

The Actuarial Profession
making financial sense of the future

Life Conference 2011
Peter Banthorpe, Andy Chan, Robert Kipling



Health and Care Reserving Working Party

20-22 November 2011

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Agenda

- History and Background
- Selected Results from Survey, to draw out
 - Comparisons with 2007
 - Interesting Results
 - Points for discussion
- Future work

Background and History

- Successful 2007 H&C Reserving Working Party
 - Looked at reserving practices specifically for Critical Illness, Income Protection and Private Medical Insurance products
 - Largely motivated by PS06/14 and ICA
- 2010 H&C Reserving working party
 - Concentrate on Solvency 2 issues
 - Limited questions on traditional reserving approaches
 - This session covers Income Protection (IP) and Critical Illness (CI) only.

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Working Party Membership

- Sheila Anstead
- Bill Baker
- Peter Banthorpe
- Jo Buckle
- Andy Chan
- Chris Coote
- Robert Kipling
- John Smith
- Lindsay Smitherman

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Timeline

Date	Action
14 January	Surveys issued
14 February	Survey original deadline
4 March	Survey closed and data cleaned
20 April	Results issued to respondents
19 May	Presentation to H&C Conference
21 November	Presentation to Life Convention

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Outline of the CI and IP Surveys

- CI survey drafted first;
- IP was then modified from this;
- Key sections:
 - Methodology and Process
 - Claims
 - Lapses
 - Options
 - Additional Reserves
 - ICA
 - Solvency 2

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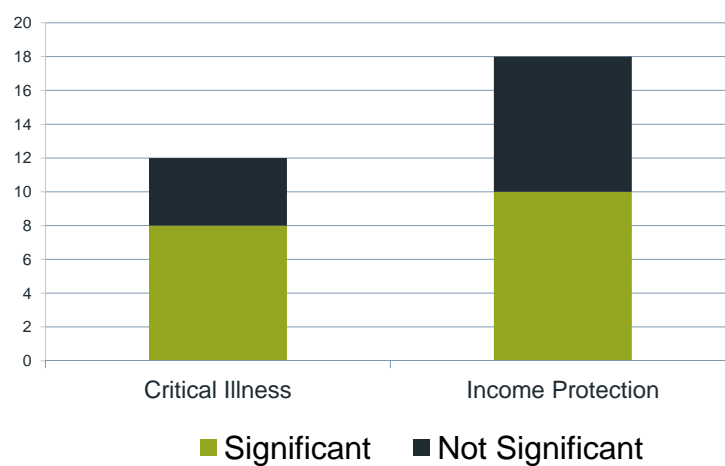
Some Survey Limitations

- Unlike 2007 no questions about company type, or distribution channels;
- Some comments received from respondents that IP survey was most suitable for writers of long-term IP – Holloway plans not as well catered for.

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Respondents and Significance of Business



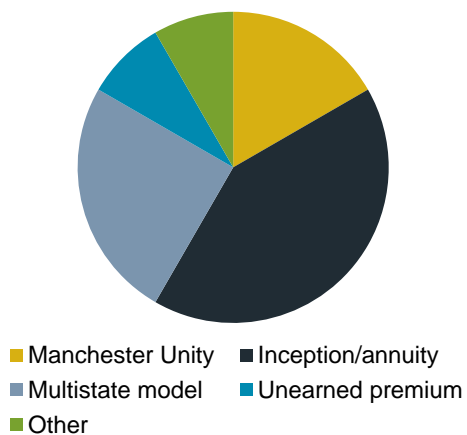
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IP Valuation Approach – Individual Business

Some respondents indicated more than one approach.

