BASEL ACCORD INSURANCE WORKING GROUP

Comments to the Basel Committee on Banking Supervision

Consultative Document on Operational Risk (January 2001)

The following comments are submitted jointly by a group of insurance and reinsurance companies in response to the solicitation of industry views by the Basel Committee on Banking Supervision regarding certain portions of the Overview of The New Basel Capital Accord (herein “the Overview”) and to the Consultative Document on Operational Risk (herein “the Supporting Document”) released by the Committee in January 2001.

The objective of this paper is to demonstrate the viability and value of risk transfer solutions to deliver significant regulatory capital relief to banks under the New Accord.

The current membership of this informal group is, in alphabetical order, as follows: Allianz AG, Munich Reinsurance Company, Swiss Reinsurance Company, Tokio Marine and Fire Insurance Company Ltd., XL Insurance Limited, and Zurich Insurance Company. The members have designated themselves the “Basel Accord Insurance Working Group” (herein the “Working Group”) for purposes of this submission.

The Working Group does not intend for its ranks to be exclusive and accordingly invites other interested insurers sharing the views expressed in this submission to join in its work.

Introductory Remarks

The Working Group is encouraged by the Committee’s express acknowledgement of the value of insurance products as vehicles for providing capital relief to banks under the New Basel Capital Accord, as set forth in paragraph 50 of the Supporting Document.

From the first Bankers Blanket Bonds and All Risk Property policies issued long ago to banks, the banking and insurance industries have witnessed the development of a wide array of additional risk transfer products, such as Bankers Professional Liability, Employment Practises Liability, Computer Crime, and Unauthorised Trading products. The Committee's explicit recognition of the historical function of insurance and the continuing role of insurance in developing new products tailored to the operational needs of the banking industry is therefore appreciated.

The Overview and the Supporting Document on Operational Risk now challenge the insurance industry to not only continue this developmental process, but indeed to expand the horizons of the insurance industry response to the operational risks of banks.

As explained in paragraph 17 of the Supporting Document, the proposed operational risk assessment framework is meant to be evolutionary in nature. The Committee's objective is to allow banks to move along a continuum of increasing sophistication in the measurement of operational risk. The insurance industry is therefore challenged to address not just one element but indeed the entire spectrum of approaches to quantifying operational risk.

In this submission, the Working Group's comments are intended to address the needs of the banking industry as a whole, although in the first instance they are likely to apply primarily to those banks with sophisticated risk management processes capable of adopting the Internal Measurement Approach in the near term and, ultimately, the Loss Distribution Approach. In no way does the Working Group wish to diminish the contribution of existing forms of insurance products that play an essential role in managing the operational risk of banks. The Working Group would like to stress that there are other important insurance market initiatives underway of a complementary nature. Indeed, members of the Working Group are also participants in or support other related banking and insurance industry initiatives.

The Working Group is particularly interested in exploring with interested parties the extent to which products could be developed to match the definition of operational risk as ultimately defined by the Committee. A more focused and dedicated risk transfer market, with insurance as one option, could offer – under the new proposed regulatory framework – significant capital relief to banks.

This submission will cover the principal issues identified by the Working Group, namely the Definition of Operational Risk, the Methodology of the Capital Charge Calculation, Data Collection, Transparency and Access, and Market Architecture.

Definition of Operational Risk

Considerable time has been spent by the Working Group in evaluating the Committee's proposed definition of "operational risk" for purposes of the New Basel Capital Accord. In the process, it has remained mindful of the statement in paragraph 158 of the Overview that the Committee intends to refine the definition in the second consultative phase. The conclusion reached is that the Working Group can generally support the Committee's basic proposed definition, being *"the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events."*

The following explanations of the Working Group's perspective on the definition of operational risk may be helpful to the Committee in considering how to best refine this definition to satisfy regulatory objectives, as well as to promote insurance as a reliable vehicle for significant capital relief.

Market , Credit and Other Risk

The Working Group notes the Committee's express intention in paragraph 6 of the Supporting Document that the proposed definition is meant to exclude strategic and reputational risk, but to include legal risk (at footnote 2). The Working Group considers this scope to be appropriate. It further understands that the proposed definition will not include market or credit risk. By strategic risk, the Working Group understands business risks, being defined as risks where the opportunity exists to make a profit or loss. Those entrepreneurial risks are plainly unsuited to an insurance solution. While there are bound to be grey areas that remain, the Working Group believes that the Committee should consider making this point expressly in the proposed definition.

