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GIRO Conference 2022

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PPO Working Party

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Introduction to ASHE

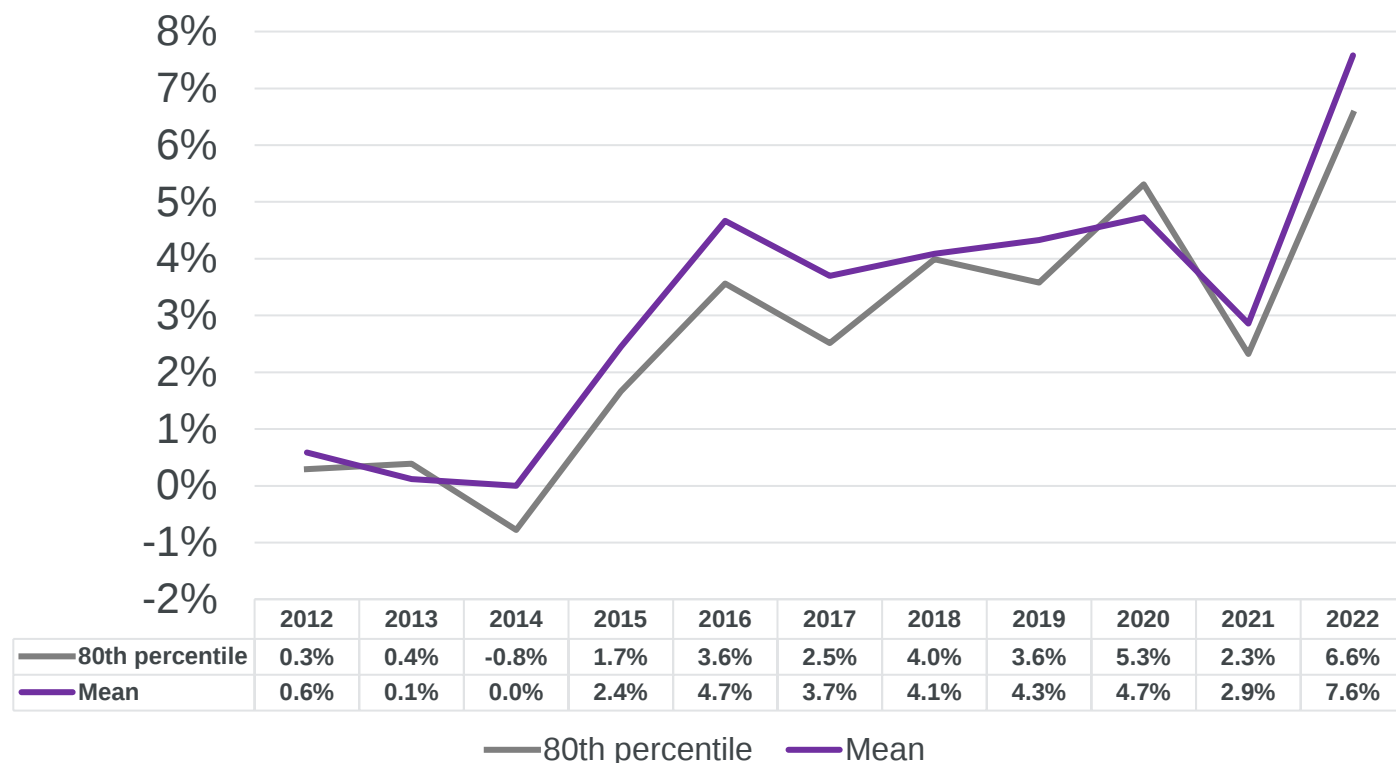
- Annual Survey for Hours and Earnings (ASHE) is an annual publication by the Office for National Statistics (ONS) which provides a employee's measure of earnings.
- Published each year usually late October based on data as at 5th April.
- The survey is based on employer responses for a 1% sample of employee jobs, using HM Revenue and Customs' PAYE records.
- ASHE 6115 80th percentile is most relevant to PPOs. This is the 80th percentile of responses from the subset of the survey that relates to care workers.
 - ASHE is most typically used for PPO indexation since 2006 Thompstone vs Tameside Glossop Acute Services NHS Trust.
 - Previously RPI was typically used to index the annual payments of structured settlements.



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Latest ASHE

ASHE 80th percentile and Mean



- Exhibit shows percentage annual change in ASHE 6115 since 2012
- Data filters applied:
 - Working Pattern: All
 - Sex: All
 - Hourly Pay Gross
- 2022 ASHE 6115 figures are:
 - 80th percentile: +6.6%
 - Mean: +7.6%
- Be aware of Standard Occupational Classification (SOC) changes this year. Link below.

Source: ONS [Earnings and hours worked, care workers: ASHE Table 26 - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/theimpactofmiscodingofoccupationaldatainofficeforationalstatisticsocialsurveysuk/2022-09-26)
 Data filters applied: Working Pattern (All), Sex (All), Hours and Earnings (Hourly Pay Gross), Statistics – Mean, and 80th Percentile
 SOC change: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/theimpactofmiscodingofoccupationaldatainofficeforationalstatisticsocialsurveysuk/2022-09-26>



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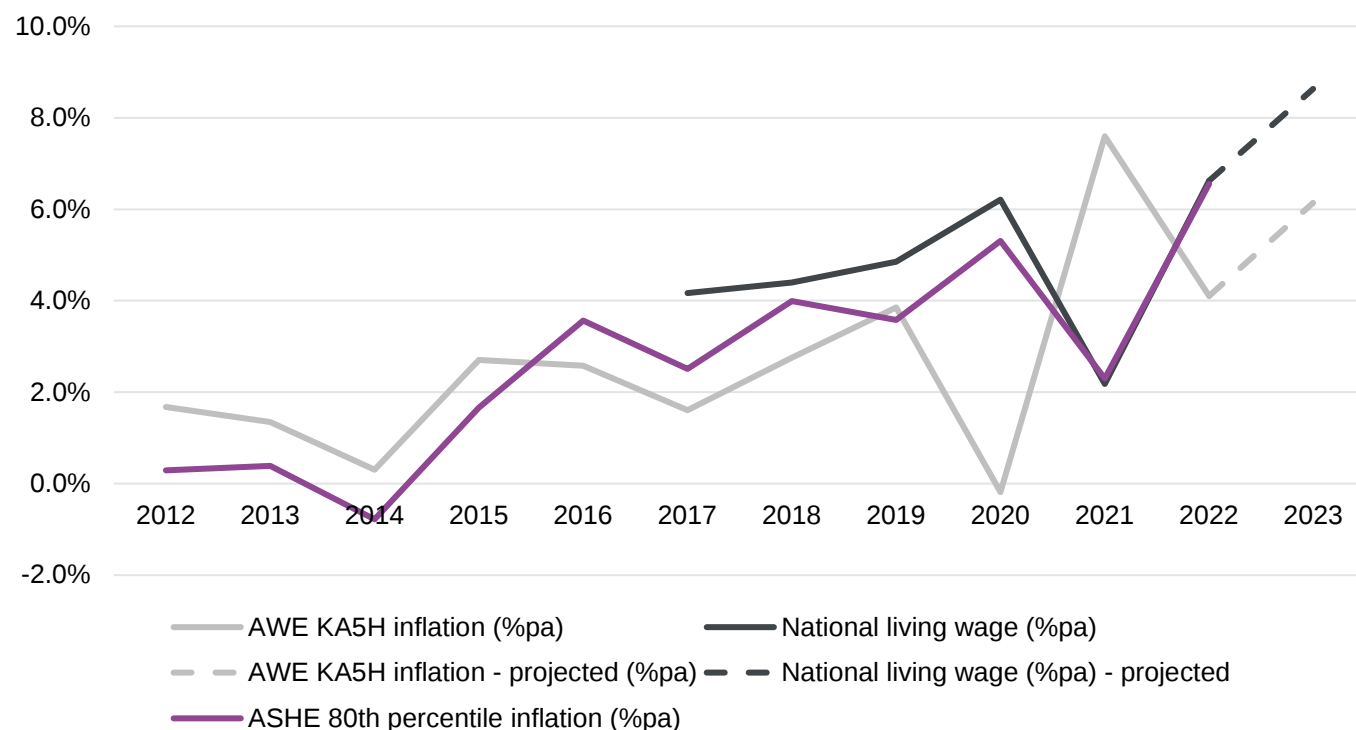
ASHE Considerations

