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Sessional Event: Information for Actuaries Valuing Periodical Payment Orders

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Aims of the event

- Update attendees about the PPO Working Party’s forthcoming information paper concerning the valuation of Periodical Payment Order (PPO) liabilities
- Gather feedback on the information paper
- Debate issues arising from PPOs more generally as the IFoA intends to publish a positioning paper separately soon

Event agenda

- Introduction to PPOs and the issues they present
- Summary of the information paper
- Feedback and debate on the information paper
- Debate on issues surrounding PPOs

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An introduction to the issues

Where it all began

- Structured Settlements from 1989
- PPOs introduced Courts Act 2003 on 1 April 2005

- Transferred risks from claimant to insurer

  The risk of running out of money

  The risk of paying more money

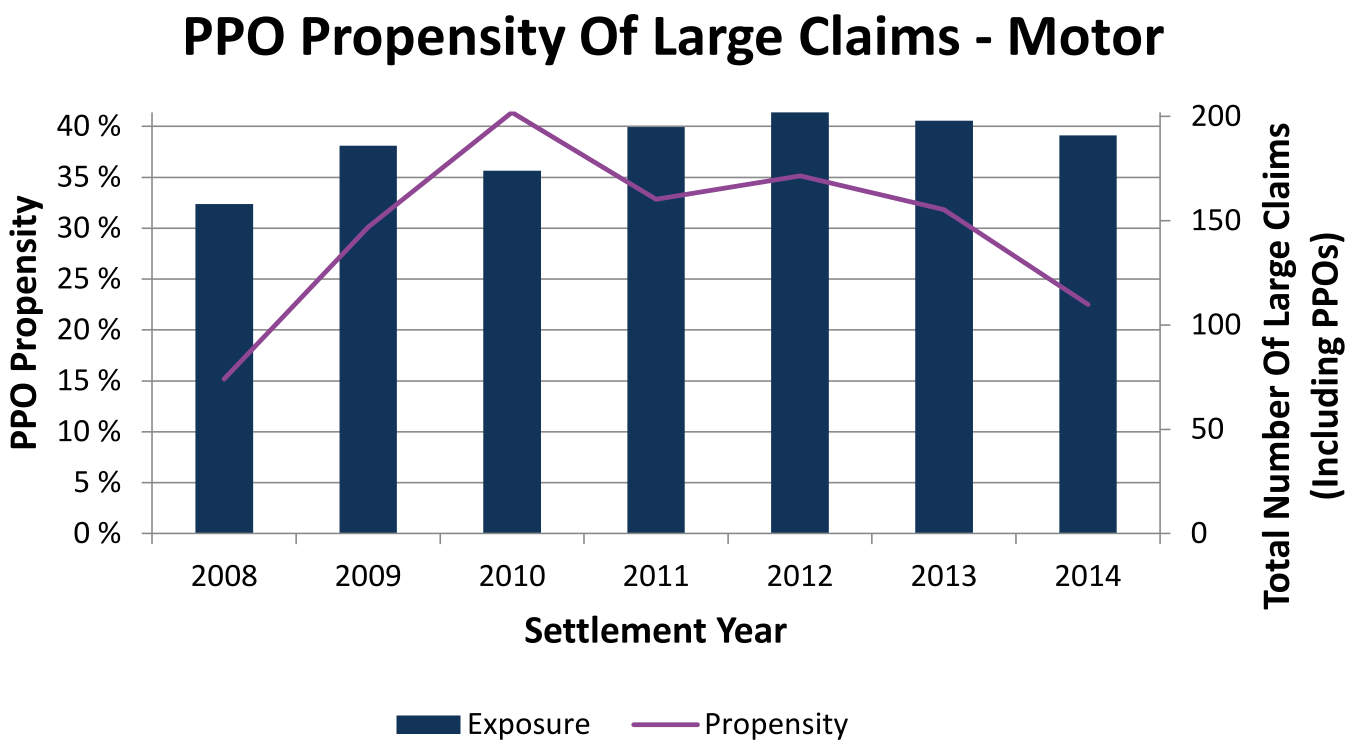
- Created difficulties for insurers and reinsurers
  - Administration, modelling, IT systems, training, claims handling, reinsurance application, time horizon, accounting, ...

