The Actuarial Profession
making financial sense of the future

Momentum conference 2010
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The future of insurance accounting
Phase II exposure draft

9 December 2010

Agenda

- Background to the insurance project
- High level summary of main rules
- The building blocks of the new measurement model
- Presentation
- Other requirements to consider
- UK GAAP versus IFRS Phase II
- Other impacts

Insurance Accounting Project – some background

- Initial insurance project started in 1997.
- IASB issued “IFRS 4 – Insurance Contracts” in March 2004.
- Key objectives of IASB’s insurance project Phase II:
  - comprehensive framework to provide information relevant to users of financial statements for economic decision-making.
  - Eliminate inconsistencies and weaknesses in existing practices
  - Provide comparability across entities / jurisdictions / markets.
- 2007 discussion paper based on Fair Value.
- The US FASB joined the insurance accounting project in late 2008.
- Some areas of disagreement remain:
  - Phase II ED published by IASB on 30 July 2010.
  - The FASB published its own consultation paper in September.

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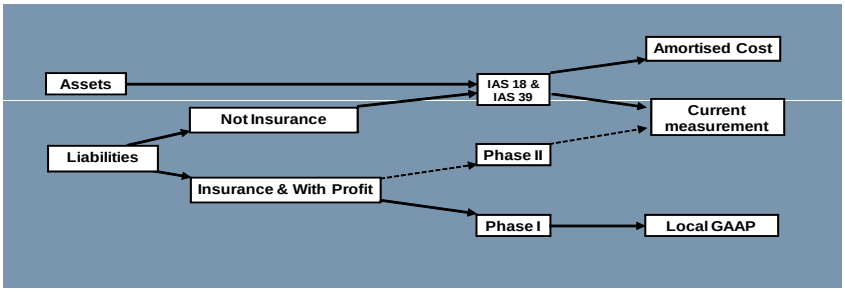
Insurance Accounting Project - the two phases

Phase I – IFRS 4

- Definition of insurance contract
- Disclosure
- Restrictions on changing accounting policies and use of existing GAAP

Phase II – Exposure Draft

- Accounting of insurance contracts for insurers
- Liability measurement
- Presentation and disclosures



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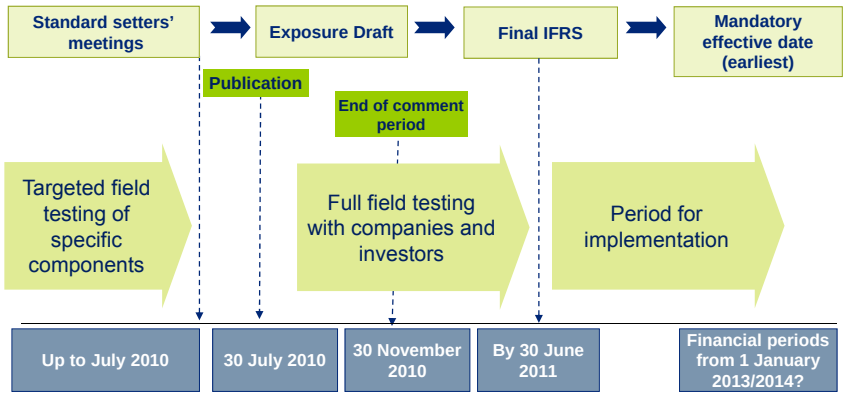
Insurance Accounting Project - Detailed timeline



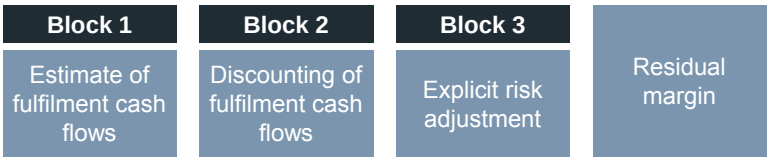
Summary of the ED proposals

- Current IFRS 4 definition of "insurance" carried forward.
- Single prospective measurement model for:
  - life and non-life businesses; and
  - insurance and reinsurance contracts.
- Measurement model uses a "building block" approach:
  - Expected present value of future cash flows;
  - Risk adjustment; and
  - Residual margin.
- Measurement is current, i.e. no locking-in of assumptions (except for residual margin).
- Measurement objective based on a "fulfilment of obligations" notion.
- Prohibition of accounting profit on sale => residual margin liability to defer expected profit.
- Day-one losses recognised immediately through income.
- Acquisition costs included in contractual cash flows if incremental; all other costs expensed.
- Presentation using simplified margin approach.

