
	IASB/FASB Meeting Week commencing 17 January 2011	IASB Agenda reference	3D
			
Staff Paper		FASB Agenda reference	
Project	Insurance Contracts		
Topic	Educational Session Discount Rate - Presentation from Nicholas Bauer, Eckler		



The asset-linked discount rate

Presentation to the IASB/FASB
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Overview

- ❑ The asset/liability method
- ❑ Derivation of the asset-linked discount rate
- ❑ Consistency with the fulfillment concept of the IASB's ED
- ❑ Faithful representation
- ❑ How consistent with the time value of money concept of the IASB's ED
- ❑ General applicability
- ❑ Advantages and issues
- ❑ Discretionary participating features



Applicability of presentation

- ❑ Pertains to life, hence long-term, business
- ❑ Concepts theoretically applicable to short term business also, but in many cases needlessly elaborate
- ❑ Alternative methods apply to short-term business
- ❑ Based on Canadian practices, but applied in many jurisdictions

Steps in the A/L process

- ❑ Forecast insurance contract cash flows
- ❑ Forecast backing asset cash flows
- ❑ Forecast net cash flows
- ❑ Accumulate through economic scenarios
- ❑ Select measurement scenario
- ❑ Measure of liabilities = balance sheet value of the assets sufficient to fulfill the liabilities
- ❑ Derive discount rate

Forecast insurance cash flows

- Outflows less inflows, period by period
 - Explicit best estimate (referred to as the “mean”)
 - Stochastic, where distribution can be modeled and economically justified (e.g. seg fund guarantees)
- Adjust for uncertainty
 - Provision for adverse deviation (PfAD) for misestimation or deterioration of the mean
- Construct closely parallels the ED’s “explicit, unbiased, probability-weighted cash flows” and “risk adjustment”

Forecast backing asset cash flows

- Identify backing assets
- Forecast best estimate period by period cash flows
 - Contractually promised flows less expected credit losses for fixed-income
 - Expected return for variable assets
 - Constrained based on historical returns
- Reduce to provide for
 - For fixed-income: unexpected credit losses and potential exercise of issuer options
 - Unexpected impairment or loss of value for variable assets (equities and real estate)
- Result is asset flows net of risk adjustment for asset-related risks



Forecast backing asset cash flows

- The asset cash flows adjusted for risk result in the removal of (asset) risks not related to the insurance contracts, in the process of deriving the discount rate.
 - Consistent with the ED's objective



Forecast net cash outflows

- Subtract period-by-period asset inflows from period by period insurance contract outflows
 - Result is net risk-adjusted cash flows **except for mismatch risk**

Accumulate through economic scenarios

- Select scenarios
 - Interest rates and, if applicable, variable asset returns
 - Deterministic or stochastic – constraints apply
- Identify reinvestment/disinvestment strategies to be applied to net cash flows
- Accumulate net cash flows until last contract obligation discharged

Select measurement scenario

- Select “sufficient but not excessive” (commonly referred to as “worst plausible), this is the measurement scenario.
 - Conceptually in CTE60 to CTE80 range
- Adjust backing assets to result in nil ultimate surplus when last contractual obligation fulfilled
- **Measure of the contract liability is the balance sheet value of the backing assets**
 - **Adjusted for all risks, including mismatch risk**
- Total risk adjustment equals liability measure less best estimate liability measure
 - Can readily be parsed by source, to support SoE analysis

Concept of “Measurement scenario”

- The measurement scenario based on “sufficient but not excessive” can readily be redefined as the “maximum the insurer would rationally pay to be relieved of risk that the ultimate fulfillment cash flows exceed those expected”
 - That amount is a present value, and the discount rate used should ensure that the expectation of fulfillment is not jeopardized by asset risks not relevant to the insurance contract

Derive discount rate

- Discount rate for measurement is the rate at which the present value of the insurance contract cash flows equal the measure of the liability identified in the previous step
 - Can be a single rate or a vector
- Not necessary, strictly speaking, but all reporting entities do derive it
 - Only way to compute policy by policy measure, which is useful for multiple purposes

Consistency with the fulfillment concept

- Construct is built entirely on the assumption that the insurer will have to fulfill the contract
- Provides for all sources of uncertainty
 - Method of provision is consistent with concept of “maximum the insurer would pay to be relieved of the risk...”

Faithful representation

- Balance sheet value of insurance contract liabilities consistent with balance sheet value of assets
 - Risks of both sides of the B/S provided for but none duplicated
 - Works with both FV and amortized cost asset measures (or mix)
- Reflects economic mismatch
 - Cash flow mismatch reflected, including impact of long-term unmatchable contract flows
 - Policyholder options and guarantees accounted for and reasonable value attached
 - Change in variable asset values reflected fully and immediately
 - Can result in considerable volatility
- Minimal accounting mismatch

How consistent with the ED's time value of money concept?

- Top down approach, but with elimination of all asset-related risks
 - Targets cash flow from current assets available to fulfill contractual obligations
 - The difference compared to bottom up (risk-free plus liquidity adjustment) is that it includes all cash flow that the insurer can capture and no other cash flow
 - The bottom up approach may miss some capturable cash flow or count non-capturable cash flow
- Builds on replicating portfolio concept

General applicability

- Can be readily applied in all jurisdictions
 - Does not depend on existence of selected benchmark assets that may not exist in all jurisdictions (risk-free, high quality corporate, etc.)
 - Relies on risk measures that have been extensively studied
 - Academic and professional literature exists
 - Empirical experience has been extensively compiled and analyzed
 - Reflects reality in each jurisdiction

Advantages

- Consistent with fulfillment model, hence conceptual design of the ED
- Applicable in all jurisdictions
 - Does not depend on benchmark assets that may not exist
- Asset risk measures generally available
- Independent of balance sheet value of assets
- Reflects economic mismatch but minimizes accounting mismatch – results in appropriate volatility

Issues

- Considered by many to be complicated (“Black box”)
 - But derivation of explicit cash flows and appropriate risk margins is the most complicated part and is a feature of the ED as well
 - Scenario testing is straightforward and software to do so is commercially available at reasonable cost
 - Source of Earnings analysis helps de-mystify
- More risky assets allow decreasing the liability measure
 - But practical and regulatory limits and higher margins mitigate,
- Lack of comparability (due to different asset mixes)
 - Can be supplemented with benchmark type disclosure for comparability
- More volatile than amortized cost
 - Level playing field issue compared to deposit takers

Discretionary participating features

- The general method applies equally to participating policies
 - Dividends considered as constructive obligations included in liability cash flows
 - Dividend scales adjusted to conform to scenario
 - Minimum liability measure: no dividends, measure as fixed-premium contract for guaranteed benefits
 - Simplifications readily available



Questions?