



Society of Actuaries in Ireland

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# **Reviewing Actuary – Expectations versus Reality**

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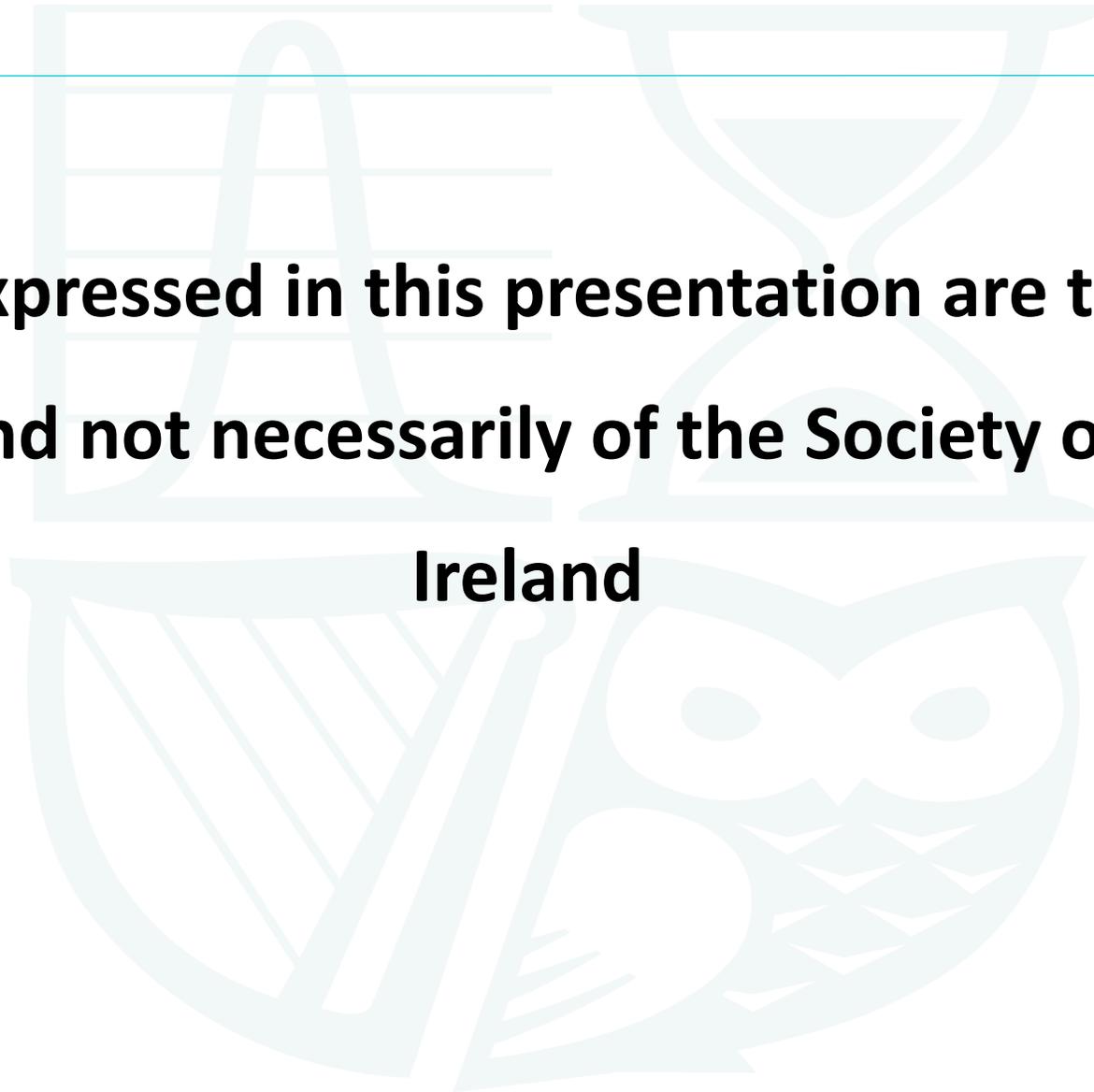
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# Disclaimer

