ROADS TO RUIN
the analysis

A STUDY OF MAJOR RISK EVENTS: THEIR ORIGINS, IMPACT AND IMPLICATIONS

A report by Cass Business School on behalf of Airmic
sponsored by Crawford and Lockton

John Hurrell, Chief Executive, Airmic.

PREFACE

Airmic is pleased to have commissioned this important piece of research, which highlights the critical role of boards in the effective oversight of risk management within their organisations.

The report demonstrates, through the case studies, that risk is at the heart of strategy, and that boards and specialist risk functions must work more closely together to avoid or mitigate the catastrophic consequences of events. Airmic wishes to thank the outstanding team at Cass who researched and prepared this report and our sponsors, Crawford and Lockton, who worked closely with us throughout the project. We commend this report to all those persons who have responsibility for risk within their organisations.

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1. EXECUTIVE SUMMARY

This report investigates the origins and impact of over twenty major corporate crises of the last decade.

The crises examined involved substantial, well-known organisations such as Coca-Cola, Firestone, Shell, BP, Airbus, Société Générale, Cadbury Schweppes, Northern Rock, AIG, Independent Insurance, Enron, Arthur Andersen, Railtrack, the UK Passport Agency and also some smaller firms. Several did not survive and most of the rest suffered severe damage.

Our aims were to trace the deeper causes of the crises, to assess the post-event resilience of the companies involved and to consider the implications for the risk management of companies in general.

Our report is built around eighteen detailed case studies that analyse the impact of critical events both on the enterprises most directly affected and, in many cases, on other associated firms. There are references to around forty organisations in total.

The case studies provide a rich source of lessons about risk, risk analysis and risk management, in the context of critical events of many different types, ranging from fires and explosions, product-related and supply chain crises to fraud and IT failures. Our report details over one hundred specific 'lessons about risk' that emerge from the case studies.

Much broader lessons have also been distilled from the case studies. Several of the firms we studied were destroyed by the crises that struck them. While others survived, they often did so with their reputations in tatters and faced an uphill task in rebuilding their businesses. We found that the firms most badly affected had underlying weaknesses that made them especially prone both to crises and to the escalation of a crisis into a disaster.

These weaknesses were found to arise from seven key risk areas that are potentially inherent in all organisations and that can pose an existential threat to any firm, however substantial, that fails to recognise and manage them. These risk areas are beyond the scope of insurance and mainly beyond the reach of traditional risk analysis and management techniques as they have evolved so far. In our view, they should be drawn into the risk management process. They are as follows:

A. **Board skill and NED control risks** – limitations on board competence and the ability of the Non-Executive Directors (NEDs) effectively to monitor and, if necessary, control the executives.

B. **Board risk blindness** – the failure of boards to engage with important risks, including risks to reputation and 'licence to operate', to the same degree that they engage with reward and opportunity.

C. **Poor leadership on ethos and culture**

D. **Defective communication** – risks arising from the defective flow of important information within the organisation, including to board-equivalent levels.

E. **Risks arising from excessive complexity**.

F. **Risks arising from inappropriate incentives** – whether explicit or implicit.

G. **Risk 'Glass Ceilings'** – arising from the inability of risk management and internal audit teams to report on risks originating from higher levels of their organisation's hierarchy.

We conclude that a number of developments are necessary to deal with these risks.

- The scope, purpose and practicalities of risk management will need to be rethought from board level downwards in order to capture these and other risks that are not identified by current techniques.
- The education of risk professionals will need to be extended so that they feel competent to identify and analyse risks emerging from their organisation's ethos, culture and strategy, and from their leaders' activities and behaviour.
- The role and status of risk professionals will need to change so that they can confidently report all that they find on these subjects to board level.

However, these risks will remain unmanaged unless boards – and particularly Chairmen and NEDs – recognise the need to deal with them. Boards will also need risk professionals with enhanced vision and enhanced competencies to help them do so.

2. INTRODUCTION AND TERMS OF REFERENCE

The principal objectives of this research were:

- to investigate the impact on firms of major risk events of various types;
- to analyse the causes of these events; and
- to consider the implications for the risk management of firms in general.

It is clear that the impact of a major crisis is sometimes underestimated and takes the firm by surprise, whereas other organisations are better prepared and manage a crisis well, so that the firm suffers little harm or even emerges with an enhanced reputation. Our aim is to identify circumstances that make firms especially vulnerable to risk events and also the critical factors for minimising their effects.

Our research is built upon a series of case studies involving a variety of different types of firms and risk events of various types. There are eighteen case studies in all, but a number of them examine the effect of the event in question, or similar events, on several organisations. One (involving rail disasters) covers several events affecting the same organisations. Thus, the case studies between them consider twenty-three primary events and there are references to about forty organisations in total.

Most of the firms covered in this report are private sector organisations, but there are one or two exceptions. These public sector organisations have been included on the basis that their status (private or public) is largely irrelevant to the impact of the event and the lessons that emerge from the case study are of equal value to public and private sectors alike. The firms studied vary in size from medium-sized businesses to large multinational corporations and they cover a range of business sectors, including manufacturing, engineering, financial services, energy and transport.

Our case studies cover a range of different types of 'risk event'. In fact, classifying risk events in a consistent and systematic way presents a number of difficulties. These problems, and the associated difficulties of arriving at an orderly classification of causes of risks events and of their consequences, are considered separately, in Appendix C, which also outlines the methodology used in our study and contains proposals for further research.

The main categories in our relatively simple classification of risk events are as follows:

A. Events causing major loss of life, including transport accidents

B. Fire and explosion, including terrorism

C. Regulatory action, including criminal prosecution

C. Management behaviour, including fraud and mismanagement

E. Employee behaviour, including fraud or other (mis) behaviour

F. Product liability, product recall and supply chain failures

G. IT failure, including breach of data confidentiality

It is fully recognised that these classes are not strictly consistent and comparable (for example A and C are partly consequences rather than events and D and E might be regarded as causes rather than events) but they remain useful categories that will be familiar to most risk managers. We also acknowledge that some common categories are not included, such as natural catastrophes and environmental disasters. The first of these was omitted because natural disasters are usually widespread in their effects, affecting many firms simultaneously. This makes it difficult to isolate and select one firm in particular that merits study above all the others. As far as environmental disasters are concerned, the category was omitted in the absence of an obvious candidate in the time period covered in this report.

The main subjects of the case studies, and the risk events affecting them, are detailed overleaf.

Event/ Case study (date)	A Major loss of life	B Fire or explosion	C Regulatory action	D Managmt. behaviour	E Employee behaviour	F Product related	G IT related
1 AIG and AIG Financial Products (2005 & 2007)			✓	✓	✓		
2 Arthur Andersen (2001)				✓	✓		
3 BP Texas City Refinery (2005)	✓	✓					
4 Buncefield (HOSL) explosion (2005)		✓					
5 Cadbury Schweppes (2007)						✓	
6 Coca-Cola Dasani (2003)						✓	
7 EADS Airbus A380 (2006)				✓		✓	✓
8 Enron (2001)			✓	✓			
9 Firestone (2000)						✓	
10 HSBC/Nationwide/ Zurich Insurance (2006-8)							✓
11 Independent Insurance (2001)			✓	✓			
12 Land of Leather (2008)						✓	
13 Maclaren Pushchairs (2009)						✓	
14 Northern Rock (2007)			✓	✓			
15 Rail disasters: Great Heck, Hatfield, Potters Bar (2000-2)	✓		✓				
16 Shell (oil & gas reserves) (2004)				✓			
17 Société Générale (2007)				✓	✓		
18 UK Passport Agency (1999)				✓			✓

Several case studies involve risk events that fall into more than one category. For example, the serious delay that set back production of the giant Airbus A380 was at least in part IT-related, but can also be classified as a supply chain failure or the result of management behaviour.

With one exception, the events covered in our study occurred or began since the year 2000. We have also excluded events that have taken place very recently, because in many such cases, the true facts are not yet known and the full and final impact of the event remains uncertain. 'Deepwater Horizon' is such an example.

Each of the case studies, contained in Appendix A of this Report, follows the same pattern. A brief summary of the crisis is followed by details of the firm(s) involved and their business activities. This is followed by a description of the risk event, an account of the management response to it and a discussion of consequences of the event for the firm itself and for other parties. A discussion of the role of insurance in the crisis and a comparison with similar risk events is included where appropriate. The final section contains an analysis of the risk management implications of the case and the lessons that can be drawn from it.

