



**Actuarial
Institute**

Life Insurance Reporting *For Dummies*

Agenda

- Policy Liabilities – Tyson Johnston
- Capital – Quanyie Tan
- Value – Kirsten Flynn
- Concluding Remarks – Niall Fallon
- Q & A - All

Policy liabilities

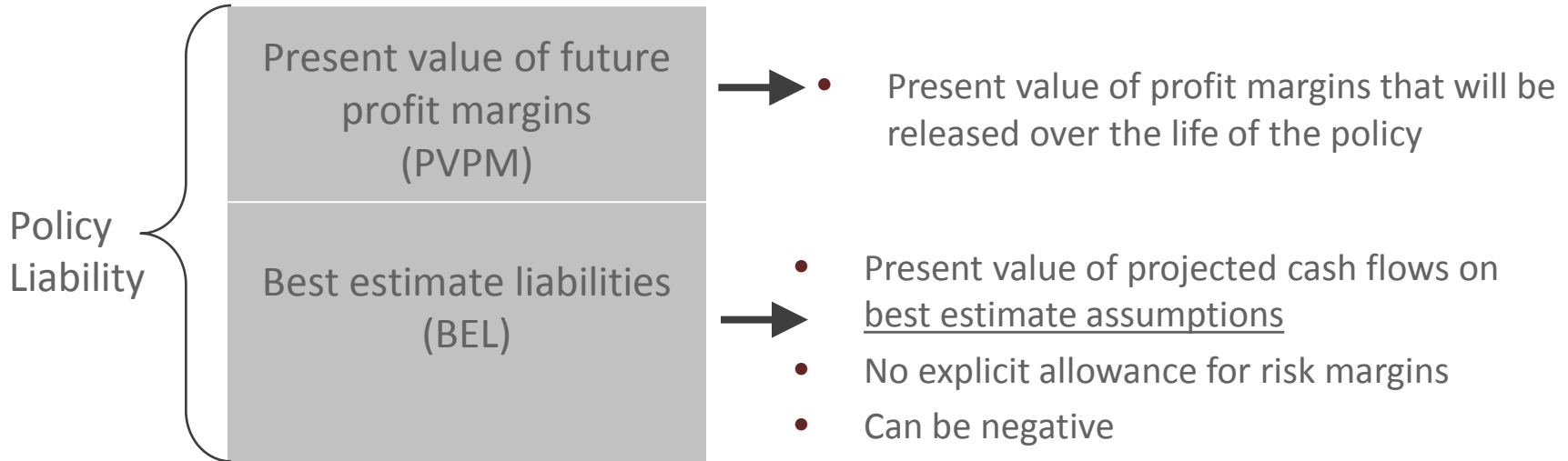
Tyson Johnston

What are policy liabilities?

- Life companies have an obligation to pay claims covered under the relevant terms and conditions of the product
- Policy liabilities sit on the balance sheet so that company accounts represent the fair value of future obligations to policyholders
- Policy liabilities and profit reporting must adhere to the relevant regulatory and accounting standards
- APRA Prudential Standard LPS 340 and Australian Accounting Standards Board 1038 outline the key principles

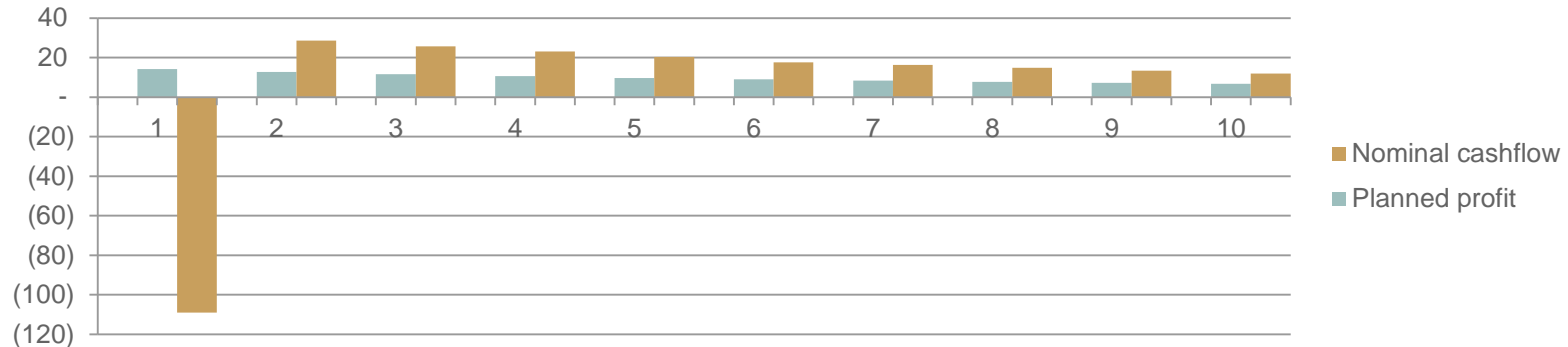
Calculation of policy liabilities

- A projection method is the most common method
- Alternative methods can be used so long it can be demonstrated that the principles have been met
- Policy liabilities are comprised of the following components:



