



# Actuaries Institute.

## Key Developments in External Audits, Divergence from External Peer Reviews, and Important Implications on Professional Actuarial Practice

Presented by Chao Qiao, Nina Larkin & Antonie Jagga

The Actuaries Institute acknowledges the traditional custodians of the lands and waters where we live and work, travel, and trade.

We pay our respect to the members of those communities, Elders past and present, and recognise and celebrate their continuing custodianship and culture.



# Speakers



**Antonie Jagga**

Partner, PwC Australia

Antonie is the PwC Australia Insurance Leader and represents Australia as part of the Global PwC Actuarial Leadership team.

He is a Fellow of the Institute of Actuaries (Australia) with over 15 years' experience in insurance (non-life and life), healthcare, banking and financial and statistical modelling.



**Nina Larkin**

Partner, PwC Australia

Nina is a PwC Actuarial Partner with over 20 years of experience in the FS industry. She is a Fellow of the Actuaries Institute.

Nina is currently the lead PwC Actuarial Partner for external audits of credit risk provisions across the sector. Nina supports her clients across a range of financial (credit, liquidity, stress testing) and non-financial (product, system) risks.



**Chao Qiao**

Director, PwC Australia

Chao is a Director within the PwC Risk Actuarial team with over 15 years across all areas of insurance consulting. He is a Fellow of the Actuaries Institute and has served as a member of Council with the Actuaries Institute, where he was a key leader within the professional education transformation strategy.



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# Introduction to key topics

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**External Peer Review  
(EPR) and audit**



**Managing increasing  
expectations**



**Insurance industry  
learnings from  
banking**



**The role of actuaries  
in banking**



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# Introduction to key topics

## Reporting standards

IFRS 17 *Insurance  
Contracts*

IFRS 9 *Financial  
Instruments*

ISA 540 *Auditing  
Accounting Estimates and  
Related Disclosures*



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# External Peer Review and audit



# External Peer Review and audit

## What is an External Peer Review?

The core of an External Peer Review (EPR) is a conclusion in the professional opinion of the Reviewing Actuary.

An EPR revolves around a conclusion of whether anything has come to the Reviewing Actuary's attention that would lead them to believe that the Primary Actuary's Specified Valuation results are unreasonable.



Principle-based approach.



Now covered under PS 103 Actuarial Review.



No longer mandatory following APRA removing the requirement in 2015.

# External Peer Review and audit

How is an audit different?

An audit is **not a review**.

Audit procedures **need** to be conducted.

Assessment of **true and fair**.

Governed by **ASA 620 and ASA 540**.

No mandatory requirement over the whole provision.



# External Peer Review and audit

## Comparison



Concept of an auditor's expert



Requirements of ASA 540 – not comparable to PS 103



Mathematical integrity



Methodology and assumptions VS key indicators VS excluded from actuaries' scope



Reportable threshold



Possible differences in conclusions



No duplication with EPR



# Case Study A

## Different levels of review

### Scenario

*A general insurance company has a mix of short-tail portfolios. It uses an external firm as their AA and has an in-house actuarial team led by a Chief Actuary. It has also engaged the actuarial firm acting as auditor's experts to perform an EPR.*

Item	EPR	Auditor's Expert
<b>Nature of work</b>	Principle-based	Procedure-based
<b>In-scope portfolios</b>	All	M&A for short-tail and WC; key indicators for Professional Indemnity; CTP out of scope
<b>Methodology and Assumptions</b>	Reasonableness in totality.	Scrutiny of individual methods and assumptions. Role of management's expert needs to be defined.
<b>Materiality</b>	Overall actuarial materiality on net level subject to judgement	Audit materiality on FSLI level (De Minimis, Performance Materiality)



# Case Study A

## Different levels of review

Item	EPR	Auditor's Expert
<b>Data</b>	High-level reconciliation checks	Subject to substantive audit testing
<b>Granularity</b>	Reasonableness in totality	Procedure on each FSLI and model element
<b>Reporting</b>	EPR Report	Completion memo and evidence-gathering activities
<b>Mathematical integrity</b>	Subject to professional judgement	Mandatory procedure
<b>Conclusion</b>	Overall reserves reasonable	Methodology and assumptions are appropriate having conducted procedures