- Represents the annual change in hourly earnings between April 2021 – April 2022
 - Subsets and percentiles are provided: Male, Female, Full-Time, Part-Time. Mean, median and deciles.
- Actuaries should consider their assumptions post April 2022. There are three key periods:
 - From 6th April 2022 to present
 - From present to claims settlement dates, when PPO payments start
 - From PPO payment start to death of claimant
- Coefficient of Variance is provided for each decile.
 - In 2022 at the total level, “Estimates are considered precise”
- Other wage related information may also be useful to consider:
 - Earnings: EARN02: Average Weekly Earnings by Sector, KA5H: Whole Economy Index (of pay)
 - Economic: CPI, RPI, GDP
 - Political: Consider impacts from Furlough, Brexit, Covid-19.
Estimates for 2020 and 2021 included employees who had been furloughed.



Historic comparison to related measures

ASHE 80th percentile vs general wage inflation (KA5H)



- The chart shows general wage inflation (KA5H) and the National Living Wage (NLW) as at April of each year to 2022, compared to ASHE 6115 80th percentile.
- Projections are then shown for 2023:
 - KA5H based on data April 2022 – September 2022
 - NLW as reported by the government
- As well as general economic factors, ASHE is influenced by competing wages in other sectors, as well as the introduction of the National Living Wage in 2016.
- Note that 2020 and 2021 general wage inflation is impacted by Covid.

ASHE: ONS [Earnings and hours worked, care workers: ASHE Table 26 - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk/employment-and-labour/money-earnings-and-payments/datasets/earnings) Working Pattern (All), Sex (All), Hours and Earnings (Hourly Pay Gross), Statistics – 80th Percentile

AWE KA5H: [EARN02: Average weekly earnings by sector - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk/employment-and-labour/money-earnings-and-payments/datasets/earnings)

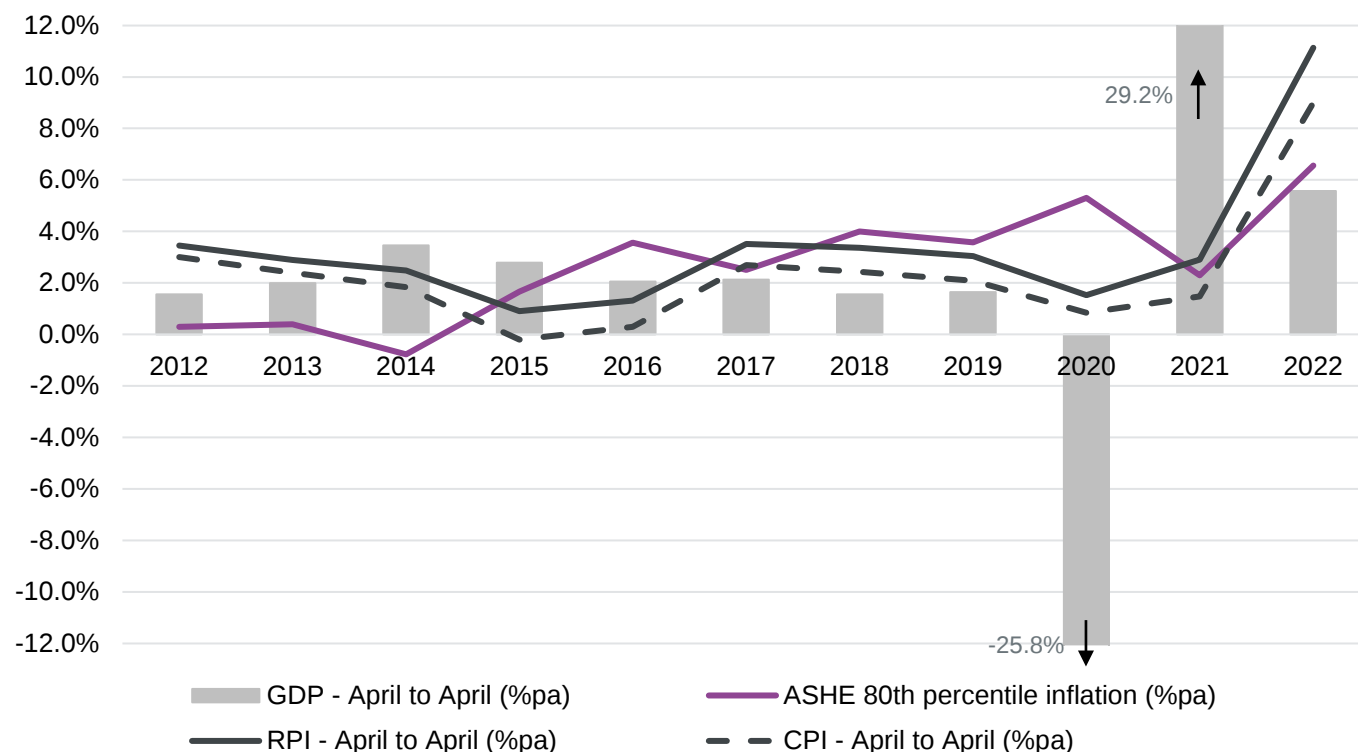
National Living Wage: [National Living Wage Increase boosts pay of low-paid workers - GOV.UK \(www.gov.uk\)](https://www.gov.uk/national-living-wage)



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Historic comparison to related measures

ASHE 80th percentile vs RPI, CPI and GDP



- Prior to 2015, ASHE remained suppressed below CPI for a number of years following the 2008 financial crisis
- In 2015-2019, ASHE exceeded CPI by approximately 2% p.a. on average
- In 2020-2021, impacted by Furlough
- 2022, ASHE was below CPI again

ASHE: ONS [Earnings and hours worked, care workers: ASHE Table 26](#) - Office for National Statistics ([ons.gov.uk](#)) Working Pattern (All), Sex (All), Hours and Earnings (Hourly Pay Gross), Statistics – 80th Percentile

