Society of Actuaries in Ireland

IFRS 17: implementation challenges

John Bolger, Andrew Kay

Disclaimer

The views expressed in this presentation are those of the presenter(s) and not necessarily of the Society of Actuaries in Ireland

Agenda

1. Latest developments

2. Comparison between IFRS 17 and Solvency II

3. Implementation challenges

Latest developments

IFRS 17 implementations

- Impact assessment
- Data gathering
- Assumptions
- Methodology
- Transition
- Systems and modelling

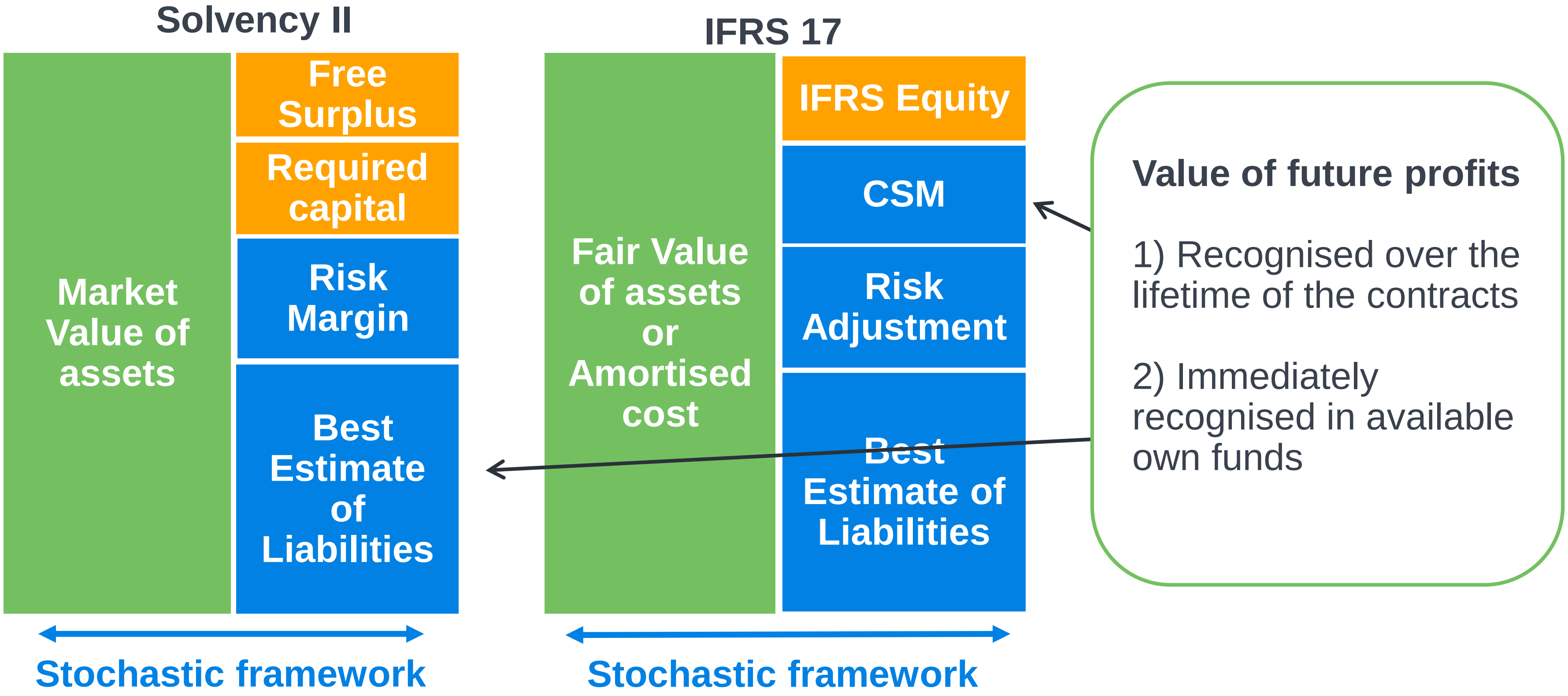
EFRAG

- Briefing papers (transition, reinsurance, CSM release, aggregation)
- Case studies, surveys
- Report planned for Q4 2018

