Society of Actuaries in Ireland

IFRS 17 – VFA and PAA

15 November 2019

© Society of Actuaries
Disclaimer

The views expressed in this presentation are those of the presenter(s) and not necessarily of the Society of Actuaries in Ireland or of their employers.
Competency Framework

Attributes

Knowledge
- Actuarial standards
- Regulatory matters
- Industry issues
- Professionalism
- Judgment
- Resilience

Skills
- Commercial awareness
- Systematics
- Modeling
- Solution design
- Communication
- Risk management
- Accountability
- Collaboration
- Attributes
- Functional expertise

Resilience
IFRS 17 working groups – current members

**Life WG**
- Aidan Murphy
- Aileen Murphy
- Andrew Kay
- Caroline Lynch
- Ciara Fitzpatrick
- David MacCurtain
- Francis Furey
- Miriam King
- Niall Naughton (chair)
- Paraic Byrne

**Non-life WG**
- Cecilia Cheuk (chair)
- Darragh Pelly
- Deirdre O’Brien
- Joanne Lonergan

---

*What does IFRS 17 stand for?*

**International Financial Reporting Standards 17** is a set of international accounting standards that provide guidelines for the recognition, measurement, presentation, and disclosure of insurance contracts. These standards were introduced to enhance the comparability and consistency of financial reporting across countries, helping investors, creditors, and other stakeholders make more informed decisions.
Previously Covered

Slides and podcasts
• Introduction: https://web.actuaries.ie/events/2018/10/introduction-ifrs17
• GMM: https://web.actuaries.ie/events/2019/02/deeper-dive-ifrs17

Topics
• Scope of IFRS 17
• Contract classification (significant insurance risk transfer)
• Unbundling (distinct components?)
• Aggregation (profitable vs onerous contracts, portfolio groupings)
• Measurement models (Overview of GMM, PAA, VFA)
• GMM (PV of Future Cashflows, Risk Adjustment, Contractual Service Margin, Profit Emergence)
• Reinsurance (inward (“issued”) vs outward (“held”) reinsurance)
• Transition (full retrospective, modified retrospective or fair value approach)
• Presentation and disclosures (amounts, judgements and risks)
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AoC</td>
<td>Analysis of change</td>
</tr>
<tr>
<td>BBA</td>
<td>Building Block Approach</td>
</tr>
<tr>
<td>BEL</td>
<td>Best estimate liability</td>
</tr>
<tr>
<td>BoP</td>
<td>Beginning of period</td>
</tr>
<tr>
<td>CoA</td>
<td>Chart of accounts</td>
</tr>
<tr>
<td>CoC</td>
<td>Cost of capital</td>
</tr>
<tr>
<td>CSM</td>
<td>Contractual Service Margin</td>
</tr>
<tr>
<td>EFRAG</td>
<td>European Financial Reporting Advisory Group</td>
</tr>
<tr>
<td>EoP</td>
<td>End of period</td>
</tr>
<tr>
<td>GMM</td>
<td>General Measurement Model (GMM)</td>
</tr>
<tr>
<td>FCF</td>
<td>Fulfilment cash flows</td>
</tr>
<tr>
<td>FRA</td>
<td>Full retrospective application (on transition)</td>
</tr>
<tr>
<td>FVA</td>
<td>Fair value approach (on transition)</td>
</tr>
<tr>
<td>IASB</td>
<td>International Accounting Standards Board</td>
</tr>
<tr>
<td>MRA</td>
<td>Modified retrospective application (on transition)</td>
</tr>
<tr>
<td>OCI</td>
<td>Other comprehensive income</td>
</tr>
<tr>
<td>PAA</td>
<td>Premium Allocation Approach</td>
</tr>
<tr>
<td>RA</td>
<td>Risk Adjustment</td>
</tr>
<tr>
<td>RM</td>
<td>Risk margin under Solvency II</td>
</tr>
<tr>
<td>SII</td>
<td>Solvency II</td>
</tr>
<tr>
<td>TRG</td>
<td>Transition Resource Group</td>
</tr>
<tr>
<td>UoA</td>
<td>Unit of account</td>
</tr>
<tr>
<td>VFA</td>
<td>Variable Fee Approach</td>
</tr>
<tr>
<td>YE</td>
<td>Year-end</td>
</tr>
</tbody>
</table>
Agenda

• Introduction
  – Timeline
  – Previously covered
  – Recap of Which Measurement Model When
  – Recap of GMM (including concepts not modified for VFA)

• IFRS 17 Variable Fee Approach

• IFRS 17 Premium Allocation Approach
Expected timeline to go-live for IFRS 17

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Standard issued 18 May 2017</td>
</tr>
<tr>
<td>2019</td>
<td>Q2 IASB re-deliberation</td>
</tr>
<tr>
<td></td>
<td>ED published</td>
</tr>
<tr>
<td>2020</td>
<td>Consultation and re-deliberation</td>
</tr>
<tr>
<td></td>
<td>Final standard mid 2020?</td>
</tr>
<tr>
<td></td>
<td>Future Transition Resource Group (TRG) meetings to be confirmed (if any)</td>
</tr>
<tr>
<td></td>
<td>EFRAG endorsement advice</td>
</tr>
<tr>
<td></td>
<td>EU process</td>
</tr>
<tr>
<td></td>
<td>Standard endorsed?</td>
</tr>
<tr>
<td>2021</td>
<td>Proposed Effective date: 1 Jan 2022 / 2023?</td>
</tr>
<tr>
<td>2022 / 2023?</td>
<td>1st QE results: 31 March 2022 / 2023?</td>
</tr>
</tbody>
</table>

Key: IASB process | EU endorsement process
Which Measurement Model When?

**IFRS 17 Measurement Models**

### General Measurement Model

- Default approach
- Used at transition & live/production
- Both life & general insurance
- (aka “BBA”, Building Blocks Approach)

### Modifications to the General Measurement Model

#### Variable Fee Approach (mandatory)
- (Ins. Contracts with Direct Participation Features)
  - **MUST** be used, if at inception* of contract:
    1. Policyholder contractually participates in clearly identified pool of underlying items;
    2. Policyholder receives substantial share of the returns on the underlying items;
    3. Changes in policyholder benefits substantially vary with the change in underlying items.

#### Premium Allocation Approach (optional)
- (Liability for remaining coverage)
  - **MAY** be used, if at inception of group:
    1. not differ materially to GMM or
    2. coverage period of group is max one year. (Many GI contracts; possibly annual renewable life contracts.)

*For transition business this varies*
Which Model When – Likely Product Types

IFRS 17 Measurement Models

General Measurement Model

- Long term business
  - "Life" examples
    - Whole of life
    - Term assurance
    - Protection
    - Annuities
    - Reinsurance written
  - "Non-Life" examples
    - Multi-year motor
    - Warranty cover
    - Certain types of Loss Portfolio Transfers / Adverse Development Cover

- Modifications to the General Measurement Model

  Variable Fee Approach (mandatory)
  (Ins. Contracts with Direct Participation Features)
  - Unit linked (UL)
  - Variable annuity (VA) & equity index-linked contracts
  - Continental European 90/10 contracts
  - UK with profits contracts
  - Unitised with profits

  Judgements re possible breaches of VFA requirements:
  - For VA, guarantee aspects.
  - For UL, if death benefit sufficient to justify insurance contract treatment.
  - European “formulaic with profits”

- Premium Allocation Approach (optional)
  (Liability for remaining coverage)
  - Short term general insurance business
  - Short term life and certain group contracts

  Judgements re possible breaches of PAA requirements:
  - For annual renewable business, whether guarantee at renewal date

"Life" examples:
- Whole of life
- Term assurance
- Protection
- Annuities
- Reinsurance written

"Non-Life" examples:
- Multi-year motor
- Warranty cover
- Certain types of Loss Portfolio Transfers / Adverse Development Cover
Recap - General Measurement Model

- **General Measurement Model (GMM)** determines the insurance contract liability via component building blocks.

