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# An Overview of the International Accounting Standards Board Discussion Paper

Preliminary Views  
on Insurance Contracts

MILLIMAN INC.  
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# Executive Summary

## BACKGROUND

This report provides an overview of the discussion paper “Preliminary Views on Insurance Contracts” published in May 2007 by the International Accounting Standards Board (IASB). The publication of this long-anticipated discussion paper is another step in the IASB’s quest to develop a full accounting standard for the recognition and measurement of insurance contracts, a quest that has now gone on for 10 years<sup>1</sup>. The discussion paper provides the main components of an accounting model for insurance contracts that is expected to be effective in four to five years’ time. An exposure draft of a standard may be issued as early as the end of 2008, with a final standard a year later. The effective date of the new standard would likely be no earlier than 2011.

THIS REPORT PROVIDES AN OVERVIEW OF THE DISCUSSION PAPER “PRELIMINARY VIEWS ON INSURANCE CONTRACTS” PUBLISHED IN MAY 2007 BY THE INTERNATIONAL ACCOUNTING STANDARDS BOARD (IASB).

The Financial Accounting Standards Board (FASB) has agreed to expose the discussion paper for comment to see if it should add an insurance project to its agenda.

This report is intended to:

- Provide a summary of the accounting model
- Highlight important implications of the accounting model
- Identify issues that remain open

The IASB has identified a prospective, principles-based valuation approach it calls *current exit value*, as its preferred model for measuring the rights and obligations arising from insurance contracts. Current exit value is defined as “the amount the insurer would expect to pay at the reporting date to transfer its remaining contractual rights and obligations immediately to another entity.” It is the value in an exchange.

The IASB believes that current exit value satisfies its goal of selecting a measurement model that gives users useful information about the amount, timing, and uncertainty of the future cash flows resulting from the contractual rights and obligations created by insurance contracts. While the IASB has not taken a position as to whether current exit value is synonymous with fair value, it has noted that it does not see any obvious differences between the two.

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<sup>1</sup> THE INTERNATIONAL ACCOUNTING STANDARDS COMMITTEE, THE IASB’S PREDECESSOR, STARTED A PROJECT ON ACCOUNTING FOR INSURANCE IN 1997. IN 2005, THE IASB ISSUED IFRS 4, INSURANCE CONTRACTS, AN INTERIM STANDARD THAT FOR THE MOST PART ALLOWED INSURERS TO CONTINUE USING THEIR THEN-CURRENT ACCOUNTING POLICY FOR RECOGNIZING AND MEASURING INSURANCE CONTRACT LIABILITIES AND RELATED ASSETS.

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CONCEPTUALLY, CURRENT EXIT VALUE HAS THREE MAIN COMPONENTS: AN UNBIASED PROBABILITY-WEIGHTED ESTIMATE OF EXPECTED FUTURE CASH FLOWS, REFLECTING THE TIME VALUE OF MONEY THROUGH DISCOUNTING THE CASH FLOWS, AND THE ADDITION OF A MARGIN FOR THE RISK INHERENT IN THE CASH FLOWS.

## KEY ISSUES

Conceptually, current exit value has three main components: an unbiased probability-weighted estimate of expected future cash flows, reflecting the time value of money through discounting the cash flows, and the addition of a margin for the risk inherent in the cash flows. Inputs to these components should be those that market participants would consider in determining a transfer price. Direct market inputs are to be used to the extent they can be observed. Such items may include interest rates, inflation rates, and prices for securities and indexes of securities. Three aspects of the accounting model deserve special mention.

1. A probability-weighted estimate of future cash flows implies multiple cash-flow scenarios are considered with probabilities assigned to each scenario. The number of scenarios required will depend on the products being valued, but stochastic analysis may be required. This requires reliance on robust, efficient models of the future performance of in-force and new business, frequent experience studies, and the ability to thoroughly understand the results of multi-scenario analyses.
2. A key element of this accounting model is the calibration of the risk margin. Theoretically, the margin is to be the market's price for the risk inherent in the contract being measured. As there is no deep liquid market for insurance contracts, this margin cannot be observed. The price charged to the policyholder will provide a reasonableness check on this calibration, if not the calibration metric itself at the contract's issue date. Debate continues as to whether the price per unit of risk should change after issue, and if so, how the price should be re-measured.
3. While the overall measurement attribute selected by the IASB is based on how market participants would value insurance contracts, the IASB intends to constrain the elements of a contract that can be recognized in the financial statement regardless of what market participants would recognize in setting a transfer price. The IASB

is concerned with distinguishing future contracts from current obligations. Due to the variety of renewal and cancellation options in insurance contracts throughout the world, the IASB believes it needs to establish a set of criteria that delineates current versus future contracts, and more specifically future premiums. The IASB's current view is that future premium may be recognized in the measurement of the insurance liability only to the extent the premium is required to maintain the right to guaranteed insurability without re-underwriting; the insurer can compel the policyholder to pay additional premium or the payment of additional premium will increase the liability. If this constraint remains in the final standard, unbundled products will likely show a large loss in the period the contract was issued, followed by significant gains in subsequent periods.

## OBSERVATIONS

Significant issues remain. Guidance regarding the determination of discount rates and risk margins is needed. The International Actuarial Association, (IAA) is developing guidance on current estimates and risk margins. It has exposed for comment early drafts of this paper and expects to release another draft later this year. A summary of the IAA draft is beyond the scope of this paper, but the appendix describes the cost of capital method for calibrating risk margins, which is receiving the bulk of the IAA's attention.

