by K_{IRB} may be higher overall than the specific correlation assumptions customarily applied by banks to each of their credits, thereby overstating that factor.

One final observation. Because the Securitisation Group has benchmarked its RBA capital levels using preliminary internal SFA results, reductions in the base regulatory capital represented by K_{IRB} , as well as the adjustments to the SFA formulas, all as recommended above, should be followed by reductions in the capital weights under the RBA.

4.6. Floor lower

The Securitisation Group has proposed a floor that will impose regulatory capital even in the case where the SFA formulas unequivocally provide a lower level of regulatory capital. While any decisions about the appropriate level of a floor are difficult because they relate to truly negligible risks, there is no doubt that the proposed floor of 56 basis points is excessive

²⁵ See, Gordy and Jones at page 3.

and should either be eliminated as we have proposed in Item 4.4(b) above or at least be reduced to no more than a few basis points.

First and foremost, there is no minimum LGD for *corporate* exposures under the advanced IRB approach, resulting in a floor of only a few basis points for such positions (*i.e.*, the result capital from applying the 0.03% minimum PD under paragraph 244 of the QIS 3 Technical Guidance). This is to be compared to a proposed floor for securitisation that appears to be the equivalent of a PD of 0.015% (or half that of the minimum corporate PD) but an LGD equal to an astounding 45% – and this for the most *senior* positions in securitisation transactions (*i.e.*, the positions for which a floor might be relevant). At very low LGDs, which given the structural characteristics of senior securitisation positions are more appropriate, the floor for securitisation exposures drops to a few basis points.

Moreover, it would be astonishing, as the Securitisation Group's proposals for the floor seem to imply, that the most senior positions in securitisation transactions, with layers of loss protection beneath them, should suddenly exhibit higher losses (*i.e.*, have higher LGDs) than the corporate positions underlying them (that have no minimum LGD), solely because those corporate positions had been securitised. Instead, the Securitisation Group should acknowledge that the floor for senior securitisation positions should, if anything, be significantly lower than the floor for the corporate exposures underlying such securitisation positions.

Second, during the QIS 3 process, the SFA formulas as applied by a number of banks regularly produced required capital at the floor. Although such a result is not surprising given the foregoing, it certainly provides concrete empirical evidence that the floor has been set at an inappropriately high level.

A much lower floor is entirely appropriate and consistent with bank behaviour currently. While banks may hold higher economic capital in certain cases against certain positions, that is due to the risks inherent in those positions (whether due to credit risk or, in some cases, market risk). We have little doubt that the SFA formulas will also produce higher capital – above the floor – for certain positions where such higher capital is deserved according to the inputs. However, that does not justify applying an excessively high floor to every position.

A much lower floor is also justified theoretically. In the case of higher-rated more senior tranches where the floor may be relevant, the risks the floor will be covering are probably entirely unexpected losses because the expected losses will be covered (usually, several times over) by the margin and the underlying tranches. In such cases, it would be reasonable for the floor to be no greater than the floor of a few basis points for corporate positions, which has been recognised by the regulators as the level of “background” UL risk that should be covered by the capital rules.

4.7. Other SFA comments

In addition to the points discussed above, we have the following additional comments on the SFA.

a. Hierarchy of approach

Banks qualifying for the SFA should be entitled, but not obligated, to use the SFA formulas to determine regulatory capital for any position, whether above or below K_{IRB} or straddling it. In short, there should be no reason to believe – and the hierarchy of approach should not sug-

gest – that either the SFA or the RBA is more accurate or otherwise better than the other in any respect at any risk level. Given the essential comparability of the SFA and RBA (once finally calibrated), banks should be have complete freedom to decide when either approach should be used.

The Committee should not be concerned that banks will select the regulatory capital method most suitable to them for any particular position, because once the calibration adjustment to each of the SFA and the RBA have been made with they should both yield reliable – and essentially comparable – results.

b. Cap at K_{IRB}

The Securitisation Group suggests that the proposed cap on K_{IRB} should only be available to a bank that can calculate K_{IRB} on the underlying pool. A comparable cap on regulatory capital should be available to all banks under all circumstances. There is no good reason why any bank should be required to hold more capital against a position after it has been securitised than the bank would have held had the securitisation not occurred. To require otherwise suggests that one or the other of the regulatory capital approaches to securitisation positions is unreliable to some degree – a suggestion that is neither justified nor desirable.

However, there are very good reasons why securitisation should not result in additional regulatory capital – the foremost of which is to remove any disincentive to securitise. The Committee has already recognised this rationale²⁶ and should extend the protection of a cap to each securitisation participant.

c. Top-down approach

We welcome the proposed top-down approach, but believe that certain of the conditions to its availability described in a working paper circulated to certain market participants²⁷ are unduly restrictive and burdensome and should be adjusted.

For example, the requirement that the remaining maturities of the receivables are not greater than one year (unless they are fully secured by collateral) excludes without good cause many important asset types, such as floor plan receivables, insurance premium finance receivables, some seasonal trade receivables, agricultural receivables, corporate credit cards and SME loans, to name just some. More importantly, as most conduits own a mix of assets (many of which do not meet the proposed standard but are nevertheless highly statistically reliable), the proposed maturity limitation would have the highly disruptive effect of denying the top-down approach to the vast majority of banks with exposure to such conduits. Such a result would also effectively prevent sponsor banks from managing their conduit exposure by syndicating liquidity to third parties.

²⁶ WP 2 at paragraph 17.

²⁷ “Rules for Purchased Receivables,” draft dated 24-1-2002; “Report to the Models Task Force: Summary of Industry Comments and Proposed Work Plan Relating to Top-Down IRB Treatment of Purchased Receivables,” 29 January 2002; and WP 2 at paragraph 11.

As a result, we recommend that there be no restrictions on the remaining maturities of receivables in order to use the top-down approach, so long as the performance of the pool is determinable to a sufficiently reliable level.

In addition, the proposal that the receivables must be purchased only from third-party sellers (and cannot be originated by the relevant bank) would prevent use of the top-down approach in many customary circumstances where the top-down approach would, again, yield entirely reliable results. For example, where a non-sponsor bank provides credit enhancement to a conduit and has also sold assets to that conduit, that bank will not have the necessary information to use the bottom-up approach. However, there is no reason to presume in this case that the top-down approach yields results that are any less reliable than had the credit enhancement provider not sold any assets into the conduit. Should the Securitisation Group have continuing concerns that banks might use the top-down approach in circumstances where the bottom-up approach is possible, it may want to consider imposing a maximum concentration of “own receivables” in the case of any conduit to which a bank has some exposure.

Further, the requirement that “under all foreseeable circumstances the bank have effective ownership and control of the cash remittances from the receivables” 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 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.

Finally, we note that a number of banks found it difficult to apply the top-down approach during the QIS 3 process, citing the difficulty, among others, of evaluating the proxies for PDs for use in the SFA formulas. We suspect that not all banks made assumptions about those PDs in an entirely consistent manner.

d. Allocation issues

We request the Committee to confirm that, in determining capital under the SFA, programme wide liquidity and credit enhancement provided to an ABCP conduit would be allocated to

each transaction in the conduit on a pro rata basis, and that such allocation will not result in any duplicative capital charges.

5. LIQUIDITY FACILITIES

5.1. Generally

We have several concerns about the Securitisation Group's proposals regarding liquidity. First, the proposals seem to ignore many important structural and contractual features²⁸ of liquidity commitments²⁹ that should be taken into account when determining the appropriate level of regulatory capital for such facilities. Liquidity is very different structurally than credit enhancement and should be treated differently: among its several uses, liquidity addresses timing mismatches between an issuer's collections on good assets and its payment obligations, or replaces the funding of *good* assets, while credit enhancement is available to fund *bad* assets (to the limits available). Despite these differences, the SFA appears to treat liquidity and credit enhancement just as two positions on the same continuum. If the regulatory capital rules do not take these differences sufficiently into account, banks will have less incentive in future to incorporate distinguishing features into the relevant documentation, which we view as an undesirable policy result.

Second, the proposals do not take sufficiently into account the available evidence regarding the minimum risks inherent in liquidity commitments, data which covers nearly 20 years of ABCP conduit activity.³⁰ Separately from the effects on banks and the securitisation markets, unnecessarily high regulatory capital weights for liquidity will also lead to an increase in the cost of funding for corporate customers of ABCP conduits, and may possibly even exclude them from this important alternative source of financing altogether.

5.2. Calculation of capital

We propose two simple rules for the calculation of regulatory capital for liquidity that would apply to all liquidity commitments, whether determined pursuant to the Standardised or the IRB approaches for banks. These rules would apply whether the liquidity facility relates to a specific pool of assets funded by a conduit or to such conduit's entire securitisation programme. The first rule is described in this Item 5.2, and the second in Item 5.3.

First, the regulatory capital for "eligible" liquidity facilities (see Item 5.4 below) should be determined by multiplying (a) a conversion factor of 5% for commitments of one year or less (and 10% for commitments of greater than one year) times (b) the applicable risk weight of

²⁸ True liquidity typically benefits from (a) being an unfunded commitment subject to substantive funding conditions, including a "good asset" test, and (b) terms providing that draws on the facility (*i.e.*, assets acquired under a purchase commitment or loans made under a lending agreement) are generally not subordinated to the interests of investors and the fee charged for the facility are generally not subordinated or subject to waiver or deferral.

²⁹ References to "liquidity commitments" in this section should be interpreted to apply equally to "parallel purchase commitments" and similar asset purchase commitments.

³⁰ See the comment letter, dated May 31, 2001, by a group of banks (the "Commenting Sponsors") regarding the multi-seller ABCP conduits they sponsor.

the pool covered (determined as provided in Item 5.3 below) times (c) the notional amount of the pool covered.

As we have mentioned in earlier comment letters, there is significant theoretical justification for setting the conversion factor for liquidity facilities at zero or at a very low level. First and foremost, liquidity commitments are unlikely to be drawn, as the data referred to above amply demonstrates. Liquidity facilities provide back-up funding sources for the highly stable ABCP market, which is the primary funding source for multi-seller conduit transactions. The ABCP market has continued to function through significant upheavals that closed other markets, such as the Russian bond crisis for example, and only suffered a few days' disruption following the events of September 11, 2001. That continuity is strong evidence of the ABCP market's inherent stability.

Second, multi-seller conduit transactions have structural features designed to allow an administering bank to maintain the stability of a receivables pool and mitigate the effect of defaults, including frequent pool reporting requirements, amortisation triggers and audit mechanisms. Significantly, originators cannot unilaterally draw on these facilities. Instead, that decision is made by the conduit's administrator, or by the terms of the liquidity documents under specified circumstances, subject in each case to applicable conditions to drawing.

Third, liquidity commitments to multi-seller conduits employ asset-quality tests designed to ensure that the level of an outstanding commitment at any time does not exceed the availability of performing assets. The credit quality of the assets that would actually be funded under a draw on a liquidity commitment is enhanced by the diversity and isolation of the underlying receivables pools.

Fourth, liquidity commitments in multi-seller conduits have the benefit of the first loss position provided at the pool level as well as, often, the other credit enhancement.

5.3. Calculation of risk weight of pool

For eligible liquidity facilities, we propose that the risk weight of a pool be determined pursuant to the most appropriate of the two methods below. If the liquidity is provided against a particular asset pool, then the risk weight of the transaction pool would be:

- (a) under the standardised approach, 100% currently,³¹ and
- (b) under the IRB approach, the risk weight determined by the liquidity provider for such pool on the basis of the top-down approach or, if the bank is authorised to do so, on the basis of the bank supplying internal inputs for its Approved Models.

