**International Association of Insurance Supervisors**

# Issues arising as a result of the IASB's Insurance Contracts Project – Phase II

# Second Set of IAIS Observations

## Executive summary

The IAIS believes that it is most desirable that the methodologies for calculating items in general purpose financial reports can be used for, or are substantially consistent with, the methodologies used for regulatory reporting purposes, with as few changes as possible to satisfy regulatory reporting requirements.

This paper provides a second set of IAIS observations on identified measurement themes common to both general purpose financial reporting and regulatory reporting that we understand the IASB to be addressing in its consideration of Phase II of its Insurance Contracts Project. It follows on from our initial observations of May 2005. It assumes that a prospective asset/liability model with adjustments for time value of money and a risk margin will be adopted, but at this stage the IAIS has not committed to adopting any particular measurement standard.

A summary of the further IAIS observations and principles set out in this second paper is as follows:

- Insurance contracts are written in the expectation that the insurance obligation will be settled with the claimant or beneficiary, and the vast majority are discharged by the insurer through settlement rather than through transfer. The IAIS believes that the measurement of an insurance liability should be based upon the future cash flows relating to full settlement with the claimant/beneficiary.

- The IAIS supports an approach to valuation whereby observable inputs from deep and liquid markets are used to the fullest extent possible, and the remaining elements are modelled. Since inputs which cannot be observed in deep and liquid markets play an essential role in the measurement of insurance liabilities, a common reference framework is appropriate to model as objectively as possible such inputs.

- The IAIS believes that, where the amount or timing of future cash flows is uncertain, then probability is a crucial factor in measuring the cash flows relating to the contract.

- An exit model is preferable but profit on inception should be recognised only where an appropriate and sufficiently reliable risk margin has been provided for in the value of liabilities.

- Similar obligations with similar risk profiles should result in similar liabilities.

- Without prescribing any one method at this stage the IAIS believes that any methodology for calculating the margin over current estimate should share certain characteristics.

- The IAIS believes that the margin over current estimate should be determined in such a way as to promote transparency and comparability between different insurers and markets in an objective manner.

- Probabilities which reflect likely policyholder behaviour in respect of all obligations under the contract – rather than in respect of only certain obligations viewed in isolation – are needed to achieve meaningful results in the liability measurement.

- The IAIS believes that there is no necessity for the application of a surrender value floor to the measurement of insurance contract liabilities for general purpose financial reporting.

- The IAIS believes that future cash inflows under a contract should be allowed for in the measurement of the overall contract, to the extent that they are integral to the fulfilment of the obligations under that contract.

- The IAIS believes that the value of an insurance contract should be measured with cash inflows offset against cash outflows.

- The IAIS would prefer an approach whereby acquisition costs are fully expensed at inception with appropriate allowance then made in the prospective measurement of the contractual obligations for future premiums and other sources of revenue from which those acquisition costs are expected to be recovered.

- The IAIS believes that amounts relating to future policyholder distributions in respect of both the guaranteed and discretionary elements of participating contracts should be treated as liabilities based upon the expected future cash flows. To treat them as equity would misrepresent the financial position of the company.

- Derivatives embedded in insurance contracts should be included in the valuation methodology.

- The credit standing of an insurer should not be considered in the valuation of its insurance liabilities.

The IAIS is engaged in an ambitious project to formulate a common structure and common standards for solvency assessment. Many of the issues and challenges that face the IASB in Phase II of its Insurance Contracts Project, and that are identified in this paper, are encompassed within that work.

As the IAIS further develops its work in these areas it looks forward to sharing the benefits of its considerations with the IASB and to the opportunity of providing further input to the IASB

in an endeavour to enhance the dialogue between the IAIS and the IASB on these matters and work towards an objective of facilitating consistent regulatory and general purpose financial reporting.

## Introduction

1. The IAIS is studying the possibility of using an IFRS compatible model as a basis for prudential supervision, taking into account the likely outcome of Phase II of the IASB's Insurance Contracts Project, and focussing on the degree to which the methodologies for determining insurance liabilities which result from Phase II can be acceptable for regulatory reporting. In determining the likely outcome the IAIS has been guided by the tentative decisions voted on by the IASB in its discussions of Phase II.

2. In performing this work the IAIS aims to provide the IASB with useful input as Phase II progresses, in its objective of facilitating consistent regulatory and general purpose financial reporting. However, the IAIS emphasises that, at this stage, neither the IAIS nor its member jurisdictions are committed to adopting any particular measurement standards.

3. As the international standard setter for insurance supervision, the IAIS is concerned both with general purpose accounting and with solvency issues. The IAIS believes that it is most desirable that the methodologies for calculating items in general purpose financial reports can be used for, or are substantially consistent with, the methodologies used for regulatory reporting purposes, with as few changes as possible to satisfy regulatory reporting requirements. Indeed many, but not all, IAIS jurisdictions currently base their regulatory reporting requirements on general purpose financial statements, or at least on equivalent quantities determined using the same methodologies as for those financial statements. Hence, the IAIS and other international regulatory organisations believe that an open and constructive dialogue between the IASB and prudential standard setters is essential.

4. There is widespread support for an effort to achieve a single set of accounts that could be utilised for both general purpose financial reporting and regulatory reporting, notwithstanding the potentially differing purposes of such reports. Achievement of this aim is likely to reduce costs and workload for regulated insurance entities.

