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20 December 2002

Mr Darryll Hendricks
BIS Working Group on Overall Capital
Federal Reserve- New York
33 Maiden Lane
24th floor
New York, NY 10045-0001

Dear Darryll,

ISDA has reviewed the Technical Guidance accompanying the Quantitative Impact Study 3 (QIS3) and understands that this document constitutes a preview of the third consultation paper (CP3) on the Capital Accord reform due for publication in the spring of next year. In the hope that advanced comments on the Technical Guidance will assist the Committee in preparing CP3, we respectfully offer below our views on items which may benefit from clarification or amendment. We recognize that substantial progress has been made by the Committee since CP2 was issued, and particularly welcome the removal from Pillar 1 of the W charge for credit risk mitigation, the general recognition of maturity as a risk driver, and the lowering of the credit risk weights.

Our commentary excludes the standardised approach to credit risk, as well as the capital treatment of retail, SMEs and specialised lending, which the Association has not focused on in the past. We further exclude considerations on the treatment of operational risk, already covered in our recent comment letters to the Risk Management Group on the Rules and Sound Practices papers. These letters are attached for reference at Appendix 1. They will be complemented in ISDA's response to the EU Commission's Capital Adequacy Directive proposals, to be released in January of next year. Our views on the requirements imposed for Internal Rating systems recognition are included separately at Appendix 2.

For ease of reference, our comments follow the ordering of paragraphs in the Technical Guidance. On issues where ISDA continues to be engaged in dialogue with some of the Basel Committee working groups, such as the capital treatment of credit derivatives, securitisation or repo transactions, we have attached our recent submissions to this letter, to offer background on the Association's position, as well as greater detail on our proposals.

KEY MESSAGES

The New Accord is but one step in the continuously evolving field of capital regulation.

The New Accord is an important step in a continuum of capital legislation /regulation, which has over the years placed increased emphasis on the development of sound risk management practices at financial institutions. It cannot however be seen as the definite answer brought to the questions posed at the start of the review process. The Basel Committee has acknowledged that it was not feasible to align regulatory practice with firms' experience as closely as the industry would have wished. *ISDA will continue its dialogue with the Committee to ensure that greater convergence can be achieved in future. Areas where additional policy work is necessary include:*

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-The capital treatment of counterparty risk in the trading book, where ISDA has made concrete proposals to the Models Task Force and is currently preparing a detailed and refined submission for the spring of 2003. Firms increasingly manage counterparty risk on a cross product basis and are developing coherent measures of future exposure applicable to the whole range of products documented under single netting agreements. The Counterparty Risk Working Group of ISDA is aiming at identifying a suitable future exposure metric for use in the regulatory framework, in the hope that it will facilitate recognition by the Committee of cross product netting and collateralisation.

-The recognition of portfolio credit risk modelling and cross risk diversification : the Committee does not recognize firms' internal measures of credit risk concentration/diversification in the New Accord, reflecting a criticism of portfolio models formulated by the Models Task Force in 1999. Since then however, convergence in modelling practices has meant that model results are more easily comparable across institutions and provide a reasonably accurate picture of the amount of credit risk borne by each firm. A recent study of portfolio credit risk modelling practices, commissioned jointly by ISDA, the International Association of Credit Portfolio Modellers and the Risk Management Association, demonstrates a significant degree of harmonization across institutions. We have shared this study with the Models Task Force.

In addition to the above, the suggestion that credit, market and operational risks are additive does not recognize the diversification that exists between risk types. As a result, firms will be holding capital in excess of the levels required on an economic basis to support the underlying risks within their portfolios. This is another example of conservatism being imposed by the regulatory bodies that will result in "layers" of capital contingency within firms. This being said, allowing for cross risk diversification in a "standardized" manner would substantially increase the complexity of the capital framework. We hope that, as greater regulatory confidence develops in firms' internal models, it will be possible for the Committee to reflect cross risk diversification more accurately.

-The definition of regulatory capital : The Committee has recognized that the current definition of regulatory capital was in need of a complete overhaul. ISDA strongly supports this view and would be delighted to comment on any regulatory proposals in due course.

As far as the current draft is concerned, we would like to draw the Committee's attention to the urgent need for reviewing the credit risk mitigation proposals, as well as for consistently implementing the Accord across firms and jurisdictions.

The treatment of credit risk mitigants remains so conservative as to discourage their use

The substitution approach in particular gives rise to significant discrepancy between the regulatory capital cost of hedges and their internal cost, and distorts firms' pricing, risk management, and business opportunities vis-à-vis their non-financial competitors. Not only is the New Accord not neutral vis-à-vis market participants, it is also partial to certain types of credit risk mitigation : joint loss effects are recognized for securities financing trades under the Advanced IRB approach, but not for financial guarantees or credit default swaps. Synthetic securitisation is treated more harshly than cash securitisation. We understand that the Committee is undertaking a review of the proposed credit risk mitigation requirements aiming at assessing their cross-product neutrality. ISDA believes that neutrality can be achieved simply by bringing the Accord into closer alignment with financial institutions' standards. We hope in this regard that the Committee will give appropriate attention to the recognition of joint default probabilities in the months leading up to publication of CP3, and remain at your disposal for further dialogue on this topic. Our detailed proposals, initially shared with the Capital Group in 2001, are attached at Appendix 3 for your consideration.

One other characteristic of the proposals is the systematic over charging of investors in securitisation tranches compared to investors in straight corporate assets : risk weights applied to below investment grade ABSs are considerably higher than those applying to similarly rated corporates. Firms' own assessment of the probability of default and loss given default attached to securitisation tranches is not recognized. This, coupled with onerous and occasionally unjustified operational requirements, can seriously hinder market liquidity and diminish end investors' appetite for acting as protection sellers. We strongly recommend that the Committee expand the scope of its study beyond neutrality to also include the impact of the proposed rules on liquidity.

The Accord must be implemented as consistently as possible across the G-10 to ensure fairness of treatment.

Its complexity, and the availability of many options at the discretion of both supervised entities and the regulators, may give rise to competitive issues for internationally active firms. It is therefore essential that the Accord

Implementation Group facilitate not just the exchange of information between supervisors, but the adoption of common approaches/ solutions to implementation issues of international relevance. ISDA has advocated in a letter to Nick Le Pan, Chairman of the AIG, the adoption of lead regulation agreements between supervisors. The principle of lead regulation is already recognised in the EU and can be extended to other G-10 countries, to foster the adoption of consistent norms for the supervision of firms. The lead regulator (typically, the home country regulator) should have responsibility for the global supervision of a consolidated group. Importantly, duplication of model (internal ratings, loss given default, operational risk losses or otherwise) reviews should be avoided, notably where modelling is a centralised function and where the datasets used to calibrate the models span several jurisdictions. Host country regulators would need to be associated closely in this process, as a number of key variables in the models are specific to the host (e.g. LGD estimates).

ISDA furthermore believes that where different elections under national discretion result in significant differences of treatment for firms, the Basel Committee should carefully review the rationale for allowing discretion in the first instance, and where feasible, suggest the adoption of uniform compromise approaches across the G-10.

DETAILED COMMENTARY:

Part 1. Scope of application :

Para 18 : *Deduction of investments from capital* : the principle of a 50%/50% breakdown of deducted investments between Tier 1 and Tier 2 capital, which also underpins para 513 on the deduction of securitisation exposures, can only be understood in the light of the Committee's reluctance to review the definition of regulatory capital. ISDA would hope that the shortcomings of the current definition, including the minimum 1:1 ratio between Tier 1 and Tier 2 capital and the cap imposed on general provisions, can be corrected in due course. We accept that this revision will not form part of the package prepared by the Committee for the end of 2003, but would recommend that the New Accord contains a firm commitment to revisit the definition of capital within the foreseeable future.

Part 2. Pillar 1- Minimum capital requirements

Para 23 : *Global Floor*. The Committee is planning to apply a global floor on the new capital requirements. The need for such a floor has been substantiated based on the willingness to avoid a sharp fall in the amount of regulatory capital held in the banking sector. ISDA believes that any such reduction can be averted through the appropriate calibration of the capital charge. We understand that the quantitative impact studies, and particularly QIS3, are designed to achieve this aim. We recognize that information submitted by banks might not be of uniform quality across the various areas covered in the QIS, and have encouraged our membership to indicate clearly the degree of accuracy inherent in the information they report. We do not believe that applying capital floors at implementation date is the appropriate means of dealing with this form of uncertainty. We would rather recommend that the Committee run further QISs. These exercises are burdensome for firms, but less costly than having to run both the 1988 Capital Accord and the New Accord's calculations in parallel for three years. As firms' familiarity with the new Pillar 1 charge increases, the cost of running impact studies will diminish. Variability in data quality will also reduce, and results will increasingly represent internal practices consistent with those likely to be adopted post implementation date. Furthermore, it is unlikely that firms' behaviour will change substantially between 2006 and 2007, as the new capital rules align much more closely with their internal risk measures than the current Accord.

If a floor continued applying on the overall capital charge, we would recommend that its longevity be strictly limited to two years. Both the 2007 and 2008 floors should ideally be based on the same end of 2006 capital charge, to avoid the need for running both the old and the new calculations in parallel for another two years.

Finally, it would be logical to apply a parallel ceiling on the new charge. A number of firms will see their regulatory capital increase as a result of the new rules; a ceiling would assist their transition to the New Accord. If the Committee insists on retaining a floor, then the application of a ceiling is justified by applying the same standards and will serve to ensure a symmetrical application of the Accord. At the very least, those firms that can demonstrate an initial increase in regulatory capital as a result of the Accord should be excluded from the need to maintain parallel calculations.

Para 78 : Legal risk is presented in this paragraph as distinct from operational risk, in contradiction with the regulatory definition of operational risk.

Para 103/154 : *Operational requirements for unfunded credit risk hedges* : Mention is made of the requirement for credit derivatives to be *unconditional*. This calls into question the recognition by the Basel Committee of Master Agreements such as the ISDA Master, under which termination might follow a default by a counterparty [buyer of

protection in the precise instance] under any of its OTC derivative contracts. ISDA has sought clarification from the Credit Risk Mitigation Sub-group that the Committee did not intend to invalidate the use of the ISDA Master. ISDA furthermore continues to question the subordination of capital relief to the complete hedging of restructuring events by the protection buyer. We have outlined our concerns in this field in a recent letter to the CRM Sub-group. We hope that it will be possible to further our dialogue with the CRM Sub-group on these issues in January of 2003.

