May 2007

DISCUSSION PAPER

Preliminary Views on Insurance Contracts

Part 2: Appendices

Comments to be submitted by 16 November 2007

International Accounting Standards Board®

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This Discussion Paper *Preliminary Views on Insurance Contracts* is published (in two parts) by the International Accounting Standards Board (IASB) for comment only. Part 1 contains the Invitation to Comment and the main text. Part 2 contains the Appendices.

Comments on the contents of the Discussion Paper should be sent in writing so as to be received by **16 November 2007**. Respondents are asked to send their comments electronically to the IASB Website (www.iasb.org), using the 'Open to Comment' page.

All responses will be put on the public record unless the respondent requests confidentiality. However, such requests will not normally be granted unless supported by good reason, such as commercial confidence.

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Part 2: Appendices

Appendix A
Questions for respondents

Set out below is a list of all questions posed in this paper. Responses are most helpful if they:

(a) comment on the questions as stated

(b) indicate the specific paragraph or paragraphs to which the comments relate

(c) contain a clear rationale

(d) describe any alternative the Board should consider.

Respondents need not comment on all of the questions and are encouraged to comment on any additional issues.

The Board will base its conclusions on the merits of the arguments for and against each alternative, not on the number of responses supporting each alternative.

Chapter 2

Question 1

Should the recognition and derecognition requirements for insurance contracts be consistent with those in IAS 39 for financial instruments? Why or why not?

Chapter 3

Question 2

Should an insurer measure all its insurance liabilities using the following three building blocks:

(a) explicit, unbiased, market-consistent, probability-weighted and current estimates of the contractual cash flows,

(b) current market discount rates that adjust the estimated future cash flows for the time value of money, and

(c) an explicit and unbiased estimate of the margin that market participants require for bearing risk (a risk margin) and for providing other services, if any (a service margin)?

If not, what approach do you propose, and why?

Question 3

Is the draft guidance on cash flows (appendix E) and risk margins (appendix F) at the right level of detail? Should any of that guidance be modified, deleted or extended? Why or why not?

Question 4

What role should the actual premium charged by the insurer play in the calibration of margins, and why? Please say which of the following alternatives you support.

(a) The insurer should calibrate the margin directly to the actual premium (less relevant acquisition costs), subject to a liability adequacy test. As a result, an insurer should never recognise a profit at the inception of an insurance contract.

(b) There should be a rebuttable presumption that the margin implied by the actual premium (less relevant acquisition costs) is consistent with the margin that market participants require. If you prefer this approach, what evidence should be needed to rebut the presumption?

(c) The premium (less relevant acquisition costs) may provide evidence of the margin that market participants would require, but has no higher status than other possible evidence. In most cases, insurance contracts are expected to provide a margin consistent with the requirements of market participants. Therefore, if a significant profit or loss appears to arise at inception, further investigation is needed. Nevertheless, if the insurer concludes, after further investigation, that the estimated market price for risk and service differs from the price implied by the premiums that it charges, the insurer would recognise a profit or loss at inception.

(d) Other (please specify).

Question 5

This paper proposes that the measurement attribute for insurance liabilities should be the amount the insurer would expect to pay at the reporting date to transfer its remaining contractual rights and obligations immediately to another entity. The paper labels that measurement attribute 'current exit value'.

(a) Is that measurement attribute appropriate for insurance liabilities? Why or why not? If not, which measurement attribute do you favour, and why?

(b) Is 'current exit value' the best label for that measurement attribute? Why or why not?

Chapter 4

Question 6

In this paper, beneficial policyholder behaviour refers to a policyholder's exercise of a contractual option in a way that generates net economic benefits for the insurer. For expected future cash flows resulting from beneficial policyholder behaviour, should an insurer:

(a) incorporate them in the current exit value of a separately recognised customer relationship asset? Why or why not?

(b) incorporate them, as a reduction, in the current exit value of insurance liabilities? Why or why not?

(c) not recognise them? Why or why not?

Question 7

A list follows of possible criteria to determine which cash flows an insurer should recognise relating to beneficial policyholder behaviour. Which criterion should the Board adopt, and why?

(a) Cash flows resulting from payments that policyholders must make to retain a right to guaranteed insurability (less additional benefit payments that result from those premiums). The Board favours this criterion, and defines guaranteed insurability as a right that permits continued coverage without reconfirmation of the policyholder's risk profile and at a price that is contractually constrained.

(b) All cash flows that arise from existing contracts, regardless of whether the insurer can enforce those cash flows. If you favour this criterion, how would you distinguish existing contracts from new contracts?

(c) All cash flows that arise from those terms of existing contracts that have commercial substance (ie have a discernible effect on the economics of the contract by significantly modifying the risk, amount or timing of the cash flows).

(d) Cash flows resulting from payments that policyholders must make to retain a right to any guarantee that compels the insurer to stand ready, at a price that is contractually constrained, (i) to bear insurance risk or financial risk, or (ii) to provide other services. This criterion relates to all contractual guarantees, whereas the criterion described in (a) relates only to insurance risk.

(e) No cash flows that result from beneficial policyholder behaviour.

(f) Other (please specify).

Question 8

Should an insurer recognise acquisition costs as an expense when incurred? Why or why not?

Question 9

Do you have any comments on the treatment of insurance contracts acquired in a business combination or portfolio transfer?

Chapter 5

Question 10

Do you have any comments on the measurement of assets held to back insurance liabilities?

Question 11

Should risk margins:

(a) be determined for a portfolio of insurance contracts? Why or why not? If yes, should the portfolio be defined as in IFRS 4 (a portfolio of contracts that are subject to broadly similar risks and managed together as a single portfolio)? Why or why not?

(b) reflect the benefits of diversification between (and negative correlation between) portfolios? Why or why not?

Question 12

(a) Should a cedant measure reinsurance assets at current exit value? Why or why not?

(b) Do you agree that the consequences of measuring reinsurance assets at current exit value include the following? Why or why not?

    (i) A risk margin typically increases the measurement of the reinsurance asset, and equals the risk margin for the corresponding part of the underlying insurance contract.

    (ii) An expected loss model would be used for defaults and disputes, not the incurred loss model required by IFRS 4 and IAS 39.

(iii) If the cedant has a contractual right to obtain reinsurance for contracts that it has not yet issued, the current exit value of the cedant's reinsurance asset includes the current exit value of that right. However, the current exit value of that contractual right is not likely to be material if it relates to insurance contracts that will be priced at current exit value.

Question 13

If an insurance contract contains deposit or service components, should an insurer unbundle them? Why or why not?

Question 14

(a) Is the current exit value of a liability the price for a transfer that neither improves nor impairs its credit characteristics? Why or why not?

(b) Should the measurement of an insurance liability reflect (i) its credit characteristics at inception and (ii) subsequent changes in their effect? Why or why not?

Question 15

Appendix B identifies some inconsistencies between the proposed treatment of insurance liabilities and the existing treatment under IAS 39 of financial liabilities. Should the Board consider changing the treatment of some or all financial liabilities to avoid those inconsistencies? If so, what changes should the Board consider, and why?

Chapter 6

Question 16

(a) For participating contracts, should the cash flows for each scenario incorporate an unbiased estimate of the policyholder dividends payable in that scenario to satisfy a legal or constructive obligation that exists at the reporting date? Why or why not?

(b) An exposure draft of June 2005 proposed amendments to IAS 37 (see paragraphs 247–253 of this paper). Do those proposals give enough guidance for an insurer to determine when a participating contract gives rise to a legal or constructive obligation to pay policyholder dividends?

Question 17

Should the Board do some or all of the following to eliminate accounting mismatches that could arise for unit-linked contracts? Why or why not?

(a) Permit or require insurers to recognise treasury shares as an asset if they are held to back a unit-linked liability (even though they do not meet the *Framework*'s definition of an asset).

(b) Permit or require insurers to recognise internally generated goodwill of a subsidiary if the investment in that subsidiary is held to back a unit-linked liability (even though IFRSs prohibit the recognition of internally generated goodwill in all other cases).

(c) Permit or require insurers to measure assets at fair value through profit or loss if they are held to back a unit-linked liability (even if IFRSs do not permit that treatment for identical assets held for another purpose).

(d) Exclude from the current exit value of a unit-linked liability any differences between the carrying amount of the assets held to back that liability and their fair value (even though some view this as conflicting with the definition of current exit value).

Chapter 7

Question 18

Should an insurer present premiums as revenue or as deposits? Why?

Question 19

Which items of income and expense should an insurer present separately on the face of its income statement? Why?

Question 20

Should the income statement include all income and expense arising from changes in insurance liabilities? Why or why not?

Other matters

Question 21

Do you have other comments on this paper?

Appendix B
Comparison with IAS 39

Many insurers issue some contracts that are within the scope of IAS 39 *Financial Instruments: Recognition and Measurement* because they do not transfer significant insurance risk. The following table gives a high level summary of differences between the Board's preliminary views on insurance contracts and existing requirements in IAS 39 and IAS 18 *Revenue*. In principle, the Board would prefer to eliminate those differences. However, the Board has not yet assessed whether that will be appropriate. Thus, this paper includes no specific proposals for such contracts. The table includes references to relevant paragraphs of this paper.

Item	*Requirements of IAS 39 and IAS 18*	*Board's preliminary views on insurance contracts*	*Paragraph*
1	**Initial measurement, and acquisition costs**		
	At initial recognition, a financial liability is measured at its fair value:	Insurance contracts would be measured initially at current exit value.	31–119
	• less directly attributable transaction costs, if the liability will be measured subsequently at amortised cost.	An insurer would recognise transaction costs (acquisition costs) as an expense when it incurs them.	161–166
	• without deducting transaction costs, if the liability will be classified subsequently as 'at fair value through profit or loss' (ie if it will be measured at fair value, and all changes in its fair value will be recognised in profit or loss).		
2	**Gain or loss at inception**		
	The best evidence of the fair value of a financial instrument at initial recognition is the transaction price (ie the fair value of the consideration given or received) unless the fair value of that instrument is evidenced by comparison with other observable current market transactions in the same instrument (ie without modification or repackaging) or based on a valuation technique whose variables include only data from observable markets. Thus, no profit or loss arises at inception if the fair value of the instrument at that date equals the transaction price.	A profit or loss could arise at inception if the pricing is out of line with what market participants require. If an insurer identifies an apparently significant profit or loss at inception, it would need to check for errors or omissions.	83–86

Item	*Requirements of IAS 39 and IAS 18*	*Board's preliminary views on insurance contracts*	*Paragraph*
3	**Subsequent measurement** The following are classified as 'at fair value through profit or loss': • derivative financial liabilities • other financial liabilities if the fair value option is available and used. All other financial liabilities are measured at amortised cost. Embedded derivatives are separated and classified as 'at fair value through profit or loss', unless they are closely related to the host contract.	Insurance contracts would be measured at current exit value. The Board is not yet in a position to determine whether fair value and current exit value are the same. However, the Board has not identified significant differences between them.	31–119 104
4	**Surrender value floor and policyholder behaviour** The fair value of a financial liability with a demand feature (eg a demand deposit) is not less than the amount payable on demand, discounted from the first date that the amount could be required to be paid. This surrender value floor applies contract by contract, not on a portfolio basis.	In general, the surrender value of an insurance contract does not establish a lower limit for the current exit value. However, the current exit value cannot be negative (ie an asset), unless that asset is recoverable from future premiums that the policyholder must pay to retain guaranteed insurability. The measurement of an insurance liability includes the risk-adjusted expected present value of future premiums that pass the guaranteed insurability test.*	121–160
5	**Unit of account** The fair value of a portfolio of financial instruments is the product of the number of units of the instrument and its quoted market price. The recoverability of origination costs relating to investment management services may be assessed on a portfolio basis.	Risk margins: • would be determined for a portfolio of insurance contracts that are subject to broadly similar risks and managed together as a single portfolio. • would not reflect benefits, if any, of diversification between portfolios and negative correlation between portfolios.	183–202

* As described in chapter 4, the Board views these premiums as arising from a customer relationship, not as part of its contractual rights. However, an insurer would measure that part of the customer relationship in the same way as the insurance liability and present them together.