TRG

- Unbundling
- Contract boundaries
- Acquisition expenses
- Coverage units
- Risk Adjustment
- …

Bridging with Solvency II



Bridging with Solvency II (2)

Item	Solvency II	IFRS 17
Applicable to	▪ European companies	▪ IFRS reporters
Focus on	▪ Balance sheet and solvency	▪ Income statement and performance
Scope	▪ All contracts written by the (re)insurer	▪ Contracts with significant insurance risk or DPF
Recognition	▪ When coverage begins or party to the contract	▪ When coverage begins, premium due, when the group becomes onerous

Bridging with Solvency II (3)

Item	Solvency II	IFRS 17
Unbundling	▪ Unbundle into life and non-life and LOB	▪ Separate investment components, embedded derivatives and service components
Aggregation	▪ Homogenous risk group level and reported by line of business	▪ Portfolio, profitable/onerous, and yearly cohort.
Assumptions	▪ Best Estimate assumptions ▪ Discount rate set by EIOPA ▪ All maintenance expenses included	▪ Best Estimate assumptions ▪ Discount rate flexibility ▪ Directly attributable expenses including acquisition expenses

Bridging with Solvency II (4)

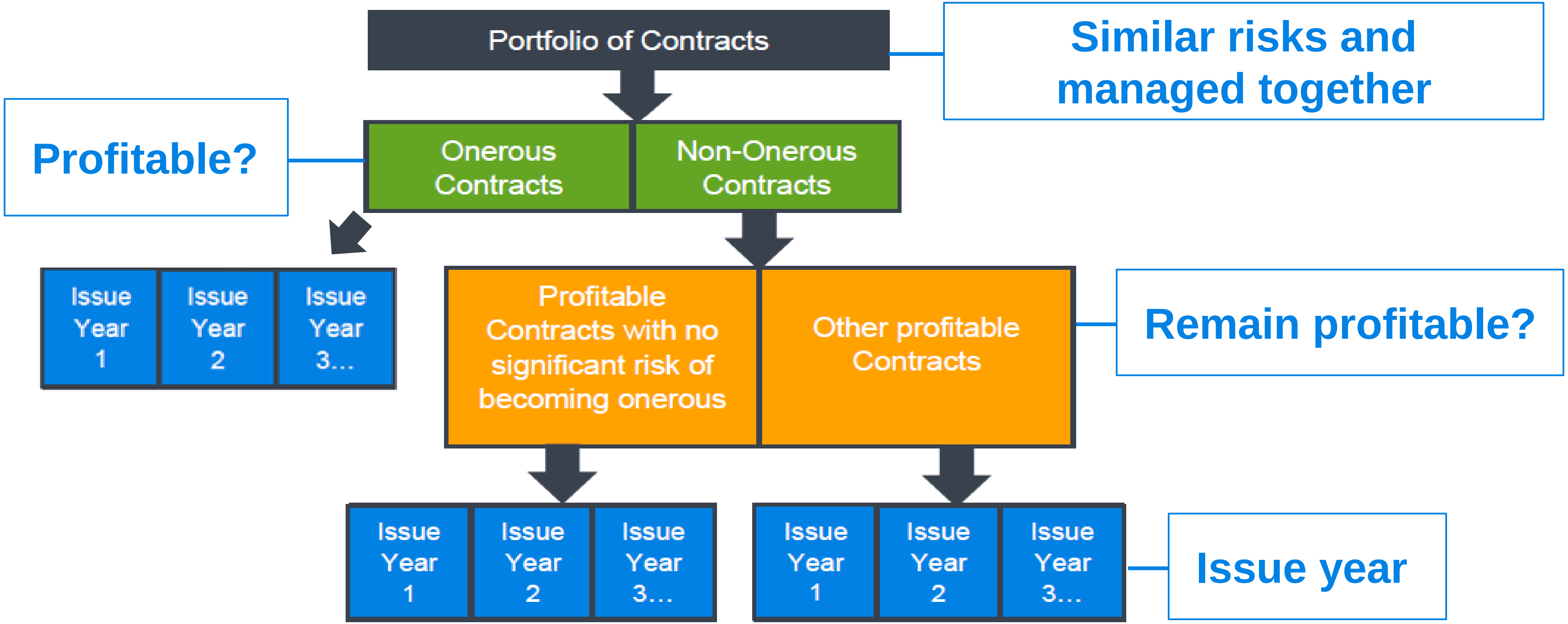
Item	Solvency II	IFRS 17
Methodology	▪ Discounted value of future cashflows	▪ General Model (Building Block Approach), Variable Fee Approach, Premium Allocation Approach
Contract boundaries	▪ Unilateral right to amend premiums/benefits to fully reflect risk	▪ Substantive obligation to provide services ends
Risk Adjustment	▪ Risk Margin calculation is very strict – based on 6% cost of capital	▪ Flexibility on the level of the Risk Adjustment level and method

