Update from the PPO Working Party

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Agenda

• Reserving methodology
• Propensity
• Introduction of Irish PPOs
Note

• The views and opinions expressed in this paper are those held by the authors individually and do not represent the views and opinions of their employers or the Institute and Faculty of Actuaries.

• Although we have used our best efforts, no warranty is given about the accuracy of the information and no liability can be accepted for anybody relying on the accuracy of the information or following the recommendations in this presentation.
2015 Workstreams

- Mortality – UK
- Mortality – Australian
- Reinsurance
- Market Solution
- Bodily injury almanac
- PPO Information Paper
- Industry Survey
- Legal interviews
2014 Industry Survey

• 2014 survey taken as at 31 December 2013
  – 398 Motor PPOs, 45 Liability PPOs
  – Insurers surveyed cover >90% of PRA regulated market

• Can be used for benchmarking or observing industry trends in:
  – PPO Market experience
  – PPO Methodology

Look out for full report to be published 2015

18 June 2015
Thank you to our contributors

We are very grateful to all the contributors, including:

- Ageas (AIL)
- AIG
- Allianz Insurance
- Aviva
- AXA
- Covea
- CFS
- Direct Line Group
- esure
- Liverpool Victoria
- NFU Mutual
- RSA
- Saga
- Tesco Underwriting
- Zurich Insurance

Please note: The above insurers agreed to be acknowledged for their participation in the survey, so this list does not include all contributors.
PPO methodology
Actuaries ❤️ Triangles
Actuaries ❤ Triangles for PPOs

• Triangles fail us for PPOs

• Triangles only work well where the past is a good estimate to the future
  – The whole industry’s claims don’t have a reliable pattern for numbers
  – Then there’s the question of scanty data in individual firms

• What would be projected in a triangle?
  – Inflation
  – Mortality
  – Steps in payment steams
  – Variation orders being activated
An uplifting approach

The difference between what is in your triangle and your PPO valuation.

But, how well do you know your triangles?

• What is included in your incurred triangles?
  – Discount rate assumptions

• Impact on your large claims projections?

• Treatment of PPOs in your paid triangles?
Think outside the triangle

• Cash flow approach for PPOs
  – Insurers tend to use cashflow approach for settled PPO valuations
    • 8 Probabilistic
    • 5 Annuity-certain
      – Even more important for reinsurance considerations (and pricing)
        • Indexation clause
        • Different cedants
        • Different treaties by year

• Stochastic models can capture the impact and correlations of economic variables and stochastic mortality.
Adjusting for impairments

• For whole-of-life cash flow approaches survival probabilities are required
  – Should consider impact of claimant’s impairment on future life expectancy

• Adjustment options:
  – Rated Age
  – Additive adjustment
  – Multiplicative scaling
Impact of changing mortality assumptions
(all impairments imply same life expectancy)

Single typical PPO – 4% wage inflation assumption - undiscounted
PPO propensity outlook
Frequency of PPO settlements

Number of PPOs by Settlement Year

Settlement Year

Number of PPOs

- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013

Motor

Liability
Frequency of PPOs by Accident Period

Number of PPOs by Accident Year

CAVEAT!

There are distortions from looking at settled PPOs on an accident period basis:

- Misses the IBNER and IBNR elements
  - Average delay from accident to settlement is 6 years
- Those claims which take longer to settlement are likely to be the larger claims, and larger claims have a higher likelihood of settling as a PPO
Frequency of PPOs by Accident Period

Number of PPOs by Accident Year

- Motor
- Liability

Accident Year

Number of PPOs
Frequency of PPOs by Accident Period

Number of PPOs by Accident Year

- **Motor**
- **Liability**

<table>
<thead>
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<th>Accident Year</th>
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PPOWP 2014 Survey
PPO Propensity by Accident Period

PPO Propensity of Large Claims - Motor

PPO Propensity of Large Claims by Accident Year - Motor

PPOWP 2014 Survey
Delay to settlement

Delay to Settlement by Accident Year

Delay to Settlement by Settlement Year

PPO Propensity of Large Claims by Accident Year - Motor

- Number of large claims (including PPOs)
- Propensity

PPOWP 2014 Survey

18 June 2015
Recent trends in PPO Propensity

Number of PPOs by Settlement Year

- Number of PPO settlements 32% lower in 2013 compared to 2012
Current trends in PPO propensity

- Still collecting data, but starting to get indication of 2014 level.

  Over the halfway point and it appears as if…
  
  … the 2014 settlement year will…
  
  … exhibit a similar propensity to 2013.

- Results will be confirmed at GIRO

- Caveat: PPO propensity may be different for remainder of contributors.
Propensity vs Market share

- **High PPO Propensity (% premium)**:
  - **Low Market Share**: few PPOs, small market share
  - **High Market Share**: many PPOs, large market share

- **Low PPO Propensity (% premium)**:
  - **Low Market Share**: few PPOs, small market share
  - **High Market Share**: many PPOs, large market share
Propensity vs Market share

PPO Propensity (% premium)

Market Share

High

Low

PPOWP 2014 Survey

* Indicative diagram

17 June 2015
Introduction of Irish PPOs
PPOs in Ireland

- Possible will be introduced into Ireland **by the end of this year**
  - in the Civil Liability (Amendment) Act 2015
  - dependent on elections

- **Irish Harmonised Index of Consumer Prices** (HCIP)
  - published by the Central Statistics Office (CSO)

- The appropriateness of this **indexation rate will be reviewed**
  - **within the first 5 years** introduction of the Act and
  - **every subsequent 5 years**
    - Adequately measures changes in costs - additional uplift for additional wage growth required?
    - Decision will be made by the Minister and the Minister of Finance
    - **Changes to the index rate applied annually will be prospective** and made for the next 5 years

- Awarded for: Medical treatment, Future care or Assistive technology/aids
  - Loss of earnings only included following agreement of the defendant and plaintiff

- The limits of the Insurance Compensation Fund do not apply to PPOs
Conclusions
Conclusions

• **PPO Reserving Methodology**
  – It is vital to know what is in your large claims triangles in respect to PPOs
  – Mortality method has significant impact on reserves

• **Propensity**
  – Carefully consider results on accident period basis
  – 2014 Propensity revealed at GIRO but appears to have sustained lower level

• **Irish PPOs**
  – Looking to be introduced 2015Q4 or 2016Q1
  – Indexation different to UK PPOs

• **Look out for the information paper, latest survey reports and get involved by helping categorise injuries in a standard way soon**
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.
Questions

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