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PPOs – What's the market doing?

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05 May 2020

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Note

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- 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.

These slides represent views from the perspective of insurers and reinsurers.

If you have any questions, please contact Sharon Cumberbatch at the IFoA who will be able to put you in touch with the IFoA PPO Working Party members. Alternatively get in touch directly, our details are given at the end of the presentation.

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PPOWP
2019 Survey

Contents

- This presentation combines two elements
  - 2018 YE quantitative survey results presented at GIRO 2019
  - 2019 qualitative survey results

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PPOWP
2019 Survey

2019 PPO Working Party Qualitative Survey

- Conducted telephone interviews with senior actuaries and claims staff from various insurers and reinsurers regarding their exposure and approach to PPOs
  - Recent view – interview conducted in early 2020
  - All analysis presented relates to these interviews unless otherwise stated
  - 11 insurers and 3 reinsurers.

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Agenda

- PPO propensity
- Actuarial methodology
  - Level of concern
  - Reserving methodology (excluding Ogden discount rate)
  - Capital modelling
  - Pricing and claims management
- Reinsurance and alternative risk transfer
- Investment
- Ogden discount rate
- Conclusions

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PPO Propensity

2018 YE Quantitative Results

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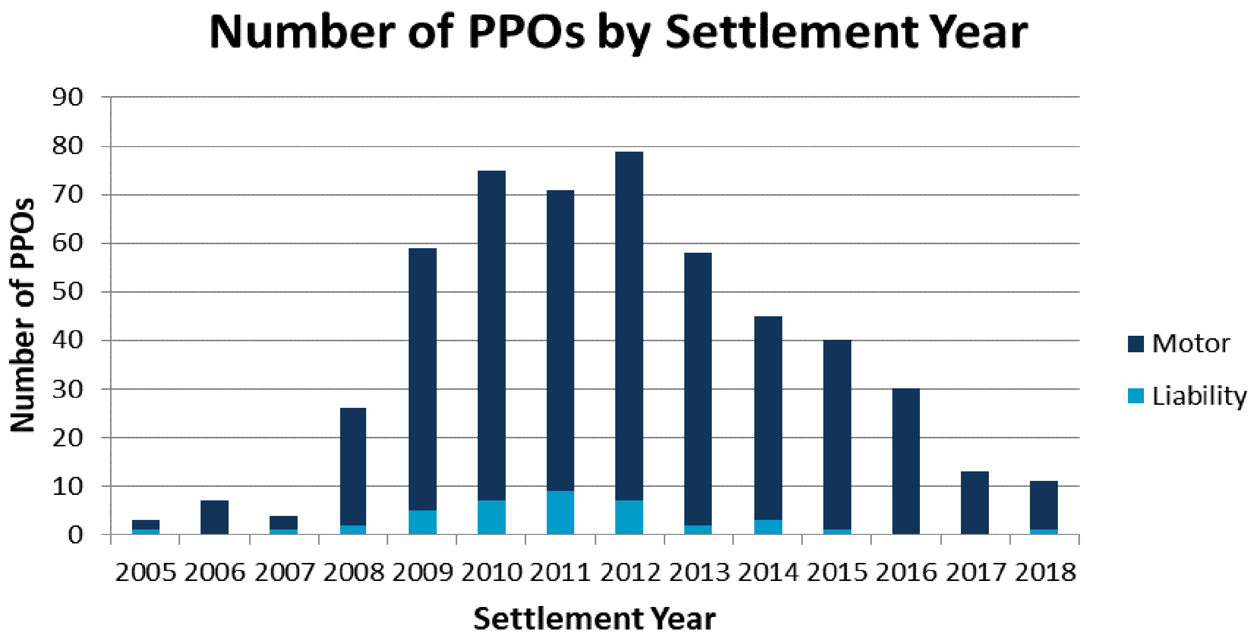
Number of PPOs



- The number of PPOs settling has stayed at a similar level in 2018.
  - The number of PPOs settling in 2018 has reduced by 84% from levels seen in years 2009-2013.
  - The number of PPOs settling in 2018 has reduced by 71% from 2014-2016 levels.
  - The number of PPOs settling in 2018 has reduced by 63% from 2016.
  - BUT, there are still PPOs in a -0.75% Ogden Discount Rate world!
  - One Liability PPO for the first year since 2015.

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PPO Propensity Analysis

- Please note that all of the following propensity graphs involve Motor large claims from 2009 onwards ONLY, unless otherwise stated.
- Please also note that these results are presented as at 31 December 2018 and therefore after the Ogden discount rate change in March 2017, but prior to the Ogden discount rate change in August 2019.
- Large claims have been included in these graphs if they were > £1 million in 2011, using a 7% inflation rate.
  - For PPOs, we have used the equivalent Ogden value as if the claim had settled as a non-PPO.
- We have presented our results on various bases, as explained in the following slides.

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PPO Propensity Bases

- Akin to our more recent surveys, we present PPO propensity on a raw basis as well as a standardised basis.
- We standardise the propensity by taking into account the mix in the size of claims experience in each year.
  - This produces a PPO propensity with no bias due to the volatility in the size of large claims by year.
  - Information on how this is done can be found in the appendix of this presentation or in last year's GIRO presentation.

PPO Propensity Bases

- We also present the analysis with and without an adjustment for the change in Ogden discount rate.
  - We have calculated the adjustments
  - We have used the insurer provided values for
    - Estimated discount rate
    - Claimant details (age, impairment, gender, etc)
    - Financial amounts (lump sum, annual cost of care, etc)
  - Thus we have extracted the relevant multipliers by discount rate, age and gender and used these to adjust the settlement amount

Pre/Post Ogden discount rate change March 2017	Ogden equivalent PPO value discount rate	Large Claim discount rate
Pre	2.5%	2.5%
Post - unadjusted	0.5%	Rate used in settlement
Post - adjusted	2.5%	2.5%

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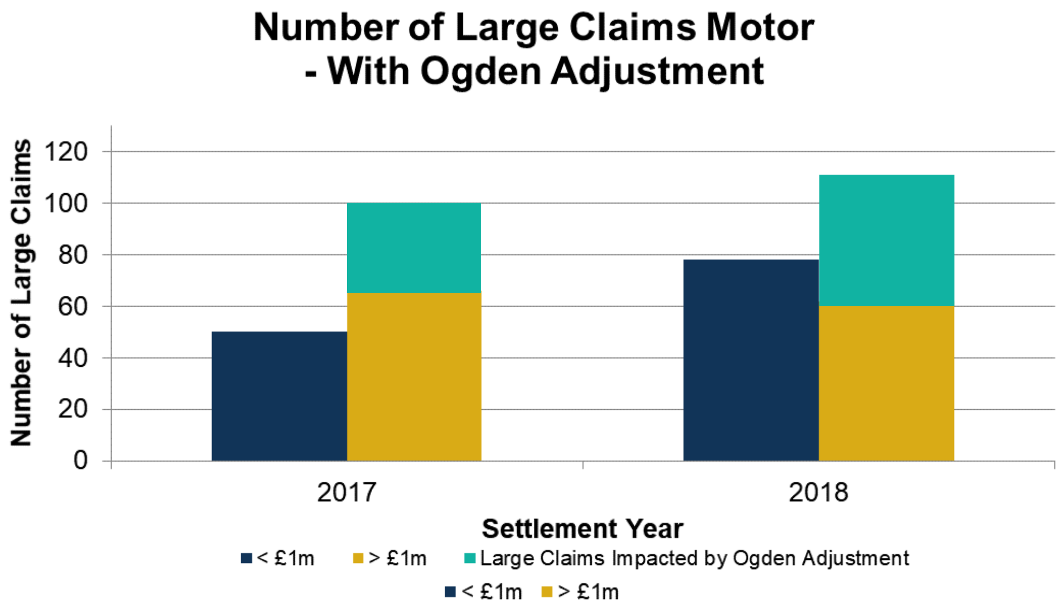
Number of Large Claims – Ogden Adjustment



- Large claims have been included in our analysis if they are > £1 million in 2011 money terms.
- When adjusting the large claims to be on a consistent 2.5% basis, the number within the analysis decreases.
- This is driven by large claims of a smaller total value being included in the analysis in a - 0.75% discount world. We would expect these claims to be in respect of:
  - Less severe injuries
  - Older age of claimant

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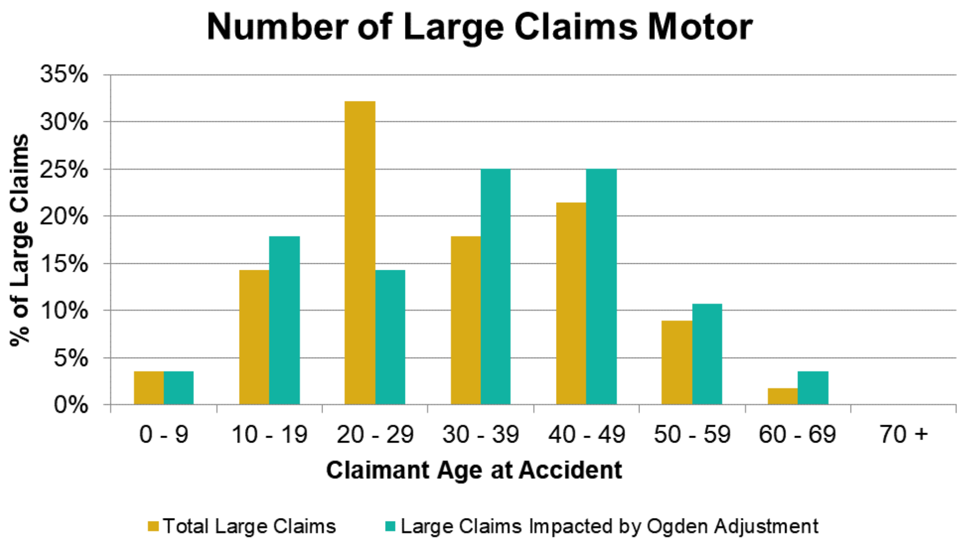
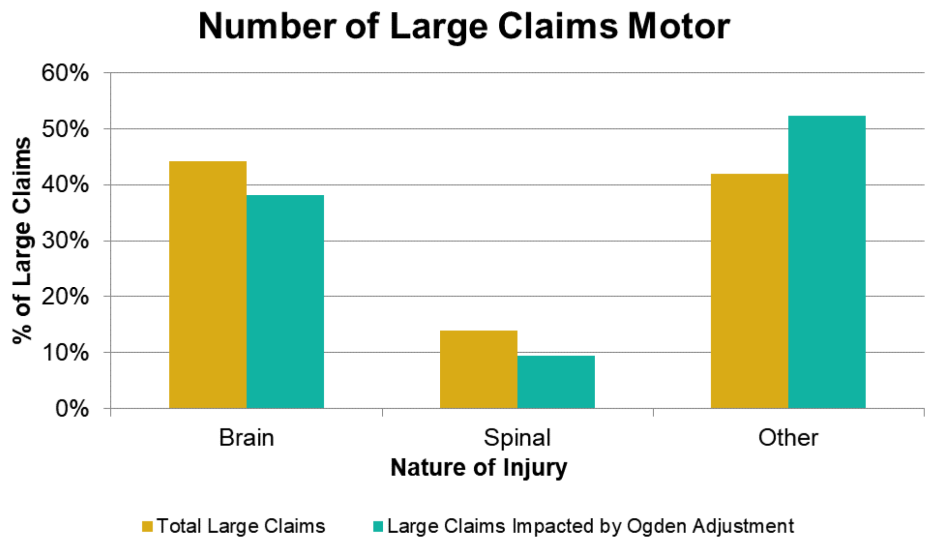
Number of Large Claims – Ogden Adjustment