While each case study is intended, in its own right, to provide useful insights about risk, we also attempt, in Section 3, to conduct a broader analysis of the case studies taken together and to summarise the risk management lessons that can be drawn from them as a whole. This analysis reveals common patterns in crises that initially appear to be very different in nature and in the action of firms that would appear to have little in common at first sight. In this way, some more general lessons in risk management have been distilled from the case studies.

INTRODUCTION

We studied crises affecting twenty-one organisations with pre-crisis assets of over $6 trillion. Most were well regarded and many had good reputations.

Only a few firms emerged without obvious immediate damage. Six firms collapsed and, while three of these were revived, this was achieved only through a state rescue and/or what amounted to nationalisation. Most suffered large, uninsurable losses and their reputations were damaged, sometimes severely. The position of most Chief Executives and Chairmen were put into question. We identified about twenty who subsequently lost their jobs, at least partly as a result of the crisis.

In the course of our research, it became clear that there was much more to these crises than is usually discussed. Once we had filtered out the 'triggers' for the crises, other, deep-seated, risks were seen to be at work. We have called these risks, which transcended business sectors, 'underlying risks'.

These underlying risks were dangerous in four ways:

- Many posed a potentially lethal threat to the organisation's business and business model.
- When they materialised, they often caused serious, sometimes devastating and almost always uninsurable[1] losses to the business, its reputation and its owners, often putting the position of the CEO and Chairman into question.
- Many were also instrumental in transforming serious but potentially manageable crises into catastrophes that destroyed reputations and licences to operate.
- Most of these risks are both beyond the reach of current risk analysis techniques and beyond the remit and expertise of typical risk managers. Unidentified and thus unmanaged, these risks remain unnecessarily dangerous.

We have therefore set out to identify and discuss most, though inevitably not all, of these underlying risks as they emerged from our study. We eventually produced a more detailed classification of risks under seven broad categories.

A. **Board Skill and NED Control:** Risks arising from limitations on board skills and competence and on the ability of the NEDs effectively to monitor and, as necessary, control the executive arm of the company.

B. **Board Risk Blindness:** Risks from board failure to recognise and engage with risks inherent in the business, including risks to business model, reputation, and 'licence to operate', to the same degree that they engage with reward and opportunity.

C. **Inadequate Leadership on Ethos and Culture:** Risks from a failure of board leadership and implementation on ethos and culture.

D. **Defective Internal Communication:** Risks from the defective flow of important information within the organisation, including up to board level.

E. **Risks from Organisational Complexity and Change**: This includes risks following acquisitions.

F. **Risks from Incentives:** This includes effects on behaviour that result from both explicit and implicit incentives.

G **Risk 'Glass Ceiling':** Risks arising from the inability of risk management and internal audit teams to report to and discuss, with both the 'C-Suite' (leaders such as the Chief Executive, Chief Operating Officer and Chief Financial Officer) and NEDs, the risks emanating from higher levels of their organisation's hierarchy, including risks from ethos, behaviour, strategy and perceptions.

A number of the risks we identified predispose organisations to 'groupthink'[2] or may be examples of its dangers.

A number of the risk areas we have identified concern the so-called 'soft' skills (staff, style and shared values) as opposed to the so-called 'hard' skills (technical know-how, strategy, structure and systems).[3] A valuable question for further investigation in this area is whether there is a causal link between weaknesses in leaders and board composition with respect to the so-called 'soft' skills and the propensity to suffer major reputational crises. More controversially, there is a question of whether there is a statistical or causal link with the much-discussed gender imbalance on boards.[4]

The studies themselves are rich in detailed lessons about conventional risks and their management, as brought into focus by crises. Since every case study is the story of a crisis, the studies also contain many lessons on the practicalities of crisis management and planning. The studies contain a valuable and extensive opportunity to learn painlessly from the misfortunes of others, so we have also extracted a series of observations about crisis management. These are to be found in Appendix B.

ANALYSIS

In this section of the report, we provide granularity to, and illustrate and support, the types of risk we have identified. In doing this, we have used a more detailed classification of risks that we developed during our analysis. The abridged comments made in this section should be understood in the context of the detailed case studies in Appendix A.

A. Board Skill and NED Control: Risks arising from limitations on board competence and the ability of the NEDs effectively to monitor and, as necessary, control the executive arm of the company.

A1. The risk posed by a board and NEDs who are not in effective control of the business

Our studies included a number of cases in which the board appeared not to be in full control of the business. This problem took a number of forms, including cases where the board or its NEDs did not fully understand the business model, the foundations and assumptions on which the business model was based, or the company's reputation and the essential foundations of that reputation.

For example, AAA-rated **AIG** ran a complex business. Its long-time CEO Hank Greenberg's basic business model was 15% revenue growth, 15% profit growth and 15% return on equity. Those who did not deliver were 'blown up'. In 2005, it emerged that AIG had 'hidden' significant underwriting losses by using creative 'reinsurance'. AIG was obliged to restate more than four years' earnings. Greenberg was forced to resign following allegations of fraudulent accounting and the use of an offshore entity to conceal losses. AIG lost its AAA rating. Five people were jailed for conspiracy and fraud, and Greenberg paid $15 million to the US Securities and Exchange Commission (SEC) to settle charges that he had altered AIG's records to boost results between 2000 and 2005.

AIG's Financial Products subsidiary **(AIGFP),** operating from a small London office, wrote a large portfolio of Credit Default Swaps (CDS).

AIG's AAA rating gave it a competitive advantage. When AIG lost its AAA rating, it had to post more collateral, and this was one factor that weakened the company. Furthermore, the CDS business was, in effect, a bet on the strength of the US house mortgage market, so when the subprime credit crisis struck, the potential losses on AIG's CDS portfolio mounted. Its 2008 loss was $99 billion. AIG was rescued by the US Federal Reserve in an operation that required funds of $182 billion to be made available.

It emerged that AIG's board had been hand-picked by Greenberg over his years as a dominating CEO. The board mainly comprised two types: loyal friends and colleagues, and distinguished former politicians and government officials chosen 'to add prestige to the board'. Such a board was unlikely to be capable of challenging a dominant long-standing CEO even if it had the technical skills to understand the business, which is doubtful. This created a weakness in AIG that left important CEO decisions unchallenged – and left the board weaker still once it had lost the knowledgeable Greenberg as CEO.

Enron was an energy distribution and trading company based in Texas. It collapsed in 2001/2 under the weight of accounting scandals and fraud allegations that eventually led to the conviction of its CFO Andrew Fastow and its CEO and Chairman, Ken Lay and Jeffrey Skilling, as well as sixteen other Enron employees. As we shall see, the collapse of **Arthur Andersen** was closely tied to the failure of Enron. Lay had selected his board members from those who had business relationships with Enron (for example, relationships developed through consulting contracts) or whose organisations had been beneficiaries of Enron's political or charitable donations. This group was unlikely to be willing to challenge a dominant long-standing Chairman from whom members derived income and munificence, even if it had the technical skills to do so, which again seems doubtful. This weakness predisposed Enron to collapse.

Hertfordshire Oil Storage Ltd (HOSL) was a joint venture between Total Oil (60%) and Chevron (40%). HOSL was nominally responsible for the **Buncefield** tank farm, where 200,000 tonnes of fuel and heating oil were stored. The vapour cloud explosion at the site, which measured 2.4 on the Richter scale, could be heard over 200 km away and the resulting fire burned for five days. London's Heathrow airport lost 40% of its fuel supplies, and more than 600 businesses on a neighbouring estate, built after Buncefield was commissioned, were badly affected. It was a matter of luck that there were no deaths or serious injuries among

members of the public or the 16,500 people who were employed on the estate, the explosion having occurred early on a Sunday morning.

HOSL was run on a minimalist basis. Its board met only for a couple of hours twice per year and it had no staff to carry out its decisions. While its shareholders may have carried out some essential functions, such a minimalist set-up was inadequately resourced to co-ordinate management of the risks involved in running a large fuel tank farm. A judge later held that the tank farm was effectively run by Total Oil, one of the owners of HOSL.

There were other examples of board ineffectiveness among our case studies.