- **Fulfilment Cash Flows (FCF)**
  - Present value of future cash flows (PVCF)
  - Risk adjustment (RA)

- **Contractual Service Margin (CSM)**

- **Insurance Contract Liability**

- **Expected PV of cashflows**: premiums, claims, benefits, expenses etc

- **Entity specific assessment**: of uncertainty re amount and timing

- **Expected profit**, earned as services provided.
  - Adjusted for changes in **non-financial variables**
  - **Locked-in discount rate**
  - If negative, “Loss Component”
Present Value of Future Cashflows - Overview

Expected Future Cashflows:
- Based on current estimates
- Probability weighted
- Unbiased
- Stochastic modelling where required for financial options and guarantees

Time Value of Money
- Adjustment to convert the expected future cashflows into current values

Expected Future Cashflows should:
- Be within the boundary of the contract
- Relate directly to the fulfilment of the contract
- Include cashflows over which the entity has discretion
Which Cashflows?

Examples of cashflows to include:
- Claims and benefits paid to policyholders, plus associated costs
- Surrender and participating benefits
- Cashflows 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.
- Costs incur in providing an investment-return service or investment-related service
- Adjustment to convert the expected future cashflows into current values

Cashflows excluded:
- Investment returns
- Payments to and from reinsurers
- Cashflows that may arise from future contracts
- Acquisition costs not directly related to obtaining the portfolio of contracts
- Cashflows arising from abnormal amounts of wasted labour
- Other general overhead
- Income tax payments and receipts
- Cashflows from unbundled components
Attributable Acquisition Expenses

- All directly attributable acquisition expenses that can be allocated to the individual insurance contracts (or group) are included in the CSM calculations.
- Includes also costs that cannot be attributed directly to individual insurance contracts (or group) but are in the portfolio – should be allocated on a rational and consistent basis.
- Asset / liability set up for costs paid/received before group’s coverage period begins.

**EXAMPLES**
- Examples: External Commissions, Sales bonuses, Salary of sales team, Overhead of sales department.
- Acquisition costs that are not considered directly attributable to a portfolio of contracts would be expensed when they are incurred in profit or loss.

**WHEN RECOVERABILITY TESTING DOES NOT APPLY**
- Generally no recoverability testing before initial recognition of group.
- Implicit recovery testing through CSM calculation, if CSM < 0 then loss is recognised in P&L.

**WHEN RECOVERABILITY TESTING DOES APPLY**
- Development from January 2019 IASB – if acquisition costs incurred relate to cash flows outside contract boundary (e.g. future renewals), maintain asset for costs related to future renewals.
- Need to assess recoverability of asset each period until associated renewals recognised.
Contract Boundaries

Is the cash flow in the boundary of an insurance contract?

- No
  - Policyholder obliged to pay related premiums?
    - Yes
      - IN
    - No
      - OR
        - Yes
          - Practical ability to reprice risks of the particular policyholder to reflect the risks?
            - No
              - Yes
                - Practical ability to reprice portfolio of contracts to reflect the risks?
                  - No
                    - Yes
                      - Premiums reflect risks beyond the coverage period?
                        - Yes
                          - OUT
                        - No
                          - No

Criteria differs to Solvency II and hence contract boundary could differ particular instances:

“Even though Solvency II uses slightly different wording than IFRS 17 to express the objective, one cannot expect material differences to the resulting contract boundaries, other than in circumstances where the insurer has the legal right to reprice the premium for the re-assessed risk, but can reasonably justify the insurer does not have the practical ability to reprice.”

EIOPA’s analysis of IFRS 17 Insurance Contracts, October 2018
Discounting

Market Consistency:
- IFRS 17 requires insurers to use fair value and market-consistent approaches to liability valuations as the basis for reporting their accounts.
- Stochastic modelling approaches may be applicable for certain types of contracts.
- Careful consideration required in constructing the discount rates.
- Two approaches:
  - “Top-Down”
  - “Bottom-Up”
Risk Adjustment – Concept

The risk adjustment is the compensation that the entity requires for bearing the uncertainty about the amount and timing of the cash flows that arises from non-financial risk.

- Range of possible outcomes versus a fixed cashflow with same NPV are equal
- Entity’s internal view of non-financial risk
## Risk Margin vs. Risk Adjustment

<table>
<thead>
<tr>
<th>Solvency II Risk Margin</th>
<th>IFRS 17 Risk Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market plus regulatory</td>
<td>Entity plus financial statements</td>
</tr>
<tr>
<td>Prescribed calibration at 99.5% confidence interval</td>
<td>No prescribed calibration but must be disclosed</td>
</tr>
<tr>
<td>Based on the Solvency II cost of capital method</td>
<td>No prescribed method</td>
</tr>
<tr>
<td>The cost of capital rate used is prescribed by EIOPA</td>
<td>The cost of capital rate used is not prescribed</td>
</tr>
<tr>
<td>No group diversification for solo entity</td>
<td>Group diversification may be permitted for solo entity</td>
</tr>
<tr>
<td>Net of reinsurance basis</td>
<td>Separately for primary insurance and reinsurance contracts held</td>
</tr>
<tr>
<td>All the NH risks</td>
<td>Only insurance risks, lapse risk and expense risks</td>
</tr>
</tbody>
</table>
Risk Adjustment Approaches

- **Cost of Capital**
  - The Risk Adjustment is calculated as the discounted value of future capital for non-financial risk at required confidence interval multiplied by the company’s internal cost of capital.

- **Value at Risk**
  - Value at Risk (VAR) calculates the expected loss on a portfolio at a specified confidence level. This value less the discounted value of best estimate cashflows gives the Risk Adjustment.

- **Tail Value at Risk**
  - Tail VaR (TVaR) calculates the average expected loss on a portfolio given the loss has occurred above a specified confidence interval. This value less the discounted value of best estimate cashflows gives the Risk Adjustment.

- **Provision for Adverse Deviation**
  - Cashflows revalued using padded non-financial assumptions calibrated to reflect the company’s risks and chosen confidence level. The risk adjustment is the difference between this and the best estimate.
Contractual Service Margin – Concept

New concept under IFRS 17 – profit deferral mechanism measured at a “group” level

- Requirements of the GMM and the VFA are the same on initial recognition
- Offsets initial risk adjusted profits (excluding non-attributable expenses)
- Reduced over time to provide steady release of profits into P&L in line with service provided
- Absorbs changes for group profitability related to future service (e.g. basis changes)
- Cannot offset losses*, those hit P&L but recorded and tracked by a Loss Component

*Except for Reinsurance Held
CSM – Not a seriatim calculation

- CSM calculated for a “Group”
- Cash flows and risk adjustment measured for contracts in a group and combined to give risk adjusted profit for group
- CSM generated for the group to offset risk adjusted profit
- Added complexity where products contain guarantees that apply at a multiple group level

Key point: CSM is not a policy level concept. Calculated and measured for a group of contracts, not for a single contract.

- Systems development implications
Agenda

• Introduction

• IFRS 17 Variable Fee Approach
  – Eligibility Criteria
  – Contractual Service Margin
  – Profit Emergence & Illustrative Example
  – Risk Mitigation Exception

• IFRS 17 Premium Allocation Approach
Variable Fee Approach – Eligibility Criteria

- Developed to **address concerns of artificial volatility** in the P&L under the GMM approach for insurance (ie contain significant insurance risk) **contracts with payments that vary with return on underlying items**.

- Application is **not optional**, the **requirements to classify an insurance contract as one with direct participation features are prescribed** (more on next slide).

The conditions for VFA eligibility ensure that:

Entity’s obligation to the policyholder is the net of:

(a) Obligation to pay an amount equal to the fair value of the underlying items; &
(b) A variable fee the entity will deduct from (a) in exchange for future service provided comprising:
  (i) amount of entity’s share of fair value of he underlying items; less
  (ii) fulfilment cash flows that do not vary based on returns on underlying items

- **Reinsurance** contracts issued or held **cannot be insurance contracts with direct participation features**

- **Risk mitigation provides option** to report changes in embedded guarantees in P&L if certain criteria and documentation requirements are met.

- Some **accounting policy choices** for the presentation of financial statements under VFA and **specific disclosure requirements** including for example fair value of underlying, impact of risk mitigation.

