

## CASH FLOWS

**2017 Insurance IFRS Seminar**

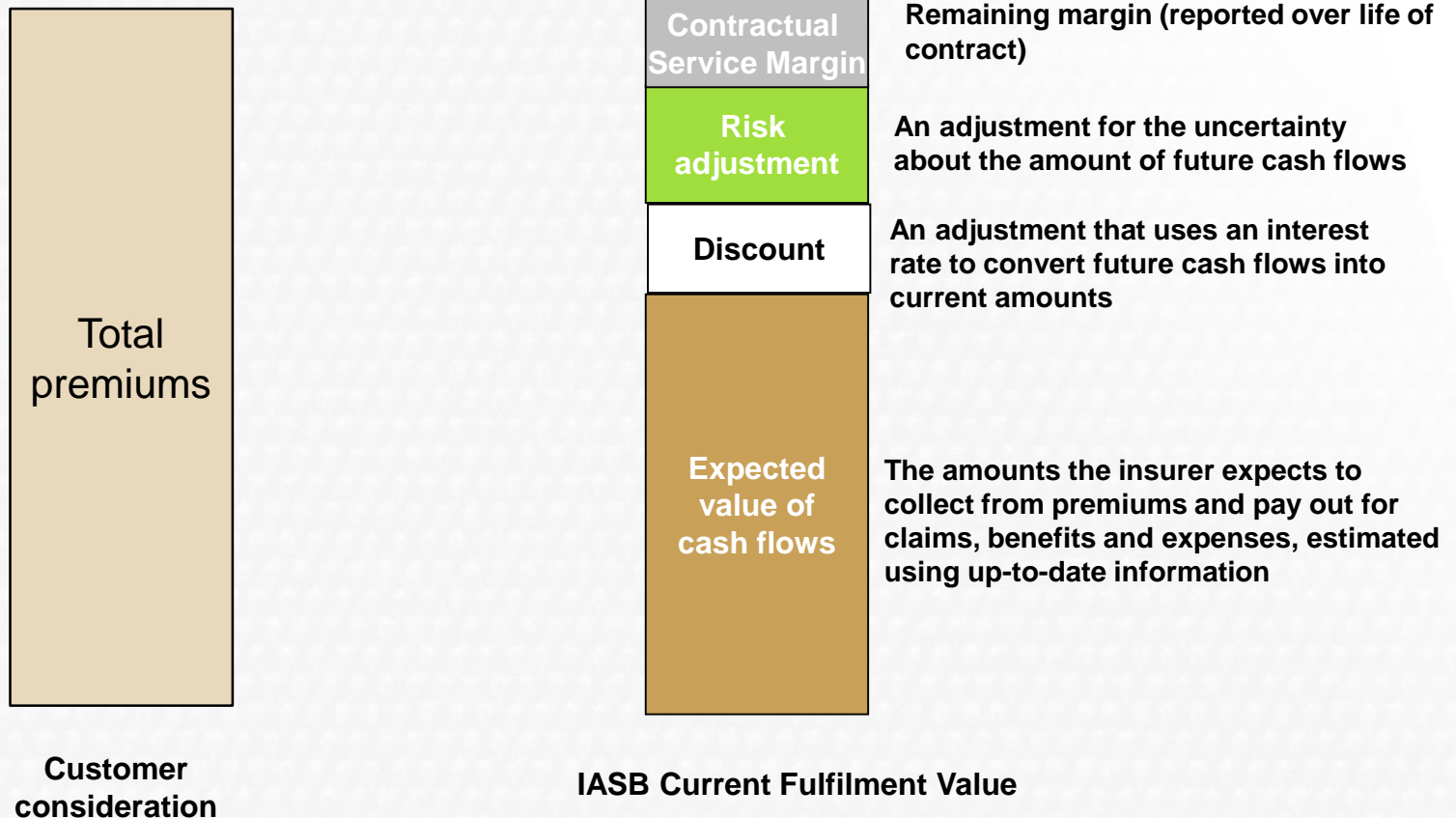
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**Session 7**