Profit recognition - Margin on Services (MoS)

- Profit is only “known” after each policy has run-off
- MoS is a financial reporting methodology used for life insurance contracts in Australia
- The objective of MoS is to recognise (planned) profits in line with the service provided to policyholders
- Zero profit at inception (provided not loss making), followed by smooth emergence of profit



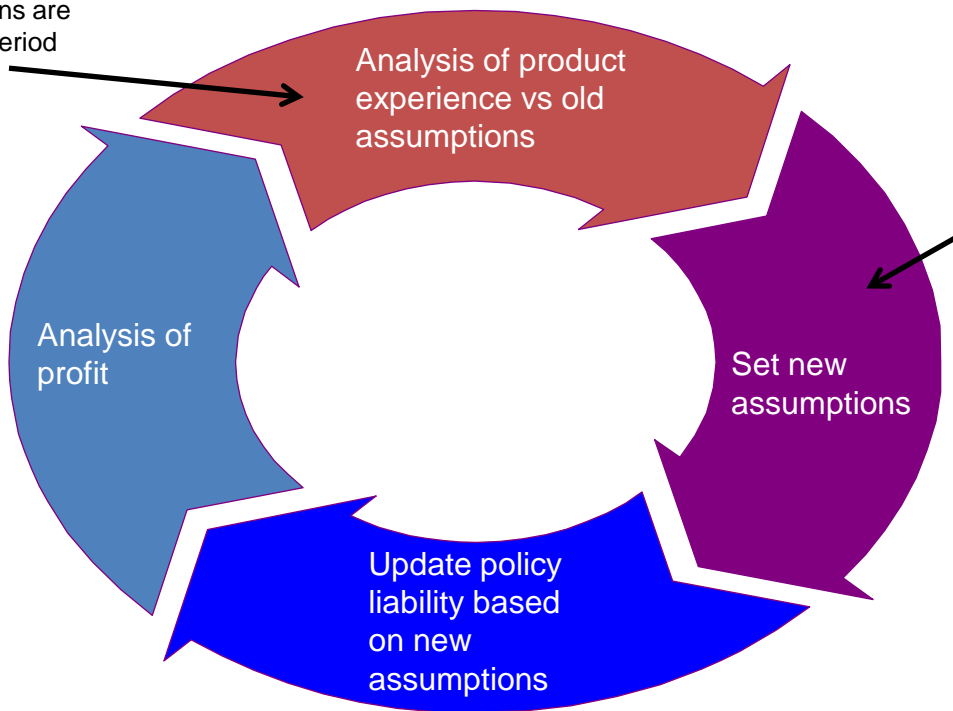
Example – policy liabilities at inception

Cashflow	Year 1	Year 2	Year 3	Year 4	Year 5	...	Present Value @ 4%
Premium	-100	-91	-82	-74	-67	...	-812
Acquisition Expense	140	0	0	0	0	...	140
Maintenance Expense	7	6	6	5	5	...	57
Claims	62	56	51	46	42	...	500
						BEL	-115
						PVPM	115
						Profit Margin	23%
Planned Profit	14	13	12	11	10	...	

- At inception, BEL is calculated to give the expected value of future profits, by setting the policy liability to equal zero
- Profits are expressed as a % of the profit carrier (claims in this example)
- Planned profit in each future year is equal to profit carrier times profit margin