- The charts above illustrate the split of the total large claims for the 2017 and 2018 settlement year vs the large claims fell beneath the threshold after the Ogden adjustment.
- In general, these claims which became non-large after the Ogden adjustment have a higher claimant age than the total large claims.
- There is also a higher proportion of Other claims compared with Brain and Spinal injury claims, which tend to be less severe in nature.
- As these claims tend to exhibit a lower PPO propensity, we would expect the overall propensity to increase for the 2017 and 2018 years, when making the Ogden adjustment.
- Please note that this is a small subset of data, so subject to volatility.

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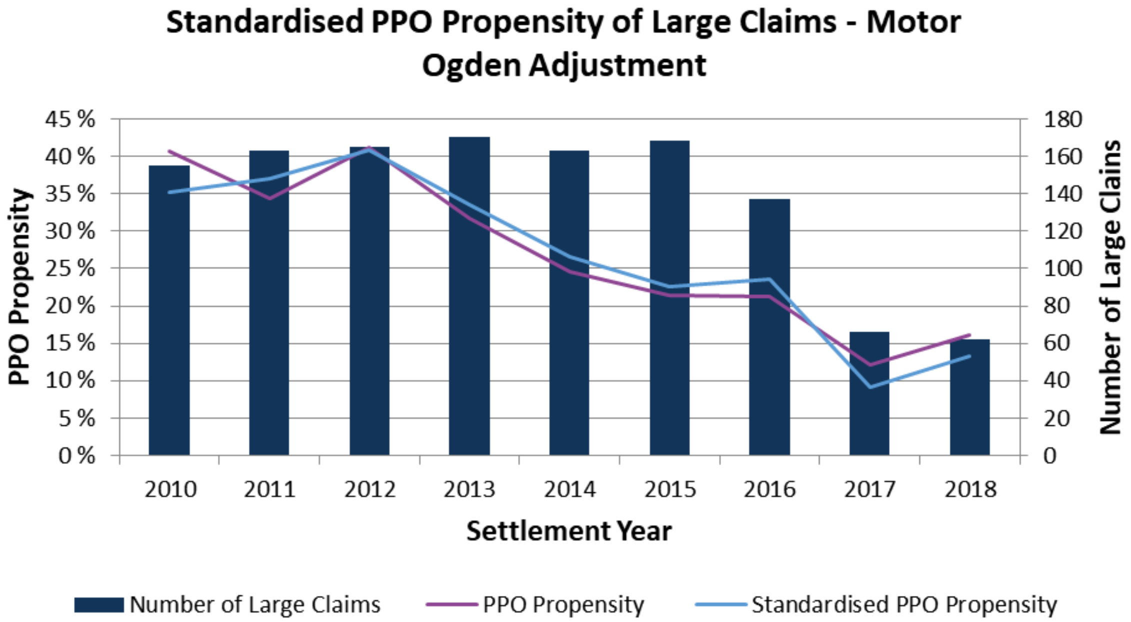
Number of Large Claims – Ogden Adjustment

- What does this mean?
- We expect the Ogden adjusted propensity to be unaffected by the “mix of business” shift that occurs in our unadjusted propensity charts in the 2017 and 2018 year
- This means we can better compare PPO propensity to previous years

PPO Propensity – With Ogden Adjustment



- This graph aims to show the propensity with the pure monetary effect of the Ogden discount rate change taken away, everything on a 2.5% Ogden rate level.
- The standardised propensity has risen by 48% and the raw version by 33% from the 2017 settlement year.
  - This increase on an Ogden adjusted basis represents a true increase in the PPO propensity compared with the 2017 settlement year.
- Fewer large claims settling above £1 million in 2018.

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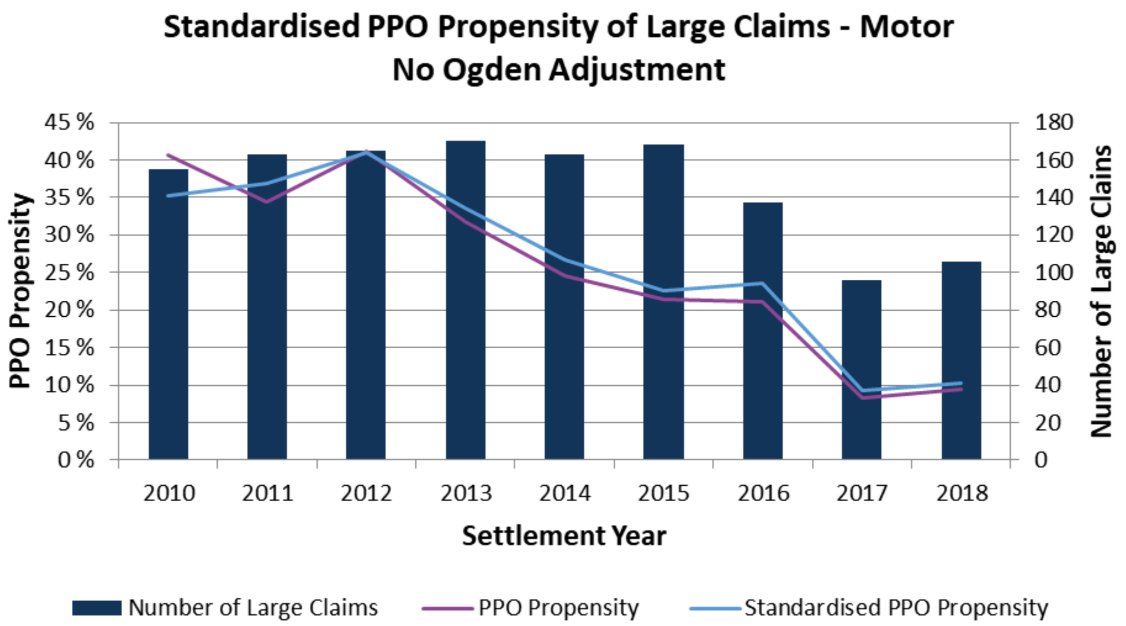
PPO Propensity – Without Ogden Adjustment



- Motor PPO propensity has, increased slightly for the 2018 settlement year.
- The standardised propensity has risen by 6% and the raw version by 13% from the 2017 settlement year
- A small increase in the number of large claims settling above £1 million in 2018. But 2017 and 2019 still exhibit fewer large claims than we might expect
- The PPO propensity figures for older years may differ (not substantially) from previous surveys due to change in mix of contributors.

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Actuarial methodology

Level of concern

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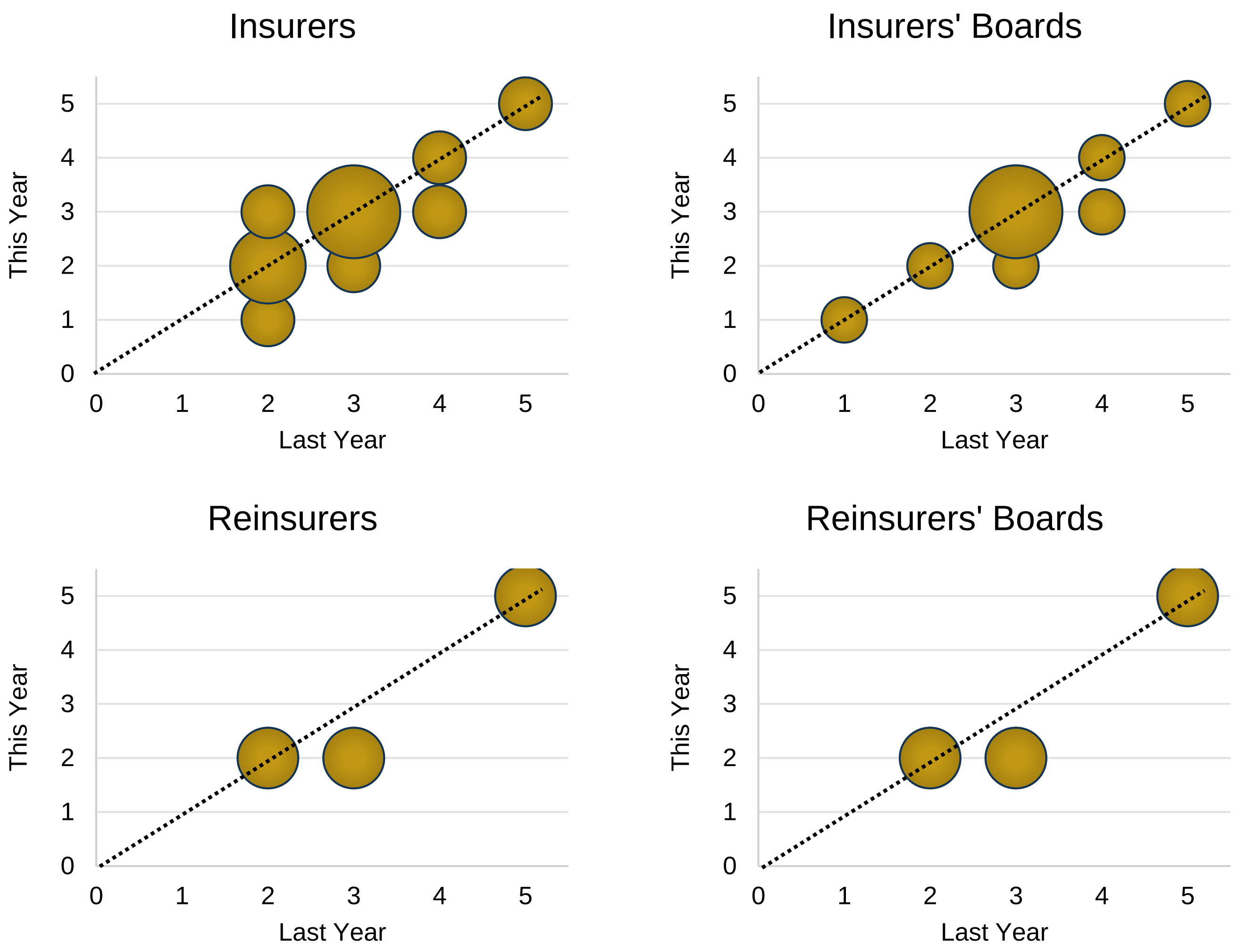
Level of concern regarding PPOs

- Chart showing concern levels between years
- Scale of 1 to 5, with 5 representing most concerned
- The average score for insurers was 2.8 and 2.8 for their Boards
- The average score for reinsurers was 3.0 and 3.0 for their Boards.