Contractual Service Margin – EFRAG and TRG

- CSM recognised as (re)insurer provides service
- Coverage units establish the amount of CSM to be recognised
- Consider
  - Choice of coverage units?
  - Are they additive within the group?
  - Combination of insurance and investment services?

Aggregation

Contracts must be aggregated into different groups for calculation and reporting



Level of Aggregation - EFRAG

- Significant changes to systems and increased costs
- Typically profitability is monitored at a higher level
- Splitting of ‘mutualised’ amounts into groups is artificial
- Changes how onerous contracts are identified - may affect pricing

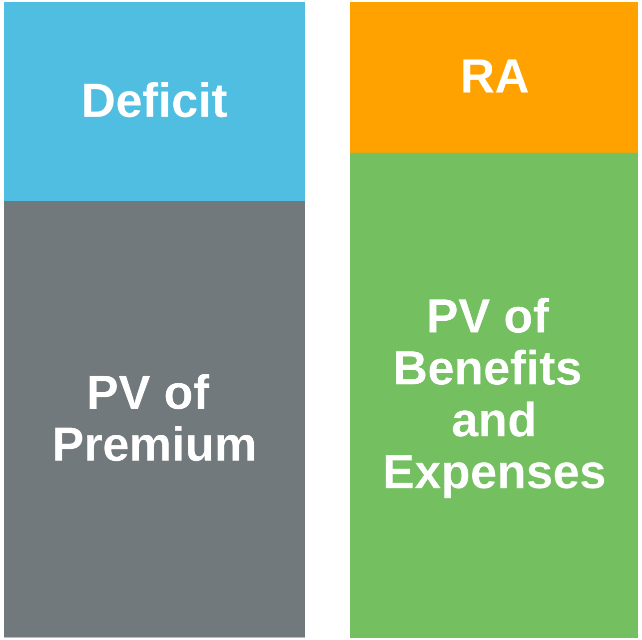
Onerous Contracts

At inception

- A contract can be onerous at inception. In that case the deficit is recognised immediately as a loss.

During the lifetime of a contract

- The CSM can decrease to zero due to unfavourable changes.
- An off balance-sheet negative CSM is administered.



Onerous contracts

- How to assess if onerous?
- Number of groups?
- Treatment of acquisition cashflows for contract renewals?

Contract boundaries - TRG

- Contracts with annual repricing mechanisms at group level

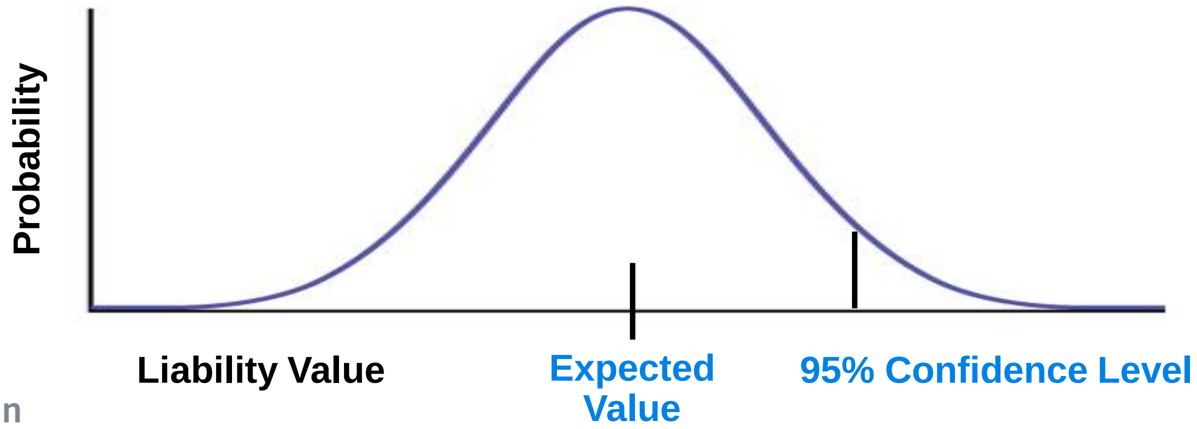
- Practical ability to reprice? Consider contractual, legal and regulatory restrictions, but not limited to these.