If the liquidity is provided on a programme-wide basis (*i.e.*, is available to the ABCP conduit), then the risk weight of the pool would be the weighted average risk weight for all of the asset pools comprising the pool determined as above.

We provide below two illustrations of how our proposal would work in practice:

³¹ That is, until banks' use of internal risk modelling is permitted.

- In the first example, assume that a standardised bank provides eligible liquidity in the amount of €100 million to a conduit. In that case, the capital required would equal the 5% conversion factor times the risk weight of the pool (which is itself equal to the 100% standardised risk weight times the required level of 8% capital) times the €100 million notional amount of the pool. That calculation yields required capital of €400,000 in this first example.
- In the second example, assume that an IRB bank provides eligible liquidity in the amount of €100 million to a conduit. Please also assume that the bank determines that the applicable asset pool has long-term rating equivalent of A, equivalent to a 50% risk weight. In that case, the capital required would equal the 5% conversion factor times the risk weight of the pool (equal to the 50% IRB risk weight times the required level of 8% capital) times the €100 million notional amount of the pool. That calculation yields required capital of €200,000 in this second example.

These risk weight calculation methods have the twin advantages of being simple to use and reliable. That they are simple is self-evident. They are reliable because they reflect the ratings of the pools covered and the credit enhancement that they contain.

As a final point, it would be inappropriate to assign a conversion factor of 100% to a liquidity facility that is rated. Rating agencies to date have not provided liquidity ratings that would qualify under the RBA. Hence, it would therefore be incorrect to assume³² that they would include the probability of draw into their rating. Moreover, the 5-to-1 differential between the proposed 100% conversion factor for rated facilities and the proposed 20% conversion factor for unrated facilities (or the even greater differential resulting from the conversion factor of 5% or 10% proposed by the Commenting Parties) is unwarranted, according with the rating agency representatives with whom we spoke on this issue. The representative of one agency said that they might just assume draw and then determine the appropriate rating, while another pointed out that only under very extreme and hypothetical circumstances would the likelihood of draw approach 100% as the Securitisation Group's proposal implies.

5.4. Eligible liquidity

We propose that eligible liquidity be determined on the basis of the following criteria only:

- (a) the liquidity facility contains a reasonable good asset test (as described in Item 5.5 below) based on a reasonably recent pool report;³³ and
- (b) draws on the facility (*i.e.*, assets acquired under a purchase commitment or loans made under a lending agreement) must not be subordinated to the interests of investors and the fee charged for the facility must not be subordinated or subject to waiver or deferral.³⁴

³² WP 2 at paragraph 47.

³³ This condition suggests a restatement of clause (d) of paragraph 528 of the QIS 3 Technical Guidance.

³⁴ This condition accepts clause (b) of paragraph 528 of the QIS 3 Technical Guidance.

The condition in clause (a) above ensures that the liquidity facility does not fund bad assets, in contrast with transaction-level or programme-level credit enhancement. Given the condition in clause (b), there is no need for a limitation on when liquidity can be drawn, whether before or after credit enhancement. As a result, the draw limitation in clause (c) of paragraph 528 of the QIS 3 Technical Guidance should be eliminated.

The Committee should also eliminate clauses (a) and (e) of paragraph 528 of the QIS 3 Technical Guidance in their entirety. Both are more appropriately covered by a reasonable good asset test as we have described in Item 5.5 below. In addition, references in clause (a) prohibiting liquidity from providing “credit support” are inappropriate and should be eliminated. First, such a requirement is not sufficiently precise and would cause unnecessary confusion. All commitments could be claimed to provide credit *support* (in some form or another) simply by being there, but because liquidity benefits from a good asset test it does not provide credit *enhancement*. The critical distinction between liquidity and credit enhancement is whether the facility may fund bad assets. Because eligible liquidity is subject to a reasonable good asset test, it cannot fund bad assets, meaning that a “credit support” prohibition is duplicative and should be eliminated.

Clause (e) of paragraph 528 of the QIS 3 Technical Guidance should be eliminated because it does not accurately describe the way that liquidity should actually be permitted to work. In the circumstance where the pool contains good assets but the average quality of the pool has dropped below investment grade, there should be no prohibition on liquidity being drawn to fund the good assets remaining in the pool based on a reasonably recent pool report. That liquidity facilities have generally functioned in this manner for many years – and yet draw rates have been less than 1% over more than fifteen years of data (see footnote 31 above) – is proof that the prohibition in clause (e) is not necessary from a credit standpoint. In addition, eligible liquidity is already subject to a good asset test, and to the extent clause (e) addresses that concern it is duplicative and should be eliminated.

5.5. Good asset test

The proposals should only prohibit the acquisition of exposures that are *defaulted* and should not be extended to criteria such as “deteriorated” or “past due.” Not only are the latter two criteria unworkably vague, but at least in the case of the “past due” criteria would unjustifiably exclude assets whose credit quality remains strong. It is very common, particularly in the case of trade and retail receivables, for some number of them to become past due during the normal course of their collection. While banks will take into account such delays in determining the appropriate discounts and reserves for funding costs, banks will typically only include defaulted receivables in the discounts and reserves for bad debts. We believe that the liquidity rules should also reflect this reliable and prudent approach. Historical data for liquidity facilities in conduits shows such an approach works – the only losses of significance to date have been due to fraud, not defaulted assets.

We further propose that defaulted receivables be determined on the basis defined in the relevant transaction documents. This standard has the benefit of higher risk sensitivity, as it is the result of arms’ length negotiations between bank arrangers and originators, and is subject to the review of the rating agencies that have rated the securities of the conduit.

5.6. Other liquidity comments

a. Term liquidity facilities

Our comments above relate to liquidity provided to ABCP conduits. However, there are also liquidity facilities for term transactions as well. Liquidity commitments in term transactions are customarily provided to bridge timing mismatches between receipts on the underlying assets and payments on the relevant asset-backed securities. Such facilities also customarily cover one or two interest payments, although they can sometimes cover one or two principal payments as well, but in no case do they cover the entire principal amount of the underlying assets as do many ABCP conduit liquidity facilities. Liquidity commitments in term transactions typically have no good asset test, but are repaid in a super-senior position to the asset-backed securities.

As a result of the foregoing, we propose that all liquidity commitments for term transactions bear a conversion factor of 0%.

b. Market disruption liquidity facilities

There should be no distinction between the treatment of liquidity that can only be drawn due to market disruption under the standardised and IRB approaches. Under the standardised approach, such facilities are entitled to a 0% conversion factor, whereas under the IRB approach they attract a 20% conversion factor.

There is no good reason for imposing a 20% conversion factor on such facilities under the IRB approach, and the Securitisation Group has offered no grounds for making such a distinction. The conversion factor should be zero under both approaches.

c. Permanent funding

The final Accord should clarify that the limitation that a facility “not act as a permanent revolving facility” is not meant to preclude liquidity treatment for short-term commitments that are renewed annually. We believe that so long as a short-term liquidity commitment is subject to full credit review prior to annual renewal, it would be inappropriate to consider it a “permanent revolving facility”. The fact that one or even multiple renewal requests are granted does not mean that anything less than a full credit review was done prior to such renewal. Nor does any one renewal suggest that the next request will automatically be granted. In fact, banks do refuse to extend their liquidity commitments from time to time. A commitment of one year or less, as opposed to a longer term commitment, genuinely reduces a bank’s potential credit risk by reducing the duration of its commitment.

At a minimum, if a regulator does not feel that a bank is conducting an appropriate annual review of the credit risk of a commitment, the end result should be that the commitment be treated as a long-term commitment not as credit enhancement.

d. Look-through and second loss exposures

Adoption of our proposals in Items 5.2 and 5.3 above will eliminate the need for the look-through and second loss exposure proposals in QIS 3.³⁵ If the Committee elects not to adopt such proposals fully in the manner we have proposed, the proposals on second loss exposures should be adjusted in certain respects. First, consistent with our comments above, second loss exposures should not need to be investment grade to qualify for RBA treatment. Instead, all positions rated B- or above should qualify for RBA treatment.

Second, second loss positions should not attract capital at the higher of 100% and the highest risk weight of any asset in the pool, because such a weighting would overstate the risks borne by the second loss position unless the LGD of the most risky positions equalled 100% and their nominal amount exceeded the amount of the underlying credit enhancement. Instead, second loss positions should be weighted at the average risk weight of the entire pool.

Where the first loss position(s) are less than the expected losses in the pool, the Securitisation Group might want to consider having the second loss position bear the average risk weight of the *adjusted* pool – *i.e.*, the pool remaining after removing a notional amount of the highest risk-weighted assets equal to the notional amount of the credit enhancement underlying the second loss position in question. However, while basing risk weights on the weighted average of an adjusted pool would be slightly more accurate than using the weighted average of the entire pool, we believe that the additional effort involved would not be rewarded with a comparable increase in accuracy. As a result, we believe that all second loss positions should simply be weighted at the average risk weight of the entire pool.

e. Disguised credit enhancement

We support the position that regulators should have the ability to require greater capital to be held for those commitments that they view to be disguised credit enhancement. We are concerned that the liquidity proposals have been formulated with the view that banks generally enter into liquidity commitments that are disguised credit enhancement. This is not the case, and the rules generally applicable to liquidity providers should not be formulated as though it were.

6. SYNTHETIC SECURITISATIONS

6.1. Generally

The data set out in Item 2.1 above and in Annex A below demonstrates the significant volume growth in synthetic securitisation transactions over the past decade. This data does not include transactions done on a private basis in non-funded form. We estimate³⁶ that, in Europe alone, aggregate transaction volumes for public and private synthetic securitisations easily topped \$130 billion in 2002.

³⁵ See the QIS 3 Technical Guidance at paragraphs 522 through 524.

³⁶ Source: Merrill Lynch.

Synthetic securitisation has indeed become an essential element in banks' risk management tool-kits. There are several reasons for this development. First, synthetic transactions allow banks to transfer exactly the risks they want rather than all of the assets and the risks associated with them. Banks value highly being more precise in their risk management techniques when they can be so. Second, synthetics are easier and less expensive to execute as risk management mechanisms. Banks also value greater efficiency when it is available to them. The capital rules should value that precision and efficiency equally.

6.2. Proposals discriminatory

Despite the benefits of synthetic securitisations compared with traditional cash transactions, the proposed Accord discriminates against synthetic transactions. Annex F compares 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. This charge is disproportionate with the effective amount of risk retained, considering that in practice broadly the same amount of risk has been transferred as in a cash transaction.

Applying the approach suggested by the Securitisation Group would therefore result in a notable inefficiency of synthetic transactions when compared to term cash or conduit transactions. Any such inefficiency should be corrected, since our understanding is that the intent of the new Accord is to create consistency of capital treatment based on economic substance, rather than the form of the transaction.

Although the discrimination described above arises principally because the proposed capital weights for super-senior positions are too high, reducing those risk weights is not the only means available to remedy this shortcoming. We have made several proposals in that regard in Items 6.3 and 6.4 below.

6.3. First loss position

Consistent with our position in Item 4.4(a) above, we believe that there should be no deduction from capital for first loss positions in synthetic transactions. Instead, the required capital for such position should be determined pursuant to either the RBA, if a rating is available, or the SFA formulas, as adjusted as proposed herein, in either case as the relevant bank may elect. Both methods of determining regulatory capital are reliable and should not be abandoned solely because the position is the bottom-most tranche in a transaction.