Assumptions cycle

Non economic assumptions are usually analysed over a period of five years or so



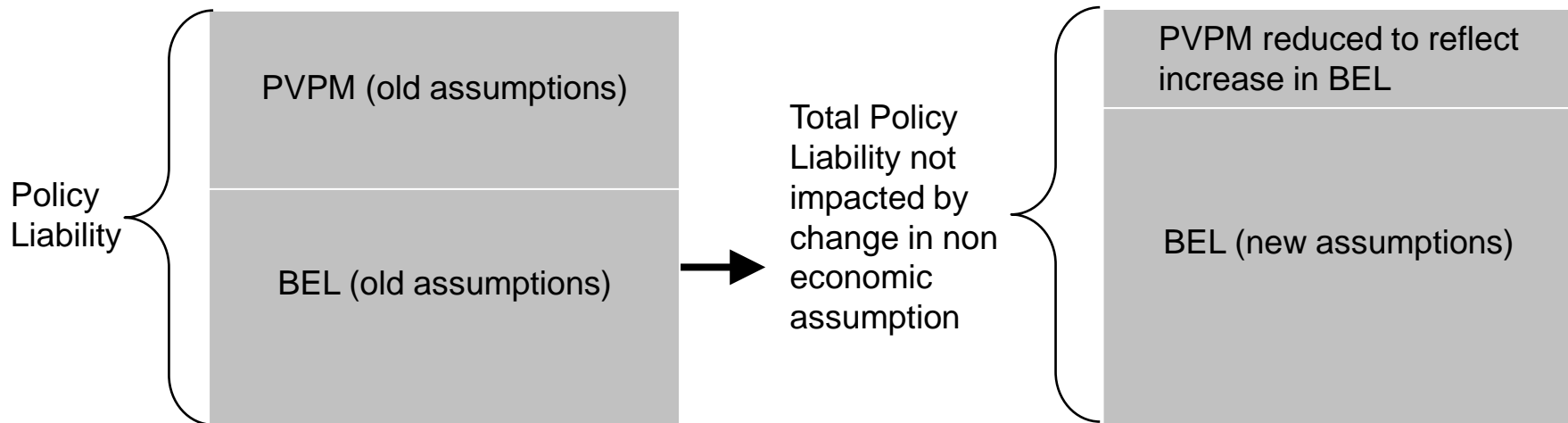
Non economic assumptions will be updated only if there is sufficient evidence of a longer term trend in experience that invalidates the previous assumption

Assumption changes

- Changes to the economic assumptions directly impact the value of Policy Liabilities
 - For some products (e.g. annuities) this movement may be offset by movements in asset values.
 - For life risk products, this movement goes directly to P&L.
- Changes to other assumptions do not impact the value of Policy Liabilities, unless products are loss making
 - Impacts are absorbed by changing the PVPM, in turn affecting future planned profits.
 - If PVPM is reduced to zero, the product enters Loss Recognition, and further impacts of assumption changes directly impact the P&L.

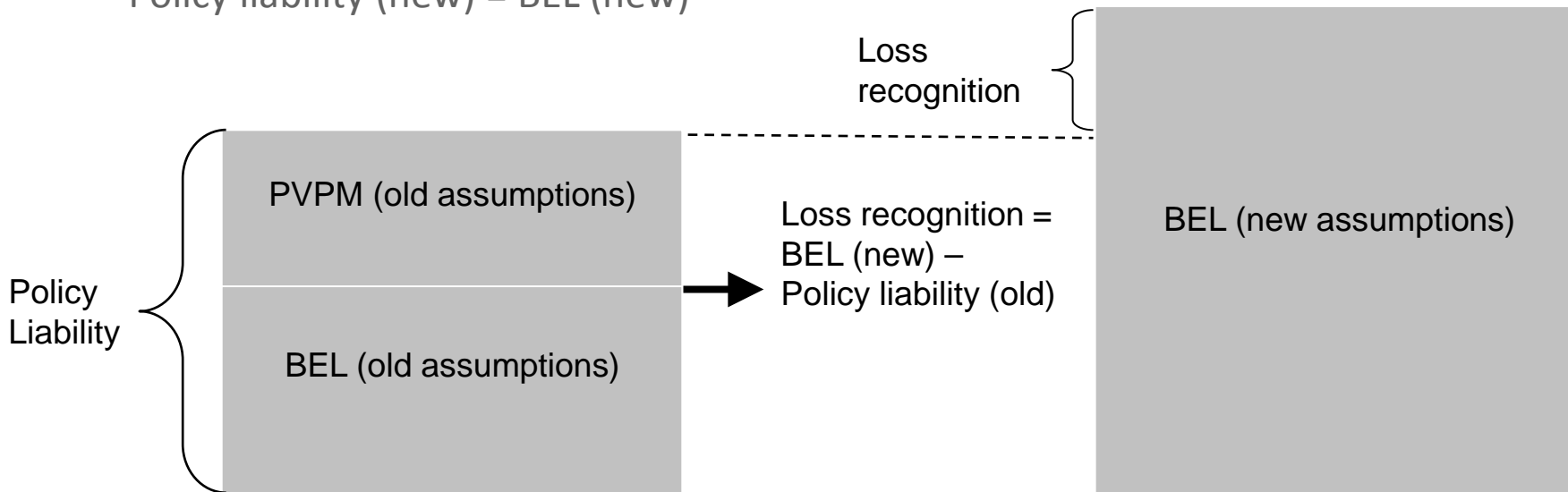
Assumption changes – non-economic

- In this example assumptions are strengthened:
 - BEL increases
 - PVPM reduces such that total policy liability is unchanged