- **Note on IFRS 17 Scope:**
  - IFRS 17 applies to **investment contracts with discretionary participation features**, provided the entity also issues insurance contracts. While assessment of VFA criteria would then be required, may generally expect the nature of such contracts would meet the VFA criteria.
## Variable Fee Approach – Eligibility Criteria

<table>
<thead>
<tr>
<th><strong>Insurance contracts</strong> that are substantially investment-related service contracts. Hence, for which:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Policyholder contractually participates in clearly identified pool of underlying items;</td>
</tr>
</tbody>
</table>
| (ii) Policyholder receives substantial share of the returns on the underlying items;  
   and |
| (iii) Changes in policyholder benefits substantially vary with the change in underlying items. |

<table>
<thead>
<tr>
<th>Underlying items may comprise a portfolio of assets, net assets of the entity or a subset of assets of the entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not necessary for insurer to hold the identified pool of underlying items, so long as clearly identified by the contract</td>
</tr>
<tr>
<td>Does not preclude entity’s discretion to vary amounts paid to policyholder, but link must be enforceable</td>
</tr>
<tr>
<td>Entity compensated by a fee determined by reference to underlying items.</td>
</tr>
<tr>
<td><strong>Not</strong> a contract with direct participation features if the entity can change the items with retrospective effect or no underlying items are identified</td>
</tr>
</tbody>
</table>

For (ii) and (iii) interpret ‘substantial’ in context of objective that an entity provides investment-related services and is compensated by a fee determined with reference to underlying items

For (ii) and (iii) assess variability over duration of a contract and on a present value probability-weighed average basis

Under (ii) consideration of policyholder share may include fixed charges an entity may deduct from the share in return for providing benefits

Under (iii) consideration of policyholder benefits may be scenarios where payment would vary and others where it would not (example a minimum return guarantee)

**Reinsurance** contracts issued or held **cannot be insurance contracts with direct participation features**
Variable Fee Approach – Overview

- **Variable Fee Approach (VFA)** determines the insurance contract liability via component building blocks.

**Insurance Contract Liability**

- **Fulfilment Cash Flows (FCF)**
  - Present value of future cash flows (PVCF)
  - Risk adjustment (RA)

- **Contractual Service Margin (CSM)**

- **Loss Component**
  - Expected PV of cashflows: premiums, claims, benefits, expenses etc.
  - Entity specific assessment of uncertainty re amount and timing

- **Expected profit, earned as services provided.**
- **Adjusted for change in amount of entity’s share of underlying.**
- **Adjusted for changes in financial and non-financial variables.**
- **If negative, “Loss Component”**
• CSM on initial recognition offsets risk-adjusted profits for the group.

• Expected cashflows @ best estimate assumptions.
  ➢ Total inflows of 100 including entity’s expected share of the underlying, outflows of 50.
  ➢ Excluding time value of money.

• Time value calculated @ current discount rates.
  ➢ The impact overall was positive 30.
  ➢ Could be positive / negative depending on the cashflow pattern.

• Risk adjustment calculated using one of the methods described previously.
  ➢ The impact was negative 20.

• Other cashflows not included in the FCFs included such as pre-recognition cashflows:
  ➢ Attributable acquisition cash flows
  ➢ Other day 1 cash flows

• Risk adjusted profit for group = 30, so a CSM of 30 is generated to offset this.
Graphical illustration of subsequent measurement of CSM over a period under **GMM**: 

- **New Business** - only occurs when group is still forming an annual cohort
- **Interest accretion** on the CSM balance based on a “locked-in” rate.
- **Changes for future services**:
  - Do **not** include changes due to **financial risk** or changes for past/current service
  - Are measured at “locked-in” rate
- Closing CSM represents the remaining risk-adjusted profits on the group which relates to future service
Variable Fee Approach – Subsequent Measurement

### Comparison of subsequent measurement of CSM under GMM vs VFA

<table>
<thead>
<tr>
<th>General Measurement Model</th>
<th>Variable Fee Approach</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Business</td>
<td>New Business</td>
<td>Both models adjust the CSM for new business added in the period</td>
</tr>
<tr>
<td>Exchange Rate Movements</td>
<td>Exchange Rate Movements</td>
<td>Both models adjust the CSM for the impact of changes in exchange rates</td>
</tr>
<tr>
<td>Cannot go negative</td>
<td>Cannot go negative</td>
<td>The CSM cannot go negative for GMM or VFA. Movements in excess of the CSM impact the P&amp;L and are tracked as a loss component</td>
</tr>
<tr>
<td>Amortisation of CSM into P&amp;L</td>
<td>Amortisation of CSM into P&amp;L</td>
<td>Both amortise for insurance services. VFA includes “investment-related” vs. GMM “investment return” services. Not clear if these achieve the same result.</td>
</tr>
<tr>
<td>Interest accretion at locked in inception rates</td>
<td>No explicit interest accretion</td>
<td>CSM in GMM is increased for interest at rates locked in from initial recognition. CSM in VFA is adjusted for changes in the effect of discounting on FCFs.</td>
</tr>
<tr>
<td>Changes in FCFs for future service exclude financial</td>
<td>Changes in FCFs for future service include financial</td>
<td>For VFA, changes in FCFs due to discount rates and financial risks relate to future service and adjust the CSM. The GMM does not include these.</td>
</tr>
<tr>
<td>Component movements of CSM reported separately</td>
<td>Some/all of component movements can be combined</td>
<td>Under the GMM, each component of the subsequent measurement of the CSM must be reported separately. Under the VFA some/all of them can be combined.</td>
</tr>
<tr>
<td>No further exceptions for adjustment of CSM for future service</td>
<td>Some exception permitted where risk mitigation in place which affects the P&amp;L</td>
<td>Under the VFA, an exception is permitted to not allocate a change in future service to the CSM where risk mitigation is in place which impacts P&amp;L</td>
</tr>
</tbody>
</table>
• Graphical illustration of subsequent measurement of CSM over a period under VFA.
• Note that an entity is not required to identify the adjustments separately when applying VFA, so may determine a combined amount for some or all adjustments.
CSM – Subsequent Measurement Example

- The opening CSM balance is the closing CSM balance from the previous reporting period.
The CSM for new business recognised during the period is added.
This is measured as described previously.
Only occurs when group is still forming an annual cohort.
The change in the amount of the entity’s share of the fair value of the underlying adjusts the CSM (subject to CSM being floored at a minimum of nil).

The change in the obligation to pay policyholder an amount equal to the fair value of the underlying items does not relate to future service and does not adjust the CSM.
The CSM is adjusted for changes in the fulfilment cash flows that relate to future service that don’t vary based on the returns on the underlying items.

This includes changes in effect of time value of money and financial risks (not arising from underlying) as these relate to future service.

Other changes in the FCFs are assessed similar to the GMM to determine if they relate to future service, but the impact of those changes is measured at current rates.

This is to reflect the nature of the entity’s compensation for these products which is inherently variable.
CSM – Subsequent Measurement Example

- Update for the effect of any currency exchange differences on the CSM
CSM – Subsequent Measurement Example

- The total CSM after all changes is aggregated. This balance is then amortised for insurance and investment-related services provided in the period. The amount amortised is released into the P&L as profits recognised.
- Different methods can be used to recognised service provided, e.g.:
  - Reflect policyholder benefits e.g. could be max of account value and sum insured now vs future (investment-related services)
  - Policy count in period vs. all future expected policy counts
  - Can be discounted or undiscounted

CSM after all changes = 60
Service in period = 1 unit
PV expected future service = 3 units
Amortisation = 60 * (1/3) = 20
• Closing CSM balance combines all of the component movements.
• This represents the remaining risk-adjusted profits on the group which relates to future service.
• This will be released as profit in the future as the service is provided.
**CSM – Subsequent Measurement Summary**

