Reserving Seminar 2018
IFRS 17
Model Choice
Alice Boreman and Jamie Grant
on behalf of the
IFoA IFRS 17 for General Insurance working party

Introduction
A work in progress

This presentation represents the views of the working party members and does not represent the views of the members’ respective employers.

Our thinking is still a work in progress rather than agreed consensus views.

Model Choice work stream:
- Jamie Grant
- Janet Baker
- Gareth Kennedy

Agenda

The requirements
- What are the model choices for non-life insurers under IFRS 17?
- What are the key differences (qualitatively and quantitatively)?
- What are the ambiguities around model choice in the standard?

Practical issues & other considerations
- How might it be possible to justify the use of the simplification?
- What are the requirements around assessment and reporting?
- What might the business and senior management need to consider?
There is only one model.

- There is only one model under IFRS 17
  - the General Model (GM)
    - also known as the Building Block Approach (BBA)

- Premium Allocation Approach (PAA) is a simplification of the GM
  - Principally for unexpired risks (liability for remaining coverage) on contracts with shorter coverage periods
  - Further simplification for liability for incurred claims for contracts with short settlement periods
Assessing Eligibility
(and other considerations)

### Premium Allocation Approach

**When can it apply?**

<table>
<thead>
<tr>
<th>PAA Eligibility Decision</th>
<th>For each portfolio/cohoot of contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do all contracts within the portfolio/cohoot have a coverage period of 12 months or less?</td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td><strong>NO</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td>Can it be reasonably expected that the LRC under the PAA would not differ materially from the GM?</td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td><strong>NO</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td>Is the portfolio/cohoot and associated deviation in the LRC immaterial for the reporting entity?</td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td><strong>NO</strong></td>
<td><strong>YES</strong></td>
</tr>
</tbody>
</table>

**Para 53 (b)**
- The portfolio/cohoot automatically applies for the PAA.
- No need to demonstrate eligibility.
- Auditors may request evidence that the portfolio/cohoot fulfils the criteria.

**Para 53 (a)**
- The portfolio is likely to be eligible for the PAA.
- Auditors are likely however to require justification.
- Need to define what ‘reasonably expects’ and ‘differs materially’ means for the reporting entity.
- May require modelling of future stresses/scenarios to demonstrate immateriality in a range of outcomes.

**This consideration is outside the scope of IFRS 17.**
- Broader accounting/materiality question – see IASB Practice Statement 2 “Making Materiality Judgements”.
- Will need to carefully monitor the materiality of the portfolio/cohoot’s which are not eligible (based on the above steps) over time.

It is unlikely that the PAA will be available to the portfolio/cohoot. Variability in the fulfillment cash flows increases the period before a claim is incurred. Variability in the fulfillment cash flows increases the coverage period of the group of contracts.”
So why might insurers want to push for PAA eligibility for as many portfolios as possible?

- The Liability for Remaining Coverage calculation is simpler:
  - Closely linked to current ‘UPR’ based model used under most GAAPs currently
  - No need to derive a risk adjustment for the Liability for Remaining Coverage (LRC); and
  - No need to derive a Contractual Service Margin (CSM) and track over time
    - Potentially the most complex and costly aspect of IFRS 17

- Fewer disclosures under the PAA:
  - analysis of change between opening and closing is less granular (less components)
  - GM requires a disclosure of the expected future release of CSM to P&L

- Onerous contract test is less ‘onerous’ under the PAA:
  - As not modelling all future cashflows in the LRC
  - based on ‘facts and circumstances’ – e.g. knowingly writing loss making business
    - new vs renewals

Why might other companies be happy to apply the GM?

- Some portfolios/cohorts not eligible for the PAA
  - Is a hybrid model optimal?
  - Develop for one portfolio → develop for all?

- Management may feel the GM gives greater insight to readers of accounts
- Already doing much of the GM calculations for Solvency II
- May need to develop a GM model to evidence PAA eligibility anyway
- Future Proofing
  - The inability to model the GM may restrict future business opportunities
  - New lines of business, business transfers (internal or external) etc.
    - And the ability to respond to them quickly
Drivers of Differences in Model Outcomes

So what are the key valuation differences?