Item	*Requirements of IAS 39 and IAS 18*	*Board's preliminary views on insurance contracts*	*Paragraph*
6	**Presentation of premiums** Proceeds received from the customer are deposits. Therefore, they are not recognised as revenue, and repayments to customer are not recognised as an expense.	The Board has not yet formed a preliminary view on whether premiums would be treated as deposits or as revenue.	297–324
7	**Separation of investment management component** Some contracts involve both the origination of one or more financial instruments and the provision of investment management services. An example is a long-term monthly saving contract linked to the management of a pool of financial assets. The provider distinguishes the financial liability from the right to provide investment management services. This affects the treatment of origination costs and service fee revenue.	If an insurance contract contains both an insurance component and a deposit component, the insurer should treat it as follows: • if the components are so interdependent that the components can be measured only on an arbitrary basis, the phase II standard on insurance contracts should apply to the whole contract. • if the components are interdependent but can be measured separately on a basis that is not arbitrary, IAS 39 should apply to the deposit component. The whole contract would be measured by applying the phase II standard. Consequently, the insurance component would be measured as the difference between the measurement of the whole contract and the measurement of the deposit component. • if the components are not interdependent, the phase II standard should apply to the insurance component and IAS 39 should apply to the deposit component.	220–228

Item	*Requirements of IAS 39 and IAS 18*	*Board's preliminary views on insurance contracts*	*Paragraph*
7(a)	**Investment management component – origination costs**		
	Incremental costs that are directly attributable to securing an investment management contract are recognised as an asset if: • they can be identified separately and measured reliably, and • it is probable that they will be recovered (on a portfolio basis).	The measurement of the liability would include all future premiums that pass the guaranteed insurability test, including the part of those premiums from which the insurer expects to recover acquisition costs (both incremental and non-incremental).	121–160
	An incremental cost is one that would not have been incurred if the entity had not secured the investment management contract. The asset represents the entity's contractual right to benefit from providing investment management services. The entity amortises that asset as the entity recognises the related revenue.	An insurer would recognise acquisition costs as an expense when it incurs them. If the insurer expects to recover acquisition costs from future premiums that policyholders must pay to retain guaranteed insurability, those premiums reduce the measurement of the liability because the insurer includes them in the recognised part of the customer relationship. If the insurer recovers acquisition costs from premiums already received, receiving that part of those premiums does not increase the measurement of the liability.	161–166
7(b)	**Service fee revenue**		
	Fees charged for managing investments are recognised as revenue as the services are provided. Fees received in advance are treated as unearned revenue.	Current exit value would include an explicit and unbiased estimate of the margin that market participants require for providing services.	87–89
		Subsequently, as the insurer provides services, the service margin reduces and the insurer recognises income. That income would be the same as the implicit or explicit fee provided by the contract, unless market participants would require a higher or lower service margin for the same services.	88(e)
		The Board has not yet decided whether an insurer should split premium receipts into a revenue part and a deposit part for presentation in the income statement.	297–324

Appendix C
Other relevant IASB projects

C1 This appendix summarises important interactions with some of the Board's other projects. The Board expects that the work on insurance contracts will proceed in parallel with these other projects and will not wait for their outcome. Also, this work may generate useful inputs for those other projects. Many of the projects are joint projects with the US Financial Accounting Standards Board (FASB).

Conceptual framework

C2 The IASB and FASB are working on a joint project to improve and achieve convergence of their conceptual frameworks. Comments follow on the four active phases of that project:

- For phase A, the boards released in July 2006 a discussion paper *Preliminary Views on an improved Conceptual Framework for Financial Reporting: The Objective of Financial Reporting and Qualitative Characteristics of Decision-useful Financial Reporting Information*. The boards have begun their review of responses to the discussion paper.
- Phase B addresses the definition of elements and the criteria for their recognition in financial statements. In the IASB's existing framework, the elements are assets, liabilities, equity, income and expense. The boards expect to release a discussion paper in early 2008.
- Phase C will deal with measurement. The existing conceptual frameworks of the IASB and FASB give little guidance on this subject. The boards conducted public round tables on measurement in early 2007. The first part of phase C will develop common language to describe various measurement bases. Later parts of this phase will develop criteria to assess which base or bases should be used, and when.
- Phase D addresses the reporting entity. The boards expect to publish a discussion paper in 2007.

Revenue recognition

C3 The Board and the FASB are conducting a joint project to develop concepts for revenue recognition and a general standard based on those concepts. For the IASB, the general standard would replace IAS 11 *Construction Contracts* and IAS 18 *Revenue*. The boards plan to publish in late 2007 a discussion paper exploring two models for revenue recognition:

- a fair value model. This would measure contractual performance obligations at the price the entity would have to pay an unrelated party to assume legal responsibility for performing the remaining obligations.
- a customer consideration model. This would measure performance obligations by allocating consideration receivable from the customer.

C4 Each model has support from several members of both boards.

Fair value measurements

C5 The objective of the IASB's project on fair value measurements is to simplify IFRSs and improve the quality of fair value information included in financial reports. The project will not introduce new measurements at fair value. In November 2006 the Board published a discussion paper *Fair Value Measurements*, for comment by May 2007. The paper seeks views on whether the IASB should develop a concise definition of fair value and a single source of guidance for all fair value measurements required by IFRSs. The starting point for the Board's discussions was a recent US standard, SFAS 157 *Fair Value Measurements*.

C6 Some important features of SFAS 157 are the following:

(a) Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

(b) A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability.

(c) Market participants are buyers and sellers in the principal (or most advantageous) market for the asset or liability that are:

(i) independent of the reporting entity, ie they are not related parties.

(ii) knowledgeable, having a reasonable understanding about the asset or liability and the transaction based on all available information, including information that might be obtained through due diligence efforts that are usual and customary.

(iii) able to transact for the asset or liability.

(iv) willing to transact for the asset or liability; that is, they are motivated but not forced or otherwise compelled to do so.

(d) Fair value is based on the assumptions that market participants would use in pricing the asset or liability.

(e) Valuation techniques used to measure fair value should maximise the use of observable inputs and minimise the use of unobservable inputs. Observable inputs reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the reporting entity. Unobservable inputs reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances.

(f) In many cases, the fair value of an asset or liability at initial recognition (an exit price) equals the price paid or received (an entry price), but there is no presumption that they are equal.

C7 The IASB has not yet reached final conclusions on the definitions of fair value for IFRSs (in the FVM project) and current exit value (in the project on insurance contracts). Therefore, the IASB cannot yet determine whether these two notions are the same. The IASB has not identified significant differences between them.

Revisions to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*

C8 In June 2005 the Board published an exposure draft proposing revisions to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. The Board is reviewing the responses to the exposure draft and expects to finalise a standard in 2008. Insurance contracts are not within the scope of IAS 37. However, developments in this project could set precedents for the treatment of insurance contracts in two areas:

(a) the definition of a constructive obligation

(b) clarifications to the measurement guidance.

Liabilities and equity

C9 The FASB has taken the lead on this project to date, which aims to develop a comprehensive standard of accounting and reporting for financial instruments with characteristics of equity, liabilities or both, and assets. The FASB intends to publish a preliminary views document in 2007. The IASB intends to publish that document in an IASB discussion document. The project may be relevant for the treatment of participating insurance contracts.

Financial statement presentation

C10 The aim of this joint FASB/IASB project is to establish a common, high quality standard for presentation of information in the financial statements, including the classification and display of line items and the aggregation of line items into subtotals and totals. The boards are conducting this project in three phases:

- Phase A defines what constitutes a complete set of financial statements and deals with requirements to present comparative information. In March 2006 the IASB published its phase A exposure draft of proposed Amendments to IAS 1 Presentation of Financial Statements: *A Revised Presentation*. The comment period ended in July 2006 and the IASB began its phase A redeliberations in December 2006. The FASB did not publish a separate exposure draft on phase A and intends to expose its phase A proposals along with its phase B proposals.
- Phase B addresses the more fundamental issues for presentation of information on the face of the financial statements. The boards plan to publish a discussion paper on phase B in the fourth quarter of 2007.
- Phase C will address presentation and display of interim financial information in US GAAP. The IASB may reconsider the requirements in IAS 34 *Interim Financial Reporting*.

Financial instruments

C11 In 2005 the IASB and FASB established the following three explicit long-term objectives to simplify and improve financial reporting requirements for financial instruments, if technical and practical hurdles can be overcome:

(a) To require all financial instruments to be measured at fair value with realised and unrealised gains and losses recognised in the period in which they occur. Even if all the technical and practical problems are resolved, the boards do not expect to be in a position to require fair value measurement of all financial instruments for several years. The issues that the boards must resolve include: (i) which items should be subject to the requirement, (ii) how to estimate fair value for financial instruments that are not traded in active markets or are traded in government-controlled markets, and (iii) what information to present about past changes in fair value and exposures to future changes in market factors. The boards are working toward resolving some of these issues.

(b) To simplify or eliminate the need for special hedge accounting requirements.

(c) To develop a new standard for the derecognition of financial instruments.

C12 The boards agreed to work toward those long-term objectives while retaining the ability to work either jointly or separately (if necessary) on shorter-term objectives that are consistent with the long-term objectives.

C13 Neither board has added projects reflecting these three objectives to its active agenda because the boards must first address difficult technical and practical issues that are likely to take time to resolve. The boards are addressing some of those issues in active projects. The boards plan to publish a due process document in late 2007 addressing the first two objectives (measurement and hedge accounting).

C14 The staff is also working on a research paper on derecognition to be published as a due process document. That work is in the early stages, and the boards have not yet set a timetable for the document.

Appendix D
Issues not covered in this Discussion Paper

This paper does not address the topics discussed below. The Board expects that an exposure draft will address them, unless the comments below indicate otherwise.

Subject	*Comments*
Scope of standard	The Board will consider in due course whether the scope exclusions in paragraph 4 of IFRS 4 are still appropriate.
Definition of insurance contract	The staff does not expect to recommend major changes to IFRS 4's definition of an insurance contract.
Catastrophe and equalisation reserves	This topic was debated extensively in IASC's *Issues Paper* and *Draft Statement of Principles* (DSOP) and during the development of IFRS 4 (see paragraphs BC87–BC93 of the Basis for Conclusions on IFRS 4). There is no realistic possibility that the Board could conclude that these items are liabilities. The Board does not expect to review the treatment of these items again.
Separate funds	Sometimes, assets are held in separate funds to back specific pools of insurance contracts (particularly, but not exclusively, for participating contracts or unit-linked contracts). The Board will consider in due course whether an insurer should recognise these assets, and the related portion of the liabilities. Starting points for the discussion will be: • the definitions of, and recognition criteria for, assets and liabilities in the *Framework* and the project on the conceptual framework. • the project on consolidation and special purpose entities. • discussion of separate account assets in paragraphs 269–286. • chapter 11 of the DSOP.
	continued...

Subject	*Comments*
Securitisations and other innovative transaction forms, often known as alternative risk transfer (ART)	The Board will assess in due course whether ART transactions pose specific accounting problems.
Deferred tax	The DSOP proposed that an entity whose primary business is issuing insurance contracts should use discounting in measuring its deferred tax assets and deferred tax liabilities. However, the Board decided tentatively in February 2002 not to consider in this project whether discounting is relevant for deferred taxes.
Interim reporting	The Board will assess in due course whether there are any specific interim reporting issues for insurance contracts.
Presentation and disclosure	The Board does not expect to develop significant changes to the high level disclosure requirements in IFRS 4, although some consequential amendments may be needed. The Implementation Guidance may need refinement if different information is available and because insurers will have experience with the disclosure principles in IFRS 4.
Measurement by policyholders	IFRSs address only limited aspects of accounting by policyholders for insurance contracts. IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* addresses accounting for reimbursements from insurers for expenditure required to settle a provision. IAS 16 *Property, Plant and Equipment* addresses some aspects of reimbursement by insurers for impairment or loss of items of property, plant and equipment.

continued...

Subject	*Comments*
	In February 2002, the Board decided tentatively to create the following simplified measurement model for policyholders, based on paragraph 9.6 of the DSOP: (a) prepaid insurance premiums at amortised cost. (b) any readily identifiable investment component at fair value. (c) virtually certain reimbursements of expenditure required to settle a recognised provision at the present value of the reimbursement, but not more than the amount of the recognised provision (as in IAS 37). (d) valid claims for an insured event that has already occurred at the present value of the expected future receipts under the claim. If it is not virtually certain that the insurer will accept the claim, the claim is a contingent asset and would, under IAS 37, not be recognised. The Board will review this tentative conclusion in due course. Paragraphs 206–210 of this paper note that a risk margin increases the current exit value of a reinsurance asset. Similar reasoning may be relevant for a policyholder's insurance asset.
Transition and effective date. Consequential amendments to other IFRSs	To be considered at the exposure draft stage.

Appendix E
Estimates of future cash flows

E1 This appendix is a preliminary draft of guidance on estimating the amount, timing and uncertainty of the future cash flows. The guidance applies to all forms of insurance liability (eg life and non-life, direct insurance and reinsurance).

Overall principle

E2 In estimating the current exit value of insurance liabilities, an insurer should develop estimates of cash flows that:

(a) are explicit.

(b) are as consistent as possible with observable market prices.

(c) incorporate, in an unbiased way, all available information about the amount, timing and uncertainty of all cash flows arising from the contractual obligations.

(d) are current, in other words, they correspond to conditions at the end of the reporting period.

(e) exclude entity-specific cash flows. Cash flows are entity-specific if they would not arise for other entities holding an identical obligation.

E3 The rest of this appendix deals with:

(a) uncertainty and the expected present value approach (paragraphs E4–E8)

(b) consistency with current market prices (paragraphs E9–E14)

(c) source of estimates (paragraph E15)

(d) using current estimates (paragraphs E16–E18)

(e) future events (paragraphs E19–E23)

(f) which cash flows? (paragraphs E24–E26)

(g) entity-specific cash flows (paragraphs E27 and E28).

Uncertainty and the expected present value approach

E4 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.

E5 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.

E6 In some cases, relatively simple modelling 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 modelling is likely to be needed.