Periodic Payment Order Working Party

- Started in 2009 as a consequence of the market observing increased numbers
- Scope focussed on motor and liability insurance
- Aim was two-fold
  - Inform actuaries the issue existed
  - Provide information to assist valuation
- Outputs
  - Annual quantitative and qualitative survey (graphs)
  - Multiple presentations
  - Information about number of topics (legal background, reserving, pricing, capital and so on)

PPO Propensities

- 20-35% of large claims settle as PPOs, where large is defined as £1m in 2011, indexed at 7% p.a., by settlement year



Who are we?

Brokers (2)

Consultants (11)

Insurers (10)

Reinsurers (3)

Other (2)

What are we doing?

- **Information paper**
- Annual survey
- Mortality
- Market solutions
- Reinsurance pricing
- Capital
- Index paper

What exactly is a PPO?

- A member of the PPO Working Party at a meeting in 2014 asked, “what do we actually mean when we say a PPO”? We arrived at the following:

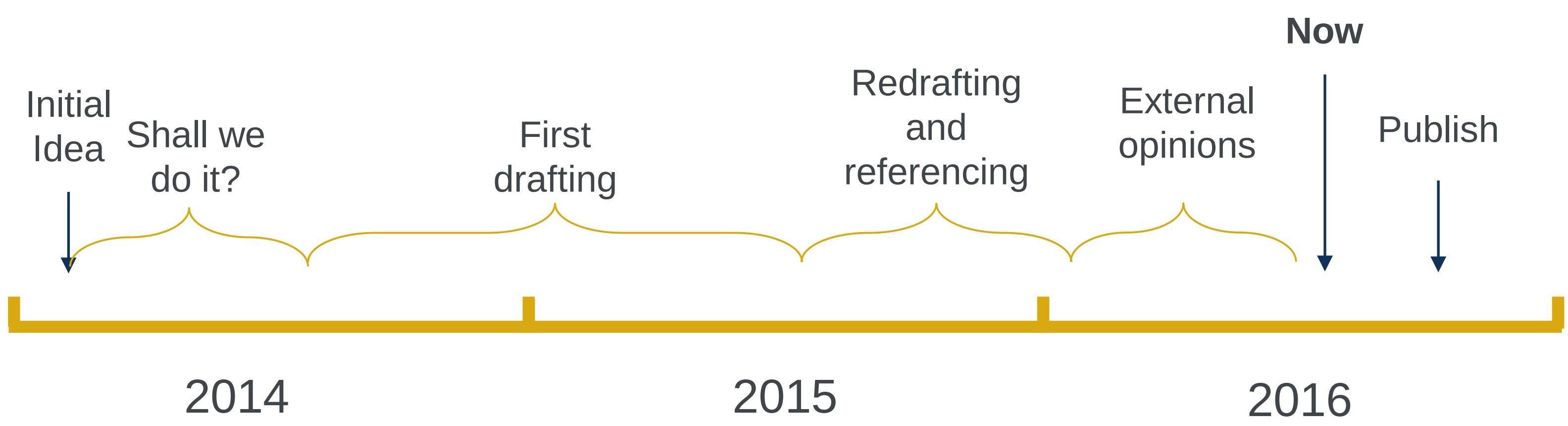
> ‘A PPO is a contingent, deferred, whole-life, wage-inflation-linked, guaranteed, impaired-life annuity, where the identity of the annuitant and the size of the annual payments are unknown at policy inception.’