RPI: [RPI All Items Index: Jan 1987=100](#) - Office for National Statistics ([ons.gov.uk](#))

CPI: [CPI ANNUAL RATE 00: ALL ITEMS 2015=100](#) - Office for National Statistics ([ons.gov.uk](#))

GDP: [GDP monthly estimate, UK](#) - Office for National Statistics ([ons.gov.uk](#))



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Impact of changes to ASHE

			ASHE rate					
			0%	1%	2%	3%	4%	5%
Annuity Factor	ILE							
		5	4.5	4.6	4.8	4.9	5.0	5.2
		10	8.3	8.8	9.2	9.7	10.3	10.9
		20	14.5	15.9	17.5	19.4	21.7	24.4
		30	19.3	21.9	25.1	29.2	34.2	40.5
		40	23.0	27.0	32.1	38.9	47.8	59.8
		50	25.9	31.2	38.5	48.6	62.7	82.8
		60	28.0	34.7	44.3	58.3	79.2	111.1
weighted			21.8	25.9	31.6	39.4	50.4	66.4
Cost compared to no escalation	ILE		0%	1%	2%	3%	4%	5%
		5	0%	3%	5%	8%	11%	14%
		10	0%	5%	11%	17%	24%	31%
		20	0%	10%	21%	34%	50%	68%
		30	0%	14%	30%	51%	77%	110%
		40	0%	17%	40%	69%	108%	160%
		50	0%	21%	49%	88%	143%	220%
		60	0%	24%	58%	108%	183%	297%
weighted			0%	19%	45%	80%	131%	204%

- Table 1 shows the discounted cost of an example PPO would vary for a male, aged 30, under discounting 3% p.a. for various:
 - Impaired Life Expectancy (I.L.E.)
 - ASHE assumptions
- Table 2 then shows these values as percentage uplifts from an ASHE assumption of 0%
 - 0% is chosen deliberately as no assumption is being recommended by the PPO WP.
 - But, clearly this shows that ASHE is a sensitive assumption to the valuation of PPO's

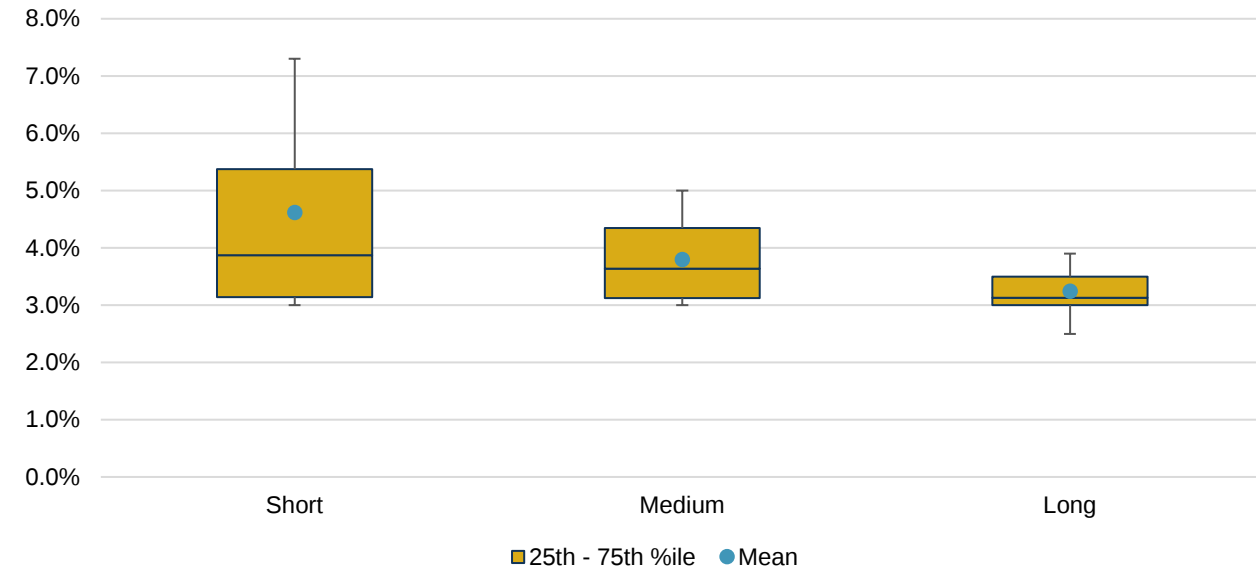
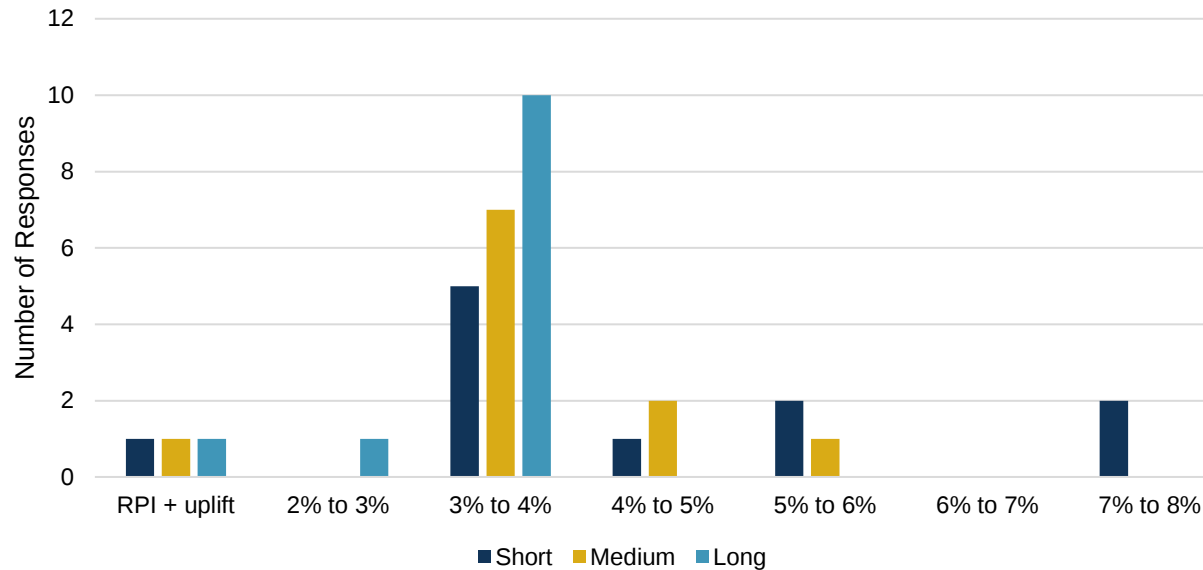


ASHE Survey

- Survey responses collected between August and October this year (before the release of the latest ASHE survey).
- 13 contributors responded (11 insurers and 2 reinsurers).
- The PPO WP has conducted this survey this year for the first time in response to recent economic situation