In addition, the IASB has yet to address key issues such as performance measurement and disclosure under this new measurement model. Current exit value is focused on the measurement of insurance contract liabilities in the balance sheet. Income is thought to be just the difference between the two successive balance sheets. It is not clear how this would be presented. Disclosure issues to be addressed include whether risk margins will be reported separately from current estimates, and whether liabilities based on risk-margin benchmarks will need to be disclosed.

GUIDANCE REGARDING THE  
DETERMINATION OF DISCOUNT  
RATES AND RISK MARGINS IS  
NEEDED.



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## 1. Overview of discussion paper

THE DISCUSSION PAPER PROVIDES THE MAIN COMPONENTS OF A NEW ACCOUNTING MODEL FOR INSURANCE CONTRACTS AND INCLUDES A REQUEST FOR COMMENTS ON THE IASB'S PRELIMINARY VIEWS.

The discussion paper provides the main components of a new accounting model for insurance contracts and includes a request for comments on the IASB's preliminary views.

The IASB believes that the current IFRS 4 is not suitable as a long-term accounting standard. It believes it provides too much diversity of practice, does not provide a coherent framework for resolving emerging issues or new product types, and is inconsistent with practices of other entities, especially other financial institutions. In addition, the IASB views current accounting practices for insurance to be heavily influenced by supervisory concerns and believes it is hard to distinguish the level of conservatism built into the valuation of liabilities and assets.

In the discussion paper, the IASB poses a series of 21 specific questions on which it would like feedback. A six-month comment period has been set, with comments due by November 16, 2007. Based on the comments received and additional deliberation, the IASB expects to produce an exposure draft of a revised IFRS 4 no earlier than the end of 2008. A final standard might follow a year after that, with implementation of the standard likely no earlier than 2011. In the meantime, the current IFRS 4 will remain in place.

In addition to the main text and invitation to comment, the discussion paper includes a series of appendices. These appendices provide further information on several topics, including:

- A comparison with IAS 39, the accounting standard for investment contracts
- Other relevant projects at the IASB
- Issues not covered in the discussion paper
- Draft implementation guidance on estimating future cash flows
- Risk margins
- Examples of applying the guidance from the discussion paper
- Credit characteristics of insurance liabilities



The IASB proposes no change in scope for IFRS 4. The paper is focused on accounting for the rights and obligations arising as a result of the issuance of insurance contracts. It does not deal with:

- Accounting for assets that back insurance liabilities
- Accounting for contracts issued by insurers that are not classified as insurance contract (e.g., investment contracts)
- Performance measurement
- Disclosure for insurance contracts

The paper states that these last two items will be addressed by the IASB at a later point in the project.



IN THE IASB'S VIEW, THE RELEVANCE OF THE MARKET'S PERSPECTIVE ON THE TRANSFER VALUE OUTWEIGHS THE PRACTICAL INABILITY TO EXERCISE SUCH A TRANSFER.

## 2. Phase II accounting model – Current exit value

Current exit value is a value in an exchange. While some view current exit value as an inappropriate measure for insurance contracts due to the lack of a liquid market, the discussion paper makes the point that actual transfer of the assets and liabilities is not required and does not even need to be legally possible in order for current exit value to be relevant. In the IASB's view, the relevance of the market's perspective on the transfer value outweighs the practical inability to exercise such a transfer.

Is current exit value equal to fair value? As the IASB has another project on its agenda dealing with the measurement of fair value (it has exposed for comment SFAS 157), it will not answer this question within the insurance project. However, it has noted that it currently sees no obvious differences between current exit value and fair value. As will be explained later in this document, there are some places where current exit value appears to differ significantly from the price market participants might be expected to pay. The most notable difference is in regard to how much future premium can be recognized in current exit value. These constraints are imposed to fit the model to the IASB's current conceptual framework and other IASB accounting standards.

The calculation of current exit value can be summarized as follows:

- Market prices should be used if available.
- If market prices are unavailable, a discounted cash flow technique should be used.
- The discounted cash flow technique can be thought of as based on three building blocks:
  - Expected value of future cash flows
  - Adjustment for the time value of money
  - Margin for risk and service
- Expected value of future cash flows should be based on probability-weighted multiple scenarios.
- Cash flows include all cash flows considered by market participants, including market participants' view of servicing expense levels.
- Non-guaranteed elements should be reflected to the extent a constructive obligation exists.
- Reinsurance recoverables are reflected separately from direct liabilities.

The rest of this paper provides more in-depth discussion of the following components:

- Estimates of future cash flows
- Adjustments for the time value of money
- Risk and service margins
- Unbundling of deposit and insurance elements required in certain circumstances
- Reinsurance
- Policyholder participation
- Performance measurement

## FUTURE CASH FLOWS

The IASB has identified five qualitative objectives and a preliminary set of implementation guidance for use in estimating future cash flows.

The draft implementation guidance included in Appendix E of the discussion paper expands on some of these points. To start, the guidance clearly lays out the expectation that a range of cash flow scenarios is to be used. Paragraphs E4 through E6 provide specificity to this expectation:

*The starting point for an estimate of current exit value is a range of scenarios that reflects the full range of possible outcomes. Each scenario specifies the amount and timing of the cash flows for a particular outcome, and the estimated probability of that outcome. The cash flows from each scenario are discounted and weighted by the estimated probability of that outcome, to derive an expected present value.*

*Thus, the aim is not to develop a single “best” estimate of future cash flows, but to identify all possible scenarios and make unbiased estimates of the probability of each scenario.*

*In some cases, relatively simple modeling may give an answer within a tolerable range of precision, without the need for a large number of detailed simulations. However, in some cases, the cash flows may be driven by complex underlying factors and respond in a highly non-linear fashion to changes in economic conditions, for example if the cash flows reflect a series of interrelated implicit or explicit options. In such cases, more sophisticated stochastic modeling is likely to be needed.*

THE IASB HAS IDENTIFIED  
FIVE QUALITATIVE OBJECTIVES  
AND A PRELIMINARY SET OF  
IMPLEMENTATION GUIDANCE FOR  
USE IN ESTIMATING FUTURE CASH  
FLOWS.



