

# Reserve uncertainty - reserving meets capital

from the GI ROC MUQ Working Party

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With special thanks to current and previous members of the MUQ Working Party

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## Agenda

- Introducing the Reserve Uncertainty Framework
- · Overlap with reserve risk assessments?
- What's your opinion?
- · Summary and questions





#### Percentiles - the uncertain uncertainty

- Reserving ultimates are estimates, and some reserving practitioners illustrate this point by adding percentiles to show the range
- As you know, percentiles also have to be estimated



- Percentiles are often more uncertain than the point estimate and frequently have no mention of their own accuracy
- In reserving, we recommend thinking of the user and using qualitative methods and not to relying solely on percentiles



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### **Framework aims**

- · Promoting development of best practice in measuring and communicating reserve uncertainty; by
- · Supporting the generation of wider risk considerations
  - Breaking the problem down and structuring the thought process



#### One framework, two levels

· A skilled actuary will undertake comprehensive analysis and then communicate the material elements



#### Framework uses

#### By the actuary

- Base structure for their own internal framework
  - Record of areas considered
  - Governance and validation
  - Consistency, with little change needed from year-to-year
- Articulation tool
  - For example, to support communication to stakeholders
- **Pooling knowledge** and developing best practice in the profession
- Training tool

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#### By the user

- Awareness of areas of uncertainty
- Provides inspiration for users to ask their actuaries powerful questions







#### **Reserve Uncertainty Framework**

#### Framework Example – Ogden rate



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#### "Oblong Rate" - an example response



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## The framework document

Reserve Uncertainty Framework (MUQ) W orking Party 2018



#### Reserve Uncertainty Framework ng party 2018



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#### **Our website**

- The full framework to download
- References and our other work
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## The framework could be extended to reserve risk assessments

- We suggest that the framework is a tool that can be used during a reserve review to help assess and communicate reserve uncertainty
- It could also be used in capital modelling...
  - When undertaking reserve-risk assessments how do you know:
    - You have captured uncertainty from data accuracy or its interpretation?
    - Have you thought about risk from the line of business' changing exposure profile?
    - What about events that may happen that aren't in the data for example, the Ogden rate changes?
    - Could you use your thinking about uncertainty whilst determining best estimates again in setting reserverisk parameters?
    - Do your reserve-risk estimates align to any reserving scenarios?
  - When validating reserve-risk assessments, how do you validate the above if you are not a subject matter expert in reserving the line of business?
    - · Could you use the framework for generating ideas and challenge?

How could our framework help you?



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#### Why not get involved?

- Inspired to lead on this?
  - Apply on the Volunteer pages, or email Keith for more information
- Want to help and contribute to thought leadership in the area but only have limited time
  - There is a rolling vacancy open <u>here</u>
- Need or want to find out more about the reserving side?
  - We have a <u>rolling vacancy</u> looking at wider areas such as IFRS 17 and other topics to help on allowing for reserve uncertainty using qualitative methods



### Summary

- We have shown you our Reserve Uncertainty Framework
- Could this be used to help set reserve-risk parameters more accurately by considering more of the influences on reserving?
- Could the framework be used to help validate the capital model or reserve risk?
- We need your help please give us your view, or even better come and join our working party!



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Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenters.



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