Para 110 : *Factor He* : A factor He, representative of the potential for appreciation of a collateralized exposure during the liquidation period, is included in the collateral equation. ISDA continues to question the validity of this factor where the underlying is accounted for on an accruals basis. Application of factor He means that a 15% cash collateralized BB rated exposure, for which He equals 15%, attracts the same capital charge as the same exposure left unsecured. In contrast, ISDA welcomes clarification that factor He does not apply to collateralised OTC derivatives positions.

Para 113/ 117 : *Own calculation of haircuts* : Where collateral obtained is in the form of sovereign debt rated BB or equity, firms are required to calculate one haircut per security. ISDA would question the added degree of accuracy achieved by imposing this requirement, where firms have well documented procedures in respect of their bucketing methodologies.

Para 114 : *Collateral haircuts*. The reduction in the size of a number of the haircuts is welcome; overall the haircuts are broadly consistent with the add-ons ISDA recommended in its response to CP1. The haircut for AA-AAA rated sovereigns over 5 years of residual maturity still remains high however.

Para 130 : *Minimum holding periods per product type*. ISDA would recommend that the Committee does not go into the degree of detail proposed here. Collateralisation practices evolve constantly, and it seems unlikely that in 2007 the minimum holding periods indicated in the table will continue to be meaningful. The industry is striving to achieve both shorter holding periods and greater cross product collateralisation, particularly between securities financing and OTC derivatives transactions. One of ISDA's objectives in developing the 2001 Margin Provisions was to promote a reduction in holding periods. For the Committee to postulate 10 days as being the market standard for OTC derivatives from 2007 onwards would act as a disincentive for market players to improve collateral management. Firms electing to use their own haircuts as part of the regulatory process should therefore be free to employ liquidation periods consistent with their internal practice, subject to supervisory review as appropriate. Should minimum holding periods continue to be specified, we would strongly recommend that margin lending be treated consistently with repo transactions, at the very least where subject to daily mark to market and remarking.

Paras 141 to 145 : *Use of VaR models*. ISDA submitted detailed comments to the CRM Sub-Group on this topic (attached at Appendix 4). We in particular strongly object to the application of the proposed multipliers. These are conceptually inconsistent with the assumptions and methodologies underpinning the Market Risk backtesting regime, and also so high as to discourage firms from building the portfolio VaR models that they might otherwise have used. We propose an alternative set of multipliers in the letter appended. We would in addition recommend that the availability of a VaR based approach is extended from repo style transactions to also cover margin lending, where both activities are managed and controlled in a comparable way.

Paras 151 and 152: *Collateralised OTC derivative transactions*. ISDA continues to hope that it will be possible for the Models Task Force to review the counterparty risk treatment of OTC derivatives, as well as that of securities financing transactions, immediately after the Accord has been published. Introducing a coherent approach to measuring future exposure for both transaction types is not only logical economically (repos can be represented as forwards), but also imperative practically. As noted above, firms are moving towards integrating these product types under single or umbrella netting agreements, with a view to reducing counterparty risk at portfolio level. It would be damaging if the capital rules did not acknowledge this development. ISDA has submitted concrete counterparty risk proposals to the Models Task Force in 2001, which we are in the process of refining, to introduce variability of our suggested metric (a function of Expected Positive Exposure) based on a number of portfolio characteristics. We hope to be able to share our conclusions with the Models Task Force in the spring of 2003.

Paras 166 to 168 and para 285: *Maturity mismatches*. ISDA commends the Committee for seeking to achieve a more risk sensitive treatment of maturity mismatches. We support in principle the adoption of a sliding scale

formula under the standardized approach and Foundation IRB with maturity fixed at 2.5 years. We question however the applicability of this formula to firms electing to use maturity adjustments. In this instance, maturity is included as a parameter under the IRB function, creating a specific sensitivity of the capital charge to the maturity of each exposure, itself dependent on the rating of the counterparty. This maturity dependence is not coherent with the sliding scale approach. For firms using maturity adjustments, it would be logical to predicate the capital treatment of maturity mismatches upon the IRB function rather than the sliding scale approach. Failure to do so runs the risk of charging inconsistent amounts of capital on mismatched protection (to which the sliding scale approach would apply) and pure forwards (where the IRB function would prevail), even where both give rise to exactly the same tail end credit risk. This cannot be an intended consequence of the proposed capital rules.

In addition, where the maturity floor drops below one year, we would strongly support the adoption of maturity adjustments matching the new floor. Practically, maturity buckets could be established, for instance covering exposures of a duration below 1 month, comprised between one and three months, three and six months, and between six months and one year.

Paras 170- 171: First to default credit derivatives. The proposed treatment of investors in first to default swaps assumes independence between the assets composing the portfolio, i.e. a worst statistical case. This most conservative treatment does not reflect economic reality, and contradicts the assumption of perfect correlation made otherwise between the seller of protection and hedged assets. It appears that whenever considering unfunded forms of credit protection, the Basel Committee has elected the most conservative assumptions it could identify, regardless of scenario consistency or applicability. ISDA questions this approach, and would suggest that first to default tranches be treated for investors in a manner consistent with that recommended for securitisation, subject to our comments on the latter, currently being compiled (see below paras 486-587). Furthermore, if independence is postulated between hedged assets, then it makes sense statistically for the protection buyer to be able to recognize protection against the asset of his choice in the pool. This treatment would be consistent with current regulatory practice in a number of G-10 countries.

Para 235: Risk weight formula for corporate, sovereign and bank exposures. Changes brought to the corporate IRB function include an increase in the asset return correlation [from 10%-20% to 12%-24%], a decrease in supervisory LGD [from 50% to 45%] and a reduction in the average maturity parameter, down from 3 years to 2.5 years. The QIS3 will allow the Basel Committee to test the appropriateness of these parameters.

ISDA applauds the formal introduction of a maturity adjustment in the IRB function. We have always supported the establishment of a link between credit risk capital charges and the maturity of exposures, and further suggested that such link should reflect the so-called MTM of exposures at modelling horizon. We are hence supportive of the shape taken by the proposed maturity adjustment, particularly the higher sensitivity of the charge to maturity for good quality exposures. The size of the proposed maturity adjustment is furthermore consistent with our own earlier suggestions¹. It should be noted that one of our member firms, based on in-depth analysis of market data, does not support the view presented above, and would recommend the adoption of a smaller adjustment.

Para 262 : Substitution approach for guarantees and credit derivatives. It will come as no surprise that ISDA strongly objects to the application of the substitution approach, which our members view as economically unrealistic and extremely onerous. It also lacks risk sensitivity, and de facto encourages firms to seek protection from sellers which are correlated in default with the underlying asset issuer. We wish to reiterate that this treatment can be amended simply, using a methodology consistent with that underpinning the IRB function, to produce a more sensitive capital treatment. Our proposals in this field, shared already with the Capital Group, are attached again for the consideration of the Committee, as mentioned above (see Appendix 3).

Para 272 : EAD under Foundation approach. ISDA continues to believe that the application of lower EAD conversion factors under the standardized approach runs counter to the presumption that firms treated under IRB should on average benefit from a reduction of their capital requirement. We hope that the two sets of EAD can be brought into consistency based on the QIS3 findings.

Para 280 : Effective maturity. ISDA is supportive of the proposed effective maturity formula, and of the reduced floor, which we see as particularly appropriate in the context of the trading book. In particular, we welcome the

¹ ISDA's response to CP1, 2000, available on www.isda.org

ability to use risk weights based on considerably shorter maturities (ie under one month) in the repo and stock loan markets. As repo trades are typically short-dated (often overnight), a bank can cease to trade with a problematic counterparty thus preventing the effect of further credit deterioration and default on the bank. By doing so, and short of "jumps to default", a bank can prevent any credit losses resulting from the gradual processes of credit deterioration within the 1 year period. This effect supports the downward adjustment of the risk weights relative to the risk-weights applied to 1-year loans. The IRB function should be revised accordingly.

On a more detailed note, it may prove difficult to determine all future cash flows ex ante for some loan products. Examples include revolving credits and loans with irregular resetting of interest rates. In those instances, we would suggest that an equivalent formula, purely based on capital amortization flows be substituted for the effective maturity formula. This formula would yield comparatively conservative maturity estimates.

Finally, the definition of maturity for derivative contracts poses specific challenges, which ISDA will be considering in the spring of 2003.

Paras 299 to 316 : *Treatment of equity exposures in the banking book*. It is unclear whether unrealised gains will count as full Tier 1 capital, as should in principle be the case. It would be useful if the Basel Committee could confirm this.

Para 333: *Recognition of provisions*. The Committee recognizes general provisions only against the EL portion of risk-weighted assets. We would first wish to emphasize that the definition of EL proposed in para 329 ignores maturity adjustments and as such is inconsistent with the IRB function.

More importantly, it is quite likely that general provisions built by banks will bear little resemblance with regulatory EL. Banks using dynamic provisioning for instance adopt a modelling horizon distinct from that applied by the Basel Committee. Firms will typically take account of the economic outlook to set provisions, which itself might diverge from that reflected in the long run average probabilities of default underpinning EL. ISDA is of the view that general provisions are a valid form of capital and should be recognized in their entirety by the Basel Committee, regardless of their consistency with EL.

In addition, clarification would be useful in relation to credit /market revaluation reserves, which firms establish to cover the impact of changes in the credit quality of their trading book counterparties. These reserves are by nature a form of provision, based upon observable market factors and should therefore count as a valid form of capital against counterparty risk in the trading book.

Para 407: *Definition of loss*. Loss is defined by the Committee as "economic loss", including "discount effects and direct and indirect costs associated with collecting on the exposure". Including indirect costs in the definition of loss runs the risk of rendering firms' loss estimates non-comparable, as each firm will have its own definition of "indirectness", and its own allocation of indirect costs between business units and assets. ISDA would question the need for going into such detail. We would furthermore welcome a formulaic definition of economic loss. In the banking book, this could be expressed as the difference between the book value of the asset (ignoring any provisions made) and the NPV of cash flows received during the recovery process. The cash flows should be discounted using the contractual interest rate and spread applicable to the asset just prior to default.