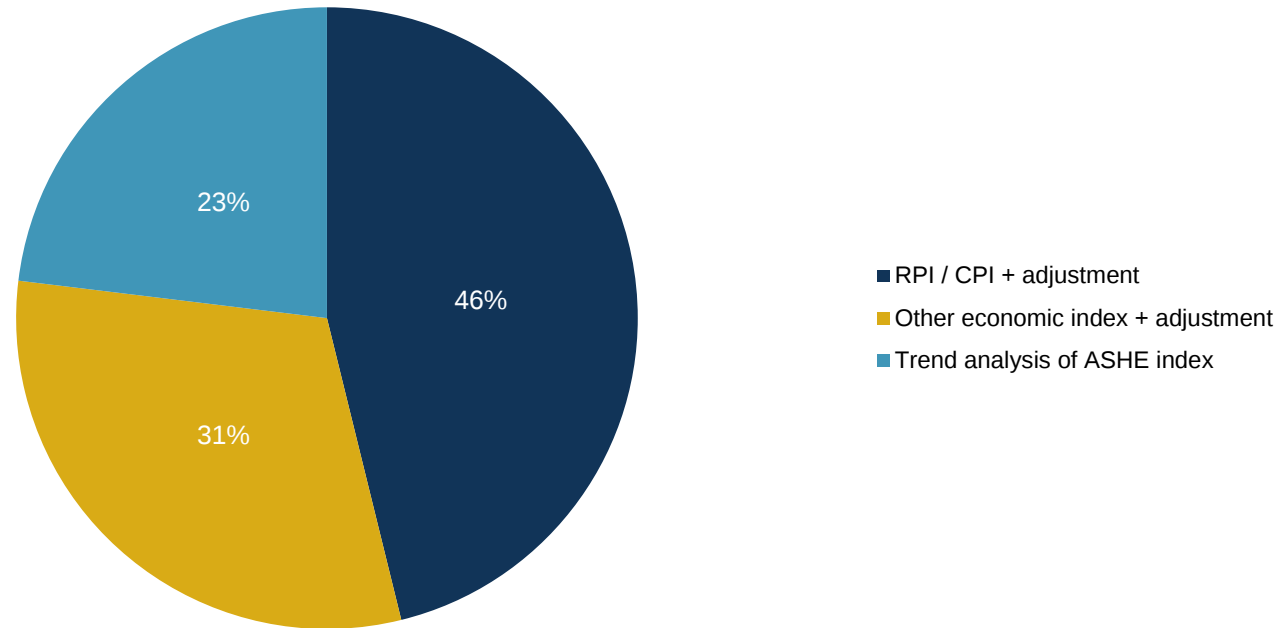
Views on ASHE



- Most participants are assuming a 3-4% ASHE in the short term (1-2 years), medium term (2-5 years) and long term (5+ years)
- Some higher levels assumed in the short-medium term
- Range of assumptions greater for short term view, with long term view converging to around 3.5%



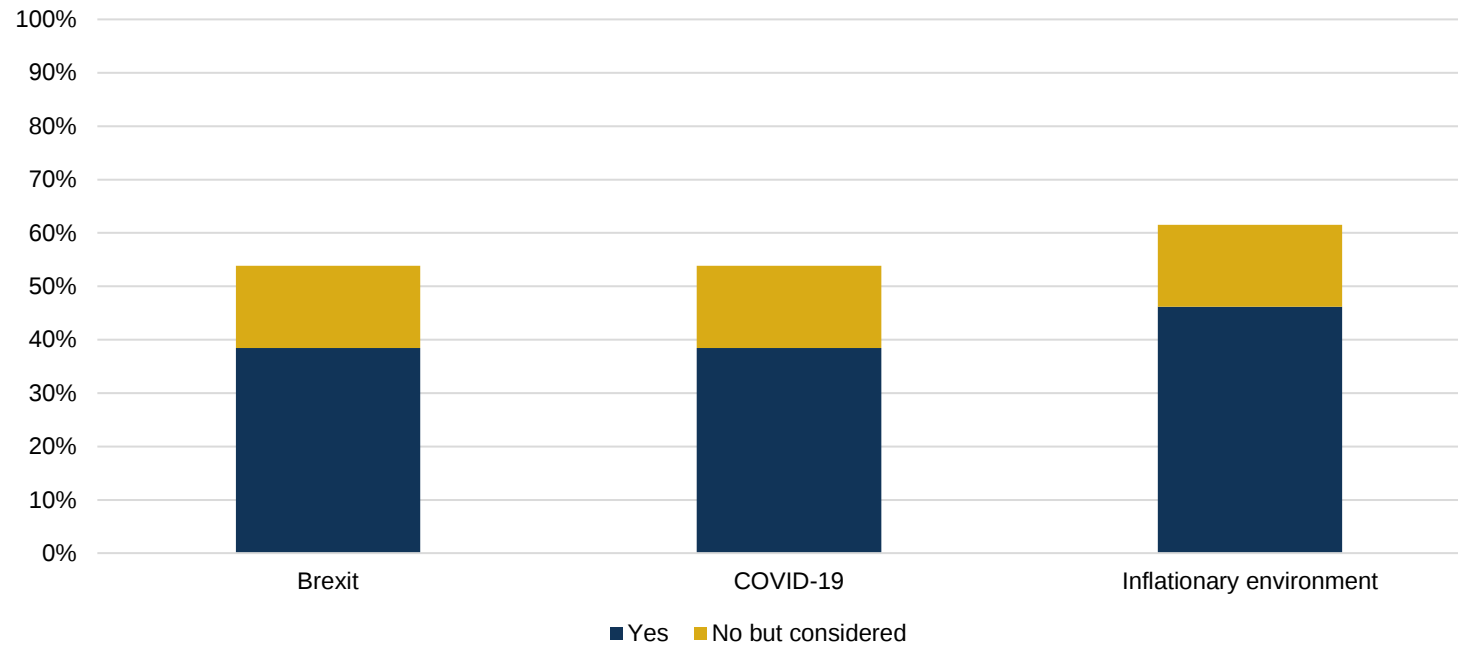
Approach to setting assumption



- Majority of participants are basing the ASHE assumption on RPI / CPI (or other economic indices) with an adjustment for an assumed gap between these and ASHE.
- 3 participants based their assumptions on explicit analysis of the historical ASHE index.
- Some contributors had a different approach under different reporting bases and time horizons.
- 69% of participants validate their ASHE assumption via back-testing.