Discounting

IFRS 17 GM

- Contractual Service Margin
- Risk adjustment
- Discounting
- Best estimate of fulfilment cashflows

Discount accreted at initial ‘locked-in’ rate

IFRS 17 PAA

- Premium unearned less Premium Receivable (net of acquisition costs)

- Risk adjustment
- Discounting
- Best estimate of fulfilment cashflows

Generally undiscounted (although if a material financing component then discounted at locked-in rate).

Discounted at current rates
Option: to separate the unwind of discount rate (to IS) and the change in rate (to OCI)
So what are the key valuation differences?

**Discounting**

PAA LRC generally undiscounted:

- Differences with GM LRC will be more material for high yield curve environments (BRA, RUB, ZAR, ...)

The longer the coverage period, the more material the discounting impact will be.

If significant financing component then will need to discount the PAA LRC (using locked in rates):

- changes in discount rates (risk free + illiquidity premium) over the coverage period term can create differences between the GM and PAA LRC.
- Differences will be more material for volatile yield curve environments

The longer the coverage period the higher likelihood for material yield curve movements.

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**Recognition**

![US Treasury Yields (%)](chart)

<table>
<thead>
<tr>
<th>IFRS 17 GM</th>
<th>IFRS 17 PAA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractual Service Margin</td>
<td>Premium unearned less Premium Receivable (net of acquisition costs)</td>
</tr>
<tr>
<td>Risk adjustment</td>
<td>Risk adjustment</td>
</tr>
<tr>
<td>Discounting</td>
<td>Discounting</td>
</tr>
<tr>
<td>Best estimate of fulfillment cashflows</td>
<td>Best estimate of fulfillment cashflows</td>
</tr>
</tbody>
</table>

- Recognised based on either:
  - (a) passage of time; or
  - (b) expected timing of incurred insurance service expenses (if materially different)

- Release of CSM Coverage Units based on coverage and service provided over the period (largely passage of time)
- Release of Risk Adjustment/Move to LIC over time – based on entities’ view of reduction in risk.
- Unwind of discount credit at current rates (includes movement in current rates)
- Actual vs Expected fulfillment cashflows

- Liability for remaining coverage, LRC (Unearned)
- Liability for incurred claims, LIC (Earned)

Option: acquisition costs can be recognised as they are incurred rather than amortised (only if all contracts in group have less than 12 months coverage period)

Source: IFoA IFRS for General Insurance working party: https://www.actuaries.org.uk/documents/reserving-17-ifrs-17
So what are the key valuation differences?

**Recognition**

- **GM**
  - CSM and recognition of coverage units are key
  - Which will be passage of time based (mainly)
  - Also consider interaction with release of risk adjustment for LRC

- **PAA**
  - Can reflect expected claims timing in recognition approach
    - If materially different from passage of time

- Differences may not be material if using passage of time for all elements…
- ...but if not then the longer the coverage period the more material the differences over time may be.

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**Change in view of future ‘unearned’ profitability**

**IFRS 17 GM**
- Contractual Service Margin
- Risk adjustment
- Discounting
- Best estimate of fulfilment cashflows

**IFRS 17 PAA**
- Risk adjustment
- Discounting
- Best estimate of fulfilment cashflows

- Change in expectations of future experience not recognised until coverage period is recognised/earned.
- ...will change (or ‘unlock’) the value of the CSM which will reflect the current view of future profitability.
- Movements in future expected fulfilment cashflows over time…

- Premium unearned less Premium Receivable (net of acquisition costs)
- Risk adjustment
- Discounting
- Best estimate of fulfilment cashflows

Source: IFoA IFRS for General Insurance working party: https://www.actuaries.org.uk/documents/reserving-17-ifrs-17
So what are the key valuation differences?
Change in view of future 'unearned' profitability

At Recognition Calendar Quarter --->

### Contract Set-Up

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium Cashflow</td>
<td>1,000,000</td>
<td>-</td>
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</tr>
<tr>
<td>Acquisition Costs Cashflow</td>
<td>(200,000)</td>
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</tr>
</tbody>
</table>

