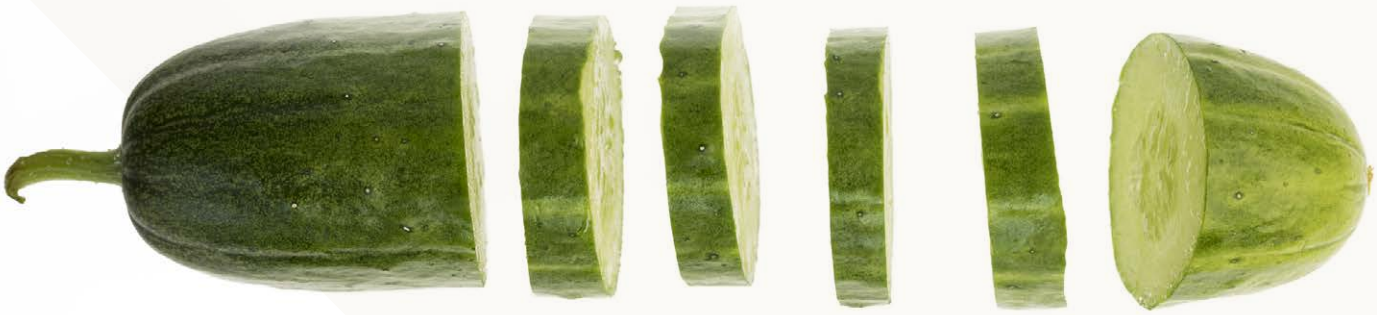
RISK ATTRIBUTION UNDER IFRS 17

STRUCTURAL SEPARABILITY

AND THE INTEGRITY OF ACTUARIAL NARRATIVES



BY **EYTAN ELLENBERG**

INTRODUCTION: IFRS 17 AND THE CHALLENGE OF CREDIBLE EXPLANATIONS

The implementation of IFRS 17 has significantly raised expectations regarding actuarial explanations. Insurers are no longer assessed solely on the robustness of their estimates, but increasingly on the clarity and credibility of the narratives that accompany movements in insurance contract liabilities. Boards, auditors, and regulators now expect reserve changes to be explained through underlying drivers – typically frequency, severity, and inflation. >

While this shift has improved transparency, it has also revealed a structural tension. The demand for granular attribution often exceeds what the underlying loss data can reliably support. In practice, actuarial teams may feel compelled to present precise decompositions even when the data structure itself does not allow for clear separation of drivers.

This article argues that the integrity of IFRS 17 narratives depends not only on modelling sophistication, but on a prior assessment of whether attribution is *structurally feasible*. It introduces the **Risk Attribution Index (RAI)** as a governance-oriented diagnostic designed to evaluate when loss triangles can legitimately support differentiated explanations – and when they cannot.

ATTRIBUTION PRACTICES AND THEIR IMPLICIT ASSUMPTIONS

Traditional actuarial attribution frameworks rest on an implicit assumption: that frequency, severity, and inflation act as separable forces whose effects can be independently identified in loss development data. When this assumption holds, attribution is not only possible but informative.

Conceptually, each driver is expected to leave a distinct statistical signature:

- Frequency changes manifest across accident years.
- Severity changes appear as level shifts within development.
- Inflation introduces systematic calendar-year effects.

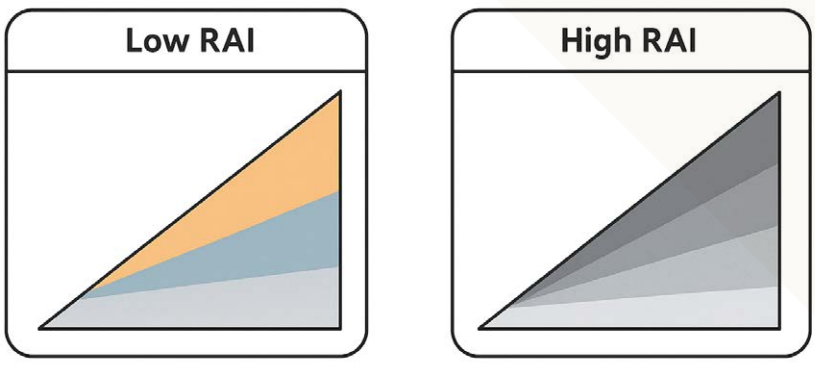
In idealised data, these signatures are sufficiently distinct to permit meaningful decomposition. However, real-world insurance portfolios rarely behave in such a clean manner. Economic shocks, operational responses, and claims management practices often cause multiple drivers to move simultaneously, blurring these distinctions.

When the underlying assumption of separability fails, attribution does not merely become less precise – it becomes structurally unreliable.