<table>
<thead>
<tr>
<th>Variable Fee Approach</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opening CSM Balance</strong></td>
<td>Per Paragraph 44 of the IFRS 17 standard, the starting point for the re-measuring the CSM is to take the closing CSM balance from the previous period.</td>
</tr>
<tr>
<td><strong>New Business</strong></td>
<td>The CSM is adjusted for the impact of new business added to the group in the period, measured using the initial recognition approach detailed previously.</td>
</tr>
<tr>
<td><strong>Change in entity’s share of the fair value of underlying</strong></td>
<td>CSM is adjusted for change in the amount of the entity’s share in the underlying items (Paragraphs 45 &amp; B112).</td>
</tr>
<tr>
<td><strong>Change in FCFs that do not vary based on returns on underlying items</strong></td>
<td>CSM is adjusted for changes in fulfilment cash flows related to future service that do not vary based on the return of the underlying items, including change in effect of time value of money and financial risks not arising from underlying items as well as changes arising from non financial risk. (Paragraphs 45 &amp; B113).</td>
</tr>
<tr>
<td><strong>Exchange Rate Movements</strong></td>
<td>The CSM is updated for the effect of any currency exchange differences.</td>
</tr>
<tr>
<td><strong>Apply Zero Floor</strong></td>
<td>The CSM is floored to zero, it cannot be an asset to offset future loses (except for Reinsurance Contracts Held).</td>
</tr>
<tr>
<td><strong>Amortisation of CSM into P&amp;L</strong></td>
<td>The CSM is amortised to reflect the services provided in the period. This is for insurance services and investment related-services provided.</td>
</tr>
</tbody>
</table>

**Closing CSM Balance**

Under VFA - some or all of the component movements of the CSM can be presented as a single amount rather than disclosed separately.
Loss Component

- CSM only for deferral of future risk adjusted profits.
- If losses identified, they are immediately recognised in P&L.
- These losses are tracked as a “loss component”. Group can only have a CSM or a Loss Component at any one point in time, but can move between both regularly.

### When is Loss Component generated?

- On initial recognition: Group FCFs + pre-recognition cashflows are negative. This would likely form an “onerous group”
- On subsequent measurement: Group had CSM, but due to adjustments, e.g. a significant negative basis change, now viewed as loss making. This could be for an “onerous” or “non-onerous” group.

**Note:** Loss component not necessarily negative equity impact. The risk adjustment also represents unearned profit (compensation for risk) and when released without any adverse experience, may exceed the loss component.
Loss Component - Examples

Loss Component on Initial Recognition

Initial recognition: Present value of cash outflows and risk adjustment exceed inflows – the loss amount is recognised in P&L and loss component established and tracked.

Loss Component on Subsequent Measurement

Subsequent measurement: A group here had expected future profits at the start of the period. However a change related to future service had a large negative impact (e.g. basis update) and eliminated the CSM. The excess hits the P&L and is tracked as a loss component.
Once recognised, the loss component is tracked over time:

- To monitor potential subsequent positive developments and know if/when to (re-)establish a CSM
- Presentation of revenue and expenses in the P&L needs to be adjusted for any losses already recognised
  - Loss component needs to be allocated in each period for presentation of revenue and expenses in the financial statements.
  - This can follow a similar method to CSM, or use other methods

In the next 2 time periods there are no changes. Claims emerge, but these are partially reduced because a component of those claims has already been recognised in the loss component of 60. The write down of 10 in the loss component in each period reduces claims.

When Loss component first recognised – negative 60 hits the P&L.

In period 3 there is a positive basis change. This is used to eliminate any remaining loss component first, and then generates a CSM.
Profit Emergence under IFRS 17

- Profit emergence for a group of contracts under IFRS 17 comes from several sources including:
  - Release of risk adjustment – the “entity’s compensation for accepting non financial risk”
  - Release of CSM – the remaining risk-adjusted profit on the portfolio
  - Experience variance “noise”

- An illustrative example of VFA compared to GMM follows.

- The following slides provide a summary of impact of level of aggregation and coverage units. More detailed examples of impact of level aggregation and choice of coverage units were provided in the Deeper Dive IFRS 17 at April 2019.
The CSM is measured for a group of insurance contracts.

Once recognised the risk-adjusted profitability (excluding non-attributable expenses) in that group establishes a CSM and is released into the P&L over the period services are provided for the group collectively.

Different products in a group may have significantly different profitability per coverage unit

- The profit release profile may not look sensible.

IFRS 17 permits an entity to create groups more granular than specified above (criteria in Paragraph 21)

- Forming more groups may improve profit emergence, but it will also have systems and data storage impacts as well.
**Key Aim?**
- **Measure “service”**
  - “Service” is the insurer standing ready to pay claims.
  - Challenge is the variety of benefit types, benefit amounts, remaining term, claim likelihood, profitability ... etc within a group of contracts.
  - Judgement and estimates, applied systematically and rationally.
  - CSM amount is allocated **equally** to each coverage unit
  - **Not** expected average claims cost or claim likelihood!

**How?**
- **Quantity of Benefit**
  - Amount that **can** be claimed by a policyholder
  - Variability across periods e.g. if max benefit decreases over time.
- **Expected coverage duration**
  - Term of remaining coverage, adjusted for expected decrements.

---

**Quantity of Benefits e.g. Max of (Sum Insured, Unit Fund)**

- €100
- $\sum = €550$

**Year**

- $0$
- $1$
- $2$
- $3$
- $4$
- $5$
- $6$
- $7$
- $8$
- $9$
- $10$

“Coverage units” establish the amount of the CSM recognised in P&L in the period for a group.
**CU – Other Considerations**

<table>
<thead>
<tr>
<th>Not Valid</th>
<th>Some notable aspects likely not appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Cashflows – unless demonstrate that reflective of service rather than expected claims.</td>
</tr>
<tr>
<td></td>
<td>• Premiums – not allowed unless reasonable proxy for service in period.</td>
</tr>
<tr>
<td></td>
<td>(For example <strong>not</strong> ok if: timing difference premium versus service; premiums more reflect different probability of claims; premiums more reflect different profitability.)</td>
</tr>
<tr>
<td></td>
<td>• Entity’s asset performance influence (if no investment component).</td>
</tr>
<tr>
<td></td>
<td>• Any approach where no allocation of CSM to a period where entity is standing ready to meet claims.</td>
</tr>
</tbody>
</table>
## CU – Recognition of CSM in P&L

### Ongoing Re-assessment
- At end each period (before any CSM allocation for the period), reassess the expected coverage units and duration.
- Re-allocate CSM equally to each coverage unit (in current period and future periods).

### P&L Recognise CSM
- For each period, recognise the amount of CSM (for the group) for coverage units allocated to that period.

### Disclosure Coverage units relevant
- Explanation of when entity expects to recognise the CSM in the future (either via time bands, or qualitative info)
- General requirement to disclose significant judgements, proposed amendment to ED includes approach to relative weighting of insurance and investment-related service.
Illustrative Example – GMM vs VFA

• **Illustrative example** showing explicit interest accretion under GMM vs. implicit interest accretion under VFA and the impact of a financial market variance on CSM. Assumes entity accounting fair value through P&L.

• To simplify illustration and does not include all elements required for VFA eligibility criteria.
  – 10 year wealth management product investing €105,000, GMDB 105% of premium.
  – Policy will mature at end of 10 years and be paid fund value.
  – Allocation to fund €100,000, fund grows at expected rate of 5%.
  – Market consistent valuation and all cash flows are fund related (or vary with markets), so discounted at 5% (MC stochastic valuation for GMBD).
  – Charge of 2% per annum in arrears, expected deaths 1% per annum in arrears.
  – Coverage units assume equal service each period.
  – CSM = €14,020.

<table>
<thead>
<tr>
<th>Initial Recognition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium</td>
<td>€ 105,000</td>
</tr>
<tr>
<td>Allocation to Fund</td>
<td>-€ 100,000</td>
</tr>
<tr>
<td>Acquisition Expense</td>
<td>-€ 1,000</td>
</tr>
<tr>
<td>NPV Charges</td>
<td>€ 17,520</td>
</tr>
<tr>
<td>GMDB liability</td>
<td>-€ 5,000</td>
</tr>
<tr>
<td>Establish Risk Adjustment</td>
<td>-€ 2,500</td>
</tr>
<tr>
<td>CSM</td>
<td>€ 14,020</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit Fund at initial recognition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Liability</td>
</tr>
<tr>
<td>Asset Value</td>
</tr>
</tbody>
</table>
Projected CSM profile expected to be similar if experience emerges as expected

**CSM Balance**

Aggregate earnings of the life of the contracts must be equal.

Broadly similar recognition profile over the 10 years.

Expected earnings include a risk adjustment release which is equal under both models.

CSM balance run off differs slightly due to assumptions as:

- Interest accretion applied to opening CSM balance under GMM, vs
- Impact of change in entity’s share (PV charges) and time value of money on FCFs on VFA.
• In year 3, the return on the underlying items is -10%, whereas we expected +5%.
• Assume that the entity does not hedge/reinsure financial risk.