Direct Versus Indirect

The Working Group has taken note that the Committee proposes to limit the scope of operational risk "to direct and certain indirect losses" and seeks comment on how to better specify loss types for inclusion in a more refined definition in paragraphs 7-8 of the Supporting Document.

The extent to which coverage can extend to indirect losses has long confronted insurers in defining the scope of insurance products. This question is of course influenced by the system of law involved and is therefore subject to corresponding legal uncertainty. The Working Group nevertheless believes that the acknowledged difficulties inherent in the specification of direct versus indirect loss types are surmountable. It is critical that the typology or mapping of risks define these distinctions as transparently as possible.

Expected Versus Unexpected

The Working Group has noted the Committee's explanations in paragraphs 9-14 of the Supporting Document to the effect that ideally, a capital charge for operational risk should be limited to unexpected losses, whereas accounting provisions or deductions from income should generally cover expected losses. Under expected losses, the Committee includes the "historical" loss expectations of a bank, using the example of credit card fraud losses. The Committee contemplates allowing some amount of provisioning and loss deductions within the definition of operational risk.

The Committee's distinction between expected and unexpected loss generally reflects the requirement of fortuitous or accidental loss implicit under the majority of national insurance laws and as used in policy language in most insurance markets. From an insurance perspective there are several basic meanings to "unexpected": type of loss, severity, frequency and timing.

Although the proposed definition of operational risk does not use the word "unexpected" in express terms, the Working Group therefore believe that the Committee understands and accepts this fundamental prerequisite to risk transfer solutions. Whether the principle of fortuity needs to be expressly stated in a given risk transfer contract depends in part at least on whether the national law applicable to the contract will imply the term or not.

In refining the proposed definition, the Working Group also believes that a bank's "historical" expectations of operational loss based on its own loss experience should be seen as including not only the nature or type of losses, but also their frequency, severity and timing. The insurance industry generally could consider such normal loss expectancy as falling outside of the scope of a risk transfer solution.

Loss Accumulation

The Working Group feels that a legitimate concern of the insurance industry – as indeed is true for the banking industry – relates to the options available to control loss accumulation in their portfolios. This concern derives from potential systemic risks threatening many institutions simultaneously. Some examples would be the collapse of a major stock exchange, the failure of an international payment or clearing system, or, to take a different type of scenario, a computer virus crippling numerous businesses. These kinds of loss accumulation issues are obviously of great importance to insurers. Consequently, insurers pay careful attention to controlling systemic risks.

The Working Group has given preliminary consideration to the options that could be considered in regard to systemic risks in the context of operational risk transfer vehicles.

The traditional manner by which insurers have addressed systemic risks is by way of contractual limitations. The Working Group realises that the Committee may view such limitations as being inconsistent with the concept of operational risk transfer, however. Ultimately it must be recognised that there may be a balance to be struck between the scope of cover provided and the amount of risk transfer capacity available for capital relief.

The Committee may wish to consider that the sort of systemic risks described would in any event trigger the intervention of national bank regulators or the national bank and in effect would require a response far beyond what the insurance industry can realistically provide. The Working Group would be interested to discuss further the extent of their possible involvement in mitigating systemic risks.

Material Change

If insurance solutions are to work properly, the Working Group believes that an effort would have to be made to address material changes in the scope of risk assumed by insurers. Matters traditionally considered material to the risk, which are frequently part of national insurance law in any event, would include a change of ownership or control of the policyholder, whether by merger, sale or acquisition. Consideration will have to be given to meeting regulatory objectives while also protecting legitimate interests of insurers in this regard.

The Committee expressly notes its intention that its proposed definition of operational risk includes legal risk, in paragraph 6 (at footnote 1) of the Supporting Document. The Working Group notes that an continuing area of concern to liability insurers in particular is material change in the law or regulatory environment underlying the risks assumed. The extent to which such risk may be transferred to insurance is a subject which the Working Group believes may require further dialogue amongst involved parties.

Methodology of the Capital Charge Calculation

The Working Group has carefully considered the methodologies proposed by the Committee for the calculation of the capital charge for operational risk.

From an insurance perspective, both the Basic Indicator Approach and the Standardised Approach, while perhaps practical regulatory tools in an initial phase,

are not risk-sensitive enough to adequately quantify operational risk. The Working Group has therefore focused its attention on the Internal Measurement Approach (or "IMA") and the Loss Distribution Approach (or "LDA") since these approaches are risk-sensitive. Consequently, the resulting capital charge comes closest to an economic capital calculation based on actuarial methodologies. This is not to suggest, however, that risk transfer products do not have a role to play in providing capital relief to those banks that qualify for the other approaches proposed by the Committee.