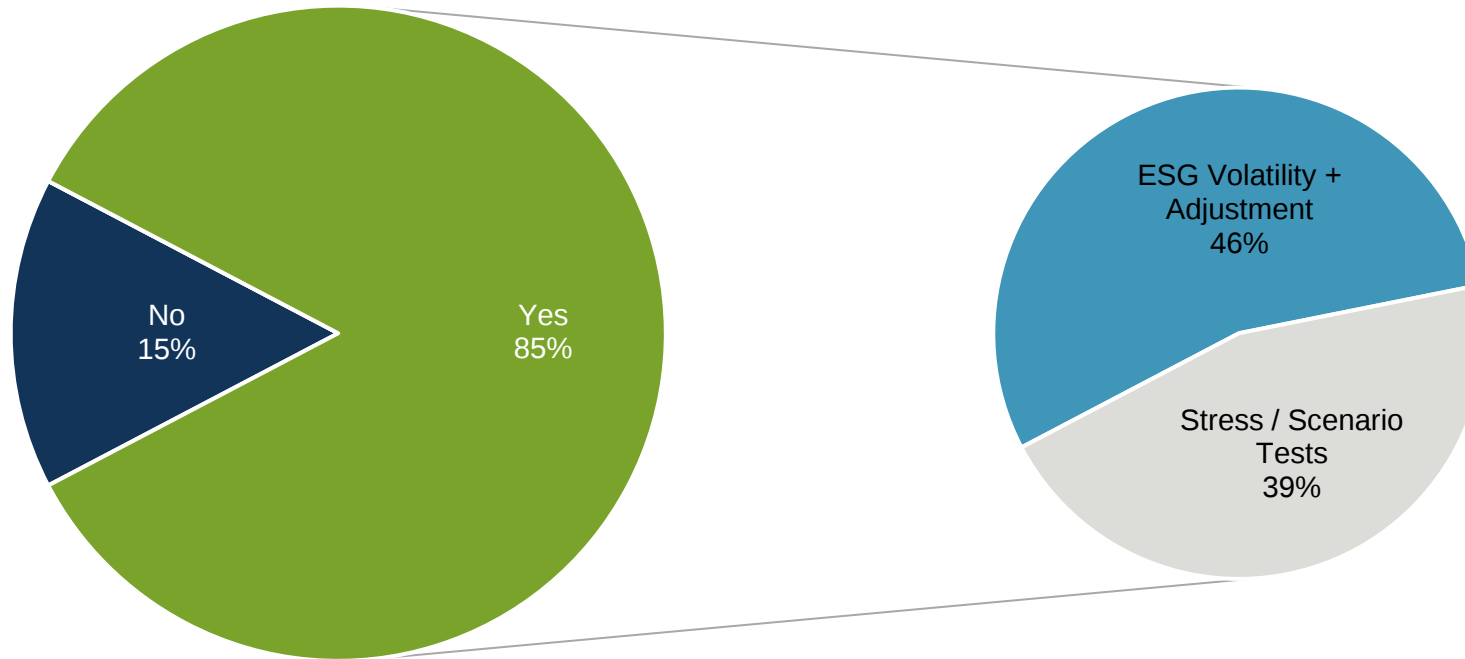
Considerations



- Less than half of the participants had explicitly changed their ASHE assumption in light of Brexit, COVID-19 and the current inflationary environment, although a further 15% have considered these when setting their assumptions.
- Some of the participants who did not change or consider these factors were planning to revisit the assumptions within the next 6 months.



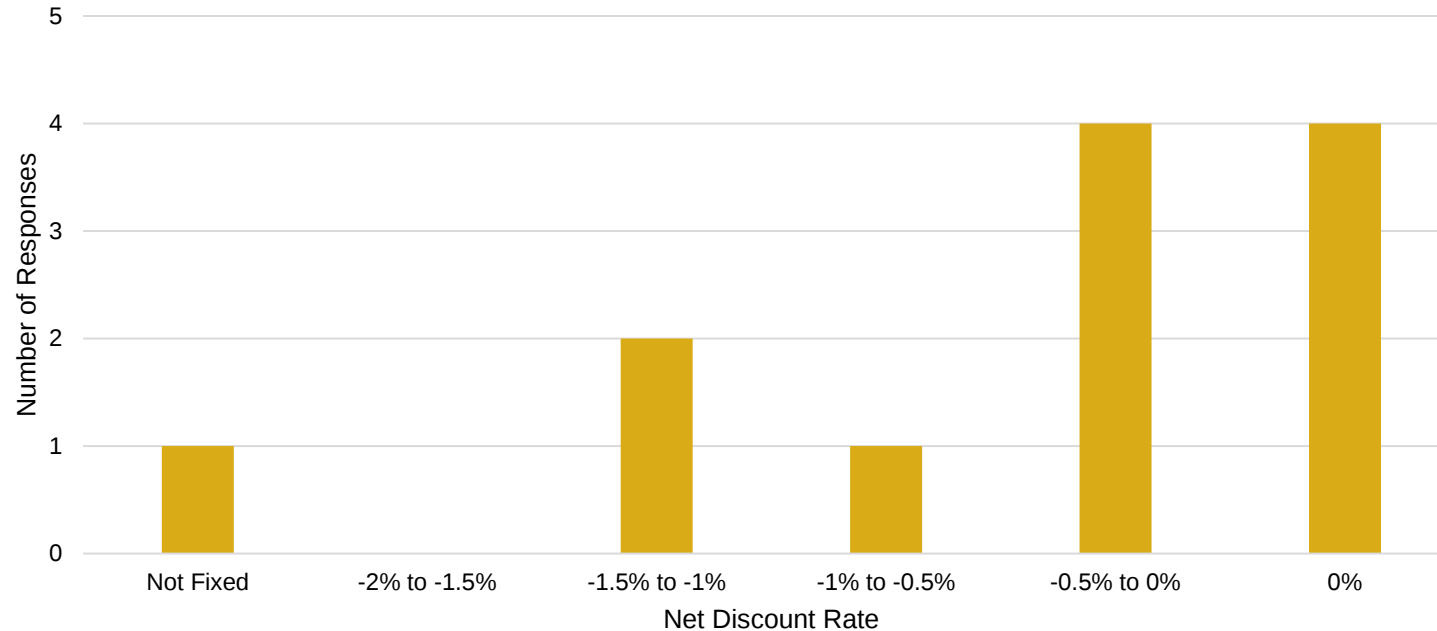
Volatility



- 85% of participants allow for volatility within ASHE assumption for capital modelling purposes.
- Of these, around half allowed for this volatility through the ESG (either through linking the ASHE assumption to an ESG output as a fixed gap, or otherwise). The remaining participants used stress or scenario tests.