- Options to add cover – consider substantive rights and obligations

- Reinsurance held - consider both:
  - Substantive right to receive services from the reinsurer
  - Substantive obligation to pay amounts to reinsurer

Risk Adjustment

- Compensation for uncertainty arising from non-financial risk
- Principles based
- Excludes risks that don't arise from insurance contracts e.g. operational risk
- A confidence interval needs to be provided



Considerations on choice of technique

Confidence Level?

CTE?

Cost of Capital?

PADs?

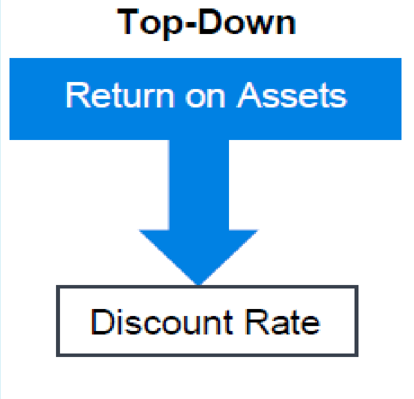
Consider:

- Simplicity
- Liability distribution
- Stochastic / non-stochastic calculations
- Diversification benefit – TRG

Discount Rate

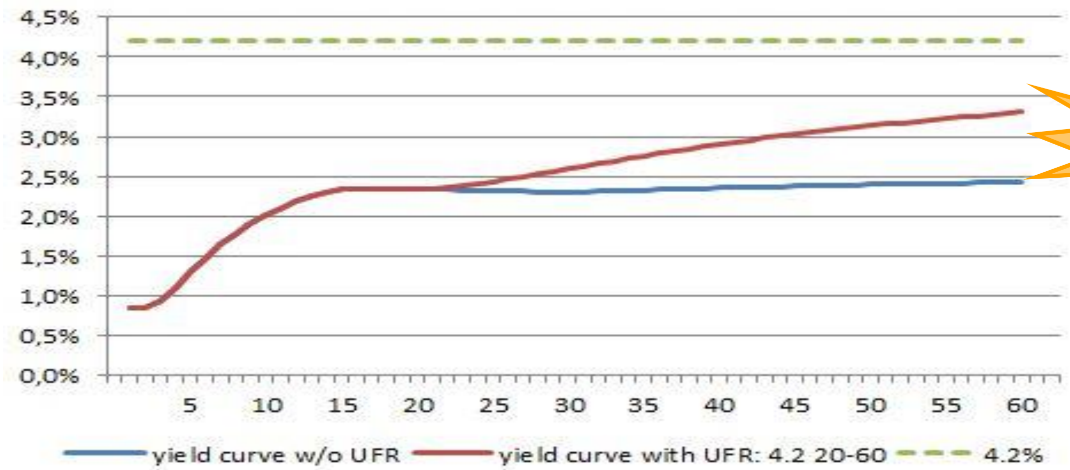
- No prescribed method for calculating discount rate
- Should follow the following principles:
  - Reflect time value of money, characteristics of cashflows, liquidity characteristics of insurance contracts
  - Be consistent with observable current market prices of financial instruments consistent with cash flows of insurance liabilities, in terms of timing, currency and liquidity
  - Exclude the effect of factors that influence observable market prices but do not affect the future cashflows of the insurance contracts
- Companies should maximise use of observable market prices, but adjust to reflect timing, currency and liquidity differences