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Reasons behind insurer / reinsurer concern

- Why no change (9):
  - The impact that PPOs have on reserves and capital is still high
  - Concerns around investment and return on assets, but happy with methodology
  - Still uncertainty around propensity following Ogden discount rate change
  - PPO propensity / the impact of PPOs is currently low.
- Why increase (1):
  - Under IFRS 17 the basis of inclusion for PPOs may have a material impact.
- Why decrease (4):
  - PPO propensity / the impact of PPOs is currently low.

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Reasons behind Board concern

- Why no change (10):
  - The impact that PPOs have on reserves and capital is still high
  - Concerns over investments and the long-term nature of PPOs
  - The Ogden discount rate change has led to a reduction in propensity meaning the impact of PPOs
- Why increase (0):
- Why decrease (4):
  - PPO propensity fallen due to Ogden discount rate change
  - There are larger issues than PPOs

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Actuarial methodology

Reserving methodology

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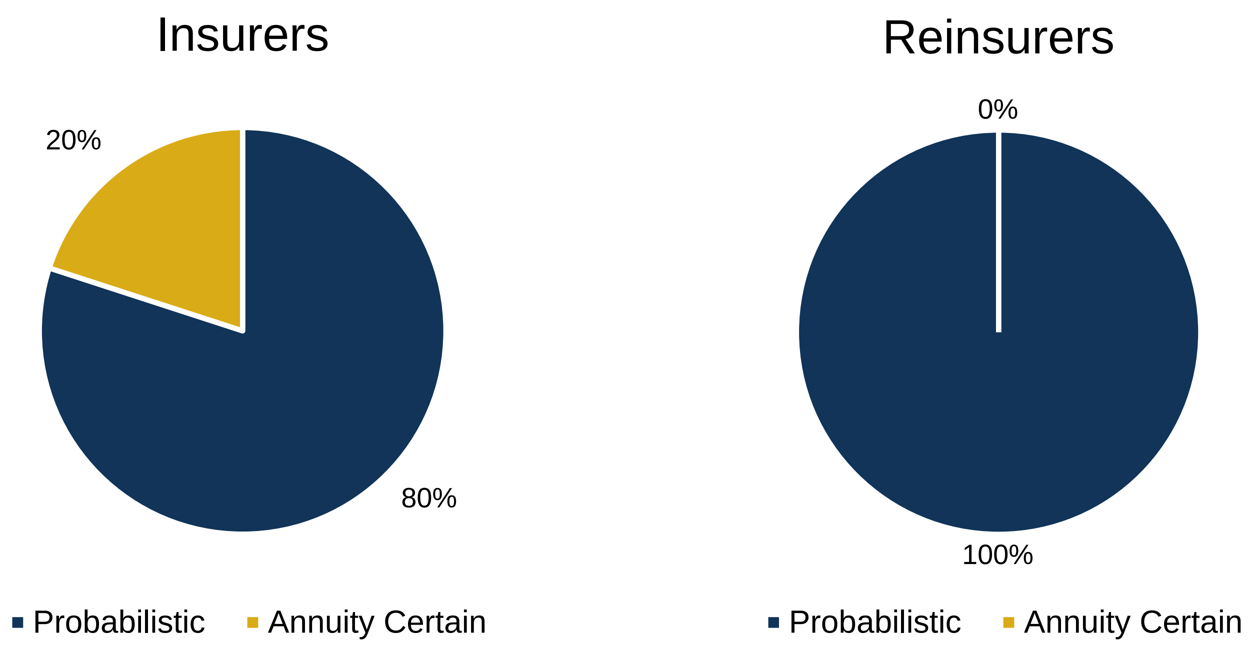
How do you reserve for settled PPOs?



- The majority of those asked based their life expectancy on an average between their own medical expert's view and the view from the claimant's team.
- Almost all those asked had not changed their reserving methodology in the last year.

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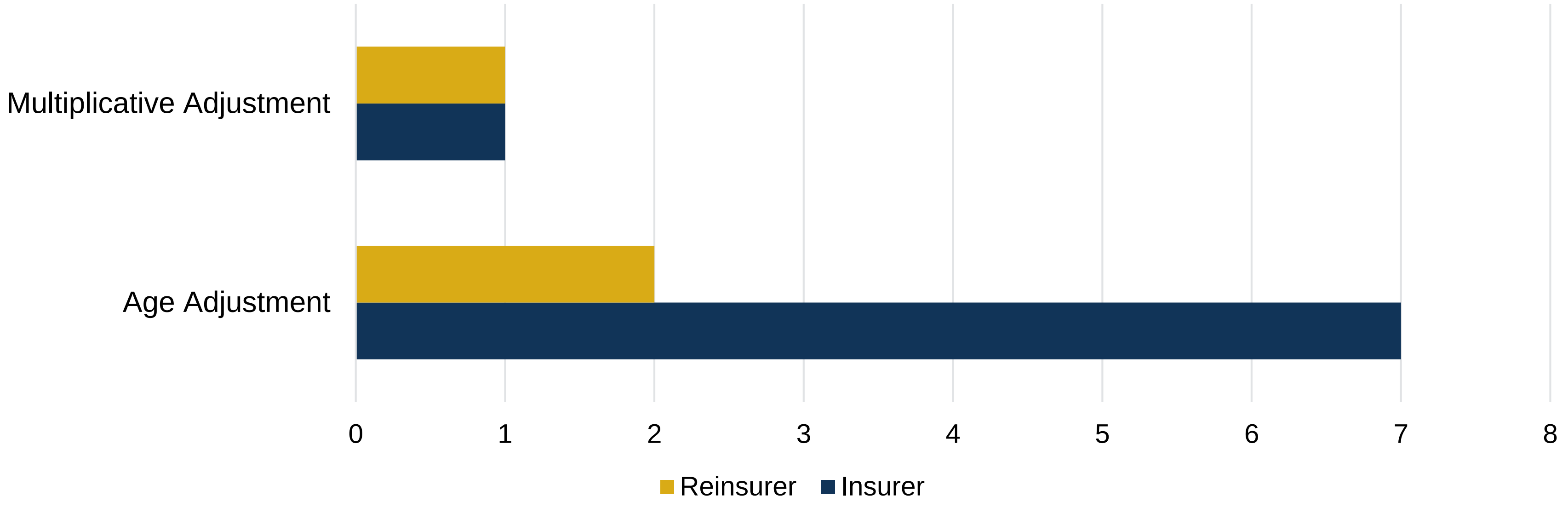
How do you reserve for settled PPOs?

- How do you scale your life table?
  - Multiplicative adjustment: assumed that the claimant had a mortality experience “z” times more than the life tables suggest
  - Ageing adjustment: considered the claimant had the mortality experience of someone “y”-years older than their actual age.

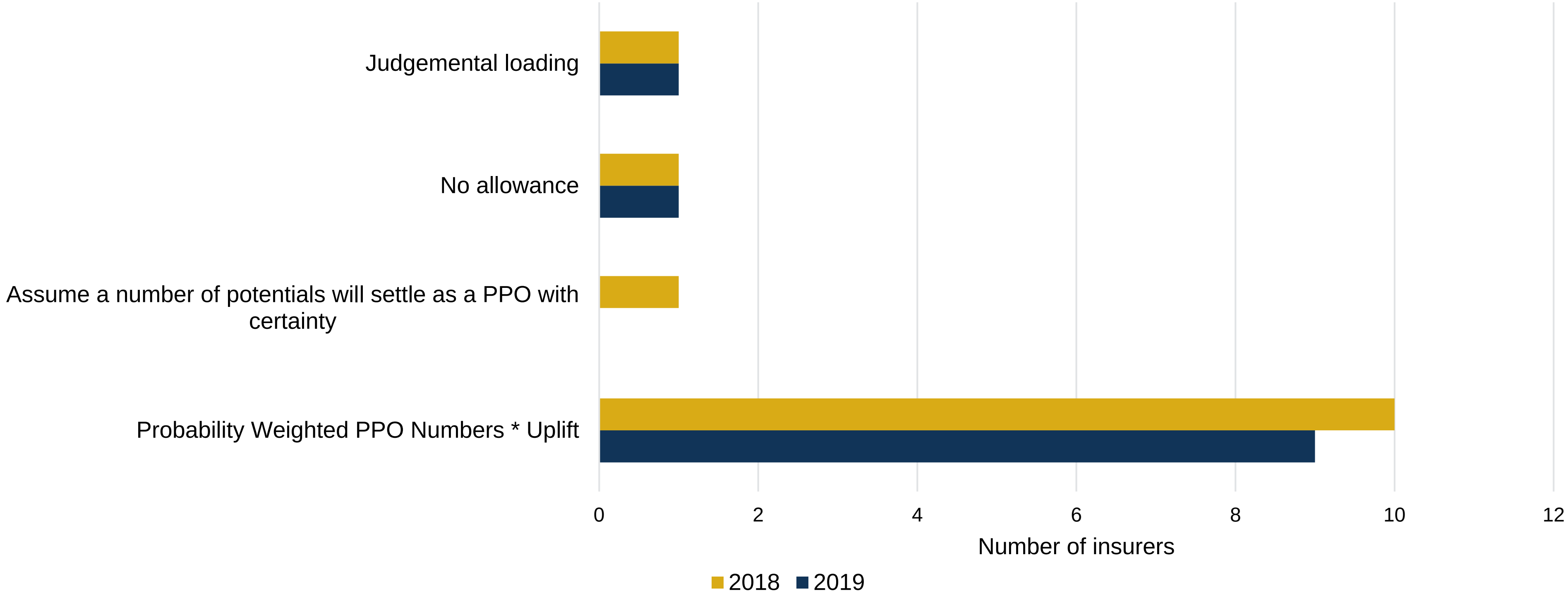


IBNR PPOs – identification

- All insurers and reinsurers said that they monitored their open claims and assessed the probability of them becoming PPOs.
- Not all claims were monitored by all participants:
  - Some only looked at a certain number by injury outstanding estimate
  - Some only looked at open large claims > £1 million
  - Some did look at every injury claim individually.
- Indicators used included injury type (particularly mental capacity), age, annual care cost.
- Insurers reviewed potential PPOs monthly, quarterly and some annually.
- A combination of historical propensity data and IFoA PPO Working Party propensities applied to claims split by large claim threshold was perhaps the most common approach.
- The majority of insurers and reinsurers monitored the accuracy of their predictions.
- All reinsurers noted that their notification rules for PPOs did not differ by cedant.