# Case Study A

## Different levels of review

### **What happens when an EPR and an audit are performed in conjunction?**

*This is previous practice – see “External Peer Review: Not Just an Audit” by B Cummings and H Bui (2006 Financial Services Forum), however audits and EPRs now serve different purposes and are no longer comparable.*

### **ASA 540 vs. PS 103**

- Different types of misstatements
- Implications of identifying misstatements on the primary actuary
- Regulatory implications
- Implications on professional practice from accounting and actuarial professionals
- Documentation and evidence-keeping
- Use of industry benchmarks
- Periodic review of minor assumptions (e.g., CHE, risk margin)

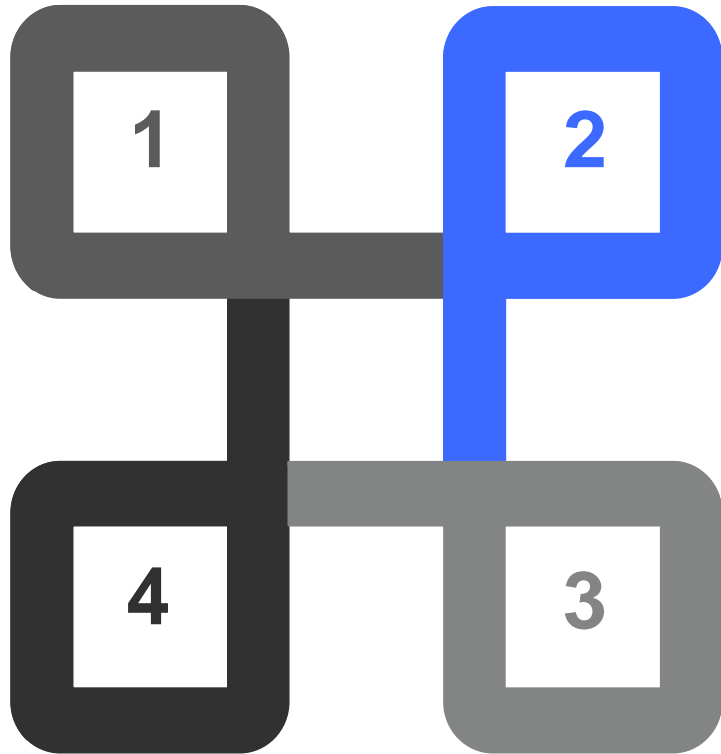


# Managing increasing expectations

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# Managing increasing expectations

ASIC has stepped up its game



## 1. Senate inquiry

2020 Senate Regulation of Auditing Inquiry

## 2. Audit inspections program

ASIC substantially uplifted its *Audit Inspections* program to enforce auditing standards.

## 3. Adverse findings

Adverse findings around lack of audit evidence have been identified across all industries.

## 4. Professionalism

The work of actuaries is measured on par with other estimates by other professionals.



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# Managing increasing expectations

## Overseas actuarial regulation

### Australia

- Actuarial profession governed by the Actuaries Institute
- Principle based standards.

### United States

- Professional practice overseen by the Actuarial Standards Board **AND** the Actuarial Board for Counseling and Discipline

### United Kingdom

- Professional **AND** audit regulation is centralised within one entity
- Financial Reporting Council (FRC) is the independent regulator for auditors, actuaries and accountants.



# Managing increasing expectations

## Topics of interest



Greater evidence and documentation requirements for estimates and judgements.