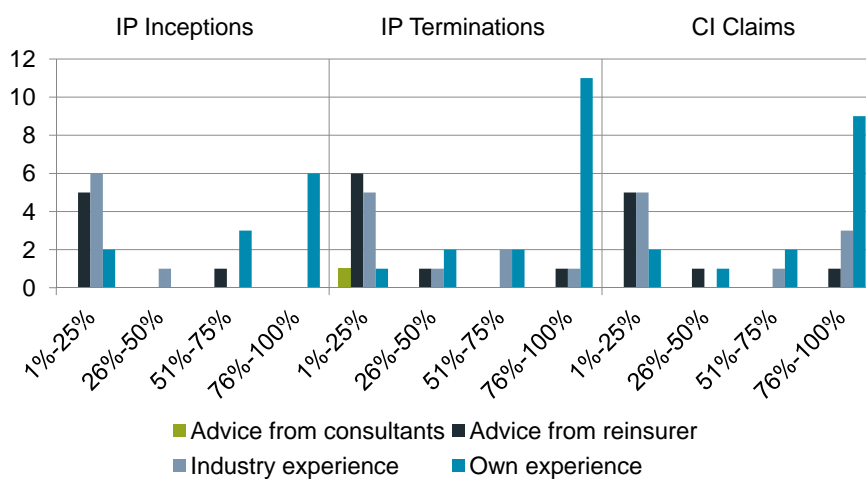
4 indicated MU approach, 3 of which indicated they also used Inception annuity or multistate



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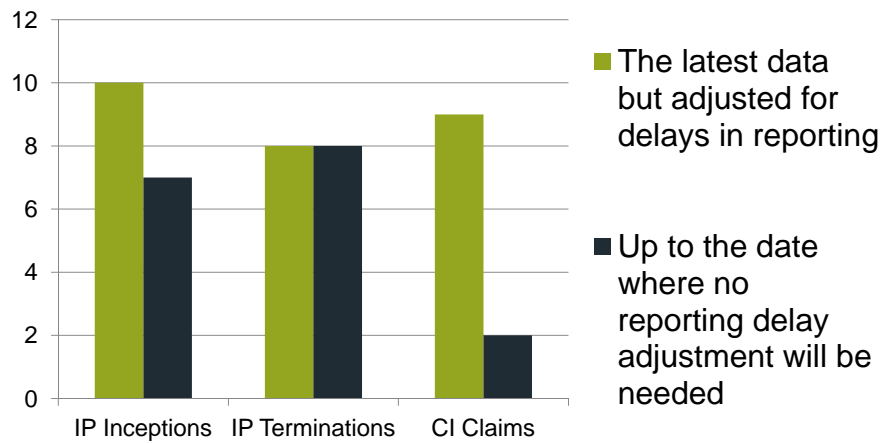
Sources of Data for Best Estimate Basis



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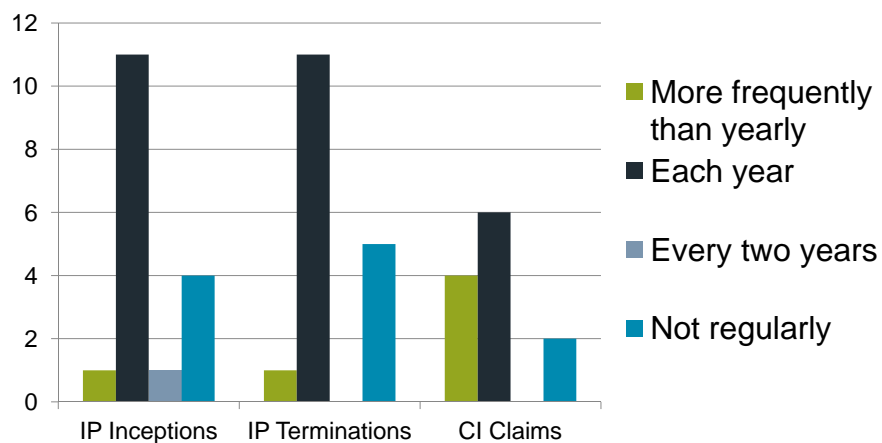
Data used for experience Investigations



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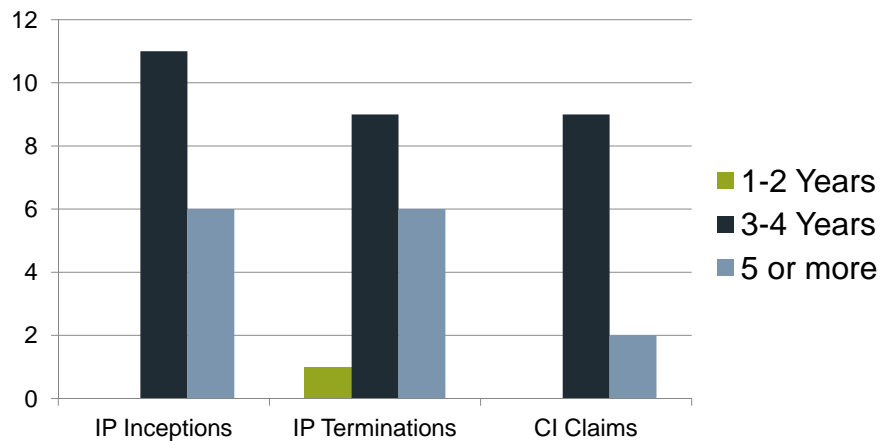
Frequency of experience Investigations