6.4. Super-senior position

Our comments in Items 4.4(b) and 4.6 above regarding cash transactions – *i.e.*, that the floor should be eliminated under the SFA or reduced to a few basis points – are even more relevant in the case of super-senior positions where the risks inherent in such positions are so minimal. We encourage the Securitisation Group once again to adopt more risk sensitive rules regarding the floor consistent with our proposals above.

We have several additional comments regarding the treatment of super-senior positions in synthetic transactions.

a. No hedge

Banks should be able to obtain more risk-sensitive capital weights for super-senior positions without needing to hedge them. We propose that originating banks be entitled to determine the regulatory capital applicable to a super-senior tranche pursuant to any of the following methods:

- If the position is rated, the holder should be entitled to rely on that rating to determine the capital charge.³⁷
- Alternatively, a bank should be permitted to determine inferred ratings for unrated super-senior positions not covered by eligible credit risk mitigation techniques (*e.g.*, credit default swap) or rated. If the capital charge is based on an inferred rating, we would agree that banks will need to comply with the operational requirements associated with inferred ratings as outlined in the QIS 3 Technical Guidance.

A look-through approach³⁸ might work in the event that the position is not rated or hedged, but only if it gives due recognition to the significant amount of credit protection underlying the super-senior position. A look-through approach that risk weights the super-senior position on the basis of the highest or even the average risk weights of assets within the pool would fundamentally overstate the residual risks of such position.

b. Risk weighting

The currently proposed capital weights for synthetic securitisations are excessive in light of the risks involved. The regulatory capital supporting super-senior positions addresses UL risks only, as all of the EL risks have been absorbed in the underlying tranches. Our analysis of the synthetic securitisation market suggests that the market also treats the risk of such transactions as minimal. Spreads on super-senior tranches are not only significantly lower than Aaa/AAA rated tranches of cash bonds backed by similar assets (averaging 8-15 basis points per annum, versus 15-75 basis points per annum, depending on the asset type), but tend to be insensitive to credit-related market events that affect other tranches. For the reasons set forth above, we recommend that all super-senior positions be entitled to a risk weight of 5%.

In addition, with respect to hedged super-senior positions, we strongly recommend that an additional conversion factor of 5% be applied to the underlying notional of hedged super-senior positions in recognition of the remoteness of the risk embedded in such tranches. This 5% conversion factor is consistent with our proposal below relating to joint default probability of two AAA obligors.

³⁷ There is no need to require a “clean break” sale of the senior position in order to permit an originating bank to rely on an external rating if there is one. There is no reason to believe that an external rating is any less reliable in determining regulatory capital than either a look-through approach or a determination of capital based on a hedge or other counterparty transaction.

³⁸ Or an approach equivalent to internal portfolio modelling.

6.5. Substitution approach³⁹

By merely substituting the risk weight of a guarantor or credit protection provider for the risk weight of the assets guaranteed or protected, the substitution approach to credit risk management produces economically unrealistic and onerous results. We have proposed below an alternative that we believe provides a more risk-sensitive capital treatment. Please note that our comments here apply equally to traditional cash transactions as well as synthetic transactions.

For banks not using an internal assessment of joint default risk, we propose the following rule for “qualifying” pairs of underlying and protection:

$$\text{Effective PD} = \text{Smaller of (Obligor PD, Protection PD)} \times (100\% - \text{haircut})$$

The haircut is a simple function of the default probabilities of the obligor and the protection provider only. No other information is needed, provided that the transaction involves a qualifying pair of transactions. In summary:

- haircuts can be obtained by considering joint default probabilities inherent in the IRB approach (for this special application the we have used a very prudent recalibration of the Committee’s proposals); and
- haircuts can be compared with joint default probability/joint rating estimates used by Moody’s, which show a similar relationship to the individual default probabilities.

We calculated joint default probability using the mathematical framework already in place in the IRB approach and a particularly prudent calibration factor. As a control, we then compared this approach with the methodology used by Moody’s, which gave similar results.

In our method, joint default probabilities are inferred from the IRB calculations. The IRB approach is currently calibrated using a realistic asset correlation $\rho = 20\%$, and the assessed default probabilities are sensitive to this parameterisation.

Recognising that an average correlation is not suitable for assessing individual pairs of exposures, which might tend to be more highly correlated than the average due to market dynamics, the working group have chosen a far more prudent calibration of $\rho = 50\%$, which is expected to cover all “qualifying” pairs of exposures regardless of their relative industry and geographical constitutions. The results are shown below.⁴⁰

Light shaded cells have PD’s above 50% but below 70% of the substitution approach. Dark shaded areas are those with a factor between 70% and 100%. The table has been divided into quadrants reflecting our division of the haircuts according to PD. The 0.7% PD level was

³⁹ The proposals contained in this Item 6.5 were originally proposed in the ISDA comment letter to Mr Oliver Page, Chair, Capital Group, Basel Committee on Banking Supervision, dated 3 October 2001.

⁴⁰ In comparing the detailed results to the haircut proposals, please bear in mind that the haircuts represent *one minus* the percentages shown in the table.

chosen to correspond with the calibration point used for the IRB approach in the new Accord, but the exact location of this point is not critical, as can be seen from the table.

PD	0.03%	0.10%	0.50%	0.70%	1.00%	2.00%	5.00%	10.00%
0.03%	3%	8%	20%	24%	29%	40%	59%	74%
0.10%	8%	5%	15%	19%	23%	34%	52%	68%
0.50%	20%	15%	10%	12%	16%	24%	41%	57%
0.70%	24%	19%	12%	11%	14%	23%	39%	55%
1.00%	29%	23%	16%	14%	13%	21%	36%	52%
2.00%	40%	34%	24%	23%	21%	17%	31%	47%
5.00%	59%	52%	41%	39%	36%	31%	24%	39%
10.00%	74%	68%	57%	55%	52%	47%	39%	32%

IRB Approach with $p = 50\%$. Joint PD as % of smaller PD (I.e. of substitution method)

Light shading indicates $H/C < 50\%$ should apply

The results, which are described in further detail in Annex G, indicate that it is natural to define two haircut levels, depending on whether the default probabilities of the obligor and protection provider are similar. To determine similarity for this purpose, a convenient cut-off point is $PD = 0.7\%$. This PD level has been chosen to correspond to the calibration point used for the IRB approach for corporate positions. The haircuts we have proposed are as follows:

Recommended Haircut, by Obligor and Guarantor		
Obligor PD	Guarantor PD	
	< 0.7%	≥ 0.7%
< 0.7%	50%	30%
≥ 0.7%	30%	50%

For clarity, a haircut of 0% would be the same as the current approach. As an example, for an obligor with an assessed PD of 2% having a qualifying guarantee with guarantor assessed PD of 0.60%, the effective PD to use would be:

$$\text{Effective PD} = \min(0.6\%, 2.0\%) \times (1 - 30\%) = 0.42\%$$

A factor of less than 100% will only be available where there is genuine separation between the obligor and the protection provider. We recommend the following comprehensive tests of separation for the less conservative capital treatment to apply:

- there should be no legal connection (material common ownership, or parent-subsidiary relationship) between the obligor and the protection provider; and
- the protection provider should be investment grade or, otherwise, should provide good collateral for the protection.

We believe that use of an internal assessment of two name risk is the most satisfactory solution for those banks able to provide such assessment, but also hope that you will reconsider our simplified proposal to give a modest benefit for genuine joint default risk.

6.6. Credit event definition

The definition of credit events in the QIS 3 Technical Guidance is old and does not reflect market developments since the 1990s. The moral hazard of a “restructuring” credit event should be avoided by not requiring it in order for portfolio credit default swaps to result in regulatory capital relief. “Restructuring” credit events can also be ambiguous⁴¹ and, for that reason as well, their use should not be a requirement for regulatory capital relief

This issue is already known to the Securitisation Group, and we hope that progress can be achieved at the meeting between ISDA and the Credit Risk Mitigation sub-group scheduled for mid-February 2003.

6.7. Operational criteria for synthetic securitisations

We have several comments on the operational criteria for synthetic securitisations.

a. Significant risk

The Committee should eliminate the requirement that banks must transfer to third parties “significant credit risk” associated with the underlying position. Such a requirement is inappropriate and will lead to great confusion. First, whenever a bank transfers any credit risk, the regulatory capital rules should provide that such bank’s regulatory capital is adjusted in a risk sensitive manner, no matter the amount of risk transferred.

Second, the standard of “significant credit risk” is exceedingly vague (in addition to being irrelevant). What is a “significant” amount of risk – 80%? 50%? 25%? 10% 5%? If an originator transfers a second loss piece of 4%, which covers six standard deviations after the retained first loss piece, it would be clear that such a transaction had real meaning for the originator.

The unclear requirement of “significant” risk transfer should be abandoned in order to avoid both of these problems.

b. Materiality threshold

Similarly, the Committee should eliminate the requirement that the terms of a synthetic securitisation may not include “significant materiality thresholds.” For the same reasons as above, the rules should recognise any risk transfer – and by implication should not recognise any transaction that does not transfer risk. A condition such as this is inappropriate and will also lead to unnecessary confusion – and ultimately risk inconsistent treatment.

c. No increased cost

The Committee should adjust in one respect the requirement in the third bullet point of clause (e) of paragraph 505 of the QIS 3 Technical Guidance that prohibits the terms of a synthetic

⁴¹ Interestingly, various credit default swaps relating to Marconi were triggered on the basis of bankruptcy credit events, not restructuring events. This example indicates the market’s preference for avoiding unclear credit events when other more certain triggers have been tripped.

transaction document from increasing the cost of credit protection in response to a deterioration in the quality of the pool.

In a number of transactions, monoline and other protection providers require payment of an additional premium should a default or other specified event occur. The amount of this additional premium and the terms of its incurrence are known at the outset of the transaction. It is of significant benefit to originators that this additional payment be structured as an obligation to pay an additional premium – otherwise, the protection provider would either charge all protection buyers a higher initial premium without rebate or would charge a higher initial premium but would rebate amounts to certain protection buyers should the specified events not occur. Both alternatives would economically burden protection buyers without improving the underlying protection available to them.

For those reasons, we recommend that clause (e) be modified to permit additional burdens to be placed on originators in circumstances where the terms and scope of such additional burdens are entirely specified at the outset of the transaction.

6.8. Clean-up calls

The Committee should eliminate the requirement that banks may only include clean-up calls in a synthetic transaction where specific protected credit risk exposures are referenced, and not just general references to categories of claims against given entities (or “names”). We do not understand the basis for such a requirement, but note that it is inconsistent with current practice which we believe to be prudent. As long as a clean-up call in a credit default swap or similar credit derivative covers specific names, the clean-up call should be recognised.

6.9. Maturity mismatches

The Committee should not force originator banks to deduct positions with a maturity mismatch simply because they are below investment grade. Instead, the capital charge should be determined on the same basis as for investment grade positions.⁴²

7. EARLY AMORTISATION

7.1. Controlled vs. non-controlled early amortisation features

We support the Committee’s proposal recognising that early amortisation risks and their associated capital requirements vary based on both the asset type and the nature of the early amortisation provisions. We also thank the Committee for confirming⁴³ that the proposals regarding early amortisation structures do not cover (i) replenishment structures where the underlying credit exposures do not revolve and (ii) revolving transactions that mimic term structures (*i.e.*, where the risk on the underlying facilities does not return to the originating bank).

⁴² QIS 3 Technical Guidance at paragraphs 166 to 168, subject to modifying paragraph 167 which we believe is too conservative for all securitisation positions.