IBNR PPOs – reserving

- The chart below shows the approaches taken by insurers in relation to claims already identified as large claims. All reinsurers used a “Probability Weighted PPO Numbers * Uplift” approach.



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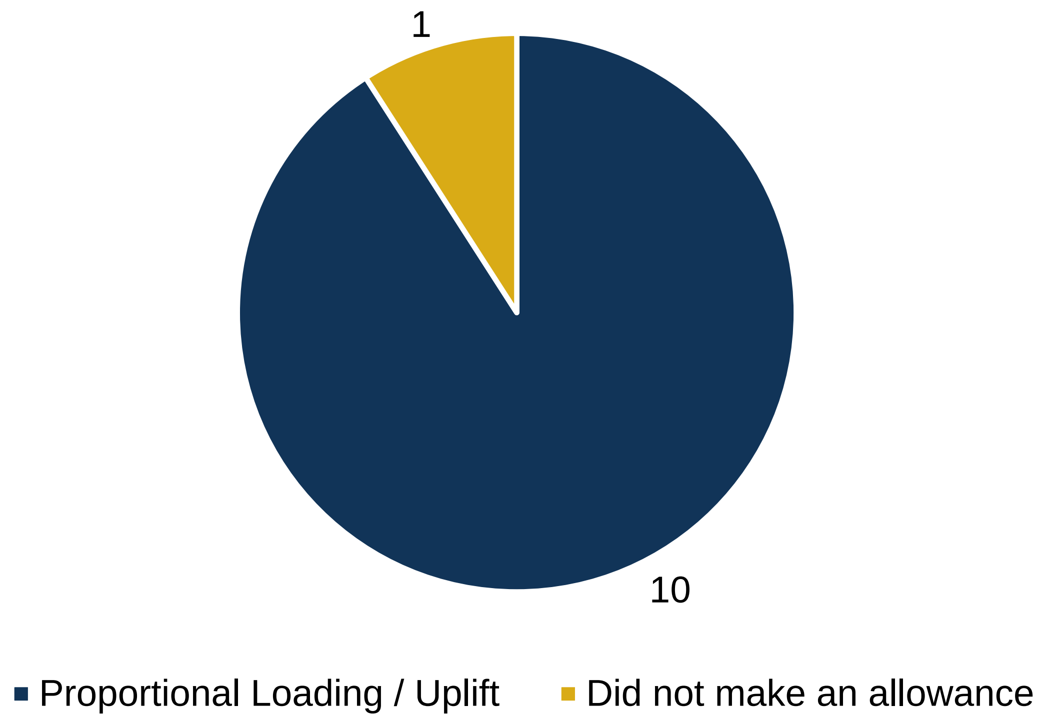
Pure IBNR PPOs – reserving

- The majority of those Insurers asked considered pure IBNR PPOs (in relation to claims not yet reported) and added a proportional loading to the PPO reserves.



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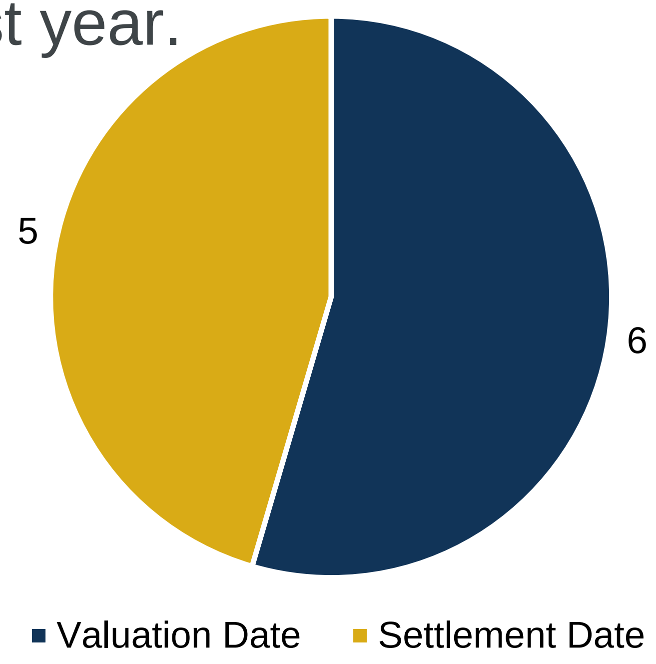
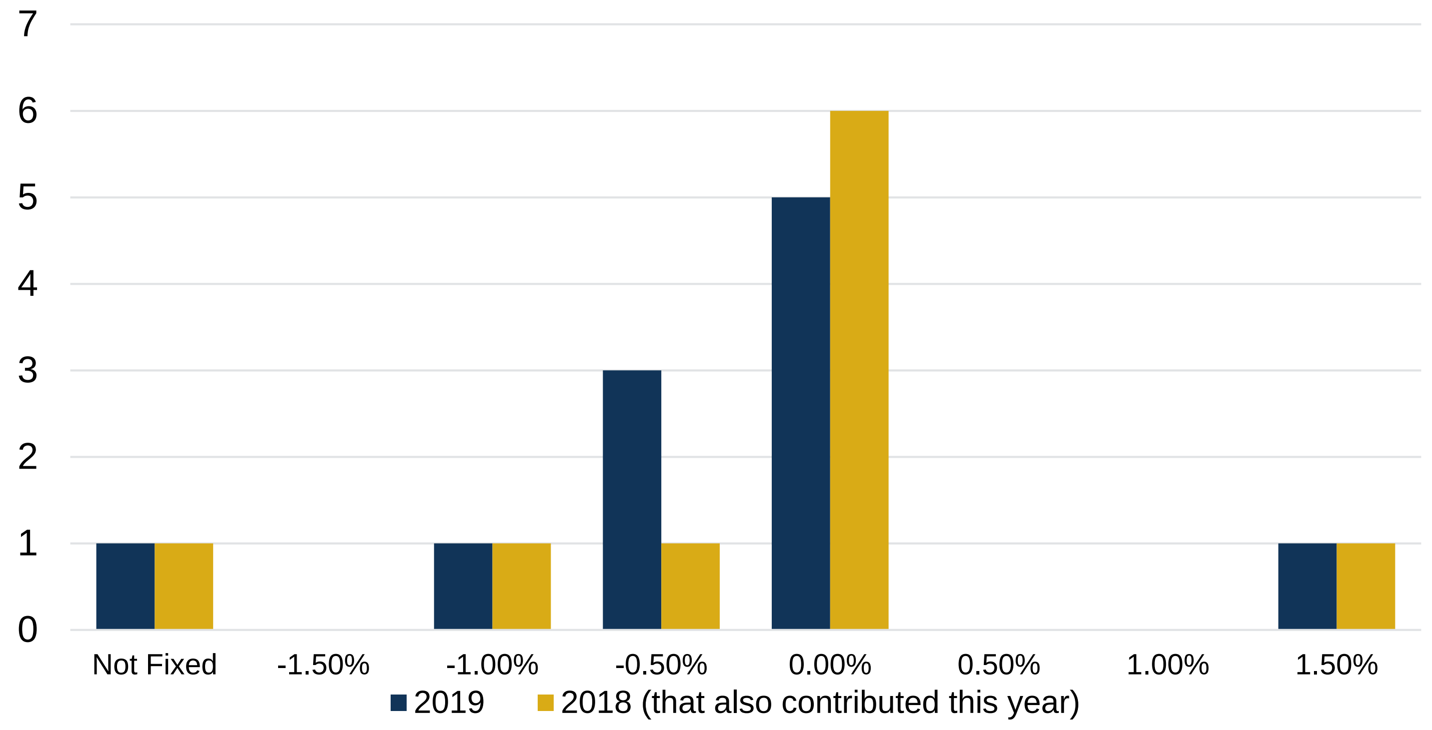
IBNR PPOs – discount to what date?

- 6 Insurers discounted to valuation date and 5 to expected settlement date under UK GAAP or IFRS.
- All but one of those asked said their reserving methodology for IBNR PPOs had not changed in the last year.



Discounting – real discount rate (GAAP or IFRS)

- For insurers, the most popular real discount rate used for PPO projections remained at 0% per annum.
- There has been a slight downward shift in real discount rates when compared to last year.