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How many years of data used in best estimate experience



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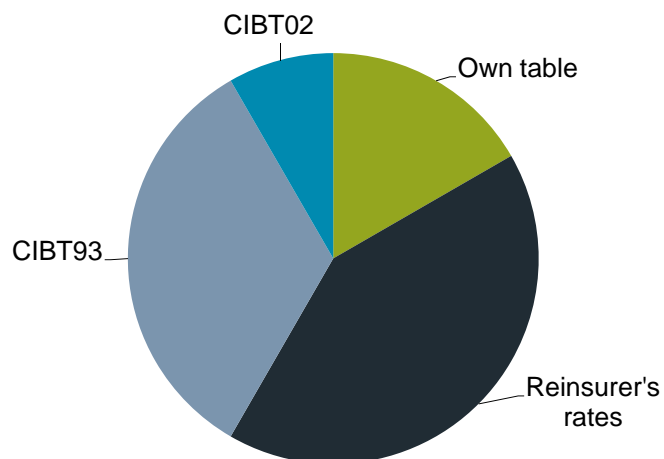
Critical Illness Analyses

- Last survey gathered information on mortality and morbidity assumptions separately;
- This time we asked:
 - “Do you carry out separate investigations for mortality and morbidity experience for your accelerated critical illness products, or do you just investigate a combined claim rate?”
- 100% of respondents said “combined rate”

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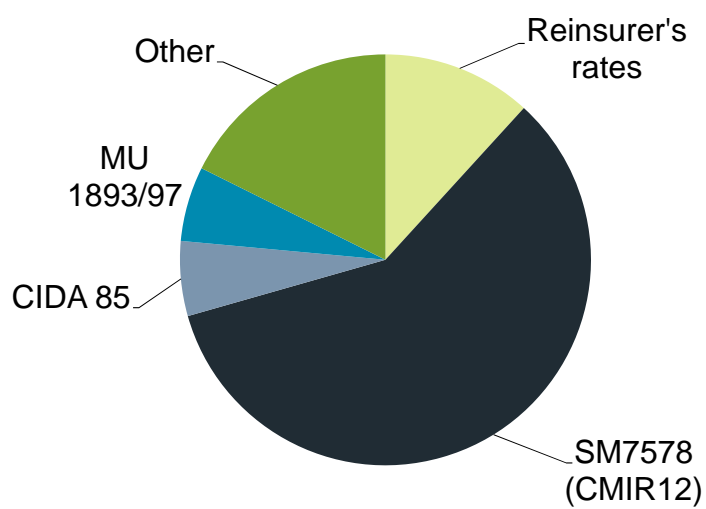
Base Tables – Critical Illness



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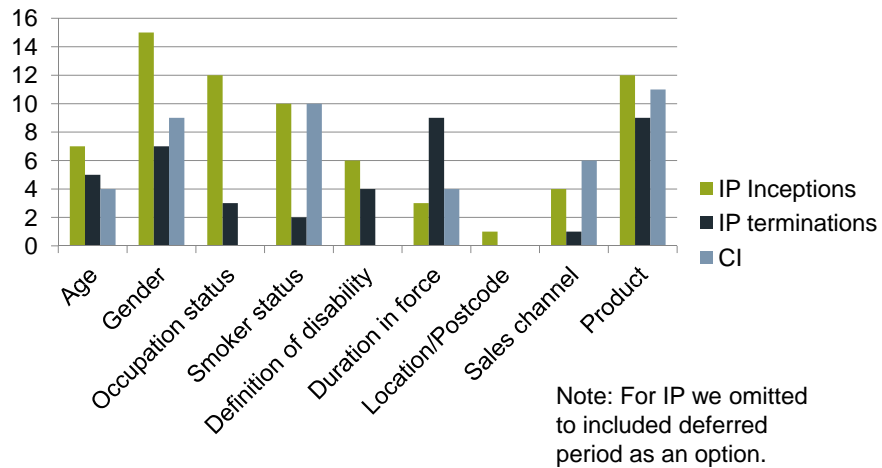
Base Tables – Income Protection Inceptions