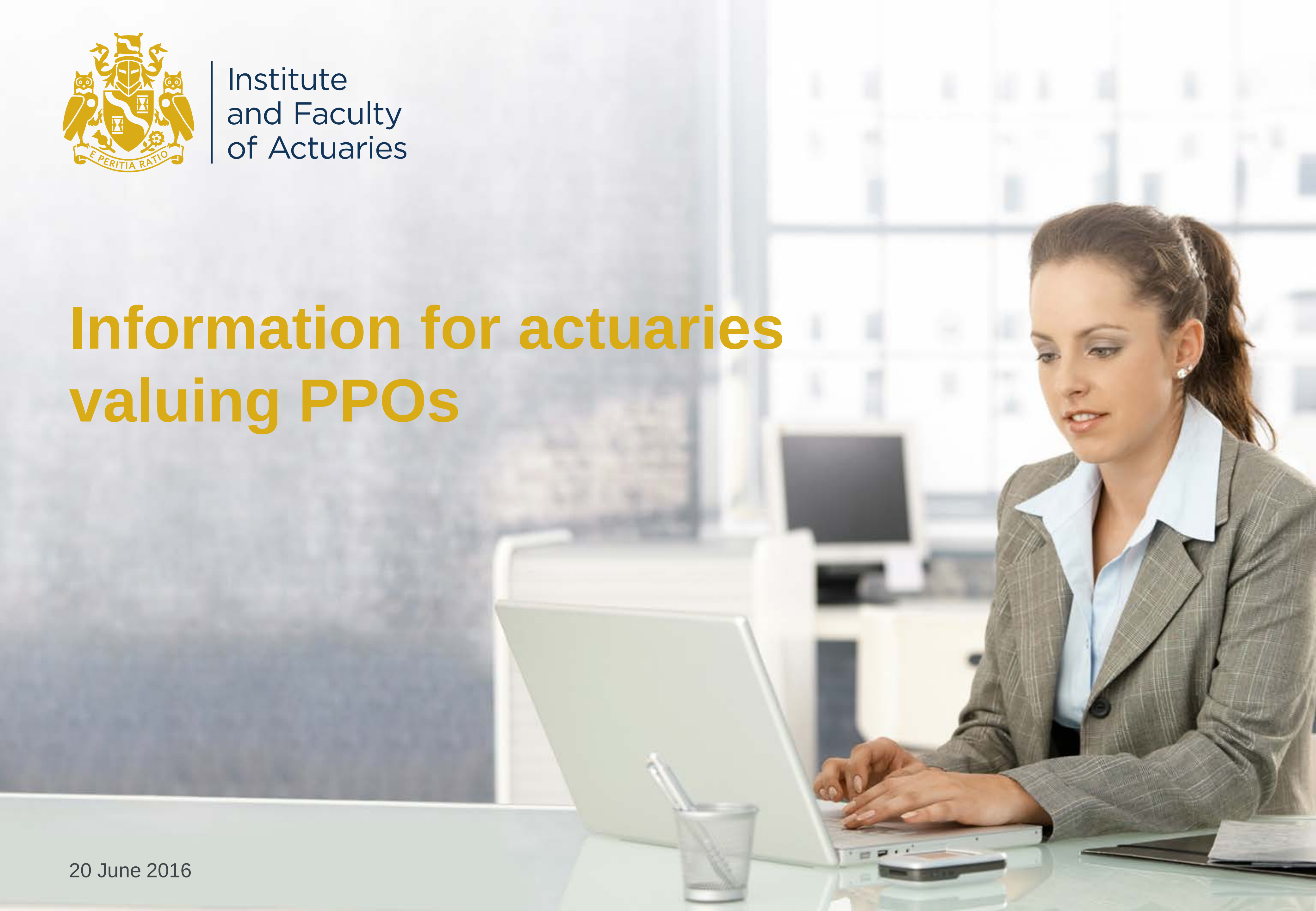
- Even this does not cover everything, and we decided to write a paper to help actuarial practitioners who work with PPOs build their own expertise

Why did we write the paper

- Seemed to be a variety of methods in the market
- Lots of output from the working party in different places
- There is significant risk to companies and ourselves
- GI Board suggested we could write a guidance note
  – We can’t and would not be comfortable with this
- But we felt there was some value in creating something
- So – this is not Guidance
- But a helpful handbook for new and experienced practitioners

Where are we in the delivery





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Information for actuaries valuing PPOs

