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Reserving Seminar 2018
IFRS 17
Model Choice

Alice Boreman and Jamie Grant
on behalf of the
IFoA IFRS 17 for General Insurance working party

11 July 2018

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Introduction

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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

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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?

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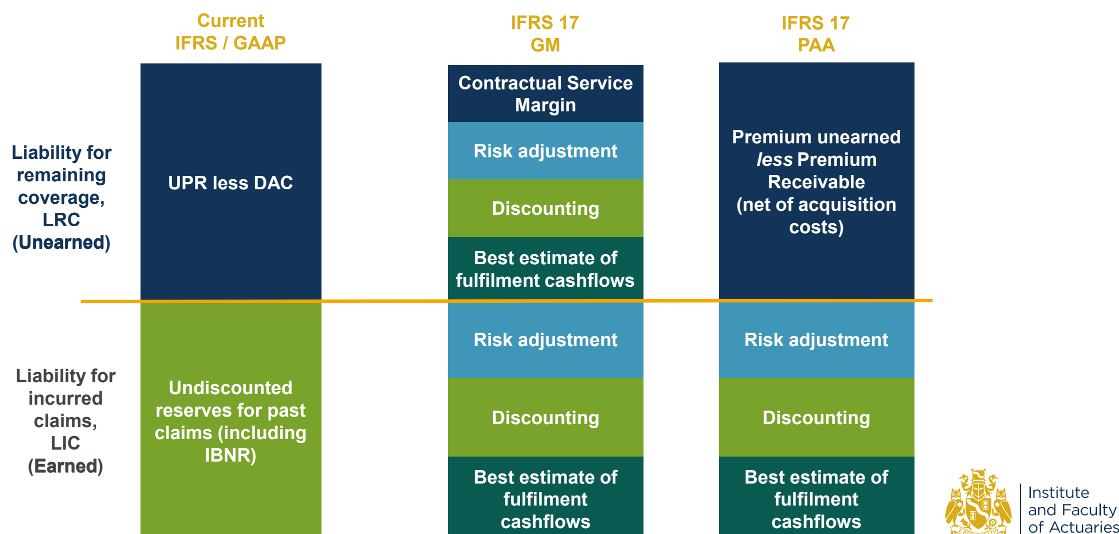
IFRS 17 balance sheet overview



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Source: IFoA IFRS for General Insurance working party: https://www.actuaries.org.uk/documents/reserving-17-ifrs-17

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

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Assessing Eligibility (and other considerations)

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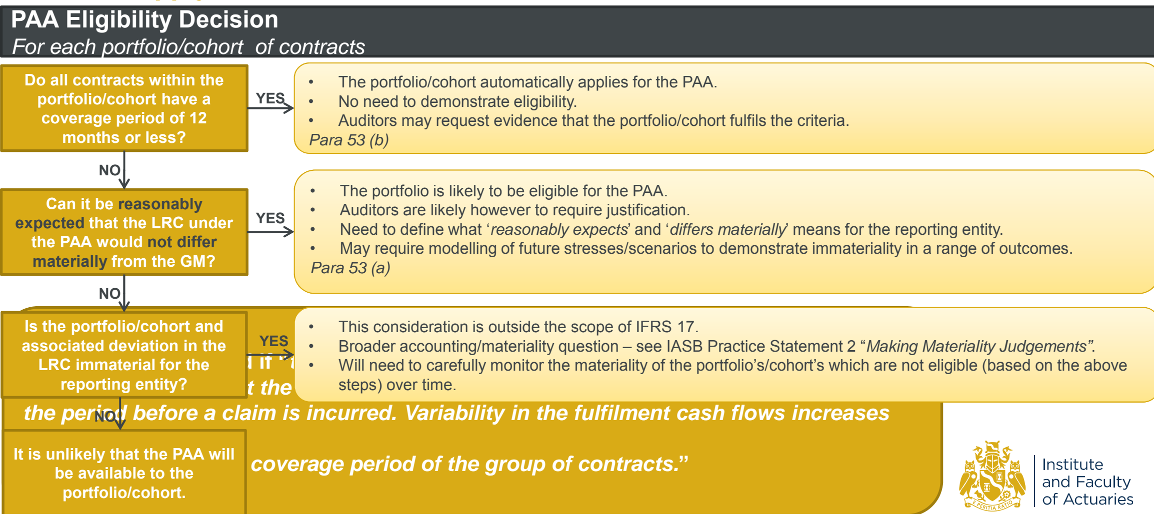
Premium Allocation Approach

When can it apply?