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# General Model: Current fulfillment value



# Cash flows estimates

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

- **Current** — re-assessed at each reporting period
- Incorporate, in an **unbiased** way, all available information about the amount and timing of all cash flows
- **Probability weighted** cash flows — Stochastic modeling may be required
- If **observable market data** exists, incorporate in the model to the extent possible
- **Non-market** variables utilize **entity-specific** cash flows

# Agenda

- Probability weighted cash flows
- Cash flows included / excluded
- Variables (assumptions)
- Acquisition costs
  - (note disclosed separately)

# Mean value – Stochastic requirements

The objective of estimating future cash flows is to determine the expected value, or probability-weighted mean, of the full range of possible outcomes, considering all reasonable and supportable information available at the reporting date without undue cost or effort

# Expected cash flow value example

- 1 year contract with 100 premium that pays 90% of investment income subject to a minimum guarantee of 3% per annum
- 80% probability of 10% return and 20% probability of 0% return; no other possible results than 0% and 10% returns
- What is the (undiscounted) expected value of cash outflow at issue?
  - $[80\% * 100 * (109\%)] + [20\% * 100 * (103\%)] = 107.8$

(note best estimate or most likely estimate is 109)

# How many scenarios to use?

- The starting point for an estimate of the cash flows 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
- In practice, developing **explicit scenarios is unnecessary if the resulting estimate is consistent with the measurement objective** of considering all reasonable and supportable information available without undue cost or effort when determining the mean

# How many scenarios are enough?

## Minimum number examples

Product	Minimum scenarios
One year term life insurance	1 (law of large numbers)
Participating whole life with 3% minimum guarantee	2 (one “in the money” + one “out of the money”)
Typhoon coverage	2 (one with no claim + one with typhoon claim)
Unit Linked with guaranteed minimum benefit	1 to 10,000



# Scenario Requirements

- The starting point for an estimate of cash flows is a range of scenarios that reflects the full range of possible outcomes.
- Estimates of cash flows in a scenario shall include all cash flows within the boundary of an existing contract that are directly attributable at the level of a portfolio of insurance contracts.
- 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 in order to derive an expected present value.
- Probability assigned to each scenario shall reflect the conditions at the end of the reporting period.
- In estimating the probability of each cash flow scenario relating to non-market variables, an insurer shall use all available current information at the end of the reporting period.

# Scenario Requirements (cont'd)

- The accounting model should be based on current estimates, rather than carrying forward estimates made at contract inception and inputs that are consistent with observable market data, where available.
- The cash flows incorporated in the measurement of the insurance liability are those that will arise as the insurer fulfills the insurance contract.
- The model will use the expected value of future cash flows rather than a single, most likely outcome.
- Measurement objective of expected value refers to the mean that considers all relevant information.
- Not all possible scenarios need to be identified and quantified, provided that the estimate is consistent with the measurement objective of determining the mean.

# Which cash flows are included?

- Includes all cash flows that arise as the insurer fulfills the insurance contract:
  - Premiums and cash flows that arise within the “contract boundary”
  - Claims and benefits paid to policyholders, plus associated costs
  - Surrender and participating benefits
  - Cash flows resulting from options and guarantees
  - Costs of selling, underwriting and initiating that can be directly attributable to a portfolio level
  - Transaction-based taxes and levies
  - Policy administration and maintenance costs
  - Some overhead-type costs such as claims software, etc

# Which cash flows are excluded?

- Excludes the following cash flows as the insurer fulfills the insurance contract
  - Investment returns
  - Payments to and from reinsurers (included instead with reinsurance CF)
  - Cash flows that may arise from future insurance contracts
  - Acquisition costs not directly attributable to obtaining the portfolio of contracts
  - Cash flows arising from abnormal amounts of wasted labor
  - General overhead
  - Income tax payments and receipts
  - Cash flows from unbundled components

