Survey findings on Setting Best Estimate Assumptions

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BACKGROUND

A set of surveys are being been conducted by IAI among Appointed Actuaries (AAs) to understand the areas where AGLI can support AAs by:

- conducting surveys,

- producing concept papers, or

- GNs and APSs.

As part of this initiative, a survey was conducted on

Principles & practices of setting best estimate assumptions in Life Insurance

Hence, a survey was rolled out to get an industry view, findings of which are discussed subsequently.

OBJECTIVE & COVERAGE

In order to get a holistic view on the principles and practices of setting best estimate assumptions, questions are segregated into:

1. General and Governance related   – 5 questions (1-5)
2. Review of Best Estimates (BEs)   – 9 questions (6-14)
3. Nuances in different BEs   – 7 questions (15-21)
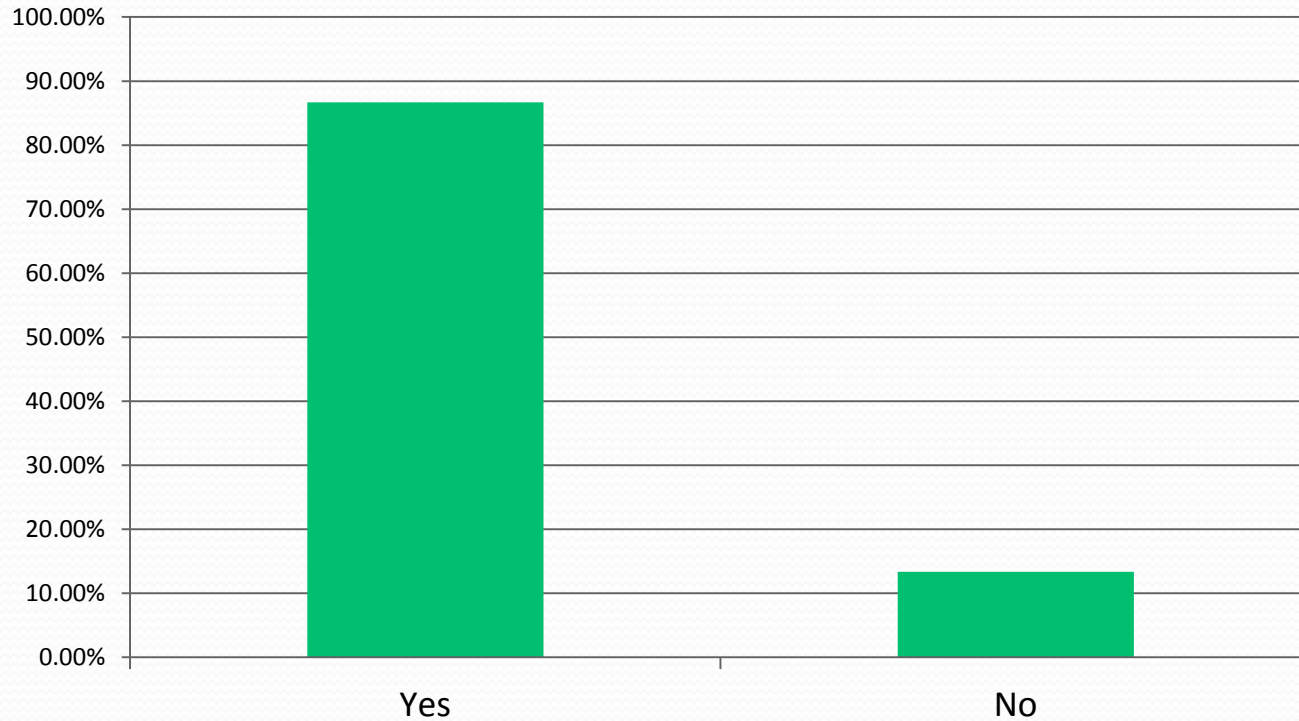4. Looking forward…   – 3 questions (22-24)

A survey, with 24 questions, rolled out to AAs of 24 Life Insurers.
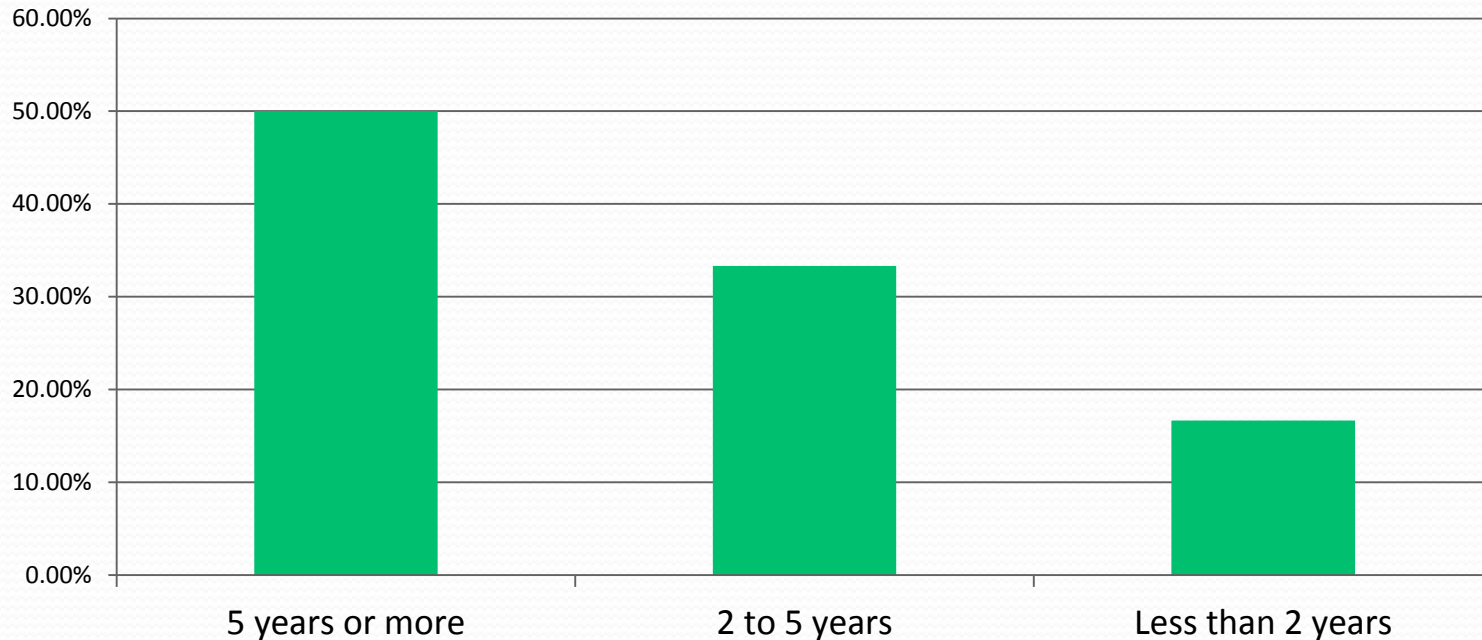A total of 15 responses received.

Module 1

General and Governance related

Q1. Does your company have a documented and approved best estimate assumption governance and management process?

# Q2. If yes, since how many years?

Others:
1. *No: Though we don't have any documented and approved best estimate assumption governance and management process, we do take into consideration inputs from various stakeholders while setting the BE assumptions.*

