



**ASSOCIATION ACTUARIELLE INTERNATIONALE
INTERNATIONAL ACTUARIAL ASSOCIATION**

May 19, 2006

Mr. Rob Esson
Chair, Insurance Contracts Subcommittee
International Association of Insurance Supervisors
c/o Bank for International Settlements
CH-4002 Basel
Switzerland

Dear Mr. Esson,

**Re: Draft Second Set of IAIS Observations on Issues Arising as a Result of the IASB's
Insurance Contracts Project Phase II**

In response to the request for comments on the above-mentioned draft document, I am pleased to transmit on behalf of the International Actuarial Association (IAA) our comments and recommendations.

These comments have been prepared by the Risk Margin Working Group of the IAA. If, upon reading these comments, you identify any points that you would wish to pursue, please do not hesitate to contact either co-chairperson of the Risk Margin Working Group, W. Paul McCrossan or Henk van Broekhoven, or any of the other members of the working group. The IAA will be pleased to explore the comments contained in this response with you.

Yours sincerely,

Yves Guérard
Secretary General

Attachment: IAA Comments

cc: Peter Cooke, IAIS Secretariat

**A Commentary on the
DRAFT SECOND SET OF IAIS OBSERVATIONS
ISSUES ARISING AS A RESULT OF THE IASB'S INSURANCE CONTRACTS PROJECT – PHASE II
Released by the International Association of Insurance Supervisors: 27 April 2006**

International Actuarial Association

The International Actuarial Association (the “IAA”) represents the international actuarial profession. Our fifty-five Full Member actuarial associations represent more than 95% of all actuaries practicing around the world. The Full Member associations of the IAA are listed in an Appendix to this commentary. The IAA promotes high standards of actuarial professionalism across the globe and serves as the voice of the actuarial profession when dealing with other international bodies on matters falling within or likely to have an impact on the areas of expertise of actuaries. The IAA appreciates the opportunity to provide comments on this IAIS document.

Due Process

These comments have been prepared by an ad hoc working group of the Insurance Accounting Committee, Insurance Regulation Committee and Solvency Subcommittee of the IAA. The members of the Risk Margin Working Group are listed by name in an Appendix to this submission. This document has also been subject to the due process required for it to constitute a formal view of the IAA, and will be posted to the IAA’s official web site.

IAA Comments

The International Actuarial Association applauds the IAIS for again taking a proactive approach to examining the fundamental issues that are associated with the development of international regulatory financial reporting for insurance contracts based on the IASB’s International Financial Reporting Standards (IFRSs).

In particular, the IAA notes that its members support the IAIS initiative to explore how future IFRSs can be used with as few changes as possible to meet regulatory reporting requirements as a potential breakthrough in making insurance both financial and regulatory reporting more relevant.

The IAA agrees that liability measurement should be prospective in nature reflecting both the time value of money and appropriate risk margins (Executive Summary) and expresses strong support for the effort to achieve a single set of accounts that could be used for both general purpose financial reporting and regulatory reporting (4).

The IAA notes that such a result should be possible if both general purpose and regulatory financial reporting are based on the consideration of the entire set of contingencies to which a portfolio of similar insurance policies are exposed and discusses below issues that might impede the use of a single set of financial and regulatory reports.

The IAA also agrees completely, or with the minor reservations noted below, with the following key concepts expressed in the IAIS’s second draft paper that would facilitate the two sets of

general purpose and regulatory reports being developed in a consistent manner. The paragraphs in the IAIS paper where these concepts are discussed are noted in parentheses:

1. Reconciliation and clear explanation of any differences between general purpose and regulatory accounting should be publicly explained (5).
2. Observable market inputs should be used to the fullest extent possible with the remaining elements being modelled (15 – 22). *We provide a more extensive discussion under **Common Reference Frameworks for Market Observables and Unobservables**.*
3. When the amount or timing of future cash flows is uncertain, probability should be used to measure expected future cash flows relating to the contract (24) and these probabilities should reflect the pooling of similar risks (30). *The IAA believes that the second liabilities paper uses the generic term diversification in some situations sometimes when it means “pooling” of similar risks and in other situations when it means “diversification” of dissimilar risks. For example, both the words “diversification” and “pooling” are used in paragraph 30 when the concept of “pooling of similar risks” is used throughout. It is also useful to distinguish the related concept of hedging (offsetting risk that are negatively correlated). We include a more extensive discussion on the concepts in our specific comments under **Pooling and Diversification as Terms of Art**.*
4. Both insurer and policyholder behaviour should be reflected in both the liability recognition and the liability measurement criteria used in both sets of financial reports (70). *We include a more extensive discussion under **Insurance Contracts can be Complex Bundles of Rights and Obligations and Insurance Liabilities Should Measure the Contract as a Whole**.*
5. Imposition of a cash value floor in general-purpose accounting is inconsistent with the recognition of behaviour referred to in the previous point (74).
6. Liability measurement should, when possible, be based on current estimates (meaning probability-weighted expected values under current conditions) that reflect the specific features and characteristics of both the contract and the insureds. (78). *The IAA notes the process of determining the current estimates with known probability distributions should not be taken as something that can now be applied in every case. While such current estimates may be relatively reliable in many life insurance and general (or P & C) personal lines insurance, there may be considerably less reliability in current estimates for low incidence high severity commercial lines of general insurance. In these situations, the considered judgement of experienced insurance professionals might be an additional source of relevant current estimates. We have discussed this further under **Current Estimates of Insurance Contingencies**.*
7. Liability measurement should include some margins that reflect the uncertainty of the risks insured (59) or the reward that a reference insurer would ask for in order to assume, with the intent of settling, the liability (11). *The level of the margins demanded between a willing buyer and a willing seller will reflect knowledge about the probability distribution function of the insured contingencies and the higher the risk the more reward will be demanded in order to assume the risk. However, the IAA notes that, for certain high risk products, e.g. asbestos claims, there may be no price large enough to tempt a suitably well capitalized insurer to assume the risk and the margin for profit concept may not be*

*relevant. We have included additional discussion under sections of our response headed **Risk Margins and Characteristics of Margins and Methods for their Determination.***

8. Expected future cash flows resulting from discretionary participation features that retroactively adjust the price to reflect experience should be recognized in the measurement of insurance liabilities (91). *The IAA suggests that the IAIS expand on the reasons for its views in the section of our response **Discretionary Participation Features (DPFs)**.*
9. Expected future cash flow should reflect all features in the insurance contracts including any guarantees, options or embedded derivatives (99).

Notwithstanding the very broad agreement with the draft IAIS paper, the IAA believes that more consideration by the IAIS needs to be given to several elements of the April 27 draft paper. The discussion that follows elaborates on these issues:

Common Reference Frameworks for Market Observables and Unobservables

In its observations, the IAIS refers directly to liabilities being measured on the basis that the liabilities will be settled (11). It refers to liabilities being “market consistent” (15). It also refers to a “common reference framework” to model unobservable “inputs” (21) in order to “promote a consistent and compatible methodology”. Finally, the IAIS states that “a small, insufficiently diversified portfolio should attract a higher total financial resource requirement due to the greater random deviation than a larger diversified portfolio” (54) in order that “similar obligations with similar risk profiles should result in similar liabilities”. With the exception of what the IAA suggests is an imprecise use of “diversified” in (54) by the IAIS when “pooled” is meant (see next section on **pooling vs. diversification as terms of art**), the IAA supports these conclusions and notes that to achieve similar results in similar situations, large, medium and small insurers must use similar “market observable” and “market unobservable” inputs for a pool with similar risk characteristics.

The IAA also notes that the IASB is considering how to measure liabilities bearing in mind that insurance contracts are complex packages of rights and obligations that can reflect both market and contingent insurance risks (and their interaction). In order to provide consistent relevant and reliable information, the IAA feels that the IAIS and the IASB should strive to achieve consistent and relevant reference frameworks.