Illustrative Example – GMM vs VFA

CSM Balance

GMM approach:
1) CSM run off is not affected by financial risk (same run off profile as base scenario).
2) Year 3 earnings loss driven by impact of market risk on liabilities.

VFA approach:
1) CSM balance drops as it absorbs impact of market risk on liabilities.
2) Earnings drop reflecting lower CSM balance to be amortised, but remain relatively stable over the remaining term.

...but what if the entity has hedged/reinsured financial risk?
Variable Fee Approach – Risk Mitigation Exception

- **Risk Mitigation Exception**: In general, as we have seen changes related to future service adjust the CSM including changes in financial risk and the effect of time value of money.
  - If an entity is hedging or reinsuring some of those risks, an accounting mismatch may be introduced.
    - Reinsurance cannot be measured using the VFA. Its CSM is not adjusted for changes in time value of money or financial risk – these changes hit P&L
    - Derivatives shown as fair value through P&L will hit P&L
    - Corresponding movements in underlying liability will affect CSM if VFA and do not hit P&L.
  - VFA permits an entity to not adjust the CSM for some changes in future service under certain conditions
    - Risk mitigation must be a derivative or reinsurance held contract (proposed June 2019)
    - Previously documented risk management objective & strategy for products
    - Needs to be an economic offset
    - Credit risk isn’t the main risk mitigated.

  - In addition to proposed extension to reinsurance held, the June 2019 ED proposes:
    - Risk mitigation may be applied prospectively on or after transition date (if eligible)
    - Allows entity to apply fair value transition approach to VFA groups if entity chooses to apply risk mitigation option at transition date and meets risk mitigation eligibility criteria by transition date.
**Risk Mitigation Exception**: In general, under VFA model changes related to future service adjust the CSM including changes in financial risk / time value of money.

- **VFA P&L Risk Mitigation Exception**: Changes which relate to risks that are mitigated no longer adjust CSM.
- **Standard VFA P&L**: CSM adjusted for changes in time value of money / financial risks and effect of same.
- **P&L for Risk Mitigation Instrument**: Reinsurance = change in financial risk to P&L. Derivative = Fair Value in P&L
- **Meet RME criteria?**
Now assume that the entity has hedged financial risk of GMBD.

In year 3, the return on the underlying items is -10%, whereas we expected +5%.

**Illustrative Example – VFA – Hedged Risk?**

**VFA without** risk mitigation exception:
1) CSM balance falls as it absorbs full impact of market risk on liabilities.
2) Earnings less stable (gain on hedge instrument in year 3)

**VFA with** risk mitigation exception:
1) CSM balance falls to a lesser extent as impact of on market risks that are mitigated no longer adjusts CSM.
2) Earnings appear more stable.
Agenda

- Introduction
- IFRS 17 Variable Fee Approach
- IFRS 17 Premium Allocation Approach
Introduction to the PAA

PAA vs BBA – What are the differences between the two models?

The general model: Building blocks approach (BBA)

Measurement objective is to quantify the notion of the insurer's “fulfilment of obligations under the contract”

- **Block 1:** Best estimate cash flows
- **Block 2:** Discounting
- **Block 3:** Risk Adjustment
- **Block 4:** Contractual Service Margin

**Total IFRS Insurance Liability**

- **‘Fulfilment cash flows’**
- **Obligation to provide service, measured at inception as the expected contract profit**

**Simplified approach:**

Premium allocation approach (PAA)

Simplified approach to measuring the value of insurance contracts if eligibility criteria is met.

- **Total IFRS Insurance Liability**
  - **Pre-claims**
    - Premiums receivable
    - Less acquisition costs
  - **Post-claims**
    - ‘Fulfilment cash flows’

- **Block 3:** Risk Adjustment
- **Block 2:** Discounting
- **Block 1:** Best estimate cash flows

**Building blocks approach (BBA) still applied for post-claims reserves.**

Akin to UPR approach
### Introduction to the PAA

#### PAA vs BBA – What are the differences between the two models?

<table>
<thead>
<tr>
<th>Coverage Period</th>
<th>Premium Allocation Approach</th>
<th>Building Block Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day 0</strong></td>
<td>Includes concept similar to UPR and DAC (however new definition of directly attributable expenses).</td>
<td>Consists of discounted present value of future cashflows (including premium, claims and expenses), Risk Adjustment and Contractual Service Margin (CSM).</td>
</tr>
<tr>
<td><strong>During the coverage period (e.g.: 6 months from inception)</strong></td>
<td>Unexpired risk: consists of UPR and unamortised cost of acquisition cost. Expired Risk: modelled using Building Block Approach</td>
<td>Unexpired Risk: CSM is only applicable for unexpired risk and other elements are same as expired risk. Expired risk: modelled using BBA approach</td>
</tr>
<tr>
<td><strong>End of coverage period</strong></td>
<td>No unexpired risk and only future cashflows are modelled using BBA. At this point the technical provisions are equal between PAA and BBA.</td>
<td>No difference as compared to PAA.</td>
</tr>
</tbody>
</table>
Introduction to the PAA

PAA vs BBA – What are the differences between the two models?

Discounting
- If the coverage period is one year or less then the LfRC does not need to be discounted
- LfRC - Locked in yield curves
- If the time between the claim being incurred and the claim being settled is less than a year, then the LfIC does not need to be discounted
- Materiality?

Insurance Acquisition Cashflows
- Paragraph 59 (a): if coverage period of the contract is no more than a year then insurance acquisition costs can be recognised as they are incurred
- BBA: amortised in line with the CSM

Onerous Contracts
- No requirement for explicit onerous test at initial recognition
- Facts and circumstances
- Onerous Liability: LfRC under the PAA – LfRC under the BBA
Introduction to the PAA

PAA vs BBA – How is the LfRC under the PAA calculated?

<table>
<thead>
<tr>
<th>PAA Insurance Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liability at initial Recognition</strong></td>
</tr>
<tr>
<td>+ Premium received at initial recognition</td>
</tr>
<tr>
<td>- Insurance acquisition cash flows</td>
</tr>
<tr>
<td>+ Any onerous contract liability recognised</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Liability at each subsequent reporting period</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Previous Liability</td>
</tr>
<tr>
<td>+ Premiums received in the period</td>
</tr>
<tr>
<td>- Insurance acquisition cash flows</td>
</tr>
<tr>
<td>+ Any onerous contract liability recognised</td>
</tr>
<tr>
<td>- Amount recognised as insurance revenue for the coverage provided in that period</td>
</tr>
<tr>
<td>+ Amount recognised as the amortisation of acquisition cash flows</td>
</tr>
<tr>
<td>+ Any adjustment to reflect the time value of money (if applicable)</td>
</tr>
</tbody>
</table>
Introduction to the PAA

What are the criteria for using the PAA model?

1. If it would be a **reasonable approximation** to BBA and the coverage period at initial recognition is more than one year

2. If the **coverage period at initial recognition is one year or less**

1 is **not** met if at the inception of the group an entity expects **significant variability** in the fulfilment cash flows that would affect the measurement of the liability for remaining coverage during the period before a claim is incurred.

Applicable for yearly-renewable term life and short-term health rider products.
PAA Eligibility Testing

1. Determine materiality threshold
2. Perform Eligibility Scoring
3. Decision between PAA and BBA
4. Review Eligibility

Consideration of several factors:

- Nature and size of business
- Length of cohort lifetime and volatility of claims experience
- Discussion with auditors
- Risk appetite of insurer
- Market trends

Eligibility scoring is based on PAA/BBA differences of **Gross** Liability for Remaining Coverage (LfRC) at initial recognition from base and various sensitivity scenarios:

- Insurer will have to decide the ‘passing’ mark of scoring and weightage of each sensitivity scenario in scoring
PAA Eligibility Testing

1. Determine materiality threshold
2. Perform Eligibility Scoring
3. Decision between PAA and BBA
4. Review Eligibility

- Determine whether a cohort is eligible for PAA by referring to eligibility score and pre-determined ‘passing’ score
- What if the cohort is onerous at initial recognition?