Q3. Does your company decide the best estimate assumptions or are the assumptions prescribed by either of the shareholders (or foreign partner)?
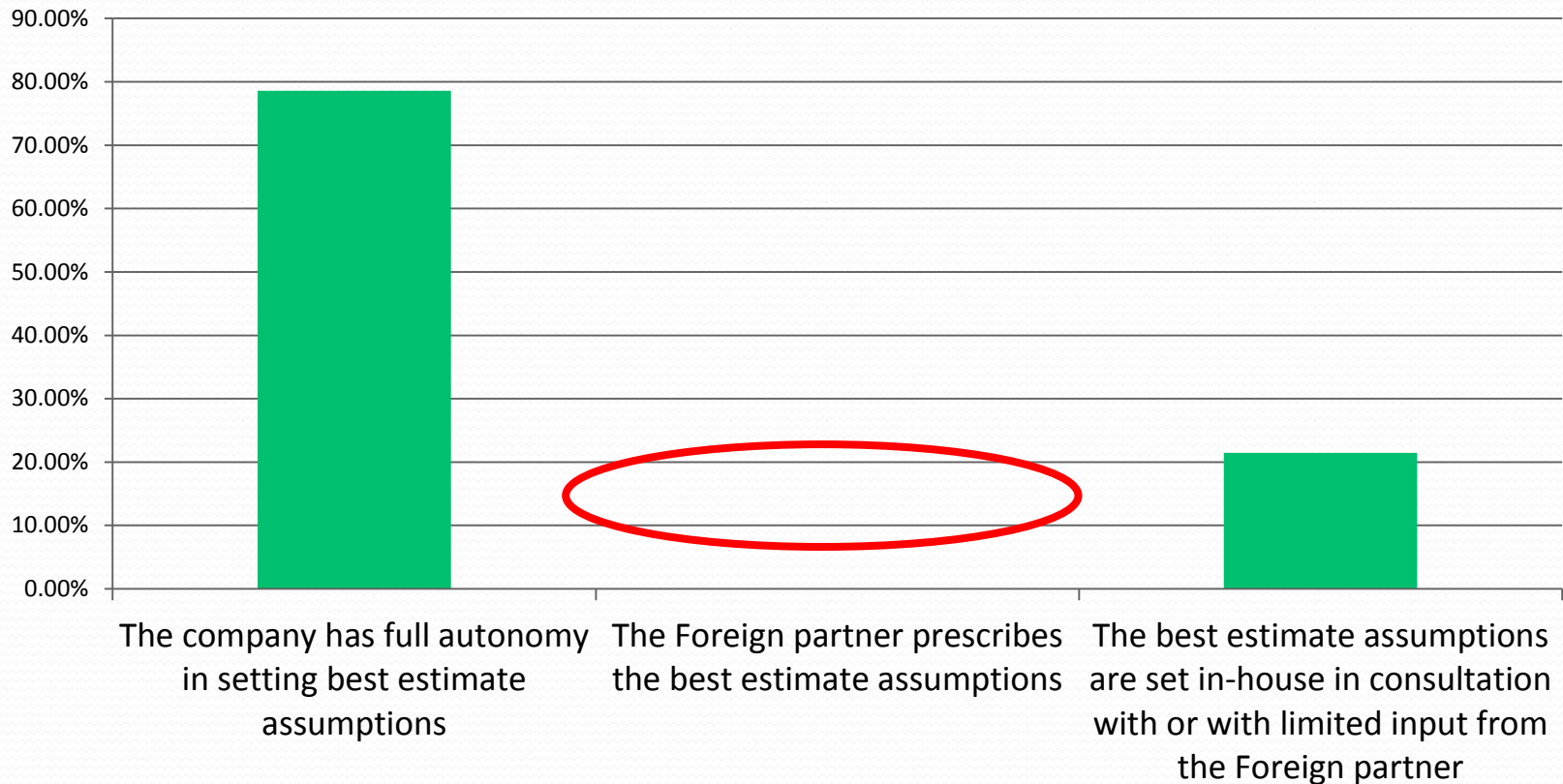
Q4. Do you have a committee with representation from actuarial and non-actuarial functions across the organization to review, challenge and approve best estimate assumptions?
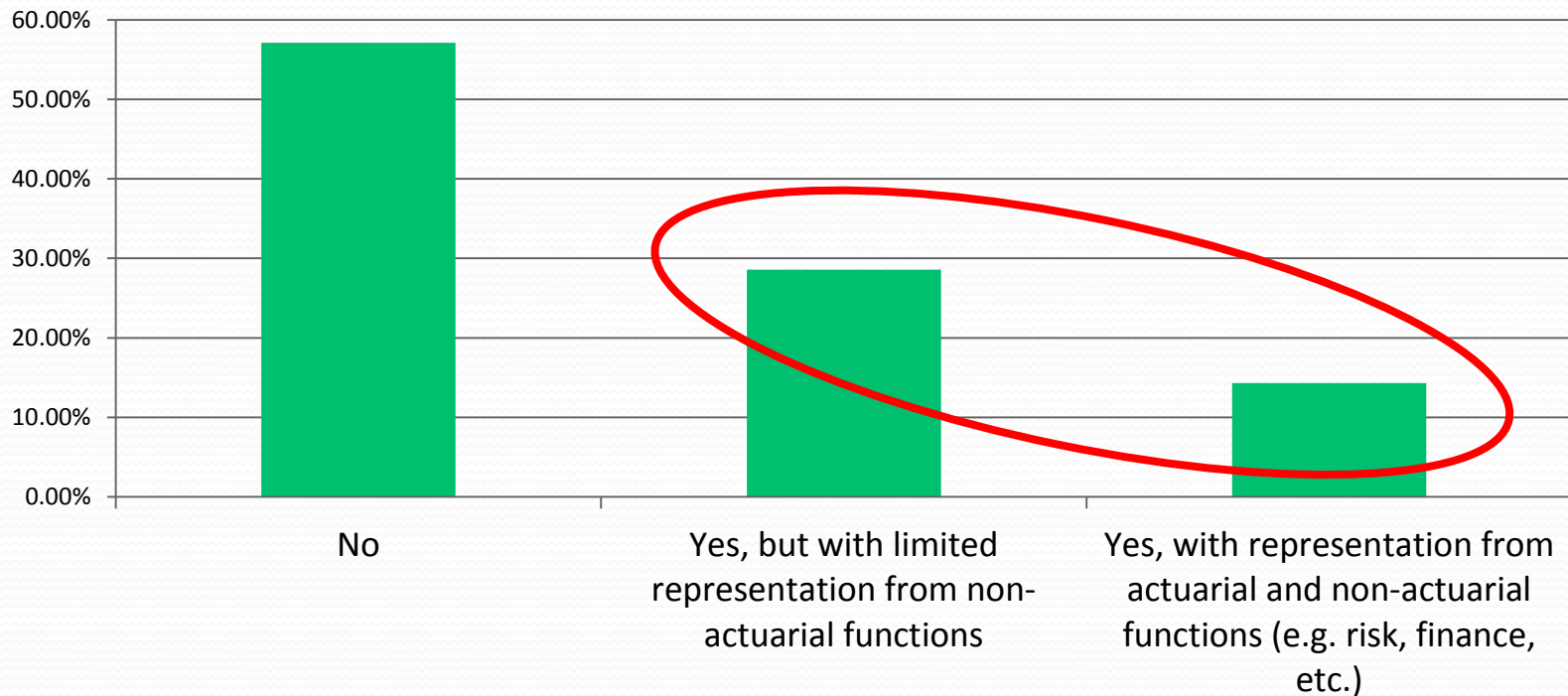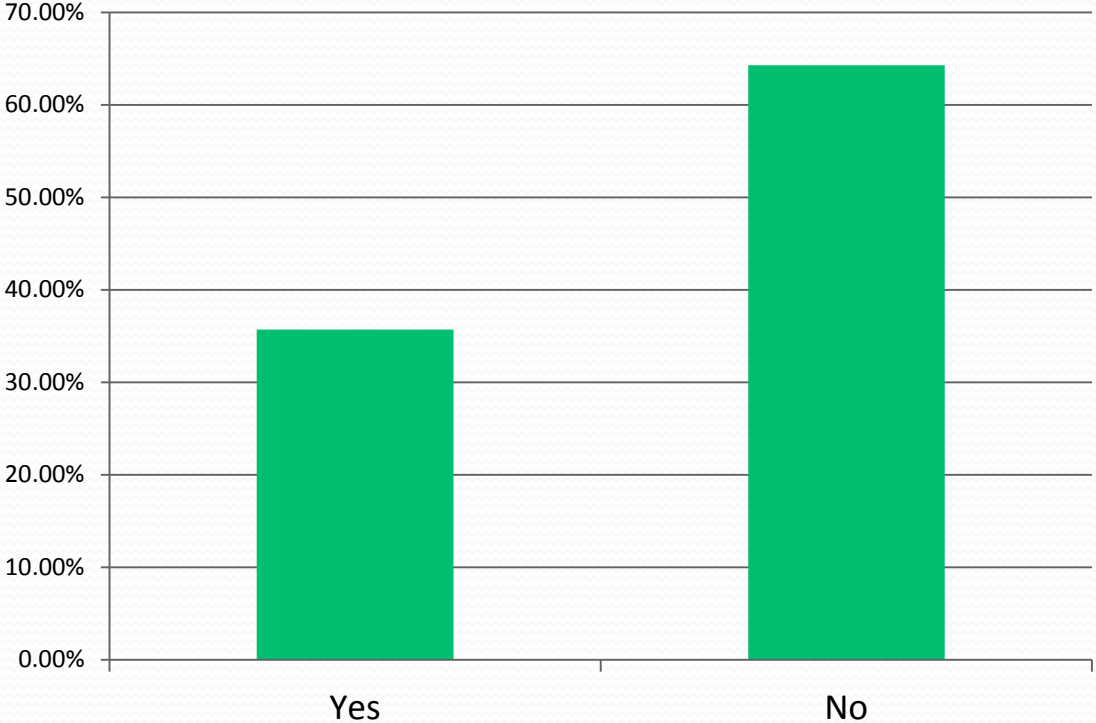
Q5. Do you have an internal governance process of independent review of best estimate assumptions by an external auditor/actuary, in addition to the scope under peer review?
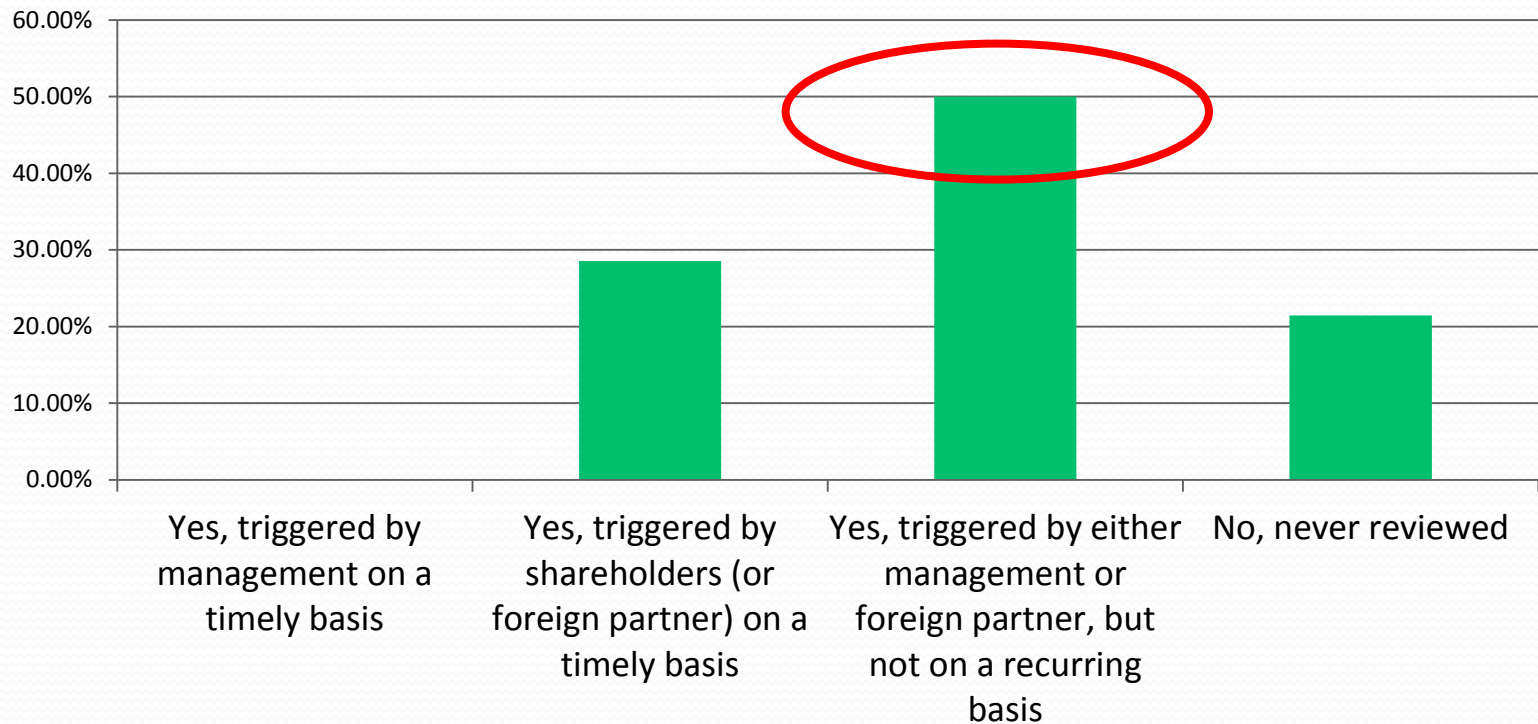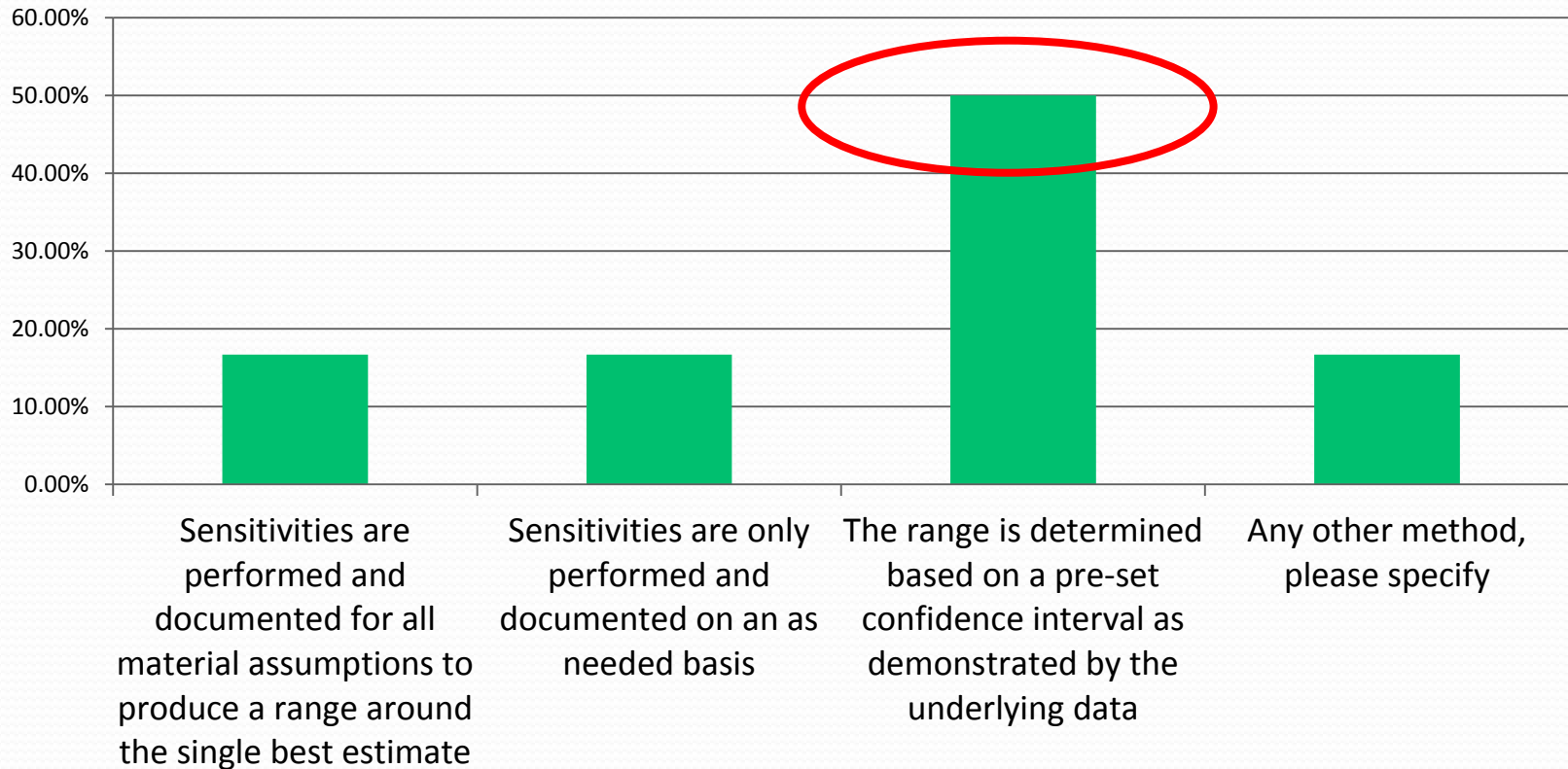
Module 2

