

REPORTING BUSINESS RISKS: MEETING EXPECTATIONS

INFORMATION FOR BETTER MARKETS INITIATIVE



BUSINESS WITH CONFIDENCE

icaew.com/frf

Reporting Business Risks: Meeting Expectations forms part of the *Information for Better Markets* thought leadership programme of ICAEW's Financial Reporting Faculty.

Requirements for businesses to report their risks have now been in place in a number of countries for some years, and there seems to be a common view that their results have been disappointing. There is widespread agreement that businesses should report better information about the risks they face, and this determination has been reinforced by the wish to avoid another global financial crisis.

But before fresh requirements are introduced, we need to understand why good risk reporting has proved to be so difficult in practice and why risk reporting may prove to be less useful to investors and other users of corporate reporting than has generally been assumed.

In this report we look at the problems and limitations of risk reporting, but also suggest how it could be improved.

ICAEW operates under a Royal Charter, working in the public interest. As a world leading professional accountancy body, ICAEW provides leadership and practical support to over 136,000 members in more than 160 countries, working with governments, regulators and industry to ensure the highest standards are maintained.

The ICAEW Financial Reporting Faculty provides its members with practical assistance and support with IFRS, UK GAAP and other aspects of business reporting. It also comments on business reporting issues on behalf of ICAEW to standard-setters and regulators. Its *Information for Better Markets* thought leadership programme subjects key questions in business reporting to careful and impartial analysis so as to help achieve practical solutions to complex problems. The programme focuses on three key themes: disclosure, measurement and regulation.

We welcome comments and enquiries on this work and on the other aspects of the *Information for Better Markets* programme. To contact us, please email bettermarkets@icaew.com.

© ICAEW 2011

All rights reserved. If you want to reproduce or redistribute any of the material in this publication, you should first get ICAEW's permission in writing. ICAEW will not be liable for any reliance you place on the information in this material. You should seek independent advice. October 2011

ISBN 978-0-85760-291-6

REPORTING BUSINESS RISKS: MEETING EXPECTATIONS

INFORMATION FOR BETTER MARKETS INITIATIVE

CONTENTS

EXECUTIVE SUMMARY	iii	
1. THE DEMAND FOR RISK REPORTING	1	
1.1 Objectives of the report	2	
1.2 What is risk?	3	
1.3 Growing demand	4	
1.4 ICAEW's earlier work	6	
1.5 Outline of the report	8	
1.6 Chapter summary	9	
2. EXPERIENCE OF RISK REPORTING	11	
2.1 The evidence	12	
2.2 Performance discussion as risk disclosure	14	
2.3 Discussion of the evidence	14	
2.4 Risk reporting and the financial crisis	15	
2.5 A puzzle	16	
2.6 Chapter summary	16	
3. RISK REPORTING CHALLENGES	19	
3.1 Five challenges	20	
3.2 Inherent unreliability	20	
3.3 Costs exceed perceived benefits	22	
3.4 Generic risk reporting	24	
3.5 Risk management disclosures	25	
3.6 Inevitable limitations	27	
3.7 Users' responses to risk information	28	
3.8 The cost of capital problem	29	
3.9 Realistic expectations	30	
3.10 Chapter summary	30	
4. THE WAY FORWARD	33	
4.1 Better risk reporting	34	
4.2 Tell users what they need to know	35	
4.3 Focus on quantitative information	36	
4.4 Integrate into other disclosures	38	
4.5 Think beyond the annual reporting cycle	41	
4.6 Keep lists of principal risks short	42	
4.7 Highlight current concerns	43	
4.8 Report on risk experience	44	
4.9 Chapter summary	44	

APPENDIX 1: REQUIREMENTS FOR RISK DISCLOSURES	
A1.1 US	47
A1.2 EU	48
A1.3 Germany	48
A1.4 UK	48
A1.5 Basel II Accord	49
A1.6 IFRS	49
APPENDIX 2: CALLS FOR IMPROVED RISK REPORTING	53
A2.1 Operating and Financial Review	53
A2.2 Improving Business Reporting – A Customer Focus	54
A2.3 Senior Supervisors Group	54
A2.4 IASB's management commentary framework	55
A2.5 International Corporate Governance Network guidelines	56
A2.6 Financial Reporting Council	56
APPENDIX 3: RESEARCH EVIDENCE ON RISK REPORTING	57
A3.1 US	57
A3.2 Canada	59
A3.3 Germany	59
A3.4 Italy	60
A3.5 UK	61
A3.6 Banks	62
A3.7 The covariance of profitability	63
A3.8 Accounting and the variability of returns	63
A3.9 Accounting and the probability of default	64
APPENDIX 4: RISK REPORTING AND THE FINANCIAL CRISIS	65
A4.1 The response to the crisis	65
A4.2 Possible explanations	65
A4.3 Research findings	66
A4.4 Other investigations	66
A4.5 Discussion	67
ACKNOWLEDGEMENTS	74
BIBLIOGRAPHY	75

EXECUTIVE SUMMARY

Chapter 1: The demand for risk reporting

A growing demand for better reporting of business risks has emerged in recent decades. This is based on the belief that improved understanding of business risks by investors and other users of corporate reporting should lead to better stewardship of companies and to a more efficient allocation of resources.

It is generally accepted that there was a widely-shared underestimation of risk before the financial crisis of 2007 and beyond. This has reinforced calls for improved risk reporting, by banks in particular, in the expectation that it should help make future crises less likely. But the crisis has also led to calls for better risk reporting by companies in all sectors.

The demand for better risk reporting is an entirely legitimate one, and risk reporting can and should be improved. But careful consideration needs to be given to how it should be improved and to how far the expectations of all those who now call for change can be met. Risk in business is about much more than the possibilities of corporate failure. Yet unexpected collapses, especially when there is a rash of them in a crisis, inevitably focus attention on the quality of risk reporting and may give rise to unrealistic expectations that better risk reporting could prevent future failures. But in a competitive economy business failures are inevitable, and it would be unreasonable to expect risk reporting to provide a reliable early warning of which businesses are most likely to fail – still less to prevent their failure.

