Society Of Actuaries in Ireland

ERM Seminar

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Actuaries and risk management – reflections on the past and thoughts on the future

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Actuaries and risk management – some history

- Actuaries were engaged in risk management long before the term became the widely used one it is today
- We trace our origins to 1762, so the actuarial profession is 250 years old this year. We have an unequalled heritage in managing risk.
- On the other hand, the concept of Chief Risk Officer was first used in 1993 (when James Lam became CRO at GE Capital).
- It is only since the mid 1990s that risk management has become a distinct discipline with a common set of tools and techniques applied across a wide range of industries.
- Risk management has evolved rapidly since then, and now plays a central role in corporate governance and financial regulation.
- Actuaries have the background and heritage to engage very successfully in the discipline of risk management across a wide range of industries.

The role of the actuary in Ireland in the 1970s

- The world in which actuaries practiced in the 1970s was very different to today.
- Actuaries then worked mainly in life assurance and pensions – we had no presence in general insurance.
- In the early 1970s, the Statutory Actuary of a life assurance company valued policyholder liabilities, as required by the Assurance Companies Act, 1909, on assumptions that he alone set, without professional guidance or regulatory guidance and supported only by papers published in actuarial journals – such as those of Redington and Skerman.
- I don't think much had changed in terms of the role of the Statutory Actuary between 1909 and the early1970s, but I can't vouch for that!
- The role of the Statutory Actuary was an enormously responsible one – in effect, sole and personal responsibility for setting the capital requirements of the life assurance company.
- In modern terms, the Statutory Actuary combined elements of four lines of defence in one person.
- There was great faith in the actuarial profession, and nobody seemed particularly worried that there might be structural weaknesses in the system in place. Modern concepts, such as the need for multiple separate lines of defence, peer review and independent audit, weren't part of the landscape then.

Insurance Supervision in Ireland in the 1970s

- The regulatory landscape in the 1970s was also a very simple one.
- The Insurance Supervisor was the Department of Industry and Commerce
  - In the UK, the Insurance Supervisor was the Department of Trade and Industry
- The Department of Industry and Commerce had:
  - No specialist financial regulatory staff
  - No actuaries!
- The reality was that the regulatory authorities also had great faith in, and placed great reliance on, the actuarial profession to protect the financial soundness of the life assurance industry, and acted accordingly.

The changing role of the actuary in life assurance

- Change did come – but slowly:
  - The Institute and Faculty of Actuaries issued GN1: Actuaries And Long-term Insurance Business in 1975. A standalone version for Ireland was issued by the Society in 1995.
  - In 1986, there was the first significant change since 1909 to rules for valuing assets and liabilities – the European Communities (Life Assurance Accounts, Statements and Valuations) Regulations, 1986. This was followed in time by the European Communities (Life Assurance) Framework Regulations, 1994.
  - The Department of Industry and Commerce recruited an actuary. This resulted in the issuing of an annual "Dear Appointed Actuary" letter, providing guidance on the methods and assumptions to be used in actuarial valuations.
- Although the Statutory Actuary still had sole personal responsibility for setting actuarial reserves, it was carried out in the context of increasing levels of regulatory and professional requirements.
- We now stand on the verge of Solvency II, which will see modern standard risk governance applied to reserve setting and capital requirement setting in life assurance – in particular, the role of the board will become the same as that of other financial firms.

Observations from today's perspective

- Looked at from today's perspective, the corporate governance, risk management and financial supervision of the life assurance industry in my early days in life assurance was totally inadequate.
- In particular, there was an enormous concentration of reliance on the Statutory Actuary – in today's terminology, it combined elements of four lines of defence in one person.
- Yet it worked – I am reminded of the famous comment that "*it was all very well in practice, but it didn't work in theory*".
- Perhaps a more appropriate assessment is that structures must reflect their times – people, culture, standards, level of complexity among other things – and that any assessment of the past must be made from that perspective.
- Nonetheless, times and circumstances have changed enormously, and I would certainly not recommend that structure as being appropriate now.
- The events we have been through in recent years have required a huge rethink of how financial firms should be managed and regulated. There is no place in that world for the type of reliance placed in the past on a single individual – the future is about multiple lines of defence and assertive financial regulation.