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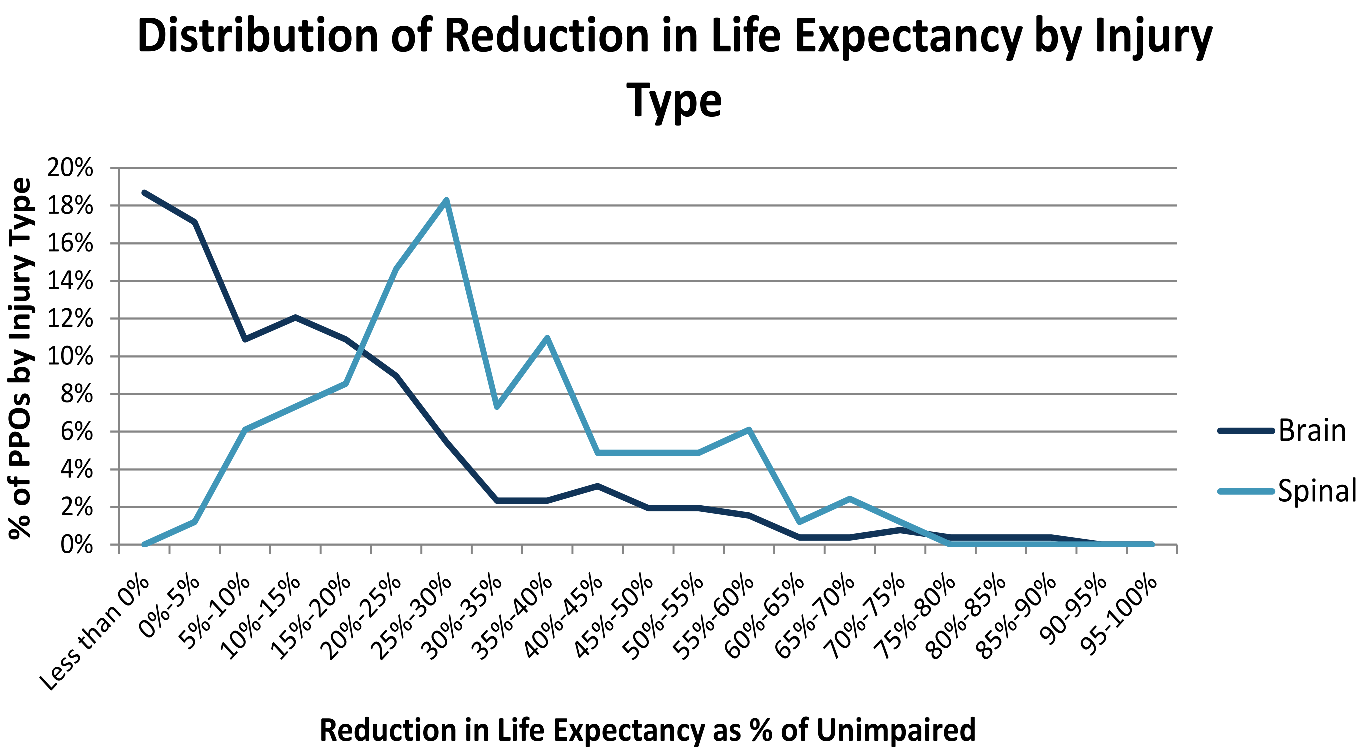
Unusual risks – life in general or specifically?

- Being contingent on survival, PPOs expose general insurance actuaries to life risk, which is outside their immediate sphere of expertise
- PPOs' longevity risk is an unusual variant, and to think about this let us consider who the claimants are
  - PPO claimants have typically suffered a brain or spinal injury, which has resulted in them needing care for the rest of their lives
  - This often leads to reduced life expectancies, as suggested in the course of lump-sum settlement processes
  - Claimants range from those needing a couple of hours help with daily living, to multiple full-time carers possibly relying on them directly for continued survival if on life support.
- There are no known mortality tables for these types of risks and constructing them is highly challenging, both from the time needed for the risk to mature and the low volumes of data

Impaired lives

- Life expectancy reductions by injury type (estimated by medical experts during the settlement process)

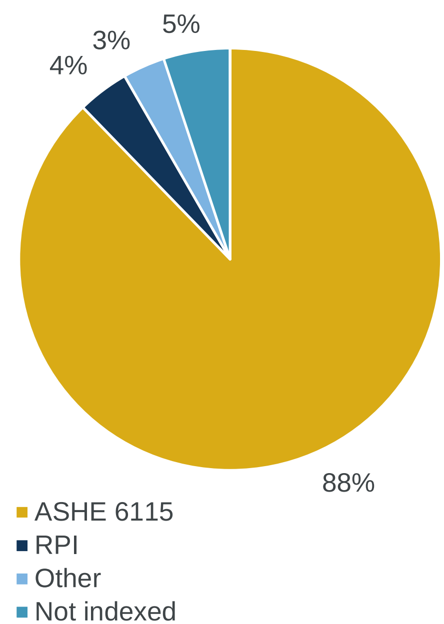


PPOWP
2014 Survey

Unusual risks – incredible inflation

- The prospect of indexing periodical payments with inflation chosen to be close to changes in future care costs sounds a good thing
  - A percentile of ASHE 6115 (Care assistants and home carers earnings) is the most common indexation reference
- However, how do you assess its risk and project the inflation of this small sub-set of the economy, based on a relatively small sample of survey respondents?
- ASHE 6115 is not the only indexation reference
  - Loss of earnings are commonly linked to other ASHE sub-codes
  - RPI and other indexation references are also in use