Assumption changes – loss recognition

- In this example assumptions are strengthened:
 - BEL increases by more than the value of old PVPM
 - PVPM is reduced to 0 and loss must be capitalised immediately
 - Policy liability (new) = BEL (new)



Other complications

- This presentation focuses on policy liabilities for individual risk business only. Other products have a different treatment, for example:
 - Investment products, such as unit linked or term certain annuities
 - Traditional business, including participating and non-participating
 - Group risk business
- The calculation is easy compared to checking the results!
- A new international accounting standard is expected to be issued during 2016 and this will change how policy liabilities are required to be calculated

Capital Reporting

Quanyie Tan

What is Capital (under LAGIC)?

Excerpt from Prudential Standards LPS 110

“The **prescribed capital amount** of a fund determined under the Standard Method is intended to be sufficient, such that if a fund was to start the year with a **capital base** equal to the prescribed capital amount, and losses occurred at the **99.5 per cent confidence level** then the assets remaining would be at least sufficient to provide for the **adjusted policy liabilities** and ‘other liabilities’ of the fund at the end of the year. “

- Prescribed Capital Amount (PCA) = Insurance Risk Charge (IRC)
 - + Asset Risk Charge (ARC)
 - + Asset Concentration Risk Charge (ACRC)
 - + Operational Risk Charge (ORC)
 - Aggregation Benefit (AB)
 - + Combined Stress Scenario Adjustment (CSSA)
- APRA sets Asset Risk margins and Operational Risk margins
- Appointed Actuaries set most of the margins for Insurance Risk

Why do we report Capital?



Principles of good household budget:

- Spending less than we earn
- Meet saving targets
- Anticipating for things we want in the future



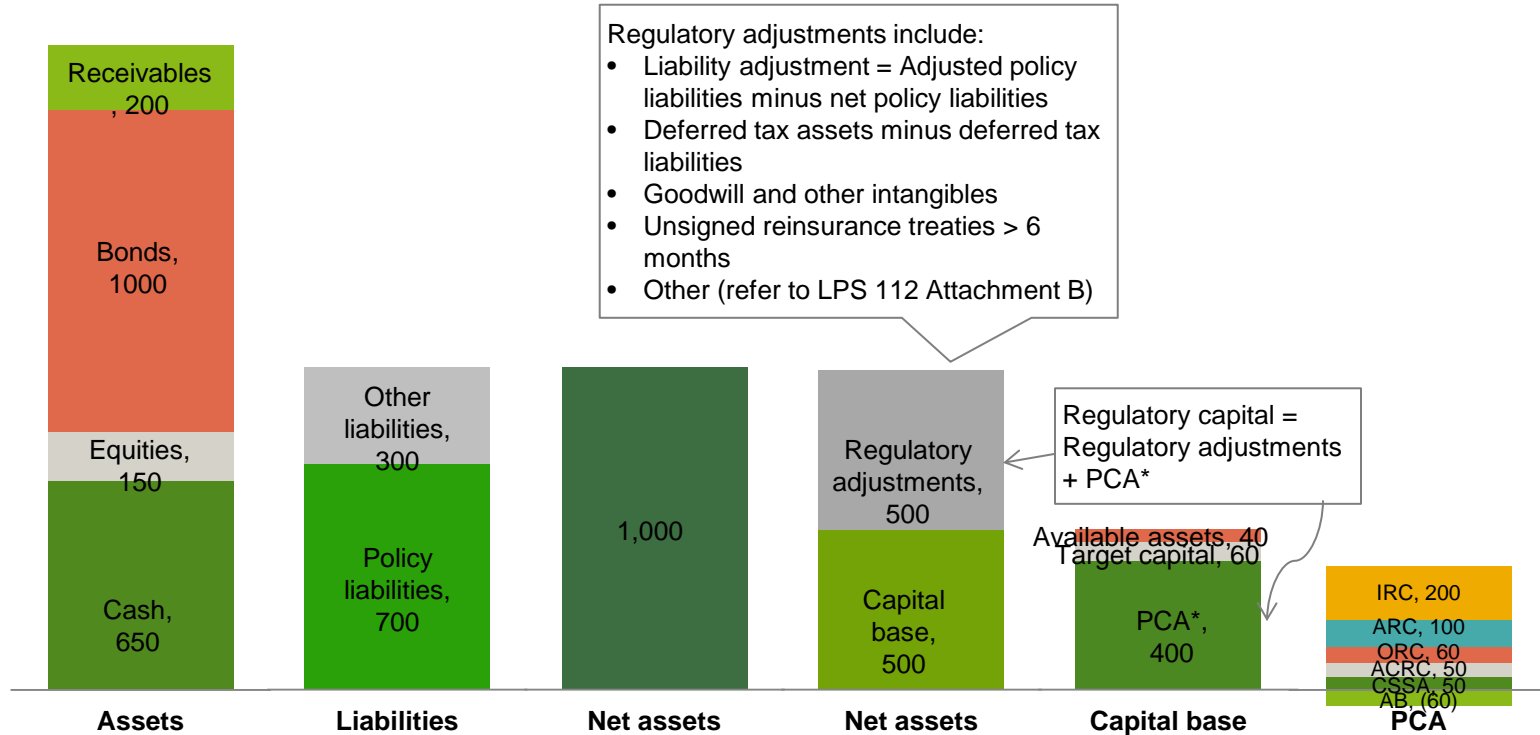
Principles of capital management:

- Meet regulatory requirements
- Strategic KPI: E.g. Return on Capital (RoC)
- Ability to fund planned business growth

Managing capital
=
Managing household budget

How much can we spend & are we going to run out of money?

How is Capital calculated? (1)



*: This assumes 0 supervisory adjustment. Supervisory adjustment is as determined by APRA under LPS 110 paragraph 44.

How is Capital calculated? (2)

Insurance Risk Charge

- Stresses are applied on **adjusted policy liabilities**
- Adjusted policy liabilities = Maximum of:
 - Termination value including claims reserves already incurred, or
 - Present value of future (claims + expenses – premiums) + claims reserves already incurred
- Various stresses:
 - Mortality/morbidity random stress – fluctuation around mean
 - Mortality/morbidity future stress – change of mean
 - Event stress – e.g. pandemic
 - Longevity stress
 - Lapse stress – need to stress in both upwards and downwards direction
 - Expense stress
- Diversification between mortality/morbidity random/future stress, event stress and longevity stress
- Management actions can be allowed for, but cannot occur within 12 months of reporting date, and cannot be used as a response to mortality/morbidity random stress and event stress

How is Capital calculated? (3)

Asset Risk Charge

- Allows for asset-liability mismatch
- Prescribed stresses - interest rates, inflation, currency, equity, property, credit spreads, default

Aggregation Benefit

- Allows for diversification between IRC and ARC
- Prescribed formula

Asset Concentration Risk Charge

- Amounts by which individual assets exceed certain limits
- Prescribed limits (vary by type of assets)

Operational Risk

- Grows in line with premiums/adjusted policy liabilities. Additional charge applies if business grows/shrinks > 20%
- Prescribed formula

Combined Stress Scenario Adjustment

- Apply both insurance and asset stresses
- PCA is increased by the amount of tax benefits from IRC and ARC which cannot be recovered

Find out more about Capital

- LPS 110 Capital Adequacy
- LPS 112 Capital Adequacy: Measurement of Capital
- LPS 114 Capital Adequacy: Asset Risk Charge
- LPS 115 Capital Adequacy: Insurance Risk Charge
- LPS 117 Capital Adequacy: Asset Concentration Risk Charge
- LPS 118: Capital Adequacy: Operational Risk Charge
- Actuaries Institute Information Note: Discount Rates for APRA Capital Standards

Value Reporting

Kirsten Flynn

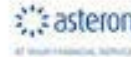


What is Value?

- Value = how much something is worth
 - When I bought it?
 - Today?
 - To me?
 - To someone else?

- There are many related definitions of “value”, including:
 - Historical Value
 - Replacement Value
 - Market Value
 - Net Assets
 - Embedded Value
 - Appraisal Value

- The definition used depends on the purpose!



Who cares about Value (and why)?