Consistency with current market prices

E7 This appendix distinguishes two types of variable:

(a) market variables: variables that can be observed in, or derived directly from, markets (eg prices of publicly traded securities and interest rates)

(b) non-market variables: all other variables (eg the frequency and severity of insurance claims and mortality).

Market variables

E8 Estimates of market variables should be consistent with the observable market prices at the end of the reporting period. An insurer should not substitute its own estimate for the observed market prices, even if other evidence causes the insurer to believe that those prices are unrepresentative of conditions at the end of the period.

E9 Market prices blend a range of views about possible future outcomes and also reflect the risk preferences of market participants. Therefore, they are not a single point forecast of the future outcome. If the actual outcome differs from the previous market price, this does not mean that the market price was 'wrong'.

Non-market variables

E10 Estimates of non-market variables should reflect all available evidence, both external and internal.

E11 Market prices overrule all other forms of evidence. However, non-price external data (eg national mortality statistics) may have more or less weight than internal data (eg internal mortality statistics), depending on the circumstances. For example, a life insurer should not rely solely on national mortality statistics, but should consider all other available internal and external sources of information in developing unbiased estimates of probabilities for mortality scenarios. In developing those probabilities, an insurer should consider all evidence available, giving more weight to evidence that is more persuasive. For instance, internal mortality statistics may be more persuasive than national mortality data if the internal statistics are derived from a large population, the demographic characteristics of the insured population differ significantly from those of the national population and the national statistics are out of date; in that case, an insurer would place more weight on the internal data and less weight on the national statistics. Conversely, if the internal statistics are derived from a small population with characteristics believed to be close to those of the national population, and the national statistics are current, an insurer would place more weight on the national statistics.

E12 Estimated probabilities for non-market variables should not contradict observable market variables. For example, estimated probabilities for future inflation rate scenarios should be consistent with probabilities implied by market interest rates. Paragraphs E13 and E14 discuss this notion further.

E13 In some cases, an insurer concludes that market variables vary independently of non-market variables. If so, the insurer should prepare scenarios that reflect the range of outcomes for the non-market variables and each scenario should use the same observed value of the market variable.

E14 In other cases, market variables and non-market variables may be correlated. For example, there may sometimes be evidence that lapse rates are correlated with interest rates. Similarly, there may be evidence that claim levels for house or car insurance are correlated with economic cycles and hence with interest rates and expense levels. In such cases, an

insurer should develop scenarios for each outcome of the variables. The insurer should calibrate the probabilities for the scenarios, and the margins relating to the market variables, so that they are consistent with market prices.

Source of estimates

E15 An insurer estimates the probabilities associated with future payments under existing contracts on the basis of:

(a) information about claims already reported by policyholders.

(b) other information about the known or estimated characteristics of the book of insurance contracts.

(c) historical data about the insurer's own experience, supplemented where necessary by historical data from other sources. Historical data are adjusted if, for example:

(i) the characteristics of the book differ (or will differ, because of adverse selection) from that of the population used as a basis for the historical data.

(ii) there is evidence that historical trends will not continue, that new trends will emerge or that economic, demographic and other changes may affect the cash flows arising from the existing contracts.

(iii) there have been changes in items such as underwriting procedures and claims management procedures that may affect the comparability of historical data.

(d) if available, recent market prices for transfers of books of insurance contracts, adjusted for:

(i) known differences between those books and the book being measured.

(ii) implicit or explicit amounts embedded in those prices that are attributable to future benefits from the relationship with policyholders rather than to the existing contracts.

(e) if available, current reinsurance prices, adjusted for factors that may cause the reinsurance price to differ from the price for a true transfer. Reinsurance prices are not generally true exit prices because reinsurance transactions do not typically extinguish the cedant's obligation to the policyholder. Also, reinsurance often

covers only part of the cedant's liability. In addition, the price for reinsurance may be affected by the relationship between the cedant and the reinsurer.

(f) if available, current prices for instruments (if any) covering similar risks such as catastrophe bonds and weather derivatives, adjusted for differences between the risk covered by these instruments and the risk covered by the insurance contracts.

Using current estimates

E16 In estimating the probability of each cash flow scenario relating to non-market variables, an insurer should use all available current information about conditions at the end of the reporting period. An insurer should review its estimates of probabilities at the end of the reporting period and update them if evidence indicates that previous estimates are no longer valid. In doing so, an insurer should consider both:

(a) whether the updated estimates represent faithfully conditions at the reporting date.

(b) whether changes in estimates represent faithfully changes in conditions during the period. For example, suppose that estimates were at one end of a reasonable range at the beginning of the period. If conditions have not changed, moving the estimates to the other end of the range at the end of the period would not faithfully represent what has happened during the period. If an insurer's most recent estimates are, initially, out of line with previous estimates, but conditions have not changed, the insurer should assess carefully whether the probabilities assigned to each scenario have changed since the beginning of the period. In updating its estimates of those probabilities, the insurer should consider both the evidence that supported its previous estimates and all available new evidence, giving more weight to evidence that is more persuasive.

E17 Current estimates of expected cash flows are not necessarily identical to the most recent actual experience. For example, suppose that mortality experience last year was 20 per cent worse than previous experience and previous expectations. A current estimate of expected death benefits does not typically change immediately by as much as 20 per cent. Several factors could have caused the sudden change in experience, including:

(a) lasting changes in mortality

(b) changes in the characteristics of the insured population (eg changes in underwriting or distribution, or selective lapses by policyholders in unusually good or bad health)

(c) flaws in the estimation model, or mis-calibration of parameters used in the model

(d) random fluctuations

(e) identifiable non-recurring causes.

E18 An insurer should investigate the reasons for the change in experience and develop new probability estimates for each possible outcome, in the light of the most recent experience, earlier experience and other information. Typically, the result for this example would be that the expected present value of death benefits increases, but not by as much as 20 per cent. Actuaries have developed various 'credibility' techniques that an insurer could use in assessing how new evidence affects the probability of different outcomes. In this example, if mortality continues to run significantly above previous estimates, the estimated probability assigned to high-mortality scenarios will increase gradually as new evidence becomes available.

Future events

E19 If future events may affect the net cash flows arising from an existing insurance liability, the insurer should develop cash flow scenarios that reflect those future events, as well as unbiased estimates of the probability weightings for each scenario. In contrast, the insurer should not develop cash flow scenarios reflecting future events that create new obligations (or change or discharge existing obligations). For example, an insurer should not develop scenarios reflecting possible new legislation that would create, change or discharge the obligation itself. [This paragraph is consistent with the June 2005 exposure draft proposing amendments to IAS 37, but the wording is modified to focus more on the need to consider all scenarios. The Board plans to update this wording when it completes its redeliberations of that exposure draft.]

E20 Estimates of non-market variables consider not just current information about the current level of insured events, but also information about trends. For example, mortality rates have declined consistently over long periods in many countries. In developing cash flow scenarios, an insurer should assign probabilities to each possible trend scenario in the light of all available evidence.

E21 Similarly, if contractual cash flows are sensitive to inflation, cash flow scenarios should reflect possible future inflation rates. Because inflation rates are likely to be correlated with interest rates, an insurer should calibrate the probabilities for each inflation scenario so that they are consistent with probabilities implied by market interest rates.

E22 Probability weightings should reflect conditions at the end of the reporting period. For example, there may be a 20 per cent probability at the balance sheet date that a major storm will strike during the remaining six months of an insurance contract. Assume that after the balance sheet date and before the financial statements are authorised for issue, a storm actually strikes. The measurement of the liability under that contract does not reflect the storm that, with hindsight, is known to have occurred. Instead, the measurement reflects the 20 per cent probability that was apparent at the balance sheet date (with an appropriate risk margin that reflects conditions at the end of the reporting period, and appropriate disclosure that a non-adjusting event occurred after the end of the reporting period[*]).

E23 The scenarios developed should include unbiased estimates of the probability of catastrophic losses under existing contracts. For example, if there is a 5 per cent probability that an earthquake during the remaining term of an existing contract will cause losses with a present value of CU1,000,000, the expected present value of the cash outflows includes CU50,000 (CU1,000,000 @ 5 per cent) for those catastrophe losses (with an appropriate risk margin for the possibility that existing contracts may generate greater losses). However, the scenarios exclude possible claims under possible future contracts.

Which cash flows?

E24 Estimates of cash flows in a scenario should include all cash flows arising in that scenario from the contractual rights and contractual obligations associated with the existing insurance contracts, and no others. The relevant cash flows include:

(a) payments to (or on behalf of) policyholders under existing contracts, including claims that have already been reported but not yet paid (reported claims), claims that have already been incurred but not yet reported (IBNR), and all future claims and other benefits under existing contracts. [The Board expects to add some discussion of constructive obligations when it has completed its

[*] See IAS 10 *Events After the Balance Sheet Date*

redeliberations of the June 2005 exposure draft proposing amendments to IAS 37.]

(b) claim handling expenses (expenses that the insurer will incur in processing and resolving claims under existing contracts, including legal and adjuster's fees and internal costs of processing claim payments).

(c) the direct and indirect costs that market participants would incur in providing contractual benefits that are paid in kind.*

(d) net cash outflows resulting from policyholder behaviour that is unfavourable to the insurer (for example, selective lapses by policyholders who present lower risks).

(e) enforceable cash inflows (eg enforceable premium adjustments and enforceable instalment premiums) from policyholders under existing contracts.

(f) premiums that the policyholder must pay to retain guaranteed insurability, and additional policyholder benefits resulting from those premiums. Guaranteed insurability is a right that permits continued coverage without reconfirmation of the policyholder's risk profile and at a price that is contractually constrained.

(g) cash flows that will result in the scenario from options and guarantees embedded in the contract. When contracts contain embedded options or guarantees, it is particularly important to consider the full range of scenarios.

(h) policy administration and maintenance costs, including all direct and indirect costs that market participants would consider in assessing the acceptability of a price for taking over the contractual rights and contractual obligations.

(i) transaction-based taxes (such as premium taxes, value added taxes and goods and services taxes) and levies (such as fire service levies and guarantee fund assessments) that arise directly from existing insurance contracts, or can be attributed to them on a reasonable and consistent basis.

(j) potential recoveries (such as salvage and subrogation) on future claims covered by existing insurance contracts and, to the extent

* If market participants would require a service margin for providing those contractual benefits, the current exit value of the liability includes that margin.

they do not qualify for recognition as separate assets, potential recoveries on past claims.

(k) payments to policyholders to satisfy existing obligations to pay participating benefits, to the extent that those obligations qualify for recognition as a liability.

(l) interest that the insurer expects to credit to policyholder accounts to satisfy a legal or constructive obligation in a universal life contract.

E25 The following cash flows are not relevant in estimating the current exit value of existing insurance liabilities:

(a) investment returns. The investments are recognised, measured and presented separately. However, the measurement of the insurance liability is:

(i) increased by liability cash flows, if any, that depend on the investment returns.

(ii) decreased by implicit or explicit fees that the insurer will charge under the insurance contract for investment management. Those fees are included to the extent they result from unfavourable policyholder behaviour, are enforceable or will arise from policyholder action needed to retain guaranteed insurability (paragraph E24(d)–(f)).

(iii) increased by the costs that market participants would incur in providing investment management services and the service margin that market participants would require for those services. Chapter 3 discusses service margins. If the contractual investment management fees are in line with what market participants would require, the fees in (ii) equal the costs plus required service margin in (iii).

(b) payments to and from reinsurers. Reinsurance assets are recognised, measured and presented separately.

(c) net cash inflows resulting from policyholder behaviour other than the payment of premiums to retain guaranteed insurability.

(d) cash flows that may arise from future insurance contracts. Nevertheless, estimates of cash flows from existing contracts are not performed on a run-off basis. In other words, those estimates do not incorporate the changes that could occur to cash flows from existing contracts if the insurer stopped issuing new contracts.

(e) income tax payments and receipts (recognised, measured and presented separately under IAS 12 *Income Taxes*).

(f) cash flows between different components of the reporting entity, such as between policyholder funds and shareholder funds. An example of such cash flows is when a policyholder fund owns an office building that is rented to the insurer at an arms' length rent for use in the insurer's own operations.

(g) transaction costs that the insurer would incur in negotiating and implementing a transfer of its contractual rights and obligations to a third party. These costs are not relevant until the insurer is obliged to incur them.

(h) cash flows that would not arise for other market participants if they held the current insurer's rights and obligations under the insurance contract (entity-specific cash flows).

E26 No pricing or measurement model can guarantee to identify in advance all events that might cause insured losses. In determining an acceptable price for taking over insurance liabilities, market participants would consider the possibility of such unidentified events. Because insurance contracts provide asymmetric pay-offs, such unidentified events tend to result in more large losses than large gains. Therefore, they tend to increase the expected present value of future net cash outflows. However, to deal with the possibility of unidentified events insured by existing contracts, it may sometimes be more practical to increase the risk margin, rather than include additional scenarios.