5. Although it is clearly preferable for the insurance contracts measurement model for regulatory reporting to be consistent with that used for general purpose financial reporting, this may not be possible or appropriate in all cases. However, the IAIS believes that it is essential that differences between regulatory reporting requirements and general purpose reporting are reconcilable and that these differences are publicly explained. Otherwise there is a risk that public confusion will call into question the credibility of both reporting regimes.

6. The IAIS is also currently engaged in an ambitious project to define an international framework for solvency assessment. In October 2005 the IAIS issued a paper entitled “A new framework for insurance supervision” and a further paper entitled 'Towards a common structure and common standards for the assessment of insurer solvency: Cornerstones for the formulation of regulatory financial requirements' (referred to as the 'Cornerstones paper'), which elaborates on key elements, or 'cornerstones', which underpin such a framework. Many of the issues and challenges that face the IASB in Phase II, and that are identified in this paper, are also encompassed within the Cornerstones paper and the

associated work of that project.[1] The IAIS would be pleased to share the results of this work with the IASB as the issues and challenges are addressed.

## Assumptions

7. As in the first IAIS Liabilities Paper, [2] this paper continues to assume that the more likely outcome of Phase II is a *prospective asset/liability* model with *time value of money* adjustments and *risk margins*. The themes addressed by the IAIS in this paper explore, on the basis of these assumptions, the likely characteristics of a compatible, sufficiently robust, general purpose and regulatory reporting measurement model for insurance contracts, and what characteristics should not be in such a model.

## Identified Themes

8. Building on some of the areas considered initially in the first IAIS Liabilities Paper, this paper sets out further observations and principles on a number of aspects which are central to Phase II, as follows:

i. Features of insurance liability measurement

ii. Risk margins – nature, measurement and other considerations

iii. Life insurance accounting – treatment of long term premium flows and acquisition costs

iv. Discretionary participation features

v. Embedded derivatives

vi. Own credit worthiness

1 In February 2006 the IAIS Technical Committee approved a Roadmap for a common structure and common standards for the assessment of insurer solvency, which sets out the work plan for the IAIS solvency project. The IAIS has now commenced work on developing a common structure for the assessment of insurer solvency, which will describe in more detail the overall IAIS philosophy on the assessment of insurer solvency and provide a coherent and systematic analysis of the main aspects and elements of the regulatory financial requirements.

2 IAIS: *Issues arising as a result of the IASB's Insurance Contrcts project – Phase II: Initial IAIS Observations*, May 2005, hereinafter referred to as the first (IAIS) 'Liabilities Paper'.

## Features of insurance liability measurement

### Context of insurance liabilities measurement

Insurance contracts are written in the expectation that the insurance obligation will be settled with the claimant or beneficiary, and the vast majority are discharged by the insurer through settlement rather than through transfer. The IAIS believes that the measurement of an insurance liability should be based upon the future cash flows relating to full settlement with the claimant/beneficiary.

9. The first Liabilities Paper included a section on the possible use of some form of a fair value type model in general, in which the IAIS assumed that the IAS definition of 'Fair Value' would remain substantially unchanged as “the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm’s length transaction”.

10. We note that the FASB is expected to issue a Statement of Financial Accounting Standards on 'Fair value measurements', in which fair value is defined as "*the price that would be received for an asset or paid to transfer a liability in a transaction between marketplace participants at the measurement date*". We also understand that the IASB intends to issue this paper as an exposure draft for an International Financial Reporting Standard. While this change to the definition of fair value would appear to remove the concept of settlement of a liability, with a possible impact upon the measurement of insurance liabilities, we emphasise that the principle of ultimate settlement, even following transfer, is critical.

11. The IAIS stresses that any transfer would need to be made to an entity capable of accepting the transfer which, in the case of a regulated industry like insurance, implies that the transferee would also need to be regulated and capable of settling the obligation to the claimant/beneficiary. Accordingly, the IAIS believes that any transfer notion would be strongly influenced by the settlement obligations that the transferee would undertake.

12. Likewise, if the transfer market is insufficient to enable a mark-to-market valuation then a mark-to-model approach would be used. Such a model of the value on transfer would similarly assume that the transferee would measure the liability being transferred on the basis that it would ultimately be settled rather than potentially transferred again.

13. An approach focusing on the settlement of the obligation towards the policyholder would not preclude the use of market data when available and relevant in relation to the specific features of the measured obligation.

14. The valuation of insurance liabilities should take into account portfolio specific characteristics, as discussed in the first Liabilities Paper:

“Experience rates for the same experience element (e.g. mortality) vary from one company to another [...]. It is appropriate for these differences to be reflected in the liabilities since they will affect the cost to the company of satisfying its obligations and, with the principal exception of expense levels, would be unlikely to vary on transfer of the business to another part."

Accordingly, such portfolio specific characteristics are in harmony with a market consistent valuation methodology as one would expect a transferee to evaluate the same data.

The IAIS supports an approach to valuation whereby observable inputs from deep and liquid markets are used to the fullest extent possible, and the remaining elements are modelled. Since inputs which cannot be observed in deep and liquid markets play an essential role in the measurement of insurance liabilities, a common reference framework is appropriate to model as objectively as possible such inputs.