- The board of **Independent Insurance** was clearly ineffective to oversee its fraudulent CFO and CEO.
- At **Arthur Andersen**, a partnership, local offices seem to have been able to disregard or overrule such central management as there was.
- At **EADS Airbus**, the effectiveness of the board and the company was compromised by its nature: a joint venture of national champions whose political sponsors made appointments and tried to influence decisions for political reasons.
- With reference to **BP**, the Baker Report on the Texas City Refinery explosion criticised BP's board for the 'disconnect' between its high ideals and the day-to-day practice of its operations.

A number of these exemplify situations that predisposed the leadership to 'groupthink'.

A2. The risk that either leaders or NEDs as a whole do not have the skills necessary to understand and run or, in the case of NEDs, independently oversee the business

It sounds obvious that leaders of a business should have the skills that are necessary to understand and run it, but some of our studies suggested that the leaders did not. Similarly, given that the role of NEDs is to provide independent oversight of the business, they need – at least collectively and arguably individually – sufficient skill and knowledge to ask all the right questions and to understand and evaluate the adequacy of answers they receive. Our study included a number of cases where this appeared not to be the case.

A prime example is **Independent Insurance**, set up by Michael Bright and his long-standing friend and colleague Philip Condon. In 1987, Bright became CEO with Condon as his deputy. Denis Lomas became Finance Director. The company wrote a significant amount of long-tail liability insurance and other types of insurance where reserves are hard to assess.

The company made stellar progress at first, but the business was not as profitable as it seemed. By the late 1990s, the trio came to realise that the business was in fact making losses and set out to conceal them. Their techniques included keeping reserves off the accounts, understating reserves and, eventually, making fraudulent reinsurance contracts. These were in two parts: with one hand they gave Independent reinsurance protection; with the other, in side letters, Independent gave back the benefits. The side-letters were hidden from the board and auditors. The company was put into liquidation in June 2001. Bright, Condon and Lomas were convicted of fraud in 2007.

There had been rumours in the insurance market to the effect that Independent's results were 'too good to be true'. The Annual Reports contained hints that things were going wrong, but these were not picked up by the board (or the auditors, actuaries or the UK FSA). The publicly available biographies we have found suggest that the NEDs were eminent City figures, but we have not found evidence that any had the specialist technical skills or experience to know how – and how easily – long-tail liability reserves can be manipulated. If, as we suspect, the NEDs collectively lacked this key know-how, their collective weakness made the company more vulnerable to a fraud by its executives.

Northern Rock was a bank, formerly a mutual 'building society', which collapsed in September 2007 following the UK's first bank run in nearly 130 years. Neither Adam Applegarth, the bank's leader, nor his Chairman had systematic training in banking. This may explain why they lacked the expertise to understand the risk involved in the bank's heavy reliance on wholesale funding markets. This inexperience helped to leave the bank's business model untested under stress; and under stress the bank failed.

The **Passport Agency**, which is responsible for issuing most UK passports, provides another instructive example. When the Agency introduced a new computer system in 1998, chaos ensued, followed by a large bill for compensating the many people who had to cancel planned holidays when their new passports did not arrive in time.

In fact, central government has a long history of IT projects that have gone disastrously wrong. The latest in a long series, involving a national fire service computer system, was reported as recently as December 2010.[5] One explanation may be the Civil Service's infamous 'cult of the talented amateur', immortalised and severely criticised by the Fulton Report as long ago as 1968. The essence of the 'cult' is that anyone clever enough to become a senior civil servant is clever enough to run anything regardless of experience – because they are clever enough to learn anything. The sad truth is that they are not. Those with high levels of technical expertise are still, it seems, looked down on by senior generalist administrative civil servants, who are reluctant to allow those with relevant expertise to take the lead in making policy and strategy. Taken with a system of rotation between posts, which ensures that expertise and any sense of long-term responsibility amongst administrators is easily lost, the result has been a long series of hugely expensive IT failures. In the case of this particular debacle, the core of the problem was that those in charge of the project lacked the experience that would have fitted them for the job. Putting them in charge was a huge, unrecognised, risk – and one that Civil Service leaders were probably unable to see because it concerned institutional weaknesses of their own about which they had long been in denial.

We found other examples of boards lacking necessary skills.

- **Enron's** board NEDs were selected for their connections with Enron rather than for their skills.
- **AIG's** board mainly comprised loyal friends and colleagues of Greenberg and distinguished former politicians and government officials chosen to add prestige to the board. They were unlikely to have the skills to challenge Greenberg's obscure reinsurance transactions – let alone to investigate how AIGFP's market models worked, on what assumptions they were based and what approximations were made.
- **AIGFP's** CEO Cassano lacked the mathematical skill to understand the business of his company.
- In the lead-up to the Texas City explosion, the **BP** director who had board responsibility for all operations at BP's refineries, including safety, had no refining experience prior to his appointment.

A3. The risk that the NEDs are blinded by charismatic leaders

As previously discussed, Independent Insurance appeared to be spectacularly successful and its leader a star. It seems likely that Independent's NEDs were at least partly blinded by Michael Bright's larger-than-life character, either feeling unable to challenge him or feeling that no challenge was warranted.

The same may be true with regard to the equally charismatic Hank Greenberg at AIG and also the leadership trio at Enron.

B. Board Risk Blindness: Risks from board failure to engage with important risks, including risks to business model, reputation, and 'licence to operate', to the same degree that they engage with reward and opportunity.

B1. The risk that the board fails to identify and guard against threats to the organisation's reputation and 'licence to operate'

Organisations often take aspects of the status quo – specifically, the world as they see it – for granted. In particular, they may take their good reputation, as they see it, for granted – and expect it to last indefinitely. This is a dangerous assumption. Boards should be aware of risks of this kind and ensure that the strategy they set (including their crisis strategy) is fit to deal with the most severe threats to their reputation.

For example, one of the main reasons for the collapse of the UK's monopoly rail infrastructure operator Railtrack, following the Hatfield rail crash, was its loss of reputation for competence as a railway infrastructure operator. It seems clear that **Railtrack's** board did not fully appreciate that its licence to operate literally depended on the UK government, which, when previously in Opposition, had vehemently opposed the privatisation of the railway system. Nor does it seem likely that the board understood how others perceived its competence. When Railtrack's reputation was sufficiently damaged, the government had no hesitation in removing its licence to operate – by effectively renationalising the railway network.

We met many other examples of failures of this kind.

- At the time of the 2000 crisis, the **Firestone** management seems to have failed to appreciate how the company's reputational capital had been eroded by its handling of earlier defective tyre problems and eventual recalls in the 1970s. Nor, apparently, did the board prioritise the safeguarding of Firestone's reputation as a trusted tyre manufacturer.

- **Northern Rock's** leadership seems to have failed to appreciate the importance of maintaining a bank's reputation for paying depositors on demand. This may have been so, at least in part, because neither the Chairman nor the CEO had been trained as bankers, but the board as a whole should have recognised this imperative. Arguably, the run could have been stopped on the evening of the announcement that the Bank of England was acting as lender of last resort to the bank, but neither CEO nor Chairman took the only step that might have succeeded.

- The actions of **Arthur Andersen's** leadership suggest that it did not understand or take action to protect the reputational foundations that are essential to the survival of any major audit firm.

- It seems unlikely that the **Passport Agency** thought about its reputation – or its own or the Civil Service's reputation for carrying out IT projects successfully – when it set out to bring in a new computer system. As stated earlier, it seems clear that the Passport Agency had no strategy to deal with a crisis either.

- **Land of Leather's** board seems not to have thought about how to deal with a product quality issue, let alone devised a strategy to deal with a type of problem that is common in the sector.

In contrast to these cases, it is clear that **Coca-Cola** was in no doubt as to the central importance of its reputation – not just its brand – when it ran into unexpected trouble at the UK launch of 'Dasani'. Coca-Cola reacted decisively and in a way that demonstrated that the company understood the central importance of its reputation. It abandoned the UK launch of Dasani within 24 hours, and the drink has not reappeared on UK shelves since.

Similarly, it seems clear that the bank **Société Générale** immediately appreciated the danger of a run. Preventing a run, such as had recently brought down Northern Rock, seems to have been a core element of its survival strategy.