These paragraphs clearly articulate that when options or guarantees are present in products, a multi-scenario approach will be required. Also implied are that discounting is to be performed for each individual scenario at scenario-specific rates and that it is the present value of cash flows that is to be probability weighted.

The objectives identified in the discussion paper are for future cash flows to be:

- Explicit
- Consistent with observed market prices
- Based on all available information in an unbiased way
- Current estimates
- Exclusive of entity-specific cash flows

Explicit cash flows means that the projections are to be on a best-estimate basis with no margins and should not be conservative or optimistic. Margins for cash-flow variability will be added in an explicit manner as a separate step.

CURRENT EXIT VALUE IS MEANT  
TO BE THE VALUE AS VIEWED FROM  
THE PERSPECTIVE OF A MARKET  
PARTICIPANT.

Current exit value is meant to be the value as viewed from the perspective of a market participant. To the extent there are variables that affect the projection of future cash flows and those variables can be observed in, or derived directly from, market data, those *market* variables used in the projections of future cash flows should be consistent with the market data as of the end of the reporting period. This is true even if the insurer believes the market data are unrepresentative of conditions at the end of the reporting period. Market prices overrule all other forms of evidence. Examples of such variables include prices for securities, interest rates, and inflation rates.

In order to reflect all available information, the IASB expects that insurers would identify all possible cash-flow scenarios. Then insurers would calculate the present value of each scenario and probability weight all scenarios to arrive at expected value. The probabilities used should be determined in an unbiased manner. That is to say, the probabilities should not be conservative or optimistic.

In estimating the cash flows for each scenario and the probabilities of each scenario, the insurer is to use all available information currently available as of the end of the reporting period. This will require insurers to evaluate the

sources of recent experience variances from expected to determine whether or not estimates of future cash flows and probabilities need to change.

The measurement of current exit value should not capture cash flows that are specific to the insurer and would not arise for other market participants holding an obligation that is identical in all respects. The IASB distinguishes between portfolio-specific cash flows and entity-specific cash flows. Portfolio-specific cash flows reflect the characteristics of the specific liabilities being measured. Entity-specific cash flows are not dependent on the characteristics of the specific liabilities. They reflect synergies between the insurance liability and the other assets or liabilities of the entity.

The most likely entity-specific cash flow is the cost of servicing the business being measured. Current exit value should reflect the servicing costs that market participants would incur. As market participants' servicing costs are not directly observable, the IASB expects that an insurer would use estimates of its own servicing costs, unless there is clear evidence that the insurer is significantly more or less efficient than other market participants. This would include an allocation of overhead expenses that a market participant would consider.

The IASB believes the unit of account for estimating future cash flows is the individual contract. Portfolio cash flows are equal to the sum of the cash flows from the individual contracts. The exception is participating contracts that would share collectively in profits or pools of income on a portfolio basis.

THE IASB BELIEVES THE UNIT OF ACCOUNT FOR ESTIMATING FUTURE CASH FLOWS IS THE INDIVIDUAL CONTRACT.

Appendix E of the discussion paper expands on the types of cash flows that should be included and those that should not be included in the measurement of the liability. The most significant items identified are listed below.

*Cash flows that should be included:*

- Policyholder benefits
- Claims handling expenses
- Policy administration and maintenance expenses—including direct and indirect costs
- Transaction-based taxes—including premium taxes



- Non-guaranteed benefits to policyholders to satisfy legal and constructive obligations for policyholder participation
- Payments from policyholders required to maintain rights to guaranteed insurability

*Cash flows that should not be included:*

- Asset returns
- Payments to and from reinsurers – these are recognized separately
- Cash flows arising from future insurance contracts
- Income tax payments and receipts
- Cash flows between policyholder and shareholder funds
- Transaction costs associated with transferring rights and obligations to another party
- Any other entity-specific cash flows that market participants would not take into account

### Policyholder options/behavior

Insurance contracts contain bundles of rights and obligations. They often contain guarantees of minimum benefits, minimum policy credits, or maximum charges. Many also contain options that can be exercised by the policyholder and options that can be exercised by the insurer. The presence of these options and guarantees serves to provide policyholders with a minimum level of benefits and flexibility to tailor their coverage to their changing needs. The options provided to the insurer allow for some of the risk of the contract to be shared by the policyholder. This allows the insurer to better manage the risk taken on by the guarantees and flexibility allowed and to make the price charged more reasonable. Taken together, these options and guarantees comprise a single risk-sharing arrangement that satisfies the needs of both the policyholder and the insurer.

When it comes to valuing the insurance contract using an approach such as current exit value, one has to consider the fact that the cash flows of many insurance contracts depend on whether policyholders or the insurer exercise contractual options. The IASB has determined that in certain circumstances an insurer should not recognize, or anticipate, the exercise of some policyholder options. Specifically, the IASB intends to limit the recognition of what it calls beneficial policyholder behavior, where the

INSURANCE CONTRACTS  
CONTAIN BUNDLES OF RIGHTS  
AND OBLIGATIONS. THEY OFTEN  
CONTAIN GUARANTEES OF  
MINIMUM BENEFITS, MINIMUM  
POLICY CREDITS, OR MAXIMUM  
CHARGES.

exercise of an option by a policyholder would result in a net economic benefit for the insurer.