15. A majority of IAIS members believes that insurance liabilities should be market consistent.[3] The IAIS believes that insurance liabilities should be calibrated in such a way that they are equivalent to the value that a third party insurer would be expected to require in order to take them over. As noted above, the IAIS believes that any transfer notion would be strongly influenced by the settlement obligations that the transferee would undertake.

16. There is no deep liquid secondary market which would provide observable market values for insurance liabilities as a whole. The first IAIS Liabilities Paper highlighted a number of types of transaction in which insurance liabilities are involved (e.g. sale of a block of business, sale of a company, reinsurance or new sales[4]). However, while relevant as benchmarks, these cannot be used directly for the valuation of insurance liabilities, as none of these transactions occur in a deep liquid market.

17. A components methodology to the valuation of insurance liabilities would split the liabilities into financial and non-financial components. It would further split the two components into market traded and non-market traded risks. This approach could be useful when considering the various methods for calculating insurance liabilities, and would be independent of the method.

18. Financial components would be valued using projections of the cash flows arising from insurance contract liabilities taking into account options and guarantees embedded in the insurance contract. The valuation is determined using observed market prices or capital markets valuation models with reference to the prices and valuation curves.

19. Non-financial components refer to the non-financial risks to which the liabilities are exposed: namely, underwriting and operational risks. The non-financial components of the liabilities are valued by a mark-to-model approach (which includes judgement and experience), as no deep liquid secondary market is available to value them. The value is presumed to be the amount that a knowledgeable independent buyer would require to take over the liabilities.

20. It seems likely that some of the inputs to the valuation of insurance liabilities would need to be modelled ('unobservable' as defined in the current draft of the 'Fair Value Measurement' hierarchy,[5] i.e. inputs not corroborated by other market data[6]).

3 France and Spain disagree with this statement because, in the absence of a deep liquid market for insurance liabilities and because of the pre-eminence of the settlement notion, they believe that the term 'market consistency' is not relevant and could be misinterpreted.

4 Paragraph 21 of the first Liabilities Paper

5 The hierarchy as set out in this FASB paper. See also paragraph 10 above.

6 Including judgemental input from professionals such as actuaries, loss adjusters, etc.

21. In the absence of an observable market for insurance liabilities, one approach would be to define a common reference framework to model as objectively as possible the unobservable 'inputs', and hence promote a consistent and compatible methodology.

22. The IAIS will consider further the steps which might be put into practice to promote such a common reference framework.

**Allowance for probability in the measurement of liabilities**

The IAIS believes that, where the amount or timing of future cash flows is uncertain, then probability is a crucial factor in measuring the cash flows relating to the contract.

23. While the IAIS believes that this principle should apply generally in accounting, it is fundamental to achieving a sensible and meaningful financial reporting outcome for insurance contracts, without the need to treat insurance as an exception to the general principles, or adopt special interpretations to achieve the desired outcome.

24. IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* specifies currently that a provision is recognised "if it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation".[7] In June 2005 the IASB issued an Exposure Draft of proposed amendments to IAS 37, which removes this criterion on the grounds that an unconditional obligation gives rise, in every case, to an outflow of resources embodying economic benefits.

25. These amendments also introduce the notion of a 'stand-ready obligation' – an unconditional obligation to stand ready to make a payment if a specified future event occurs. In issuing an insurance contract, an insurer takes on a stand-ready obligation to make a payment if an insured event occurs.

26. IAS 37 currently allows for probability to be reflected in the measurement of a portfolio ('large population of items') on the basis of 'expected value'. However, the combined effect of these proposed amendments to IAS 37 would be that probability could be used as the basis for measuring – but not in the recognition of – not only a class of similar obligations but also a single obligation.

27. In the first Liabilities Paper the IAIS recommended that the IASB consider measurement criteria that can result in answers at the individual contract level that are consistent with those obtained when those contracts are measured at the portfolio level. These proposed amendments would seem to enable this to be achieved.

28. The proposed changes to IAS 37 are consistent with the principle enunciated above. The IAIS therefore encourages the IASB to proceed with these changes. The IAIS believes that, in the longer term, the concept of the stand-ready obligation and the inclusion of probability as a criterion in the measurement of obligations should be included in the Conceptual Framework and extend to the treatment of insurance contracts.

29. If the changes to IAS 37 mentioned above take place, with probability a criterion in the measurement – rather than the recognition – of insurance obligations, the incorporation of pooling effects in an accounting framework becomes less of an issue. The concept of the

7 See paragraph 14(b)

portfolio as the unit of account had been advocated previously because, with recognition subject to a probability test, it would be generally impossible for any individual insurance contract to be recognised, since the likelihood of payment being made on any single contract is often small. With probability reflected in measurement it becomes perfectly feasible to assign a probability weighted value to an individual contract, consistent with statistical theory relating to expected values. Were these changes not to occur we would continue to advocate a unit of account based on the portfolio.

### Allowance for the pooling of risk

30. The pooling of risk is a fundamental feature of insurance business. Insurers manage their business through aggregating their obligations within specific portfolios of risk. Pooling within the portfolio due to the 'law of large numbers'[8] generally ensures that the potential volatility in future cash outflows is at an economically sustainable level. The appropriate measurement basis should allow for the effects of pooling those obligations, as this reflects the underlying principles of insurance.