Benchmark vs. anecdotal experience



Different concepts of materiality



Need to appraise external sources and expert advice



Prescriptive vs. Principle-based



Interpretation of misstatement risks



Uplifting the quality and granularity of actuarial professional judgement



Need to justify and support simplifications



Judgement vs. speculation



Estimates need to hold up by themselves



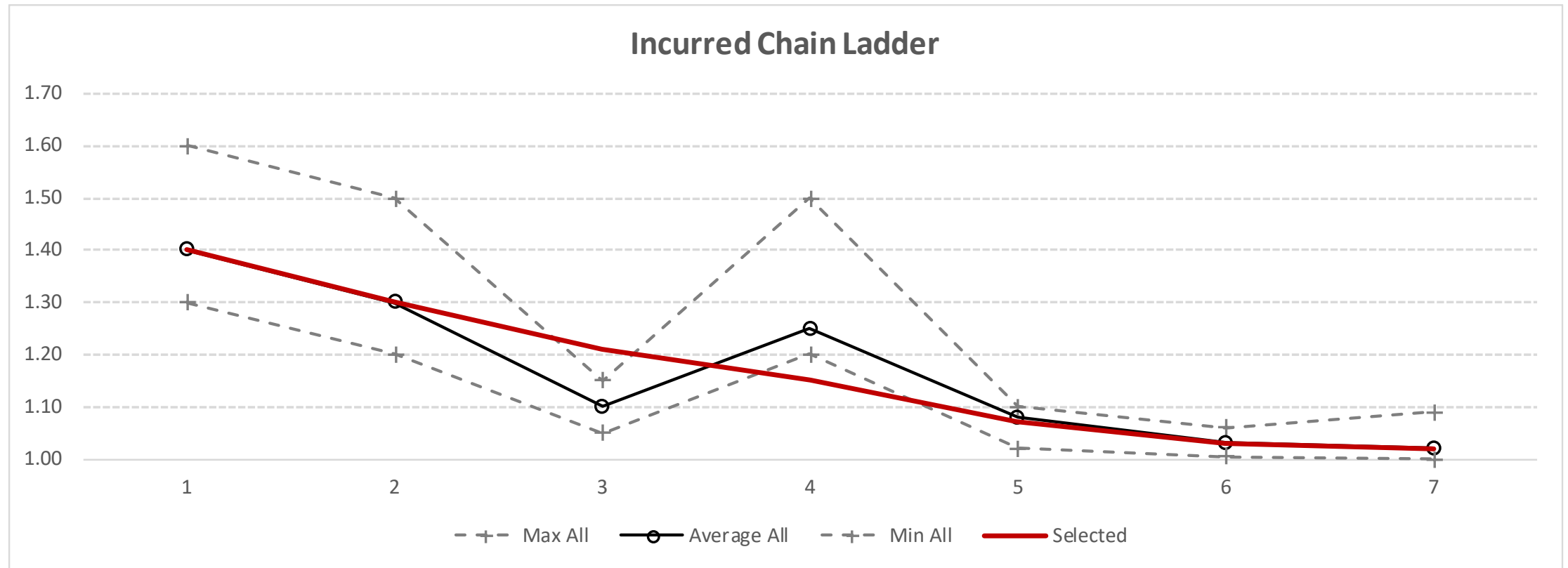
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# Case Study B

## Different levels of review – General insurance

### Scenario

*The AA conducts outstanding claims valuation for a simple marine insurance property damage valuation. Experience is volatile but the AA through years of professional experience expects fairly stable claims development.*



# Applying banking best practices to insurance

# Applying banking best practices to insurance

## Model governance culture driven by APRA regulation

- The insurance industry is not subject to any explicit prudential requirements for model governance and validation. With the removal of the EPR mandate in the insurance sector, there is now a gap in the independent review of overall reserves.
- In the banking industry, APRA has clear expectations that models need to operate under suitable governance frameworks and model validation is an important component of these frameworks.

APRA regulation of banking has embedded a model governance culture that insurers can draw on



# Applying banking best practices to insurance

## Potential enhancements to Model Risk Management approaches

Model Risk Management in the banking sector includes:



**Conceptual Soundness** – assessment of model methodology, model structure, selected quantitative/estimation technique, assumptions, limitations, alignment with regulations



**Statistical/Technical Soundness** – testing of the underlying statistical/technical assumptions such as multicollinearity, normality, stationarity, etc.