# Variables (Actuarial Assumptions)

- **Market variables** will generally give rise to financial risk (for example, observable interest rates) and **non-market variables** will generally give rise to non-financial risk (for example, mortality rates).
- Can use **current price information, if available**, for reinsurance contracts and other financial instruments (if any) covering similar risks, such as catastrophe bonds and weather derivatives, and recent market prices for transfers of insurance contracts

# Non Market Variables

- Use reasonable and supportable information available at the reporting date without undue cost or effort includes information about past events and current conditions, and forecasts of future conditions. Information available from an **entity's own information systems** is considered to be available without undue cost or effort
- Explicit assumptions as to:
  - Biometric risk (mortality, morbidity, etc.)
  - Policyholder behaviour
    - Lapse
    - Benefit utilization (e.g. alternative surrender options)
  - Expenses

# Acquisition Costs

- New Presentation
- Definition
- Successful vs. unsuccessful sales
- Simple example

# Acquisition Cost Presentation

- Acquisition Costs presented as Expense on EARNED basis in Income Statement
- Earned acquisition Costs included as REVENUE along with expected claims and release of risk margin and contractual service margin
- Acquisition Costs IMPLICITLY included in Reserve by including with Reserve Cash Flows
- NOTE: Accounting records must thus still track acquisition costs separately



# Definition of acquisition costs

- Directly attributable acquisition costs are included in the fulfilment cash flows.
  - The costs are assessed at the portfolio level and include costs that cannot be attributed directly to individual contracts.
  - Costs must be allocated on a “rational and consistent basis”.
- This was a significant change from earlier IASB proposals where acquisition costs were assessed at the individual contract level.
- Also a major difference from US GAAP, where acquisition costs must be associated with “successful efforts”.

# Illustrative impact of successful vs. unsuccessful sales

- An insurer incurs direct sales-related expenses of \$400,000 for portfolio of contracts
- 80% of sales efforts are successful
- Commissions are \$100,000 for portfolio of contracts
- Advertising expenses are \$125,000

	IASB		FASB	
	Deferred	Expensed	Deferred	Expensed
Sales-related	400,000	0	320,000	80,000
Advertising	0	125,000	0	125,000
Commissions	\$100,000	0	\$100,000	0
<b>Total</b>	<b>\$500,000</b>	<b>125,000</b>	<b>\$420,000</b>	<b>205,000</b>

# Treatment of acquisition costs under IFRS 17

- Acquisition costs are considered policy cash flows.
- As such, *and if directly attributable to a portfolio*, they serve to increase the PV (fulfilment cash flows) as at the issue date, i.e. making it less negative than if they were not considered.
- Hence the contractual service margin is smaller than if acquisition costs were not considered
- The effect is to defer acquisition costs (see next slide)

More acquisition cost  $\rightarrow$  less negative  $PV_0$ (fulfillment cash flows)  $\rightarrow$  lower CSM at issue  $\rightarrow$  more profits in year 1, less profits subsequently

# Example – SP 10 Year Pure Endowment Liability Values

	Time 0		Time 1		Time 2	
	Co A	Co B	Co A	Co B	Co A	Co B
Premium	100	100	0	0	0	0
Direct Acq. Costs	10	0	0	0	0	0
Other Costs	0	10	0	0	0	0
Future Benefits	60	60	54	54	48	48
Risk Adj.	10	10	9	9	8	8
PV (FCF)	-20	-30	63	63	56	56
CSM	20	30	18	27	16	24
Total Liability	0	0	81	90	72	80

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Direct Acq. Costs	10	0	0	0	0	0
Other Costs	0	10	0	0	0	0
Future Benefits	60	60	54	54	48	48
Risk Adj.	10	10	9	9	8	8
PV (FCF)	-20	-30	63	63	56	56
CSM	20	30	18	27	16	24
Total Liability	0	0	81	90	72	80
Profit	0	-10	3	4	3	4

**Thank You**



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