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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

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Drivers of Differences in Model Outcomes

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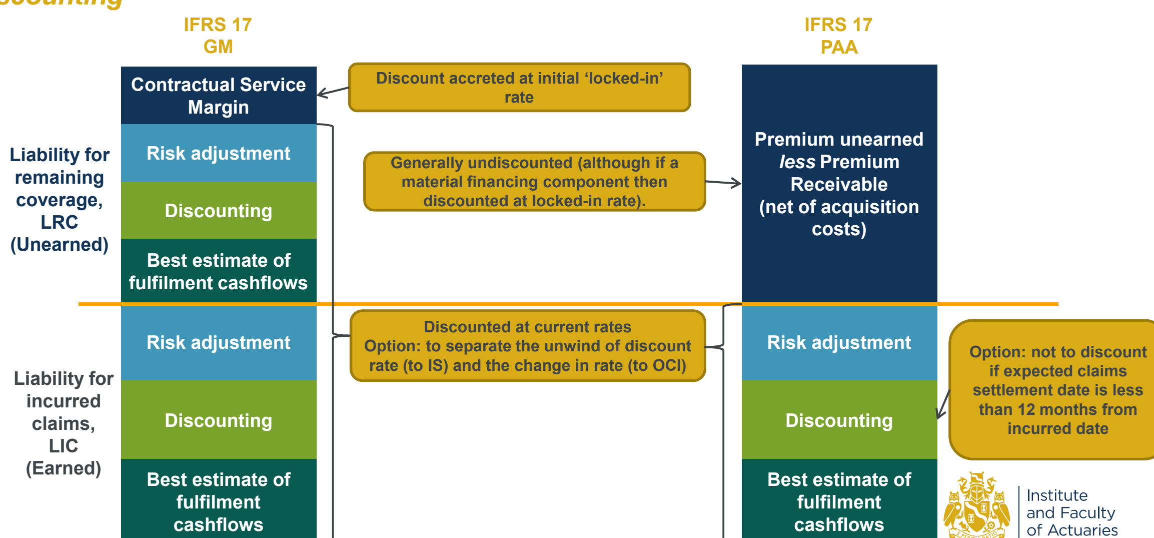
So what are the key valuation differences?

Discounting



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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,…)

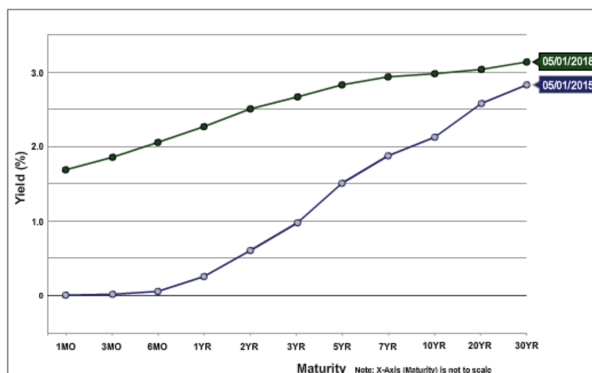
The longer the coverage period, the more material the discounting impact will be.

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.

US Treasury Yields (%)



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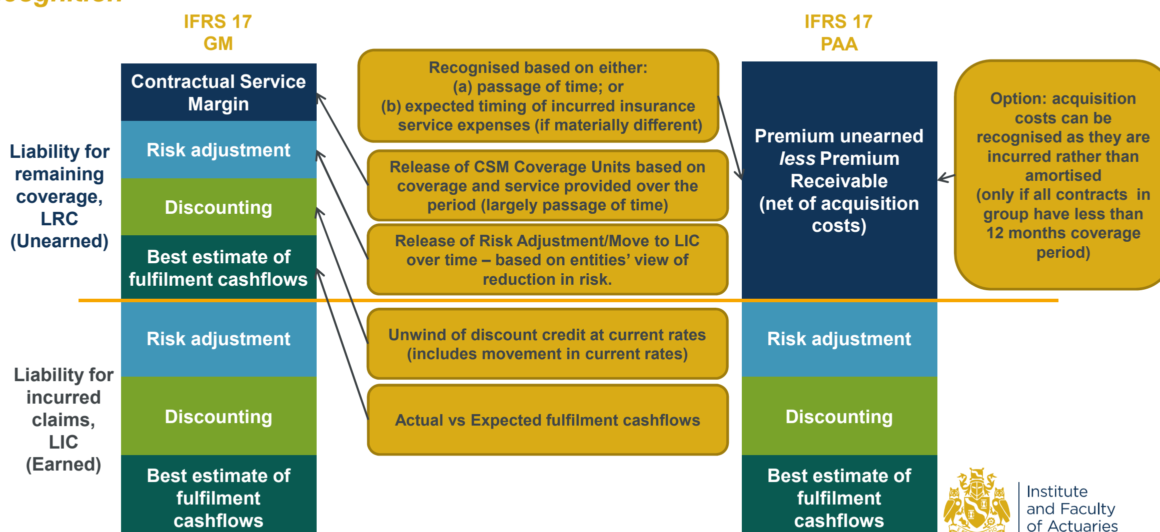
So what are the key valuation differences?