As an aside, we note that Berkshire Hathaway has publicly set its risk appetite for reputation. In his biennial letter to his CEOs, Warren Buffett has regularly written the following:

As I've said in these memos for more than 25 years: 'We can afford to lose money – even a lot of money. But we can't afford to lose reputation – even a shred of reputation.'[7]

It may be a coincidence, but Berkshire Hathaway owns 9% of Coca-Cola.[8] Its CEO may well have received Buffett's biennial letter.

B2. The risk of failing to question the foundations of success

When things are going well, there is a tendency to ask fewer questions than when things are changing or going wrong, which is a mistake. As Nicholas Taleb perceptively explained,[9] successful leaders can be fooled into thinking that their success is due to skill rather than good luck – which is not to suggest that many, let alone most, successful leaders lack skill.

While the reasons for the failure of **AIG, Enron** and **Independent Insurance** are not what Taleb had in mind, the basic point still holds. Their boards should have questioned how their companies were producing exceptionally – and consistently – good results. Researching the answer to this question could have revealed much if the boards had investigated; and the mere fact of their having the skills and a known appetite to investigate success would have acted as a deterrent, at least, to fraudulent activities.

For the whole period of his tenure as CEO of **BP**, Lord Browne, the charismatic leader of BP, was seen as a standard-bearer of excellence and cost-effectiveness, but history is being reconsidered. His era has come to be seen as one in which management (no doubt inadvertently) focussed on cost-saving and efficiency to the detriment of a sound safety culture. We do not know whether the BP board questioned the foundations of BP's success under Lord Browne, but the external evidence that this happened is sparse. A poor safety culture at AMOCO, with which BP merged on Lord Browne's watch, was certainly a partial cause of the **Texas City Refinery** fire and seems also to have been part of the foundations of the subsequent Deepwater Horizon disaster.

B3. Risk can emanate from anyone inside or outside the organisation, including its top management

We have already seen how large risks can originate within the 'C-suite' and the upper reaches of a company. To recap, our examples include:

- **Independent Insurance**, where frauds were perpetrated by the CEO and the CFO.
- **AIG**, where frauds were alleged against Greenberg, who paid $15 million to the US SEC to settle charges that he altered AIG's records to boost results between 2000 and 2005. He and three other AIG directors later agreed to pay $115 million to settle a shareholder lawsuit over allegations that they had made false statements regarding AIG's financial results.
- **Northern Rock**, where the board failed to ensure stress testing of the core of the business model, with its heavy reliance on wholesale markets.
- **Railtrack,** where a major factor in the Hatfield train crash was the decision to subcontract maintenance work without ensuring that quality would be maintained. This was a board failure – whether the board approved what should have been a strategic decision or failed to oversee it.
- **Arthur Andersen**, where decisions involving individuals at a high level within the firm led both to the firm's continued involvement with Enron and to the shredding of documents relating to its audit of Enron.

Shell provides another example of risk originating at the highest levels. By 'Shell', we mean the UK arm of Royal Dutch Shell Group. Shell had long been proud to be an organisation with values. One of its directors even published a book – 'Walking the Talk' – about the need for senior management to be totally committed to Corporate and Social Responsibility (CSR), good corporate behaviour and other cultural objectives, and not just to pay lip service to them.

Unfortunately, it was subsequently revealed, in stages over four restatements, that the Executive Team had overstated the company's oil reserves by about 23%. Some sources have suggested that the overstatement ran into many tens of billions of dollars. Shell's share price collapsed and it was fined by both the US SEC ($120 million) and the UK FSA (£17 million). It eventually came to light that the Head of Exploration had emailed the Chairman that he was 'sick and tired of lying' about the oil reserves. The Chairman and Head of Exploration resigned. Later that year, the UK company was folded into the Dutch company.

This episode also revealed that staff incentive schemes were linked to the level of reserves. According to a Wall Street Journal article in 2004, for two years before the reserving crisis, reports from Shell's internal auditors had previously 'prominently flagged' that Shell's bonus system could encourage the inflation of reserves bookings.

The problem was that reserves additions were incorporated into Shell's 'score card' bonus system, in which executives were awarded additional pay-outs when their business units achieved certain targets. The relevant reports went to Shell's external auditors. Shell abolished reserves-related bonuses in the wake of the reserves crisis. Whether the points in the reports were passed on to the Audit Committee, or how the Audit Committee responded to them if it received them, is not known.

B4. The risk of failure strategically to set and control risk appetite

If the board does not set risk appetite, it is not directing the nature or scale of risks taken by the business. Risk governance first became a mandatory issue in the UK with the Turnbull Guidance.[10] Following the 2008 financial crisis, this was reviewed. Sir David Walker's report made detailed recommendations[11] about the handling of risk in the financial sector. The May 2010 revision of the Combined Code[12] requires that boards that are subject to the UK Financial Reporting Council (FRC) rules should set risk appetite.[13] This cannot be done without a comprehensive understanding of all the risks the organisation faces and how they might combine.

The **EADS Airbus A380** wiring debacle is a good example of this sort of failure, and it also illustrates other risk factors discussed in this section. The programme to design and build the giant A380 aircraft was one of exceptional complexity and novelty. Part of the complexity arose from the fact that major components were to be built at factories in France, Germany, Spain and the UK, with myriad sub-assemblies made around the world. Everything had to be shipped to Toulouse for final assembly. The programme was highly complex; and it is now better understood that complexity is itself a source of risk[14] (see Risk E below). It is clear that the decision to make major assemblies in different countries and bring them together for assembly was, at least in part, a politically driven strategy choice taken without regard to its impact on the manufacturing process. Airbus also took considerable risks in using new – and not entirely standardised – technology, not only for the structure and control systems but also for the design

and modelling of the aircraft for the processes of design and construction. It seems unlikely that the Airbus board became involved in these decisions, let alone set risk appetite for Airbus.

When major assemblies were brought together for final assembly, it was found that the wiring harnesses did not mate. The harnesses had to be dumped and the aircraft rewired to a new design, costing something in the region of €3 billion to €5 billion. Senior figures and their political sponsors became embroiled in resulting internal disputes that saw the French and German governments manoeuvring to install new leaders.

This is not a lone example. We saw other examples of likely failures to set risk appetite.

- It seems highly improbable, in the light of events, that risk appetite informed any part of the discussions at **Railtrack** that led its subcontracting maintenance work without adequate supervision. It is also improbable that proper consideration was given to the potential reputational or 'licence to operate' consequences.
- We have seen no evidence that risk appetite formed part of decisions concerning the maintenance of the former Amoco estate acquired in the BP/Amoco merger or of **BP**'s decision to base 70% of executive bonus on financial performance and attribute 15% only to safety.
- It seems very unlikely, given the nature of their boards, that **AIG**'s or **Enron**'s boards set risk appetite for their respective organisations.
- It seems likely that there was inadequate understanding at board level of the true extent and nature of the risks in the businesses of all of the above and also those of AIGFP, Northern Rock, HOSL (Buncefield), Arthur Andersen, Land of Leather and the Passport Office.

By way of contrast, the speed of **Coca-Cola's** decision, made within 24 hours of the troubled UK launch of Dasani, indefinitely to abandon the UK launch, shows not only that Coca-Cola had a clear crisis strategy, but also suggests that it had set its risk appetite for risks to the Coca-Cola reputation at nil. As previously mentioned, this decision may well have been taken in the light of how its 9% owner Berkshire Hathaway had set its own appetite for risks to reputation.

B5. Risk of failure to recognise change in the risk environment

Risks change over time. The change is not always significant, but sometimes it can become important. When the shift is sudden, it will often be spotted, but when a gradual change accumulates over years, it is more likely to be overlooked. A number of our case studies suggest a failure to recognise change in the risk environment.

- The Buncefield site was originally surrounded by fields, but a large industrial estate employing more than 15,000 people later grew around it. This dramatically changed the risk, but it is far from clear whether **HOSL** responded to the change.
- Attitudes to **Railtrack** changed as it suffered a series of fatal rail crashes (Southall in 1997; Ladbroke Grove in 1999) that increasingly appalled the public. These set an increasingly bad 'back-story' against which future failures would be set, but the Railtrack board did not seem to have recognised the importance of this deterioration.
- **BP** similarly grew an increasingly bad 'back-story', of which the **Texas City Refinery** fire was one element, which left the firm vulnerable to serious reputational damage when the Deepwater Horizon disaster occurred.
- When **Firestone** came to face its second major tyre recall in 2000, it too had grown a 'back-story' from the 1978 recall, in the course of which it had emerged that the company had been aware of tyre defects as early as 1972. However, its approach in 2000 seems not to have recognised the existence of this 'back-story', even though the 1978 recall had become a text-book case study of 'how not to do things', widely used in major business schools.
- **Arthur Andersen's** discussions of whether to continue to work for Enron seemed to have ignored the risk of severe reputational damage in Enron's growing use of increasingly 'creative' accounting practices. Arthur Andersen also seemed oblivious to the damage done incrementally to its reputational capital through two previous episodes in which it was fined by the US SEC and subjected to shareholder suits following high-profile client bankruptcies.