⁴³ See paragraphs 543 and 544 of the QIS 3 Technical Guidance.

We propose the following important modifications to the conditions set out in paragraph 497 of the QIS 3 Technical Guidance establishing the conditions to qualify for controlled early amortisation treatment. First, it should be clear that the controlled amortisation requirements only apply to economic pay-out events and not normal amortisation or accumulation periods.

Second, clause (b) of paragraph 497 is redundant and too restrictive by requiring that there be a *pro rata* sharing of interest, principal, expenses, losses and recoveries based on the beginning of the month balance of receivables outstanding.” Clauses (c) and (d) of paragraph 497 clearly establish the requirements for controlled amortisation – essentially that 90% of the debt is repaid at a pace no more rapid than straight-line amortisation. The allocation of interest, expenses, losses and recoveries included in clause (b) is a question of credit enhancement, not controlled amortisation. For these reasons, we believe that clause (b) should be deleted in its entirety.

Finally, banks should have some discretion with specific securitisation structures as long as they can demonstrate that the structure meets the parameters of a controlled amortisation by providing a quantitative analysis supporting that conclusion.

7.2. Committed retail and all non-retail exposures

The 100% conversion factor (80% for controlled amortisation) for committed retail and all non-retail exposures implies that no risk is transferred to investors. These categories are broadly defined and could result in unintended punitive capital charges if an exposure falls within the broad definitions. We are particularly concerned with the need to differentiate between retail and non-retail revolving exposures, and do not understand the 100% conversion factor for all non-retail exposures.

A trigger event does not reverse the transfer of risk, but simply provides that the transaction no longer continues to transfer *new* risk to the transferee. We do not disagree that an early amortisation event can trigger a need for replacement funding by the originator, however this risk is no different than the general liquidity requirement of any bank to replace maturing obligations.

7.3. Maximum capital requirement

Paragraphs 545 and 565 of the QIS 3 Technical Guidance each specify maximum capital requirements and appear to be inconsistent. Paragraph 545 relates to early amortisation and paragraph 565 relates to the internal ratings based approach. We believe that the capital requirements for originators should never be greater than the IRB capital requirement in the underlying pool of exposures as specified in paragraph 565.

8. OTHER COMMENTS

8.1. Definition of Securitisation

Traditional securitisation techniques and credit derivatives applied to the same assets can produce economically identical results, and the criteria by which banks distinguish one from the other can be rather tenuous. Moreover, we expect that market participants will soon develop securitisation structures that mix features of traditional cash transactions with those of synthetic deals. However, the proposed capital treatment of both techniques is not currently

aligned, but should be, and we encourage the Committee work to ensure the neutrality of the rules as applied to both of them.

8.2. Treatment of ABCP conduit sponsors and others as originators

It is inappropriate to treat ABCP conduit sponsors and the other parties grouped with them as originators. Even though conduit managers have access to pool information and should be permitted to use the SFA, their incentives are those of investors – *i.e.*, to structure their exposures to acceptable levels of risk. Such incentives are very different from the incentives of originators to transfer risk.

It is even more inappropriate to treat dealers as sponsors. They are purely investors. Similarly, banks providing only liquidity or credit enhancement to a conduit should not be treated as sponsors, because they are acting as investors in that role.

The UK Financial Services Authority properly treats conduit sponsors and others separately from originators under its current rules.⁴⁴ The Committee should adopt a comparable approach.

8.3. Operational criteria for traditional securitisations

a. Significant risk

For all of the reasons set out in Item 6.7(a) above with respect to synthetic securitisations, the proposed requirement that banks must transfer to third parties “significant credit risk” associated with the underlying position should be eliminated.

b. SPE transferee

The Committee should eliminate the requirement that the transferee be an SPE. What is critical is that the assets and/or cashflows have been legally isolated from the transferor. The requirement that the transferee be an SPE does not add anything to that objective and would prohibit a whole category of securitisation transaction involving transfers to non-SPE transferees, all of whom help accomplish real risk transfer in a securitisation transaction.

c. Pledge/transfer

Similarly, the Committee should eliminate the requirement that the transferee have the right to pledge or exchange the beneficial interests in the SPE transferee. Such a rule adds nothing to the critical requirement that the assets and/or cashflows have been legally isolated from the transferor.

8.4. Hierarchy between SFA and RBA

As we have suggested above, a bank should have full freedom to apply either the SFA (if such bank’s regulator has approved such use) or the RBA as such bank sees fit. That includes permitting banks to use the SFA for rated positions above K_{IRB} and permitting banks to use

⁴⁴ Chapter SE (section 3.2), Interim Prudential Sourcebook for Banks.

the RBA for rated positions falling below K_{IRB} . Our suggestion also means permitting originating banks to use the RFA and SFA with equal scope as investing banks.

After all, both approaches are equally reliable, particularly once the modifications we have suggested in this comment letter have been made, and from a policy perspective the Accord should not suggest that they are not so. It makes just as little sense for the Accord to abandon the regulatory capital mandated by the RBA for a position falling below K_{IRB} than it does to abandon the SFA just because a position happens to be rated and falls above K_{IRB} . Moreover, when the calibration adjustments for the SFA and the RBA have been finalised, there will be little room for concern that the two approaches will yield dramatically different results when applied to the same position.

8.5. Clean-up calls

We propose three modifications to the clean-up call proposals. First, 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. Second, banks should be permitted to acquire non-performing assets under a clean-up call provided that the purchase price for the entire pool of repurchased assets is no greater than the lower of the aggregate fair market of such pool or the par value of such pool's assets plus interest.⁴⁵ Finally, the word "cost" in paragraph 506 of the Technical Guidance should be replaced with the word "disadvantages."

Our comments in this Item 8.5 apply equally (adjusted as required) to clean-up calls for synthetic transactions.

8.6. Deduction vs. gross-up

The final Accord should specify that, whenever a position is to be "deducted" from capital, *deduction* is indeed the method to be used rather than *grossing-up* the position as currently required in certain jurisdictions.⁴⁶

We have analysed both approaches and have found that they are not alike. In summary, the gross-up approach works to the detriment of banks maintaining capital-to-asset ratios in excess of the minimum 8% ratio. As a policy matter, such a result should be avoided.

⁴⁵ Our first and second suggestions are consistent with the requirements relating to clean-up calls set out in the "Interagency Questions and Answers on the Capital Treatment of Recourse, Direct Credit Substitutes, and Residual Interests in Asset Securitizations" issued jointly by the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency and the Office of Thrift Supervision (OCC 2002-22) at page 4.

⁴⁶ We presume that our references to "deduction" and "gross-up" as methods of determining regulatory capital are clear. Should you desire a further explanation of those terms or sample calculations, however, please let us know.

9. SUMMARY

In conclusion, The principal lessons from QIS 3 are the following:

- the SFA formulas are overly complex but can be simplified without impairing their reliability;
- the risk weights under both the RBA and the SFA remain unnecessarily high, and should be reduced in order to avoid harming securitisation as an important risk management tool; and
- various of the Securitisation Group's other proposals, in particular those relating to liquidity facilities, synthetic securitisation, top-down approach and early amortisation of revolving structures, continue to contain anomalies that should be adjusted in order that they more accurately reflect the risks of the positions they are designed to measure.

We want to thank the Securitisation Group once again for the opportunity to provide calibration comments and other input on WP 2 and QIS 3. Should you wish to communicate with us or any of our members on any issue, please feel free to contact at the addresses set out at the beginning of this comment letter.

Respectfully submitted,



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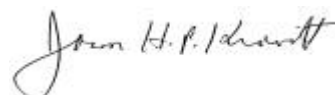
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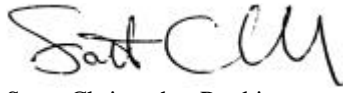


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Annex A

Securitisation New Issuance Data (Cash Transactions)

Issuance in USA

Issuance by types in 2001	2001	2002
	USD amt. (m)	
ABS		
Automobiles	68,959	
Credit Cards	58,470	
Home Equity	71,793	97021
Manufactured Housing	6,267	
Equipment	7,398	
Student Loans	9,942	
Other	24,089	
Total ABS 2001	246,918	
CDO	57,525.2	
CMBS	74,376.0	
MBS	1,092,600.0	
Grand Total	1,471,419.2	

Issuance volumes in the United States USD amt. (m)

	1996	1997	1998	1999	2000	2001	2002 YTD
ABS	151,579	180,360	186,564	194,127	218,918	246,918	247,080
CDO	13,392	29,298	56,842	86,632	73,370	57,525	43,000
CMBS	28,737	40,442	77,726	58,798	48,870	74,376	33,920
MBS	370,500	368,000	726,900	685,200	482,400	1,092,600	586,000
Total	564,208	618,100	1,048,032	1,024,757	823,558	1,471,419	910,000

note: 2002 YTD as of September 30th, 2002

Issuance in Europe

Issuance by types in 2001

	USD amt. (m)
ABS	40,685
CDO	23,426
CMBS	19,273
MBS	46,927
Total	130,310.8

Issuance volumes in Europe USD amt. (m)

	1996	1997	1998	1999	2000	2001	2002 YTD
	40,285	50,783	58,397	79,897	83,274	130,311	86,885

note: 2002 YTD as of 9th Oct 2002

	1996	1997	1998	1999	2000	2001	2002
ABS	26,380	14,248	20,547	28,091	19,308	40,685	28,843
CDO	5,094	18,061	17,119	15,339	13,408	23,426	15,786
CMBS	3,510	8,633	4,426	9,788	11,952	19,273	9,630
MBS	5,301	9,840	16,304	26,680	38,606	46,927	32,628
Grand Total	40,285	50,783	58,397	79,897	83,274	130,311	86,885

ABS 2001

Credit Cards	3,337
Government Related	8,476
Unsecured Consumer Loans	5,289
Auto Loans	2,820
Aircraft Leases	3,293
Non-performing Mortgages	132
Whole Business	1,626
Non-performing Loans	5,213
Train Related	904
Equipment Leases	2,303
Future Flows	434
Auto Leases	707
Trade Receivables	895
Equipment Leases	270
Utilities	2,742
Inventory	378
Re-pack	1,297
Auto Leases / Auto Loans	357
Nursing Homes	212
Grand Total	40,685

Issuance in Australia and New Zealand

Issuance by types in 2001

	USD amt. (m)
ABS	432
CDO	0
CMBS	599
MBS	12,935
Total	13,966.0

Issuance volumes in Australia & NZ USD amt. (m)

	1996	1997	1998	1999	2000	2001	2002 YTD
	3,345	8,287	6,341	9,525	11,348	13,966	11,354

note: 2002 YTD as of 9th Oct 2002

	2002	2001	2000	1999	1998	1997	1996
ABS	336	432	530	737	1,365	194	371
CDO	0			119	323	187	
CMBS	774	599	292	137		493	75
MBS	10,167	12,935	10,526	8,531	4,654	7,414	2,898
Total	11,354	13,966	11,348	9,525	6,341	8,287	3,345

Issuance in Japan

Issuance by types

USD amt. (m)	1996	1997	1998	1999	2000	2001	2002 YTD
ABS	744.4	1,895.8	5,229.1	12,078.4	11,390.9	15,865.1	14,946.1
Other ABS		127.4	280.2	346.6	1,863.3	592.6	2,112.5
ALN	744.4	628.1	1,479.7	4,138.5	2,726.6	2,991.7	1,641.1
Consumer Loan		64.7	795.1	2,739.5	2,049.0	5,167.0	5,281.0
EL		1,075.5	2,674.2	4,652.4	4,461.8	6,853.9	5,839.9
NPL				201.4	290.1	259.8	71.5
CDO	251.2	3,577.7	2,905.8	4,965.4	2,130.3	1,700.6	4,002.3
CMBS		162.6		2,034.5	5,893.1	4,895.9	3,602.3
MBS		245.0		417.8	4,035.6	3,842.4	5,505.6
Total	995.7	5,881.0	8,135.0	19,496.1	23,449.9	26,304.0	28,056.3