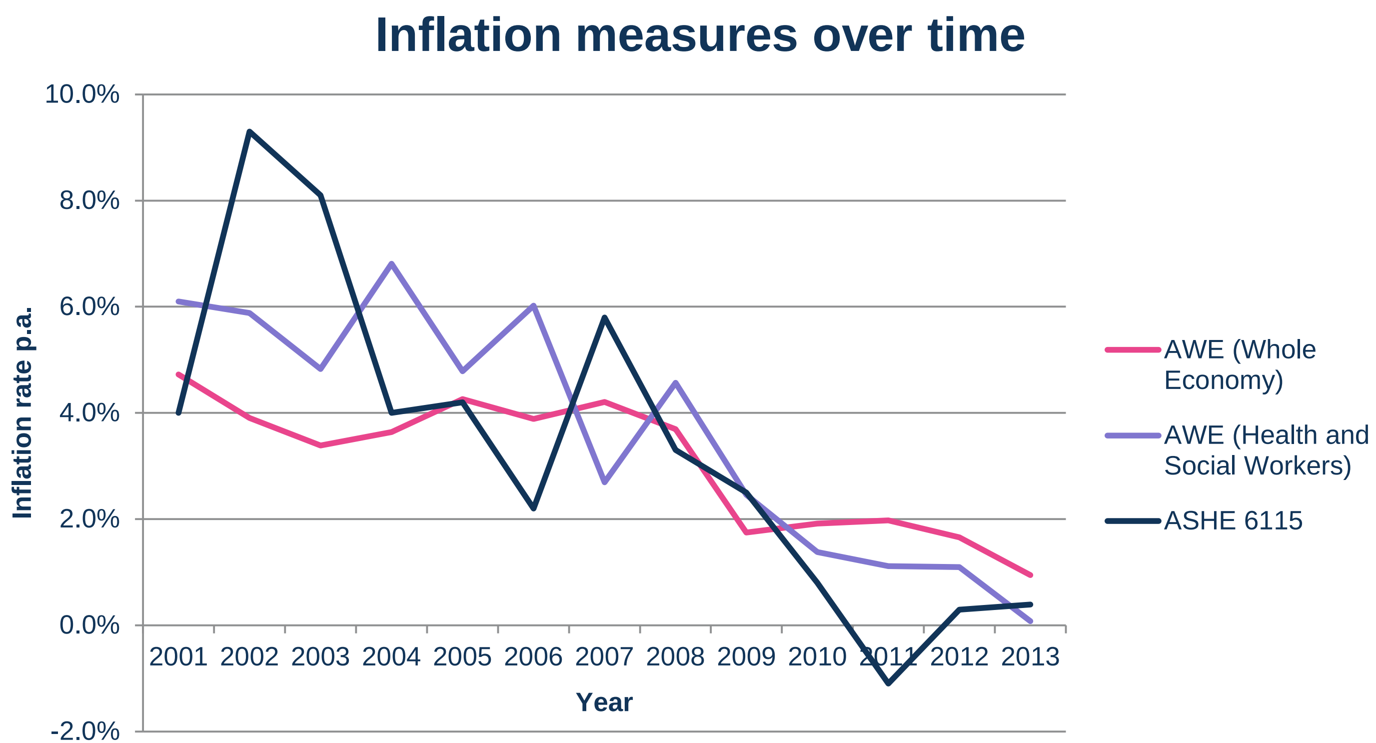
PPO indexation method for Motor Claims