Paras 486 to 587: *Capital treatment of securitisation*. We refer the Committee to our forthcoming response on the Second Working Paper on Securitisation, to be released in January of 2003. This document is being prepared in co-operation with the European Securitisation Forum and the American Securitisation Forum.

Para 621 : *Definition of financial instruments*. ISDA supports the proposed definition, but would welcome clarification by the Committee of what constitutes a restrictive covenant. We would in particular contend that loans which transferability is subject to borrower consent must be eligible for trading book treatment where such consent cannot be unreasonably withheld.

Paras 646 to 650 : *80% specific risk offsets*. The 80% offset is arbitrary and risk insensitive. We have proposed an alternative approach in our comment letter to the Committee on CP2². We have unfortunately not received any feedback from the Capital Group, and would welcome an opportunity to discuss this issue in more detail in the near future.

²Annex 5 to ISDA's response to CP2, May 2001, available on www.isda.org

Para 652 : *CDS add-ons*. We have tested the proposed add-ons against our own calculations and found the 10% add-on applied to sub-investment grade underlyings to be reasonable. The 5% add-on proposed for investment grade underlyings is onerous by contrast. We would recommend reducing it to 3%. Our simulations are attached at Appendix 5.

ISDA hopes that the Committee will find the comments above useful and would appreciate the opportunity to discuss them in greater detail at your convenience.

Kind regards,

Emmanuelle Sebton
ISDA
Head of Risk Management

APPENDIX 1

**ISDA'S COMMENTARY ON THE OPERATIONAL RISK RULES
AND SOUND PRACTICES PAPERS**

Mr. Roger Cole
Associate Director,
Federal Reserve Board,
20th & C Street,
Washington DC 20551,
USA

30th September, 2002

by electronic mail

Re: 'Sound Practices' and 'Rules' papers

Dear Roger,

Please find attached ISDA's responses on the above.

ISDA will be pleased to take part in any further discussion of these issues with the Risk Management Group, and would in addition welcome any news on industry consultation regarding implementation issues.

Yours sincerely,

Richard Metcalfe
Co-head of European Office

Annex 1 – Comment on Operational Risk – Rules Language

ISDA wishes to thank the Risk Management Group for the opportunity to comment on an informal basis on the current draft of *Operational Risk – Rules Language* ('Rules paper'). ISDA believes that the rules are, broadly speaking, evolving positively and that the framework can be developed to suit the current and future states of the discipline of operational risk management. The comments below are, therefore, offered by way of focus on the remaining issues that, in ISDA's view, would take the rules closer to this objective. ISDA would, naturally, welcome any opportunity to discuss these issues in more detail with the RMG.

As a general point, while it may not be possible to provide detailed comment or guidance on transitional and implementation issues, we believe that these should at the very least be acknowledged in the Rules, given the novelty of the regime for operational risk³. Also, ISDA suggests that particular attention be given to continuing review of both these rules and the 'Sound Practices' standards also in development, to ensure consistency of approach, for example with regards to the value and treatment of insurance.

More specifically, going through the paper in order, the following points arise. (Numbers refer to paragraphs in the draft Rules paper.)

3. It is, in ISDA's view, debatable whether firms are, as claimed, "encouraged to move along the spectrum of available approaches".

The TSA offers little if anything in the way of advance in risk-sensitivity, as it assumes that a crude proxy (ie, gross income), with minimal value as a risk-management tool, can be rendered less crude by applying it to subsets of a firm. This logic does not hold and, if anything, the application of a crude indicator to a finer set of activities may further distort the picture of operational risk within a firm. If TSA is to remain as an approach, then ensuring that the betas are not arbitrarily high will be an important component of limiting any such distortions.

At the same time, as we discuss in more detail below, the standards/entry criteria for TSA are set unnecessarily high, in ISDA's view, meaning that for little gain (in terms of either risk management or capital relief) a firm must meet standards that are very close to those applying for the Advanced Measurement Approach. Effectively, this is a barrier to entry, rather than an encouragement.

In particular, based on the numbers currently mooted as beta factors, the Standardised Approach clearly embodies perverse incentives for any firms with a greater than average focus on corporate finance, trading and sales, and payments and settlements. It would be appropriate for beta factors to be no higher than the alpha factor prevailing under the Basic Indicator Approach, this alpha factor being keyed off a proportion of 1988-rules capital on which there is some significant degree of consensus.

A perhaps more logical alternative would be to calibrate TSA at an overall level below BIA, rather than having two barely distinguishable 'simple' approaches calibrated at the same overall level. To the extent that any regulatory exercise generates beta factors that contain a fraction above an integer, it would be appropriate to round these down to take into account in a very modest way the low correlations apparent between categories of operational risk. Thus a preliminary figure of 14.5% for a given business line would become 14% in the final TSA. (See comments below, on paragraph 21c, for a fuller discussion of correlation issues.)

Again, assuming TSA is retained, ISDA believes that it is essential that firms should, if they choose and if they can meet appropriate standards/entry criteria, be permitted to progress directly from the BIA to the AMA (and, as discussed below, adopt a split approach between the two).

³ ISDA has begun detailed work on implementation and takes this opportunity to note that industry would appreciate definitive guidance as to how such issues will be consulted on in relation to operational risk.

We should also note that it would, in our view, be counterproductive to force firms to move along the spectrum. The choice as to approach should be a free choice based on the firm's philosophy and experience with regards to operational risk.

Moreover, partial use, split such that a firm uses an AMA approach for certain activities and an *aggregate* gross income number for the rest of its activities combined should explicitly be permitted. This is a practical measure that would take into account the fact that for some firms it may only be worthwhile pursuing the AMA for a limited number of business activities and that tracking gross income by business lines for the rest of the firm does not provide enough risk-management value.

More generally, guidance on what is intended regarding partial use would be helpful. In particular, ISDA believes the rules should permit partial use *within* a given business line.

4. A bank should be able to seek regulatory approval to revert to a simpler approach, if it can show good cause.

11. The use of the term "equal" is, in our view, potentially misleading. A more appropriate way of expressing what appears to be the underlying idea might be to say "be a function of", "be based on", or "be comparable to". Any confusion with economic/actual capital calculations ought to be avoided.

In connection with this paragraph, **Footnote 4** introduces what is, in ISDA's view, a worrying level of detail in the potential interventions of supervisors. We believe this footnote should simply be deleted, since it is not in keeping with the overall spirit of the approach to operational risk, namely to allow for i) evolution of practice and ii) the adoption of techniques and frameworks that are suited to the nature and circumstances of individual firms. If this footnote was to remain, ISDA urges the Risk Management Group to reconsider the use of the term "capital numbers", and substitute "approaches". It would also be appropriate to stress that any comparisons between firms should entail the utmost care to respect the legitimate differences between firms – and to determine what are in fact a firm's "peers" – and the inherently and chronically evolutionary nature of operational risk management.

16. Generally, this paragraph sets standards that ISDA views as more appropriate for a firm under the AMA than, as discussed above, what is essentially a mere variant of the BIA.

Moreover, even if they were applied to the AMA, the conditions would be demanding. In particular, paragraph 16 **(b)** requires that a firm "assess the potential impact that operational risk might have on its solvency". This "potential impact", by being expressed in such an open-ended way, renders it impractical to carry out the assessment required.

Clearly, this issue links into the still unresolved question of what portion of a putative operational risk loss distribution the Basel Committee is trying to ensure that firms capture in introducing a charge for operational risk. ISDA believes that is essential to ensure that the charge does not inappropriately capture extreme, 'catastrophic' loss or loss which, for reasons of differences between firms in control environment, are not relevant to a particular firm.

Paragraph 16 **(f)** is a further example of a requirement that could, depending on how it is interpreted, prove anomalously high for a relatively simple approach such as the Standardised. In particular, factoring operational risk into pay and pricing decisions is out of keeping with an approach that is of limited risk-sensitivity.

18 **(c)**. While the thrust of this requirement is welcome, there may be an unintended consequence arising from the use of the term "day-to-day". A firm will typically not calculate – or even be able to calculate – a number for operational risk on a daily basis.

In 18(e), it would appear helpful to add the word "operational", to give: "The bank's operational risk management system...."

In 18(g), we would suggest adding "[...system by] suitably qualified third parties, such as [external auditors...]"

19. ISDA welcomes as a pragmatic advance in policy the new phrasing with regards to the ‘soundness standard’. Clearly, the use of the term ‘comparable’ raises an implementation issue, on which ISDA would welcome dialogue with the Basel Committee. As a starting point, however, ISDA believes that this terminology is progressive. It would, however, be helpful to have further guidance on the distinction made between catastrophic and other loss events; and on the appropriate ‘holding period’, given the difficulty of translating this term directly from a credit/market-risk context and the variety of risks covered under the operational risk heading.

20. The use of the term “independent” automatically raises the question ‘From what?’ and what, therefore, would constitute independence (and whether that could legitimately be achieved within the same unit, business line, or firm). ISDA believes that the guiding principle in any usage of this term should be that of ‘as independent as is strictly necessary for the situation in hand’. In this instance, that would equate to “model validation that is independent from the construction of the model” and ISDA would consider it helpful to state this explicitly.

21 (a). ISDA welcomes the recognition in principle of firms’ coverage of expected loss by means of reserves, pricing or expensing practices, where permitted by relevant accounting rules. ISDA appreciates the RMG’s willingness to respond to industry representations on this point.

21 (b). This ‘granularity’ standard regarding loss drivers strikes ISDA as aspirational, going beyond what is required even for market risk models. If the requirement were framed in terms of assessment (rather than a feature of loss modelling per se), then it would be still challenging but feasible. As it stands, this requirement appears anomalously high compared to those in paragraph 21 (d). Clarification on what is meant by “loss drivers” (or some illustration thereof) would, in any case, be necessary, in ISDA’s view.