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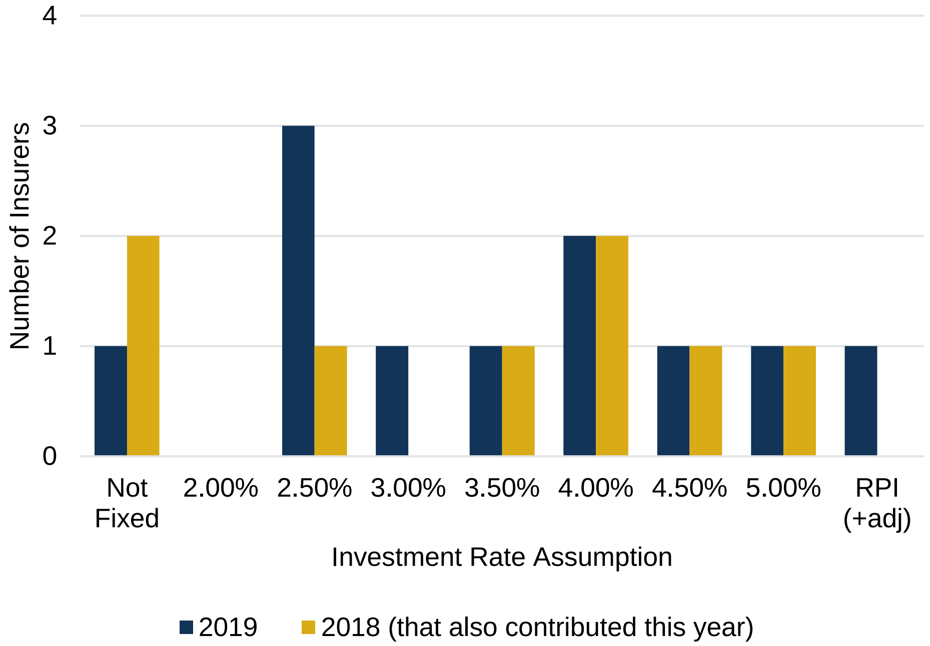
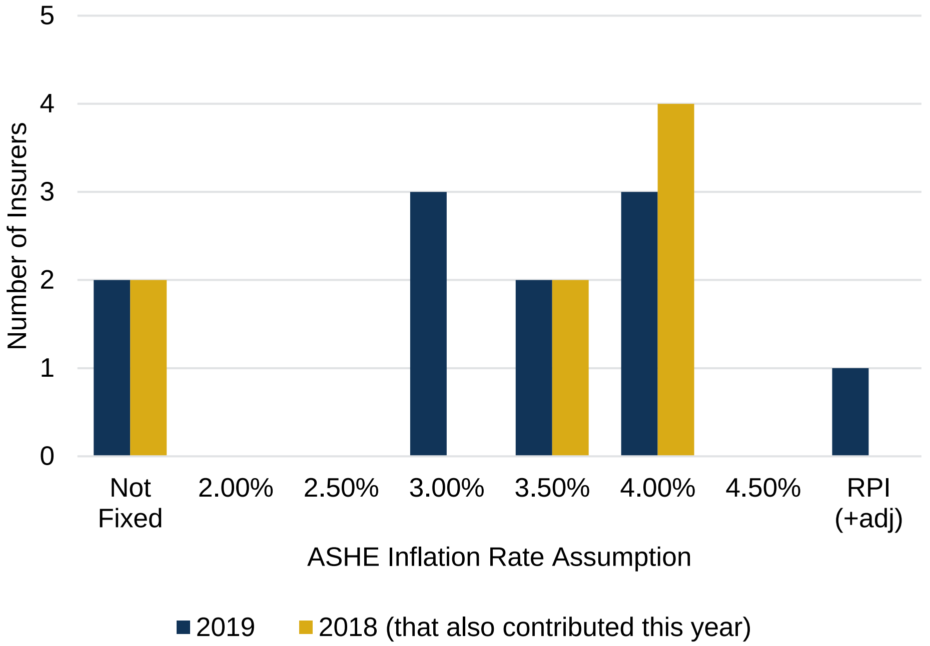
Discounting – components of real discount

Investment return and ASHE inflation assumptions (GAAP or IFRS)

- Rates which weren't fixed tended to follow risk free yield curves or were based on risk free yield curves with an adjustment.
- Long term yields were generally based on the current assets held by the insurers
- Future ASHE was derived using historical ASHE and RPI mostly.





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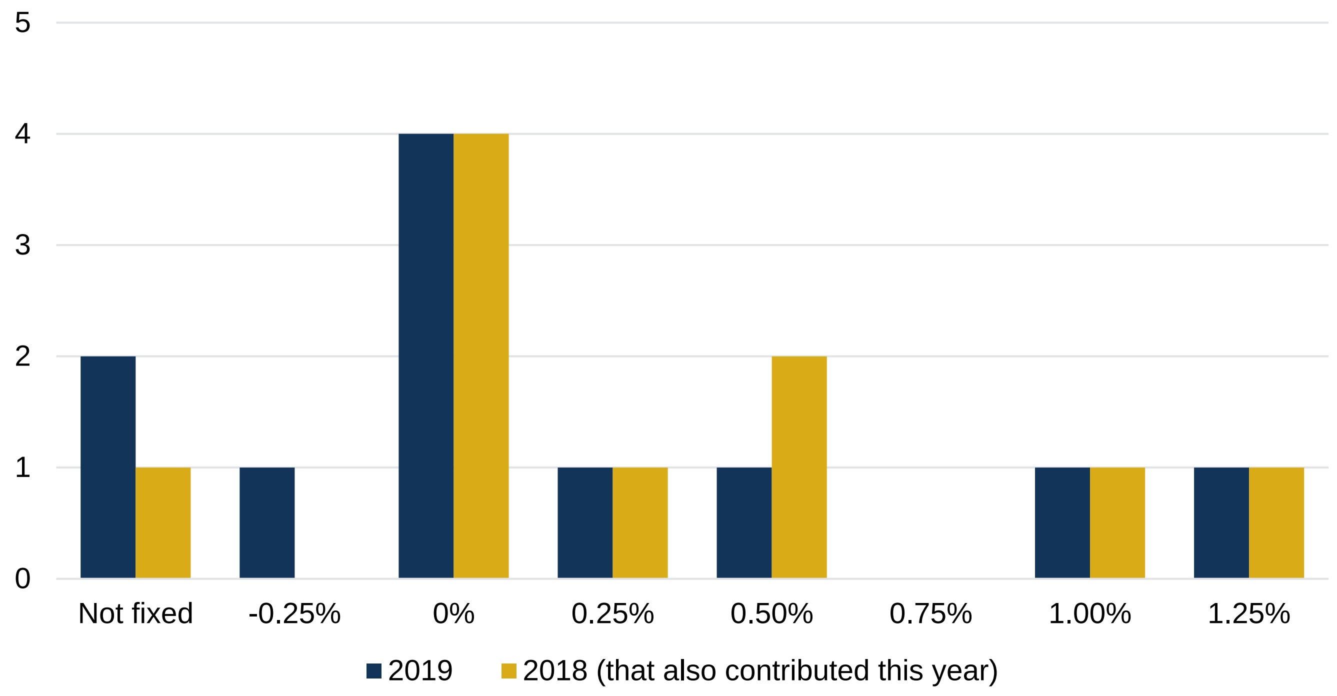
What gap is assumed between RPI and ASHE

- We asked what the gap was between the Insurers' RPI and ASHE inflation long term assumptions
  - Contributors assumed a range of gaps, with the majority between 0% and 0.5%.
  - In all but one cases ASHE inflation was assumed to be higher than RPI.
- All insurers regard the 80th percentile as the default ASHE percentile.

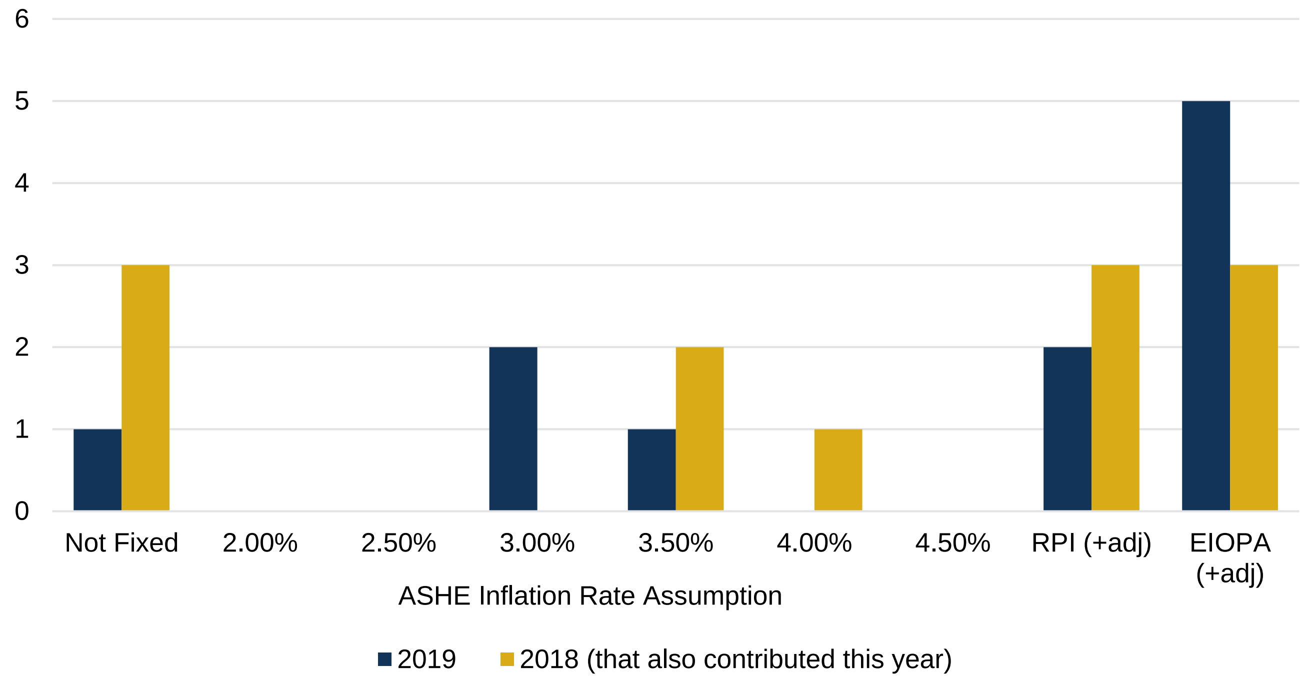


Discounting – reinsurers (GAAP or IFRS)

- All but one of the reinsurers did not discount due to US GAAP reporting requirements.
- The one that did discount had a real discount rate of 0% per annum.
- ESG projections taking into account historic ASHE and CPI fed their inflation assumptions.
- For all of the reinsurers ASHE inflation was assumed to be higher than RPI, and the ASHE 80th percentile was regarded as the default ASHE percentile.

Discounting – Solvency II

- As the EIOPA curve is prescribed, the main question revolves around the inflation rate used
  - All reinsurers used the same ASHE rate for both valuations if applicable.
- **The current real discount rate over 20 to 40 years assuming an ASHE of 3% is ~ -2.0%**



Discounting – Solvency II

- Two of the eleven insurers asked had changed either their inflation or investment or both assumptions in the last year.
- None of the insurers or reinsurers asked had any transitional arrangements on technical provisions for the change of discount rate.
- Five out of eleven insurers said they were using a volatility adjustor but none were using a matching adjustment.
- None of the reinsurers used either the volatility adjustor of the matching adjustment.