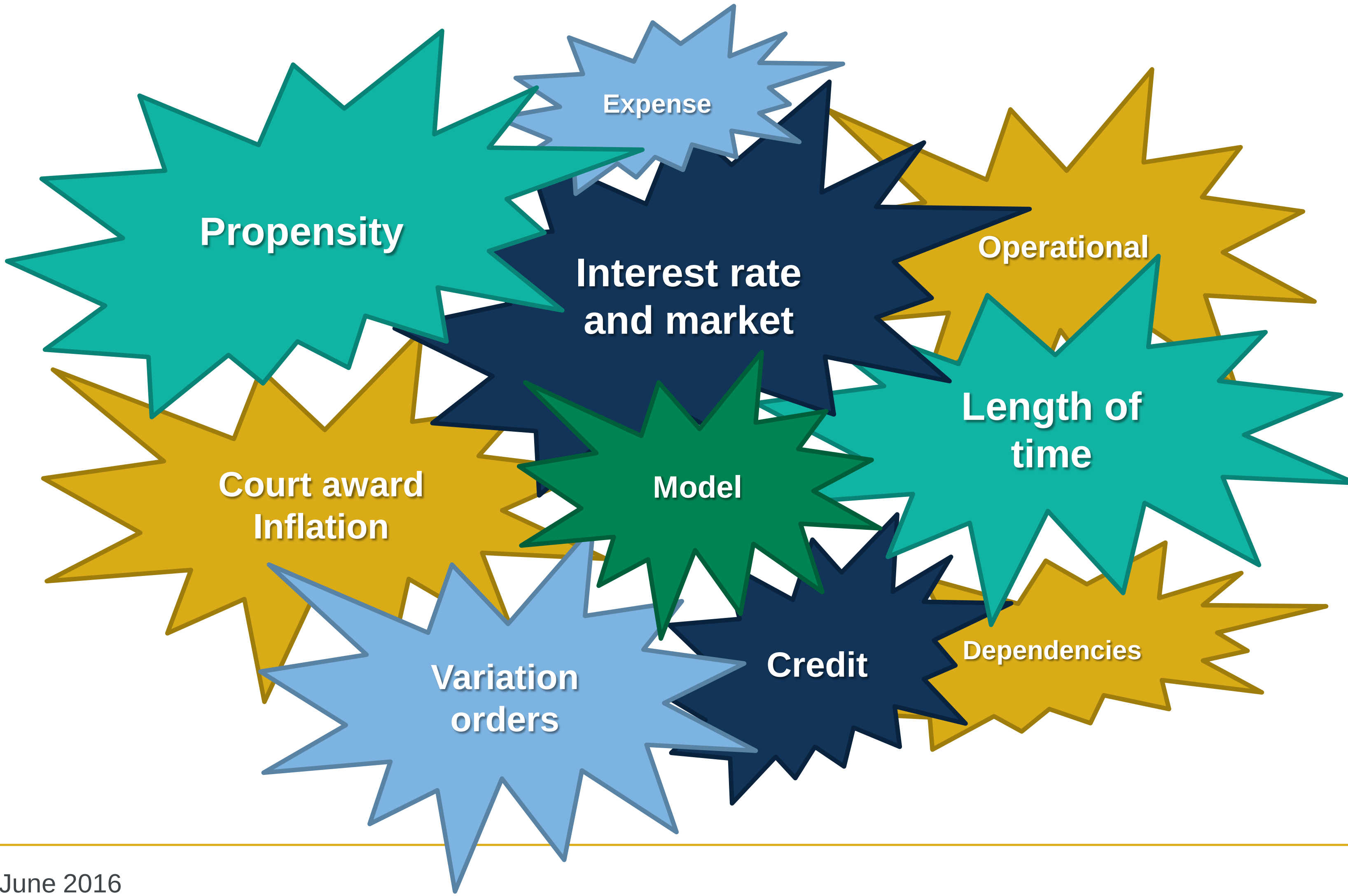
Source: 2014 GIRO Survey Report of the PPO Working Party