21 (c). While ISDA appreciates the openness in principle to the use of empirical correlations (within the area of operational risk), the ‘all or nothing’ nature of this acceptance could easily result in a firm holding much more capital than is strictly necessary in an area where practice is developing. In many instances, a firm’s *estimate* of correlation may be significantly different from ‘1’ for reasons that can be clearly enunciated and backed up with specific data, even though there may not be extensive amounts of that data to support its position.

In fact, ISDA is firmly of the view that the starting assumption regarding correlations between various incidences of operational risk should – conceptually at least – be zero. This, after all, is why it makes sense to categorise operational risk by business line/event type, as set out in the Rules paper. The reason to categorise is precisely in order to capture very different – and unrelated – forms of operational risk.

Discussions on correlation typically focus on ‘stress’ periods, and this term is indeed used in paragraph 21(c) of the Rules paper. This, however, is not a concept that translates directly into the area of operational risk from market/credit risk. In market/credit risk, price movements/defaults may indeed become more highly correlated at certain moments. In the field of operational risk, there is a) not the same potential for all firms to suffer the same effects at the same time, given that operational risk is endogenous; and b) even within the same firm, the various types of event will be more commonly unconnected. It would be more appropriate to apply (scenario) analysis to the estimation of stresses to correlation.

To illustrate this line of argument, it suffices to consider some representative types of event:

- 1) a rogue-trading event in equity futures in Asia;
- 2) government action over consumer-lending policies in the US;
- 3) credit-card fraud in Latin America;
- 4) clerical error in a correspondent-banking transfer in Japan;
- 5) a flooded retail branch in a European country.

Clearly, the spread of business lines, products, risk types and geographical locations that can exist within a single group, mean that the potential for true and beneficial diversification is considerable.

Over the longer term, it is desirable in policy terms that the regulatory framework accommodates and, indeed, encourages the gathering of operational-risk data at the most granular level possible. Setting overly conservative limits on the recognition of correlation will work against this objective, by reducing firms’ incentive to pursue such granularity.

In connection with this discussion on correlation, it should be borne in mind that the rules currently insist that firms use external data. For reasons discussed below (see comments on paragraph 26), this will tend to make the risk numbers for any given business-line/event type conservative. Constraining the recognition of correlation effects (with which a firm will be very familiar) at the same time as requiring the recognition of potentially extraneous events (with which a firm may legitimately have less familiarity) can easily result in a charge that is based on what amounts to catastrophic risk many times over.

Looking at current practice, from a starting point of zero, firms will themselves typically base capital calculations on a more conservative number, to take account of the rare instances when there is some commonality of cause.

In these circumstances, and subject to a firm providing clear evidence of the nature and effectiveness of the diversification, ISDA believes that it would be appropriate to offer conservatively adjusted recognition of such an (itself conservative) estimate, such that multiple operational risk loss predictions were not necessarily treated additively. A suggested approach would be to ‘split the difference’ between ‘1’ and the firm’s own estimate of correlation (always assuming that this estimate is backed up by evidence of the independence of the risks). The final number would provide a cushion, over and above the firm’s own conservative estimate.

ISDA believes this compromise should only apply until firms can meet the higher standard set out in the Rules paper, at which point they would be eligible for the full benefit of correlation effects.

In connection with the above discussion on recognising correlation effects it is worth noting that these may – quite correctly – be embedded in any firm-wide ‘LDA’ number that constitutes an AMA loss-modelling methodology (just as correlation effects are embedded in Value-at-Risk numbers in a market-risk context). Partial recognition of such effects, in the way that ISDA is proposing, would constitute a helpful intermediate stage in a progression to the full recognition available under the constraints currently set out.

25. It is not clear how an operational risk measurement system would be expected to treat legal risk, which is explicitly mentioned in the definition of operational risk given in paragraph 1 of the draft Rules paper. It would be helpful to clarify if the current paragraph is in fact intended to refer strictly to events set out in the regulatory business-line/risk-type matrix (see, eg, Annex 2, Level 1).

Regarding the requirement to gather descriptive information, the potential legal discoverability of sensitive pieces of such information makes it essential to offer the same safe-harbour protection that is afforded to other records, such as audit notes or medical records. ISDA suggests that provision to this effect be appended to this requirement.

On mapping, ISDA believes that a means of checking on the comprehensiveness of a firm’s assessment of operational risk – which is presumably the objective of any such mapping requirement – would be achieved in a more pragmatic and less burdensome way by mapping to relevant regulatory loss-event types rather than business lines. Certainly, mapping to business lines carries no risk-management benefit for firms.

26. Use of external data raises many issues, including that of relevance. Simply because a given firm experiences what may be a catastrophic loss, it clearly does not follow that management at other firms has failed in any way. Nor that a second such event at another given firm means that the remaining universe of firms has deteriorated further. Penalising one firm for the mistakes of another does nothing to strengthen the ‘innocent’ firm’s incentives to ensure effective control of activities and may conceivably weaken them, since the capital benefit of investing in controls will be diluted or even lost.

It would in fact be preferable to require firms to “give due consideration to” relevant external data, since “use” appears to imply its formulaic inclusion in a loss model, which may or may not be appropriate. This ‘due consideration’ language would in fact be generically appropriate to any of the four sources of information about loss/exposures that the paper stipulates, given the need to ‘future-proof’ the regulatory framework for operational risk.

Risk mitigation. Risk mitigation properly should be considered as an integral part of “Business environment and control factors”, in our view, and should not, therefore, be treated as a separate section of the paper. In that context,

it is important to highlight the various options to firms with regards to operational risks, namely: accept, reduce, transfer and transform.

As regards the limit on recognition of insurance, ISDA believes this is inappropriately tight, given that firms have to satisfy stringent requirements set out in the paper, as well as many other requirements more generally, in order to gain access to the AMA.

As stated in the 'Sound Practices' paper (paragraph 36), the principle of risk mitigation is one that is clearly of value in relation to any risk and the limit in the 'Rules' paper on the recognition of insurance rightly does not appear to apply to other possible forms of operational risk mitigation. ISDA appreciates the supervisory desire to be sure of the effectiveness of risk mitigation, but suggests that any floor should be a) temporary and b) for that limited time, set at such a level as to preserve at least 50% of the benefit of risk mitigation, in order not to undermine the incentives to mitigate risk.

ISDA remains opposed to floors on the capital relief available by dint of moving to a more sophisticated approach and requests an explanation of how any such floors are intended to work.

Furthermore, in keeping with the general principles of risk mitigation, provided a given insurance contract satisfies reasonable criteria of the sort in development by the RMG, then it is the net loss that should form the basis of capital calculations. It is particularly true for certain sorts of event, where insurance markets are well established, that it is a routine matter to receive a pay-out relating to the event within a predictable time frame, as demanded under the draft standards and. In such circumstances, there appears to be no reason why the net figure should not be considered appropriate as the basis for regulatory capital calculations, just as it is for economic capital calculations.

ISDA welcomes the potential recognition of capital-market instruments designed to provide operational risk mitigation. It does, however, believe the RMG would be well advised to review the proposed disclosure requirements in relation to insurance, with a view to expected benefits and consistency of treatment with other methods of risk mitigation.

As regards insurance through captives/affiliates, to the extent that these are insurance-supervisor regulated and not captured under consolidated banking supervision, it would be appropriate and helpful to make clear that, where such an entity is able to cover potential loss through reserves/provisions (as distinct from laying off risk to a third party), this would be recognised.

Other

One, more general point concerns the definition of loss. In ISDA's view it would be helpful to clarify this, for instance with regards to intra-day losses, which should not be included in a loss database. To attempt to do so would be impractical and, in the normal course of events, would give an inflated number.

Conclusion

By way of conclusion, ISDA believes that the draft rules are evolving in a way which suits the objectives of a capital charge for operational risk. The suggestions above are, however, ones which ISDA considers to be important to ensure the coherence and effectiveness of the regime for operational risk. As will be apparent, the way insurance and correlation effects are recognised are key elements on which further refinement would be in order, although it is acknowledged that these are areas where practice is evolving and that they are elements of an overall framework. On correlation, however, ISDA considers it worth repeating a point made in previous submissions, namely that adding a 99.9% number for each of credit and operational risk results in an overall soundness standard well in excess of 99.9%, effectively penalising those firms with a spread of such risks as compared with those whose risk is predominantly in one or other of those areas.

The role and nature of the Standardised Approach also merits further consideration.

As mentioned above, we stand ready to offer the RMG further assistance in discussing these issues and elaborating on the points above, as necessary.

Annex 2 – Comment on *Sound Practices for the Management and Supervision of Operational Risk*

ISDA is grateful for the chance to comment on the second draft of the paper *Sound Practices for the Management and Supervision of Operational Risk* ('Sound Practices').

Overall, ISDA considers that the current draft of the Sound Practices paper is an improvement on the earlier version. ISDA particularly appreciates the responsiveness to industry comment apparent in the elimination of the section on best practice that had been included as Part 2 of the first draft. This elimination appropriately ensures a **focus** strictly on sound practice. Moreover, another key point has been addressed in the current draft, in that the **terminology** is more in keeping with that used in the industry. Industry terminology reflects a balance between flexibility and specifics in relation to the management of operational risk and it is appropriate that sound-practice standards should reflect this operational reality. It is especially helpful that the Basel Committee has, as suggested by industry, generally replaced the term "measurement" with "assessment".

There remain a few outstanding issues with the standards as currently drafted, which ISDA appreciates the opportunity to bring to the Risk Management Group's attention. While these mainly concern terminology, we would stress that their importance should not be underestimated. Given that the proposed 2003 Accord intends to fit a new regulatory framework round a practice that has always existed in some form within firms (and which is currently undergoing a significant new phase of evolution), it is vitally important that the framework does not constrain practice or its development.

Another reason why terminology will be a factor is the variety of potential audiences for this paper: from those involved in day-to-day management of (single elements of) operational risk; to those overseeing it at a higher level within the same firm and implementing the structure set out by a non-executive board and monitored by senior management; to those concerned with only the overall risk profile in its broadest outline. Particularly for those in the intermediate of these three levels, clarity will be essential.