- Does eligibility testing need to be carried out for new underwriting cohorts of the same product?
  - Use of sensitivity parameters
PAA Eligibility Testing

- Eligibility Scoring
- Onerous Contracts
- Financial Impact
- Explanation of Movements
- Process
- Retrocession
- Architecture
PAA vs BBA

**Implication:**
- New process required to be set up for eligibility testing.
- Eligibility testing requires a projection of the LfRC under both the PAA and the BBA.
- Materiality thresholds need to be set to quantify the % deviation allowed. Would be required to do on an ongoing basis, potentially annually.

**Comparison with BBA:**
- No eligibility testing required.
- Do not need to provide the auditors with the rationale for using the BBA rather than the PAA.

**Discussion**
- Not expected to be any financial impact in applying the PAA versus the BBA.
**Requirement:**
- Can assume that contracts in a group are profitable unless facts and circumstances indicate otherwise.
- If a group of contracts becomes onerous during the coverage period => a loss component is required to be set up.
- FCF’s => risk adjustment for unearned exposure and cashflow functionality.
- Loss component

**Implication:**
- BBA mechanism required in the case where a group of contracts is onerous.
- Facts and circumstances to be defined.
- Ability of the selected architecture to store and apply the facts and circumstances?
- Two sets of data
- Requirement to track and unwind the loss component still applicable
### PAA vs BBA

#### Discussion:
- From a process perspective, the PAA may be easier to implement. However, this is assuming that the PAA can be applied to all of the non life business.
- What if one portion of the book is eligible for the PAA but not another portion?
- Does a significant portion of the book require eligibility testing?
- A process for calculating the LfRC under the BBA will be required for both eligibility testing and onerous loss component, even if the PAA model is selected.
- Is data/functionality required to produce the BBA already present?

#### Liability for Incurred Claims:
1. Same under both the BBA and the PAA, i.e. cashflows plus RA
2. Discounting – simplification met?

#### Liability for Remaining Coverage:
1. Additional BBA data elements : coverage units plus AoC for CSM
2. Simplification: Discounting
3. Eligibility Testing: in this case two sets of data are required
4. Onerous Testing: as per eligibility testing above.
PAA vs BBA

**Requirement**
- CSM is required to be rolled forward at each valuation date according to a prescribed formula.
- Disclosures for business using the BBA or the PAA discussed later.
- Disclosures relating to the CSM are not required for the PAA.
- The reconciliation between the opening and closing balance of the LfRC is required under both the BBA and the PAA.
- There are three additional disclosures required for the PAA.

**Discussion**
- Easier to explain the movements in the LfRC under the PAA
- However, IFRS 17 in general does require an education of all of your stakeholders. Consistency of logic.
- Can you leverage your engine to set up your AoC, reconciliations etc?
**Reinsurance**

**Requirements:**
- Eligibility testing required to be performed separately for the reinsurance contracts.

**Discussion:**
- Do not want to end up in a scenario where the assumed business is applying one measurement model and the reinsurance business is applying another. What % of your reinsurance contracts have a coverage period of one year or less?
- What basis are your reinsurance contracts written on? How are they structured?

---

**Architecture**

**Discussion**
- Different feeds of data required to feed the IAS engine depending on whether it is the PAA or the BBA.
- Eligibility Testing/Onerous Loss Component: in these case two sets of data are required => change from usual quarter to quarter process
- Leveraging the SII process
PAA vs BBA

Factors impacting eligibility testing:
• Claims experience
• Duration and pattern of run off of liabilities
• Level of discount rate
• Amortisation pattern of CSM
• Risk adjustment

Which model are we seeing insurers choose, when they have the option?
• Non Life insurers
• Life insurers
• Composite insurers
• Reinsurers
PAA vs BBA

What are the issues that the PAA does not negate?

- Unit of account
- Contract boundaries
- Risk adjustment
- Reinsurance contracts – allowing for contracts that have not yet been written
- Offsetting of loss component
- Identification of directly attributable expenses
- Approach to discounting – unless simplification is met (future proofing?)

What are the issues that the PAA negates?

- CSM
- Coverage Units
- Risk adjustment for unearned exposure
- Explanation of movements between one reporting period and the next is easier
Disclosure Requirements – PAA vs BBA

What are the additional disclosure requirements required by the BBA versus the PAA?

An entity must disclose qualitative and quantitative information about:

1. **Explanation of recognised amounts**
   - The amounts recognised in F/S that arise from insurance contracts
   - New IFRS 17 requirements

2. **Significant judgements**
   - The significant judgements, and their changes
   - Some requirements brought forward from IFRS 4

3. **Risks**
   - The nature and extent of risks that arise from insurance contracts
   - Most requirements brought forward from IFRS 4
Disclosure Requirements – PAA vs BBA

What are the additional disclosure requirements required by the BBA versus the PAA?

<table>
<thead>
<tr>
<th>Paragraph Number</th>
<th>Overview of Disclosure</th>
<th>Applicable to PAA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>Three additional disclosures for PAA</td>
<td>✓ Yes</td>
</tr>
<tr>
<td>98</td>
<td>Change in net carrying amount of contracts due to cashflows and income/expenses recognised</td>
<td>✓ Yes</td>
</tr>
<tr>
<td>99</td>
<td>Structure requirements</td>
<td>✓ Yes</td>
</tr>
<tr>
<td>100</td>
<td>AoC for LfRC, Loss component and LIC</td>
<td>✓ Yes</td>
</tr>
<tr>
<td>101</td>
<td>AoC for PVFCF, RA and CSM</td>
<td>× No</td>
</tr>
<tr>
<td>102</td>
<td>Objective</td>
<td>✓ Yes</td>
</tr>
<tr>
<td>103</td>
<td>Insurance Revenue and Insurance Service Expenses</td>
<td>✓ Yes</td>
</tr>
<tr>
<td>104</td>
<td>Split of change in future vs current vs past service</td>
<td>✓ Yes</td>
</tr>
<tr>
<td>105</td>
<td>Cashflows in the period, change in non performance risk, IFE</td>
<td>✓ Yes</td>
</tr>
<tr>
<td>106</td>
<td>Breakdown of LfRC into ISE/risk adjustment/CSM</td>
<td>× No</td>
</tr>
<tr>
<td>107</td>
<td>PvFCF, RA and CSM</td>
<td>× No</td>
</tr>
<tr>
<td>108</td>
<td>Contracts acquired and onerous contracts</td>
<td>× No</td>
</tr>
<tr>
<td>109</td>
<td>Recognition of CSM</td>
<td>× No</td>
</tr>
</tbody>
</table>

Key Points:

- The disclosures not applicable to the PAA mainly relate to the CSM.
- However the structure for producing these disclosures will already be set up in the CSM calculation engine.
- Three additional disclosure required for the PAA that are not required for the BBA.
  1. Criteria satisfied
  2. Adjustment for time value of money and effect of financial risk
  3. Insurance acquisition cash flows
What are the additional disclosure requirements required by the BBA versus the PAA?

Source IASB Effects Analysis

<table>
<thead>
<tr>
<th>Liabilities for remaining coverage</th>
<th>Excluding onerous contracts component</th>
<th>Onerous contracts component</th>
<th>Liabilities for incurred claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance contract liabilities 20X0</td>
<td>161,938</td>
<td>15,387</td>
<td>1,021</td>
</tr>
<tr>
<td>Insurance revenue</td>
<td>(9,856)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance service expenses</td>
<td>1,259</td>
<td>(623)</td>
<td>7,985</td>
</tr>
<tr>
<td>In incurred claims and other expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition expenses</td>
<td></td>
<td>1,259</td>
<td>7,945</td>
</tr>
<tr>
<td>Changes that relate to future service: losses on onerous contracts and reversals of those losses</td>
<td></td>
<td>217</td>
<td></td>
</tr>
<tr>
<td>Changes that relate to past service: changes to liabilities for incurred claims</td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Investment component</td>
<td>(6,465)</td>
<td></td>
<td>6,465</td>
</tr>
<tr>
<td>Insurance service result</td>
<td>(15,062)</td>
<td>(623)</td>
<td>14,450</td>
</tr>
<tr>
<td>Insurance finance expenses</td>
<td>8,393</td>
<td>860</td>
<td>55</td>
</tr>
<tr>
<td>Total changes in the statement of comprehensive income</td>
<td>(6,669)</td>
<td>237</td>
<td>14,505</td>
</tr>
<tr>
<td>Cash flows</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premiums received</td>
<td>13,570</td>
<td></td>
<td>(14,336)</td>
</tr>
<tr>
<td>Claims and other expenses paid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition cash flows paid</td>
<td>(401)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total cash flows</td>
<td>33,169</td>
<td></td>
<td>(14,336)</td>
</tr>
<tr>
<td>Insurance contract liabilities 20X1</td>
<td>188,438</td>
<td>16,096</td>
<td>1,190</td>
</tr>
</tbody>
</table>
PAA Example