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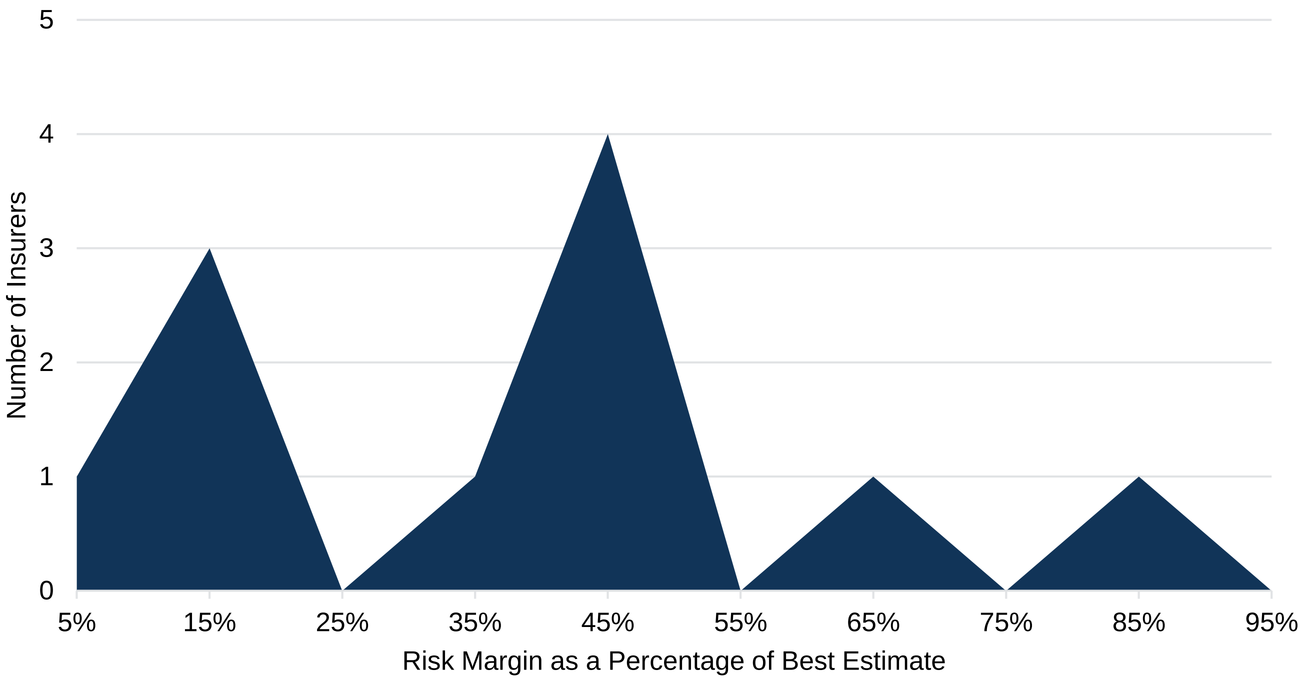
PPO risk margin

- For those who calculated (or could estimate) a PPO risk margin, the distribution of the (approximate) risk margin as a proportion of best estimate for insurers is displayed below.
- The PPO risk margin was calculated in a variety of ways, both implicitly within reserve risk as well as explicitly.



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Variation orders and bad debt

- Although there were a significant number of PPOs with variation orders, and some with indemnity / reverse indemnity guarantees, when valuing their PPOs only five insurers said they explicitly considered these and only two said they explicitly allowed for these.

	Variation Orders	Indemnity Guarantees	Reverse Indemnity Guarantees
Total for Insurers	95	14	12

- Reinsurers that provided this information had 106 variation orders in total and 29 reverse indemnity guarantees, and none of them allowed explicitly for these when valuing their PPOs.
  - N.B. some of the variation orders and guarantees may be in both the insurer and reinsurer totals.
- One insurer and one reinsurer allowed for bad debt under UK GAAP / IFRS / other, but all must under Solvency II.
  - Those that did allow for bad debt did so using a probability of default * loss given default method

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Uncertainty in reserving

- All insurers quantified the reserve uncertainty in PPOs, about half stochastically and the other half using scenario tests.
- All reinsurers explicitly quantified PPO reserve uncertainty, two using scenario tests and one using a stochastic method.
- A variety of correlations were assumed with other large losses, varying from no explicit correlation to 100% correlation.
- The CVs for the gross PPO uncertainty ranged from 12% to 100%. The CVs for the net PPO uncertainty ranged from 11% to 100%. There was, however, inconsistency between responses in terms of whether it was settled, potential or pure IBNR PPOs being considered, which gives rise to the wide ranges quoted.
- The majority of settled PPO gross / net CVs were between 15% and 35%

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Actuarial methodology

Capital modelling

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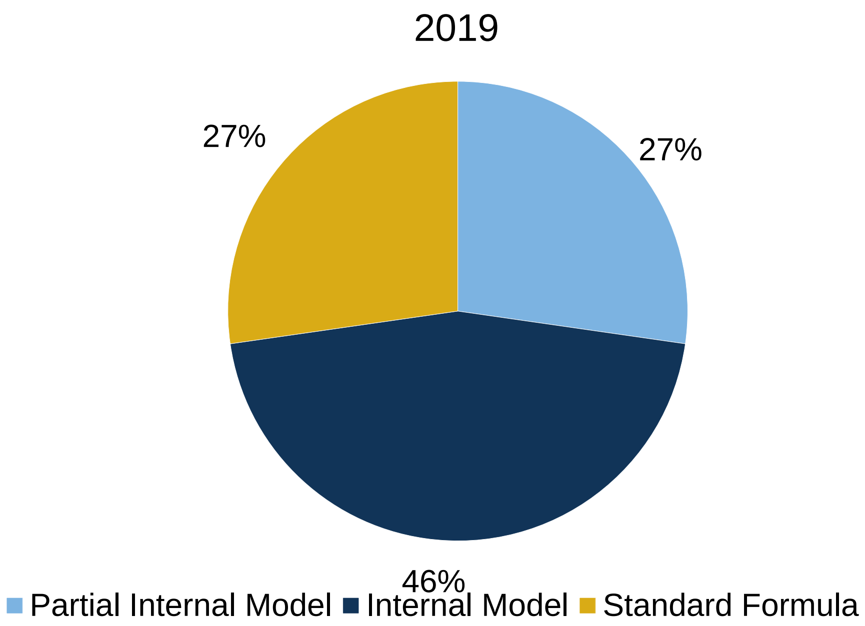
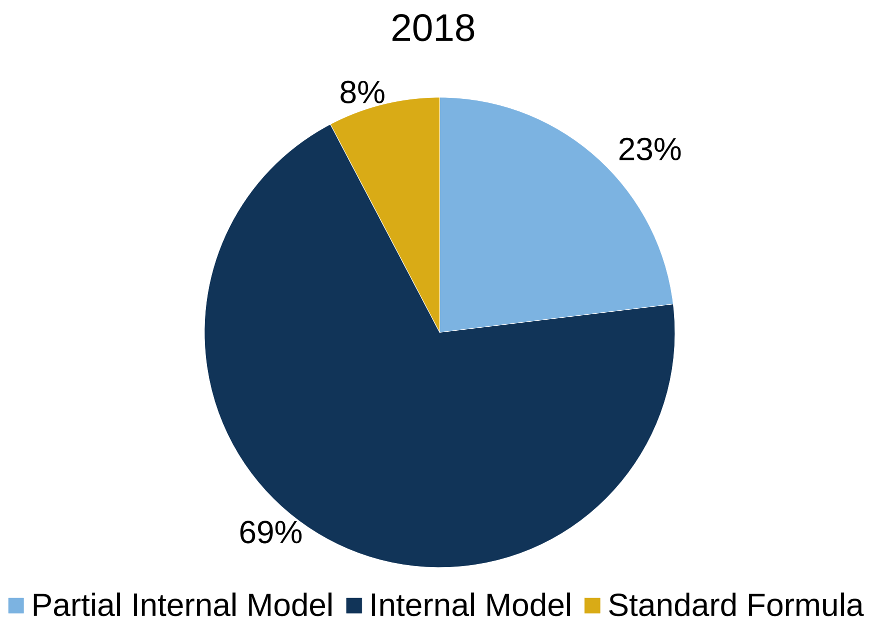
PPOs in SCR

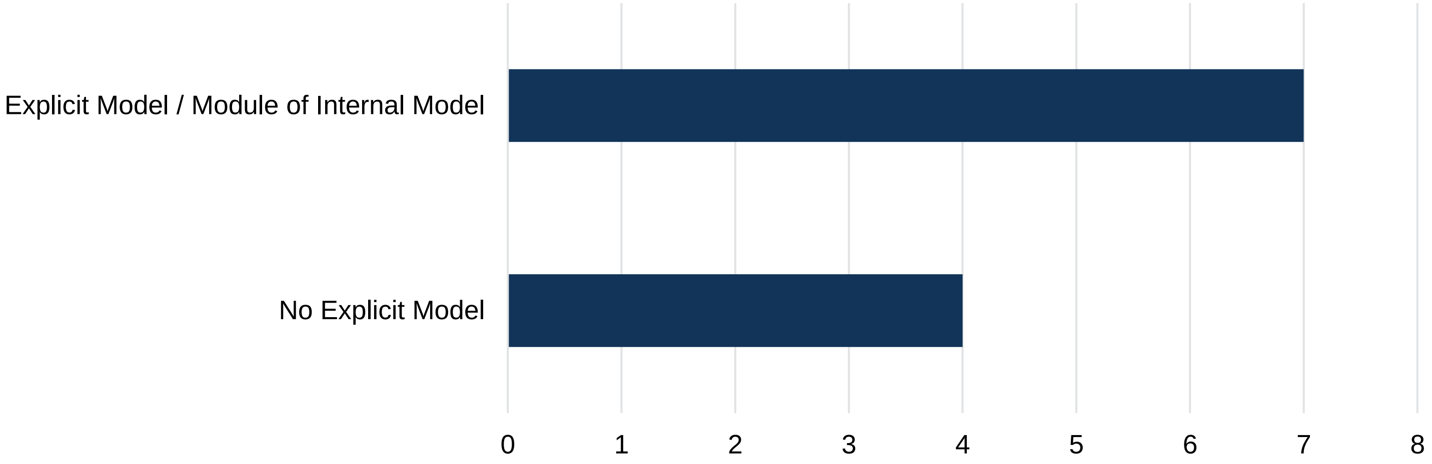
- Nearly all insurers use an internal model or partial internal model when valuing PPOs in their SCR.
- The proportion of participants using the standard formula has increased from last year.
- All participating reinsurers used an internal model.

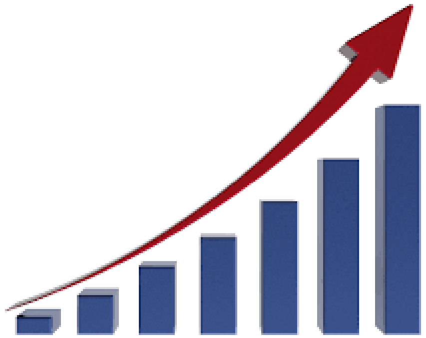




PPOs in capital models

- The majority of insurers have a separate PPO model for capital purposes as part of their internal / partial internal capital model.
- PPO models allowed for uncertainty in mortality, life expectancy, nominal discount rate, the number of large claims, reinsurance recoveries, payment escalation and the PPO propensity.
- None of the reinsurers used separate stochastic models for PPOs.