31. The existence of data from the historic experience of large pools of homogeneous policies also provides a more statistically credible basis for assumptions about future experience - i.e. through the 'law of large numbers', this historic pooling of obligations enables the expected value of current and future obligations to be estimated with a far greater degree of certainty in the range of outcomes (or smaller degree of uncertainty).

32. There is a variety of ways of grouping contracts into homogeneous portfolios for management and reporting purposes, by grouping those products which exhibit benefit characteristics and pricing structures which are considered sufficiently similar for profit calculation and reporting purposes. While the IAIS does not feel that any one method should be prescribed, we believe that basic principles of aggregation should be defined, since the level of aggregation is a key element in the determination of statistical data.

33. Notwithstanding the above, there may be circumstances in which contracts should be examined individually, such as for large commercial liability and similar coverages. Accordingly, the individual assessment of the expected value of the obligation for such contracts should not be prohibited.

## Risk Margins – nature, measurement and other considerations

34. As discussed in paragraphs 1 and 7 above, we understand that the IASB has tentatively decided to explore approaches to measuring insurance contracts that would reflect unbiased estimates of future cashflows, reflect the time value of money and include adjustments to reflect risks.

35. The unbiased estimate of future cashflows reflecting the time value of money is sometimes referred to as the current estimate (CE). The adjustment to reflect risk is sometimes referred to as a risk margin.

36. The IAIS has adopted a working definition of the current estimate as "the expected present value of probability weighted cash flows using current assumptions". For this

8 Where mutually independent risks are added together in a portfolio, volatility around the estimate of the mean value of future cash flows decreases when the size of a portfolio increases, all other factors remaining the same. This concept is usually referred to as the 'law of large numbers'.

purpose it would seem necessary for assumptions to be credible within the context of the obligations being measured, for example including such factors as inflation.

37. The nature of the margin over CE is frequently described differently depending on the viewpoint. In an accounting sense it is often thought of as the amount that would be required to compensate a transferee for the risk inherent in a transfer of the liabilities. It is also sometimes thought of as a shock absorber. In solvency terms, this margin in the technical provision tends to be thought of in terms of prudence or a confidence level which, together with the capital requirement in addition to the technical provision, contributes to the overall sufficiency of the solvency assessment regime. In both cases the IAIS believes that one of the key characteristics of the margin is to reflect the level of uncertainty in the calculation of the CE.

38. At this stage, we do not see any reason why conceptual differences should arise in the methodologies for calculating the margin over CE within the context of insurance liabilities for both accounting and solvency purposes.

39. Consequently, the following paragraphs discuss methodologies for the calculation of the margin for both accounting and solvency purposes. In order to avoid preconceptions with regard to the nature of the margin, this paper will refer to the margin as “margin over current estimate” or “MOCE”.

**Philosophical view of the MOCE and its relationship to entry & exit models**

An exit model is preferable but profit on inception should be recognised only where an appropriate and sufficiently reliable risk margin has been provided for in the value of liabilities.

40. The IAIS is aware that, on the one hand, entry valuation of insurance liabilities does not permit the recognition of profit at inception, while an initial loss might be recognised, due to the liability adequacy test. On the other hand, an exit value approach may lead to the recognition of a profit or a loss at inception.

41. Having said that, and given that there is currently no deep and liquid market for insurance liabilities, no profit at inception should be recognised in the absence of reliable evidence of its existence.

42. Consequently, and consistent with the first Liabilities Paper, the IAIS maintains its clear preference for an exit value model, while reiterating that "up front profit recognition in an industry with uncertain claim costs may not be reliable" and noting that such “profit should only be recognised where an appropriate and sufficiently reliable risk margin has been provided for in the value of liabilities.”

43. The IAIS is also aware of suggestions at the IASB's Financial Instruments Working Group that there should be disclosure of any day 1 profits by fair value hierarchy level.[9] The IAIS supports this suggestion. There are occasions when initial profit recognition may be appropriate, yet the inherent uncertainty of insurance liabilities implies that the reliability of such profit is less than that derived from 'level 1' inputs.[10]

9 In accordance with the Fair Value Measurement project currently under consideration by the IASB.

10 Level 1 inputs are those which are derived from deep liquid markets.

44. In this paper, we propose an underlying philosophy regarding the measurement of insurance liabilities, and in particular, the MOCE. Although the focus here is on insurance liabilities for general purpose accounting, the IAIS expects that a similar approach will ultimately be used for solvency purposes.

**Allowance for risk within liability measurement**

45. As previously highlighted by the IAIS in its first Liabilities Paper:

- Uncertainty is an inherent and unavoidable facet of the insurance business;
- As a direct consequence of this uncertainty, it is likely that actual future experience will differ from the current estimates;
- The longer the period covered by an insurance contract, the greater is the scope for this potential divergence to arise.

46. Conceptually, the methodology for calculating insurance liabilities should recognise this uncertainty.

47. In order to have a consistent methodology, it is important to be clear regarding the risk factors which should be taken into account when measuring the MOCE, and to what extent.

48. It is useful to differentiate the risks associated with a portfolio of obligations and the risks associated with the particular insurance company. Both sets of risks are sometimes referred to as "entity-specific". The IAIS recommends differentiating these concepts as "portfolio specific" and "company specific" risks, respectively.

49. The IAIS believes that those risks that are portfolio specific should generally be taken into account in the MOCE and hence in the measurement of the insurance liabilities. This is because these risks would be expected to be transferred to another insurer if the portfolio were sold.