### Acc Q1 Claims Cashflow

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>TOTAL</th>
</tr>
</thead>
</table>
| (6,250) | (18,750) | (37,500) | (37,500) | (18,750) | (6,250) | -  | -  | -  | (125,000) |}

### Acc Q2 Claims Cashflow

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>TOTAL</th>
</tr>
</thead>
</table>
| -  | (6,250) | (18,750) | (37,500) | (37,500) | (18,750) | (6,250) | -  | -  | (125,000) |}

### Acc Q3 Claims Cashflow

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>TOTAL</th>
</tr>
</thead>
</table>
| -  | -  | (6,250) | (18,750) | (37,500) | (37,500) | (18,750) | (6,250) | -  | (125,000) |}

### Acc Q4 Claims Cashflow

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>TOTAL</th>
</tr>
</thead>
</table>
| -  | -  | -  | (6,250) | (18,750) | (37,500) | (37,500) | (18,750) | (6,250) | (125,000) |}

**TOTAL Claims** (500,000)

- No other expenses;
- No Risk Adjustment;
- 0% Yield Curve Throughout; and
- Acquisition Costs are amortised under PAA

---

So what are the key valuation differences?
Change in view of future 'unearned' profitability

**At Recognition Calendar Quarter ---**

### P&L Impact

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tr>
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<td>75,000</td>
<td>75,000</td>
<td>75,000</td>
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### Liability for Incurred Claims

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>7</th>
<th>8</th>
<th>9</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(118,750)</td>
<td>(218,750)</td>
<td>(281,250)</td>
<td>(306,250)</td>
<td>(193,750)</td>
<td>(93,750)</td>
<td>(31,250)</td>
<td>(6,250)</td>
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</table>

### Liability for Remaining Coverage

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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<th>7</th>
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<th>9</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(600,000)</td>
<td>(400,000)</td>
<td>(200,000)</td>
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</tbody>
</table>

### Contractual Service Margin

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>7</th>
<th>8</th>
<th>9</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>(225,000)</td>
<td>(150,000)</td>
<td>(75,000)</td>
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</tr>
</tbody>
</table>
So what are the key valuation differences?
Change in view of future ‘unearned’ profitability

At Quarter 2

<table>
<thead>
<tr>
<th>Contract Set-Up</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium Cashflow</td>
<td>1,000</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,000</td>
</tr>
<tr>
<td>Acquisition Costs Cashflow</td>
<td>(200,000)</td>
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<td>-</td>
<td>-</td>
<td>(200,000)</td>
</tr>
<tr>
<td>Acc Q1 Claims Cashflow</td>
<td>(6,250)</td>
<td>(18,750)</td>
<td>(37,500)</td>
<td>(37,500)</td>
<td>(18,750)</td>
<td>(6,250)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(125,000)</td>
</tr>
<tr>
<td>Acc Q2 Claims Cashflow</td>
<td>-</td>
<td>(6,250)</td>
<td>(18,750)</td>
<td>(37,500)</td>
<td>(37,500)</td>
<td>(18,750)</td>
<td>(6,250)</td>
<td>-</td>
<td>-</td>
<td>(125,000)</td>
</tr>
<tr>
<td>Acc Q3 Claims Cashflow</td>
<td>-</td>
<td>-</td>
<td>(9,375)</td>
<td>(28,125)</td>
<td>(56,250)</td>
<td>(56,250)</td>
<td>(28,125)</td>
<td>(9,375)</td>
<td>-</td>
<td>(187,500)</td>
</tr>
<tr>
<td>Acc Q4 Claims Cashflow</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(9,375)</td>
<td>(28,125)</td>
<td>(56,250)</td>
<td>(56,250)</td>
<td>(28,125)</td>
<td>(9,375)</td>
<td>(187,500)</td>
</tr>
</tbody>
</table>

TOTAL Claims (625,000)

• No other expenses;
• No Risk Adjustment;
• 0% Yield Curve Throughout; and
• Acquisition Costs are amortised under PAA