This report is intended as a timely contribution to debate about how risk reporting should evolve. It reviews both the general experience of risk reporting to date and the risk reporting of financial institutions before the crisis (Chapter 2), considers why risk reporting is thought to have been disappointing (Chapter 3), and suggests ways to improve it (Chapter 4).

Chapter 2: Experience of risk reporting

Researchers who have looked at the experience of risk reporting by businesses across different sectors often express a degree of disappointment with it, sometimes suggest that disclosure requirements have had limited effect, and tend to make comments along the lines that there is 'formal disclosure but substantial non-disclosure'. Actual research findings are mixed. While there is some evidence that both quantitative and qualitative risk reporting may have been useful, there is also evidence that qualitative risk reporting is not considered useful by some users of corporate reporting. Indeed, users appear to have conflicting views on risk reporting – some finding it useful, some not.

As for banks specifically, there is a widespread and understandable view that there must have been inadequate risk reporting in the run up to the financial crisis. There appears to be little evidence so far, though, that qualitative risk reporting before or during the crisis failed to reflect banks' assessments of the risks that they faced. It seems more likely that the misleading impression given by qualitative risk reporting ahead of the crisis was in most cases attributable to banks' mistaken assessments of risk, rather than to a failure to report recognised risks. These misperceptions of risk were widely shared, and not peculiar to bankers. But with the benefit of hindsight, it seems reasonable to conclude that the requirements for banks' quantitative, analytical risk disclosures before the crisis were inadequate, and there may also have been a degree of non-compliance.

Chapter 3: Risk reporting challenges

We identify five main reasons why the usefulness of risk reporting by businesses across different sectors sometimes seems to be in doubt:

• It is impossible to know even after the event whether most qualitative, and some quantitative, risk reporting is accurate or inaccurate. This must limit the reliance that users can place on it.

- There are often competitive costs to informative risk disclosures and they also have potential costs for managers. These costs may exceed the perceived benefits of risk reporting, leading to uninformative disclosures. Indeed, risk reporting creates its own risks and so needs to be undertaken by preparers, and interpreted by users, as an exercise in risk management.
- It may well be appropriate to comply with requirements for the provision of risk lists by making generic disclosures, even though they will be seen as boilerplate.
- The effectiveness of a firm's risk management depends on the quality of its managers, and this is something that statements of the company's attitude to risk and disclosures of internal structures and procedures are unlikely to reveal.
- There are some risks that firms will never report and others that they are always liable to understate.

For many users, therefore, risk lists may provide little if any useful new information. When they do provide new information, it may be difficult for users to know how to reflect it in their own decisions.

Because of the problems with risk reporting that we have identified, it is unclear whether improved risk disclosures actually reduce the cost of capital, as had been hoped. It is possible that they increase the cost of capital.

In the final chapter of this report, we suggest seven principles for better risk reporting by businesses. But even if these principles are adopted, people will still be disappointed by risk reporting if their expectations for it are unrealistic. With the benefit of hindsight, people often wonder why firms failed to foresee problems ahead and they tend to forget that the future is always full of unknowns, including 'unknown unknowns'. Investors need to recognise the inevitable limitations of risk reporting and so have realistic expectations of how much it can achieve.

Chapter 4: The way forward

It is important to have practical solutions to the problem of how to improve risk reporting. Risk reporting requirements vary widely among different jurisdictions, and so it would be impractical to put forward improvements to them that would have general validity. In any case, and perhaps more importantly, the evidence suggests that risk reporting requirements often have only limited effectiveness.

For these reasons, our suggestions – set out in seven principles – do not include any proposals for new or tougher regulation. The principles are purely points for consideration by those interested in improving risk reporting and by preparers of corporate reporting information, and are intended to apply to public companies in all sectors.

The seven principles for better risk reporting are:

- Tell users what they need to know. Users of corporate reporting want information about a company's risks so that they can make their own assessment of risk. Companies should focus on this objective in deciding what to disclose.
- Focus on quantitative information. Disclosing more detailed analyses of the quantitative data that firms already provide would give helpful new information. Too much weight has been placed on the production of descriptive risk lists. This is not a call for quantification of risks, which usually involves dubious assumptions about the probability of future events. Nor is it a call for qualitative information to be neglected. What we have in mind is more information on the breakdown of firms' activities, geographically and by sector, and on their assets, liabilities and commitments.
- As far as possible, integrate information on risk with other disclosures. Financial reporting provides much information on risks already, and this should be integrated with other risk disclosures. But information on risk should also be integrated with firms' descriptions of their business models, their forward-looking disclosures, their discussion of past performance, and their financial reporting. A firm's risks are usually inherent in its business model, so explaining the business model should involve explaining its risks. Risk is forward-looking and cannot be fully understood except in the context of broader forward-looking information about a firm's performance, plans and prospects.

- Think beyond the annual reporting cycle. Many risks stay the same from one year to the next. Others are highly variable and information on them needs to be updated more frequently than once a year. The internet, rather than the annual report, would probably be the right place for information on both sorts of risk.
- Where possible, keep lists of principal risks short. Users are currently faced with long and indigestible risk lists that are all too easy to ignore. Where it is useful for companies to disclose other risks as well as those identified as the principal ones, they should still do so.
- **Highlight current concerns.** It is likely to be of interest to users to know what risks are currently most discussed within a firm. These will often be different from the firm's principal risks, and disclosing them could give users a valuable insight into the business.
- **Review risk experience.** Companies could usefully review their experience of risk in the reporting period. What went wrong? What lessons have been learnt? How do their experiences match up with the risks that they had previously reported?

As for banks, their quantitative risk disclosures have already been expanded since the onset of the crisis through changes in accounting standards, implementation of Pillar 3 of the Basel II Accord on banking supervision and expansion of its requirements. Further improvements may be possible. Stress tests organised by banking and insurance supervisors, where they are based on appropriate assumptions, can also provide valuable information about risk, and it would be helpful to explore the use of such disclosures as an additional form of risk reporting by banks and insurers.

One outcome of all the changes that we suggest might well be that there is less of what is labelled as 'risk reporting' in companies' annual reports. But the proposed changes would mean that, overall, there is more useful information about risks. This should assist investors and other users of corporate reporting to form their own judgements on risk and, in this way, should also contribute to better stewardship of companies, a more efficient allocation of resources, and greater financial stability.