Issuance volumes in Japan USD amt. (m)

	1996	1997	1998	1999	2000	2001	2002 YTD
	995.7	5,881.0	8,135.0	19,496.1	23,449.9	26,304.0	28,056.3

note: 2002 YTD as of 22nd Oct 2002

Issuance in Asia (Excluding Japan, Australia & New Zealand)

Global Issuance by types in 2001

	USD amt. (m)
ABS	2138.6
CDO	594.0
Total	2,732.6

Note 2: off-shore issuance volume only

Issuance Asia (Offshore excl. Jap & Aus) USD amt. (m)

1994	1995	1996	1997	1998	1999	2000	2001	2002 YTD
403.5	351.2	1,744.6	3,806.9	2,870.0	2,216.1	1,467.7	2,732.6	4,038.7

note: 2002 YTD as of 9th Oct 2002

Note 2: off-shore issuance volume only

Synthetic (Europe)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Funded Synthetic Transactions									2,724	5,690	6,703	9,394	12,833
All Cash Transactions		8,287	4,213	6,515	10,888	6,957	40,285	50,783	58,397	79,897	83,274	130,311	121,200
Unfunded Synthetic Collateral									2,249	13,843	40,240	46,196	70,639
Pure cash	-	8,287	4,213	6,515	10,888	6,957	40,285	50,783	55,673	74,207	76,572	120,917	108,367

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Funded Synthetic Transactions	-	-	-	-	-	-	-	-	3	6	7	9	13
Cash Transactions	7	8	4	7	11	7	40	51	56	74	77	121	108
Unfunded Synthetic Collateral	-	-	-	-	-	-	-	-	2	14	38	46	71
Number of issues	23	29	16	28	40	27	48	83	107	155	175	209	215

Sum of USD amt. (m)	Year												
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Funded Synthetic Transactions	-	-	-	-	-	-	-	-	3	6	7	9	13
Cash Transactions	7	8	4	7	11	7	40	51	56	74	77	121	108
Unfunded Synthetic Collateral	-	-	-	-	-	-	-	-	2	14	38	46	71
Number of issues (rhs)	23	29	16	28	40	27	48	83	107	155	175	209	215
									61	94	121	177	192

Annex B

Empirical Analysis of Proposed Risk Weights

To examine the implications of the proposed regulatory capital treatment of asset securitisations, the IACPM employed an analytic platform that permits the user to calculate minimum capital requirements for portfolios of credit assets according to the current Basel proposals — before and after securitisation.⁴⁷

I. The Stylised Portfolios

For the analysis presented below, we constructed two stylised portfolios of commercial loans. Both portfolios were assumed to contain term loans and/or funded commitments to externally rated obligors. These assets are representative of the assets found in the commercial loan portfolios of wholesale banks. The primary difference between the two portfolios was the credit quality of the assets assigned to each portfolio: one portfolio was assigned loans predominantly to investment grade obligors, while the second portfolio was assigned loans predominantly to non-investment grade obligors. Table I summarises the characteristics of these portfolios.

Table I
Characteristics of the Stylised Portfolios

	<u>Investment Grade</u>	<u>Non-Investment Grade</u>
Number of Obligor	264	95
Total Par Amount (EUR)	1,800 million	1,655 million
Moody's Weighted Average	Baa1/Baa2	Ba2/Ba3
S&P Weighted Average Rating	BBB+	BB-
Maximum Obligor Amount (EUR)	22.5 million	25.00 million
Minimum Obligor Amount (EUR)	0.05 million	10.00 million
Average Obligor Amount (EUR)	6.82 million	17.42 million

II. Before Securitisation: Differences in Capital Requirements

The regulatory capital associated with each of the portfolios before securitisation was calculated using the Standardised Approach, the Foundation IRB Approach, and the Advanced IRB Approach. The risk weighted assets and minimum regulatory capital requirements under each of these approaches are shown in Table II.

* The analytic platform (*The Asset Securitization and Regulatory Capital Analysis Platform*TM) was developed by Rutter Associates LLC. The empirical results reported in this paper were produced by Rutter Associates using that platform.

Table II
Minimum Regulatory Capital Requirements Before Securitisation (Millions of EUR)

	<u>Investment Grade</u>		<u>Non-Investment Grade</u>	
	RWA	Regulatory Capital	RWA	Regulatory Capital
Standardized Approach	1,270.19	101.61	1,921.90	153.75
Foundation IRB Approach	720.24	57.62	1,582.50	126.60
Advanced IRB Approach	722.31	57.79	1,713.50	137.08

The Basel Committee has stated that the new capital rules are intended to provide incentives for banks to develop internal risk management practices that will enable them to realise the benefits of more risk sensitive capital requirements under the more advanced approaches. We wanted to examine the regulatory capital attracted by these two stylised portfolios (before securitisation) in the context of this intention.

Standardised vs. IRB Approaches - As summarised in Table II, the minimum regulatory capital requirements under the Standardised Approach are higher than the capital requirements under either of the IRB Approaches for both the investment grade and non-investment grade portfolios. This direction and amount of change is consistent with the stated intentions of the Basel Committee.

Foundation vs. Advanced IRB Approaches - The minimum capital requirements for the advanced IRB Approach are greater than the minimum capital requirements for the Foundation IRB Approach for both portfolios. Although the amount of change is small for the investment grade portfolio, it is substantial for the non-investment grade portfolio. These results do not appear to be consistent with the stated intentions of the Basel Committee.

In the calculation of the minimum capital requirements for the Advanced IRB Approach, the parameter assumptions for exposure at default (EAD) and loss given default (LGD) are identical to the parameter assumptions used in the Foundation IRB Approach. Thus, the higher capital requirements of the Advanced IRB Approach can be attributed to the introduction of the maturity adjustment (M). Since the maturities of the assets used in these calculations are representative of the assets in commercial lending portfolios, these results suggest that the maturity adjustment used in the Advanced IRB Approach is punitive – especially for the non-investment grade portfolio.

The relationships between minimum capital requirements under each of these approaches can be summarised by the risk weights used in each approach. While the risk weights used in the Standardised Approach are defined explicitly, the risk weights used in the Foundation and Advanced IRB Approaches can be “backed out” of the calculations when the assumptions for the parameters are known.

The distribution of assets in each portfolio across the S&P rating categories and the risk weights associated with each of these capital calculations are shown in Table III.

- For both portfolios, the risk weights associated with the Standardised Approach lie above the implied risk weights of the Foundation and Advanced IRB Approaches. These higher risk weights result in higher capital requirements for the Standardised Approach.

- The risk weights implied in the Foundation and Advanced IRB Approaches are similar in value. The similarity of these risk weights and the pattern of their relationship across rating categories explains the small increase in the capital requirements for the investment grade portfolio and the larger increase in capital requirement for the non-investment grade portfolio when moving from the Foundation to the Advanced IRB Approach.

Table III
Rating Distributions and Risk Weights Across the S&P Rating Categories

S&P Ratings	Standardized Risk Weights (%)	Rating Dist. of Assets (%)	<u>Investment Grade Portfolio</u>		<u>Non-Investment Grade Portfolio</u>		
			Foundation IRB (%)	Advanced IRB (%)	Rating Dist. of Assets (%)	Foundation IRB (%)	Advanced IRB (%)
AAA	20	2.9	8	9		8	N.A.
AA	20	10.9	16	13	1.3	16	9
A	50	36.8	28	30	2.1	28	32
BBB+	100	11.8	56	61	1.9	56	60
BBB	100	23.2	56	61	5.0	56	60
BBB-	100	14.4	56	61	8.8	56	60
BB+	100		81	N.A.	9.8	81	93
BB	100		81	N.A.	14.0	81	93
BB-	100		81	N.A.	20.8	81	93
B+	150		137	N.A.	28.2	137	142
B	150		137	N.A.	7.1	137	142
B-	150		137	N.A.	1.2	137	142
CCC+	150		137	N.A.		137	N.A.
CCC	150		137	N.A.		137	N.A.
Unrated	Deduction		Deduction	Deduction		Deduction	Deduction

III.A. After Securitisation: Differences in Capital Requirements

To examine the regulatory capital impacts of asset securitisation, we assumed the stylised portfolios were securitised in separate transactions. Hypothetical Moody's and Standard and Poor's ratings were assigned to the tranches of these transactions, using models that approximate the ratings methodologies of these external credit assessment institutions (ECAI). Table IV summarises the tranching of these portfolios for the securitisation transactions.

Table IV
Tranching of the Stylised Portfolios for Securitisation Transactions

Class	Rating	<u>Investment Grade</u>		<u>Non-Investment Grade</u>	
		Credit Enhancement Level (%)	Thickness (%)	Credit Enhancement Level (%)	Thickness (%)
Super Senior	Aaa/AAA	11.00	89.00	27.00	73.00
Class A	Aaa/AAA	6.80	4.20	24.00	3.00
Class B	Aa2/AA	5.40	1.40	20.15	3.85
Class C	A2/A	4.40	1.00	17.45	2.70
Class D	Baa2/BBB	3.30	1.10	14.95	2.50
Class E	Ba1/BB+	2.60	0.70	11.75	3.20
Equity	Not Rated	0.00	2.60	0.00	11.75

To calculate the capital requirements for originating banks after securitisation, it was assumed that the originating bank held all the positions after the securitisation. Capital requirements for investing banks were calculated assuming that all of the positions in these transactions were sold to other commercial banks, i.e. the risks inherent in these transactions remained within the banking industry.

The regulatory capital requirements of these portfolios before and after securitisation were calculated according to the current Basel proposals and these results are presented in Table V. Shading indicates that regulatory capital is set equal to K_{IRB} according to the maximum regulatory capital rule. A detailed description of the assumptions underlying these calculations is presented in the appendix to this paper.

Table V
Minimum Regulatory Capital Requirements (Millions of EUR)

	<u>Investment Grade</u>			<u>Non-Investment Grade</u>			
	RWA	Regulatory Capital	% Change Reg Cap	RWA	Regulatory Capital	% Change Reg Cap	
Standardized Approach							
Before Securitization	1,270.19	101.61		1,921.90	153.75		
After Securitization - Originating	369.36	88.95	-12.5	328.02	273.66	78.0	*
After Securitization - Investing	413.46	79.88	-21.4	513.38	235.53	53.2	*
Foundation IRB Approach							
Before Securitization	720.24	57.62		1,582.50	126.60		
After Securitization - RBA Originating (with Cap)*	147.90	57.62	--	1,181.19	126.60	--	
After Securitization - RBA Originating (w/o Cap)*	147.90	69.45	20.5	1,181.19	221.09	74.6	
After Securitization - RBA Investing*	283.12	69.45	20.5	332.86	221.09	74.6	
Supervisory Formula (SFA) *	242.31	77.00	33.6	326.63	152.73	20.6	
Advanced IRB Approach							
Before Securitization	722.31	57.79		1,713.50	137.08		
After Securitization - RBA Originating (with Cap)*	147.49	57.79	--	1,050.14	137.08	--	
After Securitization - RBA Originating (w/o Cap)*	147.49	69.58	20.4	1,050.14	221.09	61.3	
After Securitization - RBA Investing*	284.74	69.58	20.4	332.86	221.09	61.3	
Supervisory Formula (SFA) *	242.49	77.18	33.6	335.58	163.93	19.6	

* RWA is reported "Before Deduction"
Regulatory Capital is reported "After Deduction"

The stylised portfolios show substantial differences in the regulatory capital requirements before and after securitisation and across the different approaches of the Basel proposals. These differences result from:

- The different risk weights used in the approaches
- The tranching of the portfolios in the securitisation transactions
- The different formulas used to calculate regulatory capital in the approaches, and
- The rules for maximum capital requirements that override the formulas for originating banks in selected cases.