The Working Group wishes to offer the following hopefully constructive critique of the IMA and LDA, which is explained in greater depth in the Annex hereto.

Internal Measurement Approach

As proposed by the Committee, under the IMA the required capital is given by:

$$C = \sum_{ij} \gamma_{ij}\ EI_{ij}\ PE_{ij}\ LGE_{ij}$$

The Working Group accepts that this equation addresses the issue of capital calculation in a risk-sensitive manner. However, the Working Group also believes that there are a number of shortcomings to this methodology in regard to its consistency with actuarial models, being the following:

1) The exposure indicator utilised in the proposed formula does not specify whether it is referring to a frequency or severity scaling.

2) As unexpected loss exhibits different scaling behaviours with respect to frequency and severity exposure indicators, it is felt that greater accuracy could be achieved if a distinction were made between frequency and severity.

3) Unexpected losses of two random variables, in general, do not add to the unexpected loss of the random variable corresponding to their sum. A simple addition of unexpected losses can lead to a considerable overestimation of the desired quantity.

4) The nature of the data required to calculate the parameters PE_{ij}, LGE_{ij} and γ_{ij}, as well as the methodologies to determine them are not specified in the proposed formula.

To overcome these shortcomings, the Working Group would suggest the following methodology as described in greater depth in the Annex.

It is assumed that the following set of data for banks k = 1 to K be given (for each combination ij of business line i and loss type j):

- number of losses N_k,
- aggregate period loss S_k, and
- exposure indicators of frequency and severity $EI_{N;k}$ and $EI_{X;k}$, respectively.

By means of this data set we define:

$$PE = \frac{\sum_{k=1}^{K} N_k}{\sum_{k=1}^{K} EI_{N;k}}, \qquad LGE = \frac{\sum_{k=1}^{K} \frac{S_k}{EI_{X;k}}}{\sum_{k=1}^{K} N_k},$$

and propose the following equation for capital calculation:

$$C = \sqrt{\sum_{ij} \left(\gamma_{ij} \; EI_{X;ij} \; \sqrt{EI_{N;ij}} \; EL_{1;ij} \right)^2},$$

where $EL_{1;ij} = LGE_{ij} \cdot PE_{ij}$ denotes the expected loss of a bank with unit exposure for business line i and loss type j combination.

By doing so, the approach would successfully address the perceived shortcomings as follows:

1) A distinction between frequency and severity exposure indicators is made.

2) Scaling behaviour of the unexpected loss with respect to the respective exposure indicators is properly taken into account.

3) The benefit of diversification across business units and risk categories is included in the capital calculation.

4) The required data and determination equations of the critical parameters PE_{ij}, LGE_{ij} and γ_{ij} are specified.

In the Annex, the Working Group also considers the effect of an insurance program on the capital charge. Under some admittedly general assumptions, the effect of insurance as a mechanism to release capital is demonstrated in working examples. The Working Group believes that with such adjustments in the calculation the accuracy of the IMA would be enhanced and therefore closer to the objectives of the Committee.

Loss Distribution Approach

The Working Group suggests that the first step in the development of a highly sophisticated and at the same time efficient LDA would be to develop a comprehensive, more detailed and uniform framework of standards, structures and terminology. This step would lead to a LDA which enables regulators, banks and the insurance industry to precisely measure the risks of specific banks taking into account the lines of business, business and support processes, regional location, size, assets, regulatory compliance, as well as risk management standards, measures and insurance solutions.

Data Collection, Transparency and Access

The Working Group has paid special attention to the Committee's statement in paragraph 160 of the Overview that *"coordinated industry-wide data collection and data sharing based on consistent definitions of loss, risks and business lines to be particularly critical in developing the advanced approaches."*

The Working Group would agree that the goal of all interested participants should be a form of common, codified database to "map" banking operational risk. To the knowledge of the members of the Working Group, there are already various banking and insurance industry projects underway in connection with defining the parameters for the collection and mapping of loss data, along lines similar to those proposed by the Committee.

Basically, the Working Group envisions the establishment of a database management entity, in the form of a special purpose vehicle, funded and directed by interested stakeholders with regulatory guidance from the Committee. The database should be readily accessible to all stakeholders subject of course to strict precautions to preserve anonymity.