Financial failures since 1980

- There has been a huge and costly failure of Irish banking.
- Three large general insurance companies have failed, requiring substantial financial support raised by way of levy on general insurance policyholders.
- There have been no failures of life assurance companies.
  - Given the central role of the actuarial profession in ensuring the financial soundness of life assurance companies, this is a record of which the profession can be proud.
- The de facto position has become that taxpayers and customers bear the cost of financial failure of banks and insurance companies, and that, consequently, the community is entitled to take such actions as are needed to prevent such failures – this is the core reason for the special regulatory treatment of banks and insurance companies.
- Notwithstanding the good record of the life assurance industry in terms of avoiding financial failure, it too must adjust to the need to minimise the risk that taxpayers or customers will be required to bear future costs of financial failure – including in terms of risk governance and financial regulation.

Risk management - Lessons from financial failure

- I will concentrate on lessons from the banking crisis, but the lessons are valid for all financial businesses.
- These lessons are set out in three major reports – those of Honohan, Regling and Watson, and Nyberg.
- I want to focus, from a corporate governance and risk management perspective, on the main lessons set out in these reports under three headings:
  - Inadequacy of skills at Board level;
  - Failure to identify and measure risk; and
  - Inadequacy of financial regulation.
- The responses to these lessons are now setting the agenda for developments in risk management, corporate governance and financial regulation.

Lessons from financial failure - Inadequacy of skills at Board level

- Observations on the performance of boards set out in these reports include:
  - In an important sense, the major responsibility lies with the **directors and senior managements of the banks** that got into trouble. They are the first line of defence to protect those who have entrusted them with their funds. *Honohan Report*
  - Among Non-Executive Directors (NED), it appears that the banking knowledge and expertise necessary to assess the lending and funding risks inherent in bank business models was insufficient. They were therefore formally independent but, in practice, highly reliant on the knowledge, openness and ability of bank management. *Nyberg Report*
  - In general, while NEDs were successful and respected individuals from various parts of Irish business, not many of them were banking professionals or had comparative experience. Even though discussions on management proposals and reports were robust at times, actual rejections of business models, strategies and proposals were rare. *Nyberg Report*
  - The board members (of Anglo) were experienced and well regarded in their own fields of speciality. However, they were not expert in the field of banking. *Nyberg Report*

Lessons from financial failure - Inadequacy of skills at Board level

- This weakness in reporting processes was combined with a lack of sufficiently extensive banking experience and expertise at board level of the type which would have allowed the board to identify shortcomings in the information being provided. *Nyberg Report (on Anglo)*
- These issues were particularly problematic because most Anglo Board members did not appear to have sufficient experience or specialist knowledge to fully recognise the specific risks attaching to a fast-growing monoline bank. *Nyberg Report*
- It is, nevertheless, incumbent on a board to have sufficient understanding and awareness of the risks associated with the business for which it has oversight responsibility on behalf of shareholders and others: *Nyberg Report*
- The board must ensure that sufficient checks and balances are in place and operating effectively to assist the board to meet its responsibilities: *Nyberg Report*

• The conclusion is clear. Complex financial firms need Non-Executive Directors with a detailed understanding of the risks to which the firms are exposed, and with the background and knowledge to provide a robust challenge to senior management. While the reports relate to banks, the conclusions in relation to the required skill-sets of boards apply equally to insurance companies.