In this context, the choice of terminology is a critical factor, as highlighted by the earlier debate over the terms "measurement" and "assessment". In a similar vein, we would urge the RMG to reconsider the use of the term "framework". In ISDA's view, the most important high-level objective, notably for the (non-executive) board function, is properly identified as a "coherent structure" for managing operational risk, together with "component parts," rather than the level of detail implicit in even consideration of a "framework".

The problem with using this term is illustrated by the fact that it appears many times throughout the paper and is elaborated at various points. If it is not deemed possible to change the term, it should in ISDA's view at least be given a clearer description upon first mention.

As a more general point, we note the importance of reviewing both this and the Rules paper for consistency, for instance in relation to the treatment and value of insurance.

We present below the points that have struck ISDA in reviewing this second draft of 'Sound Practices', in the order in which they appear in the paper. (*Numbers relate to the relevant paragraph in the draft.*)

3. The use of the term "**diverse**" appears to be pejorative. This is inappropriate, given that diversification of risk is not necessarily a negative quality and more often has an advantageous impact on a firm's risk profile, as laid out in modern capital theory. The *management* of diverse activities does, clearly, raise certain issues, but it does not follow that diversity is inherently dangerous.

5. The reference (in the bullet points on internal and external fraud) to **acts** "of a type intended..." is somewhat unclear. ISDA's concern is that the terms "type" and "intended" set a very broad but loose standard which does not focus sufficiently clearly on loss events. There may be an intention to address the issue of near misses, but that is a complex challenge that should be dealt with explicitly and not just in relation to these particular categories of operational risk.

It is also worth noting as a more general point that **legal risk** – which is, of course, specifically intended to be a component of the current regulatory definition of operational risk – manifests itself in many of the types of risk highlighted in the bullet point-list under paragraph 5 of the paper. The Sound Practices paper does not, however, propose any framework of standards in relation to the management of legal risk.

ISDA would be happy to develop some lines of thought on this issue.

8. Given the issues discussed in this paragraph, and specifically the “exchange of ideas” it alludes to, it would be helpful, in ISDA’s view, explicitly to recognise the distinct possibility of future revision of the 2003 Accord, after its implementation in 2006-07, and the publication at some point of a new, ‘**Basel III**’ Accord. It would further be helpful to provide some definition (or at least description) of the forum in which it is envisaged that the “exchange of ideas” would take place.

15. It would be preferable to indicate that the review mentioned here should be carried out as appropriate, and that not all **innovations** may prove to be relevant to every institution or even to be more generally of any lasting value.

18. This is a welcome elaboration of Principle 3, which appears to take into account vital issues of **materiality**.

19. A reference to adequate “**resources**”, including staff and management information systems, would offer a broader and less prescriptive standard, which would be preferable to the current focus purely on “staff”.

22. The meaning of the first sentence does not appear clear and could, in ISDA’s view, simply be deleted.

23. Terms such as “complexity [of the bank’s structure]” and “quality [of personnel]” are inherently **subjective**. Firms should take into account the [nature of their] structure and a range of issues concerning personnel, but it does not appear helpful to gloss these with subjective terms.

25. It should be made clear that the items enunciated here are examples of possible **techniques** rather than anything that might be considered obligatory. (In shorthand, they would be prefaced by the term “e.g.” – not “i.e.”.) It would also be helpful to acknowledge that different firms might not only emphasise some of these (and/or alternative) techniques over others, but might use a combination of techniques, and that the firm’s approach could legitimately vary over time and/or depend on the business line and/or type of operational risk in question.

It is not at all clear to ISDA why **insurance** – which is dealt with elsewhere in this paper – is not included in this list.

It would be helpful, in our view, to include a ‘health warning’ about the difficulty of translating the ‘**limits**’ concept into the operational-risk-management context. (This comment also applies to paragraph 34.)

31. For the avoidance of doubt (and assuming that the *prima facie* sense of Principle 6 is intended here), it would be best to add the word “operational” before “risks” in the first sentence.

Again, it would be appropriate (and consistent with other parts of this paper) to include insurance as a possible course of action for firms facing events whose frequency and/or severity they cannot directly control. As currently drafted, the paragraph seems to ignore the possibility of controlling the *impact* of a risk, even though a firm may not be able to ‘**control**’ the risk itself per se. In many instances (eg, natural disaster) this is precisely what a firm would logically do, as suggested in paragraph 36.

34. It should be stated explicitly that any “risk **limits or thresholds**” should be appropriate to the sub-sets of operational risk. It should also be made clear that, here (as with paragraph 25), the list is by way of illustrative example, rather than an exhaustive set of requirements.

36. It would be helpful, in relation to this discussion of risk mitigation and the contingent exposure that may arise for the firm covering its risk, to refer to the concept of **exposure at event** multiplied by probability of event.

It is also worth noting that, where firms are able to establish a credible estimate of **expected loss** and a credible means of covering that expected loss, this will contribute to the process of operational risk management.

On this latter point, we should at the same time add the following. For certain risks, it may well be cost effective not to insure, even though such insurance is readily available. For example, the premium for insuring a number of branch offices against fire could well exceed the cost of repairing any single office that is damaged. The moral is twofold. First, it should be a business decision for firms as to how much they insure. Second, assuming the estimated cost of repairs is budgeted for, this is a clear instance of where the recognition of expected loss coverage and the recognition of insurance should be treated consistently.

39. Reference to notions of materiality and appropriateness are missing from this paragraph (even though they are present in the discussion in paragraph 40). Moreover, the requirement to ensure “compliance with applicable laws” is too loosely framed, as it could be read to imply close surveillance of every action of the ‘insourcer’. The standard set here, therefore risks being so high that the potential benefits of **outsourcing** that the text rightly mentions would not, in practice, be accessible to firms.

A further possible problem with the standard as currently drafted is that the ‘insourcer’ is potentially effectively subject to banking regulatory requirements. The emphasis in relation to this standard should be focused instead on the contractual relationship between outsourcer and insourcer.

It should also be borne in mind that intra-group or internal ‘outsourcing’ of certain functions is a practical solution for many firms for certain purposes and that the sort of formal ‘service level agreement’ approach that is paraphrased here may constitute a redundant obstacle to such solutions.

In **Principle 7**, the requirement to “minimise” losses is inappropriate and inconsistent with the notion of a risk tolerance or “appetite” (as espoused in Principle 6). In some circumstances, it will be entirely appropriate for a firm to accept a certain level of potential operational loss, based on an analysis of what it would otherwise cost to ‘minimise’ that risk. Even in the perhaps more limited context of severe business disruption, the key (and identified) factor is that of the ability to operate as a going concern. And even that ability must logically have some limit – a fact which it is essential to recognise. ISDA suggests adding wording to the effect of ‘subject to an informed decision as to risk tolerance’.

46. Under the bullet on risk mitigation, after “efforts”, it would be appropriate to add “including insurance and coverage of expected loss”.

48 & 49. Unless the purpose and form of the “**reporting mechanisms**” suggested here is more clearly spelled out and justified, this has the clear potential to introduce a burden for no well defined benefit. Nor is it clear how the proposals in these paragraphs are meant to work for an AMA firm, especially as they affect that firm’s discretion as to the (combination of) techniques it chooses to deploy. The proposals in Paragraph 49 in particular should be subject to more clearly defined limits, to obviate any temptation for supervisors to micro-manage firms at any stage.

Principle 10. Does the notion of “sufficient public **disclosure**” in effect mean what is being proposed under Pillar 3 of the new Accord? If so, this should be explicitly stated. The assumption of any “market demand for information” (in paragraph **50**) appears unrealistic at the moment and might be best reconsidered. There has, however, been a welcome shift of emphasis (apparent in paragraph **51**) from loss/capital numbers to the overall structure for managing operational risk.

Conclusion

Overall, ISDA believes this draft of ‘Sound Practices’ to be an improvement on the first. As with the first draft, the challenge is to find language that strikes the appropriate balance between flexibility for firms and a clear objective standard. The comments above are provided in the furtherance of that objective. The paper should follow through the logic of accepting in principle the supervisory recognition of insurance and promote it more positively, rather than the somewhat grudging references in the current text. It would also be helpful to ensure at every turn that firms’ freedom to choose and to develop appropriate techniques is recognised and, indeed, encouraged.

ISDA would naturally welcome the opportunity to discuss the issues raised in this submission with the Risk Management Group and does, in any case, stress ISDA's belief in the importance of the issues and its appreciation, therefore, of the chance to comment on them.

APPENDIX 2
ISDA'S COMMENTARY ON THE MINIMUM REQUIREMENTS FOR THE IRB APPROACH

20 December 2002

Mr Nicholas Le Pan,
Basel Committee on Banking Supervision
Accord Implementation Group
Office of the Superintendent of Financial Institutions
255 Albert Street
Ottawa, ON
K1A 0H4

Dear Mr Le Pan,

The International Swaps and Derivatives Association (ISDA) appreciates the opportunity to comment on the minimum requirements for the IRB approach as set out in Section H of the Technical Guidance for the Quantitative Impact Study 3 (QIS 3).

As you know, ISDA has taken a keen interest in the review of the Basel Accord. The Internal Ratings Working Group (IRWG) of ISDA was set up in 1999 to contribute to regulators' education on Internal Ratings in the context of the Basel Accord reform. The IRWG contributed to the letter to the Models Task Force on the definition of default (February 2002), to the Letter to the Working Group on Overall Capital on the treatment of expected losses and future margin income (October 2001), and to the letter to the Models Task Force on the granularity adjustment to the IRB function (July 2001).

There are two key issues that ISDA would like to emphasise in this letter. The first is that, in the area of internal ratings validation, little is known and current practices are not well documented. We would therefore ask the Committee to refer to the results of a survey recently launched by ISDA, the RMA (Risk Manager's Association) and the BBA (British Banker's Association) on Internal Ratings Validation. Financial institutions from Canada, US, UK, Europe, and Asia are currently completing the survey (on-line), which will be followed up in the New Year by a series of interviews, before reporting in April 2003. We believe the results will be of benefit to the AIG and to national regulators by providing an overview of the diversity of techniques among institutions in various countries. Further, the information should help avoid the adoption of inflexible or overly prescriptive standards that could lead to reduced incentives for continued innovation and improvement of existing methods and models.

