ACA Conference

Gordon Watchorn – 5 February 2016

New opportunities for consulting actuaries

Agenda

What are actuaries good at?

Traditional areas of work

The Corporate Governance Code

- Background
- Robust risk assessment
- A new area to use our skills

Case studies

Benefits of improved risk management

How do we get into it?

What are actuaries good at?

- High level analytical skills
- Expertise in risk and financial modelling
- Model building and assumption setting
- Clear communication of complex scenarios
- Qualifications aligned to risk assessment

Traditional areas of work

- **Insurance**
  - reserving
  - model building
  - stress testing and reverse stress testing
  - risk mitigation and developing insurance solutions
- **Pensions**
  - valuations
  - actuarial techniques for risk management
  - liability management
  - financial reporting
- **Investment**
  - matching
  - de-risking
  - insurance solutions
- **Regulatory**
  - capital calculations

The Corporate Governance Code

Background

- Issued by the Financial Reporting Council (FRC)
- Came into effect for listed companies for reporting years beginning on or after 1 October 2014
- Places greater importance on directors identifying, measuring and managing risk
- Required to include a Long Term Viability Statement ("LTVS") in the annual report

Long Term Viability Statement

- How prospects of the Company have been assessed
- Period over which they have been assessed
- Why such a period is appropriate
- Whether there is reasonable expectation that the company will be able to continue in operation and meet its liabilities as they fall due over the period
- Highlight any assumptions made or limitations

The Corporate Governance Code

Robust risk assessment

Main Principle

The board is responsible for determining the nature and extent of the ~~significant~~ **principal** risks it is willing to take in achieving its strategic objectives. The board should maintain sound risk management and internal control systems.

The directors should confirm in the annual report that they have carried out a robust assessment of the principal risks facing the company – including those that would threaten its business model, future performance, solvency or liquidity – describe those risks and explain how they are being managed or mitigated.

In annual and half-yearly financial statements, the directors should state whether they considered it appropriate to adopt the going concern basis of accounting in preparing them, and **identify any material uncertainties** to the company's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements.

The Corporate Governance Code

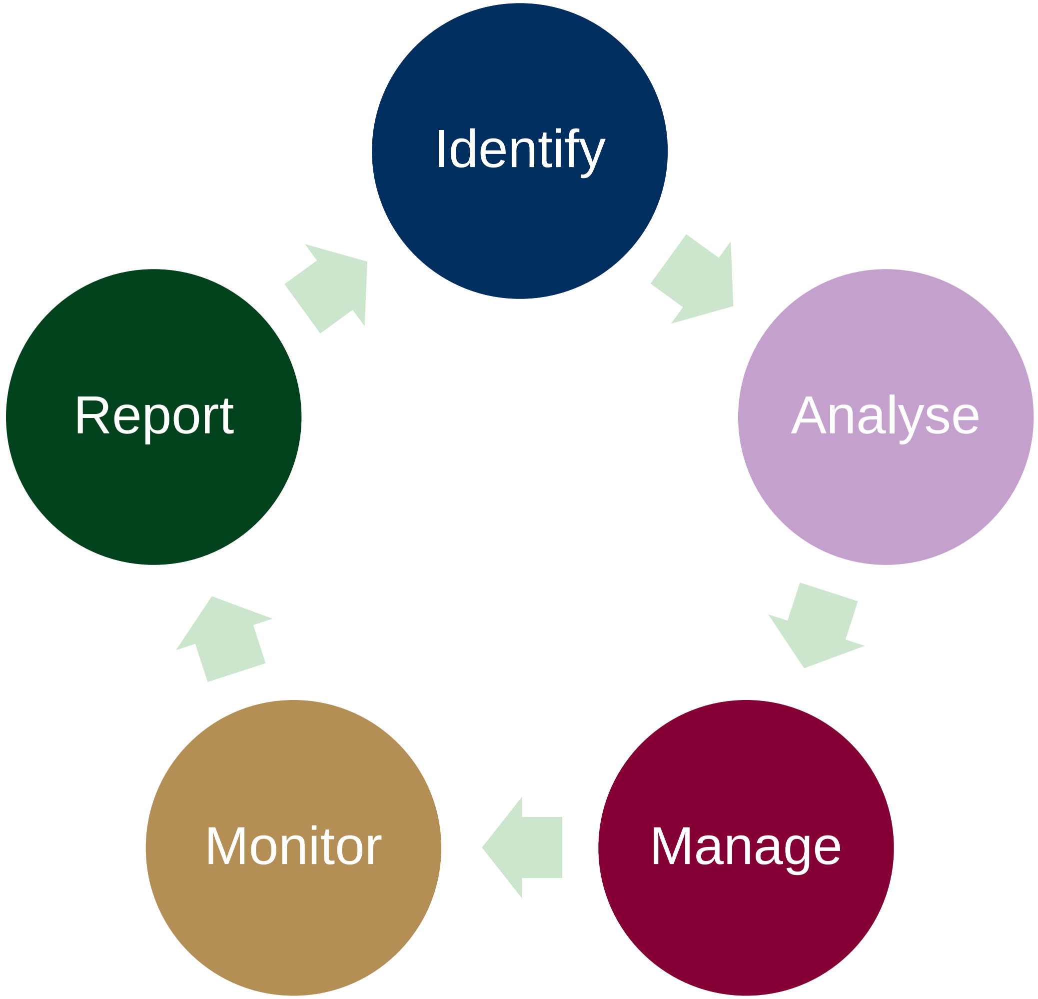
A new area to use our skills?

Brainstorming

Risk matrix

Assess likelihood and impact

Presentation to the Board



Model profits and cashflows

Diversification

Delphi process

Cost effective mitigation

Consider upside as well as downside

We facilitate a risk discussion and help to summarise that discussion in statistical terms

Corporate risk measurement and management

Case study

Reducing pension risk capital

- Global insurance company
- Built model to measure key risks and diversification between them
- Output marginal pension risk figure
- Optimal solution: assets de-risked to minimise pension risk without increasing deficit contributions beyond an acceptable level
- Result: marginal pension risk capital reduced by 45%; deficit contributions doubled

Corporate risk measurement and management

Case study

Energy analytics

- Model to analyse impact of policy on building new power stations on CO2 emissions, blackouts and electricity prices
- Stochastic model to simulate risk and reward by projecting supply and demand
- Ground-up, agent-based approach
- Development time, operations, eventual decommissioning and overall return on capital
- Excellent example of applying modelling and risk consulting skills to a non-traditional area as part of a multi-disciplinary team

Benefits of improved risk management

- Better business results
  - More stable share prices
- Increase operational effectiveness
  - Better coordination
  - Improved decision making
- Allocate resources more efficiently
- Understand which risks are most rewarded
  - Seize opportunities
  - Gain competitive advantage
- Increased financial efficiency
  - Better credit rating
  - Lower cost of borrowing
- Reduced operational risk
  - Encourages greater inter-departmental communication
- Better reporting of risks
  - Increased transparency
  - Reduced unexpected outcomes
- Risks detected earlier
  - Less time spent on crisis management

How to get into it?

- Speak to your clients about what they are doing to comply
- Naturally placed to help if pensions risk is large
- Use contacts built up from work we do already
- Look for networking opportunities

Scope

- This generic presentation should not be relied upon for detailed advice or taken as an authoritative statement of the law.
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