1. THE DEMAND FOR RISK REPORTING

There has been a risk reporting explosion in recent decades. This may reflect an increase in risk. It may also reflect growing demand for risk warnings on all kinds of products and services.

But what is risk? Why do people want businesses to report it? And are businesses able to meet expectations for risk reporting?

1. THE DEMAND FOR RISK REPORTING

1.1 Objectives of the report

Every business enterprise involves the risk that it will fail to achieve its objectives. The higher the risks it faces, the higher the return it will want to justify the risks that it takes. These risks are specific to its particular business model and its particular circumstances, but other businesses that have similar models and are in similar circumstances are likely to face similar risks.

Investors face various kinds of risk.¹ They face at one remove the risks that the business faces – so if the business fails, they lose their money. From this point of view, investors need information about risk so that they can perform their own risk assessments. They take a business's risks into account, so far as they are aware of them, in considering whether and on what terms to invest in it. But they also face additional risks because in some respects they have less information about the business than its managers do. So market valuations of a company may be unduly high (or low), and liable to sudden corrections as risks (or opportunities) that are known to managers become public knowledge.

The greater the uncertainties that investors themselves face because of information asymmetry, the higher the return they are likely to demand.² From a business's point of view, this higher return means a higher cost of capital. Better disclosure about the risks faced by a business reduces information asymmetry, and so – it is often argued – should result in a lower cost of capital for the business. Against this, it has been argued that the disclosure of risks of which investors would otherwise have been unaware should increase the cost of capital as it increases the perceived level of risk associated with the business. We discuss this issue further in Chapter 3.

Improved information on risk also allows investors to make better-informed decisions as to how they will choose to influence the actions of firms' managers and where they will put their money. It should therefore result in both more effective stewardship of individual firms and a more efficient allocation of resources. In addition, external reporting of risks should encourage firms to improve their management of risks.

There has been growing demand in recent decades for businesses to report more and better information about the risks they face. The demand for better risk reporting – especially by banks – has intensified markedly in response to the global financial crisis of 2007 and beyond,³ and reflects a widespread view that reporting of risks ahead of the crisis failed to provide adequate information on them. As a result, fresh requirements for risk reporting have already been imposed (eg, in financial reporting standards) and further requirements may well be imposed, either on banks specifically, financial institutions more widely, or possibly on businesses in general.

Risk reporting is an issue on which ICAEW did pioneering work between 1997 and 2002 when it called for risk reporting to be significantly improved. Since then there has been a considerable expansion of risk reporting. But calls for further progress are entirely legitimate, and risk reporting can and should be improved. The key questions are how it should be improved, and how far the expectations of all those who now call for change can be met.

Risk in business is about much more than the possibilities of corporate failure. Yet unexpected collapses, especially when there is a rash of them in a crisis, inevitably focus attention on the quality of risk reporting and may give rise to unrealistic expectations that risk reporting can prevent future failures. It should not be expected, though, that risk reporting could ever provide a reliable early warning system to tell users of accounts which businesses are most likely to fail.

¹ In this report we adopt the conventional approach of considering risk reporting by businesses to be primarily for the benefit of investors, who we take to include lenders as well as equity investors. But information on risk should be useful for other stakeholders too.

² Reducing information asymmetry also reduces investors' estimation risk, which is a separate risk in its own right. For simplicity, we shall refer just to information asymmetry. See Christine A. Botosan, 'Disclosure and the cost of capital: what do we know?', pp33-34. Details of works cited are given in the Bibliography.

³ For convenience, we will subsequently refer to this as simply 'the financial crisis' or 'the crisis'.

In a competitive economy, there will always be business failures. Some of them will be predictable (though probably not on the basis of what is usually referred to as 'risk reporting'), but for many of them failure will be unexpected until quite late in the day. Risk reporting, however good it is, cannot overcome this problem.

This report is intended to contribute to the debate on how risk reporting should now evolve – work that we started in the ICAEW Financial Services Faculty's 2010 report, *Audit of Banks: Lessons from the Crisis*. In doing so, it will be appropriate to refer back to ICAEW's earlier publications in the light of what can be learnt both from previous debates and from subsequent experience of risk reporting. Most importantly, the report suggests directions for change so as to improve the reporting of business risks.

1.2 What is risk?

People mean different things when they talk about 'risk' in the context of risk reporting. Usually they mean risk in the negative sense of a possibility of incurring losses or reduced profits or something else disadvantageous. Sometimes they talk about 'risks and opportunities' or 'risks and rewards' together, so it is clear that the negative risks are being coupled with the positive opportunities or rewards. Most risk reporting in practice is about risk in the negative sense, and it is this usage that we generally follow in this report.

But there are also other usages of 'risk'. Sometimes it refers to any uncertain future outcome. The potential outcome may be either good (an upside risk) or bad (a downside risk). An extension of this meaning sees risk as variability around an outcome; we discuss this further in a moment.

Some writers, following the economist Frank H. Knight, make a distinction between risk and uncertainty. Knight distinguishes between risks that can be measured and those that cannot, and suggests that a measurable risk is a risk 'proper', while an unmeasurable one is an uncertainty.⁴ Perhaps the clearest examples of risks that can be measured arise in games of chance when someone throws dice, draws a card or spins a roulette wheel. In such games, the odds against any particular outcome can be stated with mathematical precision. This sort of risk is unusual in business. But there are other kinds of risk in business that do come close to this degree of certainty. These are risks that can be calculated from statistical evidence taken from large populations of items or events. They would include, for example, the number of errors likely to arise in highly repetitive production processes – a firm may know with a high degree of precision how many faulty parts per million it is likely to produce. Insurers also rely on risk calculations of this sort.

While such calculable risks may well be relevant to certain elements in financial statements – especially for insurers – most business risks are, in Knight's terms, uncertainties.⁵ This is a point that has important implications for risk reporting, as it means that the risks concerned are unmeasurable, at least in an objective sense. So any reporting of them, whether in the financial statements or elsewhere, may be forced to be qualitative or, to the extent that it is quantified, be subjective or restricted in its scope (eg, disclosing the effects of specified changes in market rates on existing positions). Some quantifications of risk, supposedly derived from objective calculations, are not only subjective, but verge on the bogus. Claims based on a few months' or a few years' experience that something is a 'one in a billion chance' or a 'once in a thousand years event' usually come into this category. Such risks are usually unmeasurable uncertainties.