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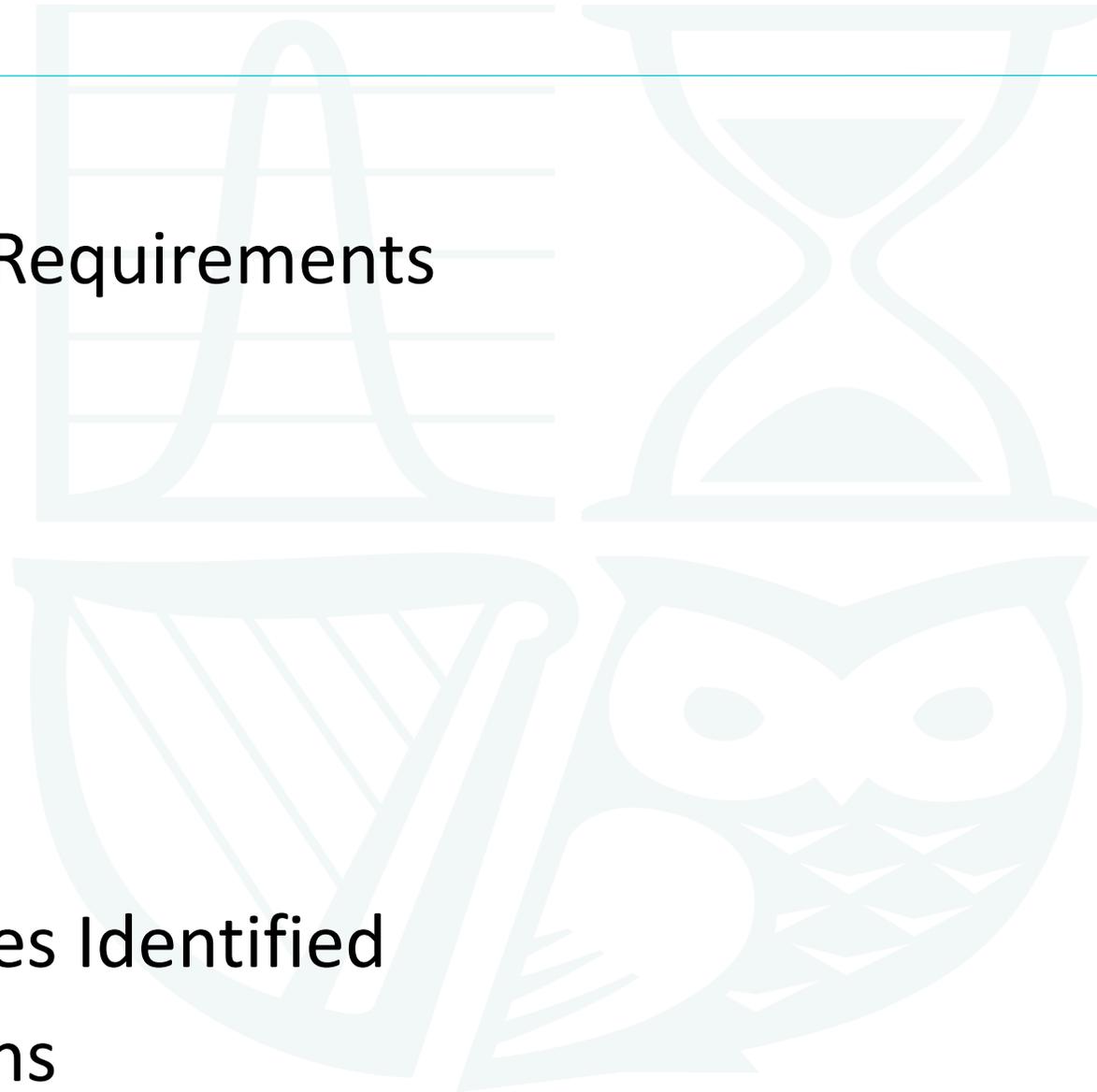
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# Agenda

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- Overview of Requirements
- Process
- Scope
- Timing
- Report
- Materiality
- Types of Issues Identified
- Considerations