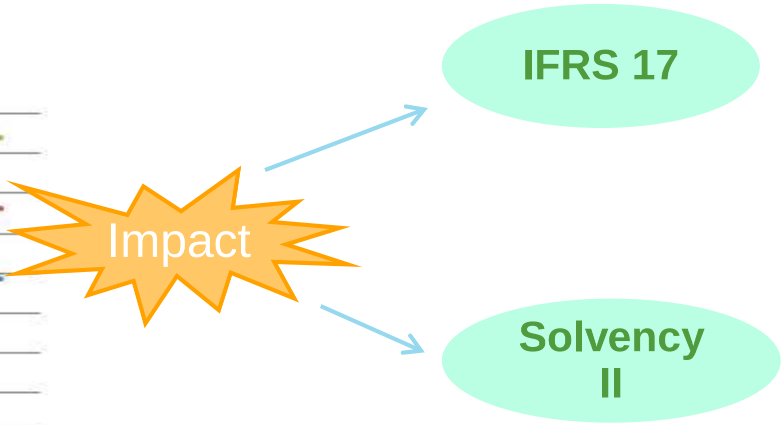
Discount Rate (2)

"Top-down" Approach	"Bottom-up" Approach
	
• Yield curve reflects current market rates either for the actual portfolio of assets held by company of for a reference portfolio of assets	• Company adjusts risk-free yield curve to include estimates of the factors that are relevant to the insurance contract

Discount rate - practicalities

Interest Rate Curve





Credit adjustment

UFR

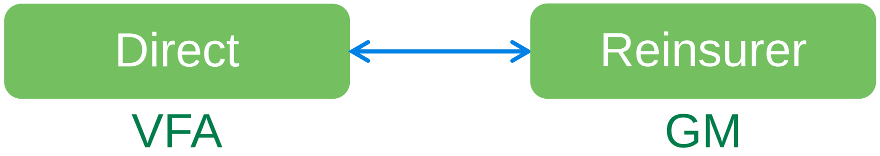
Anchoring Term

LLP

Transitional Measures

Reinsurance impacts

- **For direct writers**
  - Insurance and reinsurance contracts held are presented & valued separately
  - Should use consistent assumptions to value reinsurance contract and underlying contracts
  - Need to allow for default risk of reinsurer
  - Net cost/gain recognised on purchasing reinsurance is deferred via CSM
    - Can have a negative CSM
    - Treatment of contracts that are loss-making on gross basis but profitable when reinsured



- **For reinsurers**
  - Can use either the General Model or Premium Allocation Approach
  - Cannot use the Variable Fee Approach for reinsurance contracts held or issued

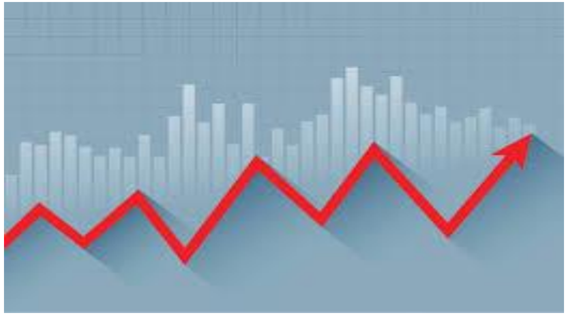
Reinsurance practicalities

- **Differences between IFRS 17 and Solvency II**

Solvency II
- Net of reinsurance risk margin

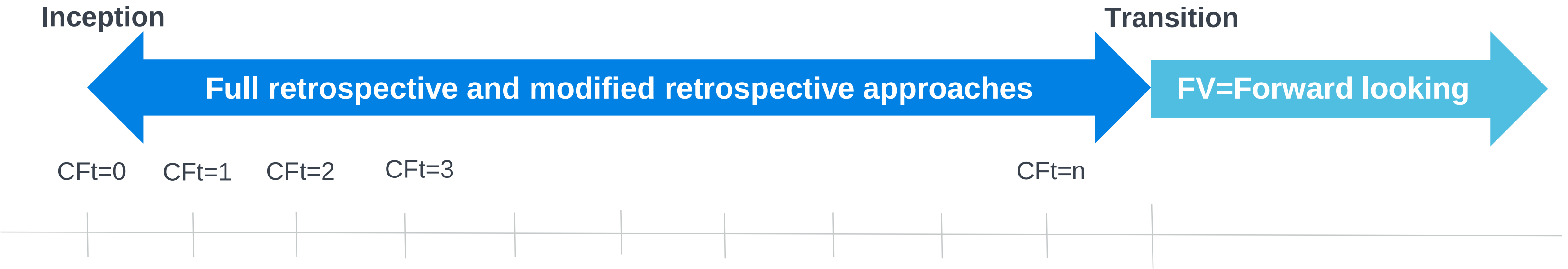
IFRS 17
- Gross risk adjustment
- Ceded risk adjustment