The second point that we would like to emphasize in this letter and that we believe needs further guidance and clarity is on the distinction between time assessment horizons in ratings and assessment horizons used for estimating probabilities of default. ISDA feels that the Technical Guidance does not make an effective distinction, and that if taken literally could lead to excessive capital requirements that could impact on firms decision-making in key areas of business.

Part H presents the minimum requirements for entry and on-going use of the IRB approach. The minimum requirements are set out in 11 separate sections, and our comments, below, are ordered in relation to those sections where we have comments to make.

2. Compliance with minimum requirements

Para 340: guidance will be required in three areas: (i) the definition of immateriality, (ii) the process by which immateriality is to be demonstrated, and (iii) the consequences of disclosing immateriality. ISDA seeks the right balance between setting rules too prescriptive in nature to ending up with something tangible that all firms can work with. It is noted that firms have been asked to provide their own definitions of materiality in QIS 3, and we

would expect the Committee to take into account the full range of answers submitted before issuing further guidance.

(i) A definition of immateriality. The International Financial Reporting Standards (IFRSs) state that materiality can never be judged purely on the basis of absolute size. The nature and circumstances of an item can be of such importance to users that a size threshold is of little practical significance in determining materiality. We would recommend that guidance for determining a definition be based on those indicators of materiality identified by the accounting standards.

(ii) The process by which immateriality is to be demonstrated. Firms intending to use internal ratings approaches must provide the regulator with a roll out plan. The roll out plan must draw the distinction between areas of the business that are immaterial (and not seeking approval for use of the IRB formula) and those that are material but require an extended transition period before IRB can be implemented. The roll out plan should include references to both areas of the business demonstrating immateriality where firms are not requesting approval to use internal ratings and also the firm's commitments to moving to IRB where they will be seeking approval at some time in the future.

(iii) The consequences of disclosing immateriality. Additional capital requirements may be applied if the bank is not in complete compliance with the IRB eligibility requirements; it should be noted that the additional capital charges, where applied, should not bring the bank's capital requirement for the portfolio concerned above the standardised capital charge.

3. Rating system design.

Para 345: it is unclear why Foundation IRB banks would need to have in place a rating system for LGD or EL, on top of one for PD (note the same issue arises in paragraph 379 where Foundation IRB banks are encouraged to retain relevant LGD data and again in paragraph 453 when foundation IRB banks are to compare their realised LGDs/EADs with the supervisory estimates). It is noted in addition that information on realised LGDs/EADs should normally form part of the banks' internal economic capital model. This seems far from guaranteed, as not all banks have economic capital models, and only a few have models encompassing the totality of their exposures. ISDA strongly objects to these requirements for Foundation IRB banks and would want regulators to encourage any bank with access to this kind of data to move to an Advanced IRB approach.

Para 361 – 363 and 394: A fundamental difference exists between ratings and associated probabilities of default, in terms of assessment horizon. Internal ratings tend to be assigned on a hold to economic maturity basis. By economic maturity, we mean the maturity which statistically is associated with the asset. This might be shorter than the contractual maturity: long term mortgages for instance tend to repay substantially before contractual maturity date. The effective maturity formula proposed by the Committee can be seen as a proxy for economic maturity. In para 362, the Committee suggests that ratings should be assigned based on stress test scenarios. ISDA would like to emphasize that ratings typically reflect the expected behaviour of the counterparty in a number of scenarios, both favourable and unfavourable. We do not perceive the need for assigning ratings purely based on the latter. Indeed, if this was the case, then the PD used in the IRB formula, instead of reflecting a long term average, would, by definition, reflect a stress scenario, and regulatory expected loss would exceed true expected loss. By transitivity, regulatory capital would exceed the targeted 99.9th percentile, resulting in requirements potentially so constraining for firms that they would impact on business choices. ISDA accordingly recommends that the Committee remove the mention to stress scenarios from para 362.

Furthermore, ISDA understands that the probability of default underpinning the IRB function is a long term average. We know that a number of our members use "point in time" PDs, rather than long term averages, in relation to some of their exposures, particularly in the corporate world. We believe that point in time PDs can be reconciled with long term averages in a number of ways: they may for instance be mapped to a rating scale to which long term PDs are associated.

In the light of practice, and the useful information embedded in "point in time" PDs, we would recommend that the regulators refrain from excluding them from the scope of the Accord, but review, as part of Pillar 2, the methodologies used by firms to extract regulatory compliant information from these PDs. We would also ask the

committee to refer to the findings of the ISDA, BBA, RMA Internal Ratings Validation survey which plan to shed some light on current practise in this area.

4. Risk rating system operations

Para 376: ISDA agrees in principle that data should be stored and data gathering be well-documented, however, members have expressed their concern at the level of detailed requirements laid out in the guidance (to include rating histories, date of past rating assignments, key data/ models used, name of person responsible). In general ISDA believes that all data maintenance requirements should weigh costs against benefits and allow flexibility in this regard as long as the validation requirements are met.

Para 378: ISDA questions why, along with the firm's LGD estimate, firms would be required to store a complete history of the key data used to derive the estimate. If you were to store all of the data used to derive the estimate you would no longer need to store the estimate itself. We feel that the validation requirements should take account of any concerns in this area. We would also like to refer the committee to the ISDA RMA LGD data pooling facility that we will present to members of the AIG in early 2003.

Para 381 to 384: ISDA understands the need for stress testing but would not require firm's to hold capital according to "stressed" scenarios. ISDA believes that it would suffice to ask firms to demonstrate that in "sensitive" periods they are capable of raising additional capital under a Pillar 2 review. If the committee decides however that "stressed" data should remain as a requirement within the technical guidance in Pillar 1, then more clarity is needed on how this might impact on the firm's capital number and how this is dealt with in relation to PD estimates that are already required to be "stressed".

7. Risk quantification

Para 397: where use of external data might be allowed for PD estimation, ISDA feels that more guidance would be helpful as to what will be allowed (e.g. US data vs. UK exposure). ISDA would also like to draw the committee's attention to the further inconsistency in requiring that market conditions underlying external data match the current situation, whilst in paragraph 394 the guidance requires a definition of PD based on long run averages (not based on the current economic climate).

Para 407 :ISDA notes that indirect costs cannot by definition be allocated to individual facilities and should therefore be excluded. (Please refer to the paragraph on the "definition of loss" in ISDA's overall response to QIS 3)

Para 409: Where only limited data is available to assign a PD, a suitable degree of conservatism must be used. ISDA notes that for AAA exposures, the regulators via the 3 basis points PD floor already impose conservatism.

Para 410: ISDA recommends consistency in the length of observation periods, with the same transition period, whatever the data, including LGD estimation. We recommend an observation period of at least five years.

Para 415: Once again ISDA would call for more consistency in the way the guidance treats PD and LGD estimation. Many of our members are against the use of stressed data.

Para 419/425: ISDA recommends consistency in the length of observation periods, with the same transition period, whatever the data, including LGD and EAD estimation. We recommend an observation period of at least five years.

8. Validation of internal estimates

Para 449: We would ask the Committee, once again, to refer to the findings of the ISDA, BBA, RMA Internal Ratings Validation survey. In the meantime ISDA discussed how firms might compare realised default rates with estimated PDs for highly rated counterparties and felt that the guidance could offer some help here. We discussed the possibility of using existing data on downgrades or on migrations, but the Committee felt that more work was required by the regulators before detailed requirements were established for highly rated counterparties.

We look forward to discussing these comments with you in more depth on January 6th 2003.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Ed Duncan', with a long horizontal flourish underneath.

Ed Duncan
ISDA
Risk Management

APPENDIX 3**ISDA'S LETTER TO THE CAPITAL GROUP ON THE REGULATORY CAPITAL TREATMENT OF HEDGED EXPOSURES AND JOINT DEFAULT RISK**

Mr Oliver Page
Chair, Capital Group
Basel Committee on Banking Supervision
Financial Services Authority
25 North Colonnade
Canary Wharf
London
E14 5HS

3 October 2001

Copy to: Danièle Nouy, Chair, Models Task Force

Dear Mr Page,

Regulatory capital treatment of hedged exposures and joint default risk

ISDA's response to the first Basel consultation document in February 2000 included a proposal for a more risk sensitive treatment for contingent credit risk, where loss can only occur contingent on the default of both an underlying credit and a guarantor or credit derivative provider. ISDA proposed that banks' own estimates of joint default risk should be acceptable, subject to certain criteria.

It is widely recognised by banks and rating agencies that, except in certain well-defined circumstances where a close relationship exists between underlying issuer and protection provider, joint default risk is much less than the default risk of either underlying or guarantor alone. Nevertheless, ISDA's original proposals did not find favour with the Capital Group. The IRB approach of the New Accord makes no change to the current practice of substitution in such circumstances⁴.

The regulatory treatment of joint default risk arising from guarantees and from credit derivatives is important to ISDA's membership. It would be advantageous from a policy perspective to implement a more risk sensitive approach which would both improve market efficiency and encourage sound risk management practices. We recognise the difficulty of implementing anything more than the simplest rules for establishing a positive benefit over and above substitution. Accordingly, we have considered a modified and simplified approach, which is set out below.

Revised proposal*Internal assessment of joint PD*

We continue to believe that reliance on internal assessment of joint default situation is the preferable solution.

Simplified approach

For banks not able or willing to assess joint default probabilities, we recognise that reliance on country and industry data, as in ISDA's original proposal, is a drawback and subject to interpretational risk, even within strict guidelines. Therefore, for banks not using an internal assessment of joint default risk, we propose the following rule for "qualifying" pairs of underlying and protection:

Effective PD = Smaller of (Obligor PD, Protection PD) × (100% – Haircut)

⁴ Basel Committee on Banking Supervision, New Basel Capital Accord, Feb 2001. Paragraph 183.

where Haircut is a simple function of the default probabilities of the obligor and protection provider only – no other information is needed, provided the conditions below for a qualifying pair of transactions are met.

Haircuts

The ISDA working group derived suitable haircut levels by comparing two sources. Details are given in the Annex. In summary:

- haircuts can be obtained by considering the joint default probabilities inherent in the IRB approach (for this special application the working group used a very prudent recalibration of the New Accord's approach);
- these haircuts can be compared with joint default probability /joint rating estimates used by Moody's rating agency, which show a similar relationship to the individual default probabilities.