Similar obligations with similar risk profiles should result in similar liabilities.

50. The IAIS believes that the appropriate level of MOCE should be set at the level of a portfolio of independent but similar obligations, including the recognition of benefit from pooling of risk across the obligations present in the portfolio.

51. Inter-portfolio offsetting effects can arise where different portfolios of risk can offset each other. An example of offsetting portfolios might be a portfolio of whole of life or term policies and a portfolio of immediate annuities: it would be expected that the inherent trend in mortality would tend to offset between such portfolios. Even where portfolios are merely poorly correlated there can be a diversification benefit as adverse experience is less likely to occur in both portfolios simultaneously.

52. Pooling and inter-portfolio offsetting across risk types can give rise to a benefit to be reflected in the measurement of the liabilities, only to the extent that they are recognised in market transactions. To the extent that the market does not reflect such benefits, or to the extent that the insurer achieves greater or smaller pooling or offsetting benefit than the market, the effect is company specific, and the IAIS believes this should be included in the solvency capital requirement rather than in the insurance liabilities.

53. It is uncontroversial that a small portfolio of similar obligations is subject to greater random deviation than a larger portfolio, as a consequence of the 'law of large numbers'.

54. The IAIS also believes that a small, insufficiently diversified portfolio should attract a higher total financial resources requirement due to greater random deviation than a larger diversified portfolio of the same types of risk.

**Possible Methods of Calculation**

55. As noted above, the IAIS supports an approach to valuation whereby observable market inputs are used to the fullest extent possible, and the remaining elements are modelled.

56. A majority of IAIS members believes that the MOCE should be market consistent.[3] Market consistent would imply that the margin should, to the extent possible, be transparent and reliable, and allow maximum comparability of financial statements. However, the absence of a deep liquid secondary market for insurance liabilities implies that the MOCE must be modelled.

57. The IAIS also believes that the MOCE should be calibrated in such a way that the value of insurance liabilities is equivalent to the value that a third party insurer would be expected to require in order to take over the liabilities.

Without prescribing any one method at this stage the IAIS believes that any methodology for calculating the margin over current estimate should share certain characteristics.

58. Among the methods that meet the characteristics, there is more than one method for an insurer to calculate the MOCE. Each method has its own merits. It is probably not desirable at this stage to impose a single method of calculation. Allowing for different methods is expected to be a more appropriate approach, to take into account the diversity of firms and jurisdictions, and that for certain obligations the most appropriate approach might depend upon the type of risk. The IAIS will consider in further work the degree to which the methods selected might need to be restricted to a limited number of acceptable methods.

59. Irrespective of the particular methodology chosen, acceptable methods should reflect the inherent uncertainty in the expected future cash flows and would be expected to exhibit the following characteristics:

- The less that is known about the current estimate and its trend; the higher the risk margins should be
- Risks with low frequency and high severity will have higher risk margins than risks with high frequency and low severity
- For similar risks, contracts that persist over a longer timeframe will have higher risk margins than those of shorter duration
- Risks with a wide probability distribution will have higher risk margins than those risks with a narrower distribution
- To the extent that emerging experience reduces uncertainty, risk margins will decrease, and vice versa.

60. These characteristics should help to promote reliability and verifiability.

61. The rationale for not imposing a single method of calculation is that the overriding aim should be to encourage companies to measure and manage their risks properly. However, the IAIS believes that the outcomes should be comparable between insurers for similar risks.

62. The IAIS would expect insurers to explain clearly why they have chosen a particular method, through adequate disclosure, and would not expect firms to change methods without adequate reasons to justify moving to a different method. Such a reason might be that the new method is more market transparent based on the firm's specific risk profile, thus resulting in a more reliable valuation of the liabilities.

The IAIS believes that the margin over current estimate should be determined in such a way as to promote transparency and comparability between different insurers and markets in an objective manner.

63. There are several methods which can be used for calculating the MOCE. Currently, there seem to be two main methodologies that are being referred to or used by the industry and some regulators: the Quantile approach and Cost of Capital approach. Other methods do exist and in particular some favour entry price calibration of the MOCE.

64. The Quantile approach calculates insurance liabilities on a statistical basis, based on assumed probability distributions of the present value of cash flow projections arising from the obligations. The MOCE is calculated at a particular confidence level, and is the difference between the liability amount at that confidence level and the mean liability amount (which represents the current estimate).

65. The Cost of Capital methodology endeavours to set the MOCE so that a firm can derive a value at which the insurance liabilities could be transferred to a willing, rational, diversified counterparty in an arm's length transaction under normal business conditions. The Cost of Capital refers to the cost of holding capital that the insurer will incur to retain these insurance liabilities.

## Life Insurance Accounting – treatment of long term premium flows

66. The first Liabilities Paper made the following key points:

- An approach to recognition which applies a strict “more probable than not” criterion may well fail to recognise material characteristics of insurance contracts.
- Future cash flows under an insurance contract are subject to policyholder behaviour.
- Insurance contracts often contain several elements that are bundled together.
- These potentially conflicting influences might be reconciled by a full allowance for probability of all cash flows in the measurement of the liability.
- Policyholder behaviour is particularly relevant in considering the application of a cash value floor (which applies to the measurement of financial instruments generally) to the measurement of insurance contract liabilities.