With respect to market observables, the IAA believes that a reference high quality investment market should be prescribed that is both deep and liquid in the relevant jurisdiction(s) for most of the durations over which insurance risks are assumed. The IAA can contribute to the discussion but does not have the technical expertise on its own to suggest what high quality market should be agreed upon.

With respect to “unobservable market inputs”, the IAA also would like to see agreement on a reference framework for modeling similar risks that are administered in a similar manner. It is obvious that there may be a large range of potential acquirers for a block of business. The IAA does not favour measuring insurance liabilities with respect to the risk bearing capabilities of the smallest insurers in the relevant market since that would lead to liabilities being measured at amounts that may be too large. Similarly, the IAA does not favour measuring liabilities with

respect to the risk bearing capabilities of the very largest insurers in the relevant markets. Instead, the IAA feels that the reference insurance framework should be determined with respect to the expected experience of a well capitalized insurer that has achieved sufficient risk mitigation through pooling to achieve the large number effect.

The further benefits of pooling available as a result of a larger amount of similar insurance risks, or penalties for a smaller amount, should be reflected in required total financial resources. Only by ensuring that insurers measure their liabilities with respect to a common reference framework will the IAIS achieve the principle enunciated before paragraph 50 (that “similar obligations with similar risk profiles should result in similar liabilities”). That being said, the IAA does not believe that size is the only relevant issue to be considered in establishing the reference insurance framework – or even the most important issue; but offers these comments in order to respond to the concepts raised in the second liabilities paper (52 - 54).

Pooling vs. Diversification as Terms of Art

The IAA believes that it is important to distinguish between the technical term of art “risk pooling” and the technical term of art “risk diversification” each of which is a type of diversification in the generic sense. It is also helpful to consider the related concept of hedging by offsetting risks that are negatively correlated.

As identified in footnote 7, insurers “pool” risks (i.e. *aggregate similar risks that are similarly managed*) in order to benefit from the “law of large numbers”. The statistical concept is that mutually independent risks, when aggregated, will have experience that reflects a well behaved and measurable probability distribution function about the statistical mean. Note that aggregation of risks of significantly disparate size does not “(ensure) that volatility of future cash flows is at an economically sustainable level” if the largest risks accepted are too large relative to the size of the total financial resources of the insurer.

“Diversification” has a somewhat different specialized technical meaning. Diversification involves *accepting risks that are not similar in order to benefit from the lessened correlation of contingent events*.

“Offsetting risks” involves accepting risks with a strong negative correlation as compared to diversification which merely requires the absence of a strong positive correlation.

The IAA believes that the second liabilities paper uses the generic term, diversification, in situations when it sometimes means “pooling” of similar risks and sometimes when it means “diversification” of dissimilar risks. For example, the words diversification and pooling are used in paragraph 30 when the concept of “pooling similar risks” is intended throughout.

Both pooling and diversification bring risk mitigation benefits to insurers. However, distinguishing between “pooling”, “diversification” and the concept of “offsetting risks” may be necessary to achieve the desired single set of accounts if the IASB does not allow recognition in liability measurement of the interaction of risk mitigation effects between units of account. The IAA understands that the IASB has considered units of account for liabilities as historically restricted to similar liabilities, managed similarly – which, of course, captures only pooling

benefits – and may not recognize diversification benefits. Recently, on May 19¹, the IAA commented to the IASB that the concepts of portfolio creation and aggregation need further consideration, particularly in the context of diversification

This raises the point directly of whether paragraph 51 should be included in the IAIS paper. The IAA accepts that an insurer that issues both term insurance and life annuities achieves risk mitigation through offsetting of risks. The IAA also accepts that the same risk, mortality, is involved in each contract type. However, the IAA observes that the risks are not “similarly managed”. E.g. typically no effort is made to underwrite annuitant mortality risk while significant medical and non-medical underwriting takes place for term insurance risks. From a theoretical perspective, the IAA believes, as the IAIS does, that the IASB should allow consideration of risk offsetting in liability measurement. The same is true for recognition of generic diversification to the extent that it is observed in actual markets. Nevertheless, should the IASB feel that only “pooling” can be recognized in liability measurement, the IAA questions whether the IAIS should take a stance that would imperil the emergence of a single set of accounts.