- **The data loss** episodes at HSBC, Nationwide and Zurich took place against a background of sharply increasing public sensitivity to the loss and misuse of personal information.

- **Land of Leather's** business model seems to have been based on selling cheap Chinese sofas as part of a range that included expensive ones. However, as the former came to dominate, press stories of their being assembled in back-street factories in South China by 'exploited' workers set a growing, negative 'back-story', which surfaced when customers started to develop severe eczema from contact with the furniture.

B6. Risks from deficient crisis strategy

In a crisis, good judgement and speed of reaction are important. What may turn out to be momentous decisions often need to be made very quickly if the tide of public opinion is not to turn against the organisation. These decisions can be made 'on the hoof'– that is, if and when the need arises – but this increases the risk of bad decisions that could threaten the company's future. A clear, overarching crisis strategy, defined in the calm of peacetime, will help an organisation to make better, more thoughtful decisions even when the time available for consultation and reflection is limited. Crisis strategy sets crisis planning upon strategic principles that can form the basis for handling any crisis.

When it comes to crises centred on the activities or behaviour of the 'C-suite', it is perhaps not surprising that the boards of **Independent, AIG** and **Enron** were unprepared for what faced them. However, a good crisis strategy should be designed to set at least a core of strategic responses, even to totally unexpected events.

- To judge by their actions after rail accidents involving system failures, of which there was a recent history, **Railtrack/Network Rail** appeared to have little in the way of a crisis strategy.

- When **Firestone** came to deal with its second tyre recall crisis in 2000, it seemed not to understand the importance of its reputation, the toxicity of its previous history of tyre quality problems or the importance of tyre defects to its reputation. This suggests that its leaders probably did not have any crisis strategy.

- When **Land of Leather's** customers started complaining of rashes and the issue hit the media, the company seemed unprepared. This suggests that its board had not thought about how to deal with a product quality issue, let alone devised a strategy to meet a problem that was common in the sector.

- **Maclaren's** initial reaction to its 'finger amputation' problem suggests that it was guided by 'what is legal' rather than 'what is right'. It is unclear whether this reflects poor crisis strategy or poor execution.

- When the **EADS Airbus A380** project ran into trouble, its handling was characterised by an unwillingness to admit problems and the piecemeal release of information, an approach that typically builds distrust. At best, this was poor crisis management; but it is also symptomatic of the lack of a sound crisis strategy.

- The National Audit Office criticised the **Passport Agency** for failing to plan or manage the project adequately. Given its botched crisis management when the project went off the rails, it seems clear that the Passport Agency had no strategy to deal with a crisis either.

- **Northern Rock's** response to an impending liquidity crisis suggests a lack of crisis strategy.

- By way of contrast, **Coca-Cola** was clearly well prepared strategically to deal with the problematic launch of Dasani; and **BP** seems to have been similarly well prepared to deal with the **Texas City Refinery** explosion.

C. <u>Inadequate Leadership on Ethos and Culture: Risks from a failure of board leadership and implementation on ethos and culture.</u>

C1. The risk that boards have not set and universally applied an adequate and coherent business and moral compass

Business culture, ethos and behaviour matter. Mechanically applied rules, guidance and a 'compliance culture' are not enough.

Mr Arthur E. Andersen, founder of **Arthur Andersen,** is said to have cemented his reputation when he told a local railroad chief that there was not enough money in Chicago to persuade him to agree to enhance reported profits by using creative accounting. He lost the account – and the railroad firm went bankrupt soon after. Mr Andersen had a clear moral compass.

By the 1980s, the firm was adopting the Big Five auditors' new business model: grow the business by selling

consultancy on the back of the audit relationship. Andersen did well. It embraced a '2x' model – bring in twice as much consultancy as audit revenue. Those who succeeded in doing this were rewarded, whereas those who did not perform faced sanctions. Fear of losing consultancy work must have pervaded audit teams.

Through its work for Enron, Andersen earned $25 million in audit fees and $27 million in consultancy fees in the year 2000. Over the years, Andersen had been involved in creating and signing off 'creative' accounting techniques, such as aggressive revenue recognition and mark-to-market accounting, along with the creation of Special Purpose Vehicles (SPVs) used for doubtful purposes. The firm was sufficiently concerned in 2001 for fourteen partners, eight from the local office that handled Enron, to discuss whether they retained sufficient independence from Enron. Having observed that revenues could reach $100 million (predominantly from consultancy, one would assume), they decided nonetheless to keep Enron's account. Mr Andersen might not have reached the same conclusion.

As news of the US SEC's investigation into Enron spread to Andersen, the Houston practice manager gave the audit team a lecture. When it had recently been investigated by the SEC, Andersen had learned that most of the SEC's ammunition came from Andersen's own files. He therefore said, that while they could not destroy documents once a lawsuit had been filed, 'if [documents are] destroyed in the course of the normal [destruction] policy and the next day suit is filed, that's great...'. A few days later, Andersen's in-house lawyer, having seen some embarrassing internal memos, sent an email to the Houston office stating 'it might be useful to consider reminding the engagement team of our documentation and retention policy ...'. In the next few days, Andersen's shredders in Houston, London and around the USA were working overtime. This loss of moral compass was an important cause of Andersen's collapse.

Cadbury was a company with a Quaker-inspired moral history. During Todd Spitzer's period as CEO, Cadbury had a central catch-phrase to describe its approach – 'Performance Driven, Values Led'. This highlighted a dilemma at the heart of Cadbury's new strategy: was performance to be the priority? Or values? Or were they to be equal?

In June 2005, Cadbury's initiated a precautionary product recall of one million bars of chocolate that might have been contaminated with salmonella. The problem had arisen because Cadbury had increased the tolerance level of salmonella from zero to a finite but low level on the (incorrect) assumption that a very low level of salmonella contamination in chocolate was safe. One might question whether this would have happened if values were the undisputed priority. The prosecutor said the change was to reduce 'wastage' (i.e. cost). Cadbury denied this and maintained that it believed low levels of salmonella to be safe, but this differed from external thinking.

BP's twin focus on safety and financial performance contained a similar contradiction. Which was to prevail: safety or performance? At BP, the conflict was implicitly resolved – in favour of financial performance – by the executive incentive scheme. This allocated 70% of bonus to performance and 15% to safety.

There are other examples in our case studies:

- At **AIG**, Hank Greenberg's priority was 15% revenue growth, 15% profit growth and 15% return on equity. Those who did not deliver were 'blown up'. With this priority so clearly set, other priorities were at risk of being disregarded.
- At **Independent Insurance**, if other values were set, the message for those around Michael Bright was to be complicit in his concealing the true level of reserves. Most people complied or left without raising the alarm.
- At **Northern Rock**, the culture permitted employees to be pressured into under-reporting mortgage arrears.
- **Shell** had long regarded itself as a responsible and ethical company with an ethical leadership. The discovery that senior executives had overstated the reserves undermined this view.
- **BP** was criticised for having a 'compliance culture' as opposed to a culture that focussed on fixing the fundamentals.
- In the case of **Dasani**, did Coca-Cola realise that it could be seen as passing off processed tap water as something equivalent to spring water? We wonder whether Coca-Cola had thought of the issue in the light of potentially different stakeholder attitudes in different countries before they launched the product in the UK. If they had not, it suggests poor stakeholder analysis. If they had, it suggests a quasi-moral issue.

C2. **The risk of failure by boards to create, and embed, throughout their organisation, a coherent strategy on safety that covers both physical and organisational safety.**

Three of our studies – **Railtrack, Buncefield** and **Texas City Refinery** clearly illustrate the dangers of an inadequate safety culture. The Report of the

US Commission investigating the Deepwater Horizon concluded[15] that BP's safety culture, found to lack focus on process safety at the time of the Texas City Refinery explosion, retained this inadequacy by the time of the Deepwater Horizon disaster. Lack of a good, well-embedded safety culture not only makes it more likely that things will go wrong, but exacerbates the consequences if things do go wrong.