Calculations of risk as variability around an outcome are often of this sort. For many items that are actively traded in markets it is possible to establish a statistical record for changes in the item's price, and to derive from this probabilistic distributions that show the frequency of differing amounts of deviation from an expected outcome. These measurements of historical price volatility are described as measurements of risk and can be used to produce financially quantified measures such as 'value at risk' (VaR). They are of course only valid as forward-looking measurements of volatility as long as the future resembles the recent past from which the data are derived. While some might say that this is like driving a car by looking in the rear-view mirror, the short-term future usually does show a degree of continuity with the recent past, so such measurements are a useful tool for risk management. But they are not true measurements of risk as the path of future price movements is always an unmeasurable uncertainty.

The meaning of risk as variability around an expected outcome is important as it underlies much risk management, especially in financial institutions, some risk reporting, and also some research into financial reporting and risk.

⁴ Frank H. Knight, *Risk, Uncertainty, and Profit*, pp19-20.

⁵ Knight suggests that, in competitive markets, it is only in the presence of uncertainty (as he defines it) that businesses are able to make a profit in excess of the standard rate of return on capital.

'Risk is inherently subjective... [R]isk does not exist 'out there', independent of our minds and cultures, waiting to be measured. Instead, human beings have invented the concept *risk* to help them understand and cope with the dangers and uncertainties of life. Although these dangers are real, there is no such thing as real risk or objective risk. Even the simplest, most straightforward risk assessments are based on theoretical models, whose structure is subjective and assumption-laden and whose inputs are dependent upon judgment.'⁶

1.3 Growing demand

Calls for more information on risk in corporate reporting may be seen as an instance of demands for more and better risk warnings on all kinds of products and services – from investments (which 'can go down as well as up') to packaged foods (with their contents analysed and listed) to coffee machines (that bear the optimistic warning 'dispenses hot liquids'). While much of this information is useful and allows investors, consumers and others to make better-informed decisions, not all of it is intended to meet user needs. Some of it is intended to protect the information provider from litigation. And some of it is intended to protect regulators from criticism. The same may well be true of risk information in corporate reporting.

However, firms have more to report about risk than in the past, partly because of the explosion of new financial instruments over the past 30 years and the huge amounts of money invested in them, but also because of the pace of change in business, which means that business models are seen as increasingly risky. The IT sector and enterprises dependent on new developments in IT perhaps provide the best illustrations of the trend towards novel, and arguably riskier, business models. But even tried and tested business models may be riskier than they used to be as they become subject to challenge through rapid changes in markets and technologies.

The growing demand for better risk reporting in recent decades may also be seen as part of a broader trend of dissatisfaction with the limitations of historical financial reporting information and, to compensate for these limitations, a move towards more extensive non-financial and forward-looking disclosures. These broad trends were discussed in two earlier reports in the *Information for Better Markets* series: *New Reporting Models for Business* (2003) and *Developments in New Reporting Models* (2009).

Growing demand for risk reporting is also part of a broader interest – or perhaps faith – in risk management, which has grown dramatically in recent decades.⁷ This in turn is perhaps a reflection of the new and increasing risks, particularly in relation to financial instruments, that we have already noted.

The first important attempt to meet the demand for increased risk disclosures was the 1980 remodelling of the rules of the US Securities and Exchange Commission (SEC) for a management discussion and analysis (MD&A).⁸ The MD&A rules include a requirement to 'Describe any known trends or uncertainties that ... the [company] reasonably expects will have a material favourable or unfavourable impact on net sales or revenues or income from continuing operations', and similar requirements in relation to capital and liquidity.

As the 1980s developed, further calls for risk disclosures were to some extent professional responses to criticism of auditors, particularly following unexpected business failures. A significant theme of these proposals was to emphasise the uncertainty of accounting measurements.

In 1986, at least partly in response to Congressional investigations into the accountancy profession led by Congressman John Dingell, seven of the largest accounting firms in the US⁹ issued *The Future Relevance, Reliability, and Credibility of Financial Information.* This report, couched in the form of recommendations to the American Institute of Certified Public Accountants (AICPA), called for, among other things, improved disclosures of risks and uncertainties (including uncertainties in the accounting statements), and proposed that the disclosures should be audited. The SEC consulted on the recommendations, but found that 'virtually all the 196 commentators opposed

- ⁷ On this, see Michael Power, *The Risk Management of Everything*, who comments that there has been 'a literature and conference explosion in the risk management area' since 1995.
- ⁸ More detail on SEC and other requirements for risk disclosures is given at Appendix 1.
- ⁹ Arthur Andersen & Co, Arthur Young, Coopers & Lybrand, Deloitte Haskins & Sells, Ernst & Whinney, Peat, Marwick, Mitchell & Co and Touche Ross & Co.

⁶ Paul Slovic quoted in Victor Ricciardi, A Risk Perception Primer: A Narrative Research Review of the Risk Perception Literature in Behavioral Accounting and Behavioral Finance.

the proposals initiated by members of the accounting profession'.¹⁰ The AICPA also followed up the accounting firms' recommendations, appointed a task force, and in 1987 published *Report* of the Task Force on Risks and Uncertainties. This proposed a number of disclosures on risks and uncertainties, including about significant estimates and vulnerability due to concentrations – eq, of assets, customers or suppliers.¹¹

In Canada, the *Report of the Commission to Study the Public's Expectations of Audits*, commissioned by the Canadian Institute of Chartered Accountants (CICA) and chaired by W. A. Macdonald, was published in 1988. Its conclusions included a recommendation to prepare a study on how best to disclose risks and uncertainties. Accordingly, in 1990 CICA published *Approaches to Dealing with Risk and Uncertainty* by J. Efrim Boritz. This made a number of proposals for new risk disclosures, which it envisaged would be required by new or modified accounting standards. The focus of many of the recommendations was on uncertainty in accounting measurements.