Entity-specific cash flows

E27 The objective is to estimate the current exit value of the rights and obligations associated with the insurance contracts themselves, without considering cash flows attributable to other assets and liabilities or to goodwill. It follows that cash flow scenarios exclude cash flows that other market participants would not generate (or suffer) if they held the contracts. Examples might include:

(a) the presence of superior claims management skills, managerial skills or distribution network, an unusually effective system for detecting fraud, actions that limit lapse rates, a monopolistic market position, special tax circumstances that affect only the insurer and would not affect other market participants, or synergies with the insurer's other assets or liabilities.

(b) an intention to settle insurance liabilities differently from the way that other market participants would settle them. For example, an insurer may decide to use its own garages to service motor claims, whereas other market participants might prefer to pay third parties and so incur the costs incurred by those third parties. However, if the insurance contract requires the insurer to settle the liability in a particular way, the measurement of the liability must reflect that requirement, because the objective is to measure the liability that exists in fact, rather than a hypothetical liability with different terms.

(c) unusually efficient, or unusually inefficient, administration systems. Estimates of servicing costs need to reflect the characteristics of the contracts being measured, including the level of service provided to policyholders and the approach to claims management. Those characteristics affect the future cash flows that market participants would consider. For example, aggressive, but expensive, claims management will lead to low claims but high expenses. Similarly, the level and type of service might affect the degree of adverse selection. That would occur if the level and type of service affect lapse rates more for some classes of policyholders than for others. If other insurers incur higher or lower servicing costs, an insurer would need to assess whether the difference arises from the characteristics of the contracts or from differences in efficiency.

E28 Estimates of non-market variables should reflect the characteristics of the existing insurance contracts, not a hypothetical portfolio of standardised liabilities. For example, unbiased mortality estimates should reflect, as far as possible, the demographics of the portfolio being measured. Although these estimates are portfolio-specific, they are not necessarily entity-specific. In other words, they are not necessarily inconsistent with estimates that other knowledgeable market participants would make about that portfolio. Moreover, there will rarely be persuasive evidence that the insurer's estimates differ from estimates that other market participants would make.

Appendix F
Risk margins

F1 This appendix is a preliminary draft of guidance on estimating risk margins. The guidance applies to all forms of insurance liability (eg life and non-life, direct insurance and reinsurance).

Overall principle

F2 The risk margin should be an explicit and unbiased estimate of the margin that market participants require for bearing risk.

Objective and characteristics of a risk margin

F3 The objective of including a risk margin in the measurement of an insurance liability is to convey useful information to users about the uncertainty associated with the liability. To achieve this objective, an insurer should select an approach for determining risk margins that meets the following criteria:

(a) Because insurance liabilities are measured at current exit value, the risk margin should be consistent with the margin that would be expected if the insurer were to transfer its contractual rights and obligations to another party.

(b) Risk margins should be explicit, not implicit. That is an important change from many existing practices that rely on estimates incorporating an implicit (and often unstated) degree of conservatism or prudence. Separating explicit estimates of future cash flows from explicit risk margins should improve the quality of estimates and enhance transparency.

(c) The risk margin for an insurance liability should reflect all risks associated with the liability.

(d) The risk margin for an insurance liability should not reflect risks that do not arise from the liability, such as investment risk (except when investment risk affects the amount of payouts to policyholders), asset-liability mismatch risk or general operational risk relating to future transactions.

(e) The margin should be as consistent as possible with observable market prices (see paragraphs F5–F8).

(f) The approach should be implementable at a reasonable cost and in a reasonable time, and be auditable.

(g) The approach should not ignore the tail risk in contracts with very skewed pay-offs, such as contracts that contain embedded options (eg the interest guarantees and other financial guarantees embedded in many life insurance products) or that cover low-frequency high-severity risks (such as earthquake), or portfolios that contain significant concentrations of risk. For example, if a large portfolio of insurance contracts is subject to significant earthquake risk but the insurer estimates that the probability of an earthquake is only 1 per cent, the approach should not ignore that risk if market participants could be expected to consider that risk in determining a price that they would regard as acceptable.* Option-pricing methods or stochastic modelling may be needed to provide effective estimates of the risk margins associated with these items.

(h) 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.

(i) If more than one approach is compatible with the above criteria, it is preferable to select an approach that builds on models that insurers use (or are developing) to run their business. For example, an insurer may be able to build on an economic capital model, an embedded value model or a model developed for solvency, if the resulting approach is compatible with the above criteria.

(j) The approach should not overlook model risk (the risk that a model is not a good description of the underlying process) or parameter risk (the risk that a model uses estimates of parameters that differ from the true parameters, or that the parameters may change over time). However, because it may be difficult to quantify these risks and price them, care should be taken in building them into a model.

F4 The characteristics of the risk margin are likely to include the following:

(a) The less that is known about the current estimate and its trend, the higher the risk margin should be.

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* The tail risk affects both (1) the expected cash flows and (2) the margin that market participants would require to compensate them for possible variations from the expected cash flows. Estimates of expected cash flows need to capture the effect that tail risk has on (1). The risk margin needs to capture the effect of tail risk on (2).

(b) Risks with low frequency and high severity will have higher risk margins than risks with high frequency and low severity.

(c) For similar risks, long duration contracts will have higher risk margins than those of shorter duration.

(d) Risks with a wide probability distribution will have higher risk margins than those risks with a narrower distribution.

(e) To the extent that emerging experience reduces uncertainty, risk margins will decrease, and vice versa.

Calibration to market prices

F5 In general, insurance liabilities expose insurers to risks associated with both market variables (ie variables, such as interest rates, that can be derived from market prices) and non-market variables (such as the frequency and severity of claims, and mortality). It follows that risk margins for insurance liabilities include components related to market variables and components related to non-market variables. Because the risks may have joint effects, the total risk margin may not equal the sum of the margins that would be appropriate for each risk individually.

F6 Paragraph F3(e) states that margins should be as consistent as possible with observable market prices. Therefore, the component(s) of the risk margin that relate(s) to market variables should be consistent with the observed prices from which those variables are derived. Market variables may also provide some (probably limited) indications of how market participants might price the risks associated with non-market variables, particularly for risks that have profiles similar to those of market variables.

F7 Explicit risk margins should not be included for market variables derived from market prices that already include implicit risk margins. For example, if the discount rate is derived from the price of a traded debt security, that discount rate incorporates the margin required by market participants for bearing the risk of changes in interest rates. Including an explicit margin for that risk would be double-counting.

F8 In some cases, a replicating asset exists for some or all of the contractual cash flows arising from an insurance contract. A replicating asset is one whose cash flows exactly match those contractual cash flows in amount, timing and uncertainty. The current exit value of those contractual cash flows equals the fair value of the replicating asset. Thus, if the fair value

of the replicating asset is observable or determinable, the insurer can estimate the current exit value of those contractual cash flows without estimating their expected present value and without determining an explicit risk margin.

Approaches to determining risk margins

F9 Listed below are various approaches that might be used in estimating risk margins. In the Board's preliminary view, none is demonstrably better than all others in all circumstances, or demonstrably worse than all others in all circumstances. This list is not intended to be exhaustive. It may be possible to combine some elements from more than one of these techniques if the resulting combination satisfies the criteria identified above.

(a) Confidence levels:

(i) explicit confidence levels (eg 75 per cent probability of sufficiency).

(ii) explicit minimum confidence level, but insurers may use a higher confidence level. [An approach of this type is in use in Australia.]

(b) Conditional tail expectation (CTE), sometimes known as tail value at risk (Tail VaR). CTE is the expected value of the tail of a probability distribution. For example, CTE 90 is the expected value of all outcomes beyond the 90th percentile.

(c) An explicit margin within a specified range. Accounting or actuarial guidance specifies the ends of the range (perhaps, as a percentage of the central estimate) and indicates criteria for deciding whether the margin should be set nearer one end of the range. [An approach of this type is in use in Canada.]

(d) Cost of capital. The estimated cost of holding the capital that is needed to give policyholders comfort that valid claims will be paid, and to comply with regulatory capital requirements, if any. [The CRO Forum* suggests that an approach of this type might be suitable for both general purpose financial reporting and for reporting to supervisors. The suggested approach uses a 'replicating portfolio' of traded financial instruments to price the expected cash flows (and thereby also the risk margins associated

* The CRO Forum is a forum for the chief risk officers of major European insurers.

with market variables), and a cost of capital approach to determine the risk margin associated with non-market variables.]

(e) Methods based on the capital asset pricing model or related asset pricing models.

(f) Adjustments to cash flows to place more weight on cash flows in some outcomes (eg 'deflator', 'no arbitrage' and 'market consistent' approaches) or to place more weight on larger cash outflows or smaller cash inflows (eg 'transformation' or 'distortion' approaches).

(g) Multiples of one or more specified parameters of the estimated probability distribution (eg multiples of the standard deviation, variance, semi-variance, or higher 'moments' of the distribution).

(h) A risk-adjusted discount rate. This approach is relatively simple and may be easy to benchmark against what other entities are doing. It may provide a reasonable indication of the pattern of release from risk if risk is directly proportional to the amount of the liability and the remaining time to maturity. However, insurance liabilities do not always have these characteristics. For example, lapse risk may affect cash inflows more than it affects cash outflows. Moreover, risk margins generally reduce the value of future cash inflows but increase the value of future cash outflows. A single risk-adjusted discount rate is unlikely to capture these differences in risk.

F10 The following approaches do not meet the criteria proposed above.

(a) Implicit (and unspecified) confidence level.

(b) Implicit (but unspecified) risk margin through use of conservative assumptions that aim to give reasonable assurance at an implicit confidence level that ultimate cash payments will not exceed the recognised liability. Terms sometimes used in this context are 'sufficiency' (eg a high probability that amounts paid will not exceed the reported liability), 'provision for risk of adverse deviation' and prudence.

Appendix G Examples

Example 1 Compensation for bearing risk or shock absorber?

Background information

On 1 January 20X1, insurer A issues several identical insurance contracts to various policyholders. The contracts cover insured events occurring between 1 January 20X1 and 31 December 20X1. At inception, the expected value of the cash outflows from the contracts is CU200,* spread evenly through the year. For simplicity, this example ignores the time value of money, and investment income. Insurer A expects to pay all valid claims immediately.

Insurer A determines that it requires an additional payment of CU40 to compensate it for bearing the risk associated with the contracts. Insurer A charges a premium of CU240 and collects the entire premium at inception.† Insurer A estimates that other insurers would not require a significantly different return.§

At 30 June 20X1, insurer A pays claims totalling CU118. Insurer A estimates that no other insured events had occurred up to that date. Therefore, insurer A recognises revenue (earned premium) of CU120 and claims expense of CU118. At that date, insurer A estimates that claims for the six months to 31 December 20X1 will have an expected value of CU118. Insurer A also estimates that it (and other insurers) would require CU25 to compensate it for bearing the risk that the claims for those six months might exceed CU118 (but cannot charge that additional amount because the pricing was set at inception).

At 31 December 20X1, insurer A pays claims of CU118 (ie the same amount as the expected value determined at 30 June 20X1).

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* CU = currency units

† It is beyond the scope of this example to consider what would happen if the premium is higher or lower than the sum of the expected value of the cash flows (CU200) plus the required compensation for bearing risk (CU40).

§ It is beyond the scope of this example to consider what would happen if other insurers require a higher or lower return.

View A (shock absorber)

If risk margins are viewed as a shock absorber, at 30 June 20X1 insurer A recognises a liability of CU120 (6/12 of the original premium). That measurement could also be analysed as the (revised) expected value of CU118 plus an implicit risk margin of CU2.

In the six months to 31 December 20X1, insurer A recognises revenue (earned premium) of CU120 and claims expense of CU118. The net profit of CU2 for those six months corresponds to the release of the implicit risk margin that was included in the liability at 30 June 20X1.

View B (compensation for bearing risk)

If risk margins are viewed as a measure of the compensation for bearing risk, at 30 June 20X1, insurer A recognises a liability of CU143 (118 + 25) and an expense of CU23 (143 − 120) because of the shortfall (premium deficiency). During the six months to 31 December 20X1, insurer A reverses that shortfall, recognising income of CU23. Insurer A also recognises revenue (earned premium) of CU120 and claims expense of CU118. Thus, insurer A's profit for the six months to 31 December 20X1 is CU25.

Comments

Example 1 illustrates several points:

- If view A is adopted, insurer A's balance sheet reports the liability as if it were almost free from risk (ie with an implicit risk margin of only CU2).
- Under view A, if insurer A's pricing reacts promptly to changes in estimate, its balance sheet may measure identical liabilities at different amounts. For example, if insurer A issues new six-month contracts on 1 July with exposures identical to the remaining exposures and for a premium of CU143, it will measure the new liabilities at CU143 and the old exposures at CU120, although the exposures are identical.
- If view A is adopted, insurer A's income statement for the first six months will not give a timely reflection of the deterioration in expected outcomes for the second six months.
- If view B is adopted, insurer A recognises an expense of CU23 in the first six months and income of CU23 in the following six months. That income does not reflect cash received by insurer A. It reflects the additional cash that market participants would have required to take over the liability at 30 June 20X1.