Review of Best Estimates

Q6. Do you consider a confidence interval around the best estimate assumption?

# Q7. If answer to Q6 is "yes", how is this determined?

Others:

1. *Credibility method*

Q8. If answer to Q6 is "No", please share your views on absence of the same.

A. Uncertainty is significant around BE interest rates. We perform sensitivities around this keeping in mind actual earned and future reinvestment rates at realistic and pessimistic scenarios.

B. BE assumptions based on judgement, data, sensitivity to results, etc.

C. Principles agreed with Board based on which the assumptions are set.

D. We have adequate margins for risk. In some experience parameters, we hold higher margin for adverse deviations than prescribed in APS7.

E. It makes sense to have confidence interval which will lead to additional work to differ from APS 7. So we perform a check to estimate the level of confidence built in to the assumptions.
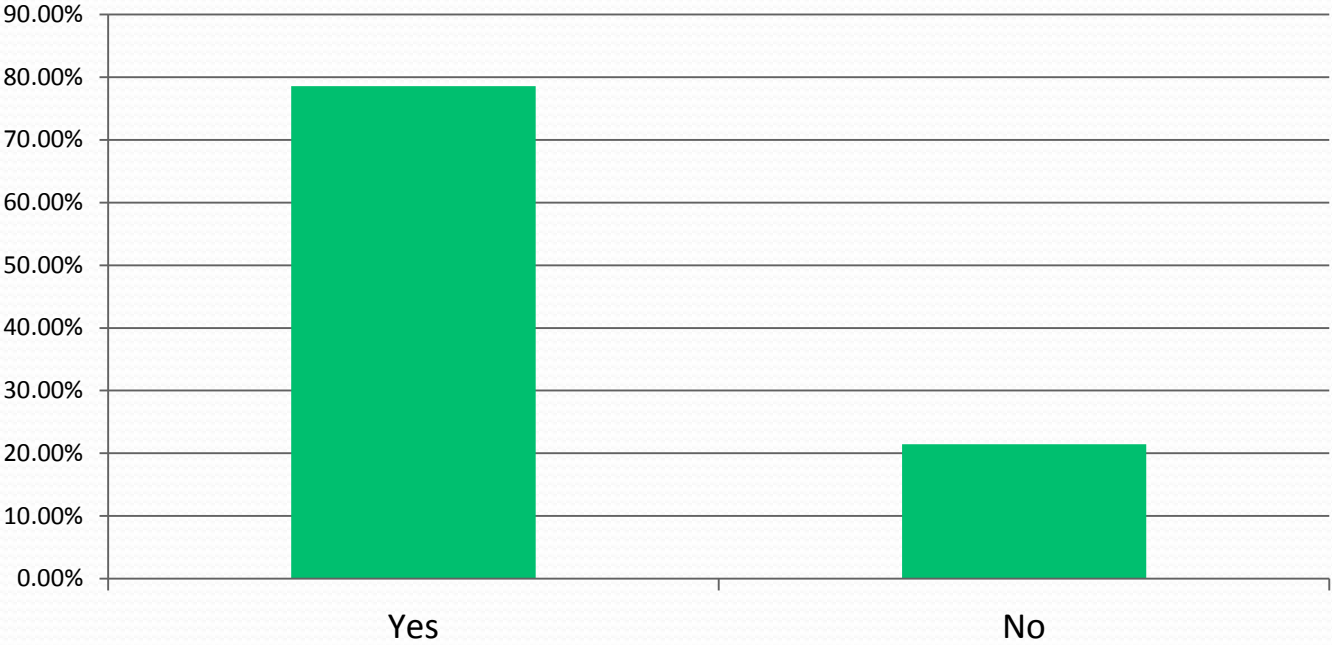
F. Not required as per current Solvency 1 regulations