Calls for improved risk reporting intensified during the 1990s. In the UK, the Accounting Standards Board's statement of best practice, *Operating and Financial Review*, first published in 1993, recommended that listed companies' annual reports should include 'a discussion identifying the principal risks and uncertainties in the main lines of business, together with a commentary on the approach to managing these risks'.¹²

Improving Business Reporting – A Customer Focus, commonly known as 'the Jenkins Report', is a comprehensive set of proposals for the reform of business reporting, published by the AICPA in 1994. It recommended, among other things, that firms should 'Provide more information with a forward-looking perspective, including management's plans, opportunities, risks, and measurement uncertainties' and should 'Improve disclosures about the uncertainty of measurements of certain assets and liabilities.'

There has been a significant focus on financial instruments in calls for better risk reporting. In the US, large unexpected losses on derivatives incurred by a number of firms in the early to mid-1990s reinforced demands that had already begun to emerge for better information on firms' derivative positions and market risks.¹³ This led to risk disclosure requirements in SFAS 119, *Disclosures about Derivative Financial Instruments and Fair Value of Financial Instruments* (1994), and SFAS 133, *Accounting for Derivative Instruments and Hedging Activities* (1998), and from the SEC in Financial Reporting Release (FRR) 48, *Disclosure of Accounting Policies for Derivative Financial Instruments etc* (1997). FRR 48 also encourages, but does not require, other risk disclosures. Standards with similar requirements for risk disclosures relating to financial instruments were later issued by the International Accounting Standards Committee and its successor, the International Accounting Standards Board.

Subsequently amended, these US requirements, with those for risk disclosures in MD&As and a new requirement in 2005 for separate disclosure of risk factors (see below), form the basis of the current position in the US as regards risk reporting (see Appendix 1, Section A1.1).

Fresh requirements for risk reporting have appeared in a number of jurisdictions since the late 1990s. These include Germany's requirement for companies to disclose all material risks (1998), subsequently supplemented by an accounting standard on risk reporting (2001), and the EU's requirement (2003) that a company's annual report 'shall include at least a fair review of the development and performance of the company's business and of its position, together with a description of the principal risks and uncertainties that it faces'.¹⁴ In the US, in 2005 the SEC introduced a requirement for companies to disclose 'the most significant factors that make the company risky or speculative'. This disclosure has to be made not only in the company's annual 10-K report but updated for any changes in its quarterly 10-Q reports.

¹⁰ SEC Interpretation: Management's Discussion and Analysis of Financial Condition and Results of Operations; Certain Investment Company Disclosures.

¹¹A significant outcome of this phase in the development of the US accounting profession was the *Report* of the National Commission on Fraudulent Financial Reporting (1987) – the Treadway Commission. This did not recommend new disclosures on risk, but gave birth to what became the enterprise risk management approach to internal control.

¹²More detail on this statement's and other proposals for improved risk disclosures is given at Appendix 2.

¹³Market risks are the risks of loss arising from changes in market prices (eg, of commodities) and market rates (eg, interest rates). On the background to the US requirements, see Thomas J. Linsmeier and Neil D. Pearson, 'Quantitative disclosures of market risk in the SEC release'.

¹⁴According to Peter Kajüter, *Risk Disclosures of Listed Firms in Germany: A Longitudinal Study*, these requirements were proposed by the German Accounting Standards Board 'in view of the mandatory risk disclosure requirement for public limited companies in Germany'. Research on the German requirement suggests that it has produced unsatisfactory results: see Appendix 3, Section A3.3.

The effectiveness of existing requirements for risk reporting both in Europe and the US has been questioned, and this is an issue that we consider later in the report. In spite of these doubts – or because of them – demands for improved risk reporting have intensified since the financial crisis, as there has been a widely shared view that managers, investors and regulators all underestimated the risks that key financial services businesses were taking on.

Demands for improved risk reporting as a result of the financial crisis include:

- The Financial Stability Forum, in *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience* (2008), stated that 'financial institutions should strengthen their risk disclosures'.
- The UK House of Commons Treasury Committee, in *Banking Crisis: Reforming Corporate Governance and Pay in the City* (2009), after hearings on the banking crisis, called for all listed companies to be required to report 'in clear jargon-free English ... what the main future risks are judged to be'.
- Also in the UK, Sir David Walker's report, *A Review of Corporate Governance in UK Banks and Other Financial Industry Entities* (2009), called for such institutions to include a board risk committee report as a separate report within the annual report and accounts.
- The European Commission, in *Corporate Governance in Financial Institutions and Remuneration Policies* (2010), called for shareholders in financial institutions to be given 'better information on risk'.
- The UK Financial Reporting Council, in a paper considering the lessons of the crisis for all listed companies, *Effective Company Stewardship: Enhancing Corporate Reporting and Audit* (2011), called for 'transparency about the activities of the business and any associated risks' and 'transparency in the way that directors report on their activities, including their management of risk'.

Most of these recent demands for better risk reporting focus on financial institutions, especially banks, in the hope that it would make both future crises and individual business failures less likely. In Appendix 4, we look specifically at risk reporting by banks and the financial crisis; we summarise the key points in Chapter 2. But most risk reporting is done by entities other than banks, and in this report we talk primarily about risk reporting by businesses in general. For businesses in all sectors, improved understanding of risks on the part of investors and other users of corporate reporting should lead to better stewardship of companies and to a more efficient allocation of resources across companies.

1.4 ICAEW's earlier work

From 1997 onwards ICAEW issued a series of reports calling for improved risk disclosures:

- Financial Reporting of Risk: Proposals for a Statement of Business Risk (1997)
- Inside Out: Reporting on Shareholder Value (1999)
- Internal Control: Guidance for Directors on the Combined Code (1999)
- No Surprises: The Case for Better Risk Reporting ('No Surprises') (1999)
- No Surprises: Working for Better Risk Reporting (2002)
- Prospective Financial Information: Guidance for UK Directors (2003).

As its full title indicates, *Financial Reporting of Risk* sets out proposals for a statement of business risk by listed companies. This would identify and prioritise key risks, describe actions taken to manage each risk, and identify how risk is measured. The report gives examples of risk-related information already provided in financial reporting as a result of the requirements of UK accounting standards, and surveys risk reporting by UK companies in their operating and financial reviews. It also refers to research suggesting that increased disclosure (in general, not of risks specifically) reduces the cost of capital.¹⁵

Inside Out is a call for listed companies to disclose more about their strategies and value drivers, which would include 'better information about the risks and opportunities faced by the company'.