Lessons from financial failure - Inadequacy of risk management

- Observations on risk management set out in these reports include:
  - Bank governance and risk management were weak – in some cases disastrously so. *Regling-Watson Report*
  - Many banks were increasingly led and managed by people with less practical experience of credit and risk management than before. *Nyberg Report*
  - Management and boards in general appear not to have fully appreciated the two key risks to which their banks were exposed. The risks were increased exposures to funding-dependent development projects with future refinance risks and to volatile wholesale funding. *Nyberg Report*
  - A critical weakness in bank risk management was the concentration of bank assets in activities related primarily to property …. This risk concentration in a few institutions meant that they were potentially very vulnerable. *Regling-Watson Report*

Lessons from financial failure - Inadequacy of risk management

- A second and closely related problem in the procedures of bank governance was that lending guidelines and processes seem to have been quite widely short-circuited. *Regling-Watson Report*
- Banks' management and boards embraced a lending sales culture at the expense of prudence and risk management : *Nyberg Report*
- In other banks, boards seem to have simply decided on higher target growth rates, with little apparent realisation of the attendant risks. *Nyberg Report*

- The conclusion here is that, at best, there was limited understanding of risk management and, at worst, disregard for, and short-circuiting of, risk management.
- Failures under this heading are not unconnected to failures under the previous heading!

Lessons from financial failure - Inadequacy of financial regulation

- Observations on financial regulation set out in these reports include:
  - Nevertheless,……, the key protection in any national system against the emergence of a banking crisis should be the **central bank and regulatory function**. *Honohan Report*
  - To be effective there would have had to be a **greater degree of intrusiveness and assertiveness** on the part of regulators in challenging the banks. *Honohan Report*
  - The supervisory culture was insufficiently intrusive, and staff resources were seriously inadequate for the more hands-on approach that was needed. *Regling-Watson Report*
  - Governance failures were not addressed sufficiently toughly. *Regling-Watson Report*
  - Where risks, deficiencies or weaknesses were identified in processes and procedures, the Financial Regulator did not act forcefully to ensure that these issues were addressed. *Nyberg Report*
- The consistent theme of the three reports is that financial regulation is the last line of defence, and needs to be tough, intrusive and assertive.
- This is now becoming a reality, with the Central Bank having significantly rewritten its rule-books and engaging to a much greater extent, and in a much more robust way, with regulated firms.

Risk management - The new regulatory landscape

- There have been some very significant developments in the regulatory background to risk management:
  - The Corporate Governance Code for Credit Institutions and Insurance Undertakings
  - The Fitness and Probity Standards
  - The Consumer Protection Code
  - The Minimum Competency Code
- There are also some codes specific to banking.
- I will consider how the Corporate Governance Code and the Fitness and Probity Standards are addressing the lessons from financial failure and are affecting the practice of risk governance and risk management.

Risk management - The Corporate Governance Code

- The Central Bank's Corporate Governance Code has set the high level rules for future risk management practice in banks and insurance companies.
- Some key requirements relevant to the board of directors are:
  - Detailed requirements are set out for the Chairman.
    - The Chairman shall have relevant financial services expertise, qualifications and background or be required to undertake relevant and timely comprehensive training. The relevant financial services background or training shall ensure that the Chairman has the necessary knowledge, skills and experience and/or training required to comprehend each of the following:
      - The nature of the institution's business, activities and related risks;
      - His or her individual direct and indirect responsibilities and the board's responsibilities; and
      - The institution's financial statements.
  - The Chief Executive must meet the same requirements as the Chairman.
  - There must be a Board Risk Committee.
  - There must be a Board Audit Committee.
  - The independent non-executive directors shall have a knowledge and understanding of the business, risks and material activities of the institution to enable them to contribute effectively.
  - The independent non-executive directors shall comprise individuals with relevant skills, experience and knowledge (such as accounting, auditing and risk management knowledge) who shall provide an independent challenge to the executive directors of the board.
  - The board shall have ...... a full understanding of the nature of the institution's business, activities and related risks.
- This is a comprehensive response to address the inadequacy of skills at Board level identified in the various reports, particularly when taken in conjunction with the Fitness and Probity Standards.