Needless to say, the IAA believes that diversification benefits exist and should be recognized in calculating the total financial resources required of an insurer for regulatory purposes. As stated, the IAA has sympathy for recognizing both the insurance and annuity mortality risk mitigation effects in liabilities; however, we suggest that the IAIS further clarify its thinking with respect to what risk mitigation effects should be recognized in liabilities.

We note that the IASB is currently considering how reinsurance fits into all of this. Accordingly, we note that reinsurance is a major risk mitigation tool, particularly for smaller insurers, but defer further comment.

Insurance Contracts can be Complex Bundles of Rights and Obligations and Insurance Liabilities Should Measure the Contract as a Whole

Each right or obligation can create changes in the behaviour of the insurer or the policyholder. While the list of stand-ready obligations in paragraph 69 is not meant to be exhaustive, the IAA feels that one of the most important life insurance obligations has been omitted and should be referenced i.e. “an obligation to accept future premiums (to the extent provided for in the contract)”.

Insurers and policyholders will assign different utilities to their rights and obligations and their behaviour will reflect how these utilities vary over time as contingent and market events emerge. The current estimates used to measure liabilities should not give preference to any one right or obligation over any other right or obligation; but should reflect current estimates of emerging contingent risks (including relevant policyholder and insurer behaviour) (68).

It seems counterintuitive to give one right (such as a surrender value) more prominence than other rights in measuring liabilities. The IAA believes that, in light of the fact that counterparty behaviour is already recognized in market models accepted in general purpose accounting, such as for CMOs (collateralized mortgage obligations) where the models used to determine prices

¹ Discussion Paper on Measurement Bases for Financial Accounting – Measurement on Initial Recognition

explicitly assume that not all mortgagees will refinance their mortgages when they can do so advantageously due to falls in interest rates.

Current Estimates of Insurance Contingencies

The IAIS draft paper mentions the need for current estimates (35) but focuses on risk margin (MOCE) considerations. The IAA wishes to stress that the process of estimating the current level and trend in cost of insurance as well as the probability distribution of results should not be taken as something that can be assumed to exist already. Even for relatively well behaved insurance risks (such as mortality), there are many risks that lack current credible studies. And relevant persistency (lapse) data which might be more important to profitability may also not be readily available. Data on trends and volatility might also not be available. Further, with respect to low frequency risks of high severity, the IAA notes that Conditional Tail Expectation might be superior to a single point estimate current estimate. Finally, the IAA notes that for some low incidence high severity risks where the probability distribution is not well understood, the considered judgement of the relevant experienced insurance valuation expert might be an additional source of current estimates.

The IAA notes that traditional life insurance is relatively “simple” compared to many general (property and casualty) insurance contracts. Either a death occurs while insured, or it does not. There are no “repeat deaths”. Frequently, the insured amount is fixed. Typically, the period for claims development is short. The same is not true for many of the general insurance (property and casualty) contracts. On the other hand, many general insurers appear to be quite advanced in risk modeling. Nevertheless, in order to develop consistent, relevant and reliable liabilities, regulators may have to encourage studies of contingent experience to be undertaken and kept up to date for both life and general insurance.

Finally, in practice, there may be unlikely scenarios which potentially contribute materially to the probability weighted expected value for which there are not sufficiently reliable estimates of frequency and / or severity from either data or experienced insurance valuation judgement. For these situations, disclosure of the uncertainty may be a better financial reporting approach than use of insufficiently reliable estimates.