# Role

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- Required by CBI's Domestic Actuarial Regime (“**DAR**”)
- Head of Actuarial Function (“**HoAF**”)
- Reviewing Actuary (“**RA**”)
  - Not a PCF but undertaking must be satisfied:
    - Fit & proper
    - Appropriate expertise & experience
  - Not involved in preparation of TPs and not an employee
  - Board should be satisfied that RA is appropriately independent considering:
    - Nature of services currently provided by the RA and his / her firm
    - Previously employed by the undertaking
    - Any conflict of interest
- Frequency depends on PRISM rating



# Report

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- Provided to the Board within 1 month of the Board receipt of the ARTPs, and to the CBI upon request.
- Includes at least:
  - a. A description of the scope of the review conducted including details of;
    - i. the work completed,
    - ii. the processes followed,
    - iii. the extent to which the RA had access to relevant data, information, reports and staff.
  - b. Commentary on assumptions, methodologies, and main uncertainties in the calculation of TPs.
  - c. An assessment of the reasonableness of the HoAF's conclusions within the AOTPs and ARTPs.



# Additional Requirements for High and Medium High

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- The RA shall also:
  1. Review all lines of business which have a significant impact on TPs (*including but not limited to; large lines of business, lines with a high level of volatility, new or growing lines of business, lines with significantly worse experience than expected, etc.*)
  2. Assess material sensitivities of the TPs to key assumptions
  3. Assess material uncertainties in TPs
  4. Assess the appropriateness of the use of expert judgement in TPs



# Process - Expectations

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Robust challenge  
of HoAF

Central Bank of Ireland

Comfort in signing  
director's  
certifications

Board



Head of Actuarial Function

Readily available  
documentation &  
staff

Reviewing Actuary



# Process - Reality

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# Scope – Lines of Business

	Expectation	Reality
CBI	Review all lines of business which have a significant impact on TPs (including but not limited to: large lines of business, lines with a high level of volatility, new or growing lines of business, lines with significantly worse experience than expected, etc.)	CBI's view of material may differ to that of RA
HoAF	A review of material lines of business only might limit the level of questions but HoAF might also prefer a thorough review	HoAF's view of material may differ to RA
Board	Board may prefer to know that TPs for all lines of business have been calculated correctly – not just material lines	Board's view of material may differ to RA
Reviewing Actuary	Comply with DAR	Different RAs may take a different approach <ul style="list-style-type: none"><li>- Some cover everything</li><li>- Others drill into a particular line</li></ul>



# Scope – Replication

	<b>Expectation</b>	<b>Reality</b>
CBI	An independent view does not necessarily require an independent recalculation, however a justification should be provided if a recalculation is not performed. For material non-life lines of business a recalculation is expected	RAs are unlikely to attempt to replicate full calculations (unless required as is the case for certain non-life business) as it would be costly and time consuming to build models from scratch.  Instead focus on methodology, sample policy checks, sense checks, analysis of movement, sensitivities etc.
HoAF	Replication gives a degree of comfort that calculations have been performed correctly but could lead to a lot of questions from RA as they try to build models	
Board	Replication gives comfort that calculations have been performed correctly	
Reviewing Actuary	Comply with DAR	



# Timing - Commencement

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	<b>Expectation</b>	<b>Reality</b>
CBI	Evidence of robust challenge of HoAF by RA	Depends on level of preparedness in the Company. <ul style="list-style-type: none"><li>- Some reviews started prior to assumption setting process</li><li>- Others started after assumptions set by Board</li><li>- Other reviews even later</li></ul>
HoAF	Commence in advance of assumption review work to ensure that assumptions that are proposed to the Board have been thoroughly challenged	
Board		
Reviewing Actuary		



# Timing - Report

	<b>Expectation</b>	<b>Reality</b>
CBI	To be provided to the Board within one month of receipt of ARTPs. (In theory RA Report could be three months after deadline for annual returns)	Most reports presented at same meeting as ARTPs but timing of circulation depends on how quickly HoAF completes AOTPs and ARTPs (and on audit sign-off) as RA can't complete work until these are done.  Some companies taking advantage of the one month lag permitted by CBI.
HoAF	To be presented as same Board/Audit Committee meeting as ARTPs with report available in time for circulation of Board papers	
Board	Report to be presented as same Board/Audit Committee meeting as ARTPs (to give Board full picture of what they are approving) with report available in time for circulation of Board papers (to allow ample time to review)	
Reviewing Actuary	Meet company expectations	



# Report

Expectation



Reality





# Report - Findings

	<b>Expectation</b>	<b>Reality</b>
CBI	Lots of findings and recommendations to show thorough review	May be light on findings and recommendations if HoAF has made changes to reflect feedback received during the process
HoAF	Relatively clean report	Depends on level of interaction between HoAF and RA during process. Also depends on level of audit challenge and peer review received previously.
Board	Relatively clean report	If there are findings and actions the Board needs to develop an action plan and possibly report on this to CBI
Reviewing Actuary	Address requirements of DAR	Depends on level of interaction between HoAF and RA during process.