Non-Life

Motor

1 - year

Reinsured

Construction

3 - year

Reinsured

Financial Presentation

IFRS17 Groupings

Financial Data
**STEP 1:**
Identify “Portfolios”...

insurance contracts subject to **similar risks** and **managed together**:

- P1 - Motor
- P2 - Construction

**STEP 2:**
Aggregate policies into “Cohorts”... based on **profitability** and **issuance date**:

<table>
<thead>
<tr>
<th>Onerous Contracts</th>
<th>If facts and circumstances indicate so, then policies are marked as onerous.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Onerous Contracts</td>
<td>Contracts that at inception have no significant possibility of becoming onerous.</td>
</tr>
<tr>
<td></td>
<td>Other profitable contracts.</td>
</tr>
</tbody>
</table>

**STEP 3:**
If Reinsurance is used by the company then Cohorts must be created for reinsurance treaties too.
PAA Example - Cohorts

Non-Life

Motor

1 - year

Reinsured

Construction

3 - year

Reinsured

Motor

Insurance

[c1] M/i | Non-Onerous | 2019
[c2] M/i | Onerous | 2019
[c1] M/i | DSF | 2019
[c2] M/i | BRK | 2019

Reinsurance

[c3] M/r | Net Gain | 2019
[c4] M/r | Net Cost | 2019
[c3] M/r | Net Gain | 2019
[c5] C/r | Net Gain | 2019
[c6] C/r | Net Gain | 2019
[c4] C/r | Net Cost | 2019
[c5] C/r | BRK | 2019
[c6] C/r | Net Gain | 2019

Construction

Insurance

[c5] C/i | Non-Onerous | 2019
[c6] C/i | Onerous | 2019
[c4] C/i | DSF | 2019
[c5] C/i | BRK | 2019

Reinsurance

[c7] C/r | Net Gain | 2019
[c8] C/r | Net Cost | 2019
[c6] C/r | Net Gain | 2019
1. By default, PAA uses the ‘Passage of Time’ as coverage units.

2. Unless release of risk during the coverage period differs significantly from the passage of time...

...use the expected timing of incurred insurance service expenses.

---

**Non-Life Insurer, sells 1-yr Motor**

**Un-discounted CFs**

<table>
<thead>
<tr>
<th>Premium</th>
<th>Claims</th>
<th>Expenses</th>
<th>Acquisition Costs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-19</td>
<td>-</td>
<td>5,000</td>
<td>1,250</td>
<td>6,250</td>
</tr>
<tr>
<td>Jun-19</td>
<td>-</td>
<td>5,000</td>
<td>1,250</td>
<td>6,250</td>
</tr>
<tr>
<td>Sep-19</td>
<td>-</td>
<td>5,000</td>
<td>1,250</td>
<td>6,250</td>
</tr>
<tr>
<td>Dec-19</td>
<td>-</td>
<td>5,000</td>
<td>1,250</td>
<td>6,250</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100,000</strong></td>
<td><strong>20,000</strong></td>
<td><strong>5,000</strong></td>
<td><strong>65,000</strong></td>
</tr>
</tbody>
</table>

**PAA - LRC**

<table>
<thead>
<tr>
<th>Opening Balance</th>
<th>Premium Cashflow</th>
<th>Discounting</th>
<th>Acquisition Costs</th>
<th>Acquisition Costs Amrt</th>
<th>Insurance Revenue</th>
<th>Closing Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-19</td>
<td>-</td>
<td>100,000.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>67,500.00</td>
</tr>
<tr>
<td>Jun-19</td>
<td>67,500.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>45,000.00</td>
</tr>
<tr>
<td>Sep-19</td>
<td>45,000.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>22,500.00</td>
</tr>
<tr>
<td>Dec-19</td>
<td>22,500.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td><strong>135,000</strong></td>
</tr>
</tbody>
</table>

**GMM - LRC**

<table>
<thead>
<tr>
<th>PVCF</th>
<th>RA</th>
<th>CSM</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-19</td>
<td>65,000</td>
<td>2,500</td>
<td>62,500</td>
</tr>
<tr>
<td>Jun-19</td>
<td>18,750</td>
<td>1,875</td>
<td>46,875</td>
</tr>
<tr>
<td>Sep-19</td>
<td>12,500</td>
<td>1,250</td>
<td>31,250</td>
</tr>
<tr>
<td>Dec-19</td>
<td>6,250</td>
<td>625</td>
<td>15,625</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>67,500</strong></td>
<td><strong>25,000</strong></td>
<td><strong>135,000</strong></td>
</tr>
</tbody>
</table>

If Disc. Rates = 0% then the PAA and GMM give the same result for LRC
## PAA Example – LRC & LIC

### Non-Life Insurer, sells 3-yr Construction

#### Un-discounted CFs

<table>
<thead>
<tr>
<th>Month</th>
<th>Premium</th>
<th>Claims</th>
<th>Expenses</th>
<th>Acquisition Costs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-19</td>
<td>100,000</td>
<td></td>
<td></td>
<td>30,000</td>
<td>130,000</td>
</tr>
<tr>
<td>Jun-19</td>
<td>-</td>
<td>5,000</td>
<td>1,250</td>
<td>-</td>
<td>6,250</td>
</tr>
<tr>
<td>Sep-19</td>
<td>-</td>
<td>5,000</td>
<td>1,250</td>
<td>-</td>
<td>6,250</td>
</tr>
<tr>
<td>Dec-19</td>
<td>100,000</td>
<td>5,000</td>
<td>1,250</td>
<td>30,000</td>
<td>76,250</td>
</tr>
<tr>
<td>Mar-20</td>
<td>-</td>
<td>5,000</td>
<td>1,250</td>
<td>-</td>
<td>6,250</td>
</tr>
<tr>
<td>Jun-20</td>
<td>-</td>
<td>5,000</td>
<td>1,250</td>
<td>-</td>
<td>6,250</td>
</tr>
<tr>
<td>Sep-20</td>
<td>-</td>
<td>5,000</td>
<td>1,250</td>
<td>-</td>
<td>6,250</td>
</tr>
<tr>
<td>Dec-20</td>
<td>100,000</td>
<td>5,000</td>
<td>1,250</td>
<td>30,000</td>
<td>76,250</td>
</tr>
<tr>
<td>Total</td>
<td>300,000</td>
<td>50,000</td>
<td>15,000</td>
<td>30,000</td>
<td>185,000</td>
</tr>
</tbody>
</table>

#### Discounted CFs

<table>
<thead>
<tr>
<th>Month</th>
<th>Premium</th>
<th>Claims</th>
<th>Expenses</th>
<th>Acquisition Costs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-19</td>
<td>100,000</td>
<td></td>
<td></td>
<td>30,000</td>
<td>130,000</td>
</tr>
<tr>
<td>Jun-19</td>
<td>-</td>
<td>4,040</td>
<td>1,238</td>
<td>-</td>
<td>5,278</td>
</tr>
<tr>
<td>Sep-19</td>
<td>-</td>
<td>4,680</td>
<td>1,220</td>
<td>-</td>
<td>5,900</td>
</tr>
<tr>
<td>Dec-19</td>
<td>95,238</td>
<td>4,300</td>
<td>1,178</td>
<td>30,000</td>
<td>129,615</td>
</tr>
<tr>
<td>Mar-20</td>
<td>-</td>
<td>4,704</td>
<td>1,178</td>
<td>-</td>
<td>5,881</td>
</tr>
<tr>
<td>Jun-20</td>
<td>-</td>
<td>4,604</td>
<td>1,152</td>
<td>-</td>
<td>5,756</td>
</tr>
<tr>
<td>Sep-20</td>
<td>-</td>
<td>4,091</td>
<td>1,148</td>
<td>-</td>
<td>5,239</td>
</tr>
<tr>
<td>Dec-20</td>
<td>90,703</td>
<td>4,535</td>
<td>1,134</td>
<td>30,000</td>
<td>126,364</td>
</tr>
<tr>
<td>Total</td>
<td>285,541</td>
<td>55,473</td>
<td>13,874</td>
<td>30,000</td>
<td>188,890</td>
</tr>
</tbody>
</table>