Risk margins

The IASB wishes to develop a robust general purpose liability measurement model that can be applied internationally. The IAIS wishes to develop a regulatory model that can be applied internationally as well. The IAIS also expresses the desire that it be able to accept the liabilities calculated in general purpose financial statements for regulatory purposes.

At first glance, it might appear that the IASB and the IAIS have differing concepts behind what the margins should represent. The IASB currently appears to favour margins over current estimates that are reflective of the amount of profit that an insurer would demand of another insurer to assume a liability but the IAA is not, as yet, certain what the IASB means by this approach. The IAIS appears to favour margins that are reflective of the amount of uncertainty in the liabilities assumed within a total financial resources framework.

The IAA believes that the two concepts are potentially mutually compatible based on considerable evidence, following the introduction of new general purpose and regulatory regimes in several jurisdictions, that industry practices evolve (and converge) fairly rapidly to reflect these new regimes.

The IAA's report "*A Global Framework for Insurer Solvency Assessment*", which the IAA believes the IAIS has generally followed in its Roadmap, indicates that the types of risk to which an insurer is exposed fall generally in the following categories:

- Underwriting Risk,
- Credit Risk,
- Market Risk (including liquidity risk), and
- Operational Risk.

To the extent that the reference framework for liability measurement is a high quality, deep and liquid investment market for most of the durations over which insurance risks are assumed, an insurer can avoid both almost all material credit and market risks by investing in the reference market.

Thus, the need for total financial resources to be adequate to cover avoidable credit and market risks can result from an insurer's decision not to invest its assets in securities of the quality of those available in the framework reference market rather than as a result of writing insurance contracts.

The IASB also has expressed the view that insurance liabilities should not reflect the assets held by an insurer unless the insurance benefits actually depend on the assets held.

Therefore, if there is to be convergence between the liabilities used by the IASB and the IAIS, it appears necessary that any regulatory margin in respect of avoidable credit risk and market risk must be over and above what is included in the insurance contract liability.

Just where operational risk should be recognized is still a matter of discussion within the actuarial community. Our Framework Paper suggested that it not be part of liabilities. It is likely that the IASB would not find it consistent with its conceptual framework to recognize operational risk in liabilities. Since the IAA believes strongly in the merit of a single set of accounts, the IAA feels that the IASB and the IAIS should come to an agreement on the extent to which margins recognized in liabilities should include or exclude some of the operational risk considerations.

As stated above, the IAA feels that the concepts of a "risk margin" over current estimates and the concept of a "profit margin over current estimates" may be potentially mutually compatible because insurers will determine the profit for which they price to assume risks based on their assessment of the reward needed to reflect the level, trend and uncertainty of the risks assumed. Indeed, the IAA points out that the "quantile method" cited in the IAIS report (or the related "Conditional Tail Expectation" which is theoretically more satisfactory than quantiles) is a "risk based margin" approach where the margin reflects a specific probability of sufficiency while the

“cost of capital method” incorporates a “reward based” return on capital concept that reflect an exit value approach reflecting the risks involved.

However, it may be that the IASB wishes to adapt the concept of margins to make them a device to reflect entry prices with a primary (or secondary) function to ensure “no profit at issue”. If so, caution must be exercised in their application (see the following section on *Characteristics of Margins and Methods for their Determination*).

The IAA acknowledges that, to date, margins have not been observed consistently internationally and believes that the combination of a lack of consistent general purpose and regulatory reporting and a lack of consistent solvency regimes have been the major impediments to the development of consistent margins. Today, general purpose financial reporting regimes differ widely by jurisdiction with many being historically rather than prospectively rooted. To the extent that insurers make economic decisions based on accounting results, the differences in accounting regimes will lead to different decisions.

The same is true of differences in regulatory regimes. To the extent that regulatory arbitrage is available, insurers may make different decisions to reflect the regimes that they operate in.

Finally, the concepts of “economic capital” and “enterprise risk management” are developing rapidly (and would not have been practical mere years ago when computers were less powerful).