While the discussion paper primarily addresses continuation and cancellation options, the paper notes several other options that would be affected by the limitation. These include options to:

- Convert from one type of contract into another (e.g., from term insurance into whole life insurance)
- Add new contract features or riders
- Reinstate policies by paying additional premiums
- Move to a non-forfeiture status such as reduced paid-up insurance

The IASB contends that any option given to a policyholder via an insurance contract where the insurer cannot compel the policyholder to exercise it results from a customer relationship, not from the contract containing the option. This distinction is important because, according to IAS 38, internally generated customer relationships do not qualify for recognition as an asset.

THE IASB CONTENDS THAT ANY OPTION GIVEN TO A POLICYHOLDER VIA AN INSURANCE CONTRACT WHERE THE INSURER CANNOT COMPEL THE POLICYHOLDER TO EXERCISE IT RESULTS FROM A CUSTOMER RELATIONSHIP, NOT FROM THE CONTRACT CONTAINING THE OPTION.

However, the IASB proposes to make an exception to the recognition of the customer relationship in the case of insurance contracts. It will allow recognition of the part of those cash flows resulting from election of certain options. It is allowing this because it believes that the insurance contract is closely related to the portion of the customer relationship that relates to expected policyholder exercise of existing contractual options. For future premium payments to be recognized (again, think more broadly as cancellation and continuation options), the IASB has developed a set of criteria that must be met for the cash flows to be recognized. One of the following criteria must be met in order for future premiums to be recognized:

1. The policyholder must pay the premiums to retain guaranteed insurability (a right that permits continued coverage without reconfirmation of the policyholder's risk profile and at a price that is contractually constrained).
2. The insurer can compel the policyholder to pay the premiums.
3. Including the premiums and the resulting policyholder benefits will increase the measurement of the liability.



The IASB expects to apply the first criteria only to insurance contracts and not extend it to any other type of contract.

The primary impact of these criteria would be to limit the amount of future premium that could be recognized on flexible premium products such as universal life insurance. As these types of products typically have large first-year acquisition expenses (e.g., commission payments and underwriting expenses) that are priced to be recovered from future premium payments, the premium recognition limitation could result in large losses in the first year, followed by large gains in subsequent years as actual premiums are paid.

It is difficult to see how the recognition criteria specified in the discussion paper bear any relationship to the current exit value measurement objective. Current exit value is meant to be the value a market participant would put on the business being measured. Market participants value flexible premium contracts based on a projection of future premiums they expect policyholders will actually pay. The IASB's recognition criteria remove a significant cash-flow element from the measurement of insurance contracts that would otherwise be considered by market participants in valuing the business. Once removed, it is not clear how an insurer could both comply with the current exit value objective and the recognition criteria.

## ADJUSTMENTS FOR THE TIME VALUE OF MONEY

The IASB has concluded that all liabilities should be discounted. This is relatively noncontroversial for most life and health insurance. Insurers should review all of their claim liabilities to confirm discounting is used. The IASB believes that the increase in relevance of using discounting outweighs increased cost and subjectivity that may be involved in implementing it, which are two of the concerns expressed by general insurers. The discount rate should reflect characteristics of the liability, not the assets backing the liability. Reflecting margins in the discount rate is generally not appropriate, as risk is not usually proportionate to the amount of liability and remaining time to maturity.

There is no consensus around the specific discount rate to use. However, most people agree that the discount rate should be free of any default risk premium associated with holding an asset. Some people argue that it is only *default* risk-free rates that should be used, whereas others believe it is a true

THE IASB HAS CONCLUDED  
THAT ALL LIABILITIES SHOULD BE  
DISCOUNTED.



risk-free rate that should be used. In either case, the IASB is clear that the credit standing of the instrument (i.e., the probability of defaulting on the instrument) needs to be reflected in the measurement of the liability. This may mean that the discount rate exceeds a true risk-free rate.

An insurer can raise funds by issuing policies or by issuing debt (e.g., bonds). Policyholders and bondholders are both at risk for the insurer not paying its obligation (policy benefits for policyholders and principal and interest for bondholders). However, policyholders are in a different situation than the bondholders for at least two reasons. First, policyholders hold a higher place in the order in which assets are distributed should an insurer go bankrupt. Second, policyholders are often protected by regulation and sometimes by guarantee or solvency funds. Both of these reasons act to reduce the amount of loss a policyholder can expect to incur should an insurer become insolvent versus a bondholder. The portfolio-specific credit characteristic refers to the policyholder's potential for loss (non-payment of benefits). The entity-specific credit characteristic refers to the bondholder's potential for loss (non-payment of interest and principle). Some rating agencies distinguish between the two by having a *claims-paying* rating and a *debt* rating for the same company. As you would expect, claims-paying ratings are never lower and are often higher than debt ratings for the same insurer.

If an insurer is still issuing policies, that is a strong indication that the market (in this case policyholders) believe that insolvency of the insurer is a remote possibility—otherwise they would purchase policies from a different insurer. So the IASB believes that there would be little impact on current exit value at issue of a policy. In addition, the IASB believes that no insurer would transfer a block of policies to an insurer of a higher or lower credit quality; they would transfer to an insurer of the same quality because 1) transfers typically need either policyholder or regulator consent and the IASB believes that neither would consent to a transfer to an insurer of a lower quality, and 2) no seller would pay for a credit upgrade. Thus, there may be little impact on current exit value of the credit characteristics.

## RISK AND SERVICE MARGINS

The IASB has identified two types of margins that should be incorporated into a current exit value measurement of insurance liabilities: a risk margin and a service margin. A risk margin is an estimate of the price an entity

THE IASB HAS IDENTIFIED TWO TYPES OF MARGINS THAT SHOULD BE INCORPORATED INTO A CURRENT EXIT VALUE MEASUREMENT OF INSURANCE LIABILITIES: A RISK MARGIN AND A SERVICE MARGIN.



demands for bearing risk. A service margin is an estimate of the price an entity demands for providing other services. The example the IASB always points to is investment management services. These margins will be discussed separately.