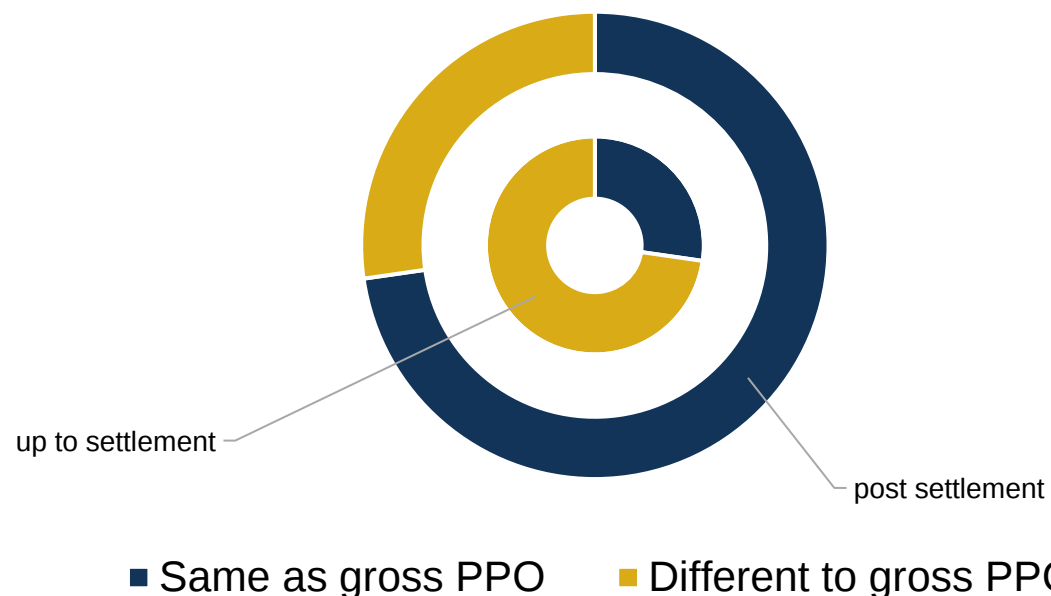
PPO Real Rate of Return Assumptions



- On a long-term basis none of the participants assumed a positive net / real discount rate, with the majority assuming a net discount rate of -0.5% to 0%.



Reinsurance indexation



- For around half of participants, the indexation approach used in the period up to settlement differed from that used post settlement.
 - In the period up to settlement the most common method was to index using a different index than the index used for the gross PPO. This was primarily using the KA5H index.
 - In the period post settlement, the index attached to most of the reinsurance contracts was in line with that used for the gross PPO.

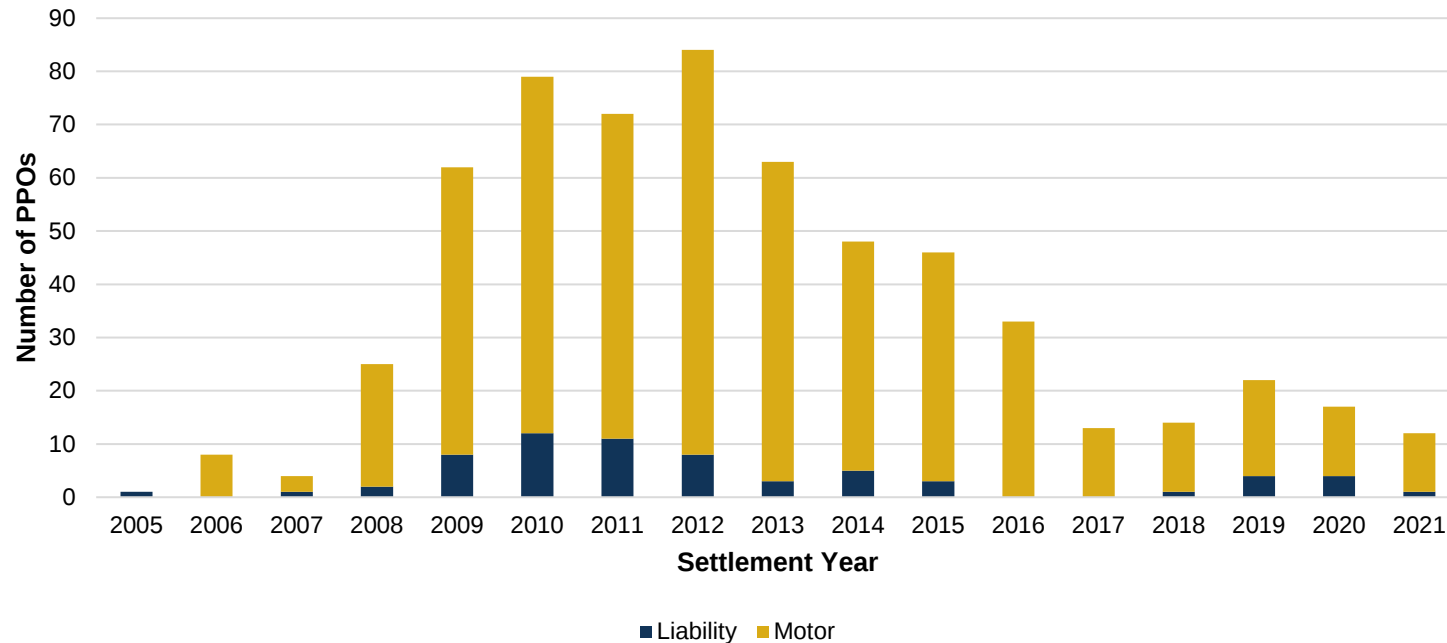


Quantitative Analysis

- Data taken as at 31 December 2021
 - 12 participants (including MIB) compared with smaller numbers in the last few years.
 - The data presented comes from contributors making up over 75% of the PRA regulated UK Motor market.
 - The participants aren't consistent between surveys so please do not compare results to previous years' analysis.
- None of the following results contain Liability PPOs, MIB PPOs or non-PPO large claims, unless explicitly stated.
- Please note that the graphs presented aren't finalised and so are subject to further change.



Number of PPOs



- The number of PPOs settling remains at a low level compared to 2016 and prior
- Some volatility seen each year post 2017 but the number of PPOs settling each year has largely been around 10-15
- Few Liability PPOs since 2015