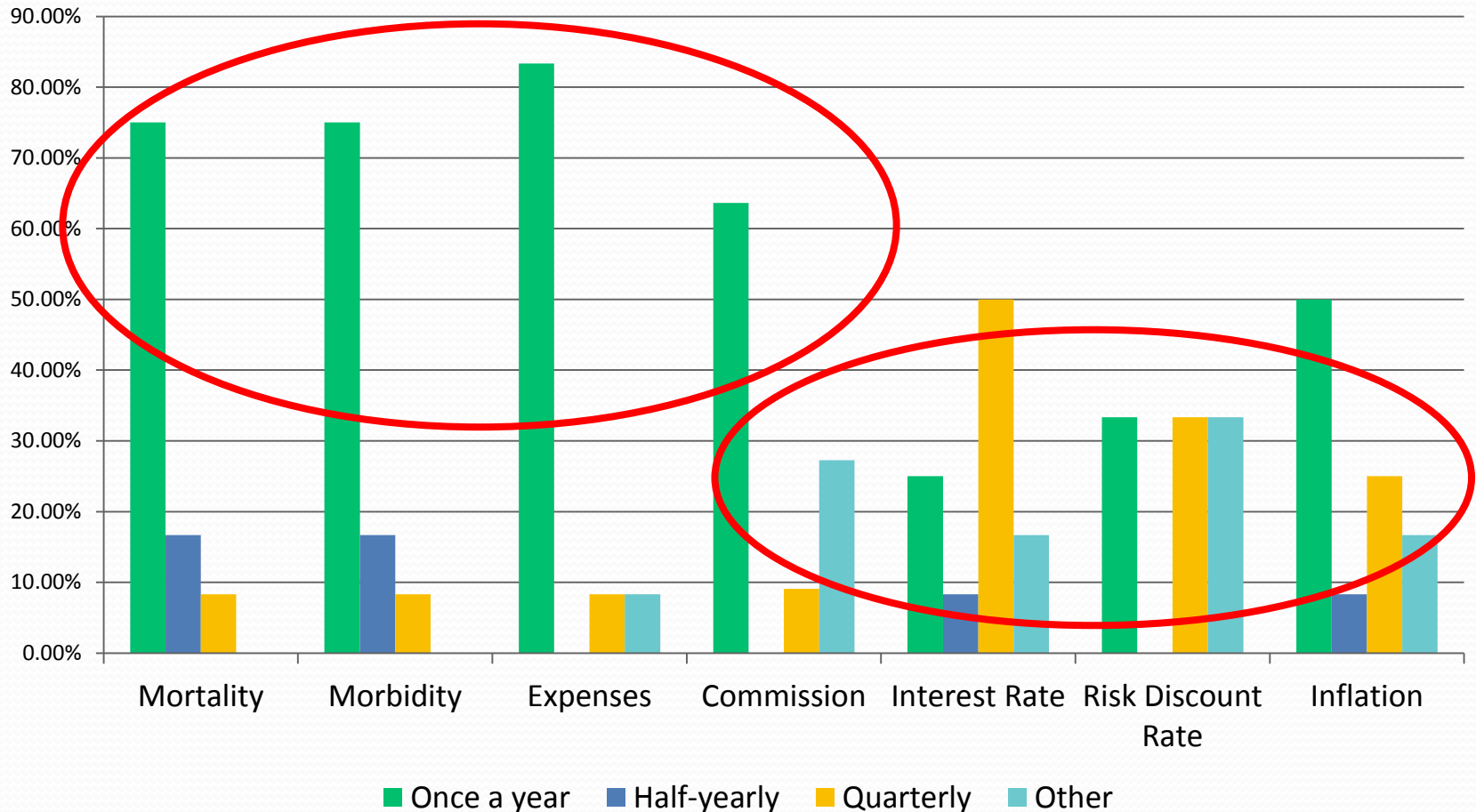# Q9. How frequently do you revisit the best estimate assumptions?
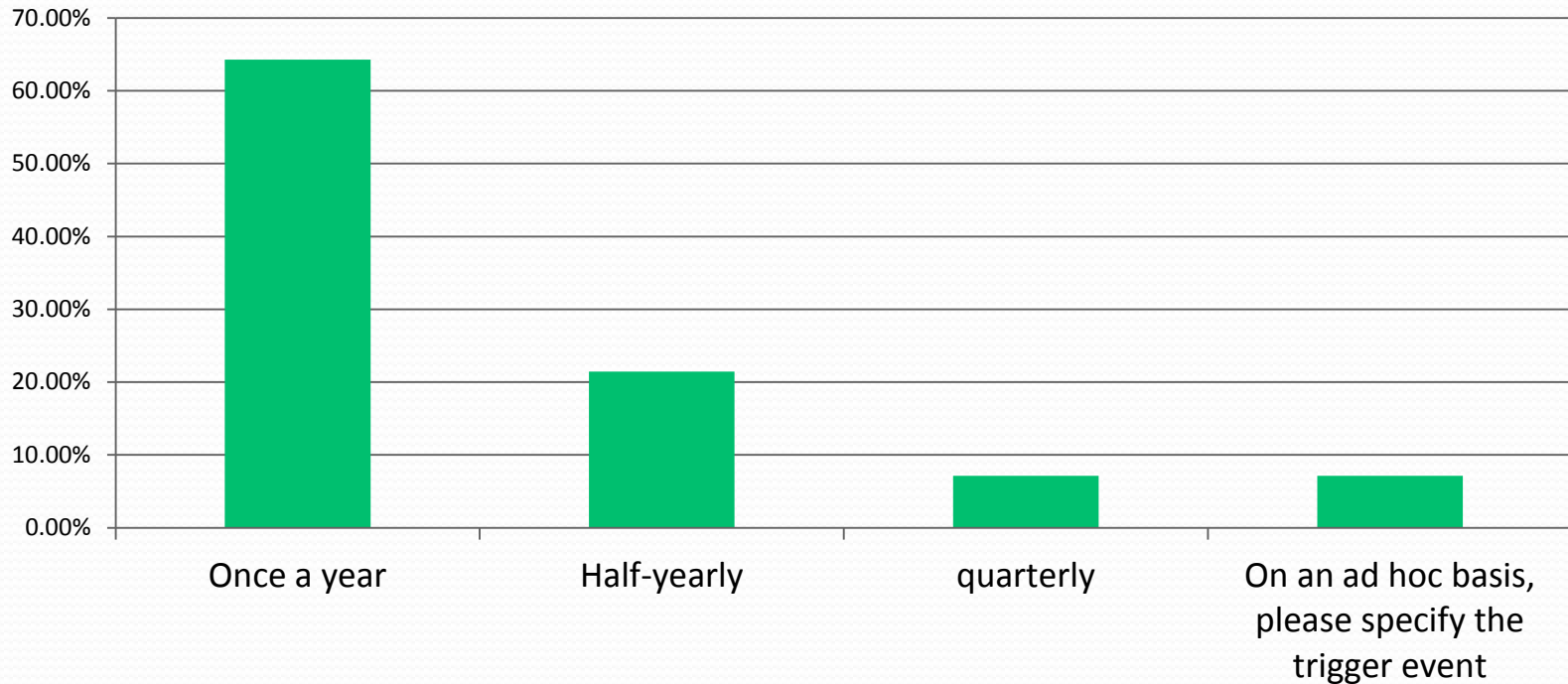
Others:
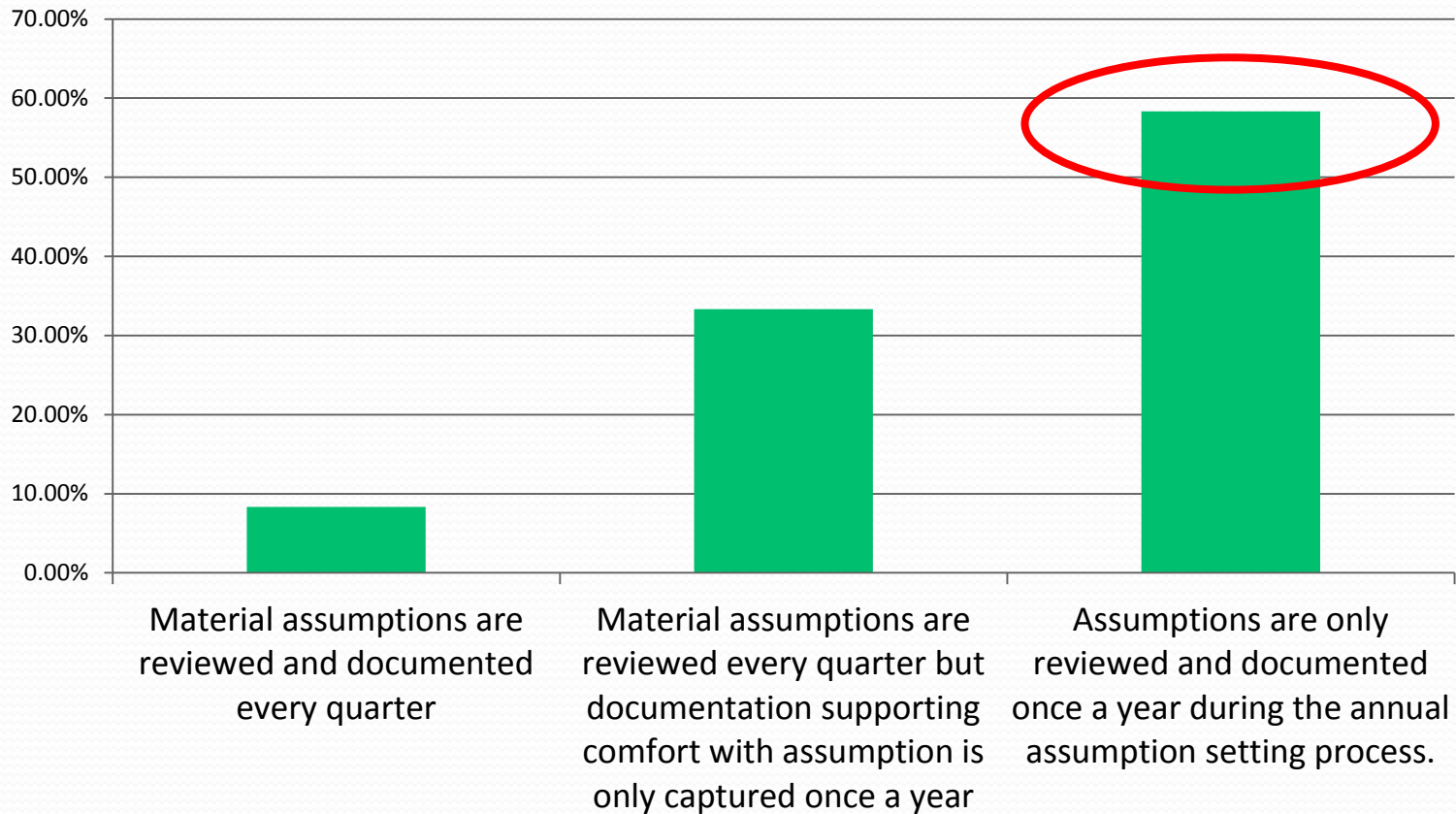1. *More than once a year, but no pre-set time defined.*