At Recognition

<table>
<thead>
<tr>
<th>Contract Set-Up</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<td>1,000,000</td>
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<td>1,000,000</td>
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<tr>
<td>Acquisition Costs Cashflow</td>
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<td>(200,000)</td>
</tr>
<tr>
<td>Acc Q1 Claims Cashflow</td>
<td>(6,250)</td>
<td>(18,750)</td>
<td>(37,500)</td>
<td>(37,500)</td>
<td>(18,750)</td>
<td>(6,250)</td>
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<td>(125,000)</td>
</tr>
<tr>
<td>Acc Q2 Claims Cashflow</td>
<td>-</td>
<td>(6,250)</td>
<td>(18,750)</td>
<td>(37,500)</td>
<td>(37,500)</td>
<td>(18,750)</td>
<td>(6,250)</td>
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<td>(125,000)</td>
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<tr>
<td>Acc Q3 Claims Cashflow</td>
<td>-</td>
<td>-</td>
<td>(6,250)</td>
<td>(18,750)</td>
<td>(37,500)</td>
<td>(37,500)</td>
<td>(18,750)</td>
<td>(6,250)</td>
<td>-</td>
<td>(125,000)</td>
</tr>
<tr>
<td>Acc Q4 Claims Cashflow</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(6,250)</td>
<td>(18,750)</td>
<td>(37,500)</td>
<td>(37,500)</td>
<td>(18,750)</td>
<td>(6,250)</td>
<td>(125,000)</td>
</tr>
</tbody>
</table>

TOTAL Claims (500,000)

• No other expenses;
• No Risk Adjustment;
• 0% Yield Curve Throughout; and
• Acquisition Costs are amortised under PAA

11 July 2018
So what are the key valuation differences?
Change in view of future ‘unearned’ profitability

<table>
<thead>
<tr>
<th></th>
<th>P&amp;L Impact</th>
<th>Liability for Incurred Claims</th>
<th>Liability for Remaining Coverage</th>
<th>Contractual Service Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Q2</td>
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<tr>
<td>BAA</td>
<td>75,000</td>
<td>(118,750)</td>
<td>(600,000)</td>
<td>(225,000)</td>
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<tr>
<td></td>
<td>75,000</td>
<td>(218,750)</td>
<td>(400,000)</td>
<td>(66,667)</td>
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<td>At Q2</td>
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<tr>
<td>BAA</td>
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<td>(218,750)</td>
<td>(400,000)</td>
<td>(66,667)</td>
</tr>
</tbody>
</table>

11 July 2018
And when will the valuations be the same?

• At inception
  – LRC will be equal under both GM and PAA

• Upon recognition of an onerous portfolio/group/cohort
  – Loss component recognised under PAA will make the LRC equal to GM fulfilment cashflows (no negative CSM)

• If Risk Adj + CSM recognition under GM = LRC release under PAA

• If contract experience runs as expected and yield curves are unchanged
  – Locked-in rate = Current rate

* All subject to consistent underlying assumptions and options – e.g. time based recognition, coverage units released evenly, discounting of LIC & LRC under PAA, acquisition costs amortised under PAA etc.
Demonstrating PAA eligibility on Portfolios with contracts >1 year?

1. Define the following for your company:
   - ‘reasonably expects’ (para 53) and ‘expects significant variability’ (para 54) – for the expectation of the results under both GM and PAA – feels qualitative?
   - ‘not differ materially’ – for the permissible divergence in the LRC result – quantitative?

2. Consider your options
   - Discounting (PAA LIC, PAA LRC, IS & OCI treatment)
   - Recognition patterns (CSM, Risk Adjustment and PAA LRC)

3. Run GM and PAA on ‘base’ expectations
   - Need a model for both!
   - i.e. cashflows as expected, yield curves unchanged over time
   - will give an indication of divergence in outcomes due to underlying model differences

4. Stress, scenario and sensitivity test
   - Focus on known drivers of differences (changes in yield curves, future profitability etc.)…
   - …and likely variability (‘reasonably expects’) rather than extreme events
   - longer coverage period for a contract → more severe the scenario?

5. Summarise tests, results and conclusions
   - auditors are likely to want to review this
Conclusions

• One model but simplifications are available
  – PAA and additional options

• Be aware of the drivers of the results (and their differences) under the GM and PAA

• If intending to use PAA on portfolios with contracts >1 year, develop a plan and process to regularly demonstrate that differences are not material.