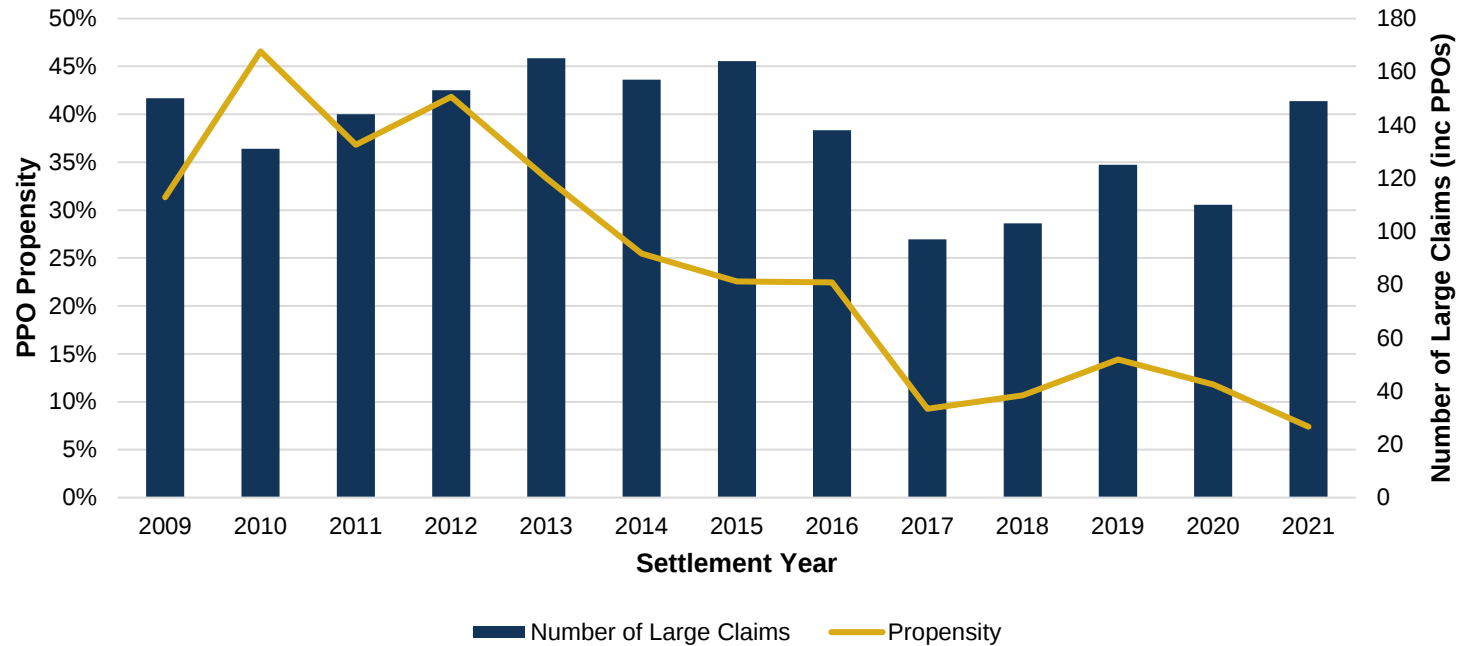


PPO Propensity Analysis

- Please note that all of the following propensity graphs involve Motor large claims from 2009 onwards only, unless otherwise stated.
- 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, similar to recent surveys.
 - Raw
 - Standardised, by taking into account the mix in the size of claims experience in each year
 - Ogden adjusted, by rebasing large claims to be on an Ogden 2.5% basis
 - Information on the adjustments can be found in the appendix of our industry report:
<https://www.actuaries.org.uk/practice-areas/general-insurance/research-working-parties/periodical-payment-orders-ppos>



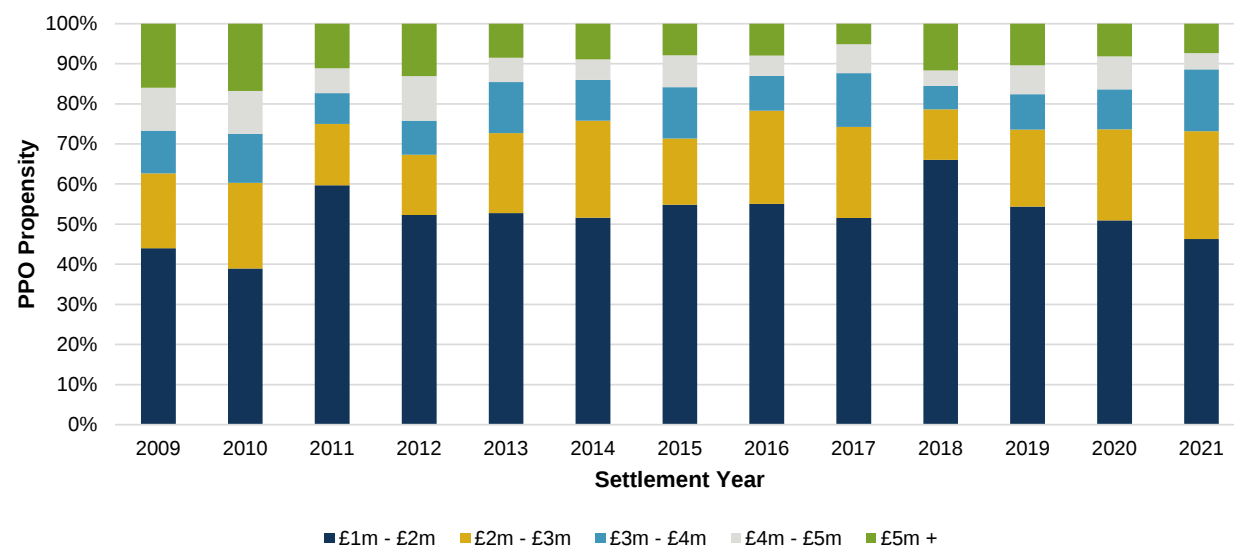
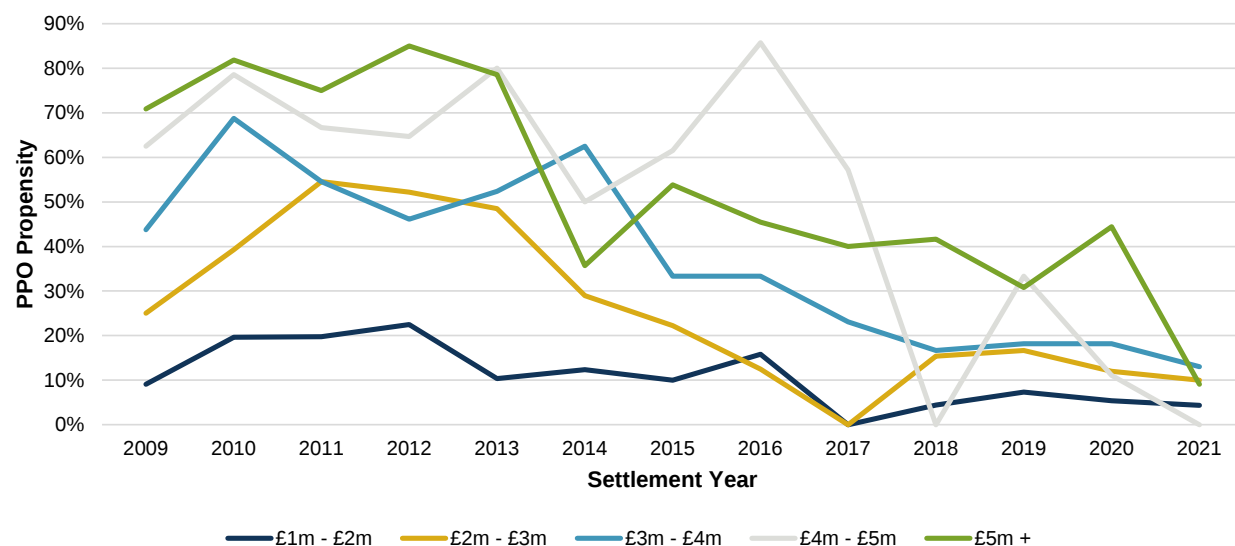
PPO Propensity - Raw



- Increase in number of large claims settling compared with last 4 years
- Propensity is still at a lower level, with a decreasing trend seen in last 2 settlement years