Risk management - The Corporate Governance Code

- The Code underpins the three lines of defence risk management model:
  - The Nyberg Report defined the three lines of defence risk management model as follows: *Internal Audit is generally recognised as "a third line of defence" coming after business unit control functions (first line of defence) and risk/compliance control functions (second line of defence)*.
  - The Corporate Governance Code has the following definition: **Control Functions**: These shall include the Internal Audit, Risk Management, Compliance, and Actuarial Functions and any other controlled function prescribed as such by the Central Bank.
  - The Control Functions map precisely to the Second Line Of Defence (Risk, Actuarial and Compliance) and the Third Line Of Defence (Internal Audit).
  - The Code requires the independence of the Second Line Of Defence and the Third Line Of Defence: "*The board shall satisfy itself that all key Control Functions such as internal audit, compliance and risk management are independent of business units, and have adequate resources and authority to operate effectively.*"
  - The requirement to have a Board Risk Committee and a Board Audit Committee to respectively oversee the activities of the Second Line Of Defence and the Third Line Of Defence further underpins the three lines of defence risk management model.
  - Prior to this, in many firms the Risk, Compliance and Internal Audit functions reported to the finance function, so that there was, in reality, only one line of defence.
- Requiring the three lines of defence risk management model supported and overseen by skilled Board Risk Committees and Board Audit Committees is an appropriate response to the previous failure (or, more precisely, lack) of risk management. It will represent a very significant enhancement of risk management and risk oversight.

The Fitness and Probity Regulations

- The Fitness and Probity Regulations require people holding specified roles (known as Controlled Functions or CFs) to meet required standards of competence, probity and financial soundness.
- For a sub-set of CFs (known as Pre-approval Controlled Functions or PCFs), the approval process requires the firm, in addition to having conducted its own due diligence, to propose the person for appointment and to submit an individual questionnaire to the Central Bank. A firm cannot offer to appoint a person to perform a PCF function unless the Central Bank has approved in writing the appointment of the person to perform the function.
- The list of PCFs at Board level is comprehensive:
  - Chairman of the Board, Chairman of the Audit Committee, Chairman of the Risk Committee, Chairman of the Remuneration Committee, Chairman of the Nomination Committee, Chief Executive, all other directors.
- The list of PCFs at Second Line Of Defence level and Third Line Of Defence level is also comprehensive:
  - Head of Risk, Chief Actuary, Head of Compliance, Head of Internal Audit.
- The list of PCFs at First Line Of Defence level is not comprehensive:
  - Chief Executive, Head of Finance, Head of Retail Sales.
  - The previous Fit and Proper Requirements included all Executive Committee members reporting to the Chief Executive or the Board within the group requiring prior Central Bank approval, but this provision is not included in the new regulations.
  - The Central Bank may declare in writing to a regulated financial service provider that a function performed by, for or on behalf of, the regulated financial service provider is a PCF. This provision might be used to address gaps.
- The Fitness and Probity Regulations place clear requirements on firms to ensure that their boards and key officers are competent and honest. The Central Bank verifies those assessments, and has the final say in whether an appointment can be made. To the extent that a lack of competence, or an inadequate range of competence, has contributed to recent problems, this is again a significant response to address the issue.

European Banking Authority – Guidelines on Internal Governance

- These guidelines come into effect on 31 March 2012, from when competent authorities shall implement the guidelines by incorporating them within their supervisory procedures.
- The European Banking Authority has consolidated the majority of its guidelines regarding general internal governance issues in these guidelines.
- The focus of the guidelines is limited to internal governance and so excludes other aspects of corporate governance, such as the roles of external auditors, shareholders or other external stakeholders.
- Chapter Headings:
  - Corporate Structure and Organisation
  - Management Body
  - Risk Management
  - Internal Control, including a section entitled "The role of Chief Risk Officer and the risk management function"
  - Systems and Continuity
  - Transparency
- It is a very important document, an essential read for risk managers, and I think its effects will extend far beyond banking.