- For regulatory purposes it is fundamental that sufficient financial resources should be available to cover the current surrender values of all insurance contracts, to demonstrate that the provider has enough total financial resources to meet its current obligations to policyholders.

67. This second paper examines in more detail the interrelated issues of assets arising in respect of future cash inflows, the treatment of acquisition costs, the application of surrender value floors, and the allowance for probability in the application and measurement of all of these.

**Reflecting Policyholder Behaviour in the Allowance for Probability**

Probabilities which reflect likely policyholder behaviour in respect of all obligations under the contract – rather than in respect of only certain obligations viewed in isolation – are needed to achieve meaningful results in the liability measurement.

68. As discussed in paragraphs 23-29 above the IAIS believes that the principle of allowing for probability in the measurement of insurance liabilities is fundamental to achieving sensible and meaningful financial reporting for insurance contracts.

69. A single insurance contract, particularly a life insurance contract, may contain "stand-ready" obligations such as:

- An obligation to pay insurance claims if an insured event arises (of which there may be several insured events under a single contract)
- An obligation to honour the maturity provisions under the contract, if the contract remains in force for the required period, including any obligations arising from the enhancement of benefits through a discretionary participation feature
- An obligation to honour the surrender provisions of the contract if the policyholder requests it
- An obligation to fulfil requirements under both the contract and prevailing regulations if one or more premiums are not paid
- An obligation to fulfil requirements under any option under the contract
- An obligation to accept future premiums (to the extent provided for in the contract).

70. The payment of cash flows under certain of the obligations is actually dependent on the occurrence or non-occurrence of events which are common to more than one obligation. For example, fulfilment of the obligation to make claim payments depends on the obligation to make surrender payments not needing to be fulfilled first. However, what would seem to be a rational probability assumption in the context of one obligation may not be rational in the context of another.

71. One way of looking at this issue is that there are second order interdependency effects when considering a contract that consists of multiple obligations – such that the value of the whole is not necessarily the same as the sum of all the obligations measured independently. For example, one might assume that, in the context of the obligation to make

claim payments, nobody surrenders. Conversely, one might assume in the context of the obligation to make surrender payments that everyone surrenders at the first opportunity. Logically, however, it is not possible for every policyholder to satisfy both of these apparently reasonable requirements – they are assumed either to surrender or not – they can't do both.

72. It is the view of the IAIS that the solution to this problem is to apply a single set of probability assumptions in respect of all obligations under a contract. These assumptions should reflect an appropriate equilibrium between the conflicting influences under the different obligations, taking into account past patterns of observed policyholder behaviour. To the extent that future circumstances may not replicate the past, the assumptions derived from historical analysis may need to be adjusted to reflect the potential future influences on behaviour (such as the prevailing economic environment).

**Implications for Application of Surrender Value Floor**

73. Some see the surrender value under an insurance contract as bearing some relationship to the deposit value under a financial instrument. They might therefore be inclined to advocate the application of a surrender value floor on the measurement of an insurance contract liability, similar to the application of the deposit floor under IAS 39.

The IAIS believes that there is no necessity for the application of a surrender value floor to the measurement of insurance contract liabilities for general purpose financial reporting.

74. The issue should not be confused with the application of a surrender value floor in setting total financial resource requirements for prudential purposes. In that context it remains the case that some form of surrender value minimum is appropriate, to provide protection in the event of a high level of surrenders.

75. The IAIS is considering whether, in the interest of market transparency, insurers should be required to disclose aggregate surrender values. Certain jurisdictions may require such a disclosure.

76. It is helpful to consider the multiplicity of obligations that may exist under an insurance contract, and the effects of policyholder behaviour, when considering the application of surrender value floors to insurance contract liabilities for general purpose financial reporting.

77. The approach of examining each component separately highlights the inappropriate consequences of a surrender value minimum applied in aggregate. However, there remains the practical measurement difficulty of consistently reflecting policyholder behaviour across all components at the one time. As indicated in paragraph 71 above, applying a surrender value floor on one component may be inconsistent with prudent policyholder behaviour on another component.

78. The practical solution to this issue, as reflected in traditional actuarial valuation approaches, is to apply lapse assumptions consistently across all components of an insurance contract – valuing the contract as a whole, with the lapse assumptions chosen attempting to balance the competing influences on policyholder behaviour – e.g. by increasing lapse assumptions around points where guarantees are likely to apply. More recently, stochastic approaches and option pricing overlays have been applied to deal with the derivative aspects of some contract features, but the concept of a common underlying lapse assumption for the whole contract still applies, albeit that it might be stochastically

varied depending on other influences, such as the extent to which a guarantee is in or out of the money.

### Allowance for Cash Inflows

The IAIS believes that future cash inflows under a contract should be allowed for in the measurement of the overall contract, to the extent that they are integral to the fulfilment of the obligations under that contract.

79. Under a long term insurance contract, fulfilment of the obligation to meet claim payments if an insured event occurs (in addition to maturity, surrender and expense payments) is contractually dependent on the continued receipt of premium payments from the policyholder. A measurement which only has regard to the outflows under a contract without having equivalent regard to the associated cash inflows would be essentially meaningless.