The IASB has not yet discussed whether margins should be disclosed separately from the best-estimate liability in the financial statements or associated notes.

### Risk margins

The IASB defines a risk margin as an explicit and unbiased estimate of the compensation that entities demand for bearing the risk of uncertainty associated with future cash flows. In the IASB's view, it is not a shock absorber, something included in the liability to avoid recognizing an expense in the future if payments to policyholders exceed the amount previously recognized as a liability.

The IASB envisions a four-step process it expects an insurer would go through to estimate the risk margin:

1. Assess how the market measures the quantity of risk—what are the units?
2. Use cash-flow scenarios to estimate the number of units of risk present in the liability—presumably a weighted average present value measure.
3. Estimate the margin per unit of risk using appropriate inputs—calibrate the risk margin.
4. Multiply the estimated margin per unit by the estimated number of units in the liability.

The main issue for determining risk margins is the calibration step. The IASB notes that the price for an insurance liability is observable only once, at the inception when the insurer and the policyholder agree on a mutually acceptable price for the contract. There is no requirement to calibrate the initial liability to the price at inception. The IASB views the price as one source of evidence an insurer could use at inception in calibrating the risk margin per unit or risk but does not override an unbiased estimate of the margin market participants require. A gain or loss at issue is possible when measuring liabilities at current exit value. However, the IASB believes that if there is no evidence that the insurer's pricing differs from other market participants, then calibration to the initial price may be appropriate.

THE IASB DEFINES A RISK MARGIN AS AN EXPLICIT AND UNBIASED ESTIMATE OF THE COMPENSATION THAT ENTITIES DEMAND FOR BEARING THE RISK OF UNCERTAINTY ASSOCIATED WITH FUTURE CASH FLOWS.

Regardless of how policies are priced, the IASB states that risk margins should be determined for a portfolio of contracts that are subject to broadly similar risks and managed together as a single portfolio. That is to say, the unit of account for risk margins is the portfolio. Risk margins should not reflect the benefits of diversification between portfolios and negative correlation between portfolios. Thus, even though the effect of diversification between portfolios may be reflected in the price to the policyholder, the impact of it should not be included in the liability value. Rather, it may be something that would be reflected in required capital.

Many asset pricing models are based on the proposition that efficient markets do not reward participants for bearing risks that they can diversify away. In these models, risk margins relate only to risks that are not diversifiable. Many in the insurance industry believe that the requirements for these models, such as perfect and liquid markets, minimal transaction costs, and the existence of arbitrage traders whose activities will force market prices to converge to levels that eliminate arbitrage opportunities, don't apply in most insurance markets. As a result, the IASB believes it is likely that practical techniques for determining risk margins will not be able to exclude the effect of diversifiable risks.

The IASB does not intend to prescribe specific techniques for developing risk margins. Instead, the IASB intends to identify criteria that risk margins or the approach to developing risk margins should meet. A draft of these criteria was included in Appendix F of the discussion paper and is summarized here:

**THE IASB DOES NOT INTEND TO  
PRESCRIBE SPECIFIC TECHNIQUES  
FOR DEVELOPING RISK MARGINS.**

- The risk margin should be consistent with what another party would require if the insurer transferred its contractual obligations and rights to another party.
- Risk margins should be explicit.
- Risk margins should reflect all risks associated with the liability.
- Risk margins should not reflect risks that do not arise from the liability.
- Risk margins should be as consistent as possible with the observable market prices.
- The approach used should be implementable at a reasonable cost and in a reasonable time, and should be auditable.
- The approach should not ignore tail risks.



- The approach should make it easy to provide concise and informative disclosure, and for users to benchmark the insurer's performance against the performance of other insurers.
- If more than one approach meets the criteria above, it is preferable to select an approach that builds on models that insurers use to run their business.
- The approach should not overlook model risk or parameter risk, but care should be taken when building these into the risk margin.

The IASB also identified likely characteristics of risk margins that meet the above criteria:

- The less that is known about the current estimate and its trend, the higher the risk margin 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, long duration contracts will have higher risk margins than those of shorter durations.
- 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.

The IASB listed various approaches that might be used to estimate risk margins. It believes that no approach is demonstrably better or demonstrably worse than all others in all circumstances. The approaches noted include:

- Confidence levels (% probability of sufficiency)
- Conditional tail expectation
- Explicit margins within a specified range
- Cost of capital
- Methods based on the capital asset pricing model or related asset pricing models
- Adjustments to cash flows to place more weight on cash flows in some outcomes (e.g., deflator, no arbitrage, and market-consistent approaches)
- Adjustments to cash flows to place more weight on larger cash outflows or smaller cash inflows (e.g., transformation or distortion approaches)

- Multiples of one or more specified parameters of the estimated probability distribution (e.g., multiples of the standard deviation, semi-variance, or higher moments of the distribution).
- Risk-adjusted discount rate—although the IASB cautions against the use of this by itself, as it is unlikely to capture the risk profile well.

The IAA has formed a Risk Margins Working Group that is developing a paper on methods to estimate future cash flows and determine risk margins. While the paper was commissioned by the International Association of Insurance Supervisors (IAIS), it has significant relevance in the public accounting arena as well. The paper currently concentrates on confidence levels and the cost of capital methods for determining risk margins for life products.

#### Relationship between risk margins and discount rates

Much has been made of the use of *risk-free* discount rates in a fair-value paradigm. Insurers often price products assuming they will earn a rate of return in the future that exceeds the risk-free rate. The assumption is that if projected liability cash flows are discounted at a risk-free rate, the resulting liability will exceed the true economic cost priced for and a loss will result.