¹⁵Christine A. Botosan, 'Disclosure level and the cost of equity capital'; Mark H. Lang and Russell J. Lundholm, 'Corporate disclosure policy and analyst behavior'. For a later general survey see Christine A. Botosan, 'Disclosure and the cost of capital: what do we know?'

Internal Control: Guidance for Directors on the Combined Code ('the Turnbull Guidance') provides guidance for directors of listed companies on the requirements, at that time, of the Combined Code of the Committee on Corporate Governance for boards of directors to maintain and review 'a sound system of internal control', including risk management. The guidance states that 'A company's system of internal control has a key role in the management of risks that are significant to the fulfilment of its business objectives'. It gives advice to directors on, among other things, assessing the effectiveness of the company's risk and control processes and on the disclosures to be made in accordance with the Combined Code. The guidance was subsequently adopted, and later revised, by the Financial Reporting Council (see Appendix 1, Section A1.4).

No Surprises revisits the proposals in *Financial Reporting of Risk* in the light of the nearly 60 responses received to them, a survey of the views of FTSE 500 companies, and a study of risk disclosure practices in prospectuses and annual reports. It points out that there is a good deal of risk disclosure embedded in annual reports (in addition to what appears in the financial statements), which is not labelled as risk reporting. Those seeking information relevant to assessing a firm's risks may therefore need to review the whole of the annual report to extract what they are looking for.

The report includes points made by respondents opposed to the idea of a separate statement of business risk. While arguing that 'companies should be aiming to provide comprehensive and consistent information about risk', *No Surprises* does not suggest that a separate statement of business risk is necessary in order to do this. It states that this issue – whether there should be a separate statement – is purely about form, not substance.

Key points made in the report include:

- If companies report their risks, the actions they take to manage them, and relevant
 measurements, capital will be made available to them at the lowest possible sustainable cost.
 Better information on risks reduces investors' uncertainties, thereby reducing the premium for
 uncertainty in the firm's cost of capital. Company managements should set themselves the
 goal of 'no surprises' that is, to avoid surprising the capital markets.
- Companies make more extensive risk disclosures in prospectuses than they do in subsequent annual reports. Companies are urged to achieve in annual reports the standard of risk disclosure found in prospectuses.
- It does not matter whether or not risk information is reported in a separate statement, as long as it is reported somewhere in the annual report.
- Companies should disclose their strategies. This provides the context that allows readers to understand their risk disclosures.

Some of the objections to a separate risk report that we noted in *No Surprises* remain relevant to contemporary calls for better risk reporting. These objections include:

- The managing director of a bank commented on the proposal: 'The idea that a subject, as complex as business risk, can be included in a statement in the annual report and accounts, when our whole business is about risk management, is laughably absurd.'
- People feared that a separate statement would result in 'bland and essentially meaningless reporting'.
- Others, in a specifically UK context, thought that the information in such a statement would be better as part of the operating and financial review.

No Surprises: Working for Better Risk Reporting is a position paper that reiterates the conclusions in No Surprises: The Case for Better Risk Reporting.

Prospective Financial Information: Guidance for UK Directors provides guidance on the disclosure of prospective financial information (PFI). PFI is defined as 'primary financial statements and elements, extracts and summaries of such statements and financial disclosures drawn up to a date, or for a period, in the future'. PFI is therefore a specific forecast, rather than a vague forecast that, eg, 'profits are expected to be satisfactory'.

The report states that:

'Published PFI should be accompanied by disclosure of the assumptions on which it is based. In order for users to be able to evaluate these assumptions, the related risks, uncertainties and sensitivities will also need to be disclosed in a way that makes their significance understandable to users.' The report proposes a 'reasonable disclosure principle', which is that:

'PFI should contain disclosure that is reasonable, and so ... should not be presented in situations of such uncertainty that the disclosure becomes too complex or extensive to be understood or used by investors'.

This principle sets a limit to the disclosure of PFI and its related risks and uncertainties, which has significant effects in practice. As PFI is a specific forecast, it will have greater uncertainties than a vague forecast, and so require more extensive risk disclosures. The reasonable disclosure principle means that PFI that might otherwise be disclosed is not, because the risks and uncertainties that surround it are too complex or extensive to explain. This may sound as though it means that valuable forward-looking information is being suppressed, but what it really implies is that the uncertainties surrounding the data are such that it is likely to be highly speculative and that investors either would ignore it or, if they took it at face value, might easily be misled.

A significant point in this approach to risk disclosure is that, in the case of PFI, it is clear that 'risk' means a risk that a specific forecast will not be achieved. This is often the case with risk – it acquires definition and meaning in a particular context as a risk to a particular objective. Until we specify an objective we cannot know what risks are relevant to it. But for the purpose of reporting business risks, the objectives are so widely drawn that, as suggested earlier, the possibility of anything disadvantageous to the business is a risk.

As noted above, ICAEW has returned to the subject of risk reporting in the light of the financial crisis. The ICAEW Financial Services Faculty's 2010 report, *Audit of Banks: Lessons from the Crisis*, reported stakeholders' view that:

'Risk information is often presented in a piecemeal manner in bank annual reports, spread between the audited financial statements and the unaudited front sections. Banks need to focus on clearer presentation which allows users to understand the big picture, which is currently often obscured by the volume of detailed information.'

The report comments, 'Summary risk statements are a potential way of providing this big picture', but also states that there are different views on how the objective of better presentation of risk information can be achieved. It suggests that 'A degree of experimentation will be necessary to see which form of disclosure is the most meaningful for investors.' There is a potential conflict, which we discuss later (Section 4.4) between the desire for a single, coherent and discrete narrative on risk and the pervasiveness of risk-relevant information in corporate reporting.

Many of the key points made in ICAEW's earlier reports are still relevant today. But subsequent experience has shown how hard it will be to achieve the ambitions that are held for risk reporting. And since the 1990s requirements for disclosures on risk have changed significantly, as has the technology of business reporting. So it is useful to reassess, in the light of experience and changes in the reporting environment, what can realistically be achieved; this report aims to do that.