Measurement model

Objective and approach

- Current assessment of insurer's rights and obligations under contract
- Use of a transparent "building block" approach
- Simplified approach for short-duration contracts



FASB / IASB Difference

- Alternative model for block 3&4 as a single composite margin
- No explicit measurement of uncertainty → capture risk together with future profit at inception

Measurement model
Building Block 1: cash flows estimate

A current, unbiased and probability weighted estimate of the fulfilment cash flows

Estimate of cash flows

- are **current**, i.e. correspond to conditions at the end of the reporting period;
- incorporate, in an **unbiased** way, all available information about the amount, timing and uncertainty of all cash flows arising from fulfilling the insurance contract;
- use market variables that are as consistent as possible with observable **market** prices; and
- except for market variables, reflect the perspective of the **entity**;

Acquisition costs

- Only include those incremental and directly attributable to the sale of an individual policy
- All other acquisition costs, such as overheads, are expensed => new business strain

Measurement model
Building Block 1: cash flows estimate

A current, unbiased and probability weighted estimates of the fulfilment cash flows

Contract boundary

- Point at which insurer can terminate an individual contract, or
- Point at which insurer can re-underwrite / re-assess the risk of an individual contract;
- Only include cash flows that arise within the contract boundary.

Cash flows re-assessed at each reporting period

Stochastic modelling may be necessary

Measurement model
Building Block 2: discount rate

The time value of money is taken into account by explicitly discounting all CFs.

- Adjusts future cash flows for time value of money.
- Discount rates consistent with observable market prices for instruments with cash flows whose **characteristics** reflect those of the insurance liability:
  - Currency
  - Duration
  - Liquidity
- Measurement reflects **characteristics of the assets backing** insurance liability only if the amount, timing and/or uncertainty of fulfilment cash flows depend on performance of assets, e.g. participating contracts;
- Linkage may be reflected using a **replicating portfolio**.
- Discount rate is a **market consistent interest rate** based on a “risk free rate” plus an illiquidity premium based on the characteristics of liability cash flows.
- No further guidance on how to calculate the **illiquidity premium.**
- **Disclosures** on discount rate, impact of illiquidity and sensitivities

Measurement model
Building Block 3: risk adjustment

A margin to reflect uncertainty in the estimate of fulfilment cash flows.

- Explicitly reported in the financial statements as a component of the insurance contract liability – defined as:

"the maximum amount an insurer would rationally pay to be relieved of the risk that the ultimate fulfilment cash flows exceed those expected"

- Re-measured at each reporting period.
- Estimated at level of portfolio of insurance contracts.
- Effects of diversification across different portfolios of insurance contracts is not allowed.
- Three permitted techniques for estimating the risk adjustment:
  - Confidence Interval;
  - Conditional Tail Expectation (CTE); and
  - Cost of Capital

Measurement model
Residual margin

A margin to eliminate any gain at inception of the contract.

- A residual margin cannot be negative and arises when:

  PV of all cash inflows > PV of all cash outflows + risk adjustment

- In the event of a negative value, the loss must be recognised immediately through income.
- Estimated at level of portfolio of insurance contracts, i.e. cohort:
  - same inception date and
  - similar coverage period.
- Calculated at initial recognition and earned over coverage period (no remeasurement).
- Explicitly reported in the financial statements.
- Interest expense accretion required using discount rate locked-in at inception.

Example for regular premium policy

		Case A	Case B
First Premium	SP	50	50
Total Acquisition Costs	AC	70	70
Incremental acquisition costs	IAC	40	40
Expected PV of future premiums	PV(Pr)	950	950
Risk adjustment	RA	50	50
Expected PV of Benefits	PV(Bens)	**900**	**920**

Liability = PV(outflows – inflows) + Risk adjustment + Residual Margin

must be ≥ 0 to avoid profit at inception

Liability $_{t=0}$ = PV(Bens) + RA + IAC + RM – PV(Pr) ≥ 0

Example for regular premium policy

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Expected PV of future premiums	PV(Pr)	950	950
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Expected PV of Benefits	PV(Bens)	**900**	**920**