#### PAA - LRC

<table>
<thead>
<tr>
<th>Opening Balance</th>
<th>Premium Cashflow</th>
<th>Discounting</th>
<th>Acquisition Costs</th>
<th>Acquisition Costs Amrt.</th>
<th>Insurance Revenue</th>
<th>Closing Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-19</td>
<td>100,000</td>
<td>850</td>
<td>30,000</td>
<td>2,704</td>
<td>25,772</td>
<td>47,702</td>
</tr>
<tr>
<td>Jun-19</td>
<td>47,792</td>
<td>587</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>25,310</td>
</tr>
<tr>
<td>Sep-19</td>
<td>25,310</td>
<td>311</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>2,533</td>
</tr>
<tr>
<td>Dec-19</td>
<td>2,553</td>
<td>31</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>20,483</td>
</tr>
<tr>
<td>Mar-20</td>
<td>20,483</td>
<td>976</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>57,425</td>
</tr>
<tr>
<td>Jun-20</td>
<td>57,425</td>
<td>705</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>35,061</td>
</tr>
<tr>
<td>Sep-20</td>
<td>35,061</td>
<td>430</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>12,424</td>
</tr>
<tr>
<td>Dec-20</td>
<td>12,424</td>
<td>152</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>10,492</td>
</tr>
<tr>
<td>Mar-20</td>
<td>10,492</td>
<td>1,098</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>67,539</td>
</tr>
<tr>
<td>Jun-20</td>
<td>67,539</td>
<td>829</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>45,300</td>
</tr>
<tr>
<td>Sep-20</td>
<td>45,300</td>
<td>556</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>22,788</td>
</tr>
<tr>
<td>Dec-20</td>
<td>22,788</td>
<td>280</td>
<td>-</td>
<td>2,704</td>
<td>25,772</td>
<td>0</td>
</tr>
</tbody>
</table>

Closing Balance: 285,219
## PAA Example – Accounting

### P&L

<table>
<thead>
<tr>
<th>CF</th>
<th>Description</th>
<th>Account</th>
<th>P&amp;L</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF</td>
<td>Premiums received</td>
<td>Cash and cash equivalents</td>
<td>A</td>
<td>100,000</td>
</tr>
<tr>
<td>CF</td>
<td>Premiums received</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-100,000</td>
</tr>
<tr>
<td>CF</td>
<td>Acquisition cash flows</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>30,000</td>
</tr>
<tr>
<td>CF</td>
<td>Acquisition cash flows</td>
<td>Cash and cash equivalents</td>
<td>A</td>
<td>-30,000</td>
</tr>
<tr>
<td>CF</td>
<td>Incurred directly attributable expenses</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>1,250</td>
</tr>
<tr>
<td>CF</td>
<td>Incurred directly attributable expenses</td>
<td>Cash and cash equivalents</td>
<td>A</td>
<td>-1,250</td>
</tr>
</tbody>
</table>

### LRC

<table>
<thead>
<tr>
<th>LRC</th>
<th>Description</th>
<th>Account</th>
<th>P&amp;L</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRC</td>
<td>Interest accreted to insurance contracts (LFR; locked-in)</td>
<td>Insurance finance expenses</td>
<td>P&amp;L</td>
<td>859</td>
</tr>
<tr>
<td>LRC</td>
<td>Interest accreted to insurance contracts (LFR; locked-in)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-859</td>
</tr>
<tr>
<td>LRC</td>
<td>Amortisation of insurance acquisition cash flows</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>2,704</td>
</tr>
<tr>
<td>LRC</td>
<td>Amortisation of insurance acquisition cash flows</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-2,704</td>
</tr>
<tr>
<td>LRC</td>
<td>Insurance revenue - contracts measured under PAA</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>25,772</td>
</tr>
<tr>
<td>LRC</td>
<td>Insurance revenue - contracts measured under PAA</td>
<td>Insurance revenue</td>
<td>P&amp;L</td>
<td>-25,772</td>
</tr>
</tbody>
</table>

### LIC

<table>
<thead>
<tr>
<th>LIC</th>
<th>Description</th>
<th>Account</th>
<th>P&amp;L</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC</td>
<td>Incurred benefits (PVCF)</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>5,000</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (PVCF)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-5,000</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>500</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-500</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>300</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>5,200</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Cash and cash equivalents</td>
<td>A</td>
<td>-5,200</td>
</tr>
</tbody>
</table>

### B/S

<table>
<thead>
<tr>
<th>LIC</th>
<th>Description</th>
<th>Account</th>
<th>P&amp;L</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC</td>
<td>Incurred benefits (PVCF)</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>5,000</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (PVCF)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-5,000</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>500</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-500</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>300</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>5,200</td>
</tr>
</tbody>
</table>

### ASSETS

<table>
<thead>
<tr>
<th>LIC</th>
<th>Description</th>
<th>Account</th>
<th>P&amp;L</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC</td>
<td>Incurred benefits (PVCF)</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>5,000</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (PVCF)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-5,000</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>500</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-500</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>300</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>5,200</td>
</tr>
</tbody>
</table>

### LIABILITIES

<table>
<thead>
<tr>
<th>LIC</th>
<th>Description</th>
<th>Account</th>
<th>P&amp;L</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC</td>
<td>Incurred benefits (PVCF)</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>5,000</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (PVCF)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-5,000</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance service expenses</td>
<td>P&amp;L</td>
<td>500</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>-500</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>300</td>
</tr>
<tr>
<td>LIC</td>
<td>Incurred benefits (RA)</td>
<td>Insurance contract liabilities</td>
<td>L</td>
<td>5,200</td>
</tr>
</tbody>
</table>
Primary Statements & Disclosures

- Statement of Profit or Loss
- Statement of Comprehensive Income
- Insurance service result
- Investment Income & Insurance Finance Expenses

- Statement of Financial Position
- Statement of Changes in Equity
- Reconciliation of the LRC and LIC for insurance contracts
- Reconciliation of the LRC and LIC for reinsurance contracts

Other

- Impact of contracts recognised in the period
- Claim development
- Financial Assets & Liabilities
- Credit Risk for financial instruments
- Expenses by nature
- Maturity Analysis

Minimum
You need to be able to produce statements at least at portfolio level.

Preferable
Accounting records should be tagged at a cohort level in order to facilitate investigations and reconciliations to primary data sources.

MI Info

- Many Management Information reports (New Business, Claims, etc) are produced for existing accounts using {AccountCode} – provides subdivision.
- Need to ensure your new IFRS17 Accounting Ledger maintains at least the current level of granularity.
- Additional granularity may be required – especially for expenses (need to be assigned to Cohorts).
Summary

Recent developments
• Final standard mid 2020? Further delay to 1/1/2023?

VFA
• Modified version of the GMM – not optional (must apply VFA if the eligibility criteria met)
• Aim: To reduce accounting mismatch that would arise for certain types of contracts under the GMM
• Key difference to GMM: CSM Subsequent Measurement treatment of financial risk
• Option to combine some or all of the components in subsequent measurement of CSM.
• Risk mitigation exception – optional if criteria are met

PAA
• Simplified version of the BBA – optional
• BBA Comparison: LfRC calculation different, LfIC calculation is the same.
• Simplifications: Discounting, Acquisition Expenses, Onerous Contracts
• Main benefits: CSM is avoided and reconciliations between one reporting period and the next are more straightforward
• Can be used when certain eligibility criteria are met
• Factors to consider when deciding whether or not to use the PAA: Eligibility testing, Onerous contracts, Financial impact, Explanation of movements, Data, Process, Retrocession, Architecture
• Disclosures relating to the CSM are not applicable
Society of Actuaries in Ireland

Questions?