'Safety', however, is not just a matter of physical safety. Organisational safety also matters. For example, banks that employ the intrinsically unstable 'borrow short, lend long' business model have a critical dependency on maintaining liquidity – and the reputation for having liquidity. **Northern Rock** was no exception, but the risk of inadequate liquidity was not adequately considered. Northern Rock could not operate safely without adequate liquidity, but the board failed to ensure it could be maintained at all times.

Similarly, particularly through AIGFP, **AIG's** business model depended critically on maintaining its AAA rating. The board seems not to have considered the effects of losing that rating. The effect of its loss was to put AIGFP into a cycle of having to post more cash to support AIGFP's derivative contracts, being further downgraded and, as a result, having to post yet more cash.

This cycle was the main cause of AIG's effective collapse and subsequent bailout.

A board's strategy also needs to be coherent. We have already commented on the internal contradictions inherent in Cadbury's 'Performance Driven, Values Led' philosophy and in BP's twin focus on safety and financial performance. We have also seen how, in the case of BP, the contradiction seems to have been resolved in favour of financial performance.

C3. The risk of failing to ensure that the business's moral compass and safety strategy are also implemented throughout its supply chain

Where the safety of consumers is concerned, businesses have a key interest in the actions of those in their supply chains. When it comes to the ethicality of dealings in the supply chain, consumers and their proxies in many countries have come to demand the same standards as they demand of the organisation itself.

- A major factor in the **Hatfield** and **Potters Bar** rail crashes was an inadequate safety culture within the maintenance companies to which Railtrack, and later Network Rail, had subcontracted maintenance work. This was a key source of risk to both.
- In the case of **Zurich Insurance's** data loss, the firm had assumed, without checking, that its South African sibling company would adhere to data protection standards that were similar to its own.
- As already noted, **Land of Leather's** business model came to focus on selling cheap Chinese sofas, apparently assembled in back-street factories in South China by poorly paid workers. When a product safety issue arose, its supply chain and the 'exploitation' of Chinese workers came back into focus.

C4. The risk of perceived double standards

Double standards and their cousin, hypocrisy, are issues of personal morality. Examples from public life have long been food for the media, particularly when the media is able to contrast what a politician preaches with what they do. But perceptions of double standards and hypocrisy can also damage companies and their leaders.

- A core element of **Maclaren's** difficulties with its pushchair 'recall' was the perception that it was treating its UK and other European consumers in a less caring manner than its US consumers.
- In the case of **Société Générale,** it was alleged that traders were allowed to ignore trading limits and 'smooth' results – at least while things were generally going well.
- As regards **Shell**, the company had built a reputation as a global leader in CSR. One director had published a book emphasising the need for senior management to be totally committed to living the company's commitments to CSR, good corporate behaviour and other corporate cultural objectives, and not just pay lip service to these concepts. However, the reputational capital built up by this positive activity was undermined once it was perceived that the company tolerated what some would see as unethical behaviour in the setting of its reserving levels.

D <u>Defective Communication: Risks from the defective flow of important information within the organisation, including to board-equivalent levels.</u>

D1. The risk that information does not flow freely in all directions – up and sideways as well as down – and from the very bottom to the very top of the organisation

Without a free flow of information, things that are known within the organisation, but not to its leaders and their proxies, will flourish hidden from leaders' sight. We have adopted the descriptive shorthand 'Unknown Knowns'[16] to identify them. As a result, leaders can live in what has been described as a 'rose-tinted bubble'.[17] Risks that are 'Unknown Knowns' can be unnecessarily dangerous because, being unrecognised, they remain unmanaged. Boards have to set the tone on freedom – and the incentive – to share information, which is also fundamental to an effective learning culture. (A different, but connected problem – 'not listening' – is dealt with in the next section.) Examples from our case studies include the following.

- **Railtrack** and **Network Rail** were criticised for having poor communication with subcontractors, and this was a contributory factor to poor safety standards.
- After the **Buncefield** explosion, there was criticism of poor communication with contractors before the explosion.
- In the cases of **Independent Insurance**, **Enron** and **AIG**, there was poor internal communication about problems because of the hectoring and/or bullying behaviour of the leadership. This blocked internal routes to NEDs becoming aware of what was going wrong.
- In the case of the **Airbus A380** delays, middle managers kept the problem of non-matching aircraft sections from senior managers for six months. This seems to have resulted, at least in part, from a culture that did not allow the freedom to criticise – essentially a communication problem.
- The background to the **Texas City Refinery** fire included poor vertical communication, which meant that there was no adequate early warning of problems and no means of understanding the growing problems on the site. BP's approach to decentralisation also meant that top management had not effectively communicated its priorities, including those on safety, to its operating units.

D2 Risks in a culture that does not listen or learn from experience

The evolution of human knowledge is a tale of learning from experience – personal experience and the experience of others, whether contemporary or historical. Organisations often have difficulty in learning from experience, whether it is their own or that of others. We saw numerous examples in our case studies

- BP was criticised following the **Texas City Refinery** explosion for not absorbing lessons from previous incidents at its own refineries in the UK.
- The leaders at **Société Générale** should not have been surprised about the possibility of their harbouring a 'rogue trader'. Between Nick Leeson (who brought down Barings in 1995) and 2008, the activities of at least seven other major rogue traders were uncovered, roughly one every two years.
- The **Passport Agency** was severely criticised on two counts: failure to learn from its 1989 IT roll-out debacle and failure to learn from the 1998/9 pilot scheme's problems when that project went off the rails. The Agency pressed ahead with the 1998/9 roll-out regardless of the pilot's known problems, causing chaos.[19]
- One of the lessons explicitly learned by **Arthur Andersen** concerned the risks inherent in 'problem clients'. An internal memo written shortly before the firm's demise emphasised that '… client selection and retention are among the most important factors in determining our risk exposure … [we must] have the courage to say no to relationships that bring unacceptable levels of risk to our firm'. In spite of this, and despite a discussion in 2001 about the wisdom of retaining Enron as a client, the decision was made to do so.
- **Firestone** had to conduct a major recall of defective tyres in 1978, but the lessons of that recall seem not to have been learned. When the circumstances surrounding Firestone's tyre recall of 2000 were investigated, it became apparent that the company had been aware of potential production problems with its tyres as far back as 1994, just as it had been aware of tyre quality problems long before the 1978 recall was announced. The firm had even increased production of its tyres in the hope that this would dilute the failure rate – i.e. reduce the ratio of faulty to non-faulty tyres.
- In the case of the **EADS Airbus A380** delays, complacency seems to have been one reason why middle managers hid problems from senior managers –

a failure to recognise not only that there were problems needing to be fixed but also that there were lessons that needed to be learned. There seems also to have been a culture of buck-passing between French and German partners, rather than one of investigating and learning lessons.

In contrast:

- **Coca-Cola** had clearly learnt a great deal from the experience of its 1999 crisis in Belgium. As a result, the firm appears to have developed an effective crisis strategy and the means to carry it out efficiently. Its decisive handling of the Dasani crisis is evidence for this.
- **Maclaren** was aware of fifteen previous incidents of severe injuries to children, including twelve finger amputations, eight of which had occurred in the last two years. Maclaren identified the need for a solution and implemented it, even if the firm's response was initially mishandled in the UK.
- **Société Générale** had recently been reminded, by the recent Northern Rock run, of the importance of avoiding a run on its own bank – and this seems to have strongly influenced its strategy.

Not listening is often a cause of failure to learn from experience as well as a symptom of 'groupthink', but its impact can go much wider.