They indicate that the proposals for the capital treatment of asset securitisations do not preserve capital neutrality.

III.B.1. Capital Neutrality Under Standardised Approach

Under the Standardised Approach for asset securitisation for originating banks, the capital requirements of the investment grade portfolio declined by 12.5% relative to the capital required before securitisation. Conversely, the capital requirements of the non-investment grade portfolio increased by 78.0%. These results can be explained by the requirement that originating banks deduct all non-investment grade positions in a securitisation. Since the size of the non-investment grade positions is relatively small in the securitisation of the investment grade portfolio, the amount of exposure that must be risk weighted one-to-one and deducted from capital is relatively small. As a result, the capital an originating bank would have to hold after securitisation, even if it held all tranches in the securitisation, would be less

than before securitisation. When the non-investment grade portfolio is securitised, however, the size of the non-investment grade exposures is considerably larger. These large non-investment grade exposures result in a significant increase in required capital after the securitisation.

The results for investing banks are similar but less dramatic because investing banks are allowed to risk weight the BB positions rather than deduct them from capital.

Since there is no maximum required capital rule for originating banks under the Standardised

Approach, these results indicate that under this approach the amount of capital required in the banking industry will decrease when high investment grade portfolios are securitised and increase when non-investment grade portfolios are securitised.

Table VI
Rating Distributions and Risk Weights Under the Standardised Approach

S&P Ratings	Investment Grade Portfolio					Non-Investment Grade Portfolio				
	Before Securitization		After Securitization			Before Securitization		After Securitization		
	Standardized Risk Weights (%)	Rating Dist. of Assets (%)	Risk Weights		Rating Dist. of Assets (%)	Standardized Risk Weights (%)	Rating Dist. of Assets (%)	Risk Weights		Rating Dist. of Assets (%)
		Orig Bks (%)	Invest Bks (%)					Orig Bks (%)	Invest Bks (%)	
Super Sr.			20	20	89.0			20	20	73.0
AAA	20	2.9	20	20	4.2	20		20	20	3.0
AA	20	10.9	20	20	1.4	20	1.3	20	20	3.9
A	50	36.8	50	50	1.0	50	2.1	50	50	2.7
BBB+	100	11.8	100	100	--	100	1.9	100	100	--
BBB	100	23.2	100	100	1.1	100	5.0	100	100	2.5
BBB-	100	14.4	100	100	--	100	8.8	100	100	--
BB+	100		Deduction	350	0.7	100	9.8	Deduction	350	3.2
BB	100		Deduction	350	--	100	14.0	Deduction	350	--
BB-	100		Deduction	350	--	100	20.8	Deduction	350	--
B+	150		Deduction	Deduction	--	150	28.2	Deduction	Deduction	--
B	150		Deduction	Deduction	--	150	7.1	Deduction	Deduction	--
B-	150		Deduction	Deduction	--	150	1.2	Deduction	Deduction	--
CCC+	150		Deduction	Deduction	--	150		Deduction	Deduction	--
CCC	150		Deduction	Deduction	--	150		Deduction	Deduction	--
Unrated	Deduction		Deduction	Deduction	2.6	Deduction		Deduction	Deduction	11.8

III.B.2. Capital Neutrality Under Foundation IRB Approach

Minimum required regulatory capital was calculated under the Foundation IRB Approach using the Ratings Based Approach (RBA) for originating and investing banks and the Supervisory Formula Approach (SFA). These capital requirements were compared to the regulatory capital generated by applying the Foundation IRB approach before securitisation.

Ratings Based Approach – Under the Ratings Based Approach, the capital requirements for originating banks reaches the maximum capital requirement of K_{IRB} and is “capped” at that level for each portfolio. These maximum capital requirements do not apply to investing banks, and as a result, the capital requirements for investing banks increase by 20.5% when the investment grade portfolio is securitised and 74.6% when the non-investment grade portfolio is securitised. These increases in capital requirements are attributed to the tranching of

the portfolio and the risk weights used in the Ratings Based Approach. More specifically, it is the amount of exposure that must be risk weighted one-to-one and deducted from capital that drives this result. In these examples, [69.6%] of the required capital after securitising the investment grade portfolio can be attributed to the exposure that must be deducted from capital, and [88.0%] of the required capital after securitising the non-investment grade portfolio can be attributed to the exposure that must be deducted from capital. Because of the dominant effect of the one-to-one risk weighting and deduction from capital, a reduction in the risk weights for the remaining rating categories of 50% would reduce the minimum capital requirement for investing banks by only EUR 10.2 million for the investment grade portfolio and EUR 13.3 million for the non-investment grade portfolio. In both cases, the capital requirements after securitisation would remain in excess of K_{IRB} .

Supervisory Formula Approach - To calculate the capital requirements of under the Foundation IRB Approach using the Supervisory Formula Approach, we assumed that the tranches of these transactions were not rated by an ECAI. Under these conditions, the capital requirements for originating banks after securitisation again reaches the maximum capital requirement of K_{IRB} for each portfolio. For investing banks, the capital requirements for the banking industry increase by 33.6% following the securitisation of the investment grade portfolio and 20.6% after the securitisation of the non-investment grade portfolio.

Table VII
Rating Distributions and Risk Weights Under the Foundation IRB Approach

S&P Ratings	<u>Investment Grade Portfolio</u>				<u>Non-Investment Grade Portfolio</u>			
	<u>Before Securitization</u>		<u>After Securitization</u>		<u>Before Securitization</u>		<u>After Securitization</u>	
	Foundation IRB Risk Weights (%)	Rating Dist. of Assets (%)	Risk Weights (%)	Rating Dist. of Assets (%)	Foundation IRB Risk Weights (%)	Rating Dist. of Assets (%)	Risk Weights All Banks (%)	Rating Dist. of Assets (%)
Super Sr.			7	89.0			7	73.0
AAA	8	2.9	12	4.2	N.A.		12	3.0
AA	16	10.9	15	1.4	16	1.3	15	3.9
A	28	36.8	20	1.0	28	2.1	20	2.7
BBB+	56	11.8	50	--	56	1.9	50	--
BBB	56	23.2	75	1.1	56	5.0	75	2.5
BBB-	56	14.4	100	--	56	8.8	100	--
BB+	N.A.		250	0.7	81	9.8	250	3.2
BB	N.A.		425	--	81	14.0	425	--
BB-	N.A.		650	--	81	20.8	650	--
B+	N.A.		Deduction	--	137	28.2	Deduction	--
B	N.A.		Deduction	--	137	7.1	Deduction	--
B-	N.A.		Deduction	--	137	1.2	Deduction	--
CCC+	N.A.		Deduction	--	N.A.		Deduction	--
CCC	N.A.		Deduction	--	N.A.		Deduction	--
Unrated	Deduction		Deduction	2.6	Deduction		Deduction	11.8

III.B.3. Capital Neutrality Under Advanced IRB Approach

Minimum capital requirements under the Advanced IRB Approach are similar to the results under the Foundation IRB Approach. Any differences arise from differences in the level of K_{IRB} that is determined before securitisation. These findings apply to the Ratings Based Approach for both originating and investing banks and the Supervisory Formula Approach. In all cases, the regulatory capital requirements for the banking industry increase substantially. These increases are the greatest under the Supervisory Formula Approach for the investment grade portfolio (33.6%) and greatest under the Ratings Based Approach for the non-investment grade portfolio (61.3%).

Table VIII
Rating Distributions and Risk Weights Under the Advanced IRB Approach

S&P Rating	<u>Investment Grade Portfolio</u>				<u>Non-Investment Grade Portfolio</u>			
	Before Securitization		After Securitization		Before Securitization		After Securitization	
	Advanced IRB Risk Weights (%)	Rating Dist. of Assets (%)	Implied Risk Weights (%)	Rating Dist. of Assets (%)	Advanced IRB Risk Weights (%)	Rating Dist. of Assets (%)	Implied Risk Weights (%)	Rating Dist. of Assets (%)
Super Sr.			7	89.0			7	73.0
AAA	9	2.9	12	4.2	N.A.		12	3.0
AA	13	10.9	15	1.4	9	1.3	15	3.9
A	30	36.8	20	1.0	32	2.1	20	2.7
BBB+	61	11.8	50	--	60	1.9	50	--
BBB	61	23.2	75	1.1	60	5.0	75	2.5
BBB-	61	14.4	100	--	60	8.8	100	--
BB+	N.A.		250	0.7	93	9.8	250	3.2
BB	N.A.		425	--	93	14.0	425	--
BB-	N.A.		650	--	93	20.8	650	--
B+	N.A.		Deduction	--	142	28.2	Deduction	--
B	N.A.		Deduction	--	142	7.1	Deduction	--
B-	N.A.		Deduction	--	142	1.2	Deduction	--
CCC+	N.A.		Deduction	--	N.A.		Deduction	--
CCC	N.A.		Deduction	--	N.A.		Deduction	--
Unrated	Deduction		Deduction	2.6	Deduction		Deduction	11.8

IV. Implications from the Stylised Portfolios

The preceding analysis indicates that, in general, the current proposals for asset securitisation will have significantly different effects on the minimum capital requirements for banks depending upon the approach that is used to calculate capital requirements, the characteristics of the assets that are securitised, and the role of the bank as an originator or an investor.

The securitisation of investment grade assets using the Standardised Approach is likely to result in a reduction of the minimum capital requirements, but under the IRB Approach, the securitisation of investment grade assets will probably result in an increase in the regulatory capital required in the banking system.

- In the unlikely circumstance that investment grade assets are securitised and the originating bank holds all of the positions, under the RBA approach the minimum regulatory capital will be capped at the same amount attracted by the unsecuritised portfolio. The sale of any of these positions, however, will result in an increase in the regulatory capital required in the banking system.
- If the entire securitisation is sold to other banks and the RBA approach is used, minimum regulatory capital will be higher (by about 20%) than if the portfolio had not been securitised.
- If the entire securitisation is sold to other banks and the Supervisory Formula Approach is used the minimum regulatory capital will be higher (by about 30%) than if the portfolio had not been securitised.

The securitisation of non-investment grade assets is expected to result in a significant increase in the regulatory capital held by the banking system in all cases except under the RBA approach when the originating bank holds all positions in the securitisation. In this unlikely case, the capital requirement for the originating bank is capped at K_{IRB} .

- Using the Standardised Approach, minimum regulatory capital requirements jump by almost 80% for originating banks and over 50% for investing banks after securitisation.
- Using the IRB Approach, if the entire securitisation is sold to other banks, minimum regulatory capital will be higher (by 60-75%) than if the portfolio had not been securitised
- Under the Supervisory Formula Approach, the increase in regulatory capital after securitisation is approximately 20%.