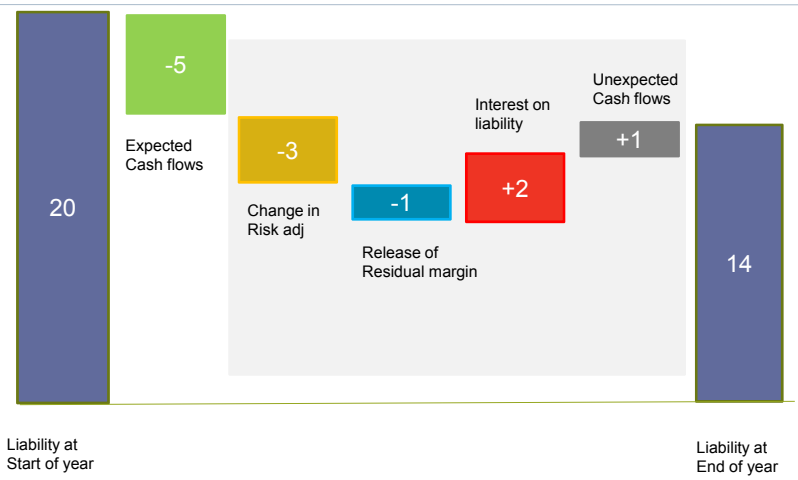
Case A:

Liability $_{t=0}$ = (900 + 50 + 40 + RM) – (950 + 50) ≥ 0 => RM = 10
Loss $_{t=0}$ = non incremental costs = 30
Liability $_{t=1}$ = (900 + 50 + 10) – 950 = 10

Case B:

Liability $_{t=0}$ = (920 + 50 + 40 + RM) – (950 + 50) = 10 => RM = 0
Loss $_{t=0}$ = 10 + non incremental costs = 40
Liability $_{t=1}$ = (920 + 50) – 950 = 20

Presentation



Source: Exposure Draft Snapshot document – IFRS web site

Other requirements to consider

- Short-term duration contracts
- Contract boundary
- Contracts with participating features
- Unbundling
- Reinsurance ceded
- Presentation and disclosure
- Transition and effective date

UKGAAP versus IFRS 4 Phase II liability calculation

	UK GAAP	IFRS Phase II	Practical Considerations
Block 1 – cash flows			
Future cash flows	INSPRU 1.2 Peak 1 – All cash flows except terminal bonus. Allow for options and guarantees. Deterministic methods. Peak 2 – Realistic firms (WP > £500m). Essentially asset shares plus cost of options and guarantees. Stochastic methods.	Includes all the cash in- and out-flows required to settle the insurance (and reinsurance) obligation over its lifetime, including: • incremental acquisition costs •expenses that will be incurred in servicing insurance (and reinsurance) obligations • inflation (including expenses and claims inflation) • payments to policyholders and beneficiaries, including future discretionary bonuses, which insurers expect to make (FASB disagrees here) •Value of financial guarantees and any contractual options included in the policies •Include expected future premiums and related benefits up to point where insurer can cancel contract or change pricing	Likely to run off same models - but with different assumptions. Need to consider the process and timelines for model runs – if using same systems. Reconciliation and explanation for Board review and approval and external disclosure. Adjustments to expense allocation systems. Challenge to identify the incremental acquisition costs. Significant challenge to identify future expected distribution to policyholders and shareholders. Contract boundary unlikely to have a significant impact.

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UKGAAP versus IFRS 4 Phase II liability calculation

	UK GAAP	IFRS Phase II	Practical Considerations
Block 1 – cash flows			
Demographic assumptions	Best estimate, based on up-to-date and credible information and realistic assumptions + prudent margin.	Best estimate, based on up-to-date and credible information and realistic assumptions.	None.
Reinsurance	Calculate gross and net. Allow for risk of default.	Best estimate should be calculated gross of reinsurance ceded. A separate reinsurance asset has to be calculated using the same building block principle, and taking into account the risk of non performance from reinsurance.	Reinsurance asset calculation required. Same considerations as above for future cash flows. Also requires residual margin calculation.
Unit of measurement	Policy level. Group if result at least as big. Disclose at FSA contract level.	Risk adjustment – at portfolio level. Residual margin – at cohort level. Portfolio defined as homogeneous risk group that are managed together.	Grouping may be different for different components of the liability, making allocation reconciliation more difficult.