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Adjustments to Base Tables



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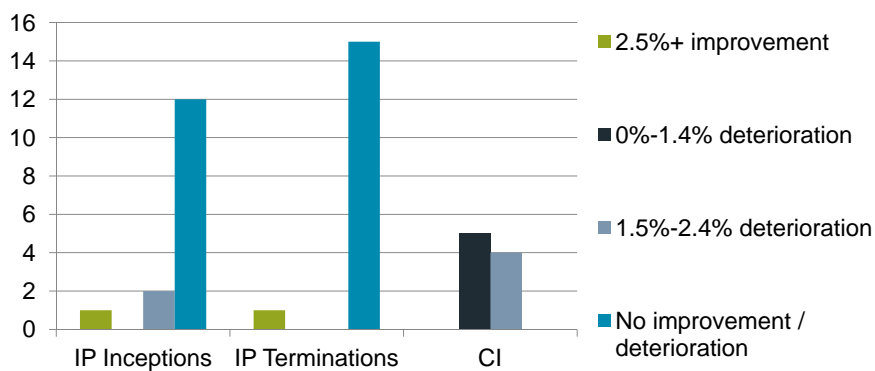
IP Inception Adjustments

	Increase	Decrease	No change
Credit crunch	2	0	14
Treating customers fairly	1	0	15
Changes in claims admittance practices	0	0	15

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Trend Assumptions

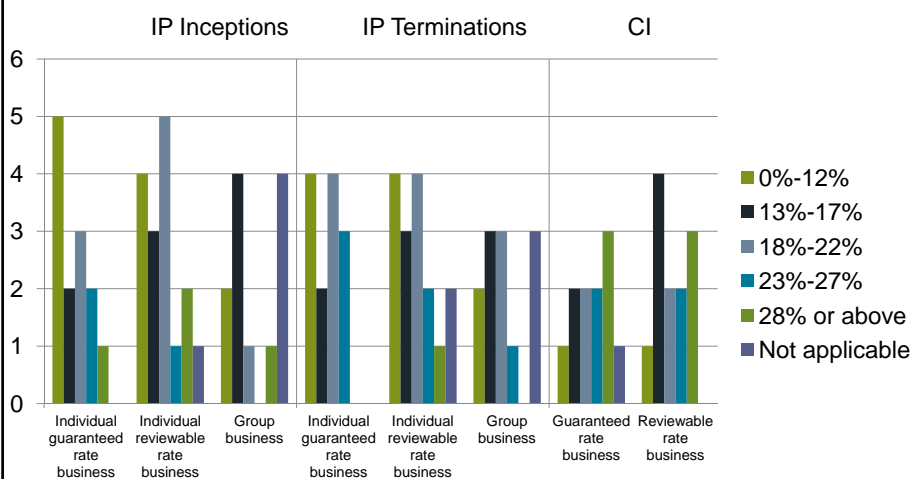


NB: Only Deterioration options were included in the CI survey – 3 CI respondents skipped this question

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Reserving Margins overview



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CI Margins for Statutory Valuation

		Reviewable Margin					N/A
		0%-12%	13%-17%	18%-22%	23%-27%	28% or above	
Guaranteed Margin	0%-12%	1	0	0	0	0	0
	13%-17%	0	2	0	0	0	0
	18%-22%	0	1	1	0	0	0
	23%-27%	0	1	0	1	0	0
	28% or above	0	0	0	1	2	0
	N/A	0	0	0	0	1	0

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Individual IP Terminations Margins for Statutory Valuation

		Reviewable Margin					N/A
		0%-12%	13%-17%	18%-22%	23%-27%	28% or above	
Guaranteed Margin	0%-12%	3	0	0	0	0	1
	13%-17%	0	2	0	0	0	0
	18%-22%	0	0	4	0	0	0
	23%-27%	0	1	0	2	0	0
	28% or above	0	0	0	0	0	0
	N/A	0	0	0	0	0	0
	No response	1	0	0	0	1	1