80. The IASB has rightly observed that entitlement to future premiums is not certain, in that policyholders are free to lapse or surrender their contracts and not pay the required premium. While such action is feasible, it is not without its consequences, as it may involve forfeiture of entitlement to some or all of the benefits otherwise payable under the contract.

81. The problem appears to arise from the view that, because of the insurer's inability to enforce payment of future premiums under a long term contract, such premiums must be treated separately and differently. The practical reality is that future premiums are part of a single common contract, and are integral to the fulfilment of the obligations under that contract. Neither the company nor the policyholder is able to deal with one without simultaneously dealing with the other. To recognise one, the other must also be recognised.

82. If it is accepted that the obligation as a whole should be recognised, measurement of the obligation then requires consideration of all of the associated cash flows, including the contractual, long term premium inflows. To the extent that there is any uncertainty surrounding those cash flows it should be reflected through the application of an appropriate probability assumption, consistent with the probability assumptions applying to other cash flows. This is consistent with the measurement of financial instruments involving cash inflows as well as cash outflows.

83. This practical approach to the measurement of contracts with both cash inflows and cash outflows is also consistent with the IAIS preference for a prospective approach to the assessment of a company's solvency.

84. While advocating appropriate allowance for future premiums under long term contracts the IAIS does not advocate an allowance for future premiums which goes beyond what is necessary to support the obligations under an existing contract. Hence, while the IAIS advocates allowing for contractual regular premiums under contracts, it does not seek to allow for premiums which would only be received on renewal of the contract and which are not otherwise guaranteed by either party. Thus, if the insurer is not obliged to meet claims beyond the end of the contract then no renewal is assumed and associated premiums are not allowed for.[11]

11 We are aware of some instances where the ability of an insurer to refuse to renew cover may be constrained by regulation (e.g. requirements in certain US states that companies cannot withdraw from a particular line of business unless they withdraw from all lines in that state). However, there would still appear to be sufficient scope for the insurer to refuse

### Offsetting Inflows Against Outflows

The IAIS believes that the value of an insurance contract should be measured with cash inflows offset against cash outflows.

85. There would seem to be little value effectively to "gross-up" a balance sheet by separately recognising related cash inflows and outflows that are both essentially contingent on the same event – i.e. existence of the contract. The tangible linkage is the contract itself, and hence it is appropriate to value the total package of rights and obligations under the contract as a whole – offsetting the cash inflows and outflows.

86. While in most cases the value of the cash outflows will exceed the value of the cash inflows this need not always be the case, particularly just after the contract's inception if acquisition costs have been fully expensed and future premiums include margins to recover them. Acceptance of the potential for what would normally be a liability to be negative (i.e. represent a net asset) is consistent with a prospective approach to measurement and reflects the reality of the business.

### Acquisition Costs

The IAIS would prefer an approach whereby acquisition costs are fully expensed at inception with appropriate allowance then made in the prospective measurement of the contractual obligations for future premiums and other sources of revenue from which those acquisition costs are expected to be recovered.

87. The treatment of acquisition costs is linked to the recognition of revenue from contractual entitlements under the contract, and to the recognition of profit or loss at inception. Consistent with the IAIS view on these and other related issues, the IAIS prefers a prospective approach to dealing with acquisition costs.[12]

88. As indicated above, this may result in a negative liability as acquisition costs are fully expensed while future premiums include margins to recover them. However that result reflects the expected recovery of the acquisition costs that have been fully expensed. A prospective approach to acquisition cost recovery is also consistent with the prospective approach preferred by the IAIS for assessing a company's solvency.

89. The IAIS notes that whether an entry model or exit model is adopted, the prospective approach to acquisition costs should not involve the quantification of a separate deferred acquisition cost (DAC) asset which must then be arbitrarily amortised. Instead, the recovery of acquisition costs is implicit within the allowance for future revenue in the liability measurement. The same presentation of the treatment of acquisition costs should apply in either case. If the gross margins in excess of those needed to compensate for risk are insufficient to cover the acquisition expenses then a loss at inception would be recognised.

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cover – i.e. the ban on cancellation of cover is not universal – such as to allow a distinction based on non-cancellability still to be applied to exclude premiums arising other than in respect of the current contract.

12 This section does not deal with the incremental costs directly attributable to securing an investment contract, which are dealt with under IAS 18.

## Discretionary Participation Features

The IAIS believes that amounts relating to future policyholder distributions in respect of both the guaranteed and discretionary elements of participating contracts should be treated as liabilities based upon the expected future cash flows. To treat them as equity would misrepresent the financial position of the company.

90. IFRS 4 defines a discretionary participation feature as "a contractual right to receive, as a supplement to **guaranteed benefits**, additional benefits:

(a) that are likely to be a significant portion of the total contractual benefits;

(b) whose amount or timing is contractually at the discretion of the issuer; and

(c) that are contractually based on:

i. the performance of a specified pool of contracts or a specified type of contract;

ii. realised and/or unrealised investment returns on a specified pool of assets held by the issuer; or

iii. the profit or loss of the company, fund or other entity that issues the contract."

91. Participating contracts are priced such that additional benefits can be expected to arise, either from investment experience or margins in the premium, or both. For this reason payment of discretionary benefits is an expectation under the contract.

92. The IAIS believes that there is no question that amounts provided in respect of guaranteed benefits, including those calculated in accordance with statutory requirements, are liabilities. Regarding discretionary benefits, the IAIS also believes there to be no question that amounts already allocated at the contract level for payment of future benefits which were not guaranteed at the inception of the contract, but which are now guaranteed, also represent a liability.