Q10. Does the frequency of review vary depending on the type of assumptions, e.g. economic, non-economic, etc.?
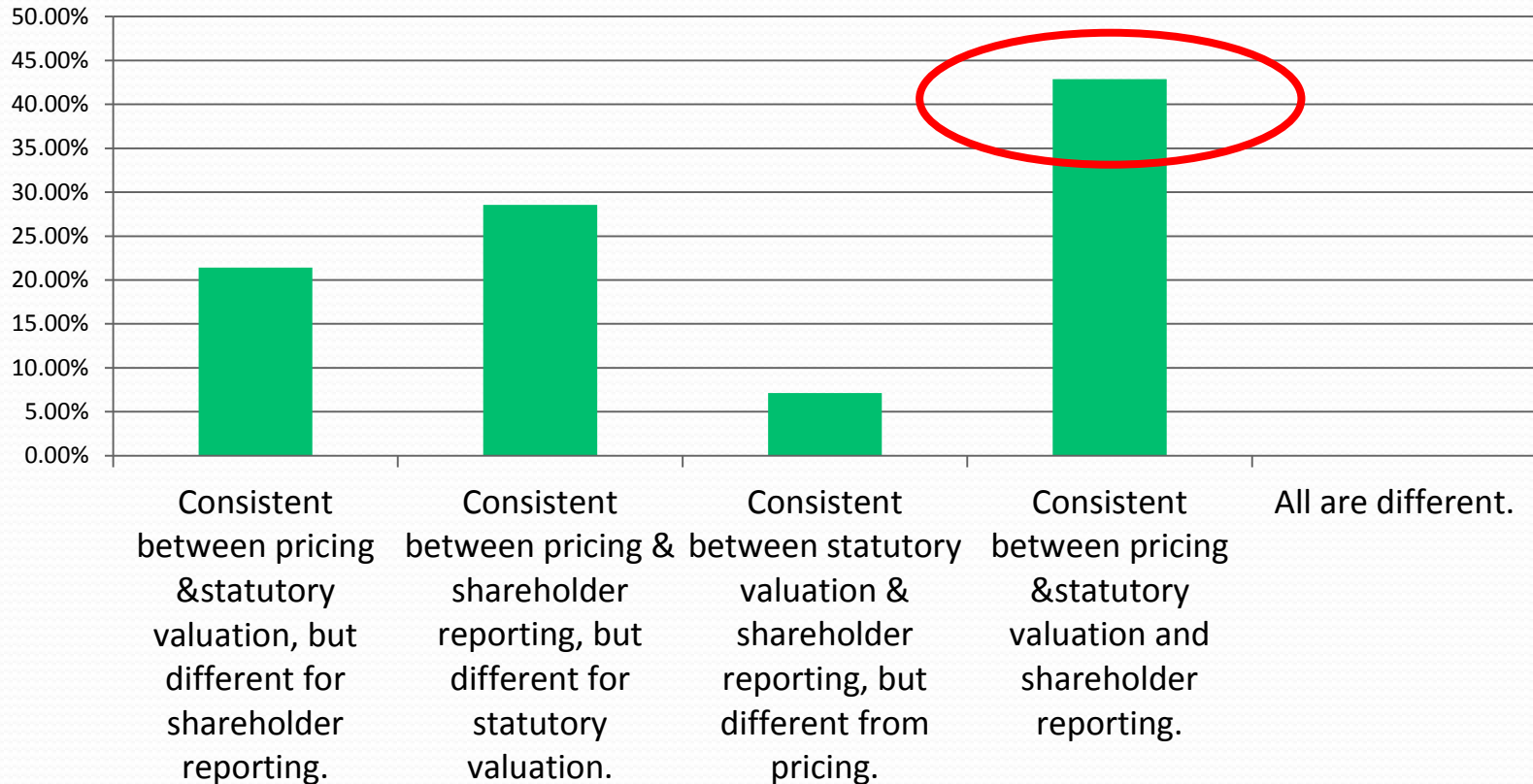
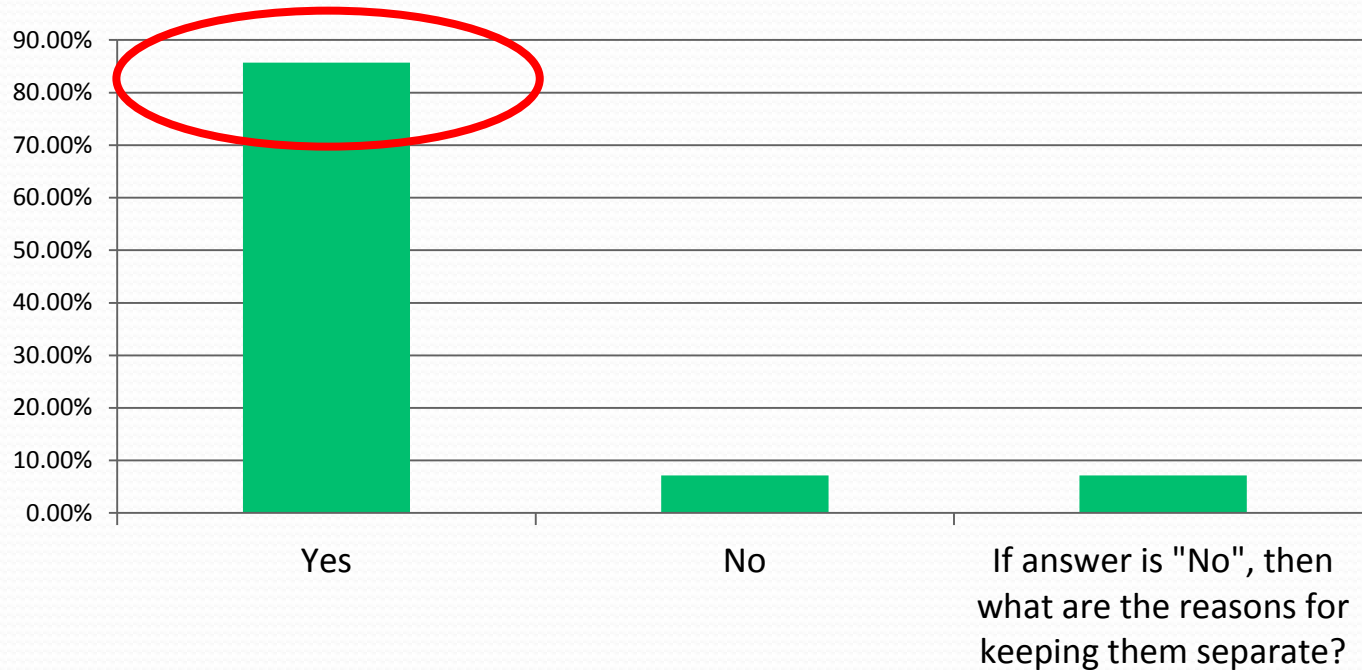# Q11. What is the frequency of review, if yes to Q10?

Q12. What is the scope of this review?

Q13. Do you have a consistent set of best estimate assumptions for pricing, statutory valuation and shareholder reporting?

Q14. Are the assumptions used in the benefit illustrations for participating contracts consistent with the pricing assumptions?
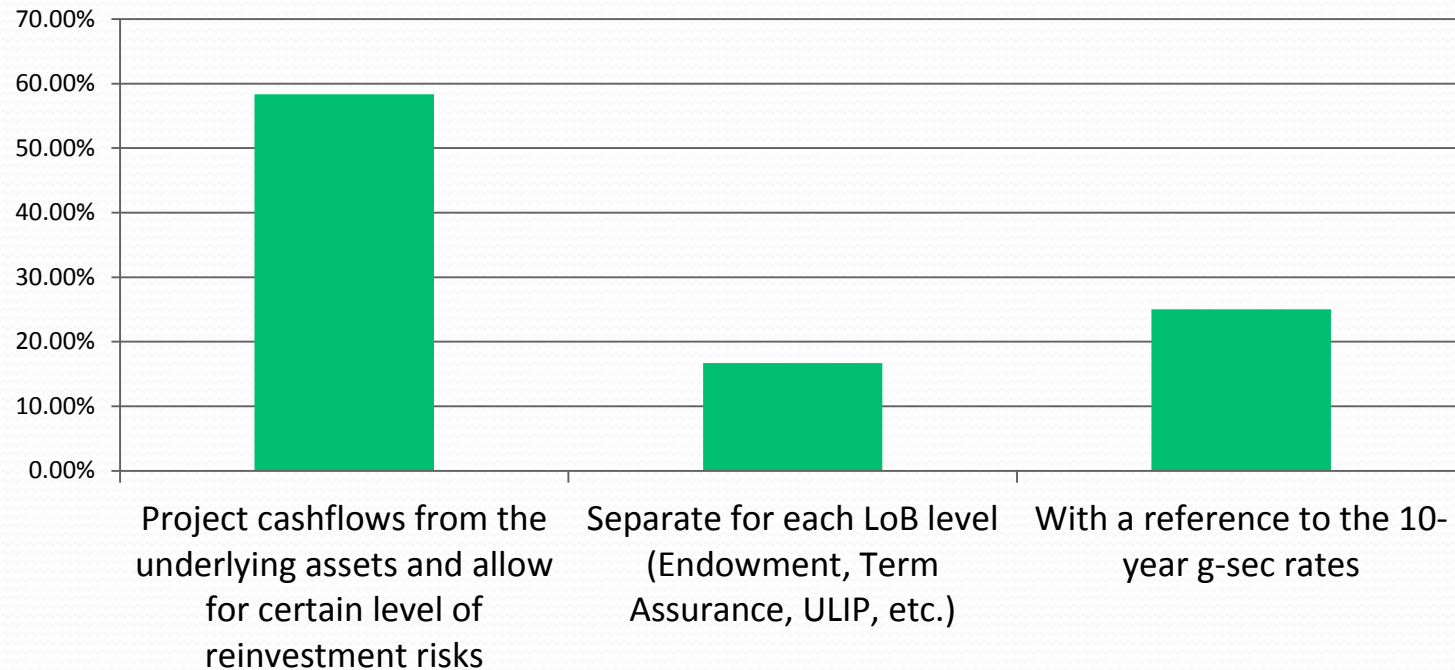

