



SOCIETY OF ACTUARIES

**Life 2008 Spring Meeting
June 16-18, 2008**

**Session 48, IFRS 4 Phase II Valuation of Insurance
Obligations – Current Estimates**

Moderator

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17 June 2008 Session 48

Valuation of Insurance Obligations
CURRENT ESTIMATES

A Canadian reflection

David Congram
Vice Chair, IAA Insurance Accounting Committee



Agenda

- Canadian environment
- Conversion in 2011
- Earnings under Phase II
- Participating Products
- Impact on Capital and Products
- Conclusions



Canadian environment

- Principles based
- Asset and liability interdependence
- PV approach
- Current best estimates
- “Unlocked” assumptions
- Provisions for Adverse Deviation

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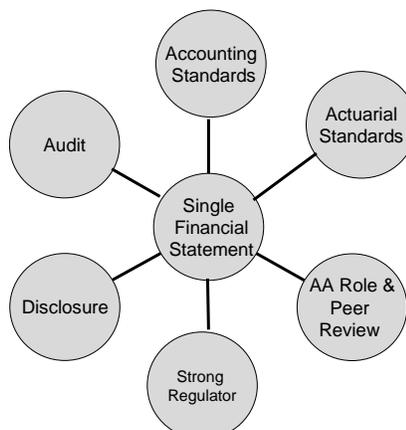
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Canadian environment

Narrowed range of practice



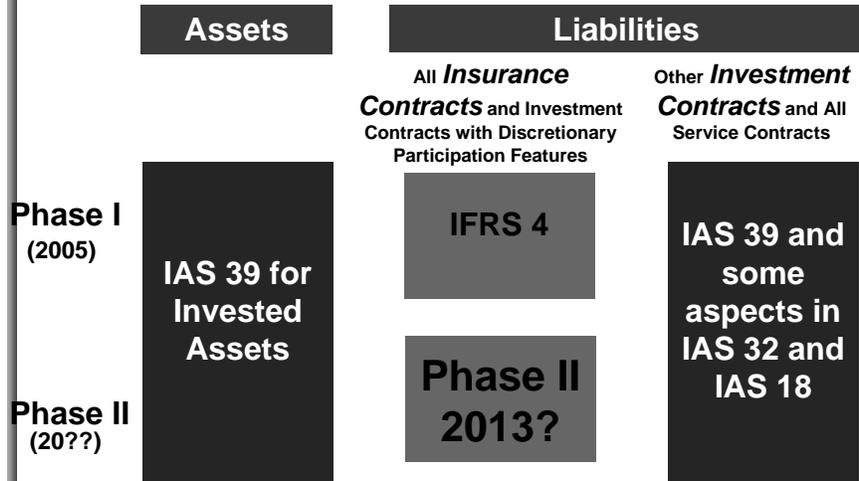
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IFRS Phase I --> 2011



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IFRS – Implementation 2010/11

- Assets
 - S 3855 re – designation allowed under IFRS 1
- Investment Contracts
 - Amortized Cost
 - Fair Value
- Service Contracts
 - Percentage of completion
- Insurance Contracts
 - Adjusted segments for CALM
- Tax implications
- First time application options

Conclusion Impact will depend on company's position and mix of business

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Earnings under Phase II

- The “3 building blocks”
 1. Current **unbiased** probability-weighted estimates of future cash flows (ie an expected value approach)
 2. Current market **discount** rates that adjust the estimated future cash flows for the time value of money
 3. An **explicit** unbiased estimate of the margin that market participants require for
 - Bearing risk (a risk margin); and
 - Providing other services (a service margin)



Canadian GAAP(CGAAP) to IASB Insurance Project Phase II (IFRS)

Block 1 - Future cash flows – very similar Different Paradigm

CGAAP – amount of assets required to discharge the obligations

IFRS – Amount you'd have to pay to transfer the obligations to another entity

Conclusion	Effect small and would not increase volatility Mostly depends on underwriting and nature of block and if all relevant cash flows are considered
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Canadian GAAP(CGAAP) to IASB Insurance Project Phase II (IFRS)

Block 2 - Current market **discount** rates – different approach

- Liabilities vs. Assets
 - CGAAP – Liability value is related to the return on the assets supporting liabilities and includes a mismatch provision
 - IFRS – Liability value is independent of value of supporting assets