Recognition



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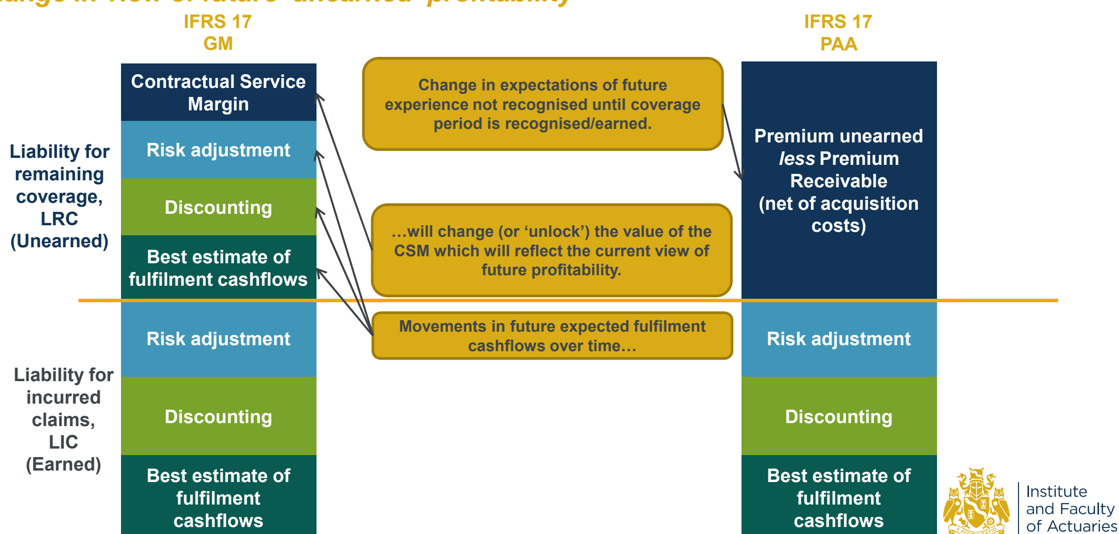
So what are the key valuation differences?

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.**

So what are the key valuation differences?

Change in view of future 'unearned' profitability



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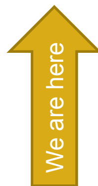
So what are the key valuation differences?

Change in view of future 'unearned' profitability

At Recognition	Calendar Quarter --->									
Contract Set-Up	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**TOTAL**
Premium Cashflow	1,000,000	-	-	-	-	-	-	-	-	**1,000,000**
Acquisition Costs Cashflow	(200,000)	-	-	-	-	-	-	-	-	**(200,000)**
Acc Q1 Claims Cashflow	(6,250)	(18,750)	(37,500)	(37,500)	(18,750)	(6,250)	-	-	-	**(125,000)**
Acc Q2 Claims Cashflow	-	(6,250)	(18,750)	(37,500)	(37,500)	(18,750)	(6,250)	-	-	**(125,000)**
Acc Q3 Claims Cashflow	-	-	(6,250)	(18,750)	(37,500)	(37,500)	(18,750)	(6,250)	-	**(125,000)**
Acc Q4 Claims Cashflow	-	-	-	(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

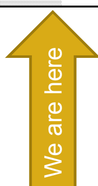
At Recognition	Calendar Quarter --->									
PAA	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**TOTAL**
P&L Impact	75,000	75,000	75,000	75,000	-	-	-	-	-	**300,000**
Liability for Incurred Claims	(118,750)	(218,750)	(281,250)	(306,250)	(193,750)	(93,750)	(31,250)	(6,250)	-	
Liability for Remaining Coverage	(600,000)	(400,000)	(200,000)	-	-	-	-	-	-	

At Recognition	Calendar Quarter --->									
BAA	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**TOTAL**
P&L Impact	75,000	75,000	75,000	75,000	-	-	-	-	-	**300,000**
Liability for Incurred Claims	(118,750)	(218,750)	(281,250)	(306,250)	(193,750)	(93,750)	(31,250)	(6,250)	-	
Liability for Remaining Coverage (excl CSM)	(375,000)	(250,000)	(125,000)	-	-	-	-	-	-	
Contractual Service Margin	(225,000)	(150,000)	(75,000)	-	-	-	-	-	-	

So what are the key valuation differences?