At the same time, the guidance provided on risk margins is that when taken together the liability would produce no gain or loss if the risk margins were calibrated to the entry price (price paid by the policyholder). If that is the case, any disconnect between the liability discount rate and the pricing earned rate assumption would be directly offset in the calibration of the risk margin.

#### Service margins

The IASB believes that many insurance contracts require an insurer to provide other services in addition to bearing risk. The example it points to is that some contracts require the insurer to provide investment management services, such as in unit-linked contracts or universal life insurance contracts and some participating contracts. It argues that an investment manager would not take on an obligation to provide investment management services without adequate compensation. It concludes that the measurement of an insurance liability should include a service margin if market participants typically require such a margin.

THE IASB BELIEVES THAT  
MANY INSURANCE CONTRACTS  
REQUIRE AN INSURER TO PROVIDE  
OTHER SERVICES IN ADDITION TO  
BEARING RISK.



Effectively, all long-term insurance contracts involve some investment management. The cost of providing this *service* is included in the price charged for the insurance product and in the costs a market participant would take into account when determining how much to charge for taking over a block of business. However, insurers provide many *services* in order to maintain an insurance policy such as premium billing and collection, loan servicing, benefit administration, providing annual policy statements or illustrations, and providing customer service centers through which policyholders can exercise policy options and update their contact information. Like investment management, each of these services is necessary to maintain the insurance contract. None of these can be avoided. Like investment management services, each of these has a cost that market participants would typically charge for when valuing a block of business. These “service” costs are normally thought of by insurers as maintenance expenses or, as expressed in the discussion paper, servicing costs.

THE IASB HAS BEEN VERY CLEAR THAT THE MEASUREMENT OF THE LIABILITY SHOULD INCLUDE SERVICING COSTS AND THOSE COSTS SHOULD BE BASED ON THE SERVICING COSTS THAT MARKET PARTICIPANTS WOULD INCUR.

The IASB has been very clear that the measurement of the liability should include servicing costs and those costs should be based on the servicing costs that market participants would incur. To the extent that there is a difference between what the insurer charged the policyholder and what market participants would require, a gain or loss may be recognized at issue. The IASB makes exactly the same point about service margins but goes no further. Thus, it is not clear how service margins differ from servicing costs or why certain services should be separately identified in the service margin versus servicing costs. Presumably, as long as the requirements 1) reflect the costs of the service and 2) base those costs on what a market participant would require, it would not matter whether the costs are called servicing costs or service margin.

## UNBUNDLING

Many insurance contracts have an implicit or explicit deposit component, such as surrender values or account values. If these were separate instruments, they would be within the scope of IAS 39. IFRS 4 currently requires an insurer to unbundle an insurance contract if the rights and obligations arising from the deposit component can be measured separately and would not otherwise be recognized. The IASB’s current view is that deposit and insurance elements should be unbundled if 1) the components are not interdependent or 2) if the components are interdependent but can be measured separately on a basis that is not

arbitrary. In these cases, IAS 39 should be applied to the deposit element and IFRS 4 Phase II should apply to the insurance element. If the components are interdependent but cannot be separately measured except on an arbitrary basis, then they should not be unbundled and IFRS 4 Phase II will apply to the entire contract.

## REINSURANCE

There are two aspects of reinsurance covered in the discussion paper, liabilities held by reinsurers and recoverable assets held by direct writers.

### Reinsurance liabilities

The IASB believes that reinsurer liabilities should also be measured at current exit value. All of the same considerations would apply as to a direct writer. There is no requirement for mirror accounting with the direct writer. The reinsurer may have different knowledge of the underlying risks, use different units of account, and develop different risk margins.

THE IASB BELIEVES THAT REINSURER LIABILITIES SHOULD ALSO BE MEASURED AT CURRENT EXIT VALUE.

However, as noted in the discussion above on policyholder behavior and the restriction on recognition of future premium, it is questionable whether the same recognition criteria would apply to a reinsurer. The recognition criteria are based on the idea that the payment of future premium is due to a relationship between the insurer and the customer. In a reinsurance arrangement, the relationship between the customer stays with the direct writer. The relationship with the reinsurer is also with the direct writer, who does not have the right to exercise the policyholder option.

In some cases, the reinsurer will need to measure its liability based on an assumption as to what premium is paid on the underlying contract. It was noted in the section on policyholder behavior that the direct writer will be limited in the amount of premium it can recognize in measuring the contract liability. It is not clear that this limitation extends to the measurement of the reinsurance liability. In a reinsurance contract, the direct writer is the policyholder and the reinsurer is the insurer. It would be the premium paid by the direct writer that would be limited by the provisions of the discussion paper. One possible conclusion is that a reinsurer should assume that all expected future premium is paid on the underlying contract. Another possible conclusion is that the reinsurer should use whatever future premium assumptions is used by the ceding company.



REINSURANCE ASSETS SHOULD  
ALSO BE MEASURED AT CURRENT  
EXIT VALUE.

## Reinsurance assets

Reinsurance assets should also be measured at current exit value. This effectively means the recoverable is a mirror image of the underlying liability adjusted for the probability of impairment. Impairment is reflected by reducing the current exit value by the expected value of losses from default or disputes. Thus, the recoverable asset would comprise three components: the expected value of best estimate cash flows, the risk margin on the best estimate cash flows on the underlying contract, and a risk margin for the probability of recovery. There are no restrictions on gains or losses at issue of a reinsurance contract.