Historical ASHE 6115 inflation

- Comparisons of ASHE 6115 to other inflation measures

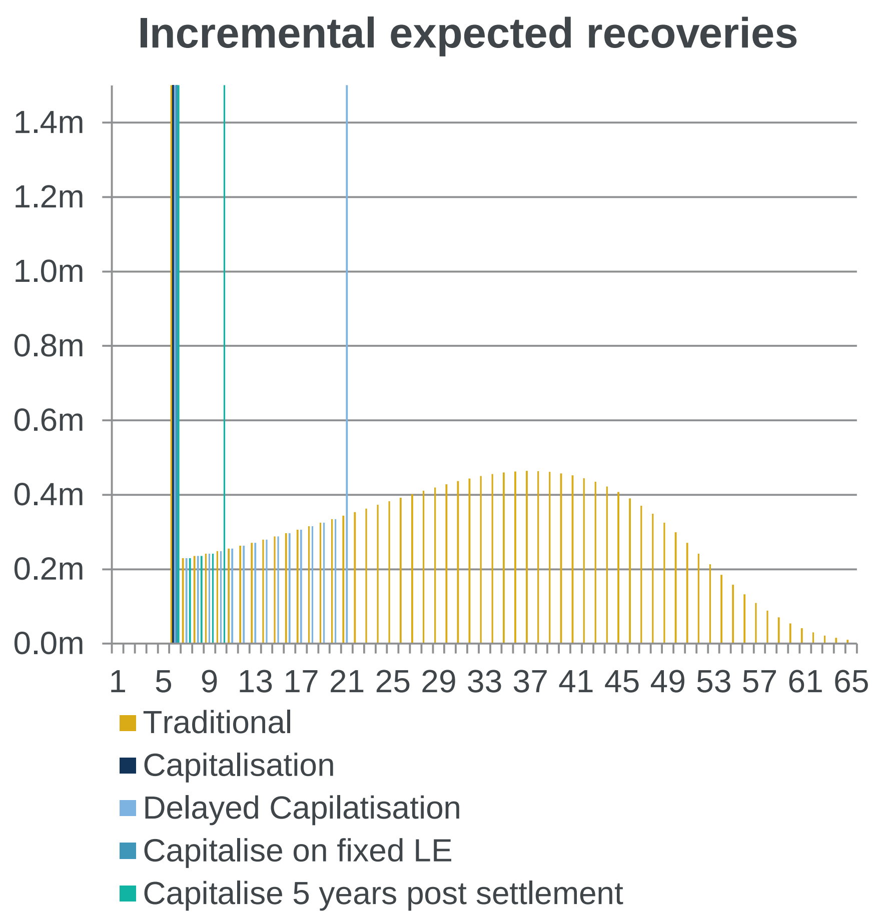


Other risks to consider over a long time



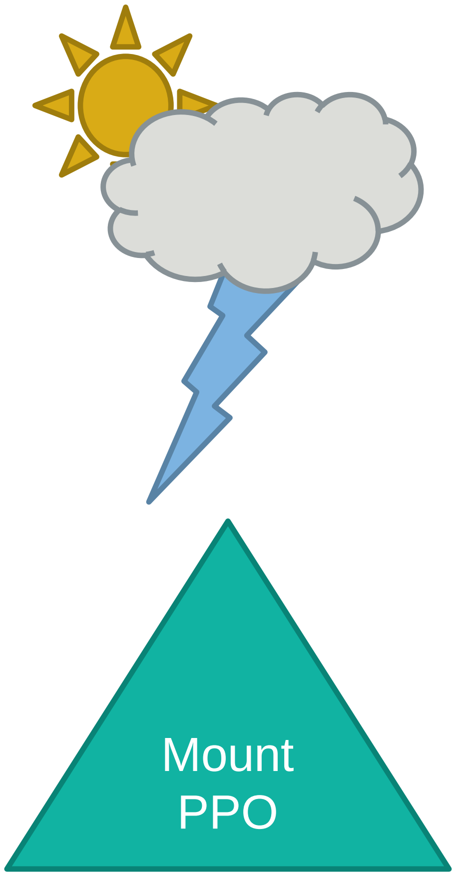
Focus on reinsurance

- PPO risk can be transferred by reinsurance
- Reinsurance of large losses is typically effected using Excess of Loss cover
- Since PPO risk is concentrated for reinsurers, there is a split in the market between offering capitalised (where PPO recoveries are paid to the cedant in a lump sum) and traditional cover
- The cash flows are often long duration increasing default risk compared to lump sum settlements