STRUCTURAL ENTANGLEMENT AND MASKED DYNAMICS

Periods of economic stress illustrate this problem clearly. Inflationary environments may simultaneously increase claim sizes, delay settlements, and alter reporting patterns. Supply-chain disruptions can affect both the cost and >

FIGURE 1: Structural separability and IFRS 17 narrative integrity



Left: loss triangles with low RAI exhibit distinct driver signatures, supporting differentiated attribution in IFRS 17 disclosures.

Right: high RAI reflects structural entanglement of drivers, where apparent attribution is not supported by the underlying data structure.

timing of claims. Management actions taken to mitigate one risk may inadvertently amplify another.

These interactions produce what can be described as **structural entanglement**: a condition in which different causal mechanisms generate similar statistical patterns in the data. The result is *masked dynamics* – situations where underlying drivers are present but indistinguishable from one another.

From a governance perspective, the principal risk is not uncertainty itself, but false precision. Attribution outputs may appear authoritative, complete with clean percentages and reconciliations, while offering little insight into the true causal structure of reserve movements. Such narratives can be difficult to defend when challenged by auditors or supervisors.

THE RISK ATTRIBUTION INDEX AS A STRUCTURAL DIAGNOSTIC

The Risk Attribution Index (RAI) is designed to address this issue by shifting the focus from *how* to attribute, to *whether attribution is structurally justified at all.* RAI evaluates the degree to which loss triangle data contain sufficient independent information to distinguish frequency, severity, and inflation effects.

- **Low RAI** values indicate that driver signatures are sufficiently distinct to support differentiated attribution.
- **High RAI** values signal strong structural overlap, where drivers move together and separation becomes unreliable.

Crucially, RAI is **not** a reserving method, a performance metric, or a regulatory requirement. It does not replace existing actuarial techniques, nor does it prescribe a particular modelling approach. Instead, it functions as a **governance-oriented diagnostic**, supporting professional judgement by highlighting structural limitations in the data.

In this sense, RAI serves as a safeguard: it helps actuaries recognise when attribution narratives risk exceeding what the data can legitimately support.

IFRS 17 DISCLOSURES AND NARRATIVE INTEGRITY

IFRS 17 emphasises transparency and faithful representation. Paragraphs such as IFRS 17 §103 highlight the importance of explaining changes in insurance liabilities in a manner that is both meaningful and comprehensible. However, the standard does not mandate a specific level of attribution granularity.

When loss triangles exhibit high structural entanglement, forcing a detailed decomposition may undermine the integrity of disclosures. Presenting highly granular explanations in such cases can create a misleading impression of certainty, exposing insurers to credibility risks during audit or supervisory review.

Conversely, acknowledging structural limitations and adopting scenario-based explanations may better align with the spirit of IFRS 17. Such narratives reflect professional judgement and demonstrate an understanding of the underlying data constraints, rather than an overreliance on mechanical outputs.

PROPORTIONALITY AND THE EUROPEAN GOVERNANCE CONTEXT

Proportionality is a cornerstone of European actuarial practice and regulation. Tools such as RAI align naturally with this principle by supporting judgement rather than enforcing rigid methodologies. >

In a European governance context, RAI can facilitate dialogue between actuarial, finance, risk, and audit functions. Rather than acting as a binary test, it provides a shared framework for discussing whether additional narrative detail enhances understanding or risks obscuring it.

Importantly, RAI does not dictate outcomes. It informs governance discussions by clarifying when attribution is structurally plausible and when restraint is warranted. Used in this way, it supports consistent documentation of professional judgement within existing control frameworks.

PRACTICAL IMPLICATIONS FOR INSURERS

European insurers may consider integrating structural diagnostics such as RAI into their IFRS 17 processes through several practical steps:

- Routine assessment of separability during reporting cycles, particularly following significant environmental or operational changes.
- Escalation of high-RAI findings to governance forums, ensuring alignment on disclosure strategy.
- Use of scenario-based narratives when attribution is structurally fragile, accompanied by clear explanation of limitations.
- Documentation of judgement, demonstrating that narrative choices reflect data structure rather than convenience.

These practices reinforce transparency without imposing new methodological burdens, and they enhance the credibility of actuarial communication across stakeholder groups.

CONCLUSION: PROTECTING TRUST THROUGH DISCIPLINED JUDGEMENT

IFRS 17 has heightened scrutiny of actuarial narratives. Meeting these expectations requires more than technical competence; it demands disciplined judgement about what loss data can – and cannot – credibly explain.

By highlighting structural separability, the Risk Attribution Index provides a pragmatic way to assess the integrity of attribution narratives before they are presented to stakeholders. It does not seek to replace existing tools, but to ensure that explanations remain aligned with the informational limits of the data.

In an environment where trust and transparency are paramount, recognising when not to over-interpret loss triangles may be one of the most valuable contributions actuaries can make to effective governance. <

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