The database must be established with the need for full disclosure kept closely in mind so as to promote accurate assessments of operational risk a stable marketplace for insurance products. Consideration would have to be given to what form of

sanction there might be imposed – regulatory or otherwise – for non-compliance with disclosure duties.

To enhance its value as a tool to quantify the true operational risk of banks, the database should be established based on an internationally agreed typology of risks (e.g. the proposal of EFIRM - European Financial Institution Risk Managers). The typology should among other things address distinctions between direct and indirect losses falling within the Committee's definition and those indirect losses which do not. This standardised typology of business lines and risk indicators should be developed in a cooperative manner between the Committee and both the banking and insurance industries with the goal of enabling the implementation of both the IMA and LDA. Standardised definitions of loss events are, as recognized by the Committee, essential.

The Working Group has noted in this connection the comment of the Committee in paragraph 38 of the Supporting Document that it will eventually *"examine the possibility of allowing banks greater flexibility to use their own business lines and loss types."* The Working Group would urge that an emphasis on consistency and homogeneity of data is more important to promote the Committee's objectives.

In addition, the Working Group believes that consideration should be given to the development of a template for the standardised reporting of loss data. The reporting structure would ideally incorporate an incident reporting system as well. Such a template would foster the proper and smooth functioning of the database.

Finally, there should be a continuing requirement of reporting losses during their lifetime. It is vitally important that the database contains sufficient information to allow all stakeholders to track the financial life cycle of individual as well as categories of losses while maintaining absolute confidentiality of individual banks' loss information.

As noted, the regulatory framework and as necessary national law would require attention to ensure that legal access to data can be achieved. The Working Group does not believe that anonymity of the data should hamper the development of the dedicated insurance market they envision.

Market Architecture

As the Committee notes in paragraph 31 of the Supporting Document, for the IMA to be viable there must be a critical mass of institutions capable of gathering the necessary data.

During this time period, the Working Group believes that the Committee together with the banking and insurance industry should frame a market architecture for operational risk transfer products offering significant capital relief.

Hence the Working Group offers the following preliminary suggestions of how they might envision such an organised market taking shape which could meet the Committee's objectives. The Working Group note that any such market should be open to all capacity providers meeting the regulatory criteria. It should be as competitive as possible while offering long-term solutions.

Open Risk Exchange Platform

The Working Group considers that it would advance the objectives of the Committee and both the banking and insurance industries if an open market forum were established. This idea will be explored by the Working Group within their industry as a priority item.

The main goal of such an organisation would be to move towards the establishment of an international platform for the collection of data, monitoring of risk, refining of the definition of operational risk, and fostering the creation of a competitive market that complements and extends beyond the existing range of insurance products available for risk transfer and capital relief.

The insurance market is already providing differing levels of protection against operational risks. In fact, sophisticated buyers of insurance already use a wide range of insurance solutions, differing not only in their scope of coverage, but in the way they are structured to meet the financial goals of the bank. The Working Group would urge that existing insurance products not be overlooked by the Committee in the process.

Counter-Party Risk

In paragraph 50 of the Supporting Document the Committee notes that insurance solutions carry counter-party risk. The Working Group accepts this point and the need to explore ways in which to minimise such risks. The Committee may therefore wish to set minimum solvency or credit risk requirements for interested capacity providers.

The Working Group believes in principle that such a platform for operational risk transfer should be open to all interested participants meeting the criteria set by banking regulators. In this regard, the Working Group has given some preliminary thought to the factors the Committee may consider appropriate in establishing security criteria for insurers participating in any platform for operational risk transfer

vehicles. Among those factors would be the participant's capital base, its internationally established financial rating, and the reputation and experience of the company and its management.

In any event, the contracting parties and the contract relationship should be as simple, direct and transparent as possible.

Under these prerequisites, the Working Group believes that that degree of security provided by strongly rated capacity providers should satisfy the concerns of the Committee and attract only a marginal discount on the amount of capital relief sought.

Use of Capital Solutions

The Working Group would like to explore the extent to which indemnification and risk financing could be addressed through the use of capital products. The advantage of combining an insurance (indemnification) product enveloped within a risk financing product would be the elimination of uncertainty over whether a particular loss event was covered.

Such a capital product or instrument would be triggered upon the determination of an independent investigator that a loss of a certain magnitude had occurred to which the contract must respond. The response of such an instrument could for example be the purchase of certain securities or other instruments or payment in cash, depending on the type of loss event.