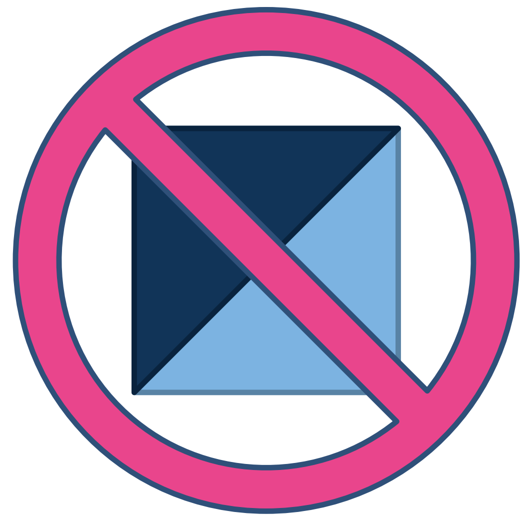
Boldly going…

- If actuarial practitioners wish to commence modelling, they need some data, assumptions and a model…
- Questions at this stage include
  - What claim data needs to be captured to understand the orders?
  - What will be the rate of indexation of the annual payments, how do you project inflation over decades without available reference assets?
  - If discounting (as is typical) what rate to use and should it not be linked to the indexation assumption above?
  - How do you adjust for reduced life expectancy without corresponding life tables?
  - What will be the rate of claims settling by way of PPOs and is this related to the assumptions above?



Reliable reserving, some thoughts…

- Ideas include
  - Do not use triangulation methods
  - Understand case estimates and traditional reserves and their overlap with PPO reserves
  - Use a cash-flow model if material
  - Do not forget reinsurance
  - Do some stress and scenario testing
  - Set up an actual versus expected process.



- These certainly don’t cover everything; the paper will contain more ideas!

Capital modelling conundrums

- Well reserving seems challenging enough, so how to extend this to model the full range of possible outcomes?
- Unlikely to be able to use the Standard Formula…
- Maybe start with the reserving models, and check it covers all material risks and construct one that balances parsimony with sophistication?
- Correlation of risk types will be very important
- Validation is also very important, including
  - Stress and scenario testing and sensitivity testing
  - Back-testing and stability testing
  - Peer review
  - Common sense – are the adverse outcomes from what are believed to be the most material risk

Pricing pointers

- With sparse data for rating analysis, the main objective currently is to determine a relationship between lump-sum and PPO claims.
- The two key assumptions to consider for pricing models are:
  - What is the proportion of claims that will result in a PPO (the propensity)
  - What is the cost uplift from a lump-sum claim to a PPO both from additional costs and increased risk.
- In determining the uplift it will be important to consider:
  - What discount rate and inflation rate for indexation of payments should be used?
  - What reinsurance cover does the insurer have (or retrocession for reinsurers)?
  - What is the additional cost of capital for a PPO settlement?
  - Is there any simple underwriting information that can be used?

Professionalism pressures

- PPOs support individuals that have suffered life-changing injuries and need care for the rest of their lives
  – Professionalism is needed to balance stakeholders' needs against the needs of claimants over a very long time horizon
- We recommend actuarial practitioners:
  – Increase their knowledge of PPOs
  – Use cash-flow models or other appropriate models specific to PPOs risks
  – Communicate risk clearly
  – Keep up to date with developments in the external environment
  – Work with others, including life actuaries, lawyers and claims handlers to increase the firm's overall knowledge of PPOs
- Not forgetting the Actuaries' Code and other standards including, but not limited to, the TASs!

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Discussion points

Now it is over to you…

20 June 2016

Questions

- The following slides give some potential questions to inspire your participation.
- **They are not provided to make a statement or present an opinion, implied or otherwise.**
- 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 PPO Working Party up to this point and are then those of the presenters

From the Information Paper

- What do you think is the biggest risk PPOs pose?
- How can actuarial practitioners increase their knowledge on PPOs and the issues surrounding them?
- Will appropriate life tables for PPO claimants ever exist?
- Do you understand your firms PPO data? What could you do to gain a better understanding?
- What are your thoughts on setting the main assumptions?
- What value is there for stochastic models in PPO reserving?
- How do you expect capital modelling of PPO liabilities to develop in the future?
- Will PPOs be priced by rating factor in the future?

On PPOs more generally

- What is the most appropriate asset-liability matching policy for a firm? How much should statutory and regulatory accounting requirements affect this decision?
- Are companies adequately reserved and are we providing guidance that is appropriate in the long-term?
- What impact does the discount rate for lump-sums have on PPOs?
- Should claims be indexed using ASHE 6115? What else could be used?
- Which is fairer for the claimant, a PPO or lump sum?
- What can we learn from other jurisdictions' methods of settling care costs and other heads of damage?
- Should the actuarial qualification have more information on PPOs?
- What happens if one or more insurers cannot meet their obligations?