Our analysis of the stylised portfolios suggests that the differences in required regulatory capital are primarily the result of risk weights and tranching. They show that the current proposals do not preserve capital neutrality. In certain situations, situations that are expected to be common among commercial banks, these proposals are likely to undermine the development of prudent risk management practices and the use of securitisation structures as a means of managing portfolios of credit risk. They are likely to undermine the liquidity of securities issued through the securitisation of commercial loans by setting up relatively large capital requirements for banks that invest in these securities.

These capital requirements are especially punitive for securitisations in which the underlying assets are predominantly non-investment grade. Furthermore, these proposals will not eliminate the need for banks to engage in capital arbitrage transactions. In fact, the distinction between regulatory capital and the true risk as defined by these proposals will continue to leave commercial banks at a competitive disadvantage to non-bank financial institutions and serve to perpetuate the declining role of banks in the origination and management of loan assets.

V. Conclusions and Recommendations

The IACPM is concerned that the proposals for asset securitisation presented in the Working Paper do not preserve capital neutrality. Furthermore, these proposals are likely to undermine the development of internal risk management practices in certain banks and undermine the liquidity in the market for ABS transactions.

Based on the analysis presented above, the IACPM offers the following recommendations:

- The risk-based capital framework for assets held on balance sheet, as well as the proposals for asset securitisation, should be aligned to the true risk or economic capital associated with these positions/tranches. The IACPM maintains that the alignment of regulatory and economic capital is necessary to ensure the efficient use of asset securitisations in managing portfolios of credit risk.

- The risk weights for both the Standardised and the Ratings Based Approach should be calibrated with the goal of preserving capital neutrality for both originators and investors.
- The risk weights for non-investment grade, externally rated portfolios under the Standardised Approach for asset securitisation are punitive. Since there is not a maximum capital requirement under this approach, banks that use the Standardised Approach will be inclined not to use asset securitisation structures as a means of managing their credit portfolios.
- While the capital neutrality for originating banks is ensured under the Ratings Based Approach by the maximum capital requirement, the use of asset securitisations in managing portfolios of credit risk requires that regulatory capital rules be fair and equitable for both originators and investors. The current proposals are punitive to investors, and as a result, will undermine the liquidity of securities issued by these transactions.

Appendix Assumptions Used in Calculations

A.1. Assumptions used to calculate regulatory capital before the portfolios are securitised

A.1.a. Probability of Default

Rating (S&P - 8 State)	Prob. of Default (%)
AAA	0.01
AA	0.03
A	0.09
BBB	0.30
BB	0.65
B	2.55
CCC	9.65
Default	

A.1.b. Loss Given Default (LGD) - 45% for assets rated equal to or above BBB- (Senior Unsecured)

A.1.c. Exposure at Default (EAD) - 75% of nominal amount for unfunded exposures and 100% of nominal amount for funded exposures

A.2. Assumptions used to calculate regulatory capital before the portfolios are securitised

Risk Weights - Standardised and Ratings Based Approaches

External Ratings Pools	Standardised Risk Weights	Risk Weights for Thick Tranches backed by Granular Pools	Base Risk Weights	Risk Weights for Tranches backed by Non-Granular
Aaa	0.20	0.07	0.12	0.20
AA	0.20	0.10	0.15	0.25
A	0.50	0.20	0.20	0.35
Baa1	1.00	0.50	0.50	0.50
Baa2	1.00	0.75	0.75	0.75
Baa3	1.00	1.00	1.00	1.00
Ba1	1.00	2.50	2.50	2.50
Ba2	1.00	4.25	4.25	4.25
Ba3	1.00	6.50	6.50	6.50
B+	1.50	Deduction	Deduction	Deduction
B	1.50	Deduction	Deduction	Deduction
B-	1.50	Deduction	Deduction	Deduction
CCC+	1.50	Deduction	Deduction	Deduction
CCC	1.50	Deduction	Deduction	Deduction
Unrated	1.00	Deduction	Deduction	Deduction

A.3. Maturity adjustment table

Less than 3 months	.2 - 1.0 years	1.0 - 2 years	2 - 2.5 years	2.5 - 3 years	3 - 3.5 years	3.5 - 4 years	4 - 5 years	Greater than 5 years
0.2	1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0

Annex C

Empirical Analysis of Adjusted Risk Weights

Regulatory capital requirements were calculated with the risk weights proposed by the commenting parties. These results are presented in the abbreviated version of Table V taken from Annex B:

	<u>Investment Grade</u>			<u>Non-Investment Grade</u>		
	RWA	Regulatory Capital	% Change Reg Cap	RWA	Regulatory Capital	% Change Reg Cap
Standardized Approach						
Before Securitization	1,270.19	101.61		1,921.90	153.75	
After Sec. - Originating	369.36	88.95	-12.5	328.02	273.66	78.0
After Sec. - Investing	413.46	79.88	-21.4	513.38	235.53	53.2
After Sec. - Proposed Risk Wts.		77.36	-23.9		224.94	59.1
Foundation IRB Approach						
Before Securitization	720.24	57.62		1,582.50	126.60	
After Sec. - RBA Originating*	147.90	57.62	--	1,181.19	126.60	--
After Sec. - RBA Investing*	283.12	69.45	20.5	332.86	221.09	74.6
After Sec. - Proposed Risk Wts.		65.93	19.3		207.32	65.1
Supervisory Formula (SFA) *	242.31	77.00	33.6	326.63	152.73	20.6

* RWA is reported "Before Deduction"
Regulatory Capital is reported "After Deduction"

Comments:

- 1) The proposed changes in risk weights have relatively little impact on the capital requirements after securitization.
- 2) As shown in the following spreadsheet, there is relatively little notional exposure and relatively little notional capital attributed to the BBB and BB positions in the securitizations.
- 3) This analysis shows that it is reasonable to argue that the risk weighting of the Super Senior position should be significantly less than the risk weighting of a AAA corporate.

**Analysis of the Risk Weights Proposed by the Commenting Parties
Standardized Approach**

Investment Grade Portfolio

	Standardized Risk Weights (Securitization)	Rating Dist. of Assets	Capital Requirements	Risk Weights Proposed by Commenting Parties (Securitization)	Rating Dist. of Assets	Capital Requirements
AAA	20	93.20	26.8416	20	93.20	26.8416
AA	20	1.40	0.4032	20	1.40	0.4032
A	50	1.00	0.72	50	1.00	0.72
BBB+	100		0	100		0
BBB	100	1.10	1.584	100	1.10	1.584
BBB-	100		0	100		0
BB+	350	0.70	3.528	100	0.70	1.008
BB	350		0	100		0
BB-	350		0	100		0
B+	Deduction		0	150		0
B	Deduction		0	150		0
B-	Deduction		0	150		0
CCC+	Deduction		0	Deduction		0
CCC	Deduction		0	Deduction		0
Unrated	Deduction	2.60	46.8	Deduction	2.60	46.8
		100.00	79.8768		100.00	77.3568
				Percent Decrease		3.15%

Non-Investment Grade Portfolio

	Standardized Risk Weights (Securitization)	Rating Dist. of Assets	Capital Requirements	Risk Weights Proposed by Commenting Parties (Securitization)	Rating Dist. of Assets	Capital Requirements
AAA	20	76.00	20.1248	20	76.00	20.1248
AA	20	3.85	1.01948	20	3.85	1.01948
A	50	2.70	1.7874	50	2.70	1.7874
BBB+	100		0	100		0
BBB	100	2.50	3.31	100	2.50	3.31
BBB-	100		0	100		0
BB+	350	3.20	14.8288	100	3.20	4.2368
BB	350		0	100		0
BB-	350		0	100		0
B+	Deduction		0	150		0
B	Deduction		0	150		0
B-	Deduction		0	150		0
CCC+	Deduction		0	Deduction		0
CCC	Deduction		0	Deduction		0
Unrated	Deduction	11.75	194.4625	Deduction	11.75	194.4625
		100.00	235.53298		100.00	224.94098
				Percent Decrease		4.50%

**Analysis of the Risk Weights Proposed by the Commenting Parties
IRB Approach**

Investment Grade Portfolio

	IRB Approach - Risk Weights (Securitization)	Rating Dist. of Assets	Capital Requirements	Risk Weights Proposed by Commenting Parties (Securitization)	Rating Dist. of Assets	Capital Requirements
SuperSenior	7	89.00	8.9712	5	89.00	6.408
AAA	12	4.20	0.72576	6	4.20	0.36288
AA	15	1.40	0.3024	10	1.40	0.2016
A	20	1.00	0.288	27	1.00	0.3888
BBB+	50		0	41		0
BBB	75	1.10	1.188	50	1.10	0.792
BBB-	100		0	68		0
BB+	250	0.09900	0.3564	110	0.09900	0.156816
BB+	1250	0.60100	10.818	1250	0.60100	10.818
BB	425		0	141		0
BB-	650		0	232		0
B+	Deduction		0	317		0
B	Deduction		0	550		0
B-	Deduction		0	583		0
CCC+	Deduction		0	Deduction		0
CCC	Deduction		0	Deduction		0
Unrated	Deduction	2.60	46.8	Deduction	2.60	46.8
		100.00	69.44976		11.00	65.928096
				Percent Decrease		5.07%

Non-Investment Grade Portfolio

	IRB Approach - Risk Weights (Securitization)	Rating Dist. of Assets	Capital Requirements	Risk Weights Proposed by Commenting Parties (Securitization)	Rating Dist. of Assets	Capital Requirements
Super Sr.	12	73.00	11.59824	5	73.00	4.8326
AAA	12	3.00	0.47664	6	3.00	0.23832
AA	15	3.85	0.76461	10	3.85	0.50974
A	20	2.70	0.71496	27	2.70	0.965196
BBB+	50		0	41		0
BBB	75	2.50	2.4825	50	2.50	1.655
BBB-	100		0	68		0
BB+	250	3.20	10.592	110	3.20	4.66048
BB	425		0	141		0
BB-	650		0	232		0
B+	Deduction		0	317		0
B	Deduction		0	550		0
B-	Deduction		0	583		0
CCC+	Deduction		0	Deduction		0
CCC	Deduction		0	Deduction		0
Unrated	Deduction	11.75	194.4625	Deduction	11.75	194.4625
		24.00	221.09145		24.00	207.323836
				Percent Decrease		6.23%

Annex D

Proposed Simplified SFA Model

Inputs and formulas

Note: All symbols used in this Annex D are used with the same meanings as provided in WP 2, pages 34-35. Symbols and letters not needed for the simplified SFA model do not appear in this Annex D.

Inputs

$$LGD = 45\%$$

$$N = \left(\sum_{\text{assets in pool}} EAD \right)^2 / \sum_{\text{assets in pool}} EAD^2, \text{ effective number}$$

$$K_{IRB} = \text{on balance sheet charge.}$$

Intermediate Calculation

$$a = g \cdot K_{IRB} \quad b = g \cdot (1 - K_{IRB})$$

$$f = \frac{K_{IRB}(LGD - K_{IRB}) + \frac{1}{4}(1 - LGD)K_{IRB}}{N}$$

$$g = \frac{(1 - K_{IRB})K_{IRB}}{f} - 1$$

$$S(L) = (1 - B_{a,b}(L))L + B_{a+1,b}(L)K_{IRB}$$

Capital charge

$$\text{Capital} = S(L+T) - S(L)$$

Floor (if needed)

If a floor is needed, then capital increased if necessary until not less than $T \times \text{Floor}$.

Underlying SFA model

The simplified model presented above is, according to our understanding, the model that would result from eliminating the add-ons of $\omega = 20$, $\tau = 1000$ and h , deduction below K_{IRB} and floor from the SFA model proposed in WP 2. As explained above we do not believe the

add-ons form part of the underlying conceptual model⁴⁸ and in any case, it is our view that the add-ons should be removed leaving only the model described below.