The IASB acknowledges that in the case of non-proportional reinsurance, it may often be easier to predict the cash flows and margins net of reinsurance than to do this gross of reinsurance and estimate the reinsurance separately. The IASB anticipates an insurer performing calculations net of reinsurance and then grossing up the liability for the estimated reinsurance impact, with an offsetting recoverable asset being recognized. Under this approach, insurers will need to make sure the gross-up reflects the risk of losses from default/dispute.

An additional point made in the discussion paper regards reinsurance obtained for future issues. A common arrangement is for a reinsurer to agree to provide reinsurance coverage for all issues of a particular product type (perhaps based on certain criteria) for the next calendar year at a fixed price. The IASB states that the ceding company should recognize at current exit value its contractual right to obtain reinsurance for contracts not yet issued. This is not likely to be material unless the contracts being issued are not priced at current exit value.

## POLICYHOLDER PARTICIPATION

One of the most difficult aspects of insurance accounting is how to treat policyholder participation. Contracts issued by insurers often provide for payments to policyholders that depend in part on the performance of the portfolio to which the contract belongs, the assets backing that portfolio, or the entity that issued the contract. The paper discusses the accounting for four types of contracts that have some form of policyholder participation: participating contracts, universal life contracts, unit-linked contracts, and index-linked contracts. Each of these contract types are discussed below.

ONE OF THE MOST DIFFICULT  
ASPECTS OF INSURANCE  
ACCOUNTING IS HOW TO TREAT  
POLICYHOLDER PARTICIPATION.



## Participating contracts

A participating contract is one where the policyholder has both guaranteed benefits and the right to participate in the favorable performance of the relevant class of contracts, related assets, or both and where the insurer has some discretion over the amount or timing of the resulting distributions to the policyholders, often with some constraints on that discretion.

The paper identifies the typical steps of the mechanism to share favorable performance:

1. Determine the amount available for distribution.
2. Allocate part, or all, of the distributable amount to policyholders as a class.
3. Distribute to individual policyholders part or all of the policyholder surplus determined above. The IASB uses the term *policyholder dividends* to refer to the amount distributed, regardless of form.

Depending on the legal jurisdiction, insurers may have discretion over one or more of these steps.

The IASB has decided that the cash flows used in measuring a participating insurance liability should incorporate an unbiased estimate (in each scenario) of the policyholder dividends payable in that scenario to satisfy a legal or constructive obligation that exists at the reporting date.

This is a significant change for the IASB. Previously, it set the threshold at legal obligation. The inclusion of the alternative, constructive obligation, should alleviate the concerns the industry had with the prior stance.

The definition of constructive obligation the IASB is using here is the same as included in the recent exposure draft of IAS 37. A constructive obligation is a present obligation that arises from the entity's past actions when:

1. By an established pattern of past practice, published policies or a sufficiently specific current statement, the entity has indicated to other parties (such as policyholders) that it will accept particular responsibilities.
2. As a result, the entity has created a valid expectation in those parties that they can reasonably rely on it to discharge those responsibilities.

THE IASB HAS DECIDED THAT THE CASH FLOWS USED IN MEASURING A PARTICIPATING INSURANCE LIABILITY SHOULD INCORPORATE AN UNBIASED ESTIMATE (IN EACH SCENARIO) OF THE POLICYHOLDER DIVIDENDS PAYABLE IN THAT SCENARIO TO SATISFY A LEGAL OR CONSTRUCTIVE OBLIGATION THAT EXISTS AT THE REPORTING DATE.



The discussion paper goes on to say that in the absence of legal enforceability, particular care is required in determining whether an entity has a present obligation that it has little, if any, discretion to avoid settling. In the case of a constructive obligation, this will be the case only if:

1. The entity has indicated to other parties that it will accept particular responsibilities.
2. The other parties can reasonably expect the entity to perform those responsibilities.
3. The other parties will either benefit from the entity's performance or suffer harm from its non-performance.

The IASB has not yet determined if additional disclosure will be required for participating liabilities due to the different characteristics of guaranteed and participating benefits.

#### Universal life contracts

These contracts are defined as flexible-premium policies (within specified limits) providing mortality coverage as long as funds remain in the policyholder account to pay the mortality and other charges (some policies have secondary guarantees that carry the policy even when the funds are exhausted), deductions are made regularly for mortality and other charges, and interest is credited to the policyholder account subject to a minimum guarantee. The discussion paper references the discretion insurers may have over interest credits. Insurers may also have discretion over other non-guaranteed elements of universal life contracts.

The IASB believes that estimates of crediting rates in each scenario should reflect the estimated rate payable in that scenario to satisfy a legal or constructive obligation that exists at the reporting date. Presumably this would be extended to all non-guaranteed elements of the policies. A natural question is what relationship should the interest credits in a given scenario have with the discount rate used for that scenario. For example, if risk-free rates are used as discount rates, should they also be used as the estimate of asset returns from which credit rates are determined? If not, what is the rationale for assuming a different rate on which to base liability cash flows?

In the discussion paper, the IASB stated it intends to carry out further research on the operability and relevance of the guaranteed insurability test for recognizing future premiums for universal life contracts.<sup>2</sup>

THE IASB HAS NOT YET DETERMINED IF ADDITIONAL DISCLOSURE WILL BE REQUIRED FOR PARTICIPATING LIABILITIES DUE TO THE DIFFERENT CHARACTERISTICS OF GUARANTEED AND PARTICIPATING BENEFITS.

<sup>2</sup> FOR A FURTHER DISCUSSION OF HOW EARNINGS MIGHT EMERGE ON UNIVERSAL LIFE INSURANCE POLICIES ASSUMING THE GUARANTEED INSURABILITY TEST IS USED, SEE THE AUGUST 2004 JOINT REPORT OF THE ACLI/IAA ON RENEWAL PREMIUMS AND DISCRETIONARY PARTICIPATION FEATURES.