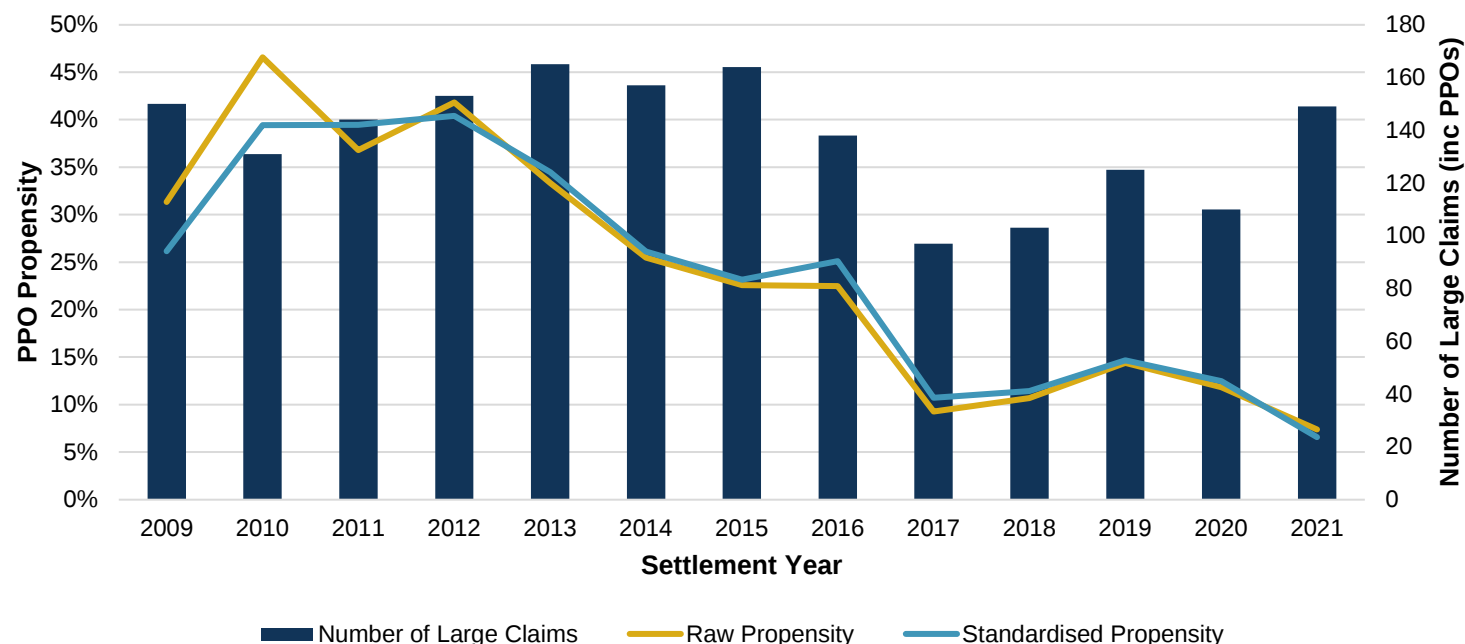
PPO Propensity - Raw



- Similar trends when looking at propensity by claim size.
- Size (and hence severity) of a claim is a key factor impacting propensity, with changes in the mix of claims by settlement year potentially distorting overall propensity figures.



PPO Propensity – Standardised



- Standardised takes into account the mix in the size of claims experience in each year
- Standardised propensity showing similar trends.
- Large propensity reduction in 2017 with a slight decreasing trend in last 3 years



PPO Propensity – Impact of Ogden change

- Ogden adjusted rebases large claims to be on an Ogden 2.5% basis. This is used to understand how much of the PPO propensity reduction since 2017 is due to lump sums being increased in value.
- There is numerical impact from the Ogden rate change in 2017 (and subsequently in 2019) causing more claims to be valued as “large” due to the valuation basis (compared with an Ogden 2.5% valuation).
- Example:
 - Male aged 55 at settlement, with £50k annual care cost and £50k annual loss of earnings.
 - Not “large” under Ogden 2.5% basis, but breaches threshold under -0.25% and -0.75% basis.

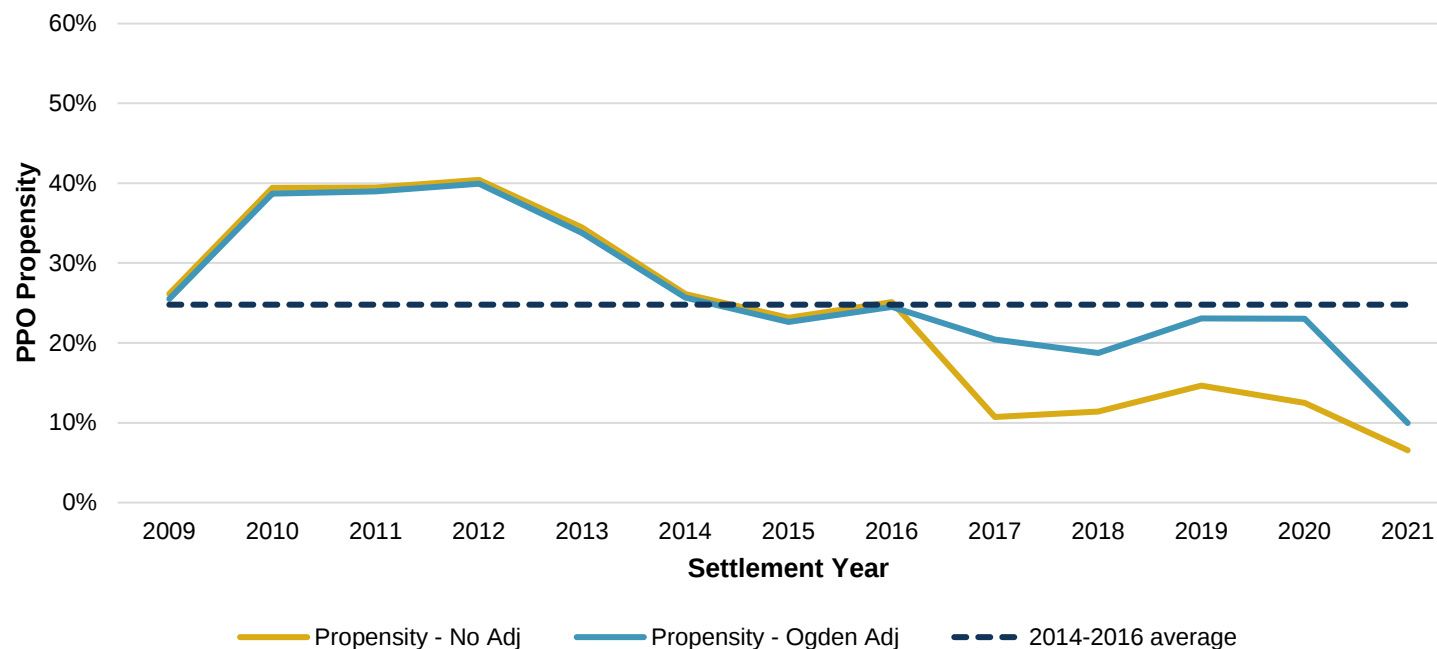
Multipliers*		Ogden discount rate		
Claim component	Annual Payment	2.50%	-0.25%	-0.75%
Care	50,000	20.2	30.8	33.6
Loss of Earnings	50,000	8.6	9.8	10.1
Lump sum		1,442,500	2,033,000	2,186,000
Lump sum (2011 terms)		733,294	1,033,474	1,111,252

Using Tables 1 and 9 from the Actuarial Tables for use in personal injury and fatal accident cases - 8th edition



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PPO Propensity – Ogden adjusted



- Comparing with the 2014-2016 average propensity (25%) the numerical Ogden impact closes some of the gap, with the remainder driven by other factors such as the behavioural impacts.



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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