- Neither **Independent Insurance's** auditor, nor its actuary, nor its regulator seems to have heeded the prevailing market view that Independent's results were 'too good to be true'.
- Before Kerviel's unauthorised trading came to light, two types of warning went unheeded. First, enquiries had been made to **Société Générale** by Eurex, the derivatives exchange on which Kerviel was trading, about his unusual trading patterns and, second, there were 75 internal alerts between June 2006 and early 2008 that should have alerted Kerviel's managers to his unauthorised dealings.
- It seems that the **Passport Agency's** decision to roll out its pilot scheme to a second office was partly the result of the Agency's leaders not listening to the unwelcome news that the first phase of the roll-out was not going well.
- **Enron's** Chairman, Ken Lay, received a letter from a 'whistle-blower' who feared 'a wave of accounting scandals'. When Lay eventually met the writer, the inquiry he instigated was ineffectual. He asked the company's lawyers to investigate. They asked Arthur Andersen. The company lawyers then said it was 'OK if Andersen said it was OK'. Perhaps Lay preferred not to receive bad news.
- As mentioned earlier, two years before the company's reserving crisis, **Shell's** internal auditors had 'prominently flagged' the risk that Shell's bonus system might encourage the inflation of reserves bookings. The problem they identified was that reserves additions had been incorporated into Shell's 'score card' bonus system, through which executives were awarded additional pay-outs if their business units achieved certain targets. The relevant Wall Street Journal article indicates that the reports went to a range of senior executives within Shell. It is not clear whether the internal auditor's report was not acted on because of 'not listening' or because it was judged to be wrong.

E. Risks from Organisational Complexity and Change, including acquisitions.

In his seminal book, Normal Accidents, Charles Perrow[20] lucidly argues that complexity is both a cause of accidents and of the exacerbation of accidents that have already 'begun'. Our case studies support the view that excessive complexity can be a key factor in major crises.

- **The EADS Airbus A380** project involved immense complexity at the levels of aircraft design, design IT, technology, procurement, manufacture and assembly. Additional complexity was caused by political demands that work be shared 'fairly' between operations in the UK, France, Germany and Spain (which did not share technology platforms) and insistence that the management structure should preserve a delicate Franco-German balance, with two CEOs, one from each country. This multi-dimensional complexity lay at the root of the debacle in which it was discovered that the wiring in different aircraft sections designed and made in different countries would not mate properly when the assemblies were brought together at Toulouse, leading to costly production delays.
- The **Hatfield** and **Potters Bar** rail crashes were partly a result of the increased complexity arising from outsourcing the core activity of rail maintenance.
- BP's **Texas City Refinery** explosion was partly the result of the BP's merger with Amoco, which had a very different culture. The merger made BP's management

and structure overly complex, and the Texas City Refinery came with a long history of poor maintenance.

- Many businesses affected by the **Buncefield** explosion seem not to have appreciated the complexity of their supply chains arising from just-in-time supply.
- **AIG's** business, particularly at **AIGFP,** was highly complex. It was partly understood by those who had built it, but their successors lacked the essential tools (e.g. strong maths and a knowledge of the history) to run it safely. Nor did AIG, its board or its regulators appear to understand the complexity of its business, its weaknesses or its place in the financial system when that highly complex system came under stress.
- Shortly before its collapse, **Arthur Andersen** came to realise that there was risk in the complexity of the marginal accounting techniques used by **Enron** – yet the decision was made to continue working for this client.
- **Northern Rock's** board appears not to have even considered the complexity of the financial markets on which its business model depended and how this might affect the bank's access to liquidity.

F. Risks from Incentives, whether explicit or implicit.

Incentives, whether explicit or implicit, can distort culture and behaviour in ways that endanger the organisation. Boards should be aware that the incentives they create or encourage can distort the outcomes they wish to achieve.

- Under BP's system of executive incentives, financial performance accounted for 70% of bonuses, whereas targets relating to safety contributed only 15%. This gave financial targets a predominance that may not have been fully intended.
- BP's executive team targeted personal and occupational safety, not process safety. It is not surprising that safety improvements missed the latter important goal.
- At **Independent, AIG** and **Enron**, the bullying nature of the firms' Chief Executives discouraged staff from speaking out about problems. This implicit incentive may have been intended by the CEOs concerned, but not by their boards.
- At AIG's **AIGFP** subsidiary, 50% of the large bonuses, set at the top, were dependent on short-term performance and were immediately available – the 'Trader's Option'. This is likely to have skewed performance towards short-term bonanzas based on profits that were largely made possible by 'free-riding' on AIG's substantial capital and its AAA credit rating.
- **Arthur Andersen's** system rewarded those who doubled audit fees through consultancy and punished those who did not. The incentives within this system seem to have influenced Andersen's decision to retain Enron as a client, despite its concerns about the firm.
- As previously discussed, the **Shell** reserving episode revealed that staff incentive schemes were linked to increases in the level of reserves. The internal auditor had twice flagged up his concerns about this. On the second occasion, the auditor emphasised his 'firmly held belief that the reserves-addition targets in these score cards present a potential threat to the integrity of the Group's reserves estimates'. Regardless of whether or not the bonus system actually led to a distortion of reserves, it appears that the auditor's advice was heeded only after the reserving crisis blew up.
- It appears that the management at **Land of Leather** focussed to a large extent on deriving profit from peripheral activities such as the sale of warranty or PPI insurance, and rewarded staff handsomely for success in doing so. This created the risk that both management and staff would 'take their eyes off the ball' and neglect key issues of safety, quality and customer service.

G. Risk 'Glass Ceiling': Risks arising from the inability of risk management and internal audit teams to report to the C-Suite and to NEDs on risks emanating from higher levels of their organisation's hierarchy, including risks from ethos, behaviour and strategy.

Internal audit and risk management teams are an important source of information to NEDs as well as to the business via its executives. We found cases in which the relatively low status of risk managers made them less effective than they could have been, and cases where their ability to report on risks presented by higher echelons of the organisation was restricted by their lower place in its structure.

The French bank **Société Générale** provides a good example. In January 2008, the bank discovered that a rogue trader, Jérôme Kerviel, had lost an amount eventually determined to be nearly €5 billion. Evidence of internal problems is found in the fact that there had been a series

of queries about Kerviel's trading. For example, there were several queries in November 2007 from the exchange on which he mostly traded, but these were not followed up. More than 70 oddities associated with his trading were reported internally, but the compliance officer was unable to challenge Kerviel or get the attention of his superiors. Clearly, companies are exposed to unnecessary risk when the status of their risk and compliance teams is so low (e.g. in relation to traders and senior staff) that they cannot do their job effectively.

Again, at **Independent Insurance, AIG** and **Enron**, internal controls such as Internal Audit and Risk Management were not strong enough to prevent fraud on the part of executives. While NEDs sincerely hope that the executives will not defraud the company or otherwise withhold critical information, it is essential that internal controls (of which Risk Management and Internal Audit are the most important) are sufficiently robust and all-pervading to police even the most senior executives.

Yet again, at **Arthur Andersen**, the internal controls on internal ethicality seem to have been sufficiently low in status that a branch operation could, in effect, collectively persuade the centre to override them.

IMPLICATIONS

Risk appetite is increasingly on board agendas. The UK's Combined Code[21] now requires that boards subject to the UK FRC rules should set risk appetite.[22] This cannot be done without a comprehensive understanding of all the risks the organisation faces and how they might combine. And, in looking at risk appetite, risks emanating from board level must be identified and brought into the discussion.

The seven overarching risk areas described earlier are fundamental to the ethos, safety, reputation and longevity of an organisation and to its ability to use its own information effectively. However, they seem to be rarely discussed either by firms or in the literature on risk analysis. Many are virtually taboo internally because they touch on the behaviour, decisions, performance and perceptions of senior echelons. Without listening to outsiders, boards can only see themselves as in a mirror. They are vulnerable to 'groupthink'. They cannot see themselves as others do. They face the risk of self-deception.

Some of these risks were perhaps conceptually alluded to in the UK Financial Services Authority's 2006 Risk Assessment Framework.[23] Some were discussed in relation to the financial sector in the UK's Walker Review[24] that followed the 2008 banking crisis. A few were given recognition in the Financial Reporting Council's 2011 *Guidance on Board Effectiveness*.[25] In the UK, the FRC is in the final stages of a consultation on the relationship between boards, NEDs and risk.[26]

In his forward to a recent report[27] by the Korn/Ferry Institute, Peter Brabeck-Letmathe, Chairman of Nestlé, wrote:

> *The events of the last two years put risk-related issues squarely on the front burner, and the flame remains high. Board members are proactively rethinking their approach to risk, asking: How does risk inform our corporate strategy? Have we lost sight of the fact that risk is the fuel for reward? Has our risk appetite become too conservative? Has the pendulum swing too far?*

An important discussion is beginning, but it must be based on sound assumptions. There has been an implicit assumption that boards have complete access to information on all important risks faced by their organisations, and a full understanding of them. Our report illustrates how wrong this assumption can be, even in the case of large, highly respected companies.