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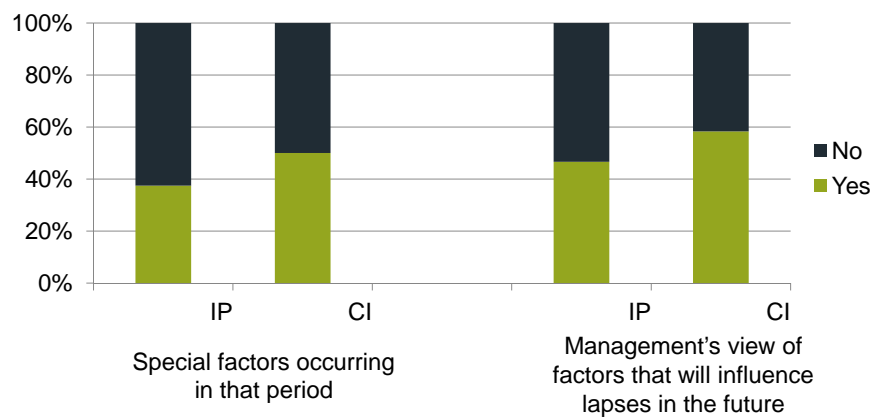
Correlations Between IP Inception and Termination Pads – Guaranteed Individual business

		Termination Margin				
		0%-12%	13%-17%	18%-22%	23%-27%	28% or above
Inception Margin	0%-12%	3	0	2	0	0
	13%-17%	1	1	0	0	0
	18%-22%	0	1	2	0	0
	23%-27%	0	0	0	2	0
	28% or above	0	0	0	1	0

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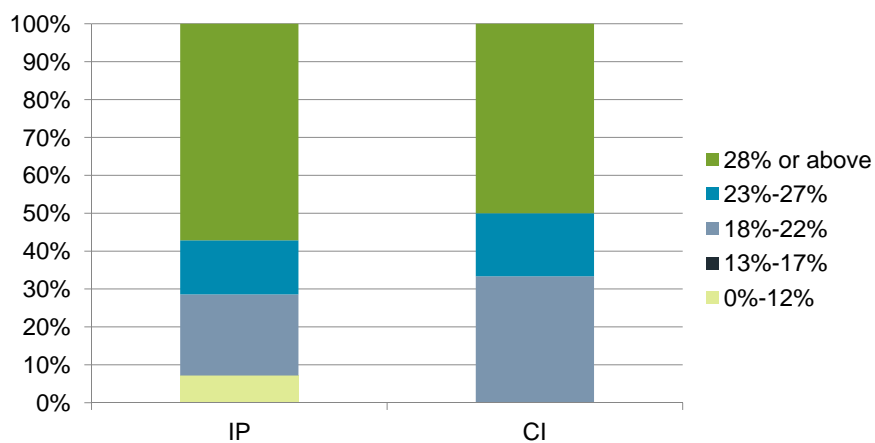
Adjustments to Past Lapse Experience



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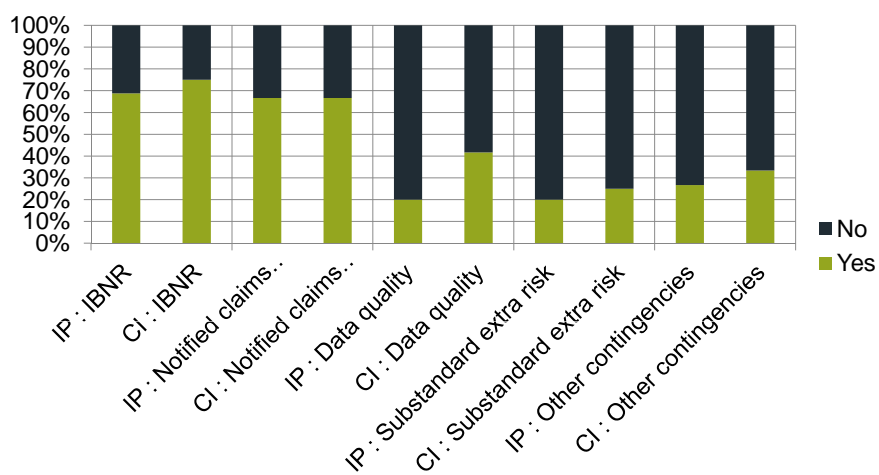
Reserving Margins for Lapses