**Production Implementation Testing** – testing that the production implementation is consistent with the development of the model, and assessing the production operational controls' design



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**Governance Assessment** – evaluation of the quality of model documentation and compliance with the model risk management policy



**Ongoing Governance** – assessment of the design of the ongoing model risk and performance monitoring plan, assumptions monitoring plan, and contingency plan



**Outcomes analysis** – backtesting, sensitivity analysis, benchmarking, stress testing, scenario analysis, stability/overfitting testing



**Data** – testing of appropriateness, completeness, accuracy

# Case Study C

## Model governance in banking

### Scenario

*In light of the recent surge of Generative AI (GenAI), a major bank is concerned about its use within the organisation. The bank is seeking to assess how to govern this technology effectively to manage the associated risk and ensure that it is used responsibly and ethically across the bank.*

#### Considerations from a modelling lens:

Extension & uplift of MRM framework	Apply risk tiering	Model use requirements
Broaden definition of a 'model' w.r.t GenAI	Determine level and frequency of validation	Limitations & regulatory compliance
Re-assess materiality thresholds for deep dive	Update approval process	Ensure transparency & consistency

#### Takeaways for insurance industry

- Embedding MRM in a framework
- Tiered approach to model validation
- Thinking beyond the implicit model risk
- Breadth of 'model' considerations
- Adapting to technological evolution
- Formalising roles & responsibilities



# Role of the profession in the banking industry

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# Role of the profession in the banking industry

## Potential to formalise the role of the Actuaries

Presently, Actuaries working in banking are not a “profession” but rather a function of the ordinary business of banking.

While there is no standardised requirement that actuaries **need** to be involved, they commonly build, review and validate the following types of models, and ensure regulatory compliance:



*Credit risk  
provisioning  
models*



*Capital models*



*Stress testing  
models*



*Market risk  
models*



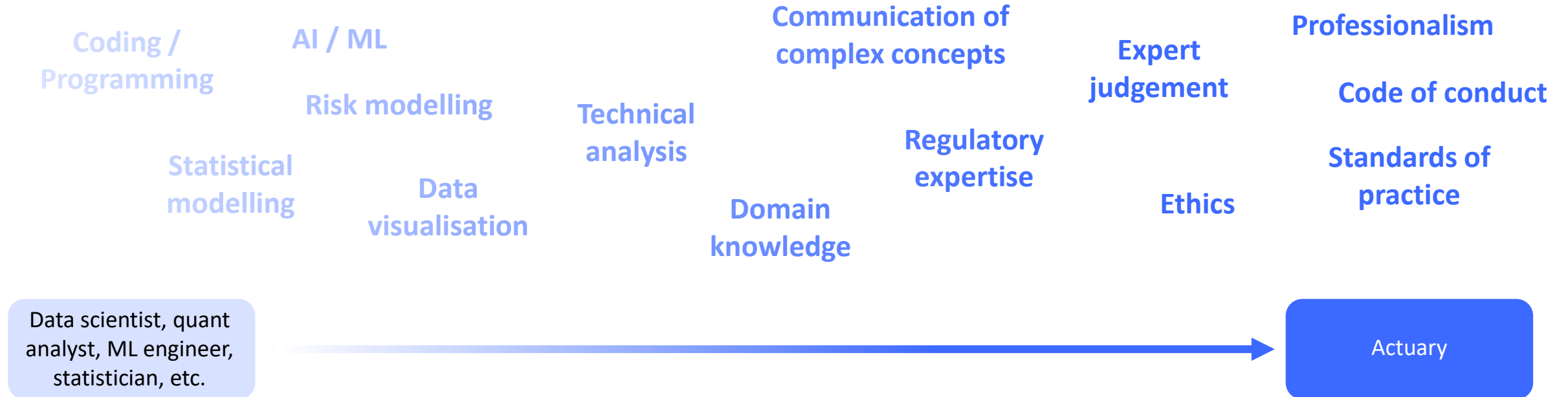
*Liquidity risk  
models*

# Case Study D

## Actuarial advantage in banking

### Scenario

*The Australian Accounting Standards Board has released a new standard setting out guidance to assist entities in assessing changes in credit risk. As a result, a major bank needs to build a new suite of credit risk models.*



# About the Actuaries Institute

The Actuaries Institute is the peak professional body for Actuaries in Australia. The Institute provides expert comment on public policy issues where there is uncertainty of future financial outcomes.

Actuaries have a reputation for a high level of technical financial expertise and integrity. They apply their analytical and risk management expertise to allocate resources efficiently, identify and mitigate emerging risks and to help maintain system integrity across multiple segments of the financial and other sectors. This unrivalled expertise enables the profession to comment on a wide range of issues including life, general and health insurance, climate change, superannuation and retirement income policy, enterprise risk management and prudential regulation, the digital economy, finance and investment and wider health issues.

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