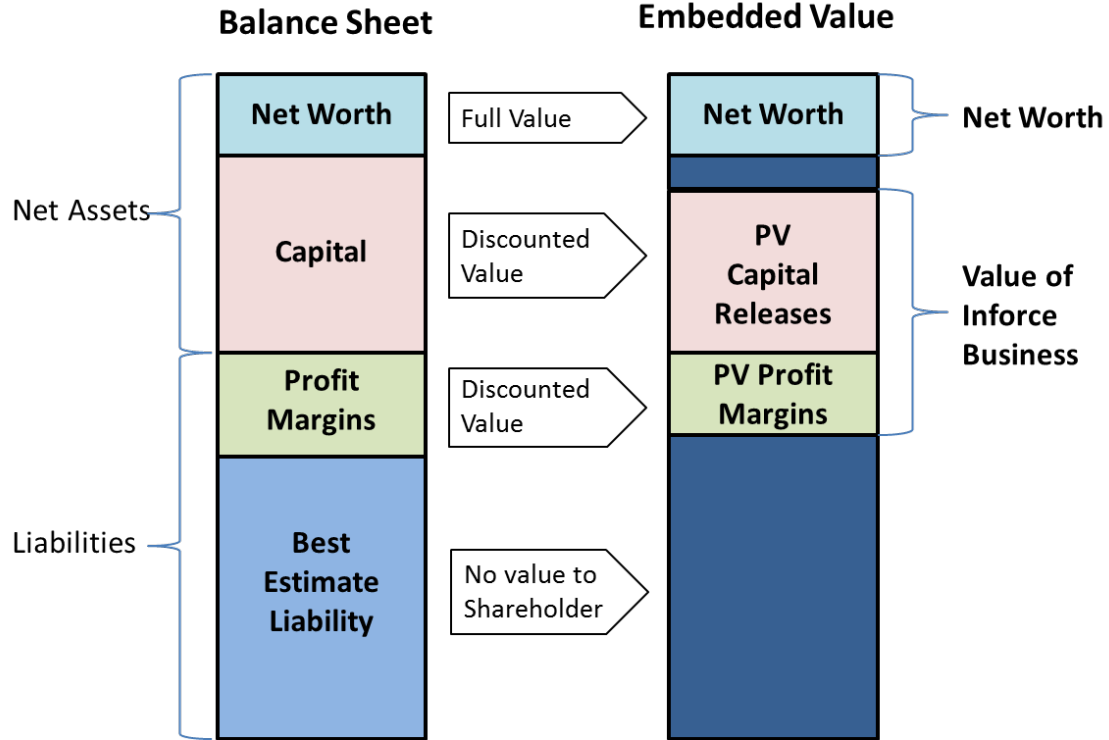
- Current owners of the business
 - What is the business currently worth?
 - How has the value of the business changed?
- Future owners of the business
 - How much to pay for the business?
- Management
 - How is the business doing?
 - What has management contributed to value?
 - Will a management action increase value?
 - What's the longer term impact of current experience?
- Any others?



How do we calculate Value?

- No prudential (APRA) or accounting standards governing the calculation and disclosure of value
- BUT some common practices and sources of guidance have emerged
- Embedded Value = Net Worth + Value of Inforce Business (VIF)
- Net Worth
 - Assets in excess of capital requirements
OR
 - Assets in excess of policy liabilities
- Value of Inforce Business
 - Present value of future profits PLUS releases of capital
OR
 - Present value of future profits LESS cost of capital

How do we calculate Value? (cont.)



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How do we calculate Value? (cont.)

- Calculation of Value of Inforce business similar to valuation of policy liabilities BUT
 - Can have different valuation methods
 - Might use different assumptions
 - May need a projection of capital
- Complications?
 - Tax
 - Participating Business
 - Non-owner assets
 - Target capital



Find out more about Value

- Financial Statements
- Actuaries Institute PG 199.03 Economic Valuations
<http://www.actuaries.asn.au/Library/Standards/PG%2019903%20-%20final%20-%20March%202011.pdf>
- European Insurance CFO Forum - Market Consistent Embedded Value Principles (MCEV)
http://www.cfoforum.nl/embedded_value.html



Concluding Remarks

Niall Fallon

Further Reporting Topics

- Policy Liabilities for non-risk business
- International Financial Reporting Standards (IFRS)
- Analysis of profit
- Insurance risk margin setting
- Target capital methodology and calculation
- Capital consideration in business decisions
- Market Consistent Embedded Values (sometimes referred to as European Embedded Values)
- Appraisal Value
- Value of New Business
- Analysis of change in embedded value

Q & A

All (that includes you!)