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Differences between one year and ultimate

- Most insurers / reinsurers said that there was a lower capital requirement for the one year vs ultimate view:
  - Three said that the one year measure of risk was between 25% and 50% of the ultimate measure of risk
  - Two said the one year measure of risk was between 50 and 75%
  - One said the one year measure of risk was between 75% and 100%
  - One said there was no difference.
- Three insurers said they had different bases for evaluating economic and regulatory capital, using an internal model for economic and standard formula for the SCR.

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Actuarial methodology

Pricing and claims management

How are PPOs allowed for in pricing?

- Five insurers said that they apply an explicit load or margin to their prices to cover PPOs, with six allowing for PPOs implicitly
- Four insurers explicitly took into account the cost of capital of PPOs when pricing, with seven saying it was an implicit assumption of did not do so.

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Claim management procedures

- Most insurers said that there was no difference in their approach or claims handling procedures to settling via a PPO or lump sum and that they didn't use measures to actively encourage / discourage PPO settlements.
- Some noted differences due to the different implications, and need for an enhanced skillset to settle claims on a PPO basis.

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Reinsurance and alternative risk transfer

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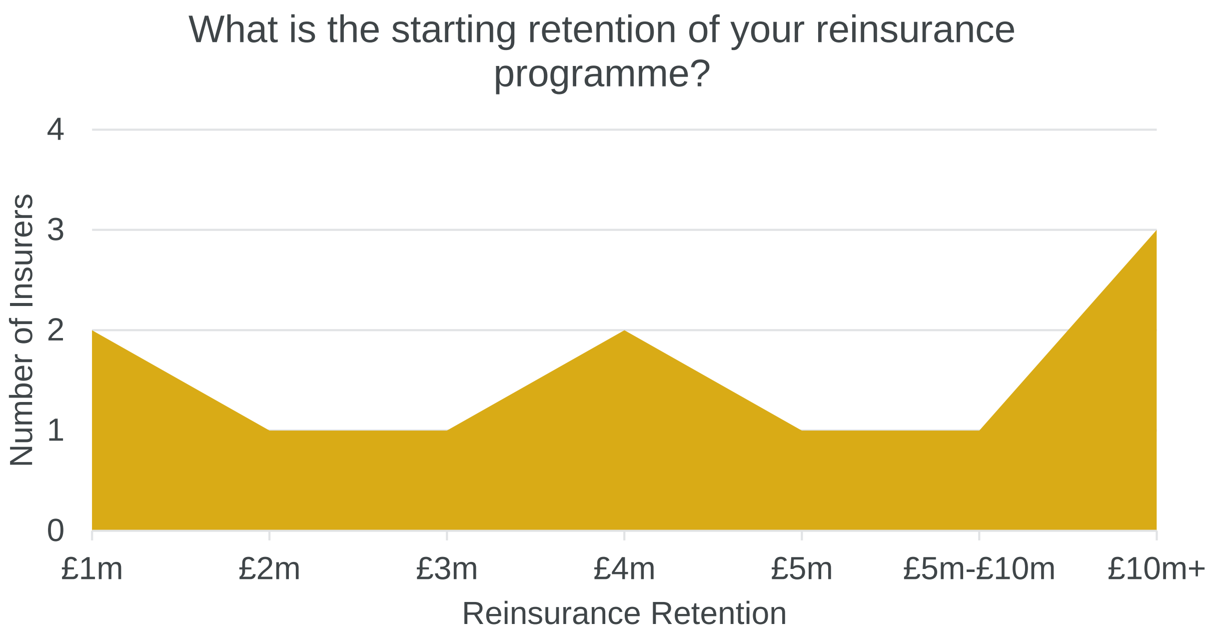
Reinsurance in the market



- Only one of the 11 insurers said that their reinsurance programme had changed as a result of PPOs.
- We also asked insurers whether they took the impact of the cost of capital into account when buying reinsurance – 9 insurers said they did.

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Reinsurance availability

- All of the reinsurers asked stated that their reinsurance offerings had changed due to PPOs:
  - They also noted that their reinsurance offering had not changed as a result of the recent Ogden discount rate change.

Capitalisation clauses

Capitalisation clause: allows (or even compels) the reinsurer to settle an individual PPO liability as a lump sum with the insurer, on a pre-agreed bases, once such an award has been made / agreed.

Three main contract types offered are:

- **Uncapitalised:** Traditional "Pay as Paid“ basis with inflation-linked deductible, recoveries made throughout the lifetime of the claimant.
- **IUA Capitalisation:** Lump sum capitalisation at time of settlement, allows for life impairment typically by way of medical expert opinion. Full and final settlement.
- **Delayed 20 Capitalisation:** “Follow the fortunes” for 20 years then lump sum capitalisation 20 years after expiry of reinsurance treaty. Typically assume unimpaired mortality for lump sum.

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Reinsurers' view on capitalisation clauses

- Two reinsurers insisted on capitalisation clauses while one used them on a case by case basis.
- Reinsurers stated that capitalisation clauses are to improve their profit and loss account.
- Reinsurers stated a number of PPOs had been capitalised already.

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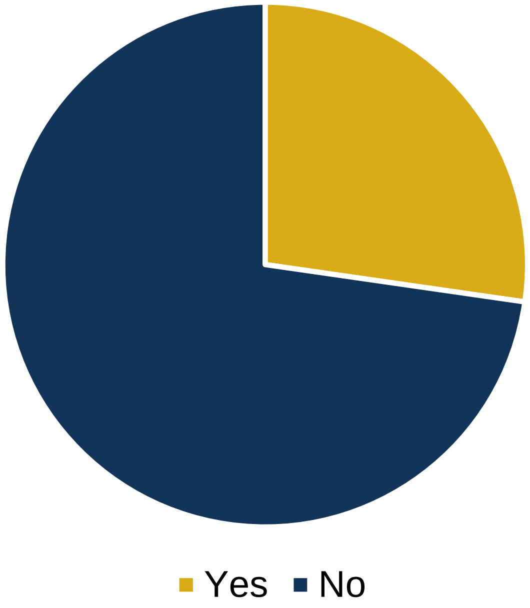
Insurers’ view on capitalisation clauses

- Three of the insurers surveyed said that they had a capitalisation clause on their reinsurance contracts.



- Of those that did not have a capitalisation clause, the clear majority stated that they were keen to avoid them.

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Risk transfer – hurdles

- All insurers would consider transferring the risk associated with PPOs if the right option arose
  - Some insurers already had arrangements in place to transfer the risk of PPOs other than reinsurance.
- The most significant hurdles mentioned were cost of any options and the lack of solutions on the market.
- We asked respondents, if concerns around anti-selection could be mitigated, would they consider pooling settled PPO cases with other firms. All but one said that they would.

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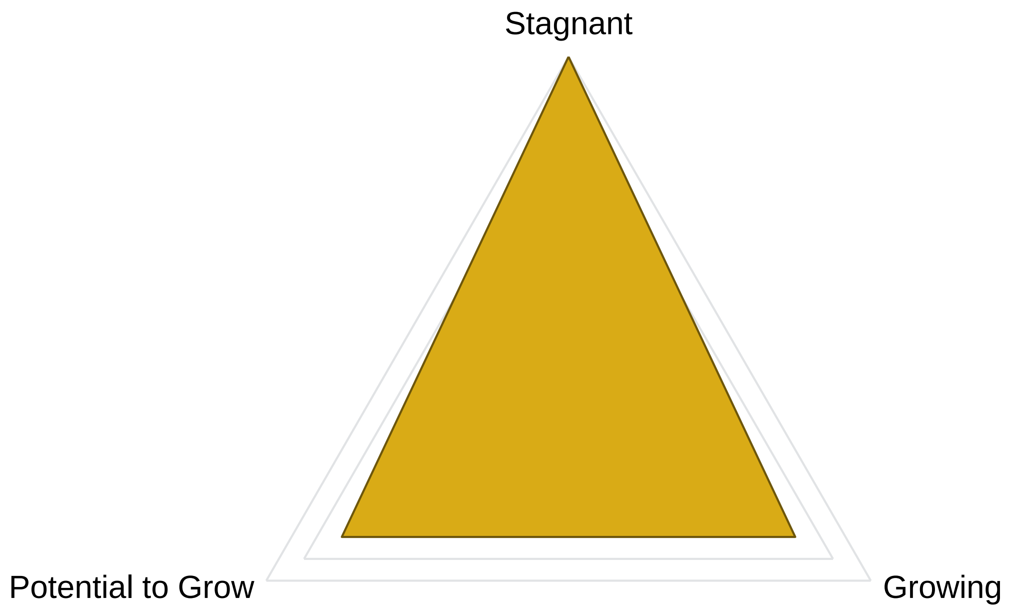
Risk transfer – growing or changing

- A higher proportion of Insurers stated that they felt the risk transfer market was stagnant than in previous years.



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Actuarial methodology

Investment

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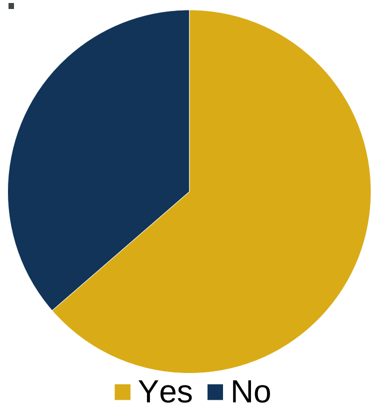
Investment strategy

- Seven of the eleven insurers said that they have changed their investment strategy as a result of PPOs, however only four of these had changed their investment strategy in the past year. Two of the reinsurers said that they had changed their investment strategy.



- Of these, four insurers said that they have ring-fenced assets specific to PPO liabilities, although others have long duration assets to cover all longer term liabilities.
- Insurers held a variety of assets to back PPO liabilities such as long-dated gilts, corporate bonds, equities, hedge funds and property.

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Investment issues

- The two biggest issues relating to PPOs that both insurers and reinsurers said they faced when asked were:
  - The exceedingly long duration associated with PPO liabilities
  - The inability to find assets that track a similar index to ASHE.

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Ogden discount rate

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Ogden discount rate update

- Following a consultation process and as set out within the Civil Liability Act 2018 a revised Ogden discount rate for England and Wales of -0.25% was announced on 15 July 2019, effective for claims settling after 05 August 2019, to be reviewed within a five-year period.
  - Whilst this is an increase from the previous rate of -0.75%, it was a smaller increase than the industry had anticipated, with early suggestions that the rate would be set between 0% and +1.0%.
- The possibility of a dual discount rate was considered however the Lord Chancellor decided that the evidence was not strong enough to justify a decision to adopt dual rates in this recent rate-setting cycle.
- The Scottish Damages Bill was passed on April 2019 with the personal injury discount rate being a key element of the legislation. In October 2019 the ‘new’ discount rate was confirmed to be unchanged at -0.75%, with the lower rate (relative to England/ Wales) reflecting a different basis of calculation.
- In January 2019 the States of Jersey concluded their review of the discount rate with the unanimous approval of the Draft Damages (Jersey) Law. This provides for a dual discount rate of +0.5% for periods up to 20 years, and +1.8% for periods of more than 20 years.