Example 2 Calibrating a risk margin to the premium

Background

Insurer B issues an insurance contract on 1 January for a premium of CU1,000, incurring acquisition costs of CU100. Insurer B estimates on 1 January that the cash flows have an expected present value of CU750 and a standard deviation of CU50. Insurer B determines that, for this particular type of insurance contract, market participants would use the estimated standard deviation of the cash flows as the unit of risk. In other words, they would quantify the required compensation for bearing risk as a multiple of the standard deviation.* Insurer B estimates that market participants would not require a service margin. On 30 June, insurer B estimates that the remaining cash flows have an expected present value of CU400 and a standard deviation of CU30.

Insurer B estimates that market participants would require a margin of CU2.8 per standard deviation at 1 January and CU2.9 at 30 June.

Chapter 3 describes two implementations of current exit value. This example compares their effects.

Implementation A

On 1 January (inception), insurer B:

- measures the insurance liability at CU900 (premium received: CU1,000 less acquisition costs: CU100). That measurement equals the expected present value of future cash flows (CU750) plus an implicit risk margin of CU150. Therefore, the implicit price per standard deviation is CU3 (total margin of CU150 divided by standard deviation of CU50).
- carries out a liability adequacy test. Market participants would require CU890 to take over the liability (expected cash flows of CU750, plus margin of CU140 = CU50 @ 2.8). That amount is less than the initial measurement of the liability (CU900). Therefore, the liability adequacy test does not result in the recognition of an additional liability.
- recognises the acquisition costs (CU100) as an expense, balanced out by income of CU100.

* In using this example, the Board does not wish to imply that standard deviation is necessarily an appropriate measure of the quantity of risk. Standard deviation is used here to provide a simple example.

On 30 June, insurer B:

- measures the liability at CU490 (expected cash flows: 400 plus margin of CU90). The margin is CU90 (standard deviation of CU30 multiplied by the original price per standard deviation [CU3]).
- reports the reduction of CU60 in the margin as income (reduction of CU20 in the standard deviation, priced at CU3 per standard deviation).

Implementation B

At 1 January, insurer B measures the liability at CU890 (expected cash flows of CU750, plus margin of CU140 = CU50 @ 2.8). Therefore, at inception on 1 January, insurer B recognises income of CU110 (premium of CU1,000 less initial liability measurement of CU890) and profit of CU10 (income of CU110 less acquisition costs of CU100).

At 30 June, insurer B:

- measures the liability at CU487 (expected cash flows of CU400, plus margin of CU87 = CU30 @ 2.9).
- recognises income of CU53 relating to the release from risk. That income is made up of:
  - a reduction of CU20 in the standard deviation, priced at CU2.8 per standard deviation (subtotal = CU56), less
  - the increase in the estimated price required by market participants (CU3 = CU0.1 per standard deviation, multiplied by the remaining standard deviation of CU30).

Example 3 Fee for assembling a portfolio

Insurer C issues an insurance contract on 1 January for a premium of CU1,000, incurring acquisition costs of CU100. Insurer C estimates on 1 January that the cash flows have an expected present value of CU750 and that market participants would require a margin of CU140. Thus, the premium covers the following elements:

	CU
Expected present value of cash flows (before margin)	750
Margin associated with cash flows	140
	890
Acquisition costs	100
Fee for portfolio assembly	10
Total premium	1,000

The price for a hypothetical transfer to another party is likely to be about CU890. The initial measurement of the liability is CU900 in implementation A of current exit value (see chapter 3) and CU890 in implementation B.

Assume now the following change in the fact pattern. Insurer C provides separable services at inception and estimates that the fee attributable to them is CU4. Therefore, the implicit fee for assembling the portfolio is CU6. The initial measurement would be CU896 in implementation A and CU890 in implementation B.

Example 4 Service margin

Background

Investment manager D enters into a non-cancellable contract to manage a unitised pool of investments from 1 January 20X1 to 31 December 20X1 on the following terms:

- Investment manager D expects to collect a fee of CU15 on 31 December 20X1 and incur costs of CU5 at that date.
- Investment manager D estimates that other investment managers would require the same fee of CU15 and incur the same costs of CU5.
- Investment managers would typically expect to incur costs of CU2 to originate a similar contract.
- For simplicity, the example ignores the time value of money, risk margins and lapse.

How would market participants value the contractual rights and obligations?

In this example, market participants require an expected investment fee of CU15. Of this, CU5 is needed to pay the expected running costs and CU2 is needed to pay the acquisition costs. Therefore, market participants require an expected net return of CU8 for providing investment management services. After the acquisition costs are paid, the expected future cash flows from the contract are CU10.* Therefore, market participants could be expected to value those cash flows at CU2.†

Put differently, if an investment manager charges the same fee as other investment managers and incurs the same costs, the value of the contract at inception equals the acquisition costs that market participants would typically incur in originating similar contracts. Furthermore, the value of the contract at inception equals the investment manager's own acquisition costs, unless they are out of line with the acquisition costs that other investment managers would incur.

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* CU15 − CU5

† CU10 − CU8

Contractual fees that exceed market requirements

Extending the example, suppose the contract entitles investment manager D to charge CU16 per contract each year, but other investment managers still only require CU15 (and all other facts remain unchanged). After the acquisition costs are paid, the expected future net cash flows are CU11, but market participants still require only CU8. Therefore, the contract value is approximately CU3.

Contractual fees that do not meet market requirements

Conversely, suppose the contract entitles investment manager D to charge CU12 per contract, but other investment managers still require CU15 (and all other facts remain unchanged). After the acquisition costs are paid, the expected future net cash flows are CU7, but market participants still require net cash flows of CU8. Therefore, the contract value is now a negative amount (a liability) of CU1.

Example 5 Estimating the service margin for investment management contracts

It is often possible to observe how much market participants charge for investment management contracts with relatively standard terms, but it may not be possible to determine how much of the fee is for investment management services and how much is compensation for the origination activity. It may be possible to infer this by looking at the origination costs that typical investment managers incur (not the origination costs that the entity in fact incurred). In doing so, it is important to compare like with like. For example, the fee for a passive manager tracking an index is not an appropriate comparison for an active manager.

It may sometimes be possible to infer how much compensation investment managers require for investment services alone by looking at differences between fees for retail investors and fees for wholesale investors. For example, suppose that market participants generally charge a fee of 1 per cent for retail investors and 0.6 per cent for wholesale investors, and the estimated additional ongoing cost of maintaining a large number of retail investment accounts is 0.25 per cent. If the cost of originating a small number of wholesale contracts is assumed to be negligible, the entire fee of 0.6 per cent required by market participants for wholesale contracts relates to investment management services, rather than origination. This implies that market participants would require a fee of 0.85 per cent (0.6% plus 0.25%) to manage an assembled portfolio of retail contracts. The remaining fee of 0.15 per cent (1.0% − 0.25% − 0.6%) relates to the additional cost and effort involved in originating a large number of retail contracts.

Example 6 Embedded value

Background

An insurer issues insurance contracts on 1 January for a total premium of CU1,000. Expected (probability-weighted) benefit payments are CU950 on 31 December. The expected investment return is 11 per cent. The insurer estimates a risk discount rate of 12 per cent. The insurer is subject to local regulatory requirements. These require the insurer to measure the liability at CU1,040 in its regulatory returns and to hold additional capital of CU60. Thus, on 1 January, investments of CU1,100 (CU1,060 plus CU40) are allocated to these contracts. The insurer determines that it does not need to hold more capital than the regulator requires. The insurer has no other assets and liabilities.

Determining embedded value

At 1 January, the insurer expects the following cash flows from these contracts:

	Expected cash flow 31 December	*Present value 1 January at 12%*
Premium received (not yet available to shareholders)	1,000	
Investment return on premium	110	
Policyholder benefits	(950)	
Net shareholder cash flow	160	143
Capital injected 1 January	100	
Investment return on capital	11	
Capital released on 31 December (if experience permits)	111	99
Total embedded value		242

The capital injected on 1 January is CU100, but the present value of the capital release on 31 December is only CU99. Therefore, the cost of holding the required capital is CU1.

Assume the insurer uses the regulatory basis to measure its insurance liability for general purpose financial reporting. If the insurer's financial statements include embedded value, they appear as follows:

Balance sheet	*1 January*	*31 December*
Investments	1,100	271
Embedded value asset (note 1)	182	-
Insurance liability	(1,040)	-
Equity (= embedded value, in this example)	242	271

Income statement	*At 1 January*	*2 January to 31 December*
Gain on new business (note 1)	142	
Interest on embedded value (unwind of discount)		29
Embedded value profit	142	29

Changes in equity	*1 January*	*2 January to 31 December*
Start of period	100	242
Embedded value profit	142	29
End of period	242	271

Note 1 Embedded value asset at inception	*1 January*
Present value at inception of future net shareholder cash flow (CU160 / 1.12)	143
Cost of holding required capital (see above)	(1)
Gain on new business	142
Conservative regulatory measurement of liability (CU1,040 – CU1,000)	40
Embedded value asset	182

Three final points are worth noting:

- If the insurer changes its asset mix, the embedded value is likely to change. For example, suppose the insurer invests in riskier assets with an expected return of 15 per cent. The embedded value will rise, unless a corresponding adjustment is made to the discount rate.
- In this example, the embedded value asset reported depends on the measurement of the liability. Here, a conservative regulatory valuation of CU1,040 increases the embedded value asset reported, though there is no overall effect on reported equity or profit. In other words, hidden margins of CU40 in the liability cause an increase of CU40 in the embedded value asset.
- Embedded value could be used directly to measure the liability, without recognising a separate asset. The embedded value measurement of the liability would be CU858 (CU1,040 − CU182).

Example 7 Beneficial policyholder behaviour

This example provides more detail to support the example in chapter 4. An insurer issues 10,000 two-year term life insurance contracts on 1 January X1 as follows:

(a) Annual premium of CU575.80 payable on 1 January. This pricing produces a break-even result at the end of X2 if actual experience is in line with the estimates.

(b) Death benefit of CU10,000 for deaths between 1 January X1 and 31 December X2, paid on 31 December of the year of death. No benefit is paid to survivors.

(c) If the policyholder does not pay the premium due on 1 January X2, the policy lapses at that date: no surrender value is paid and no death benefit is paid for deaths in X2.

(d) On 1 January X1, all policyholders are healthy. The insurer estimates that 10 per cent of policyholders will become unhealthy at the end of X1. The insurer does not know which policyholders have become unhealthy and the contract does not permit the insurer to change the premium after inception.

(e) Estimated annual mortality rates are 5 per cent for healthy policyholders and 20 per cent for unhealthy policyholders.

(f) Estimated lapse rates at the end of X1 are 10 per cent for healthy policyholders and 1 per cent for unhealthy policyholders.

(g) For simplicity, the example ignores the time value of money. It also assumes that the insurer requires no risk margin or service margin, and incurs no acquisition costs or servicing costs. A more complete example would include these features, but they do not affect the discussion in chapter 4.

The following table shows the number of policyholders if actual experience is in line with estimates.

Number of policyholders	*healthy*	*unhealthy*	*total*
At 1 January	10,000		10,000
Deaths X1	(500)		(500)
Transfer to unhealthy	(950)	950	0
End of X1 (before lapses)	8,550	950	9,500
Lapses end of X1	(855)	(10)	(865)
End of X1 (after lapses)	7,695	940	8,635
Deaths X2	(385)	(188)	(573)
End of X2	7,310	752	8,062

The following table shows the cash flows if actual experience is in line with estimates.

Cash flows	*CU000 healthy*	*CU000 unhealthy*	*CU000 total*
Premiums 1 January X1	5,758		5,758
Death benefits 31 December X1	(5,000)		(5,000)
Cash 31 December X1	758	0	758
Premiums 1 January X2	4,431	541	4,972
Death benefits 31 December X2	(3,850)	(1,880)	(5,730)
Cash end of X2	1,339	(1,339)	0

Possible accounting treatments

The following table shows how the insurer's balance sheet might look under each of four approaches to future premiums and policyholder benefits. The table uses labels to identify which cash flows are incorporated in the measurements of assets and liabilities. Those labels are not intended to show how financial statements would label the assets and liabilities recognised in each approach, nor are they intended to indicate whether each approach would recognise a single asset or liability or recognise separate assets and liabilities.

