



OPERATIONAL RISK MANAGEMENT

BY **MALCOLM KEMP**

Actuaries are involved in many areas of risk management. They are perhaps best known for their involvement in financial risk management (e.g. encompassing market, credit and insurance risk) in insurance and pensions, but their work can also encompass operational risks in a wider range of fields.

In recent years, groups in some national actuarial professional bodies have been quite active in developing research and thought leadership to help actuaries involved in operational risk management. For example, the IFoA's Operational Risk Working party has published [a good practice guide to setting inputs for operational risk models \(2016\)](#) and papers on [operational risk dependencies \(2020\)](#) and [validating operational risk models \(2024\)](#).

The Actuarial Association of Europe has also been active in this space and in July 2025 published a [second edition of its discussion paper Actuaries and Operational Risk Management](#).

This paper provides an overview of various skills and techniques actuaries can bring to operational risk management. It argues that actuaries are well placed to assist with operational risk management, in both traditional actuarial >

fields such as insurance and pensions and in wider fields. To justify this contention, it sets out disciplines and techniques that are (or could be) used in operational risk management (and likely near-term trends in these disciplines). It brings out the merits of multi-disciplinary implementation of these activities but also highlights how individuals with actuarial skill-sets and expertise are particularly well suited to assist in several of the targeted discipline areas. Whilst it particularly illustrates these topics by articulating the roles, responsibilities and skill-sets that might apply to an individual operational risk manager in an insurance company, its discussion also covers other industries and economic sectors. It has appendices that cover a wide range of topics, including:

- **A comparison of operational risk aspects of Own Risk and Solvency Assessments (insurers) versus Own Risk Assessments (Pension Fund);**
- **How to facilitate operational risk workshops and other ways of capturing the wisdom of experts;**
- **Ways of quantifying operational risk, including loss distribution approaches;**
- **Stress testing, scenario analysis and coping with limited data;**
- **Setting operational risk appetite and identifying key risk indicators;**
- **Operational resilience, including issues raised by the Digital Operational Resilience Act; and**
- **The impact of risk culture in the insurance industry and in other sectors involving actuaries.**

This wide range of topics is indicative of the many roles typically encompassed by operational risk

managers within e.g. an insurer. Roles within regulated organisations are of course to some extent influenced by the regulatory environment in which the organisation operates. The paper brings this out by referring to parts of the EIOPA guidelines on system of governance for insurers, EIOPA-BoS-14/253, that relate to operational risk. The overall picture is that operational risk should not be underappreciated and should be managed accordingly.

So what sorts of skills does someone wanting to develop further in operation risk management need? The AAE's discussion paper argues that managing a risk effectively generally involves at least some measurement of it, so a necessary underpin will be a suitable level of quantitative expertise and understanding of the risks involved. These skills are often considered a core element of any actuarial skillset. Ability to leverage the insights of others is also typically important, as no one can expect to be an expert in everything!

Also important to the overall success of a firm's operational risk management is the extent of buy-in from the firm's senior management and board. Without leadership from the top, only lip service may be placed on the benefits of effective risk management. This is as true for operational risk as for other types of risk the firm may face. More senior risk professionals tasked with getting this buy-in will therefore typically also need a range of softer influencing skills.

The range of skills that an operational risk manager should ideally possess is therefore quite broad, see Table 1. The good news for actuaries is that, with a suitable level of business understanding, actuaries may often stack up well versus this ideal picture. Elsewhere the paper also paints a picture of how the ideal operational risk manager skill suite might evolve in the near term, and again actuaries seem typically relatively well positioned. This skills picture is fundamentally similar outside the insurance and pensions sector. ➤

TABLE 1: DESIRABLE SKILLS THAT A GOOD (OPERATIONAL) RISK MANAGER SHOULD IDEALLY POSSESS

QUALITATIVE SKILLS IN	QUANTITATIVE SKILLS IN	SOFTER SKILLS
Risk and Control Self-assessment (RCSA)	Risk capital modelling	Challenging skills
Risk maps (risk identification attributing a level of concern on probability and severity)	Loss data collection (internal and external)	Leadership
Business Continuity, Disaster Recovery and operational resilience	Defining loss frequency and severity distributions (with data quality as a challenge) based on techniques such as extreme value theory, simulation, fuzzy logic, neural networks, predictive modelling, ...	Fostering dialogue
Risk Appetite / tolerance and Key Risk Indicator (KRIs) definition	Stress testing and scenario analysis	Crisis management
Quality management (such as COSO, ISO, Six Sigma, Sarbanes-Oxley ...)	Risk-adjusted return analysis	Communication
Scoreboards		Broad knowledge of the company, its processes and systems
Information security management		Industry/sector knowledge
Anti-fraud management		Having easy access to people and information
Management of insurance taken		Agility
Health and safety management		Project management
		Controlling and auditing
		Vigilance
		Change management
		Networking skills

So, if you are an employer looking for an operational risk manager, or an actuary seeking a new risk management challenge, do please reflect on the likely good overlap between the actuarial skill-set and the desirable skills that a

good operational risk manager should ideally possess. Do also feel free to reference the AAE's research and thought leadership. And if you are helping expand out such research in national contexts, please keep up the good work! <



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