



Institute
and Faculty
of Actuaries

GIRO Conference 2022

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#GiroConf22





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**Don't ask what
pricing(*) can do for
reserving(+), ask what
we can achieve
together!**

Neil Bruce and Maggie Belcher

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(*), (+) = "and anyone else"



Format

This session is INTERACTIVE: it is a **workshop**, not a ~~talk~~

What we will do:

- Provide hypotheses
- Include opposing points of view.

What we ask of you:

- Stay awake
- Consider the proposals
- Contribute to the discussion

There is no correct answer!



Overarching thesis

- Actuaries try to make “financial sense of the future”
- They do this by modelling how uncertain future events might turn out
- Many of the techniques and data used are very similar across technical functions

Examples

- Reserving actuaries project future claim movements to determine a best estimate (weighted average of all possible outcomes) of claims relating to policies already written (and potentially written in the future)
- Capital actuaries model future claim movements to determine the range of possible outcomes relating to policies already written (and potentially written in the future)
- Pricing actuaries model future claim movements to determine a best estimate (weighted average of all possible outcomes) of claims relating to policies potentially written in the future

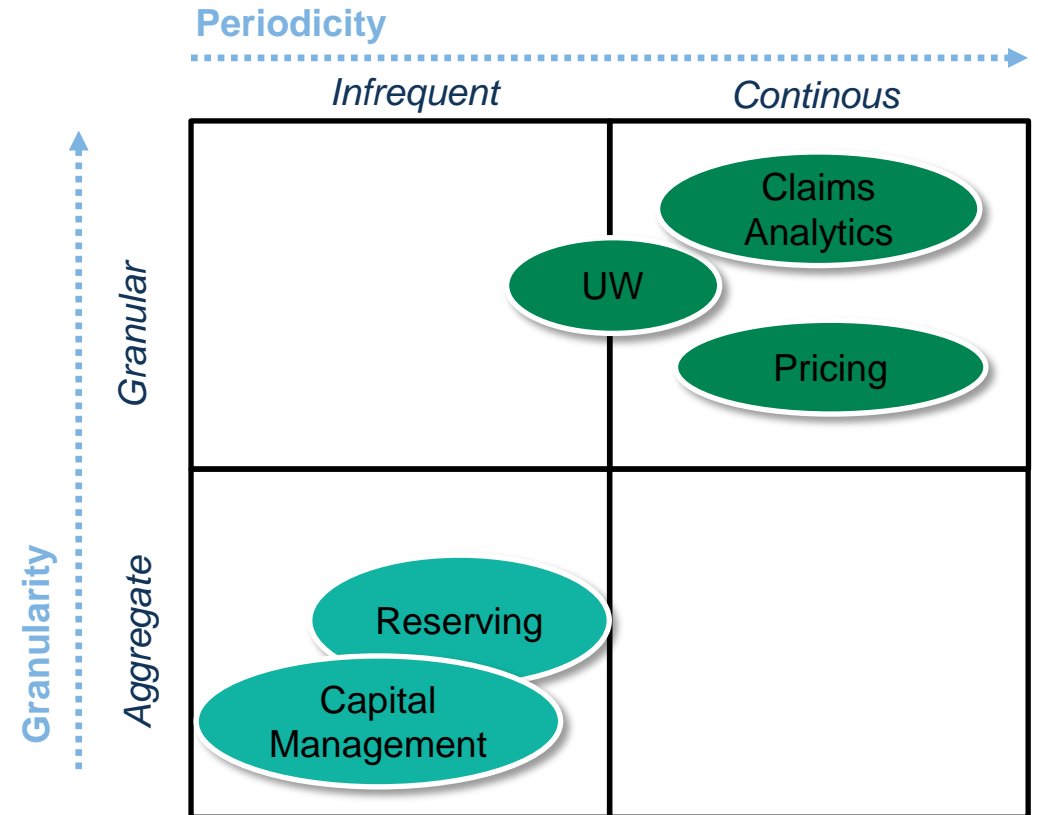
All actuaries are doing very similar analyses on very similar data



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What we are not saying

- Actuaries are all doing the same job
- The purposes of the work being carried out are similar
- There is no need for reserving, pricing and/or capital actuaries