Others:

1. *Benefit illustrations are based on more conservative assumptions, especially expenses.*
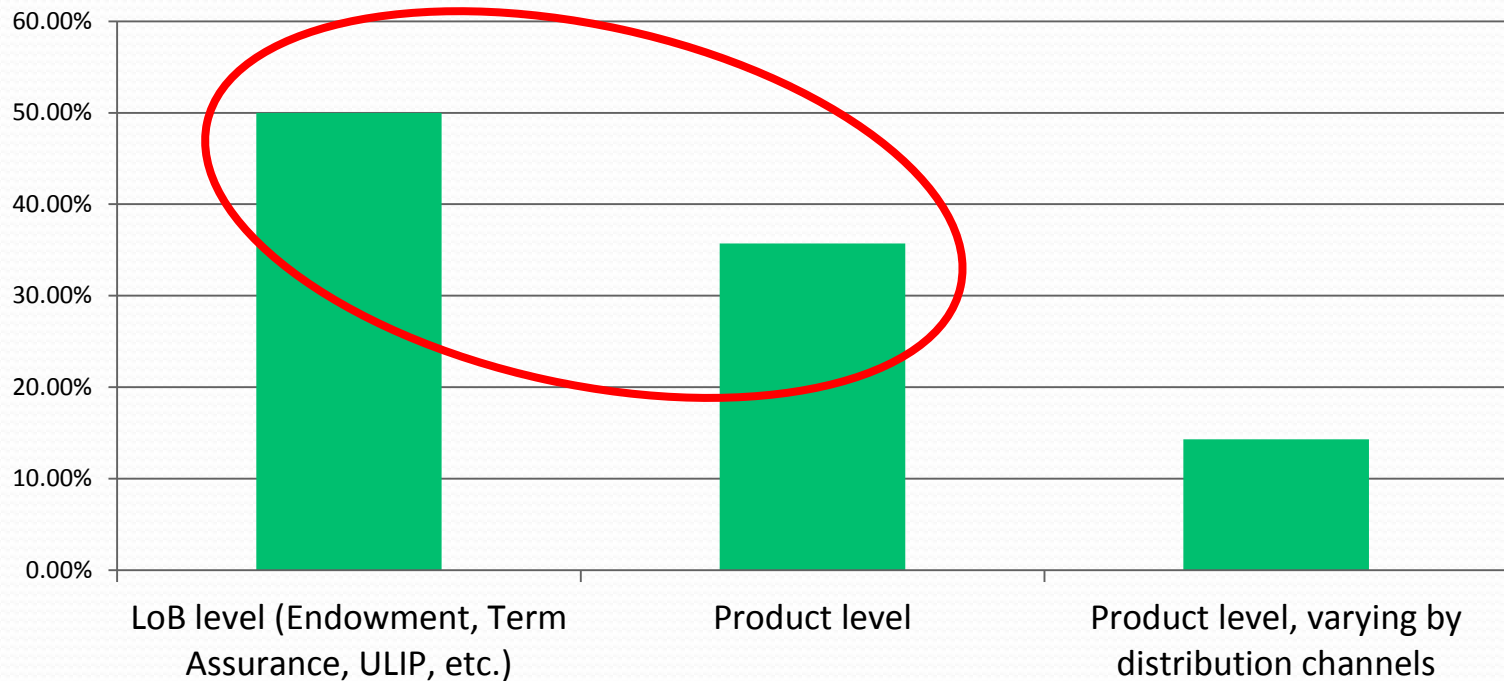
Module 3

Nuances in different BEs

Q15. How are the best estimate interest rate assumptions set?

Others:
1. *From a proxy risk free yield curve.*
2. *In addition, the long term asset allocation of each LOB is also considered*

Q16. What granularity level are the best estimate mortality/morbidity assumptions set at?

Others:

1. *And taking underwriting criteria into account.*

Q17. For setting persistency best estimate assumptions, what additional time period is allowed for considering revivals within the in-force book?
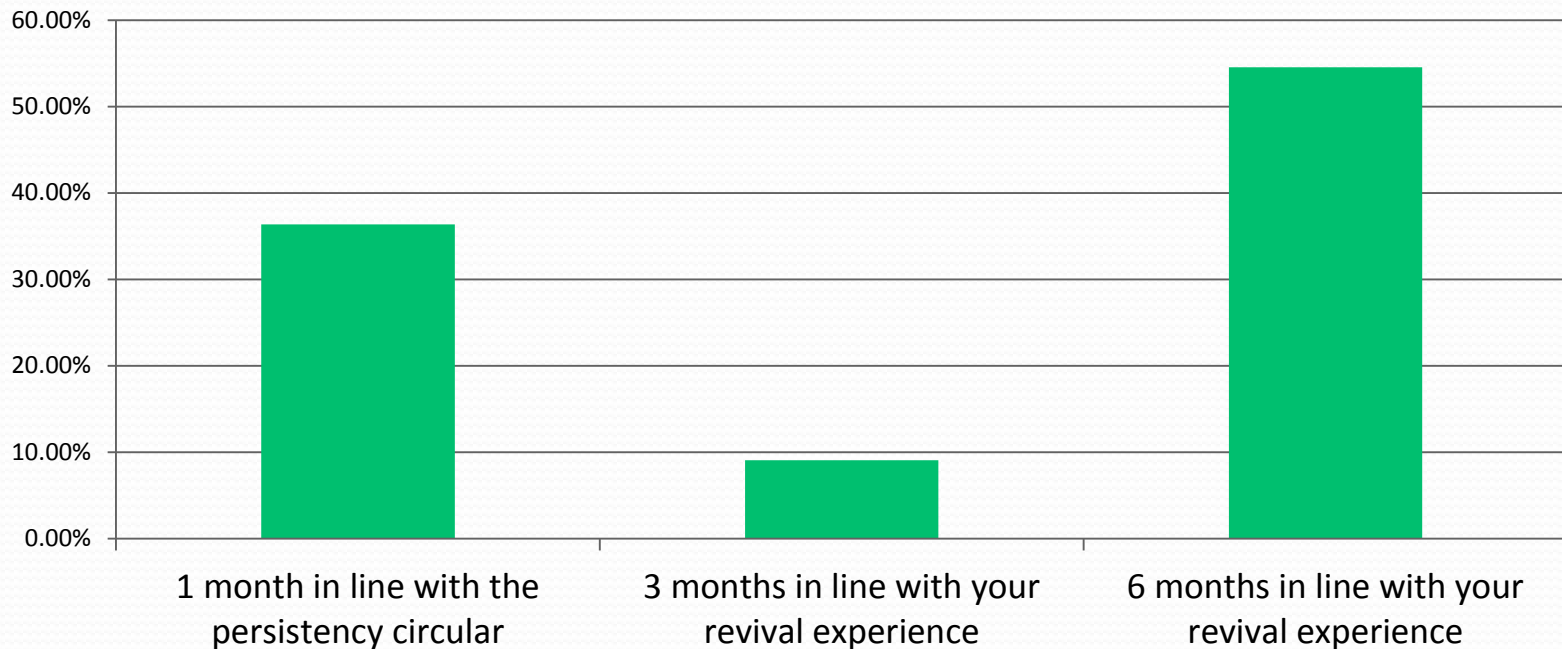
Others:

1. *We take actual experience with 8-9 months time lag to allow for revival.*
2. *In line with grace/notice period.*
3. *We allow for full year experience to emerge.*

Q18. While pricing, how is the best estimate mortality or morbidity assumption determined for a new product or a new risk coverage option?
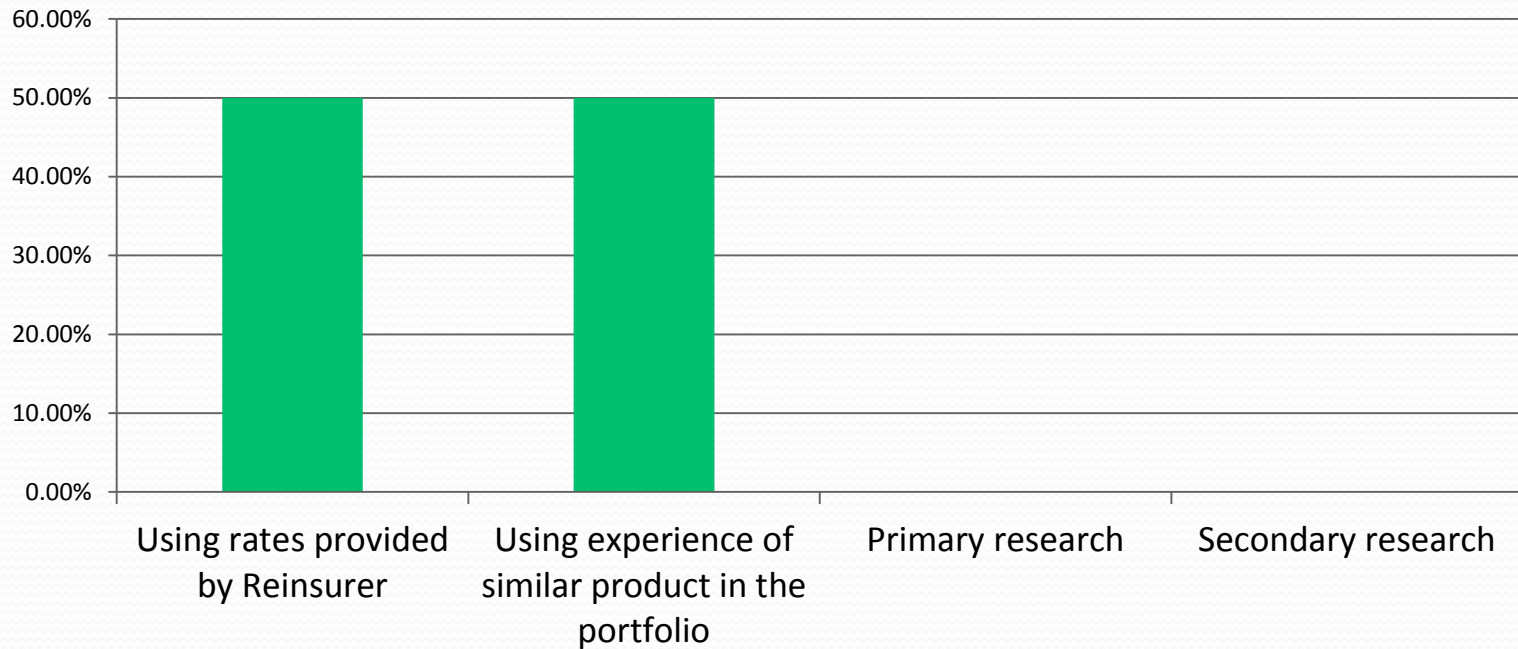
Others:

1. *For new risk it is mostly reinsurer and for new product it is the experience of similar existing products.*
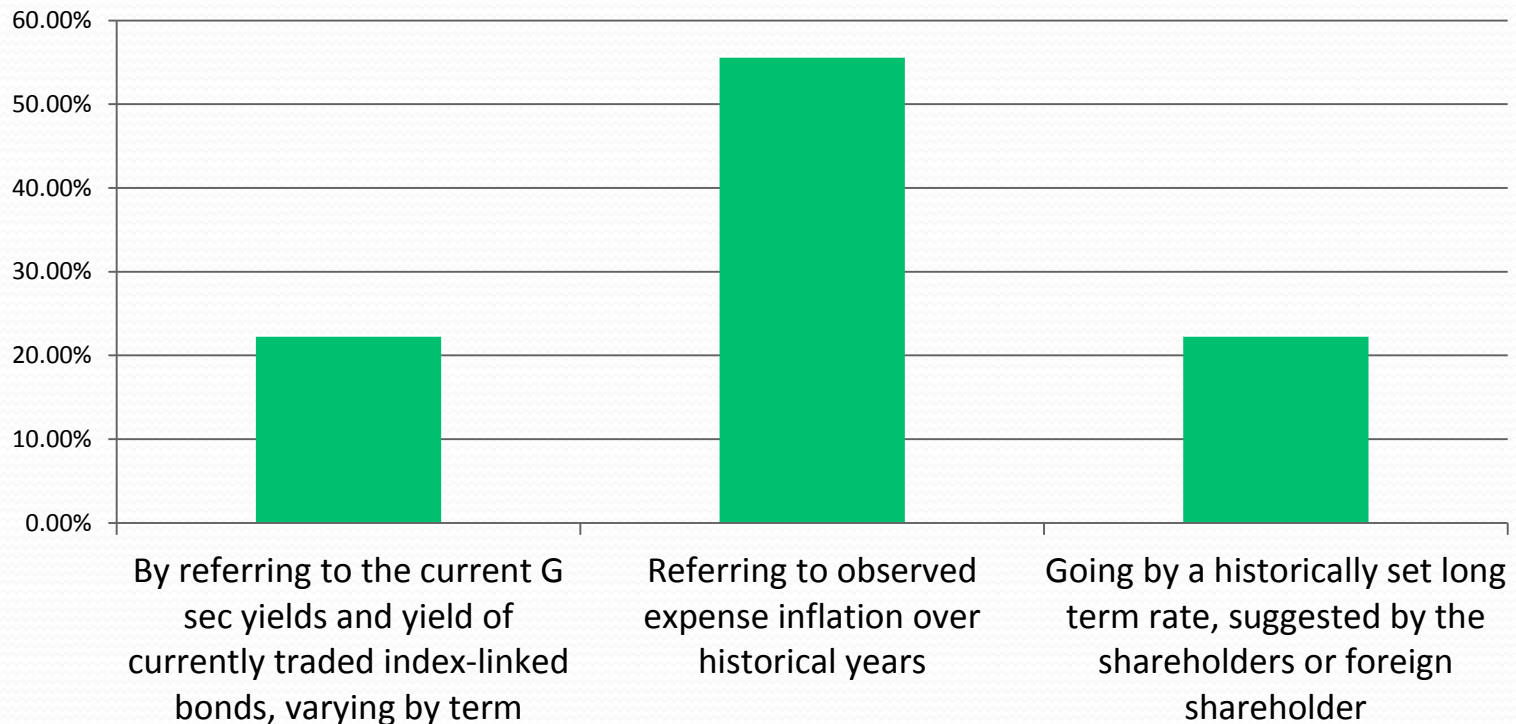2. *A combination of some of the above*

Q19. How frequently is a detailed expense analysis, including analysis of fixed/variable expenses, of cost drivers carried out?
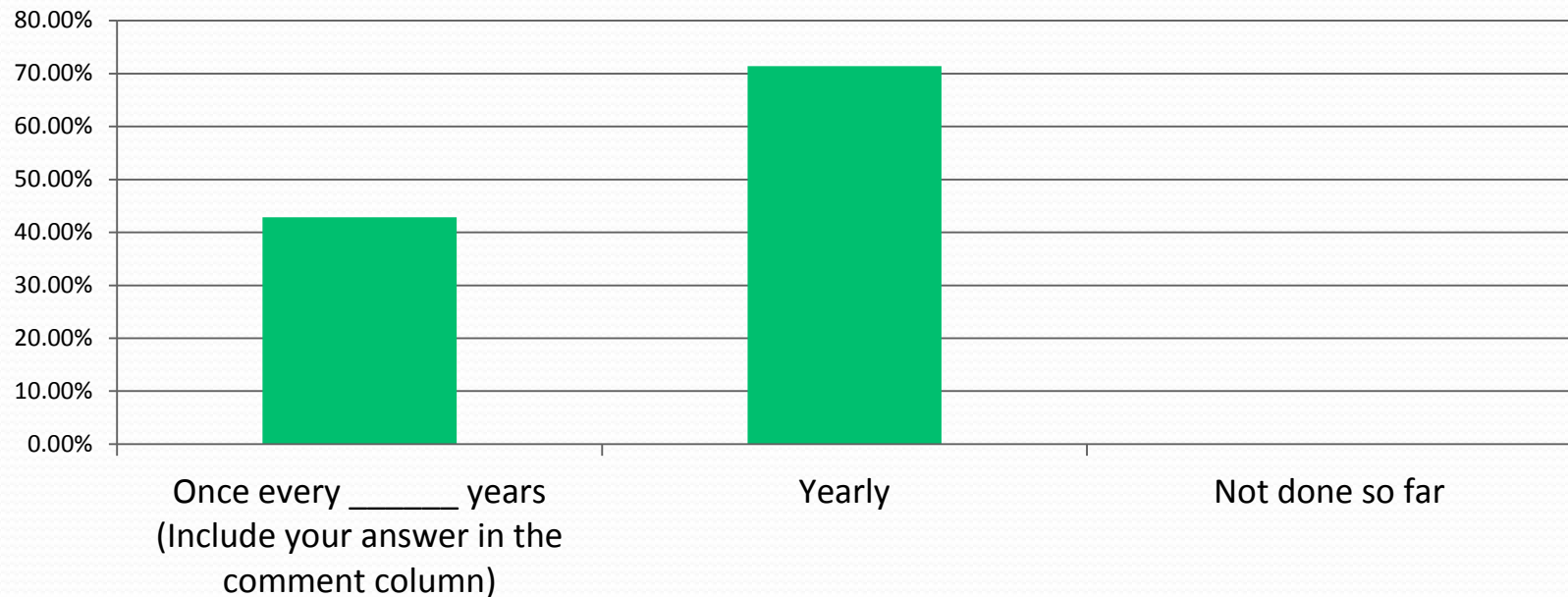
Frequency ranges captured:
1. From 3 years, 2 years, quarterly to need based at the other extreme

Q20. How is the long term expense inflation assumption set?