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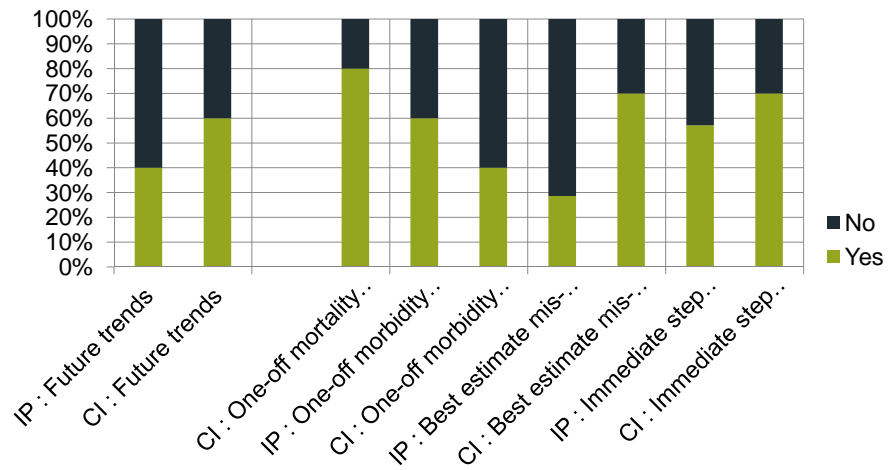
Explicit Additional Reserves



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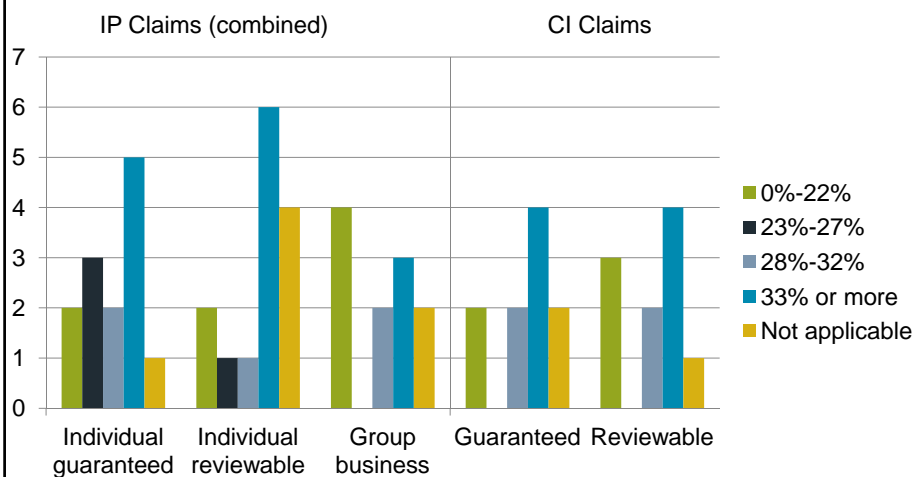
ICA Scenarios



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99.5% Confidence Interval Equivalent Margins



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CI – ICA 99.5% Margin vs Statutory Margin

		ICA 99.5% Margin					No Answer
		0%-22%	23%-27%	28%-32%	33% or more	Not applicable	
Statutory Reserving Margin	0%-12%	1	0	0	0	0	0
	13%-17%	0	0	0	1	0	1
	18%-22%	0	0	1	0	1	0
	23%-27%	0	0	0	2	0	0
	28% or above	1	0	1	1	0	0
	Not applicable	0	0	0	0	1	0

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No Appetite for Stochastic Models

- Only 1 Company said they would develop a stochastic model:
 - For CI for ICA/ORSA Purposes
- 2 companies said they already had one:
 - 1 for CI for ICA/ORSA purposes
 - 1 for IP (inceptions and terminations) for ICA/ORSA purposes
- Consistent with last survey.