- **Impact of reinsurance that is beneficial for Solvency II on P&L volatility?**



Transition – three approaches

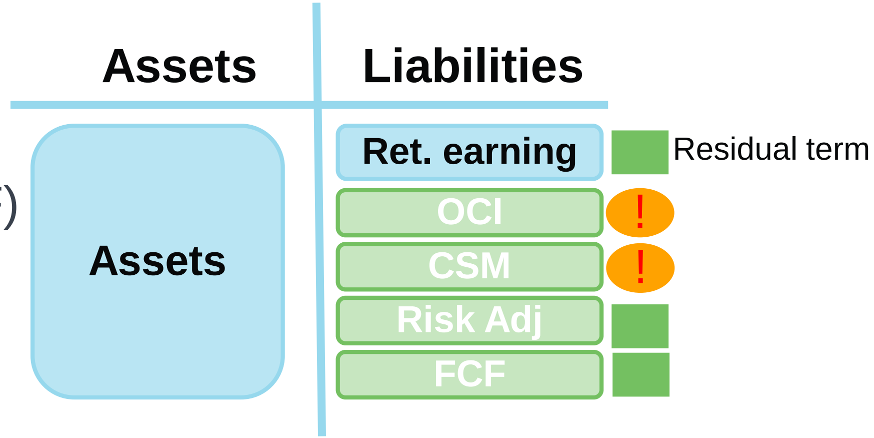
Full retrospective approach	Modified retrospective approach	Fair value approach
▪ Required where not ‘impracticable’ ▪ Requires day 1 data and assumptions and full history to date of transition ▪ If impracticable, choose between modified retrospective and fair value approach	▪ Retrospective with simplifications to address data gaps ▪ Simplifications can be applied on a piecemeal basis	▪ Comparison of fulfilment value to IFRS 13 fair value ▪ Could result in limited CSM and hence future profits ▪ Determination of fair value of insurance contract is unclear



Transition – BBA / VFA

Prospective determination:

- Risk adjustment
- Present value of future cash flows (PV FCF)

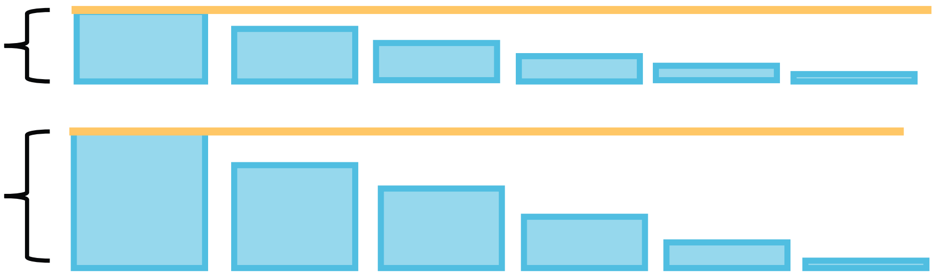


Retrospective determination:

- CSM
- OCI
- Product classification
- Unit of account

“Low” CSM at transition

“High” CSM at transition



Full Retrospective practicalities

Data

- How complete is the historic data? Is the format still usable/readable by current model?
- Has the data been enhanced over time, will more data need to be added to historic for current model to work?
- Are the model points consistent with the IFRS17 contract boundary? (eg: Where previously contract boundary was contract term but under IFRS 17 is one year)