Change in view of future 'unearned' profitability

At Quarter 2	Calendar Quarter --->									
Contract Set-Up	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**TOTAL**
Premium Cashflow	1,000,000	-	-	-	-	-	-	-	-	**1,000,000**
Acquisition Costs Cashflow	(200,000)	-	-	-	-	-	-	-	-	**(200,000)**
Acc Q1 Claims Cashflow	(6,250)	(18,750)	(37,500)	(37,500)	(18,750)	(6,250)	-	-	-	**(125,000)**
Acc Q2 Claims Cashflow	-	(6,250)	(18,750)	(37,500)	(37,500)	(18,750)	(6,250)	-	-	**(125,000)**
Acc Q3 Claims Cashflow	-	-	(9,375)	(28,125)	(56,250)	(56,250)	(28,125)	(9,375)	-	**(187,500)**
Acc Q4 Claims Cashflow	-	-	-	(9,375)	(28,125)	(56,250)	(56,250)	(28,125)	(9,375)	**(187,500)**
									TOTAL Claims	**(625,000)**



- *No other expenses;*
- *No Risk Adjustment;*
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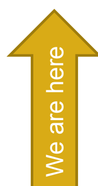
So what are the key valuation differences?

Change in view of future 'unearned' profitability

At Recognition	Calendar Quarter --->									
Contract Set-Up	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**TOTAL**
Premium Cashflow	1,000,000	-	-	-	-	-	-	-	-	**1,000,000**
Acquisition Costs Cashflow	(200,000)	-	-	-	-	-	-	-	-	**(200,000)**
Acc Q1 Claims Cashflow	(6,250)	(18,750)	(37,500)	(37,500)	(18,750)	(6,250)	-	-	-	**(125,000)**
Acc Q2 Claims Cashflow	-	(6,250)	(18,750)	(37,500)	(37,500)	(18,750)	(6,250)	-	-	**(125,000)**
Acc Q3 Claims Cashflow	-	-	(6,250)	(18,750)	(37,500)	(37,500)	(18,750)	(6,250)	-	**(125,000)**
Acc Q4 Claims Cashflow	-	-	-	(6,250)	(18,750)	(37,500)	(37,500)	(18,750)	(6,250)	**(125,000)**
									TOTAL Claims	**(500,000)**



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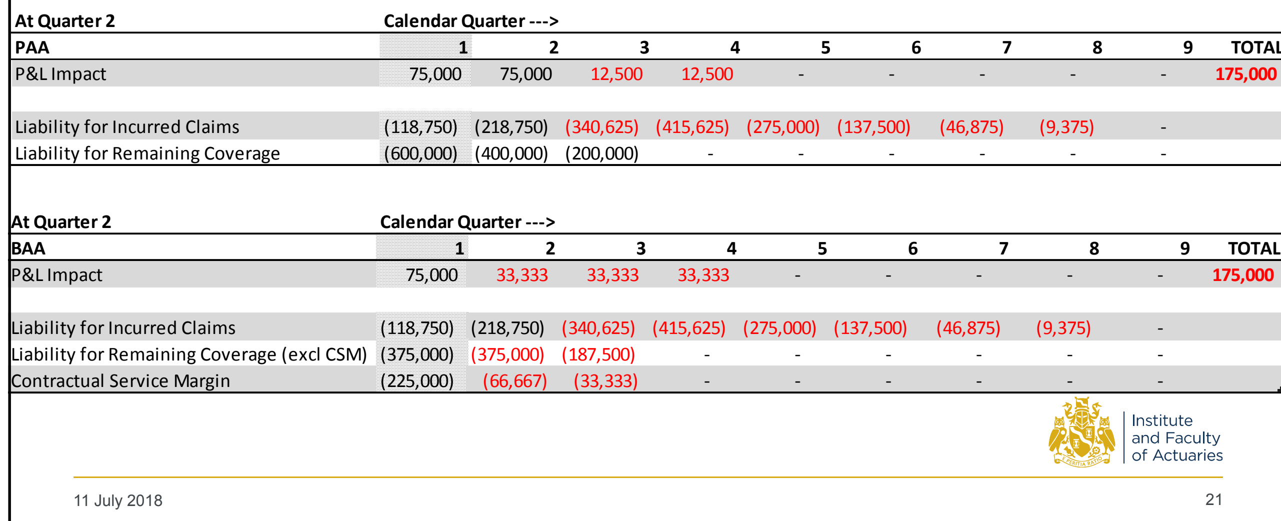
So what are the key valuation differences?