This state of affairs is not simply the fault of boards or risk managers, but the result of how, and how far, risk analysis and management have evolved over the last 60 years. Organisations such as Airmic, and its members, have played a full part in developing and applying the necessary techniques. As a result, they have made a significant contribution towards the mitigation of risk in society. They have helped create many of the familiar tools of traditional (hazard) risk management, and they have embraced the more recent concept of enterprise risk management.[28] We suspect that most risk managers make good use of the tools currently available to them.

However, our research shows that the scope and reach of risk analysis needs to evolve further, and with it, the range of risks that are managed and the approaches used to manage them. We see the seven areas highlighted above as the next challenges for Airmic and its members, as well as for boards and the risk community worldwide. Given that society has increasingly high expectations of corporate behaviour – and a sharply increased ability to find and broadcast embarrassing information – these challenges are doubly important.

What needs to be done?

Many risk managers and internal auditors will feel uncomfortable working in the areas highlighted in this report unless they have been able to gain the skills and experience necessary to question and discuss corporate strategy and senior management's leadership styles in an effective way. Furthermore, many of these risk areas are difficult for risk managers and internal auditors to explore, let alone report on. This is so because the need to question and sometimes criticise those above them in the hierarchy could be seen as a putting their careers at risk.

We have concluded that four important developments are necessary if risk managers are to be able to support boards effectively on these important risk issues.

1. **The scope, purpose and practicalities of risk management will need to be rethought from board level downwards in order to capture risks, such as those we have identified, that are not identified by current techniques.**

2. **At least some risk professionals will need to extend their skills so that they are – and feel – competent to identify, analyse and discuss risks emerging from their organisation's ethos, culture and strategy, and their leaders' activities and behaviour.**

3. **The role and status of risk professionals will have to change so that they can confidently report and discuss all that they find on these subjects at all levels, including board level.**

4. **Boards, and particularly Chairmen and NEDS, need to recognise the importance of risks that are not captured by current techniques. They also need to focus on how to ensure that the missing risks are captured.**

How this can best be achieved is a question beyond the scope of this report, although the work involved in these four areas, particularly the first two, would be a natural extension of our research. We suspect that there is also a need for more sophisticated NED and Executive education directed towards the understanding, evaluation and engagement with risk. This needs to go far beyond risk analysis and aversion, to bring risk and risk appetite routinely into board thinking about opportunities and reward.

Some of these issues were partly raised in the context of Chief Risk Officers of 'Banks and Other Financial Institutions' (BOFIs) in the Walker Report.[29] There has also been some discussion[30] of what a 'BOFI' CRO should look like; and the Korn/Ferry report, to which we have referred above, recognises the need for boards to engage more with risk-related issues.

CONCLUSION

The underlying risks we have highlighted are potentially inherent in any organisation. If they are unrecognised and unmanaged, these risks can pose a lethal threat to the future of the largest and most successful business. Firms lose an important opportunity to deal with potentially existential threats if risks such as these are not sought out, identified and addressed.

Boards, and particularly Chairmen and NEDs, can have a large blind spot in this dangerous area. Without board leadership, these risks will remain hidden because only boards have the power to ensure that enough light is shed on these hard-to-see risks.

As we have observed, risk appetite is increasingly on board agendas. Boards subject to UK FRC guidelines now have to set risk appetite. This report should be the impetus for a change in boardroom thinking, transforming risk from a tedious Cinderella 'hygiene' subject into one that is, with risk appetite, as comprehensively a part of the currency of strategy discussion as its siblings, Opportunity and Reward. NEDs and executive directors may need to obtain specialist education to increase their understanding of risk and boost their confidence in discussing it.

Having learnt what they may not be seeing, wise boards will prefer to fly with their eyes wide open, not blinkered. They will also need risk professionals with enhanced vision and skills to guide them.

1. Although we were unable to fully assess the role of insurance in every one of our case studies, it is striking how small a part insurance appeared to play in most of them.
2. 'Groupthink' may be defined as a psychological phenomenon that occurs within groups of people. Group members try to minimise conflict and reach a consensus decision without critical evaluation of alternative ideas or viewpoints. The reasons for such a state of affairs may vary.
3. This classification is taken from a diagram of the 'McKinsey 7-S Framework' illustrated in In Search of Excellence by Thomas Peters and Robert Waterman, 1982 Warner Books.
4. Two reports suggest this may be a profitable avenue to explore. McKinsey's report, Women Matter (2007) at pages 12 et seq www.mckinsey.com/locations/paris/home/womenmatter/pdfs/Women_matter_oct2007_english.pdf; and the Davies report Women on Boards (2011).
5. See the BBC report at www.bbc.co.uk/news/uk-england-12042563.
6. The Civil Service: Report of a Committee chaired by Lord Fulton: HMSO 1968 Cmnd 3638, Chapter 1 et seq
7. Berkshire Hathaway Shareholder Letter 2010, www.berkshirehathaway.com/letters/2010ltr.pdf at page 26
8. Ibid at page 16
9. Nassim Nicholas Taleb, Fooled by Randomness, (2nd Ed), Random House, 2005
10. Internal Control: Revised Guidance for Directors on the Combined Code. Financial Reporting Council, London. 2005, though the requirement can be traced back to 1999
11. Sir David Walker, A review of corporate governance in UK banks and other financial industry entities: final recommendations 2009
12. The UK Corporate Governance Code, Financial Reporting Council, London, 2010
13. Ibid at page 19: 'The board is responsible for determining the nature and extent of the significant risks it is willing to take in achieving its strategic objectives.'
14. See Normal Accidents, Charles Perrow, Princeton University Press, 1999
15. Deep Water, The Gulf Oil Disaster and the Future of Offshore Drilling, Report to the President [of the USA], January 2011 ISBN: 978-0-16-087371-3
16. Unknown Knowns, Anthony Fitzsimmons, http://reputabilityblog.blogspot.com/2011/04/unknown-knowns.html, 2011
17. Annual Management Report, Roffey Park, 2011, described in its press release at www.roffeypark.com/press/Pages/ManagementAgenda2011.aspx ; and 'Do boards live in a rose-tinted bubble? Anthony Fitzsimmons, 2011 http://reputabilityblog.blogspot.com/2011/01/do-boards-live-in-rose-tinted-bubble.html
18. Sadly, this is not a new observation. Georg Hegel observed: 'What experience and history teach is this – that people and governments never have learned anything from history, or acted on principles deduced from it.' Lectures on the Philosophy of History, published 1837.
19. The reason, at least in part, may have been a loss of corporate memory; but the UK Civil Service has a record of disastrous IT projects suggesting a systemic ineptitude. It may also be a result of the Civil Service's culture of the 'talented amateur' – see note 7.
20. See Perrow Supra note 15
21. The UK Corporate Governance Code, Financial Reporting Council, London, 2010

22. Ibid at page 19: 'The board is responsible for determining the nature and extent of the significant risks it is willing to take in achieving its strategic objectives.'

23. The FSA's Risk Assessment Framework of August 2006, Annex 1, www.fsa.gov.uk/pubs/policy/bnr_firm-framework.pdf

24. Sir David Walker, ibid

25. Guidance on Board Effectiveness, Financial Reporting Council, London, 2011

26. See speech by Stephen Hadrill, Chief Executive of the FRC, to Audit Committee Chairs on 6 December 2010, to be found at www.frc.org.uk/images/uploaded/documents/SH%20Audit%20Committee%20Chair%20Event%206%20DEC2.pdf

27. See Calculated Risk – the view from the boardroom, Korn/Ferry Institute, 2011

28. See Dickinson, G. 'Enterprise Risk Management: Its Origins and Conceptual Foundation', The Geneva Papers on Risk and Insurance Vol. 26 No. 3 (July 2001) pp. 360-366. Gerry Dickinson is a pioneering academic proponent of ERM who spread the word among many audiences, including hundreds of students, over the years.

29. Sir David Walker, ibid

30. See Risk Upgrade – The Rise of the New Model CRO in the Financial Services Sector, Hedley May, 2010 and A New Breed of Chief Risk Officer by Anthony Fitzsimmons, 2011 http://reputabilityblog.blogspot.com/2011/03/new-breed-of-chief-risk-officer.html

31. See Korn/Ferry Institute 2011, ibid

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