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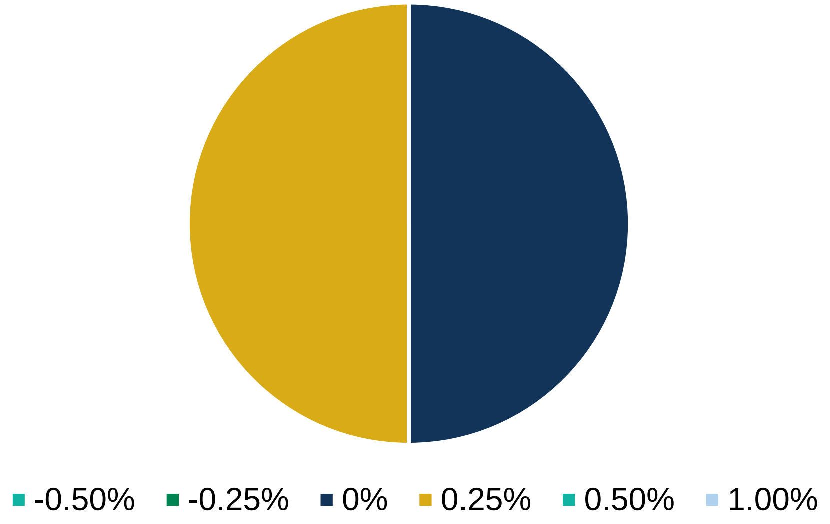
Expected Ogden discount rate

- Insurers were asked what they expected the Ogden discount rate to change to (if any change) following the Royal Ascent of the Civil Liability Bill.
- All insurers expected a change following Royal Ascent, with half expecting the Ogden rate to be 0% and the remaining expecting a discount rate of around 0.25%.



- The majority of insurers said that any recent large claim settlements have been agreed at a discount rate of between 0% and +1%.

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Actuarial best estimate – discount rate

- Following the change in Ogden discount rate all insurers are now assuming a best estimate rate of -0.25% for the non-PPO reserves.
- Of the two reinsurers that responded to this question, one is assuming a -0.25% discount rate and the other a small positive discount rate.
- A few insurers still held a margin within booked reserves in respect of further changes to the discount rate.

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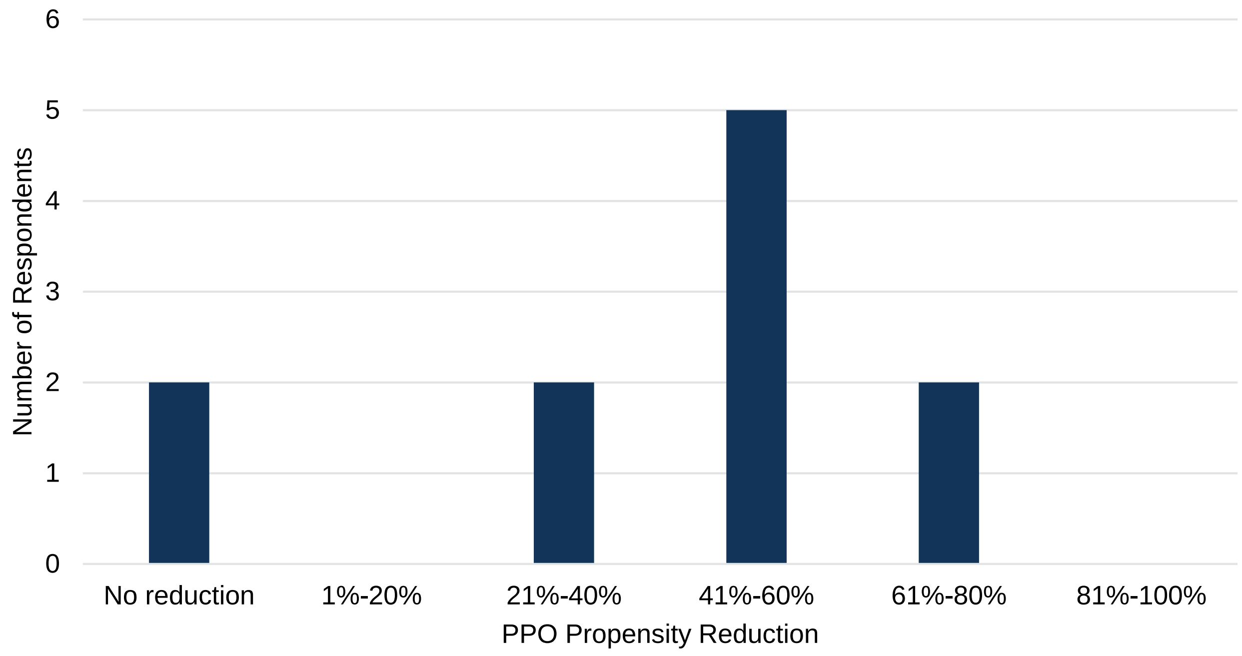
Actuarial best estimate – PPO propensity

- Participants were asked what percentage change in PPO propensity they had assumed as part of their actuarial best estimate calculations, relative to an Ogden 2.5% basis
  - Two insurers said they had allowed for no change whilst the others all anticipated changes ranging from 30% to 80% reduction in PPO propensity.



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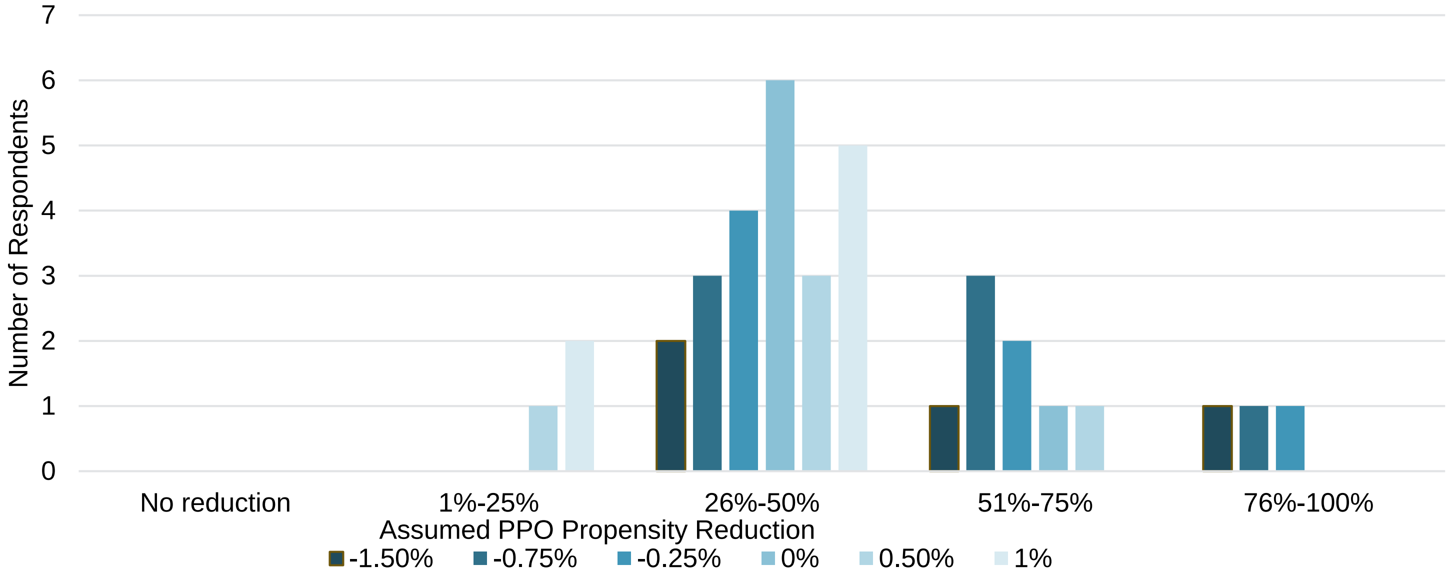
Assumed PPO propensity for different Ogden rates

- Insurers were asked what their assumed reductions in PPO propensity would be, from scenario analyses, had the Ogden discount rate changed from 2.5% to 1%, 0.5%, 0%, -0.25%, -0.75% or -1.5% per annum.
- Generally, the lower the discount rate, the larger the percentage decrease in PPO propensity insurers expected.
- However, some insurers expected the same reduction in propensity in all six scenarios.
- Some insurers did not assume changes in the Ogden discount rate as part of their scenario analysis.



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Claim settlement speed

- Around half of insurers said that they had noticed a slowing down of claim settlements, particularly in the period running up to the rate change announcement on 27 February 2017, with the remaining half saying they saw no difference
- The expectation of a beneficial Ogden discount rate change for claimants seems to have been driving these delays.
- Insurers also noted that claim settlement speed has started to pick up as those who were delaying are now settling. All but one insurer noted that they did not have a material backlog of open claims.

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Claimant and claimant lawyer behaviour

- Insurers anecdotally noted the following:
  - Some claimant lawyers had been delaying claims anticipating a favourable movement in Ogden discount rate
  - Some claimant lawyers were been unwilling to settle at an Ogden discount rate other than the prevailing -0.75%
  - After the announcement that the rate may change again, and likely in a positive direction, lawyers had been willing to settle on a basis higher than -0.75%.
- Some insurers again said they had seen no change.

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Nature of settlements (lump sums vs PPOs)

- Although many insurers said they felt there should now be a shift towards more lump sums being awarded due to their relative attractiveness increasing, the majority of these said there had not been overwhelming evidence in favour of this theory yet due to too few settlements.

- One insurer had seen a reduction in the number of PPO settlements and approaches for PPOs from claimant lawyers

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Conclusions

05 May 2020

Conclusions

- There has been a small downward shift in the inflation and discount rates assumed by contributors
  - With the majority assuming a 0% or small negative real discount rate on a GAAP / IFRS basis.
- Most insurers are assuming a reduction in PPO Propensity following the change in Ogden discount rate when calculating their actuarial best estimates
  - However there is a wide range of assumptions from a 30% reduction to 80%.
- Most insurers saw a slowing in claim settlements in the period that led up to the initial change in Ogden discount rate, although the majority do not currently have a backlog of open claims.
- Most insurers surveyed are assuming an actuarial best estimate discount rate of -0.25%, in line with the current Ogden Discount Rate, but have been observing recently settled large claims to be settling at a discount rate of between 0% and +1.0%.

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Questions

Comments

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Questions

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