93. However, the question arises as to the treatment of undistributed surpluses, part (or all) of which may be distributed to policyholders of participating contracts, on a discretionary basis, and in particular the extent to which this surplus should be recognised as liability.

94. Although the insurer has discretion over the amount which it distributes to policyholders in respect of non-guaranteed elements, there are nevertheless constraining factors which limit the degree of this discretion. Constraining factors which exert a strong influence over the insurer in determining the level of policyholder distributions include:

- Policyholder expectation, as a result of product marketing and company or investment performance
- Market discipline, as a result of disclosure, market expectation and competition
- Regulation and judicial precedent[13]
- Historical practice and distribution policy

13 For example, some jurisdictions regulate on the basis that surplus in excess of amounts that are required to be reserved, should in principle be distributed to policyholders; some jurisdictions require actuarial certification that policyholder distributions are fair and equitable.

95. The IAIS believes that constructive obligations compelling future outflows of cash arise in respect of future distributions relating to discretionary participating features, and that to treat such amounts alternatively as equity would misrepresent the financial position of the company.

96. The IAIS is, however, aware of contrary views which consider that the nature of such an obligation is not sufficient to warrant its treatment as a liability. The IAIS would note in response that:

- Although the distribution of surplus to policyholders may not occur until some time in the future, the obligation to do so exists already – i.e. it is therefore a present obligation.
- In assessing an insurer's capital adequacy, insurance supervisors may take into account the possibility that future benefits may be reduced if future performance is unfavourable. However, this does not mean that the amount in respect of these future payments is somehow more in the nature of equity. Obligations do not have to be fixed in monetary terms to be counted as liabilities.
- Future policyholder distributions would be included in the liability measurement within the concept of a transfer of the rights and obligations under the contract in an exit value approach.
- In a liquidation, participating policyholders would rank above holders of preference shares, and possibly above some debt holders, e.g. subordinated debt.

97. The IAIS believes that liabilities in respect of discretionary participation contracts should be based upon the expected future cash flows relating to policyholder distributions of both the guaranteed and discretionary elements. This general principle is consistent with the first IAIS Liabilities Paper which stated that "valuation [of insurance liabilities] should explicitly take into account the totality of cash flows that are expected to arise from each policy or contract. Therefore, it should include future gross premiums, policy benefits, expenses, policyholder dividends, and any other policy cash flows."[14]

98. The IAIS believes that these same principles would apply equally to mutuals and stockholder companies. In the case of mutuals, the interests of policyholders are distinguished from the interests of members (albeit that they may be the same people) with the interests of members then accounted for in the same way as the interests of shareholders in a proprietary company.

## Embedded derivatives

Derivatives embedded in insurance contracts should be included in the valuation methodology.

99. The IAIS believes as a general principle that embedded derivatives within an insurance contract, including embedded options and guarantees, should be included in full in the valuation methodology for both the insurance obligation itself and any liability adequacy test. This should reflect both the intrinsic value and the time value of the option and apply regardless of whether the derivatives are 'in the money' or not.

14 First Liabilities Paper, see paragraph 22 (iii).

## Own credit worthiness

The credit standing of an insurer should not be considered in the valuation of its insurance liabilities.

100. The first IAIS Liabilities Paper states that allowing for own credit worthiness would be inconsistent with the valuation of insurance liabilities in a going concern. Recognition of own credit worthiness is also inconsistent with the IAIS's principle that the measurement of an insurance liability should be based upon the future cash flows relating to full settlement with the claimant/beneficiary. The IAIS recommends most strongly that the IASB reject this concept, as any adjustment of the valuation of insurance liabilities for own credit worthiness will be unacceptable for prudential purposes, and the IAIS feels strongly that it would also be misleading for users of general purpose financial statements.

## Areas identified for further work

101. The IAIS will continue to provide input to the IASB throughout Phase II, and the potential subject matter for consideration includes:

- Time horizon
- Diversification
- Risk margin – approaches to calculation
- Discount rates
- Degree to which there may be specific issues relating to differing lines of business
- Investment Linked products (especially whether to keep assets and liabilities on the balance sheet)
- Reinsurance
- Presentation of accounting information, including disclosure of key drivers of profit and the extent to which measurement approaches and presentations may influence management behaviour - both positively and negatively.

## Conclusion

102. This paper provides the second set of IAIS observations on identified measurement themes common to both financial and regulatory reporting that we understand the IASB to be addressing in its consideration of Phase II, if a prospective asset/liability model with time value of money adjustments and risk margin is adopted. As we have indicated, the IAIS is also engaged in an ambitious project to formulate a common structure and common standards for solvency assessment. Many of the issues and challenges that face the IASB

in Phase II of its Insurance Contracts Project, and that are identified in this paper, are encompassed within that work. The IAIS looks forward to sharing the benefits of its considerations with the IASB as it further develops its work in these areas.

103. The main observations and principles identified in this paper are highlighted in the paper's Executive Summary.

104. The IAIS will continue its work on these and other issues in this area. We welcome the opportunity to provide further input to the IASB in an endeavour to enhance the dialogue between the IAIS and the IASB on these matters and work towards an objective of facilitating consistent regulatory and general purpose financial reporting.