# Materiality

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- Areas where materiality matters for RA
  - Deciding scope of review (as discussed earlier)
  - Board should notify the CBI when it has considered the Peer Review Report, highlighting any material issues raised and, where necessary, setting out a plan of action.
  - Assessing impact of simplifications, judgements, limitations etc.
- In our experience, RA Reports do not have “material” issues to be notified to the CBI
  - Already included / adjusted
  - There may be lots of minor findings to address
- In December 2017, the CBI issued feedback on the AOTPs and the ARTPs. The CBI flagged that *"materiality thresholds are rarely defined in the ARTP"* and that it expects *"Board discussion on materiality thresholds around which decisions are made"*.
  - If no replication then RA is reliant on HoAF to assess impacts



# Types of Issues Identified - Assumptions

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- Expenses and expense inflation
- Monitor experience versus assumption
- Expert judgements - documentation
- Level of granularity / homogeneous risk groups
- Period of study
- Frequency of updates



# Types of Issues Identified - Methodology

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- Data checks
- Documentation
- Use of simplifications
- Reinsurance – HoAF (and RA) sign off gross TPs and RA separately
- Contract Boundaries and recognition/derecognition
- Calculations – replication & spot checks can identify issues
- AOM
- Risk margin
  - assuming market risk is hedgeable
  - allowance for credit risk
  - choice of risk drivers



# Types of Issues Identified – Management Actions

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- Management Actions

In a letter addressed to HoAFs in February 2017, the CBI stated:

*“We consider the application of a management action is a key assumption particularly where it has a material impact on the results. Where this is the case the HoAF should ensure that the management action is adequately justified, aligned with business strategy and that emerging experience is compared to assumed... There were a number of cases where implicit management actions were assumed and allowed for when setting the assumptions for example, use of a constant per policy expense assumption where business volumes were expected to decrease. Management actions should be justified and supported by an approved management action plan as outlined in Article 23...”*



# Types of Issues Identified - EIOPA Q&A

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- EIOPA Q&A on the interpretation of Solvency II Regulations

*“The capital requirement for mass lapse risk ...should reflect the adjustments after the mass lapse event that the insurer would have to make to the expense component of the cash flow projection in the best estimate calculation..... Using the assumption of constant per policy expense for determining the capital requirement for mass lapse risk may in many cases be too optimistic with respect to the possibility to reduce costs.”*

*“In the case of undertakings closed to new business, the specific situation of the undertaking should be taken into account in the assumptions on future expenses, hence the projection of cash-flows should reflect that there is no underwriting of new business.”*

*“Investment management expenses should not be stressed on a calculation of capital requirement for life-expense risk while overhead expenses should be stressed.”*

*“The commissions to the sales force should be a part of the ExpUL for the purpose of calculating the capital requirement for operational risk.”*



# Types of Issues Identified – Uncertainties & Sensitivities

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- Linking uncertainties & sensitivities
- Linking to materiality thresholds
- Standard Formula stresses – big impact but low likelihood
- Using other calibrations but not considering likelihood
- Risks/sensitivities not included in standard formula e.g. impact of alternative contract boundaries, methodologies, assumption setting process



# Considerations for future reviews

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- HoAF / Board
  - Scope
  - Timing of review – assumptions, methodology & results
  - Quality of documentation available
  - Time requirements for meetings and questions
  - RA review of action plans
- Reviewing Actuary
  - Scope
  - Timing
  - EIOPA Q&A, CBI areas of focus, items discussed at SAI HoAF/RA Forums
  - Don't forget different SAI subs and CPD requirements apply for HoAF and RA!!