The results in the Annex indicate that it is natural to define two haircut levels, depending on the whether the default probabilities of the obligor and guarantor are similar. To determine similarity for this purpose, a convenient cut-off point is $PD = 0.7\%$, chosen to correspond to the calibration point used for the IRB approach in the New Accord. The haircuts proposed by the working group are shown in the table below:

Recommended Haircut, by Obligor and Guarantor PD		
	Guarantor PD	
Obligor 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 approach⁵. As an example, for an obligor with an assessed PD of 2% having a qualifying guarantee with guarantor assessed PD of 0.6%, the effective PD to use would be :

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

The table should be contrasted with ISDA's original proposal. The revised simplified table presented above refers only to the default probability, not to the country or industry of the obligor or guarantor, and so uses only data which must be assessed anyway within the foundation IRB approach. In effect, a high level of correlation is assumed throughout (see Annex for detail).

Qualifying pairs of transactions

A factor of less than 100% will only be available where there is genuine separation between the obligor and the protection provider. In ISDA's earlier proposal, we noted that 100% must apply where there is a legal connection. We recommend the following more 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)
- the protection provider should be investment grade⁶ or, otherwise should provide good collateral for the guarantee.

We sincerely 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. We would very much appreciate the opportunity to discuss the above with the Capital Group.

Yours sincerely,

Emmanuelle Sebton
Head of Risk Management, ISDA
For the ISDA Double Default Working Group

⁵ These haircuts appear to be the same as in ISDA's original proposal, but this resemblance is coincidental because in the above proposals the haircut is applied to the PD , not the capital amount.

⁶ Investment grade could reasonably be defined as $PD < 0.7\%$ for these purposes, to make the criteria consistent with the table, but this is not necessary.

ANNEX

Estimation of joint default probability

This annex sets out briefly the numerical results on which ISDA bases its recommendation above.

The ISDA working group 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 below⁷.

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 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

The working group 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 by the working group.

⁷ 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.

APPENDIX 4

**LETTER TO THE CREDIT RISK MITIGATION SUB-GROUP ON PORTFOLIO VAR BACKTESTS
FOR REPO BOOKS**

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Ms. Norah Barger
Chair, Credit Risk Mitigation Sub-group
Basel Committee on Banking Supervision
Bank for International Settlements
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8 November 2002

Dear Norah,

Thank you very much for your letter of 9 July 2002 to ISDA, LIBA and TBMA ("The Associations"), following up on our meetings in London and New York this past summer. As an initial matter, The Associations and the Risk Management Association (RMA) again applaud the Credit Risk Mitigation (CRM) Sub-group's continued willingness to engage in a dialogue with the financial community regarding the impact of the Basel Accord on collateralized transactions. The purpose of the following letter is to continue our dialogue on counterparty risk issues, in the light of the Sub-group's 9 July 2002 letter. The Associations and RMA hope that the information contained below will assist the Basel Committee in finalising its approach to portfolio VaR backtesting.

Two issues were raised in your letter, which we address in turn below.

1. Resolution of differences between The Associations and RMA

The first issue relates to differences of views between The Associations and RMA in each of their responses to the CRM Sub-group's 17 April letter regarding the technical modalities of backtesting. Reviewing the submissions prepared by both groups, we find more similarities than differences between the two sets of comments. Before addressing the few differences in detail below, and while we agree with the need for appropriate model validation to apply to VaR-based measures of counterparty exposure, both The Associations and RMA wish to reiterate that we do not support the principle of including in the Accord a backtesting regime, whether conducted on a group of sample counterparties or (as described in Section 2 below) whether conducted on a hypothetical portfolio. The creation of a backtesting regime will cause financial institutions to incur significant costs, and (as

noted by the CRM Sub-group in its 17 April letter) is not necessarily appropriate in the context of measuring counterparty risk in collateralized transactions.

The Associations furthermore agree that, should backtesting apply, the approach adopted by the Committee should be subject to flexibility based on individual institutions’ business situations and subject to ongoing dialogue with their respective supervisors.

Where the submissions differ is on the following items, which RMA and The Associations have reviewed and where we would like to put forward a constructive proposal to the CRM Sub-group :

- The proposed horizon for performing the backtest was one day in the Associations’ letter versus 5 days in RMA’s. The Associations and RMA have agreed that applying a one day test is preferable, considering the difficulties involved in producing “clean” 5 days P/L data, i.e. P/L excluding any further change in the exposure profile occurring within the 5 day test period. We would emphasize that supervisors currently rely on one day backtests for the purpose of implementing the Market Risk Amendment.
- The only other difference between the two submissions was in the selection of the sample of counterparties to which backtesting would apply. Following further consultation, The Associations and RMA would like to suggest the following sampling process :
 - o 20 counterparties are identified on an annual basis, of which 10 are the largest counterparties in the portfolio, and the remaining 10 are randomly selected. Financial institutions should be allowed to use their own measure of counterparty size in order to determine the identity of the 10 largest counterparties. Such measures might encompass Potential Exposure, VaR, or simply the average absolute value of the current mark to market of each portfolio over a given time period.
 - o For each day, and for each of the 20 counterparties, the financial institution compares the daily change in the counterparty’s exposure (cleaned P/L) with the VaR calculated as of the previous close of business. The backtesting results would be reported on a quarterly basis. The Associations had noted in their letter that testing several counterparties on the same day, or indeed the same counterparty over several consecutive days, could invalidate the binomial significance test underpinning the multiplier. The binomial test assumes independence between the events tested (exception or no exception), and would hence be too harsh if correlation existed in the sample, resulting in unjustifiably high multipliers. Having reviewed this issue further in co-operation with RMA, The Associations have come to the view that for the purpose of attaining consistency of approach in the industry, our earlier objection could be dropped, although this would create a harsher test for financial institutions.
 - o An exception occurs where the P/L exceeds VaR.
 - o Because of the increased number of tests, the multiplier table proposed in The Associations’ letter would have to be amended as follows:

Number of Exceptions	Significance	Multiplier
0	91.80	No action necessary
20	71.30	No action necessary
40	45.60	No action necessary
60	24.60	No action necessary
80	10.90	No action necessary
100	4.20	1.13
120	1.40	1.17
140	0.40	1.22
160	0.10	1.25
180	0.03	1.28

Number of Exceptions	Significance	Multiplier
200	0.01	1.33

Setting multipliers above the levels indicated in this table is hard to justify technically if the assumptions underpinning Market Risk backtesting also apply for repo backtesting, as implied in the recently issued QIS 3 Technical Guidance. We would hence question how the multipliers mentioned in paragraph 144 of the Guidance were derived and would welcome further dialogue with the CRM Sub-group on this specific point. In particular, multiplying the counterparty risk charge by a factor of two where the green light threshold has been crossed as suggested in the Guidance creates an artificial cliff effect, which may well discourage firms from building the portfolio VaR models that they might otherwise have used. Such disincentive would run counter to the objective of the Accord to encourage and allow firms to align their risk based capital requirements more closely with the actual level of risk present in their portfolios. A more gradual scale of multipliers should therefore be contemplated (as per the table above).

2. Hypothetical portfolio testing

The second issue mentioned in your 9 July letter focused on the potential for use of hypothetical portfolio testing in the framework being prepared by the Basel Committee. Hypothetical portfolio testing represents a possible alternative to backtesting based on firms' actual portfolios. We would not favour including in the revised Accord provisions that would require both actual and hypothetical backtesting, though we recognize that some national regulators may wish to review the results of hypothetical backtests in the context of assessing model performance. The choice between real time backtesting and hypothetical portfolio testing should be the responsibility of regulated firms, and reflect the structure of their repo portfolio and existing risk management framework.

We provide as an appendix to this letter a description of how such backtesting could be carried out. Generally, we believe that the backtesting of hypothetical portfolios set out in the attached appendix could be performed by financial institutions once or twice a year for such institutions to periodically revalidate their model. In practice, each firm would work with their local supervisors, taking due account of the structure of such firm's repo portfolio and the main risk parameters relevant to it, to determine a suitable methodology to follow.

The Associations and RMA hope that the CRM Sub-group will find the above helpful and stand ready to continue to assist the CRM Sub-group in any way possible. In this regard, we would request a follow up meeting or call between the CRM Sub-group, The Associations and RMA to discuss in more detail the views conveyed in this letter. We will contact you in the near future to determine whether you are available for such meeting; in the meanwhile, please feel free to contact Emmanuelle Sebton (+44-20-7330-3571 or esebton@isda-eur.org), Katharine Seal (+44-20-7796-3606 or Katharine.seal@liba.org.uk), Omer Oztan (+1-212-440-9474 or ooztan@bondmarkets.com), or Tracy Coleman (+1-617-664-2546 or TAColeman@StateStreet.com).

Kind regards,

Emmanuelle Sebton	Katharine Seal	Omer Oztan	Tracy Coleman
ISDA	LIBA	TBMA	RMA
Head of Risk Management	Director	Vice-President Assistant General Counsel	Chair, Basel II Sub-Committee

ANNEX

DEFINITION OF TEST PORTFOLIOS

- A **base case test portfolio** is defined and created:
 - The base case test portfolio should have features that are representative of the typical desk portfolio with regard to the distribution of counterparty features and the features of the transactions of each counterparty.
 - Counterparty features include the risk rating and industry of each counterparty.
 - Each counterparty will have a portfolio of transactions with different characteristics:
 - a) One way or two way trading
 - Some counterparties have multiple two-way transactions, such as large interbank market makers.
 - Some counterparties have large one-way positions, such as a hedge funds.
 - b) Each counterparty's portfolio of transactions will have a distribution with respect to the industry, credit risk rating and time to maturity of the securities put up as collateral (repos/reverse repos) or borrowed/lent.
- Empirical evidence should be provided that the base case portfolio corresponds to a typical portfolio.
- **Other test portfolios** should be defined with respect to the base case test portfolio. The other test portfolios should have different types and degrees of risk concentration. The risk concentrations should include:
 - Concentration of counterparty risk, by risk rating or industry.
 - Concentration of risk features of underlying transactions, such as risk rating, industry or tenor of underlying securities.
 - Correlation concentration risk between features of counterparties and features of underlying collateral, such as a risk concentration in both the industry of the counterparty and the industry of collateral.
- Empirical evidence should be provided that risk concentrations in the "other test portfolios" represent extreme concentrations of risk, equal or greater than the concentration of risk the desk might occasionally have.