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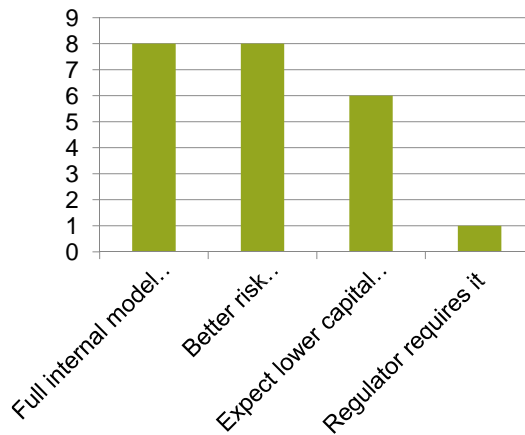
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Internal Model for IP

10 from 16 responses
said they would
develop an internal
model

(7 from 10 for
companies stating IP
significant).

Motivations were:



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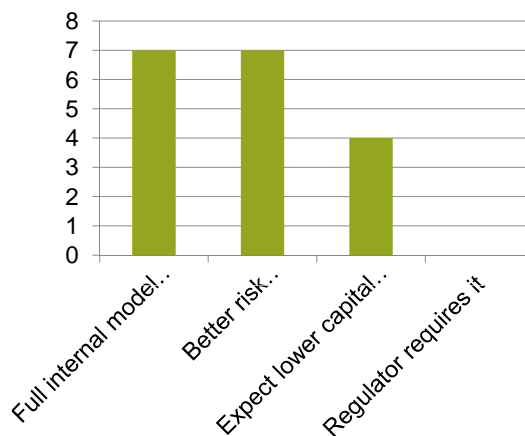
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Internal Model for CI

8 from 11* responses
said they would
develop an internal
model

(7* from 8 for
companies stating CI
significant).

Motivations were:



* One of the 7 didn't answer the question but did go on to give reasons why they were building an internal model so I have inferred a yes answer.

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Next Steps

- Intending to repeat survey next year to provide another snap-shot;
- Want to be able to monitor trends but we can enhance, so suggestions please for:
 - New questions;
 - Questions that can be removed;
 - Enhancements to questions;
 - How to enhance response rates;

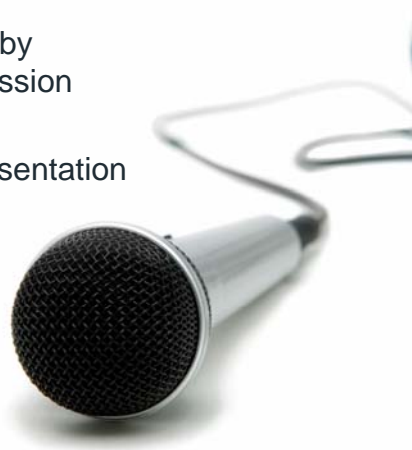
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Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

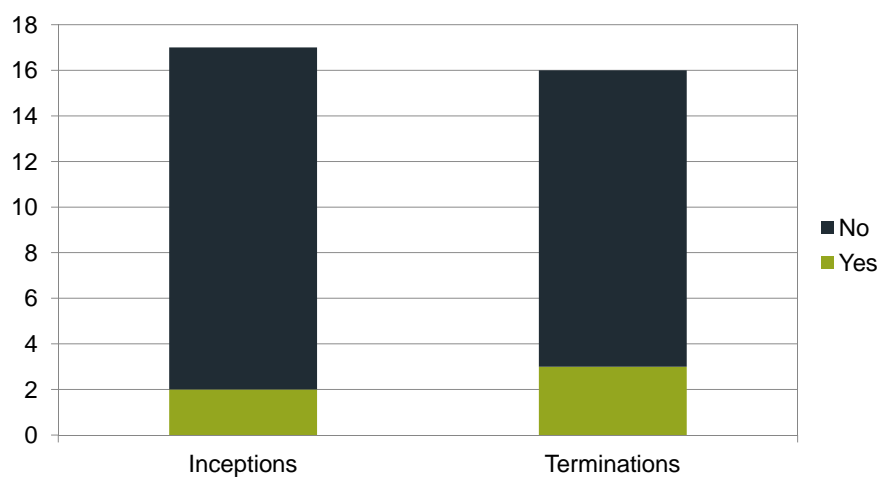
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IP Experience Analysed By Cause of Claim?



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