The value of such a "put option" is transparent due to the direct right of claim on the insurer and can be readily evaluated by banking regulators at any time. The legal risk of an exculpatory reason to settle would thereby be eliminated leaving only the residual credit risk reflecting the nature of the security allowed by the regulators.

Given that such capital instruments may be specified by the regulators, the Working Group strongly urges that the Committee recommend that only Tier I capital instruments be used.

Standardisation of Contract

One cornerstone of a platform of the kind envisioned by the Working Group is the standardisation of the contractual terms of the market, here the risk transfer contract(s).

In that regard the Working Group would propose that for purposes of an operational risk transfer contract providing the maximum amount of capital relief, an effort

should be made to develop a set of core contract terms in line with applicable competition law (e.g. EEC exemptions) which are proposed by the banking and insurance industry, similar to the standardised contracts found in the banking industry.

It is anticipated that specific requirements of national law or practice may require a limited number of wording variations. At a minimum, the Working Group accepts that the scope of cover of an operational risk transfer contract along the lines contemplated above must match the Committee's definition.

Core Contract Terms

The Working Group has also given preliminary consideration to some of the key terms of such an operational risk transfer product.

A basic consideration would be agreement on the types of suitable contract "triggers". For third party (e.g. liability) exposures a so-called "claims made" trigger would be the most suitable trigger, whereas for first party (e.g. property) exposures, a discovery or manifestation trigger would seem the most appropriate trigger to the Working Group.

The Working Group accepts that to be consistent with the Committee's goals it would likely be necessary for a suitable risk transfer product to be as a practical matter "irrevocable" in the sense of a lengthy notice period for cancellation, e.g. 12 months, in order to give the bank and its regulators sufficient time to make readjustments to the capital charge.

In addition, the liquidity and certainty of response of risk transfer products needs to be addressed. Express terms regarding the manner in which an operational loss can be assessed for the purpose of triggering a response should be considered. One option would be, as suggested above, the use of an independent investigator to determine whether a loss of a certain magnitude has occurred to which the contract must respond. Settlement of the loss would then follow within a prescribed period. However it is ultimately resolved, certainty and speed of loss settlement is understood to be a major concern of the Committee.

The Working Group would suggest in any event that the terms of any standardised product(s) for a platform along the lines envisioned should be pre-approved by banking regulators as a suitable substitute for capital and accordingly for use as capital relief vehicles. The extent of capital relief afforded by such a product should of course also be determined by banking regulators.

Applicable Law

To promote legal certainty, the Working Group considers that ideally there would be a single or at most a very limited scope for choice of law applicable to all operational risk transfer contracts placed by way of such a platform. A topic for discussion should be whether limiting the choice of law would be helpful to promote consistency in interpretation of any standardised terms.

Dispute Resolution

In order to foster prompt and certain resolution of disputes, some form of dispute resolution mechanism would, in the view of the Working Group, be highly advantageous to participants in any operational risk transfer platform. The basic features of such a mechanism might be as follows.

The establishment of a permanent panel of qualified judge-arbitrators to serve as the exclusive jurisdiction for all disputes. While consideration would have to be given to the details, a tribunal of private judges or a permanent pool of qualified arbitrators evenly balanced between banking, insurance and perhaps also regulatory expertise could be established. The goal should be to establish a quick and reliable dispute resolution mechanism operating under a uniform set of rules whose decisions are final and binding with no right of appeal.

Another essential feature of such a dispute resolution mechanism, from the perspective of the Working Group, is that there be a system for the publication of decisions on an anonymous basis to educate the market on important issues.

Concluding Remarks

The members of the Basel Accord Insurance Working Group believe that ultimately the implementation of the New Basel Capital Accord, with its incorporation of operational risk assessment, presents an unprecedented challenge and opportunity for all participants - regulators, banks and insurers - to enhance both the use of existing insurance products as well as promote the use of new and innovative insurance products as capital management tools for the banking industry.

The members of the Working Group will actively seek continued dialogue and engagement with the Basel Committee, other banking regulators, the banking industry, and other insurance industry participants on issues pertaining to operational risk. They would be pleased to have the opportunity to meet with the Committee's Risk Management Group to further pursue the concepts outlined in this submission and discuss in greater depth the views set forth in the Annex hereto.

BAIWG
Basel Accord Insurance
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The Working Group wishes to thank the Committee for their consideration of this submission.

Dated: 28 May 2001

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Annex – Methodology of the Capital Charge Calculation

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