The Board Risk and Compliance Committee

- The concept of a Board Risk Committee is a very recent one, and the Central Bank has been to the fore in requiring such a committee at the centre of risk governance and management in banks and insurance companies.
- Personally, I have found the Board Risk and Compliance Committee to be of tremendous benefit in ensuring that appropriate attention is given to risk governance and risk management.
- The role of Chairman of the Board Risk and Compliance Committee will be a key one in the future governance of banks and insurance companies, and will provide both support and challenge to the role of Chief Risk Officer.
- The role of Chairman of the Board Risk and Compliance Committee is a PCF under the Fitness and Probity Regulations, and so appointment to it is subject to Central Bank approval.
- I would expect holders of the role to have significant risk management experience. The alternative has been tried, and it doesn't work!
  - He felt that the role of Chairman of the Risk and Compliance Committee was too complicated for a generalist. It involved understanding complex and evolving international banking rules around the Basel Agreements. *Outgoing Chairman of Anglo Risk and Compliance Committee (June 2008), from Anglo Republic by Simon Carswell*.

Risk management in insurance companies

- Insurance companies are unusual in having two functions (the risk function and the actuarial function) covering the space that is covered by a single risk function in other financial firms.
- The reality is that the actuarial function has been the financial risk function in insurance companies for a very long time, and the actuarial skill-set is the financial risk skill-set required for insurance companies.
- Given this, I really can't see the sense in not having a single risk function in insurance companies.
- This view is reinforced by the fact that, under Solvency II, the role of the actuarial function will be to advise the Board, and will not be the final determiner of reserves and capital requirements as currently.
- The extra skills required by actuaries to cover the full risk spectrum is small in relation to the skills already attained.
- Finally, I think that a unified risk function will lead to better risk governance and more comprehensive risk oversight.

Actuaries and risk management in banking

- ΑΓΕΩΜΕΤΡΗΤΟΣ ΜΗΔΕΙΣ ΕΙΣΙΤΩ
  - Inscription over the entrance to Plato's Academy
- Financial Risk management in banking has become very mathematical over the last 25 years or so, and actuaries have the skills to engage in this work. For example, this is the formula in the Capital Requirements for credit risk capital. It is known as Vasicek's formula and was derived about 25 years ago. It helps in Financial Risk management in banking to understand where this formula comes from!

$$N\left(\frac{N^{-1}(PD)+\sqrt{\rho}N^{-1}(0.999)}{\sqrt{1-\rho}}\right).$$

- However, a significant number of mathematically skilled people have entered banking to meet its needs in Financial Risk management, so the position is not similar to that in general insurance before actuaries first made significant inroads there.
- The risks in banking are very different to insurance, and there is a lot to learn! Actuaries' mathematical skill base gives a basis to do that learning.
- A further benefit that actuaries have is belonging to a long-established profession that develops both technical skill and professional judgement in equal measure, and that provides professional support to its members on an ongoing basis.
- I am certain that actuaries can both contribute to, and learn from, banking but I suspect that the opportunities provided by Solvency II will not see a significant migration in the foreseeable future. But maybe you will prove me wrong!

Conclusion

- The world of risk management is undergoing significant change, much of it in response to the financial failures of recent times.
- There will be much greater emphasis on, and formal structure around, risk governance and risk management in the future.
- Risk governance and management will face challenge again when memory of the current crisis fades and we see reversion to the human characteristics that caused the current crisis.
- I think the phrase "*This time is different*" won't return for a while. A possible precursor is something along the lines of "*We have learned from our mistakes, so we don't need all this risk governance anymore*".
- I think a better phrase to keep in mind, reflecting the "reversal to mean" in terms of human behaviour, is Talleyrand's comment on the Bourbons:
  - *Ils n'ont rien appris, ni rien oublié. (They had learned nothing and forgotten nothing).*
- If risk managers act on that basis, they will be better prepared for the challenges ahead. Risk Management is as much about understanding and managing behaviour as mathematics.