Balance sheet end of X1	A exclude all future premiums	B unhealthy only (with lapse of unhealthy)	C unhealthy only (no lapse of unhealthy)	D healthy and unhealthy
	CU000	*CU000*	*CU000*	*CU000*
Cash	758	758	758	758
Net future cash inflows from healthy				581
Net future cash outflows to unhealthy		(1,339)	(1,353)	(1,339)
Equity	758	(581)	(595)	0

The four approaches are as follows:

- Approach A excludes all future premiums, and death benefit payments that result from those premiums. In other words, it excludes all policyholder behaviour, both beneficial and unfavourable. The insurer recognises the cash received in X1 (CU758) and no other asset or liability. The insurer recognises a profit of CU758 in X1 and a loss of CU758 in X2.
- Approach B includes unfavourable policyholder behaviour relating to existing contracts and excludes beneficial policyholder behaviour. The insurer recognises a liability of CU1,339 for expected future net cash outflows to unhealthy policyholders (outflows of CU1,880 and inflows of CU541). The measurement excludes expected future net cash inflows from healthy policyholders. The insurer reports negative equity of CU581 at 31 December X1, recognising a loss of CU581 in X1 and a profit of CU581 in X2.
- Approach C excludes policyholder behaviour that results in net cash inflows. Unlike approach B, it also excludes policyholder behaviour that reduces net cash outflows. In this example, surrenders by unhealthy policyholders reduce net cash outflows. The insurer includes premiums from all 950 unhealthy policyholders, even though the insurer expects that only 940 of them will pay the premium due on 1 January X2. In consequence, the insurer also includes death benefit payments for 190 unhealthy policyholders, even though the insurer expects to pay only 188 death benefits (because of the expected 10 lapses). Under approach C, the insurer recognises a liability of CU1,353, rather than the CU1,339 recognised under approach B. The difference of CU14 comprises expected additional death benefit payments totalling CU20 to two unhealthy

policyholders, less expected additional receipts totalling CU6 from 10 unhealthy policyholders.

- Approach D includes all policyholder behaviour, both beneficial and unfavourable, relating to existing contracts. The insurer recognises the cash of CU758 received in X1 and a net liability of CU758 for all policyholders. This example does not consider whether the insurer should present a single net liability of CU758 or break it down into one or more assets and one or more liabilities. The net liability comprises net cash outflows of CU1,339 to unhealthy policyholders as a group (as in approach B) less net cash inflows of CU581 from healthy policyholders as a group (inflows of CU4,431 and outflows of CU3,850). The resulting equity of zero is consistent with the breakeven pricing for zero gain and zero loss. As noted above, this example excludes the time value of money and risk margins.

Example 8 Acquisition costs: single premium contract

On 1 January 20X1 an insurer issues a large number of life insurance contracts with the following features:

(a) Policyholders pay premiums totalling CU12,000 on 1 January.

(b) The contracts are in force until 31 December 20Y0. Over the ten-year life of the contracts, the expected death benefits are CU8,400. Most deaths are expected to occur in the later part of the contract term. In particular, no deaths are expected in January 20X1.

(c) For simplicity, the time value of money is ignored.

(d) The insurer incurs acquisition costs of CU1,200 on 1 January 20X1. There are no other expenses.

(e) The contracts have no surrender value (ie the surrender value is zero).

(f) The contract provides an implicit margin (for bearing risk and providing other services) of CU2,400 (premiums of CU12,000 less death benefits of CU8,400 less acquisition costs of CU1,200). Assume that other market participants would require a similar margin for identical contracts.

(g) The release from risk is assumed to be constant over the life of the contract (CU20 per month).

(h) There are no changes in estimates during the period covered by the example (1–31 January 20X1).

As chapter 4 notes, some argue that an insurer should recognise an intangible asset to reflect the initial investment made to acquire the customer relationship. They would measure that asset initially at the amount of acquisition costs incurred. They would amortise that asset as the insurer recovers the acquisition costs. The following table applies that approach to example 8. It shows the insurer's balance sheet at 1 January 20X1 (after the acquisition costs and before the first premium) and 31 January 20X1 (just before the second premium), and its income statement at inception and for the next month (next month excludes inception).

Balance sheet	*Note*	*1/1/X1*	*31/1/X1*
Cash		10,800	10,800
Customer relationship	1	1,200	1,190
Insurance liability	2, 3	(12,000)	(11,970)
Equity		0	20

Income statement	*Note*	*1/1/X1 inception*	*31/1/X1 1 month*
Premiums received		12,000	-
Change in insurance liability	3	(12,000)	30
Amortisation of customer relationship	1	-	(10)
Profit		0	20

Note 1 Customer relationship	*1/1/X1*	*31/1/X1*
Opening carrying amount	-	1,200
Acquisition costs incurred	1,200	-
Amortisation	-	(10)
Closing carrying amount	1,200	1,190

Assumes a constant amount (CU10) of each monthly premium is regarded as a recovery of the customer relationship.

Note 2 Insurance liability	*1/1/X1*	*31/1/X1*
Present value of future death benefits	8,400	8,400
Margin	2,400	2,380
Sub-total	10,800	10,780
Allocation of premiums to recover customer relationship	1,200	1,190
Carrying amount	12,000	11,970

Note 3 Insurance liability: changes	*1/1/X1*	*31/1/X1*
Premium received	12,000	-
Allocation of premium to recover customer relationship	-	(10)
Release from risk	-	(20)
Net change	12,000	(30)
Opening carrying amount	-	12,000
Closing carrying amount	12,000	11,970

The following balance sheet and income statement show how the Board's preliminary views would apply to this example.

Balance sheet	*Note*	*1/1/X1*	*31/1/X1*
Cash		10,800	10,800
Insurance liability	4, 5	(10,800)	(10,780)
Equity		0	20

Income statement	*Note*	*1/1/X1 inception*	*31/1/X1 1 month*
Profit at inception before acquisition costs		1,200	-
Acquisition costs		(1,200)	-
Net profit at inception		0	-
Premiums received		12,000	-
Change in insurance liability	5	(12,000)	20
Profit		0	20

Chapter 7 discusses a margin presentation that differs from the above presentation. A margin presentation would:

(a) show premiums as deposit receipts (rather than revenue) and change in insurance liability as deposit repayments (rather than income or expense).

(b) label the income of CU20 for the period from 2 January to 31 January X1 as 'release from risk', rather than 'change in liabilities'.

Note 4 Insurance liability	*1/1/X1*	*31/1/X1*
Present value of future death benefits	8,400	8,400
Margin	2,400	2,380
Carrying amount	10,800	10,780

Note 5 Insurance liability: changes	*1/1/X1*	*31/1/X1*
Gain at inception before acquisition costs	(1,200)	-
Premiums received	12,000	-
Release from risk	-	(20)
Opening carrying amount	-	(10,800)
Closing carrying amount	(10,800)	(10,780)

Comments on example 8

Example 8 illustrates the following points:

(a) If the pricing is in line with what market participants require, the two approaches lead to a similar net result at inception, but they split out different assets and liabilities.

(b) In this example, policyholders pay CU8,400 for expected benefits plus margin of CU2,400 (total CU10,800), as well as CU1,200 for acquisition costs. The approach that presents a separate intangible, equal to the acquisition costs, has the following effects:

   (i) It reports a liability of CU12,000, even though the obligation is only CU10,800 (expected cash flows of CU8,400 plus margin of CU2,400). Put differently, if the insurer could issue the same contracts incurring negligible acquisition costs, it would be willing to charge CU10,800 for an identical liability. Similarly, a transferee incurring negligible acquisition costs would accept the liability for CU10,800.

   (ii) It reports a customer relationship 'asset' of CU1,200, even though the related cash flows have already been received.

   (iii) It must subsequently amortise the customer relationship 'asset' on an arbitrary basis that depends entirely on the measurement of the related liability and would not provide useful information. This demonstrates that the customer relationship 'asset' has no independent economic meaning and is simply a by-product of an over-measurement of the liability.

If the contract had a surrender value at inception equal to the premium paid (CU12,000), there might be some rationale in measuring the liability at the surrender value of CU12,000 and recognising a separate customer intangible of CU1,200 (in which case, the measurement of that asset would equal the acquisition costs incurred). However, that rationale would not apply if the surrender value were any other amount, and would be difficult to apply convincingly in subsequent measurement.

Example 9 Acquisition costs: regular premium contract

The fact pattern is the same as in example 8, with the following differences:

(a) The premiums are CU100 per month (CU12,000 over the life of the contracts). To permit a clearer comparison with example 8, example 9 keeps the same total premiums and the same pattern of premiums. In a more comprehensive example, total monthly premiums would decline over the life of the contract because of death and lapses.

(b) The insurer expects that lapses will be negligible. Also, the additional risk margin for the risk of lapses is assumed to be negligible.

The following table applies the Board's preliminary views to example 9 at 1 January 20X1 and 31 January 20X1.

Balance sheet	*Note*	*1/1/X1*	*31/1/X1*
Customer relationship	6, 7	1,100	1,120
Cash (overdraft)		(1,100)	(1,100)
Equity		0	20

Income statement	*Note*	*1/1/X1 inception*	*31/1/X1 1 month*
Initial recognition of customer relationship		1,200	-
Acquisition costs		(1,200)	-
Net gain at inception		0	-
Premiums received		100	-
Change in customer relationship	7	(100)	-
Release from risk on customer relationship		-	20
Profit		0	20

A margin presentation (as in example 15) would not show the lines labelled 'premiums received' and 'change in customer relationship'.

Note 6 Customer relationship	1/1/X1	31/1/X1
Present value of future premiums	11,900	11,900
Present value of future death benefits	(8,400)	(8,400)
Sub-total	3,500	3,500
Margin	(2,400)	(2,380)
Carrying amount	1,100	1,120

Note 7 Customer relationship: changes	1/1/X1	31/1/X1
Initial recognition of customer relationship	1,200	-
Premium received	(100)	-
Release from risk	-	20
Opening carrying amount	-	1,120
Closing carrying amount	1,100	1,120

Initial comments on example 9

The example shows the net cash flows the insurer expects from the contract. In the early years of the contract, the future cash flows are net inflows and so an asset is recognised. In later years, there is a net cash outflow, so a liability will be recognised. In this example, that switch from an asset to a liability occurs when cumulative net cash inflows (premiums less death benefits) exceed CU1,200.

Because this example includes only contracts issued simultaneously, the overall result of the measurement is an asset, described above as a customer relationship. In a more realistic example, those contracts would be included in a larger portfolio, typically measured as a net liability.

The asset recognised incorporates expected (ie probability-weighted) lapses (assumed zero in this example), the time value of money and a risk margin for all risks, including lapse risk. Because of the simplified fact pattern, this example does not illustrate these factors.

Because no profit or loss was recognised at inception, the initial measurement of the asset (before the first premium) equals the acquisition costs.

Separating the liability from the customer relationship?

How would example 9 look if the customer relationship were presented separately from the insurance liability? The initial measurement of CU1,100 could be viewed as having three components:

(a) The obligation to pay benefits if the policyholder pays no further benefits. This is made up of the surrender value (zero in this case) plus the stand-ready obligation to pay death benefits in January (nil at 31 January X1 if all deaths are reported immediately and assumed to be, say, CU3 at 1 January X1, made up of expected cash flows of approximately zero and a risk margin of CU3).

(b) The stand-ready obligation to accept further premiums during the rest of the contract term from those policyholders for whom the present value of the resulting additional benefits exceeds the present value of those further premiums. For illustration, the example assumes this is CU35 at both 1 January X1 and 31 December X1 (made up of expected cash flows of CU20 and risk margin of CU15).

(c) The customer relationship (the difference between the measurement of the whole portfolio and the two components identified in (a) and (b)).

With these assumptions, the balance sheet would appear as follows.

Balance sheet	*Note*	*1/1/X1*	*31/1/X1*
Customer relationship	8, 9	1,138	1,155
Insurance liability		(38)	(35)
Customer relationship less insurance liability		1,100	1,120
Cash (overdraft)		(1,100)	(1,100)
Equity		0	20

This presentation leaves the overall measurement unchanged, but splits it into two separate components (the customer relationship and the insurance liability).

Income statement	*Note*	*1/1/X1 inception*	*31/1/X1 1 month*
Initial recognition of:			
• customer relationship		1,238	-
• insurance liability		38	-
Acquisition costs		(1,200)	-
Profit at inception		-	-
Premiums received		100	-
Change in customer relationship		(100)	-
Release from risk on customer relationship	9	-	17
Release from risk on insurance liability	8	-	3
Profit		0	20

A fee presentation (as in example 14) and a margin presentation (as in example 15) would not show the lines labelled 'premiums received' and 'change in customer relationship'.

Note 8 Customer relationship	*1/1/X1*	*31/1/X1*
Present value of future death benefits	11,900	11,900
Present value of future death benefits	(8,400)	(8,400)
Subtotal	3,500	3,500
Plus net cash outflows in insurance liability	20	20
Margin	(2,400)	(2,380)
Add back margin in insurance liability	18	15
Carrying amount	1,138	1,155

Note 9 Customer relationship: changes	*1/1/X1*	*31/1/X1*
Initial recognition (before first premium)	1,238	-
Premium received	(100)	-
Release from risk	-	17
Opening carrying amount	-	1,138
Closing carrying amount	1,138	1,155

Example 10 Non-life insurance, traditional presentation

Paragraphs 301–308 discuss six presentations. Examples 10–15 illustrate them. To focus on the style of presentation rather than recognition and measurement, the examples are simple and all use the same fact pattern, as follows:

- Premium CU1,000, covering insured events between 1 January and 31 December.
- Expected claims (including claims handling costs) CU700. CU350 is paid on 30 June and CU350 on 31 December.
- Acquisition costs CU100, incurred on 1 January.
- Other expenses associated with the administration of the contracts CU80, incurred evenly through the period.
- Expected investment return 8 per cent and risk-free rate used to discount the liability cash flows 5 per cent.
- The insurer estimates that there is no material profit or loss at inception (1 January). On 30 June, the insurer estimates that the appropriate margin is CU69, which results in a liability measurement of CU450 (coincidentally equal to a conventional unearned premium of CU500 less conventional deferred acquisition costs of CU50).
- No differences between actual outcomes and previous estimates.
- This illustration focuses on presenting premiums for a contract that does not include an explicit deposit component.