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UKGAAP versus IFRS 4 Phase II liability calculation

	UK GAAP	IFRS Phase II	Practical Considerations
Block 2 – time value of money			
Economic assumptions	INSPRU 3.1.28 – 3.1.47 97.5% of risk adjusted yield. Max limit for reinvestment essentially based on risk free rate.	Discount liability cash flows at rate independent of assets held to match the liabilities (unless there is a link between cash flows and performance of assets). Discount rate uses risk free rate curve, adjusted to reflect currency, duration and liquidity of liabilities.	IFRS liabilities will be higher – all other factors being equal. Different assumptions for discounting will require separate model runs on a separate assumption set. Requires an approach to determine the discount rate and in particular the illiquidity premium involving significant financial/actuarial expertise and time. Requires clarity in disclosures on discount rate given significance and likelihood (at least initially) for varying practices across the industry. No link between discount rate and asset return may lead to earnings volatility which will need to be explained to Board, analysts and investors.

UKGAAP versus IFRS 4 Phase II liability calculation

	UK GAAP	IFRS Phase II	Practical Considerations
Block 3 – margins			
Risk adjustment (IASB)	No explicit risk adjustment – but prudent margins throughout basis. Re-measured at each reporting date – but margins tend to be passive.	• risk adjustment for the effects of uncertainty about the amount and timing of future cash flows • re-measured at each reporting period • Choice of three calculation techniques • principle defined & disclosure requirements • measured at portfolio level (no diversification benefit of negative correlation between portfolios)	Identification of most appropriate method - which may differ depending on the nature of the contract. Will lead to different profit recognition patterns requiring explanation to Board, analysts and investors. Current systems may not exist, may not be appropriate, may need modification. Complexity in defining the portfolios to maximise the diversification benefit. Still need to calculate a VaR for IFRS disclosure even where CTE or CoC method is used.

UKGAAP versus IFRS 4 Phase II liability calculation

	UK GAAP	IFRS Phase II	Practical Considerations
Block 3 – margins			
Residual margin (IASB)	No requirement to eliminate gain. DAC is allowed.	• amount that eliminates any gain at inception of the contract (deferred profits), calibrated to the premium, net of incremental acquisition costs. •Calculated separately for each cohort within a portfolio of insurance contracts (i.e. similar inception date and coverage period). • amortised over coverage period, accruing interest using locked-in rate at inception. •disagreement of Boards	No current system to perform calculation – needs to be developed. Need to define the level of aggregation for the most efficient calculation of the residual margin. Locking in of the margin requires historical information and calculations to be saved for generation of portfolio.
Composite Margin (FASB)	No requirement to eliminate gain. DAC is allowed.	• amount that eliminates any gain at inception of the contract, calibrated to the gross • Composite margin not reassessed at subsequent reporting periods	Similar considerations to those above for Residual Margin (IASB)

Impact on profitability – UK GAAP versus IFRS 4

In Force Business (Transitional arrangements)

- Protection business – likely immediate reduction in technical provisions, with difference going through retained earnings
- Annuity business - technical provisions **significantly** increase, with an immediate (one off) loss recognition.

New Business

- Impact will depend on pricing
- No day one gain allowed => profits to emerge over life of contract

Impact on processes

Potential changes to processes:

- Differentiate contract boundaries between Solvency II, IFRS, MCEV etc ?
- Differences in basis e.g. discount rate considering liquidity premium
- Residual margin amortisation => systems change to store initial value and amortisation pattern
- Additional controls

For those adopting Solvency II:

- Similarities in requirements with regards to processes and controls
- Consider synergies in Solvency II developments

For those NOT adopting Solvency II:

- Gap analysis
- Ad hoc testing for specific requirements and/or lines of business

Impact on organisation and people

- Significant changes are occurring around same time in financial services sector - the need to manage them affectively/efficiently (SII, IFRS, cost reduction programs, finance transformation, post M&A integration…)
- Re-assess the organisation design to improve capacity and capabilities.
- More emphasis from regulator and rating agencies placed on organisation's risk culture/management and how the business is governed => more scrutiny
- All these impact on how management uses the new information that is available to them and how it changes the way they manage the business.

Impact on organisation and people

- The impact of change in numbers on decision making, product design, strategies, identifying opportunities, the way they communicate the results.
- The impact of change in numbers on the view from the capital markets.
- Cross functional working – actuaries, accountants, finance and risk functions
- Availability of skilled resource – how to reward, retain and develop people with necessary skills and knowledge

Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.