Underlying model:

- capital on a tranche held is the expected value of losses on that tranche conditional on 99.97% worst value of the IRB systematic variable (as per WP 2, footnote 8)
- conditional this value of the IRB systematic variable losses in the underlying pool of assets are beta distributed with mean equal to K_{IRB} and variance (given by f) due to the number of assets in the pool and their recovery rate volatility, where as in the granularity adjustment the following assumption is made:

$$VLGD^2 = 0.25 \times LGD \times (1 - LGD) \quad (1)$$

To derive the capital formulae from the model suppose first that losses in a portfolio have density function f and cumulative density F . The expected loss in a tranche stretching from a to b is (bearing in mind the loss borne by the tranche for any given aggregate loss in the underlying portfolio):

$$\text{Capital} = \int_{L_1}^{L_2} (x - L_1) f(x) dx + (L_2 - L_1) \int_{L_2}^1 f(x) dx \quad (2)$$

This can be rearranged to

$$\text{Capital} = \int_{L_1}^{L_2} x f(x) dx - L_1(1 - F(L_1)) + L_2(1 - F(L_2)) = K(L_2) - K(L_1) \quad (3)$$

where we define

$$K(L) = \int_0^L x f(x) dx + L(1 - F(L)) \quad (4)$$

Next, losses in the pool are beta distributed with parameters a and b . Then by definition

$$f(x) = \mathbf{b}_{a,b}(x) = \frac{\Gamma(a+b)}{\Gamma(a)\Gamma(b)} x^{a-1} (1-x)^{b-1} \quad (5)$$

In this case $xf(x) = G \cdot \mathbf{b}_{a+1,b}(x)$ for some constant G since the additional factor of x is the same as replacing a by $a+1$, but without altering the coefficient in front. The constant G is just the mean of the distribution

$$\mathbf{m} = \int x \mathbf{b}_{a,b}(x) dx = G \int \mathbf{b}_{a+1,b}(x) dx = G ; \text{ hence } x \mathbf{b}_{a,b}(x) = \mathbf{m} \mathbf{b}_{a+1,b}(x) \quad (6)$$

⁴⁸ Gordy and Jones reveal that h is, in fact, not an add-on but a parameter used in the model. We nevertheless continue to regard it as unnecessary at the level of materiality associated with capital calculations.

For a beta distribution the mean is

$$\mathbf{m} = \frac{a}{a+b} = c \quad (7)$$

where c is the regulatory coefficient defined on page 5. Therefore in this case

$$K(L) = (1 - B_{a,b}(L))L + c \cdot B_{a+1,b}(L) \quad (8)$$

Apart from the presence of h (see footnote 49), this is the regulatory formula for $K(L)$. It is also the simplified formula we have presented above.

Annex E

Analysis of SFA Add-ons

As explained above it is our understanding that the simplified model is obtained with $floor = h = 0$, $L^* = 1$, $w = t = \infty$ and no artificial deduction below K_{IRB} , and our proposal is simply that the simplified model be adopted without add-ons.

In this Annex E we provide our understanding of the purpose and the theoretical impact of the add-ons that are present in the model as presented in WP 2. We remind the Securitisation Group that this Annex E was of necessity conjecture as it was developed before publication of Gordy and Jones, but we hope this will serve as a basis for discussion of the relative importance of the floors.

Purposes of add-ons (as we understand them):

Floor applied – the purpose and level are clear.

deduction from capital below K_{IRB} – purpose clear as discussed above.

$w = 20$ ensures marginal capital is continuous (any finite value will do this)

$t = 1000$ compensates for variation from a strict seniority/subordination of tranches and “bulks up” the charges above K_{IRB} for a large underlying portfolio

h increases capital charges significantly (~50%) for a small underlying portfolio

Levels of premia associated with the add-ons

A premium corresponds to each of these calibrations. We define the (%) premium as

Premium = total capital on all tranches / K_{IRB} – 1

We ignore the floor (or set floor = 0) and analyse the other premia. By definition of the supervisory formula we have (using $K(1) = K_{IRB}$)

$$\text{Premium} = S(1) / K_{IRB} - 1 = 1 - K(K_{IRB}) / K_{IRB} + d / w(1 - e^{w(1-1/K_{IRB})})$$

The term $e^{w(1-1/K_{IRB})} \leq e^{20(1-1/0.5)} = e^{-20}$ may safely be ignored so we can write simply

$$\text{Premium} = 1 - K(K_{IRB}) / K_{IRB} + d / w$$

ω -premium

This is the effect of the term $d / w(1 - e^{w(1-1/K_{IRB})})$ which is essentially independent of the rest of the framework and appears to exist only to ensure marginal capital is 1 just above K_{IRB} . By the above,

$$\omega\text{-premium} = d / w$$

Assuming that $0.5 \leq d \leq 1$, the ω -premium therefore lies between 2.5% and 5% for all deals.

τ - and h - premia

Were it not for the deduction of tranches below K_{IRB} from capital, the total capital requirement would be $K(1) + d/w$ rather than $S(1)$. Therefore ω is the only "direct premium"; the other premia due to τ and h work by pushing capital up above K_{IRB} , and would only rearrange the capital charges among the tranches, without altering the total, were it not for deduction of the tranche below K_{IRB} .

τ - premium

The premium due to τ (which affects the variance f) interacting with deduction of capital up to K_{IRB} is obtained approximately as

$$\tau \text{ - premium} = \sqrt{\frac{1 - K_{IRB}}{8pt.K_{IRB}}}$$

For poor quality assets the premium is negligible. For very good quality assets ($K_{IRB} \sim 1\%$) the premium is about 12%. Again this premium is not particularly significant.

h - premium

The h -premium is significant for small N , particularly for a good quality portfolio. The effect of h is unimportant for $N >$ about 10. For $N \ll 10$ the presence of h makes the distribution approximately uniform with mean 50% giving rise to

$$K(K_{IRB})/K_{IRB} \approx 0$$

and so

$$h\text{-premium} = 100\%$$

Summary

The premia can be summarised as follows:

Large N

Premium is due to $\omega \sim 2.5\%$ and $\tau \sim$ formula above which theoretically tends to infinity in the limit of high quality but is $<$ about 20% for $K_{IRB} \sim 1\%$.

Small $N(<\sim 10)$

Premium is due to $h \sim 100\%$ falling slightly with increasing K_{IRB} .

Annex F

Cash/Synthetic Comparison

Capital relief of synthetic versus cash (term or conduit) securitisation transactions

	Corporate bonds or loans		Residential mortgages	
Assumptions:			Assumptions:	
<i>Av. Cred. Qual. Euro-only assets</i> [1]	A2	Baa2		
<i>Tenor</i>	5	5	60% LTV	80% LTV
<i>Default probability</i>	0.47%	1.58%	ESTIMATE	ESTIMATE
<i>Diversity score</i>	50	50		
Moody's tranching				
<i>Super-senior Aaa</i>	91.8	87.3	AAA	96.0%
<i>Aaa</i>	2	2	A	2.0%
<i>Aa2</i>	1.7	3.4	BBB	1.0%
<i>A2</i>	1	1.4	<i>First Loss</i>	1.0%
<i>Baa2</i>	1	1.5		1.75%
<i>Ba2</i>	1	1.5		
<i>First loss</i>	1.5	2.9		
Capital charge pre-securitisation				[2]
Under Standardised Approach	4.00%	8.00%	3.20%	8.00%
Risk-weighting of assets	50%	100%	40%	100%
Securitisation capital charges:				
First loss	1.50%	2.90%	1.00%	1.75%
Mezzanine tranches (Aaa to Ba2)	0.00%	0.00%	0.00%	0.00%
Super-senior Aaa (assume subst. approach)	1.47%	1.40%	1.54%	1.51%
Cash securitisation (conduit or term securitisation):				
Capital charge post-securitisation	1.50%	2.90%	1.00%	1.75%
Capital freed-up	2.50%	5.10%	2.20%	6.25%
Synthetic securitisation:				
Capital charge post-securitisation	2.97%	4.30%	2.54%	3.26%
Capital freed-up	1.03%	3.70%	0.66%	4.74%
Capital freed-up synthetic vs. cash	41%	73%	30%	76%

NB [1] Assumed country group B (eg Germany, Sweden); UK, Holland slightly better; France, Finland, Belgium, Italy, Portugal slightly worse

[2] Residential mortgage capital treatment follows German rules for LTV above 60%

Annex G

Estimation of Joint Default Probability

This Annex G sets out briefly the numerical results on which the recommendation set forth in Item 6.5 above has been made.

We calculated joint default probability using the mathematical framework already in place in the IRB approach. An especially prudent calibration was used. The working group compared this approach with the methodology used by Moody's, which gives similar results.

Joint probability of default in the IRB approach

In this method, joint default probabilities are inferred from the IRB calculations. The IRB approach is currently calibrated using a realistic asset correlation $\rho = 20\%$, and the assessed default probabilities are sensitive to this parameterisation.

Recognising that an average correlation is not suitable for assessing individual pairs of exposures, which might tend to be more highly correlated than the average due to market dynamics, the working group have chosen a far more prudent calibration of $\rho = 50\%$, which is expected to cover all "qualifying" pairs of exposures regardless of their relative industry and geographical constitutions. The results are shown below⁴⁹.

Light shaded cells have PD's above 50% but below 70% of the substitution approach. Dark shaded areas are those with a factor between 70% and 100%. The table has been divided into quadrants reflecting our division of the haircuts according to PD. The 0.7% PD level was chosen to correspond with the calibration point used for the IRB approach in the New Accord, but the exact location of this point is not critical, as can be seen from the table.

PD	0.03%	0.10%	0.50%	0.70%	1.00%	2.00%	5.00%	10.00%
0.03%	3%	8%	20%	24%	29%	40%	59%	74%
0.10%	8%	5%	15%	19%	23%	34%	52%	68%
0.50%	20%	15%	10%	12%	16%	24%	41%	57%
0.70%	24%	19%	12%	11%	14%	23%	39%	55%
1.00%	29%	23%	16%	14%	13%	21%	36%	52%
2.00%	40%	34%	24%	23%	21%	17%	31%	47%
5.00%	59%	52%	41%	39%	36%	31%	24%	39%
10.00%	74%	68%	57%	55%	52%	47%	39%	32%

IRB Approach with $\rho = 50\%$. Joint PD as % of smaller PD (I.e. of substitution method)

Light shading indicates H/C < 50% should apply

Conclusion

We conclude from the table that joint PD is prudently assessed by a haircut of 50% when both obligor and guarantor PD are either greater or less than the threshold 0.7%. That this is

⁴⁹ In comparing the detailed results to the haircut proposals, please bear in mind that the haircuts represent *one minus* the percentages shown in the table.

prudent should be clear from the shading in the table, indicating where various haircut levels apply. Apart from the extreme case where PD's are 0.03% and 10.00%, the remainder of cases (off-diagonal cells) are covered by a haircut of 30%, because the joint risk is between 50% and 70% of the minimum of the two individual PD's (indicated by light grey shading).

Comparison with Moody's model

We compared the results above with tables of joint default probabilities and ratings employed by Moody's. The methodology used by Moody's is different, referencing default rather than asset correlation. Moody's results are equivalent to a haircut of approximately 40%, or equivalently a joint default probability of approximately 60% of the better of the two individual default probabilities, for all pairs. This level is comparable to the average level of the haircuts proposed in this comment letter.