The rest of this ~~talk~~ workshop

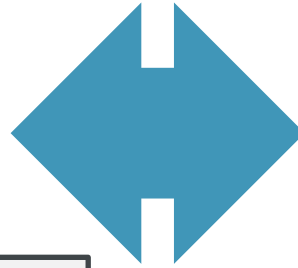
- IS INTERACTIVE
- We may take notes of particular points that strike a chord with many people (non-attributable)
- We are happy to provide a summary of those notes to anyone in the audience



Hypothesis 1: Pricing and reserving actuaries are both aiming for the same target

For

- Both use historical data as a starting point to develop curves
- Aiming at best estimate in first instance
- Evaluating future claims experience



Against

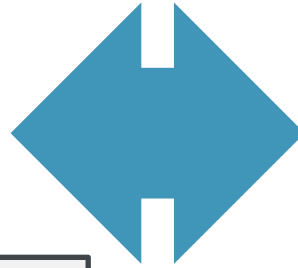
- Reserving aims for prudence
- Pricing looks at policy level rather than grouped policies (UY) or exposure period (AY)
- Pricing include many other factors (expenses etc)



Hypothesis 2: Claims team and reserving actuaries are both aiming for the same target

For

- Both use historical data as a starting point to consider outcomes
- Aiming at best estimate in first instance
- Some claims are not appropriate for triangular methods



Against

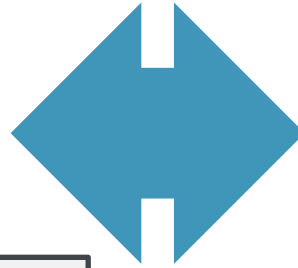
- Claims teams generally don't allow for IBNER
- Claims are focussed on individual cases vs overall adequacy
- Claims teams don't actively reserve all notified claims



Hypothesis 3: Claims team is best placed to assess reserve uncertainty

For

- More detailed understanding of uncertainties for larger claims
- Already aware of data beyond the company for “possible” outcomes
- Include assessment of FNOL losses



Against

- Limited statistical training
- Individual loss uncertainties are not equivalent to overall uncertainty
- Need IBNR assessment as well as notified claims



Hypothesis 4: Monitoring of trends doesn't have to be carried out by actuaries

For

- Majority of expectations are set infrequently compared to capture of experience
- Automated systems can process data without any manual intervention
- Pre-agreed thresholds can be used to assess materiality of deviation



Against

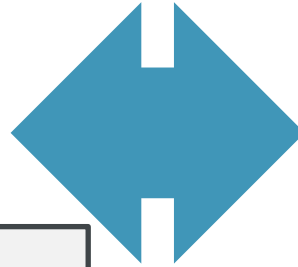
- There are always manual adjustment e.g. specific IBNR
- Interpretation will be necessary in the majority of cases



Hypothesis 5: Inflation assumptions are not only an actuarial assumption

For

- Impact of inflation extends beyond actuarial uses
- Views around the impact of inflation on claims is not well defined in actuarial data
- Exposure measures and rating factors may not react consistently to risk under inflation effects



Against

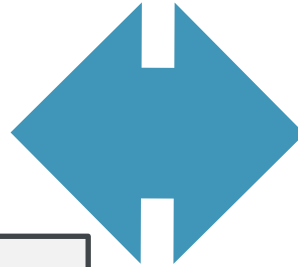
- Inflation is a key assumption in all actuarial analyses
- Impact on other areas much smaller in magnitude
- Consistency and coordination important to avoid gaps and mismatches



Hypothesis 6: Actuarial skillsets are becoming more aligned

For

- New models and techniques are being used by multiple disciplines (e.g. data science, Machine Learning etc.)
- Increasing use of common languages across grad training (R, Python) mean common ways of approaching problems (replacing Excel?)



Against

- Sophistication of standard methods are very different between disciplines
- Different purposes of analyses mean that added sophistication and hence black-box calculations are less acceptable, irrespective of any additional accuracy



Conclusion

- Fundamentally, working in silos increases confusion within an organisation and adds cost
- Although not all aspects of actuarial work are common across functions, we think that there is some duplication of effort
- We also think that actuaries could learn from other technical functions and use their work more
- The influence and impact of actuaries across the organisation could be increased

All actuaries are doing very similar analyses on very similar data
And so are other functions



Questions

Comments

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 presenter.



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Thank you



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