

The Actuarial Profession
making financial sense of the future

A personal view of risk management in non-financial corporates, insurance and banking



Making money safely

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My Background

- Aviva plc
- Diageo plc
- Royal Bank of Scotland
- Faculty and Institute of Actuaries

Risk Management

- **Good business and risk management are one and the same** and, at its heart, great risk management is about great conversations in order to drive better informed decisions.
- **Risk management is a behaviour supported by a process rather than the converse** and as such, all management have a responsibility to manage risk in accordance with values and purpose.

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Risk Management

- **Good Risk Management is:**
 - Led by the CEO
 - Watched over by the Board
 - Owned by everyone in the business
 - Supported by a second line of defence
 - Quality assured by Audit

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Risk Types

- **Strategic**

- Economic
- Political
- Country Risk
- Competition/Products
- Anti Trust
- Earnings Volatility
- Capital Adequacy
- Business Expansion and M&A
- Market Confidence

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Risk Types

- **Operational**

- | | |
|---|--|
| – People (hiring, firing, remunerating) | – Reputational |
| – Environment and sustainability | – Terrorism |
| – Health & Safety | – Raw Materials, Manufacturing |
| – Bribery & Corruption | – IT , Systems and Business Continuity |
| – Fraud | – Information Security |
| – Anti Money Laundering | – Taxation |
| – Regulatory (including censure) | |

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Risk Types

- **Financial**
 - Capital Adequacy
 - Credit Risk
 - Concentration Risk
 - Interest Rate Risk
 - Funding and Liquidity Risk
 - Currency Risk
 - Asset Risk and Liquidity
 - Basis Risk

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Who Has What Risk?

- **All corporations have nearly all these risks in some form**
- **The most important risks differ by sector and concentration**
- **Financial institutions multiply the financial risk because that is what they trade with their customers**
- **Banks have large and fast moving risks**
- **What is the key risk for a Tug company?**

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Risk Management - Corporates

- **Strategic Risk**
 - Strategic risk is important for all Corporates
 - Consumer understanding helps with emerging risks
- **Operational Risk**
 - Customer satisfaction and safety is a priority
 - Sales practices
 - The factory is often physical
 - Commodities
 - Taxation
- **Financial Risk**
 - Transactional risk is mainly with customers
 - Limited financial risk on balance sheet for consumer goods
 - Resource and project risk on balance sheet for capital goods

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Risk Management - Insurance

- **Strategic Risk**
 - As per Corporates
- **Operational Risk**
 - Sales practices
 - Information technology is the factory
 - Regulators and customers distrust insurance
 - Embedded underwriting disciplines
 - Large established pricing and valuation models
- **Financial Risk**
 - Balance sheet is 10 x bigger than Corporates
 - Risk remains in the products sold
 - ALM is legally required
 - Under UK regulation, all contracts are valued and market to market (gross not net)
 - Relatively few risk decision people e.g. Product designers, valuation experts and investment managers

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Risk Management - Banking

- **Strategic Risk**
 - As per Corporates
 - Speed of Crisis – Run on the Bank
- **Operational Risk**
 - Sales practices
 - Information technology is the factory
 - Banking in the 'sin bin' since 2008
 - Multiple risk decision points – each banker and each trader
 - Multiple complex pricing and valuation models
- **Financial Risk**
 - Balance sheet is 100 x bigger than Corporates
 - Liquidity is critical for stability
 - Annual refinancing is 20 x bigger than insurance
 - Financial risks in each product sold
 - Very different risks in Retail, Corporate and Investment Banking

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Banking - The Big Risks

- **Credit risk in a downturn**
- **Concentration Risks**
- **Liquidity – running out of cash**
- **Inadequate capital**
- **Complex and volatile derivative exposures**

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Risk Governance – Fit the Need



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Royal Bank of Scotland Risk Governance

- **New strategic plan**
- **Significant strengthening of global risk management**
- **Changed link between risk and incentives**
- **New Board Risk Committee**
 - Walker compliant
 - Oversight of all risks
 - Taking deep dives

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Risk Information

- **Corporate Strategy**
- **Risk Appetite** (but not the only document)
- **Risk Attitude** (just as important)
- **Risk MI** (always important, but never perfect)
- **Risk Policies** (vital, but keep them simple)

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The Financial Crisis – Risk Control Failures

- **Miss-priced credit to borrowers**
- **Miss-priced credit default swaps**
- **Uncontrolled OTC derivatives**
- **ABS structures disconnected origination from banks underwriting**
- **Over reliance on wholesale funding in banks**
- **Inadequate capital requirements during boom times**
- **Inadequate stress testing**
- **Unregulated financial service companies**
- **Excessive M&A on borrowed money**
- **Bonuses drove selfish behaviour**

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The Financial Crisis – Lessons for Risk Management

- Tail risks do happen - in very unpredictable ways
- Emerging risks are more important than those you see today
- Scenario testing is vital
- Risk management needs both scale and the authority in financial institutions
- The risk management framework should be clear to everyone
- Quality risk information is needed
- Product design and pricing should be consistent with the risk appetite

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Actuaries in Risk Management

Strengths

- Disciplined risk assessment
- Statistical foundation
- Financial engineers

Weaknesses

- Left brain bias
- Narrow experiences

Opportunities

- Making financial sense of the future
- Being the model builders and 'scenario testers'

Threats

- Inability to show relevance of our skills

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Making Money Safely

- **Good risk management is just about 'making money safely'**
- **Fit risk management resources and processes to the scale, type and frequency of the risks**
- **Make great risk management your competitive advantage**
- **Great risk management will help create wealth, not destroy it**