1.5 Outline of the report

In the remainder of the report we:

- look briefly at experience of risk reporting by businesses generally to date, and at risk reporting by banks in the period before the financial crisis (Chapter 2);
- consider why risk reporting in practice has often been thought to be unsatisfactory (Chapter 3); and
- suggest ways to improve the reporting of business risks (Chapter 4).

In the appendices to the report we:

- summarise some of the more important existing requirements for risk disclosures (Appendix 1);
- list some of the more significant calls for improved risk reporting (Appendix 2);
- summarise research on the experience of risk reporting by businesses generally (Appendix 3); and
- analyse in more depth the role of risk reporting in the financial crisis (Appendix 4).

1.6 Chapter summary

A growing demand for better reporting of business risks has emerged in recent decades. This is based on the belief that improved understanding of business risks by investors and other users of corporate reporting should lead to better stewardship of companies and to a more efficient allocation of resources.

It is generally accepted that there was a widely-shared underestimation of risk before the financial crisis of 2007 and beyond. This has reinforced calls for improved risk reporting, by banks in particular, in the expectation that it should help make future crises less likely. But the crisis has also led to calls for better risk reporting by companies in all sectors.

The demand for better risk reporting is an entirely legitimate one, and risk reporting can and should be improved. But careful consideration needs to be given to how it should be improved and to how far the expectations of all those who now call for change can be met. Risk in business is about much more than the possibilities of corporate failure. Yet unexpected collapses, especially when there is a rash of them in a crisis, inevitably focus attention on the quality of risk reporting and may give rise to unrealistic expectations that better risk reporting could prevent future failures. But in a competitive economy business failures are inevitable, and it would be unreasonable to expect risk reporting to provide a reliable early warning of which businesses are most likely to fail – still less to prevent their failure.

This report is intended as a timely contribution to debate about how risk reporting should evolve. It reviews both the general experience of risk reporting to date and the risk reporting of financial institutions before the crisis (Chapter 2), considers why risk reporting is thought to have been disappointing (Chapter 3), and suggests ways to improve it (Chapter 4).

2. EXPERIENCE OF RISK REPORTING

Researchers who have examined risk reporting often seem to be disappointed with the results. It is far from clear that it has actually been very useful.

Yet there is general agreement that the global financial crisis was an effect of underestimating risks. Can better risk reporting prevent this from happening again?



2. EXPERIENCE OF RISK REPORTING

2.1 The evidence

In recent decades, firms have reported a growing volume of information about the risks they face. The information has appeared in both their financial and non-financial reporting, and much of it has been in response to new disclosure requirements. Unfortunately the evidence on how useful this has been is mixed and a note of disappointment among those who have reviewed qualitative risk reporting in practice is common, though not universal.

Various studies on the quality and usefulness of risk reporting are briefly summarised in Panel 2.1 (fuller summaries are given at Appendix 3, Sections A3.1-A3.6). Firms' financial reporting as a whole – although it is not usually regarded as risk reporting – is also relevant to the assessment of risk in the sense of:

- variability of returns to investors. As we noted in Chapter 1, people sometimes regard risk as variability around an outcome; and
- probability of default.

There is a separate body of research on the relevance of financial reporting in general to these types of risk. But as financial reporting in general is not usually regarded as risk reporting, we refer to this literature separately (Appendix 3, Sections A3.7-A3.9).

Panel 2.1: Research on risk reporting

US (A3.1)

A study of oil and gas companies' commodity price risk disclosures between 1993 and 1996 finds that they are associated with share price sensitivity to changes in oil and gas prices (Rajgopal, 1999). An earlier study of information in savings and loan institutions' unpublished regulatory filings between 1984 and 1988, analogous to information in disclosures introduced by the SEC and FASB in the 1990s, finds evidence that on- and off-balance-sheet interest rate exposures are associated with the sensitivity of share prices to interest rates. This implies that the subsequently required disclosures might also be expected to be associated with the sensitivity of share prices to interest rates (Schrand, 1997).

Two surveys of initial compliance with risk reporting requirements introduced by the SEC in 1997 find that it is 'less than satisfactory' (Elmy et al, 1998; Roulstone, 1999). However, a further study finds that the requirements appear to have led to investors' being better informed (Linsmeier et al, 2002). A study of value-at-risk disclosures between 1995 and 1999 finds that they helped predict the variability of trading revenues (Jorion, 2002).

An unpublished study of risk disclosures between 2004 and 2008 finds that longer risk factor disclosures appear to be associated with a raised assessment of a company's risks by the market and with lower share prices, but are also associated with reduced information asymmetries (Campbell et al, 2011). An unpublished study of risk disclosures between 1994 and 2007 also finds evidence suggesting that increased references to risk are associated with increased market perceptions of risk and uncertainty (Kravet and Muslu, 2011).

Canada (A3.2)

A survey of Canadian annual reports for 1999 finds that while the disclosure rate 'appears relatively high, one might question the degree of relevance and ... usefulness of the information disclosed' (Lajili and Zéghal, 2005).

Panel 2.1: Research on risk reporting (continued)

Germany (A3.3)

An unpublished German survey of annual reports between 1999 and 2003 finds that 'most risk reports are ... deficient as regards depth and precision' (Kajüter, 2004). A second study, reviewing the evidence in earlier papers, finds that mandatory risk reporting requirements 'just slightly improved' actual reporting. It argues that 'the value of risk reporting is generally overestimated' (Dobler, 2005). A third study surveys annual reports between 2000 and 2005. It finds improvements in risk disclosures, but comments that risk reporting is still 'far from being good' (Berger and Gleissner, 2006).

Italy (A3.4)

An Italian survey based on annual reports for 2001 concludes that firms tend to adopt a policy of 'formal disclosure but substantial non-disclosure' (Beretta and Bozzolan, 2004).

UK (A3.5)

A 1999 survey finds that institutional investors tend to agree with the proposition that 'I believe that the current state of risk disclosure ... is inadequate' (Solomon et al, 2000).