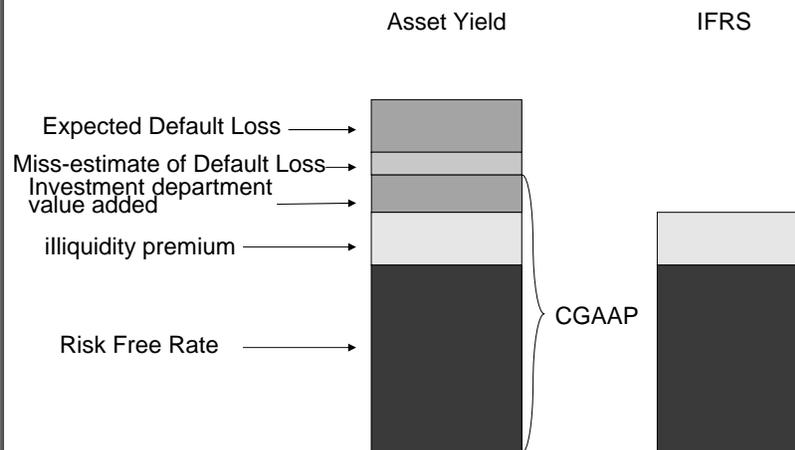
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Dissecting the Discount Rate



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Current Issues

Tightening (lowering) of spreads in the financial market place would have asset values increase

- CGAAP considers how and the timing of how this would affect the default risk as well as reflect supporting asset value changes
- IFRS has no mechanism to address



Current Issues

How to address markets that are not well developed. They may not have deep and liquid markets to base a risk free rate or to obtain reliable asset values

- CGAAP uses what is available and how risks are managed in the environment.
- IFRS – Will the audit profession publish acceptable risk free rates for such markets?



Impact on earnings

- Change in the risk free yield curve
 - If asset and liability cash flows matched - no effect
 - If asset and liability cash flows not matched
 - CGAAP in liability through a range of scenarios
 - IFRS in earnings
- Change in credit spreads
 - Assets will reflect (magnified if miss-matched)
 - Liability
 - CGAAP if change affects assets held and default assessment
 - IFRS no effect so in the earnings
- Change in defaults or value added changes
 - CGAAP actual versa expected in current year earnings and will front end reassessment
 - IFRS in earnings as they emerge

Conclusion – Different emergence and increased volatility



Canadian GAAP(CGAAP) to IASB Insurance Project Phase II (IFRS)

Block 3 - Margin that market participants require Different Paradigm

CGAAP – Risk margin determined by using more conservative assumptions (MfADs)

IFRS – Risk margin limited to “liability margins” and expected to be determined by “cost of capital” method

Conclusion – Effect expected to improve release of margins



Participating

- Ensuring the dividend cash flows are consistent with investments if dividend policy so dictates.
- Application of a consistent method comparable to risk free approach
- If a specific cash flow is not addressed properly appropriate current estimate adjustments



Impact on Capital?

Mismatch risk
Use of risk free interest rate
Credit risk
Total Balance Sheet approach



Impact on Products

- Product Classification
- Closer focus on options
- Embedded derivatives
- Deposit Components
- Longer for profits to be recognized
- Market indicators
- Lack of deep and liquid market

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Canadian perspective

- Expanding range of practice
- Phase II is not resolved
- As currently proposed
 - Change in Paradigm in setting current estimates, discount rates and risk margins
 - When cash flows are ignored the actuary's challenge will increase in terms of appropriate assumption selection

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Thanks



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Valuation of Insurance Obligations
CURRENT ESTIMATES

IAA research paper
Measurement of Liabilities for Insurance
Contracts: Current Estimates and Risk Margins

Sam Gutterman
Chair, IAA Insurance Accounting Committee



Agenda

- Background
- Measurement
- Current estimates
- Expected cash flows
- Discounting
- Other items

***This session focuses only on Current Estimates –
Risk Margins will be discussed in Session 67***



IAA paper background

- Originally requested by the International Association of Insurance Supervisors (IAIS)
- The International Accounting Standards Board (IASB) staff has expressed interest in it to aid them in the development of Phase 2 of their project on Insurance Contracts
- The IAA ad hoc Risk Margin Working Group (RMWG) is the author of this paper
- Provides the results of research and discussion related to actuarial measurement of liabilities of insurance contracts relating to regulatory and general purpose accounting on an international level

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International standard setter developments

- IASB “Preliminary Views on Insurance Contracts” Discussion Paper (2008) takes a transfer value view, with a prospective perspective
- The IAIS “Common Structure for the Assessment of Insurer Solvency” (2007) adopted a similar approach
- The IAIS “Second Liabilities” paper (2006):
 - “(t)he IAIS believes that it is most desirable that the methodologies for calculating items in general purpose financial reports can be used for, or are substantially consistent with, the methodologies used for regulatory reporting purposes, with as few changes as possible to satisfy regulatory reporting requirements”