### Unit-linked contracts

Unit-linked, or, as they are known in the U.S., variable contracts, provide some or all policyholder benefits that are contractually determined by the price of units in an internal or external investment fund. The discussion paper focuses on the potential for the underlying assets of a unit-linked contract to be measured on a different basis than the associated liability. This could happen when some of the underlying assets are not allowed to be measured at fair value, such as is the case with *Treasury shares*, shares of the insurer that are in the underlying funds, and owner-occupied property within the scope of IAS 16. These situations are not common in the U.S., but are in some other countries. The IASB would like to eliminate any resulting measurement inconsistency but has not reached any conclusions on how this may be done. Virtually all solutions it has discussed create other inconsistencies with other requirements of IFRS.

### Index-linked contracts

With these contracts, insurance benefits are linked to an index, but the insurer is not contractually required to hold the underlying assets. As a result, the IASB believes that the carrying amount of the underlying assets is not relevant to determining the current exit value of the liability.

## PERFORMANCE MEASUREMENT

The discussion paper contains a chapter called “Changes in Insurance Liabilities” that is essentially focused on performance measurement. The IASB discusses several issues such as revenue recognition, presentation of changes in insurance liabilities, and the format of a profit or loss statement. The IASB has drawn no conclusions on these topics and has asked three general questions in the paper.

THE IASB DISCUSSES SEVERAL ISSUES SUCH AS REVENUE RECOGNITION, PRESENTATION OF CHANGES IN INSURANCE LIABILITIES, AND THE FORMAT OF A PROFIT OR LOSS STATEMENT.



## Appendix

### COST OF CAPITAL METHOD

This section describes a potential method for calibrating risk margins that could be used in calculating current exit value. The description provided here is a summary taken from the draft paper “Current Estimates and Risk Margins” issued by the Risk Margins Working Group of the International Actuarial Association in February 2007. The cost of capital method is only one method that could be used to calibrate risk margins. However, it is given significant treatment in the IAA paper and was featured in the 2002 American Academy of Actuaries monograph, “Fair Value of Insurance Liabilities.”

The risk margin under the cost of capital method is determined based on the cost of holding the capital needed to support the obligation.

This method appears to meet the IASB’s primary objective of reflecting market charges for assuming risk, as well as that of the IAIS. The cost of capital method directly relates the capital that needs to be held to assume the obligation as part of the insurer’s total financial resources. Note that this capital may differ from an insurer’s economic capital, which is usually determined on an entity-specific basis. The two measures of capital can be different, as the latter in part includes provision for avoidable risks, for example, to cover the risk of asset/liability mismatch. A buyer of the obligation would not necessarily need to recognize this mismatch.

The cost of capital method is based on the explicit assumption that, at each point in time, the risk margin must be sufficient to finance the (solvency) capital, otherwise a transferee will be unwilling to pay less than an amount that would fund future capital requirements. Reflection of the estimated current and future economic capital needs of a potential transferee ensures that the amount paid for the transferee for risk provides for the entire risk that will affect the purchaser. In contrast, the quantile and explicit assumption methods do not explicitly reflect current or future required capital.

The cost of capital method has several important elements to consider, including the identity of the entity for which the risk margins are designed (remember, the inherent risks of the portfolio are always relevant), the type and method of deriving the amount of capital, the estimated amount of future capital needs over the remaining lifetime of the obligation, and the capital's cost. The following sections discuss these significant factors in this method.

The information that should come from the reference entity includes the following:

1. Capital requirements by line of business, reflecting the degree of diversification in the reference entity that has been agreed should be included in the model
2. Information on line-of-business variability implied by the reference entity capital levels, so that reporting entity experience can be compared to the reference entity
3. The cost of capital

The information that should come from the reporting entity, in addition to current estimates, includes the following:

1. Payment patterns
2. Capital by line of business, before and after adjustment for diversification effects
3. Variability in line-of-business results, perhaps measured by coefficient of variation and skewness data

It should be noted that the cost of capital method refers to a market-consistent amount of capital. Hence this economic capital would normally be expected to be greater than the minimum amount of capital required to be held by an insurance supervisor.

For the cost of capital method, both the amount of capital at the valuation date and the capital for each applicable time in the future are needed. As a result, it is important to project the level of future capital over the remaining term of the obligation.



The cost of capital, as used in the cost of capital method, is the pre-tax return required by the transferee applying an assessment of capital on a market-consistent basis. It does not refer to the firm's cost of capital, but rather to the capital needed for the unhedgeable risks. This might be determined in a number of ways including:

1. Judgment
2. Analysis of historical returns on book value
3. Market value analysis.

Judgments are useful for testing the reasonableness of the results, but are not a desirable source of information for calibrating models to be used for financial reporting. Historical return data might be collected, but these would need to be calibrated to current financial conditions.

Market value analysis appears to be what commentators have in mind in discussing a market-based approach to cost of capital analysis. There are two issues here. First, what is the cost of capital required by external markets based on the market value of the reference company? Second, what is the internal return on capital that the reference entity must target in order to achieve the market cost of capital on market value?

There are a number of well-known methods for establishing market cost of capital. The capital asset pricing methodology (CAPM) is perhaps the best known. Other methods include the arbitrage pricing model, of which the market-consistent pricing model is one variant; multi-factor versions of CAPM, of which the Fama-French 3 factor method (FF3M) is perhaps the most well-known; and discounted cash flow (DCF) methods. Unfortunately, these methods do not necessarily produce consistent results.

A market-based cost of capital then needs to convert the investor expected return on market value into an internal return on capital for the reference company.

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