Example 10 illustrates a traditional presentation for non-life insurance.

Income statement	*Inception 1 Jan*	*2 Jan to 30 June*	*1 July to 31 Dec*
Premiums written	1,000		
Change in unearned premium	(1,000)	500	500
Premiums earned	0	500	500
Investment income	0	36	22
Policyholder benefits (claims)		350	350
Expenses		40	40
Amortisation of deferred acquisition costs		50	50
Total expenses	0	440	440
Profit	0	96	82

Balance sheet	*1 Jan*	*30 June*	*31 Dec*
Cash	900	546	178
Deferred acquisition costs	100	50	-
Insurance liabilities	(1,000)	(500)	-
Equity	0	96	178
Claims ratio	n/a	70%	70%
Expense ratio (without acquisition costs)	n/a	8%	8%
Combined ratio (without acquisition costs)	n/a	78%	78%
Expense ratio (with acquisition costs)	n/a	18%	18%
Combined ratio (with acquisition costs)	n/a	88%	88%

Example 11 Traditional life insurance presentation

Example 11 uses the same fact pattern as example 10.

	Inception 1 Jan	*2 Jan to 30 June*	*1 July to 31 Dec*
Premium revenue	1,000		
Investment income		36	22
Total income	1,000	36	22
Policyholder benefits		350	350
Change in insurance liability	1,000	(500)	(500)
Expenses		40	40
Amortisation of deferred acquisition costs		50	50
Total expenses	1,000	(60)	(60)
Profit	0	96	82

Balance sheet	*1 Jan*	*30 June*	*31 Dec*
Cash	900	546	178
Deferred acquisition costs	100	50	-
Insurance liabilities	(1,000)	(500)	-
Equity	0	96	178

Comments:

1. The line 'change in insurance liability' shows the result of a computation, not the effect of a real economic event.

2. This presentation does not require the insurer to analyse the reasons for changes in the liability. Such analysis may be complex for traditional products that bundle together many elements.

Example 12 Non-life insurance, modified presentation

Example 12 uses the same fact pattern as example 10. The presentation is changed to recognise acquisition costs as an expense when incurred. In addition, the measurement of the insurance liability does not include the part of the premium that recovers the acquisition costs.

Income statement	*Inception 1 Jan*	*2 Jan to 30 June*	*1 July to 31 Dec*
Premiums written	1,000		
Change in unearned premium	(900)	450	450
Premiums earned	100	450	450
Investment income	0	36	22
Claims		350	350
Expenses		40	40
Acquisition costs	100	-	-
Total expenses	100	390	390
Profit	0	96	82

Balance sheet	*1 Jan*	*30 June*	*31 Dec*
Cash	900	546	178
Insurance liabilities	(900)	(450)	-
Equity	0	96	178
Claims ratio	0%	78%	78%
Expense ratio (without acquisition costs)	0%	9%	9%
Combined ratio (without acquisition costs)	0%	87%	87%
Expense ratio (with acquisition costs)	100%	9%	9%
Combined ratio (with acquisition costs)	100%	87%	87%

Comment:

The ratios differ from those in example 10 because premium of CU100 is recognised as revenue on 1 January (inception), rather than over the life of the contract.

Example 13 Life insurance presentation, modified

Example 13 uses the same fact pattern as example 10. The presentation is changed to recognise acquisition costs as an expense when incurred. In addition, the measurement of the insurance liability does not include the part of the premium received that recovers the acquisition costs.

Income statement	*Inception 1 Jan*	*2 Jan to 30 June*	*1 July to 31 Dec*
Premium revenue	1,000		
Investment income		36	22
Total income	1,000	36	22
Claims		350	350
Change in insurance liability	900	(450)	(450)
Expenses		40	40
Acquisition costs	100		
Total expenses	1,000	(60)	(60)
Profit	0	96	82

Balance sheet	*1 Jan*	*30 June*	*31 Dec*
Cash	900	546	178
Insurance liabilities	(900)	(450)	-
Equity	0	96	178

Example 14 Fee presentation

Example 14 uses the same fact pattern as example 10.

Income statement	*Inception 1 Jan*	*2 Jan to 30 June*	*1 July to 31 Dec*
Charges to policyholder account	-	473	461
Policyholder benefits	-	(350)	(350)
Expenses	-	(40)	(40)
Insurance margin	-	83	71
Gross gain at inception	100		
Acquisition costs	(100)		
Net gain at inception	-	-	-
Investment income		36	22
Interest on insurance liability		(23)	(11)
Net interest and investment income	-	13	11
Profit	-	96	178

Balance sheet	*1 Jan*	*30 June*	*31 Dec*
Cash	900	546	178
Insurance liabilities	(900)	(450)	-
Equity	0	96	178

Comments:

1 This format presents all premiums as deposits (except the part needed to pay for acquisition costs), and presents as revenue the explicit or implicit charges made to policyholder accounts.

2 In US GAAP, a somewhat similar presentation is used for universal life contracts. This format is possible for these contracts because the design of the contract unbundles the different contract elements. This approach may be more challenging if charges to policyholders are implicitly bundled into a premium, rather than identified explicitly.

3 In this illustration, there is no explicit policyholder account and, hence, no explicit charge. The amounts shown as policyholder charges are implicit and are computed as the expected value of policyholder benefits and expenses, plus the risk margin (and, if applicable, service margin) released in the period. (The margin presentation in example 15 shows as revenue only the release of those margins.)

Example 15 Margin presentation

Example 15 uses the same fact pattern as example 10.

	Inception 1 Jan	*2 Jan to 30 June*	*1 July to 31 Dec*
Insurance margin	-	83	71
Gross gain at inception	100		
Acquisition costs	(100)		
Net gain at inception	0	0	0
Investment income		36	22
Interest on insurance liability		(23)	(11)
Net interest and investment income	0	14	11
Profit	0	96	82
Balance sheet	*1 Jan*	*30 June*	*31 Dec*
Cash	900	546	178
Insurance liabilities	(900)	(450)	-
Equity	0	96	178

Comments:

1 This format is similar to the analysis of changes in embedded value provided by many larger life insurers in the UK, Continental Europe, Australia, New Zealand, Canada and South Africa, and to the 'sources of earnings analysis' provided by some Canadian life insurers.

2 This format treats all premiums as deposits, and all claims expense, claims handling expense and other contract-related expense as repayments of deposits.

3 'Release of margins' refers to the difference between the margin at the start of the period and the margin at the end of the period. It reports the estimated margin that market participants would have required at the start of the period for bearing risk during the period.

Appendix H
Credit characteristics of insurance liabilities

Introduction

H1 Chapter 5 discusses whether the carrying amount of insurance liabilities should reflect their credit characteristics. This appendix provides a more detailed discussion of this topic.

H2 Although this topic is often described as relating to the entity's credit standing, in fact it relates to the credit characteristics of the instrument (ie risk of default on the particular instrument). Different instruments issued by the same borrower may have different credit characteristics. In many jurisdictions, liabilities to policyholders rank above most other liabilities: when that is the case, default is less likely for liabilities to policyholders than for other liabilities.

Regulation

H3 In practice, for many regulated insurers, the effect of their own credit standing may be limited, given supervisory procedures that aim to minimise the possibility of losses to policyholders. However, in some cases, the effect may be material. Furthermore, a decline in the *insurer's* credit standing may have little effect on the standing of the *instrument* (the insurance contract). Nevertheless, high quality supervision does not exist in all countries. Furthermore, although direct insurance sold to consumers is often regulated, reinsurance is not always regulated directly. Also, the project applies to all issuers of insurance contracts, not just to regulated insurers.

H4 The rest of this appendix is organised as follows:

(a) As background, paragraphs H5–H7 note that the credit characteristics of debt affect the initial measurement of debt issued for cash.

(b) Paragraphs H8–H12 then discuss whether the credit characteristics of insurance liabilities should affect an initial measurement at current exit value.

(c) Paragraphs H13–H14 discuss whether the subsequent measurement of insurance liabilities should reflect changes in the effects of their credit characteristics.

(d) Paragraph H15 presents the Board's preliminary views on this topic.

(e) Paragraph H16 comments on the implications of guarantees by government or sector guarantee funds.

Initial measurement of debt issued for cash

H5 In most countries, a borrower measures its debt initially at the amount of cash received. IAS 39 leads to a similar result because the initial measurement of the debt is at fair value. In most cases, fair value at that date is assumed to equal the amount of cash received at inception.

H6 For example, suppose Issuer A issues debt of CU1,000, repayable in one year with interest of 6 per cent paid at maturity. Issuer A typically measures the debt initially at the proceeds received (CU1,000). This equals the contractual cash flows (CU1,060) discounted at a rate (6 per cent) that reflects the credit characteristics of the liability. Because it must pay a higher interest rate, a less creditworthy borrower would have received a smaller loan for the same contractual repayment of principal and interest. For example, if a borrower must pay interest at 7 per cent for a comparable one-year loan, it will receive only CU991 for a loan that requires it to repay CU1,060 at maturity.* Therefore, the initial measurement reflects the possibility that the borrower may default. That result arises automatically from using the amount of the proceeds received as the initial measurement of liabilities issued for cash.

H7 If Issuer A instead discounted the contractual cash flows (CU1,060) at the risk-free rate (say, 5 per cent), it would recognise at inception a liability of CU1,010, and a loss of CU10. Thus, if the initial measurement of debt excluded the credit characteristics of the debt, a loss would arise at inception from the difference between the risk-free rate and the contractual rate.

Initial measurement of insurance liabilities

H8 Some argue that premium rates do not reflect the insurer's credit standing: if policyholders conclude that an insurer's credit standing exceeds an acceptable minimum level, they are prepared to do business with that insurer. Below that level, policyholders will not do business

* CU1,060 = principal of CU991 plus interest of CU69 (7 per cent of CU991)

with the insurer at all. Their willingness to pay a particular level of premiums is not conditional on perceptions of further distinctions in the insurer's credit standing. In other words, supporters of this view argue that premium rates are not particularly sensitive to ratings until the insurer reaches a 'ratings cliff'.

H9 Others argue that premium rates differ observably for insurers with different credit standings. Some perceive that these effects are stronger in some countries or markets (eg corporate markets) than in others. Some argue that insurers with a lower claims paying rating can achieve the same premium rates as higher rated insurers, but may have to spend more on marketing, distribution and servicing to attract and retain policyholders, or may have to include additional terms in apparently similar contracts.

Credit characteristics and current exit value

H10 For the following reasons, in the Board's preliminary view, the current exit value of a liability is the price for a transfer that reflects the credit characteristics of the liability, ie a price that neither improves nor impairs the credit characteristics of the liability:

(a) A creditor would not generally permit the debtor to transfer its obligations to another party of *lower* credit-standing.*

(b) A transferee of *higher* credit standing would not assume the obligations for an amount that implicitly requires the transferee to pay interest at a higher rate: if it can borrow at 5 per cent, why would it pay 6 per cent? To induce the transferee to assume the obligation, the transferor would, in effect, have to buy a credit upgrade. But that credit upgrade does not benefit the transferor, so the transferor has no motive to pay for it.

* For simplicity, the rest of this appendix describes an entity as having lower or higher credit standing if its credit standing differs sufficiently to cause a measurable effect on the price that market participants would require. Because of features such as priority, guarantees and collateral, the credit characteristics of some contracts may be relatively insensitive to small gradations in the credit standing of the issuer.

Initial measurement of insurance liabilities and credit characteristics

H11 Even if the credit characteristics of an insurance liability affect premiums or current exit value in principle, some argue that the initial measurement of an insurance liability should not reflect its credit characteristics. They argue as follows:

(a) Measuring insurance liabilities on a basis that reflects their credit characteristics would be inconsistent with the fact that insurers intend to meet all valid claims in full and any other assumption would be contrary to public policy. Although similar considerations apply to all entities, this is particularly sensitive for insurers because of the need to protect policyholders.

(b) Adjustments for credit characteristics are irrelevant if an insurer cannot realise them by transferring the obligations to another party.

(c) Insurers cannot exit from their liabilities except through settlement with the policyholder. If they try to do so in a manner that reflects their credit standing, then they generally violate laws that cover unfair trade practices. Therefore, the actual exit price for an insurer's liabilities cannot reflect its credit standing.

(d) Explicit estimates would be needed to *exclude* the effect of credit characteristics from the measurement of a traded instrument. However, for a non-traded instrument such as an insurance contract, explicit estimates are needed to *include* that effect. Those explicit estimates might be subjective, especially if not calibrated to the actual premium charged. Therefore, it might be best to exclude them from the measurement.

(e) The credit characteristics of a liability depend on the creditworthiness of the issuer, which is specific to that entity. This entity-specific input may be inconsistent with a measurement that reflects the price that market participants would require.