DATA REQUIREMENTS

The following data are needed:

- Times series of daily market prices for all the securities used as collateral in repo transactions or securities borrowed/lent in security borrowing/lending transactions.
- Time series of daily repo rates for each security.

TEST

- For each test portfolio compare the ex-ante VAR-like measurement to the ex-post hypothetical P/L. The hypothetical P/L is the daily change in the market value of the test portfolio due only to changes in market rates.
- Keep track of the number of exceptions over the year and, depending on the number of test portfolios created, ensure that the number of exceptions is consistent with a VAR-like measurement at the specified confidence level.

APPENDIX 5

ISDA’S REVIEW OF THE CREDIT DEFAULT SWAP ADD-ONS PROPOSED BY THE BASEL COMMITTEE

When ISDA suggested a new approach for measuring future exposure on OTC derivatives contracts in 2001⁸, our proposals were focused on derivative contracts referencing interest rates, FX, equity indices and commodity prices. The circumstances under which our proposed Expected Positive Exposure (EPE) based methodology would be appropriate were as follows:

- Counterparty exposure should be uncorrelated with counterparty credit quality;
- Counterparties’ market risk positions should be independent of one another on average, in a suitably defined sense.

Credit derivatives were voluntarily excluded from the scope of our proposal. They do not satisfy the first condition above: for a counterparty selling credit protection on an unsecured basis, the value of the portfolio and the credit quality of the counterparty may be adversely correlated. In this case it would be incorrect to use an unmodified expected exposure calculation to assess the capital required against counterparty risk.

The ISDA Counterparty Risk Working Group has since discussed how standardised add-ons may be derived for credit default swaps in the trading book and would like to outline in the following letter a simple modification to the EPE methodology suitable for producing these add-ons. For clarity we wish to emphasize that, despite focusing on standardised add-ons in this letter, we continue to advocate the regulatory recognition of internal market risk models used by banks for the purpose of measuring counterparty exposure.

We focus in the following solely on the treatment of protection buyers.

1- Credit default swap add-ons for uncollateralised credit default swaps

To take account of correlation between the protection seller and the underlying in the case of credit protection, the working group proposes to adopt add-ons reflective of the expected positive exposure on the underlying asset conditional on default by the protection seller. The methodology used to derive these add-ons is not only reflective of correlation, it is also consistent with modelling practices used in the field of derivatives risk management. The add-ons reflect the weighted sum of positive exposures across two possible events :

- joint default by the two obligors (protection seller and underlying asset issuer);
- default by the protection seller without default by the underlying asset issuer.

The joint default probability is computed using an asset correlation of 24%, set at the maximum of the range of [12%;24%] adopted by the Basel Committee for corporates in the IRB function.

A simplified one-period average exposure estimation model is provided in Annex I.

Add-ons obtained using this methodology feature in the table below, for a protection seller rated BBB and a time horizon of one year :

ONE-YEAR AVERAGE EXPOSURE

		Maturity			
		1 yr	2 yrs	3 yrs	5yrs
Underlying Rating	AA	0.9%	1.0%	1.1%	1.3%
	A	2.1%	2.4%	2.6%	3.1%
	BBB	3.6%	4.2%	4.5%	5.3%
	BB	7.9%	7.9%	8.1%	8.2%
	B	11.5%	11.6%	11.7%	11.7%

⁸ Annex I to ISDA’s response to CP2

In order to verify the conservativeness of these add-ons, the group compared them with add-ons reflecting worst case spread moves observed for assets spanning a range of ratings and maturities (see Annex II for details of the methodology followed). The add-ons proposed in the table above are more conservative than 95th percentile worst case based add-ons.

The main difference between the add-ons presented in the table above and those derived using worst case spreads lies in their reduced dependence upon maturity. This relative insensitivity to maturity reflects the predominance of the joint default scenario in deriving the add-ons : loss conditional on joint default is expressed as a percentage of notional and not tied to duration.

As can be seen, the proposed add-ons are not fundamentally different from those suggested by the Basel Committee. For below investment grade underlyings, a 10% add-on is reasonable. For above investment grade underlyings however, applying a 5% add-on is onerous. ISDA would recommend that the Committee consider employing an average 3% add-on instead.

2- Collateralised credit default swaps

For collateralised credit default swaps, the length of counterparty risk exposure is limited to the collateral liquidation period, which typically does not exceed 10 days.

Where collateral is provided in cash form and currency matched, exposure can only arise from a movement in the value of the underlying credit spread. ISDA suggests scaling down the add-ons above from one year to 10 days, as per the following table :

BBB counterparty, collateralization with 10 day cure period

		ONE-YEAR AVERAGE EXPOSURE			
		Maturity			
Underlying Rating	AA	1 yr	2 yrs	3 yrs	5yrs
	A	0.2%	0.2%	0.2%	0.2%
	BBB	0.4%	0.4%	0.4%	0.5%
	BB	0.7%	0.7%	0.8%	0.8%
	B	1.4%	1.4%	1.4%	1.4%
		2.1%	2.1%	2.1%	2.1%

For simplicity and consistency with our recommendation above, it would be possible to apply only two add-ons, one for investment grade underlyings, which could be set at 0.4%, and one for sub-investment grade underlyings, to be set at 2%.

Where collateral is provided in a form distinct from cash, we accept that haircuts apply on the collateral value, as per the QIS3 Technical Guidance. We hope however, that as and when the Models Task Force reconsiders the setting of OTC derivatives add-ons, it will be possible to review the approach taken to charging regulatory capital on collateralised derivatives.

3- Netting

Our original proposal for the capital treatment of OTC derivatives included a discussion of netting. In essence we proposed that where close out netting is applicable to the counterparty, then add-ons should be applied to the absolute amounts of net risk positions arising from the portfolio. This treatment was proposed in order to replace the outdated aggregation rules.

For credit risk, we propose to recognise the asymmetry between long and short positions by a more conservative netting arrangement, as follows:

- The credit spread add-on should be calculated as the sum of the add-ons applicable to protection bought;

- Netting should be available between credit derivatives and other derivatives entered into with the same counterparty, as appropriate under the legal documentation used. The netting formulae currently available under the Accord should apply.

This treatment is prudent, and is consistent with the proposed add-ons above. Note also that, because effectively add-ons are calculated at the transaction level and simply added together, it will be easy in this framework to include differentiated add-on levels according to the broad credit quality of the reference entity.

We hope that the Models Task Force will find the above useful, and will include credit default swaps within the scope of its overall review of counterparty risk at a later stage.

ANNEX I: Methodology

We need the following definitions

T	Time horizon of interest
p_c	Counterparty default probability over time horizon of interest
p_r	Reference name default probability over time horizon of interest
ρ	Asset correlation between counterparty and reference name
σ	Credit spread return volatility

We compute :

$$M = \frac{N_{BV}(N^{-1}(p_c), N^{-1}(p_r), \rho) - p_c p_r}{1 + N_{BV}(N^{-1}(p_c), N^{-1}(p_r), \rho) - p_c - p_r}$$

where $N_{BV}(x, y, \rho)$ represents the cumulative bivariate normal density and N is the cumulative normal density. M is the shared component of the default probability – the joint default probability corrected for “coincidental” joint default. Decompose the individual default probabilities as:

$$p_c = p'_c + M \text{ and } p_r = p'_r + M$$

Conditional exposure to the CDS is now computed by considering two scenarios;

- joint default with weight $w_j = M / p_c$;
- idiosyncratic default with weight $w_i = p'_c / p_c = 1 - w_j$.

In the case of joint default our exposure is

$$X_j = N(1 - R_r) / 2$$

Where N is the CDS notional and R_r is the reference bond recovery. The factor of two comes from the fact that on average half of the time the counterparty defaults after the reference name in this scenario so our exposure is decreased.

In the case of idiosyncratic default we compute average exposure using essentially the price of an at the money spread option:

$$X_i \sim 0.4 N p_c^{annual} \sigma \sqrt{T}$$

Finally, the total average exposure is an appropriately weighted sum:

$$X = X_i w_i + X_j w_j$$

ANNEX II

Methodology followed to obtain add-ons based on worst case spreads :

1-Data Analysis

The data consists of daily spreads of UK Bond yields over corresponding government low-coupon yields, for various tenors. These are broken-down by S&P rating (AAA,AA,A,BBB). The data runs from 2nd January 1997 to 29th May 2002 .

We have computed 1-year changes in yield spreads for all over-lapping periods, as well as the 95th percentile spread change.

2-Conversion into Add-ons

The add-ons produced are an approximation to the changes in net present value of the credit protection, as per the methodology below :

Let us consider a T-year CDS on a T-year bond with current yield (annual) = r and assume that we set the add-on equal to the change in CDS value due to a jump in spreads. If the new yield is q, the add-on can be shown to equal : Add-on = [B0 – B1], where

B0 = current price of reference asset

B1 = price of reference asset following the jump in spread

We need to compute this value in terms of the change in yield (q-r). We will assume that the bond is trading roughly at par, B0 ≈ 100% (so coupon ≈ r) .

$$B_0 - B_1 = 1 - r \sum_{t=1}^T (1 + q)^{-t} - (1 + q)^{-T}$$

$$= \left[\frac{1 - (1 + q)^{-T}}{q} \right] * (q - r)$$

The term in brackets is just the value of a T-year annuity discounted at the new risky yield.

The add-on can be determined on the basis of the formula above, taking worst case spread moves as an input.

3- 95th percentile worst case add-ons

CDS Potential Future Exposure Add-ons (bps)

	AAA	AA	A	BBB
1 year	18	25	32	53
2 year	42	64	85	127
3 year	74	117	159	223
4 year	113	184	255	339
5 year	159	265	371	477
> 5 yrs	247	389	530	707