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RMWG process followed

- Extensive email and face-to-face discussions
- Guidance regarding risk and capital provided from the IAA Insurance Solvency Subcommittee's report "Global Framework for Solvency Assessment" (2004, called *The Blue Book*)
- First Exposure Draft – January 2007
 - Comments received by May 2007
- Re-Exposure Draft – February 2008
 - Comments requested by May 2008
- RMWG meeting discussing these comments held last week in Quebec City
- To be finalized later in 2008
 - Follow-up research to be conducted

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RMWG paper

Chapters:

- 3 Introduction to measurement
- 4 Current estimates
- 5 Discounting cash flows
- 6 Risk margin measurement approaches
- 7 Risk mitigation techniques
- 8 Other items

Appendices

- A Statistical background, product assumptions and risk distributions
- B Life insurance and annuity risk margin examples
- C Diversification
- D Current estimate assumptions

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Measurement

- Conceptually a financial item can be measured by
 - A price (e.g., marked-to-market) or a model (e.g., marked-to-model)
 - Although insurance contracts are almost always measured on a marked-to-model basis
- The IASB Discussion Paper on Insurance Contracts proposes a three building block approach:
 1. An current estimate of the expected cash flows
 2. The effect of the time value of money
 3. A margin over current estimates – “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)”
 - Originally a fourth block was provided for the profit associated with services provided, but that has been folded into 3)
- The RMWG Paper explores each of these
 - Including the effect of risk mitigation techniques

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Current estimates

- Important because a large percentage of liabilities of most insurance contracts consists of current estimates of the net contractual obligations
 - “net” meaning after reflection of future expected premiums
- Current estimates are derived from a model consisting of
 - Relevant expected cash flows
 - Unbiased expectations of the cash flows at the report date
 - Whether expressed as a price or a value, the underlying basis is prospective in nature

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Expected cash flows (1)

1. Consistent with the scope of and context within which the estimation is made
 - Can a measurement be context-independent ?
 - Influence of applicable financial reporting standards and guidance
2. All relevant cash flows to be included
 - Accounting standard setters usually first ask whether a set of cash flows should be considered as a liability or asset, and then whether the cash flow should be recognized
 - Different from the typical actuarial-risk approach that measures anything that relates to the item being measured
 - Examples of issues
 - Whether future premiums are under the contract of the insurer
 - To what extent is a non-guaranteed element an obligation of the insurer
 - Appropriate boundaries of a contract, looking beyond the legal contract, e.g., renewals and side-letters

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Expected cash flows (2)

3. Measurement model inputs
 - Sources
 - Generally, priority would be given to those derived from a relevant (and reliable) market
 - Assumes that a price from a market is more objective and reliable
 - Non-market inputs – entity-specific view
 - Characteristics
 - Explicitly determined
 - Current estimates, not necessarily current conditions
 - Monitored regularly
 - Portfolio unit of account
 - Internally consistent
 - Reflect asymmetry of expected costs
 - Including options and guarantees
 - Primary method may turn out to be stochastically based
 - Examples of issues
 - Expenses, e.g., should size, developmental or market clearing matter
 - Trends and calamity, e.g., mortality improvements, pandemics, asbestosis
 - Reliability of sources such as outsourcing and reinsurance

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Expected cash flows (3)

4. Modeling

- Not requiring a single specific valuation technique
- Approximations where appropriate
 - Given applicable materiality
- Quality of data
 - Includes relevance
- Extent that extreme events be reflected

5. Disclosure

- Clear
- Concise
- Not too aggregate or detailed
- Segments consistent with management of businesses

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Discount rates

- The purpose of discount rates is to reflect the time value of money
 - Is time value consistent in all cases ?
- Alternatives include
 - Current market-based rates
 - Risk (default) free interest rates
 - Other alternatives
 - Rates reflecting liquidity features
 - Based on expected earnings relative to linked assets or the intended method of managing financial risks

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Discount rates

- Risk-free discount rates, possible alternative measures:
 - Government bond rates
 - Government bond rates plus adjustment
 - Corporate bond rates minus adjustment
 - Swap rates minus adjustment
 - Swap rates
- Liquidity
 - More commonly applied to assets
- Linked and related approaches (David's presentation)

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Risk mitigation techniques

- Pooling
- Diversification
- Offsetting risks
- Reinsurance
- Contractual features related to assets
- Contract adaptability
 - Including dividends and other non-guaranteed elements

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Other items

- Non-performance risk for liabilities
 - Quite controversial
 - If required, how to measure it ?
 - Related to the obligation, would be reflected in cash flows, unless the risk is directly related to time
 - Many measurement issues
- Profit versus risk
- Credit characteristics of the liability
- How should profits be recognized ?
- Governance