H12 Others give the following arguments for including the credit characteristics of an insurance liability in the initial measurement of the liability:

(a) If current exit value is the measurement attribute for insurance liabilities, it would be arbitrary to exclude the effect of the insurer's credit standing from the measurement.

(b) As noted above, few people doubt that the initial measurement of debt issued for cash should reflect the credit characteristics of the debt. There is no obvious reason to treat insurance liabilities differently.

(c) The exclusion of credit characteristics ignores scenarios in which some or all contractual cash outflows do not occur. That is incompatible with measurements based on expected values (ie probability-weighted averages of all scenarios).

(d) In many cases, the liability of an insurer's owners is limited to the capital they contributed. The exclusion of credit characteristics ignores that fact by implying that the insurer will meet its obligations in full in scenarios when its assets are insufficient. It is also incompatible with pricing and measurement models based on economic or regulatory capital, because those models apply no explicit risk margin to scenarios in which that capital is exhausted.

(e) Paragraph H11(e) reports a view that the credit characteristics of a liability are an entity-specific factor that does not affect the price required by market participants. However, as paragraph H10 explains, current exit value necessarily reflects a transfer to another entity whose credit standing neither improves nor impairs the credit characteristics of the liability. Thus, the original issuer's credit standing is not an entity-specific input in the measurement, but a screen to identify the pool of potential transferees.

Subsequent measurement

H13 Some give the following additional arguments for not accounting for *changes* in the effects of credit characteristics of liabilities* in general, and insurance liabilities in particular:

(a) If an insurer's reported insurance liabilities decline with an impairment of their credit characteristics, users may find it harder to assess the insurer's solvency by comparing the carrying amount of its assets with the carrying amount of its liabilities.

(b) A decline in an insurer's credit standing would normally occur at the same time as a loss in the value of an unrecognised asset—

* In this appendix, *changes in credit characteristics* refers to changes in the possibility of default or to changes in the price for possible default, rather than to changes in contractual terms.

internally generated goodwill. Because that loss in value is not recognised as an expense, it would be misleading to recognise income relating to the effect on the liabilities.

(c) If income is recognised when the credit characteristics of liabilities change, that amount will, if there is no default, ultimately be reversed as an expense in later periods.

(d) It would be misleading to report a gain when there is a deterioration in the credit characteristics of liabilities, because an insurer cannot typically realise that gain while it is a going concern.

H14 Proponents of including the effects of the credit characteristics of the liabilities argue the following:

(a) Consider an entity that has two liabilities that require identical contractual cash outflows but were incurred at different times when the entity's credit standing was different. If measurement ignores changes in the effects of the credit characteristics, the entity will measure the liabilities at different amounts, even though they are economically identical.

(b) A measurement model is inconsistent if it includes the credit characteristics of liabilities at inception but ignores them later.

(c) Reporting changes in the credit characteristics of a liability is intended not to signal the potential for realising a gain, but to use estimated market prices as a benchmark in presenting economically relevant information about the liability.

Summary of the Board's preliminary views on credit characteristics of insurance liabilities

H15 The Board's preliminary views are as follows:

(a) The current exit value of a liability is the price for a transfer that neither improves nor impairs its credit characteristics. The transferor would not willingly pay the price that a willing transferee would require for a transfer that improves those characteristics. The policyholder (and regulator, if any) would not consent to a transfer that impairs those characteristics. If an insurer measures its insurance liabilities at current exit value, that measurement should reflect the liability's credit characteristics.

(b) An insurer should disclose the effect that the credit characteristics of an insurance liability have on its initial measurement and subsequent changes in the effect of those credit characteristics. The Board notes that a policyholder is unlikely to buy insurance if the policyholder thinks the insurer may not satisfy its obligations in full. Therefore, the credit characteristics of an insurance liability are unlikely to have a material effect on its current exit value at inception.

Policyholder protection mechanisms

H16 In some countries, some policyholder liabilities are guaranteed by government or sector guarantee funds. The IASB and FASB plan to publish a due process document on financial instruments by January 2008. As part of that work, the Board has discussed how debtors should measure guaranteed liabilities. The Board has tentatively decided that:

(a) a third-party contractual guarantee does not affect the measurement of a liability by a debtor if the guarantee does not affect the future obligations of the debtor.

(b) a liability should include any measurement effect arising from the regulatory environment within which the debtor operates, for example statutory deposit insurance.

Appendix I
Glossary

This appendix lists terms that are used in a defined sense in this paper. For these terms, the glossary states the paragraph number of the first or main use of the term in this paper, or notes that the definition is from IFRS 4 *Insurance Contracts* or the *Framework*.

Term	*Definition*	*Reference*
accounting mismatch	Accounting mismatch arises if changes in economic conditions affect assets and liabilities to the same extent, but the carrying amounts of those assets and liabilities do not respond equally to those economic changes. For example, an accounting mismatch arises if fixed-interest financial assets are carried at fair value but related insurance liabilities are carried on a basis that does not reflect current interest rates.	177
acquisition costs	Costs to sell, underwrite and initiate a new insurance contract.	161
adverse selection	A tendency for new or continuing policyholders to be drawn disproportionately from higher-risk groups because policyholders hold private information that makes higher-risk groups more likely to buy insurance, or to select a contractual option.	18(f)
asset	A resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.	*Framework*
beneficial policyholder behaviour	A policyholder's exercise of a contractual option in a way that generates net economic benefits for the insurer.	127
cedant	The policyholder under a reinsurance contract.	IFRS 4
claims liability	The liability to pay valid claims for insured events that have already occurred, including claims incurred but not reported (IBNR).	21

Term	*Definition*	*Reference*
claims period	The period when the insured events have occurred but the ultimate payment is still uncertain.	20
constructive obligation	A present obligation that arises from an entity's past actions when: (a) by an established pattern of past practice, published policies or a sufficiently specific current statement, the entity has indicated to other parties that it will accept particular responsibilities; and (b) as a result, the entity has created a valid expectation in those parties that they can reasonably rely on it to discharge those responsibilities.	247
current estimate approach	An approach that uses all currently available information in making estimates.	45
current exit value	The amount the insurer would expect to pay at the reporting date to transfer its remaining contractual rights and obligations immediately to another entity.	93
deposit component	A contractual feature that results in a repayment to policyholders, either individually or collectively. (IFRS 4 contains a different definition: a contractual component that is not accounted for as a derivative under IAS 39 and would be within the scope of IAS 39 if it were a separate instrument.)	300
deposit floor	An informal name for the constraint that the measurement of a liability should not be less than the amount repayable (discounted from the date when repayment could be required).	134(c)
deposit premium	The implicit or explicit part of the premium that pays for a deposit component.	300

Term	*Definition*	*Reference*
distributable amount	The amount available for distribution to participating policyholders.	242
economic mismatch	Economic mismatch arises if the values of, or cash flows from, assets and liabilities respond differently to changes in economic conditions. For example, an economic mismatch arises if the duration of insurance liabilities is longer than the duration of fixed-interest assets backing those liabilities.	177
entity-specific cash flows	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.	56
embedded value	The present value of estimated profit that will flow to an insurer from its existing contracts.	105
European embedded value (EEV)	The *present value* of shareholders' interests in the earnings distributable from assets allocated to the *covered business* after sufficient allowance for the aggregate risks in the *covered business*. The EEV consists of the following components: • *free surplus* allocated to the *covered business* • *required capital*, less the cost of holding *required capital* • *present value* of future shareholder cash flows from in-force *covered business* (PVIF). The value of future new business is excluded from the EEV. [This definition is from the CFO Forum's *European Embedded Value Principles*. Items in italics are also defined in those principles.]	105
expected value	The estimated probability-weighted average of all possible outcomes.	39
expected present value	The estimated probability-weighted average, across all outcomes, of the present value of future cash flows.	39

Term	*Definition*	*Reference*
fair value (existing definition)	The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.	IAS 39 and other IFRSs
fair value (possible new definition)	The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.	104
Framework	The IASB's *Framework for the Preparation and Presentation of Financial Statements*.	
general account	An insurer's assets, other than **separate account** assets.	269
guaranteed benefits	Payments or other benefits to which a particular policyholder or investor has an unconditional right that is not subject to the contractual discretion of the issuer.	IFRS 4
guaranteed insurability	A right that permits continued coverage without reconfirmation of the policyholder's risk profile and at a price that is contractually constrained.	154
IBNR (claims incurred but not reported)	Claims for insured events that have occurred but have not yet been reported to the insurer.	E24(a) of appendix E
index-linked benefits	Benefits that are contractually linked to an index of asset values, when the insurer (or other issuer) is not contractually required to hold the underlying assets.	287
insurance asset	An insurer's net contractual rights under an insurance contract.	IFRS 4
insurance contract	A contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder.	IFRS 4

Term	*Definition*	*Reference*
insurance liability	An insurer's net contractual obligations under an insurance contract.	IFRS 4
insurance risk	Risk, other than financial risk, transferred from the holder of a contract to the issuer. The definition of financial risk is in IFRS 4.	IFRS 4
insurer	The party that has an obligation under an insurance contract to compensate a policyholder if an insured event occurs.	IFRS 4
intrinsic value (of an option)	The difference between (a) the fair value of the underlying item that the writer of the option must deliver or accept if the holder exercises the option and (b) the price that the holder must pay to exercise the option.	42
investment contract	Informal name for a contract that is within the scope of IAS 39 because it does not transfer significant insurance risk.	233
liability	A present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.	*Framework*
liability adequacy test	A test to determine whether the carrying amount of a liability needs to be increased, based on a review of future cash flows. (The equivalent, for a liability, of an impairment test for an asset.)	54
'lock in' approach	An approach that freezes estimates that were made at inception and, except for a liability adequacy test, ignores information that becomes available later.	44
measurement attribute (of an asset or liability)	The attribute used to measure an asset or liability in the financial statements (for example, cost, depreciated cost, current exit value or fair value).	92

Term	*Definition*	*Reference*
obligation	A duty or responsibility to act or perform in a certain way as a consequence of a binding contract or statutory requirement or from normal business practice, custom or a desire to maintain good business relations or act in an equitable manner.	*Framework*
participating contract	An insurance contract or financial instrument giving the policyholder both guaranteed benefits (eg a death benefit) and a right to participate in favourable performance of the relevant class of contracts, related assets or both.	236
policyholder dividends	Distributions of policyholder surplus to individual policyholders. The distributions may take various forms, such as cash, additions to the level of insurance coverage or additions to surrender values. Various names are used, such as bonus, dividend, allocation and distribution.	242
policyholder	A party that has a right to compensation under an insurance contract if an insured event occurs.	IFRS 4
policyholder participation right	A policyholder's right to participate in favourable contract performance.	236
portfolio-specific cash flows	Cash flows that depend on the characteristics of the liabilities being measured. **Portfolio**-specific cash flows need not be **entity**-specific.	57
policyholder surplus	The cumulative amount allocated to policyholders as a class but not yet distributed to individual policyholders.	242
pre-claims liability	The obligation under an existing contract to stand ready to pay valid claims if future insured events arise during the unexpired portion of risk coverage.	21
pre-claims period	The coverage period when the insurer is standing ready to meet valid claims.	20

Term	*Definition*	*Reference*
present value	The value today of a future cash flow, after adjusting for the time value of money. Conceptually, present value also incorporates a risk margin. However, for ease of discussion, this paper refers to present value before risk margins, and deals with risk margins as a separate component of the measurement.	63
recognition	The process of incorporating an item in the balance sheet or income statement.	*Framework*
reinsurance asset	A cedant's net contractual rights under a reinsurance contract.	IFRS 4
reinsurance contract	An insurance contract issued by one insurer (the reinsurer) to compensate another insurer (the cedant) for losses on one or more contracts issued by the cedant.	IFRS 4
risk margin	An explicit and unbiased measurement of the compensation that entities demand for bearing risk.	72
separate account	The pool of assets whose price determines unit-linked benefits.	269
service margin	An explicit and unbiased measurement of the compensation that entities demand for providing services other than the bearing of risk.	87
shortfall	A loss recognised as a result of a liability adequacy test.	54
stand-ready obligation	An obligation to stand ready to transfer cash, or other economic resources, if a specified event occurs.	21
time value of money	The fact that the value of a cash flow depends on the date of its receipt or payment.	63
time value of an option	The part of an option's value that arises because the option may be in the money at expiry.	42

Term	*Definition*	*Reference*
unbundling	Accounting for the components of a contract as if they were separate contracts.	IFRS 4 and 223
unfavourable policyholder behaviour	A policyholder's exercise of a contractual option in a way that generates a net economic loss for the insurer.	127
unit-linked benefit	A policyholder benefit determined by reference to the price of units in an internal or external investment fund (ie a designated pool of assets held by the insurer or a third party and operated in a way similar to a mutual fund).	269
unit-linked contract	A contract for which some or all policyholder benefits are unit-linked.	269
universal life contract	A life insurance contract that allows the policyholder, within specified limits, to vary premiums and the extent of coverage. The contract operates with an explicit policyholder account. The insurer adds explicit interest to the policyholder account, and deducts explicit charges from that account for insurance coverage and for services provided.	262