The IAA has observed that, when insurance liabilities are measured prospectively and when robust total financial resources (or its analogue risk based capital) are introduced into marketplaces, a convergence in (and strengthening of) insurance industry practices occurs. The IAA believes that a similar convergence in (and strengthening of) insurance industry practices will occur internationally with the development of sound, robust general purpose financial and regulatory reporting regimes.

In this respect the IAA is currently endeavouring to produce a report on risk margins for the IAIS and expects to do so during the northern summer.

Characteristics of Margins and Methods for their Determination

The IAA agrees with the characteristics noted in paragraph 59; but feels that the last bullet should be amplified to note that emerging experience can increase uncertainty, requiring increases in margins.

The IAA thinks that it would be useful to refer in paragraph 63 to the three methods (rather than two methods) currently in use to calculate a MOCE. First is the method of explicitly determining margins for uncertainty assumption by assumption in the liability measurement based on professional guidance and judgement when needed. Second is the quantile approach (including CTE). Third is the cost of capital approach.

Note that the degree to which diversification is (or is not) reflected in liability measurement (or in total financial resources in excess of liabilities) will impact the application of all three methods. So too, will the use of margins to impose a “no profit at issue” constraint.

When the levels of margins over current estimates change, the IAIS has indicated (69) a desire that the basis for that change be disclosed. A key question might be “what information, or change in condition, came to the attention of the preparer during the current financial reporting period that led to a change in margins?”

This question might be particularly relevant if a prospective “exit” model were adopted for liability measurement that contained a constraint such as “no profit at issue”. While application of such a constraint at issue might be relatively straightforward for day 1, consistent application of the principle for day 2 (or year x) subsequent measurement would not appear to be as straightforward.

This suggests that, when the MOCE is derived from an aggregate approach, there may be merit in notionally allocating the MOCE by risk for subsequent measurement purposes. This would be particularly appropriate if the IASB requires the margin to be used as a device to achieve a “no profit at issue” constraint.

Discretionary Participation Features (DPFs)

The IAA feels that it would be of value to elaborate with respect to DPFs to cover several of the different forms of DPFs. The IAA believes that it might prove useful to provide additional context for DPFs to the IASB.

DPFs arose from an agreement between insurers and policyholders under which both parties accepted that a premium would be charged in excess of cost in exchange for the expectation that the price would be adjusted later to reflect experience.

In some cases, the total amount of DPF payment (for example as a percentage of emerging surplus) is prescribed by law, or has become a constructive obligation. The group of policyholders eligible for such payments may include several units of account. In other cases, there are company policies, histories, illustrations or representations (as well as laws, regulations and court rulings) that also should govern how future DPFs are included in liability measurement.

The IAA supports the IAIS position that in the second situation the expected amount of such DPF distributions should be included in liability measurement, possibly with reduced risk margins. In the first situation, the IAA supports the concept that an amount be established in liabilities to reflect the DPF obligation. However, the methodology for determining the liability would need to reflect the form of the legal, or corporate, DPF requirement.

Finally, when an insurer changes its corporate policy with respect to future DPFs, the change in corporate policy should be immediately reflected in liability recognition.

Detailed Editorial Suggestions

Appendix C [to come] includes suggested changes in wording in respect of the above and other issues identified during the IAA review process.

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Therese Vaughan	American Academy of Actuaries
Eret Võsa	Eesti Aktuaaride Liit
Stuart Wason	Society of Actuaries

Full Member Associations of the IAA

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Institute of Actuaries of Australia (Australia)
Aktuarvereinigung Österreichs (AVÖ) (Austria)
Association Royale des Actuaire Belges (Belgique)
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Hrvatsko Aktuarsko Drustvo (Croatia)
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Hellenic Actuarial Society (Greece)
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Institute of Actuaries (United Kingdom)
American Academy of Actuaries (United States)
American Society of Pension Professionals & Actuaries (United States)
Casualty Actuarial Society (United States)
Conference of Consulting Actuaries (United States)
Society of Actuaries (United States)