Change in view of future 'unearned' profitability



At Quarter 2	Calendar Quarter --->									
PAA	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**TOTAL**
P&L Impact	75,000	75,000	12,500	12,500	-	-	-	-	-	**175,000**
Liability for Incurred Claims	(118,750)	(218,750)	(340,625)	(415,625)	(275,000)	(137,500)	(46,875)	(9,375)	-	
Liability for Remaining Coverage	(600,000)	(400,000)	(200,000)	-	-	-	-	-	-	

At Quarter 2	Calendar Quarter --->									
BAA	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**TOTAL**
P&L Impact	75,000	33,333	33,333	33,333	-	-	-	-	-	**175,000**
Liability for Incurred Claims	(118,750)	(218,750)	(340,625)	(415,625)	(275,000)	(137,500)	(46,875)	(9,375)	-	
Liability for Remaining Coverage (excl CSM)	(375,000)	(375,000)	(187,500)	-	-	-	-	-	-	
Contractual Service Margin	(225,000)	(66,667)	(33,333)	-	-	-	-	-	-	

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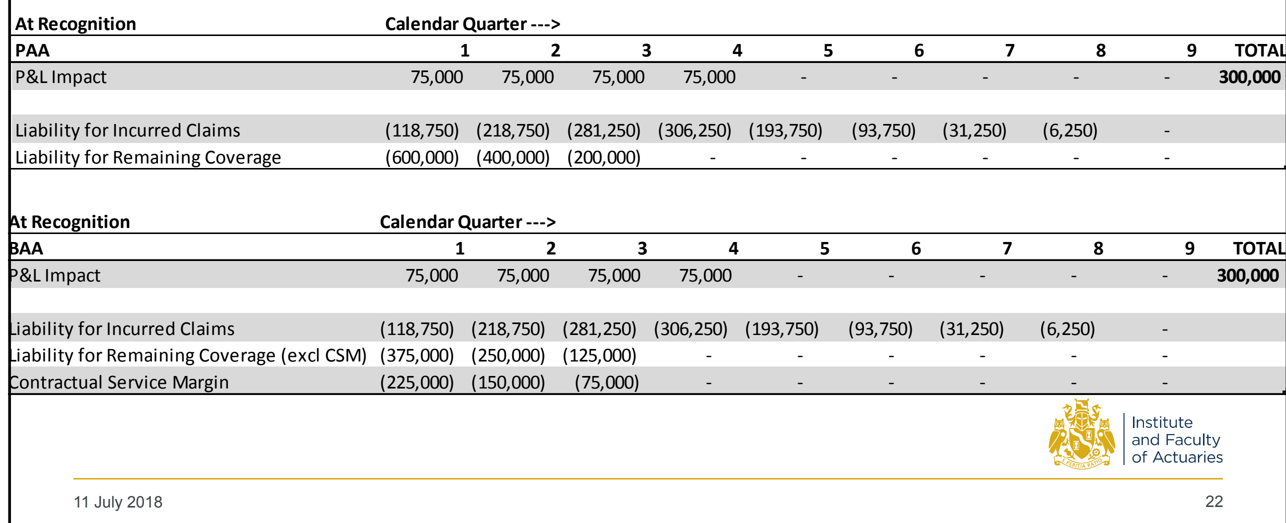
So what are the key valuation differences?

Change in view of future 'unearned' profitability



At Recognition	Calendar Quarter --->									
PAA	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**TOTAL**
P&L Impact	75,000	75,000	75,000	75,000	-	-	-	-	-	**300,000**
Liability for Incurred Claims	(118,750)	(218,750)	(281,250)	(306,250)	(193,750)	(93,750)	(31,250)	(6,250)	-	
Liability for Remaining Coverage	(600,000)	(400,000)	(200,000)	-	-	-	-	-	-	

At Recognition	Calendar Quarter --->									
BAA	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**TOTAL**
P&L Impact	75,000	75,000	75,000	75,000	-	-	-	-	-	**300,000**
Liability for Incurred Claims	(118,750)	(218,750)	(281,250)	(306,250)	(193,750)	(93,750)	(31,250)	(6,250)	-	
Liability for Remaining Coverage (excl CSM)	(375,000)	(250,000)	(125,000)	-	-	-	-	-	-	
Contractual Service Margin	(225,000)	(150,000)	(75,000)	-	-	-	-	-	-	

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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.*

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Eligibility Assessment Process

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 patters (CSM, Risk Adjustment and PAA LRC)

Demonstrating PAA eligibility on Portfolios with contracts >1 year?

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

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.

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