Options captured:
1. *3 X Target inflation taken by RBI*
2. *Based on expected inflation at the macro level and more specifically based on the inflation of company costs (based on Business Plan)*
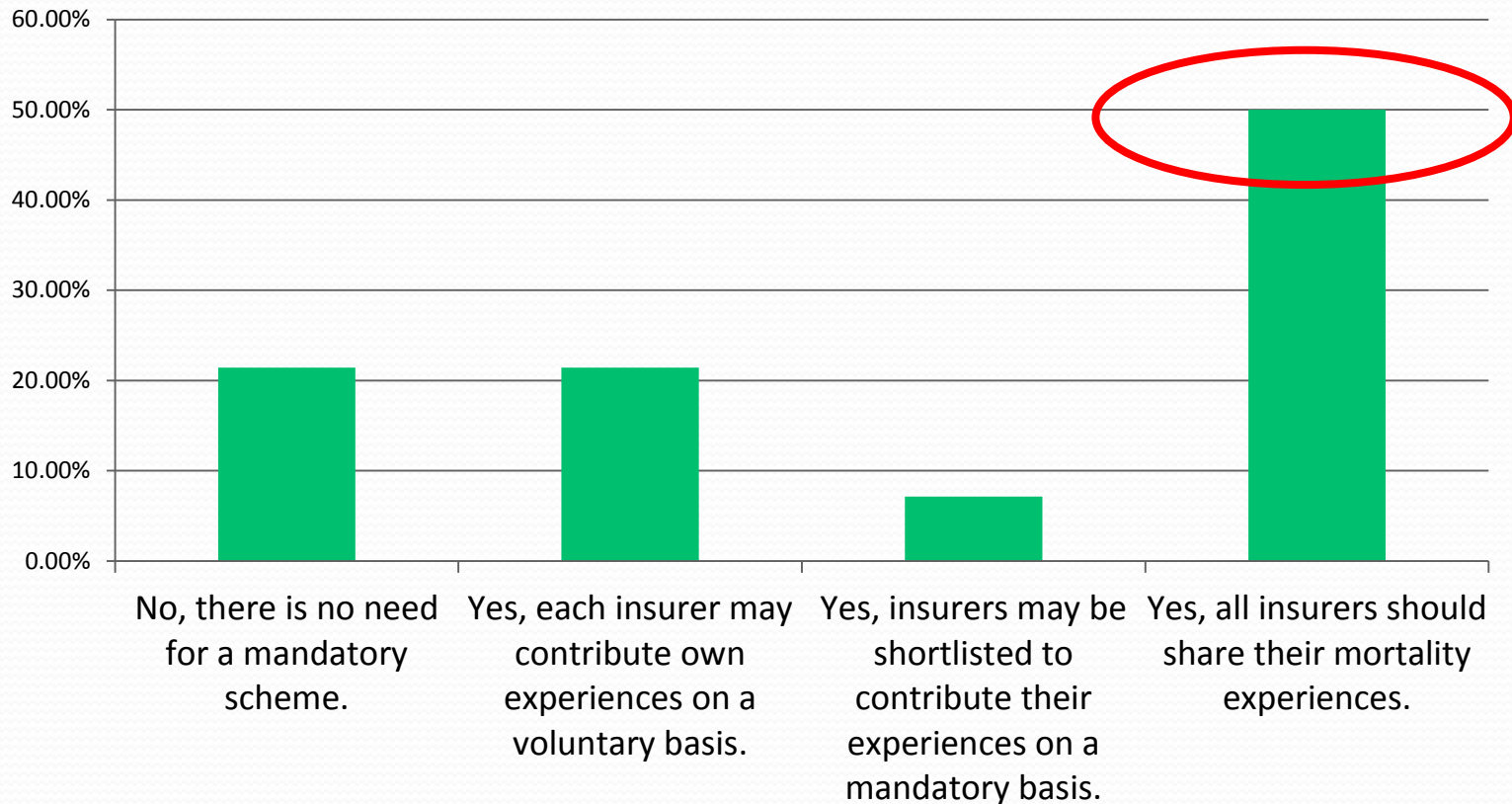
# Q21. How is the best estimate risk discount rate determined?
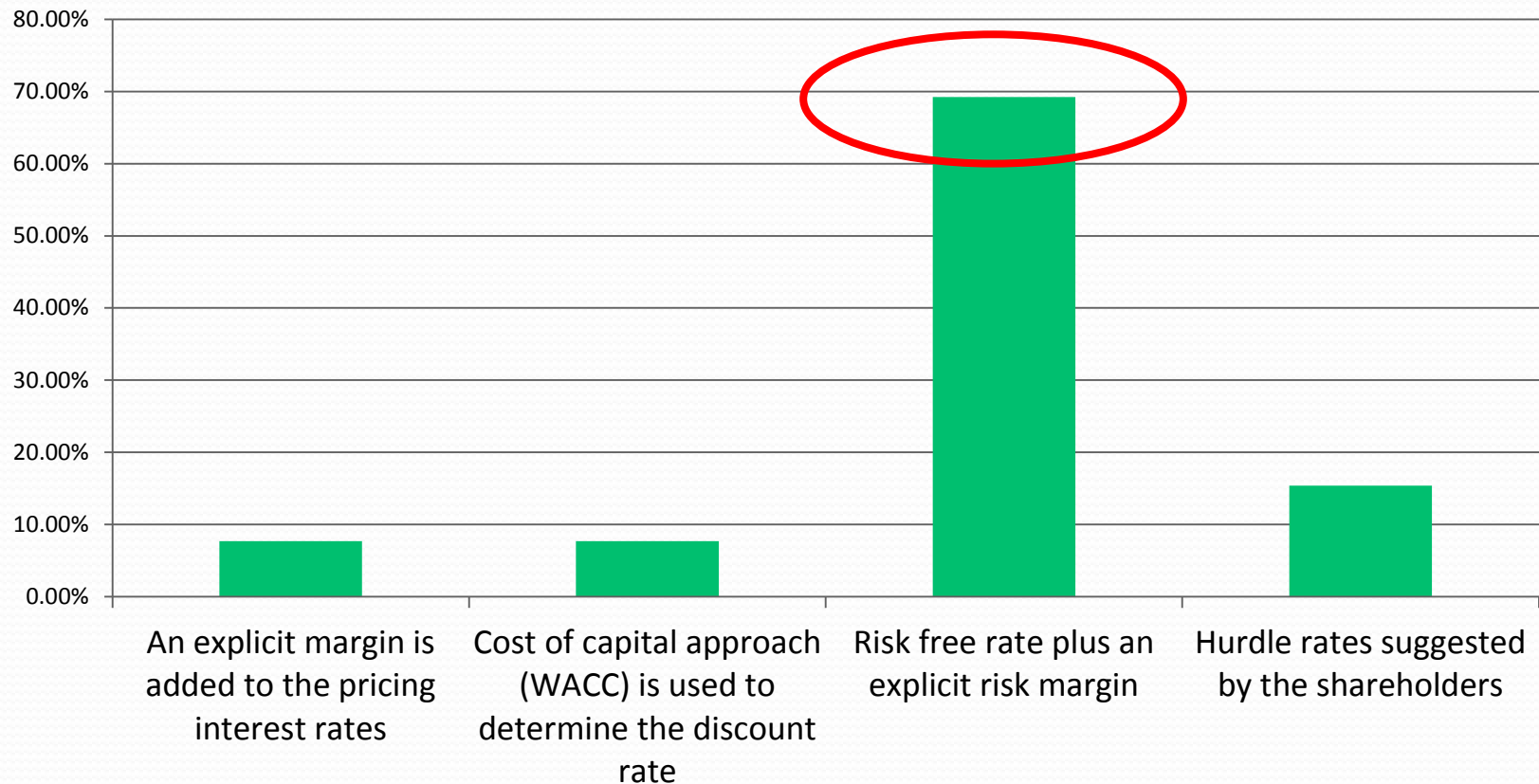
Module 4

Looking forward…

Q22. Do you think these should be industry-wide data collection scheme on mortality experience to set assumptions?

Bar chart with categories:
- No, there is no need for a mandatory scheme. — approximately 21.00%
- Yes, each insurer may contribute own experiences on a voluntary basis. — approximately 21.00%
- Yes, insurers may be shortlisted to contribute their experiences on a mandatory basis. — approximately 7.00%
- Yes, all insurers should share their mortality experiences. — 50.00% (circled)

Q23. Do you think these should be industry-wide sharing of approaches used for setting best estimate assumptions?
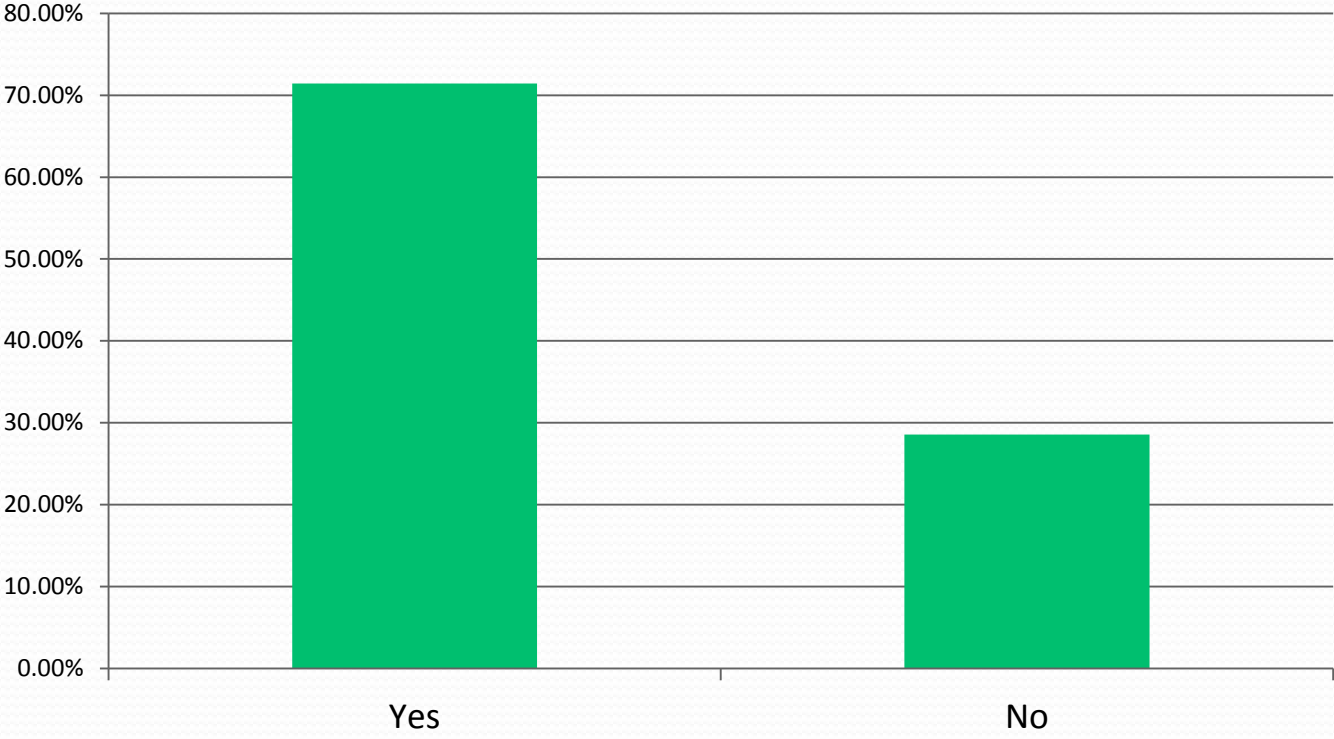
Q24. If answer to Q23 is "Yes", should it be

Any queries or views??

Panel discussion points

1. What is a 'best estimate' in reality??

2. Merits of standardising the framework of setting assumptions…

3. Documentation from a Reserving perspective

4. Documentation for a potential IPO / listed entity

5. What should it be in an RBC and IFRS world?

6. Points under consideration for industry wide sharing

Wrapping up…