Assumptions

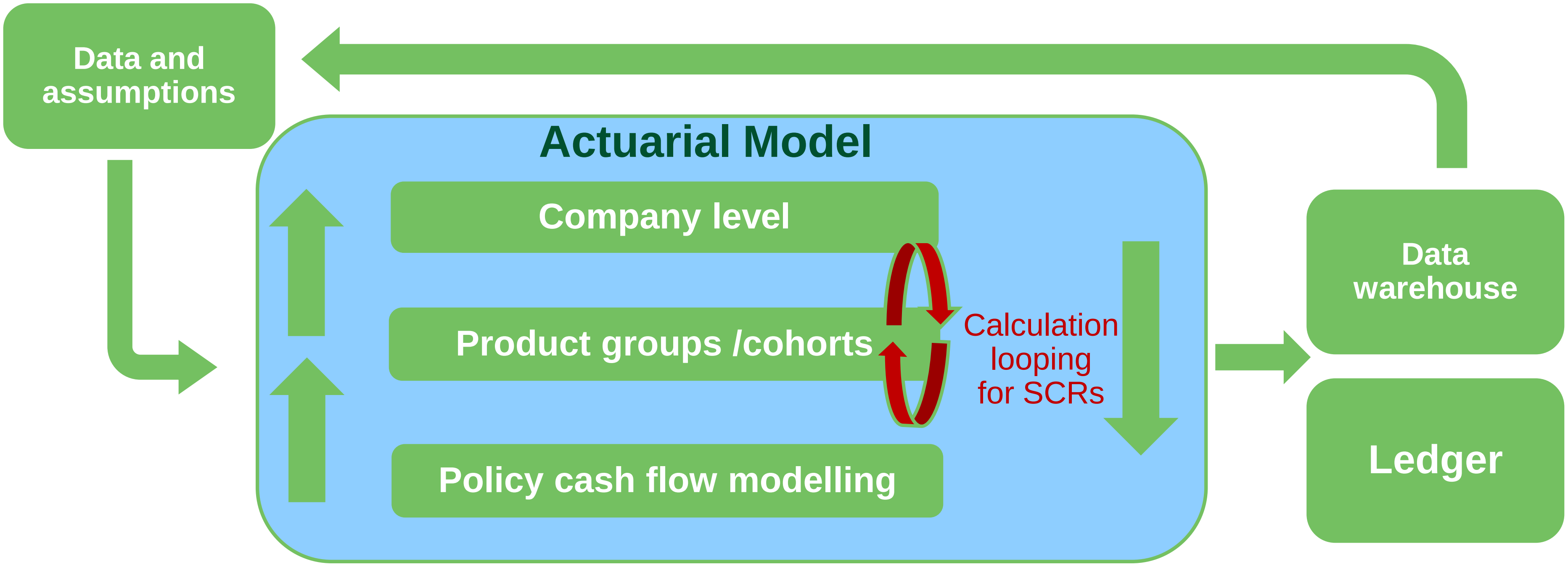
- What are the assumptions embedded in the model code?
- Is a history of these assumptions readily available? Must the history be built into the current model?

Modelling implications of IFRS 17

Considerations in moving from an existing Solvency II, GAAP or MCEV basis to a fully operational IFRS 17 model:

- Analyse differences between IFRS 17 and Solvency II
- Product grouping and cohorts
- Incorporation of the calculation and unlocking of CSM
- Period-to period dependency
- Cost of embedded options at granular level
- Movements between onerous/profit making contracts
- Risk adjustment calculated at cohort level
- Computer speed – consider integration of cloud computing and efficient implementation
- Increased data storage may be required

Modelling implications of IFRS 17



IFRS 17 Project Plan

2017	2018	2019	2020	2021
• *Training* • *Project scoping and planning* • *GAP analysis* • *Initial impact assessment* • *Product classification* • *Data collection*	• *Development of methodology and assumptions* • *Chart of accounts* • *Data definitions and storage* • *Reporting engines* • *Start with the modelling of high priority products* • *Systems and Technology*	• *Testing and implementation of tools and development of models for low priority products* • *Development of governance structure* • *Risk management on IFRS* • *Forecasting models*	• *Further testing and implementation of tools* • *Testing of entire valuation and reporting chain* • *Development of disclosures* • *Shadow runs* • *Collecting information for comparatives* • *Transition*	• **GO LIVE!!!**


Questions?
Comments?