A study based on annual reports for 2000 finds that firms make more 'good risk'¹⁶ than 'bad risk' disclosures (Linsley and Shrives, 2006). A study based on annual reports for 2004 to 2006 finds that companies report about half the information available to management on the companies' objectives, policies and processes for managing interest rate risk and foreign exchange risk, but comments that it is not known whether this is too much, too little, or the right amount of disclosure (Marshall and Weetman, 2008). A study based on the 2008 and 2009 annual reports of listed companies finds most of them technically compliant but failing to meet the spirit of the requirement to disclose principal risks (ASB, 2009).¹⁷

A study based on discussions with representatives of over 40 major listed companies and a selection of investors and advisers finds that the majority of investors think there is scope for considerable improvement in risk reporting. Some investors place more reliance on meetings with management than on what is in the annual report (FRC, 2011).

A forthcoming report based on a survey of investment analysts in 2009-10 finds that on average they regard annual report risk factor disclosures as useful, but a number of them think that annual reports provide no significant new information on risks. The same study looks at 2009 risk disclosures by listed food and drink companies and finds that their 'risk information [is] general in nature' but that 'on rare occasions, a very company-specific risk is disclosed' (Abraham et al, 2011).

Banks (A3.6)

A survey of risk disclosures in the 2001 annual reports of 18 UK and Canadian banks finds that they are dominated by 'general statements of risk management policy' (Linsley et al, 2006). A survey of value-at-risk reporting by large international banks concludes that 'very little can be gleaned from published VaR figures ... A cynic might suggest that we have the appearance of disclosure, combined with careful attempts to avoid disclosing anything of real significance' (Woods et al, 2008a). A survey of market risk disclosures by 25 large international banks from 2000 to 2006 finds 'a mildly increasing trend' of disclosures on average, but marked reductions in disclosure by some banks (Woods et al, 2008b).

This is a very mixed group of studies. There is some indirect evidence that quantified disclosures on matters such as market risk may be useful (Schrand, 1997; Rajgopal, 1999; Linsmeier et al, 2002; Jorion, 2002), and some evidence – direct (Abraham et al, 2011) and indirect (Campbell et al, 2011; Kravet and Muslu, 2011) – that qualitative risk reporting as it has developed since the 1990s may be useful. The indirect evidence is based on statistical correlations between disclosures (or surprisingly in the case of Schrand, 1997, non-disclosures) on the one hand and changes in share prices, trading volumes, bid-ask spreads, or analysts' forecasts on the other.

¹⁶What we refer to in Chapter 1 as an 'upside risk' – also known as a 'positive risk'.

¹⁷The evidence from this study, by the Accounting Standards Board, is also cited in the Financial Reporting Council discussion paper, *Effective Company Stewardship: Enhancing Corporate Reporting and Audit.* There is also much criticism of the quality of disclosures (Elmy et al, 1998; Roulstone, 1999; Lajili and Zéghal, 2005; Kajüter, 2004; Dobler, 2005; Berger and Gleissner, 2006; Beretta and Bozzolan, 2004; Solomon et al, 2000; ASB, 2009; FRC, 2011; Linsley et al, 2006; Woods et al, 2008a; Woods et al, 2008b) and some of these studies show a degree of scepticism as to the value of much risk reporting. One study indicates that in a key respect it is impossible to interpret its findings (Marshall and Weetman, 2008). We discuss below (2.3) what conclusions, if any, can be drawn from this body of work.

2.2 Performance discussion as risk disclosure

ICAEW's *No Surprises* argued that discussion of past performance gives information about future risks and opportunities, and it identified and listed the implicit risk disclosures in five companies' annual reports. On this view, every identified cause of good or bad past performance is potentially a risk disclosure. Whatever factor has caused the good or bad performance in the past may or not be present in the future, and it therefore constitutes a risk that may affect future performance. On this view, much disclosure on risk is likely to appear outside what is labelled as risk reporting.

Different researchers define 'risk' disclosures in different ways. Some of them take the same view as *No Surprises*. One paper that defines risk disclosures in this way¹⁸ gives the following two examples (among others), both from FTSE 100 companies, of what it regards as risk disclosures:

- 'With over half our profits generated in the US, the dollar exchange rate is important the 4% average strengthening of the dollar gave a £5m benefit on translation.'
- 'A combination of customer delays on existing programmes such as the C130J and C27J and the start-up of a number of new programmes such as the AS900 business/regional propulsion system led to manufacturing inefficiencies particularly at the Cowes site on the Isle of Wight.'

The first of these disclosures is a risk disclosure because it indicates that future results could be affected, either positively or negatively, by changes in the dollar exchange rate. The second is a risk disclosure because it indicates that future results could be affected, apparently only negatively judging from the information given, by future customer delays and by future start-ups of new programmes.

Research on the usefulness of the MD&A and similar forms of reporting therefore needs to be added to our review of risk reporting studies. Two papers on MD&A reporting in the US and one on MD&A reporting in Canada find evidence that it may be useful.¹⁹ One of these papers does not attempt to analyse which components of MD&A disclosures are useful. The evidence reported in the other two seems to suggest that it is forward-looking disclosures on matters such as capital expenditure plans rather than information on risks that is useful. But these studies at least support the possibility that there may be implicit or explicit risk disclosures in the MD&A (and presumably in similar reports) that are useful to readers.

2.3 Discussion of the evidence

The limited number of research studies that we have referred to do not provide a basis on which to arrive at any firm conclusions. Some of them rely on fairly small samples. Some of them are academic papers that have not been published in peer-reviewed journals and so have not gone through the quality controls associated with that process. And a number of them are based on work done some years ago; this is partly because the most interesting time at which to study the effects of risk disclosures is often when they are first introduced. In the US significant risk reporting requirements were introduced in 1997 (see Section 1.3 above) and there was a concentration of research work in the US around that time (Schrand, 1997; Elmy et al, 1998; Rajgopal, 1999; Roulstone, 1999; Linsmeier et al, 2002; Jorion, 2002). European work is generally more recent, but has focused mainly on qualitative risk reporting. However, the studies listed also include a few current ones – which suggests a revival of interest in the topic.

¹⁸Philip M. Linsley and Philip J. Shrives, 'Risk reporting: a study of risk disclosures in the annual reports of UK companies'.

¹⁹Stephen H. Bryan, 'Incremental information content of required disclosures contained in management discussion and analysis'; Orie E. Barron, Charles O. Kile and Terrence B. O'Keefe, 'MD&A quality as measured by the SEC and analysts' earnings forecasts'; and Peter M. Clarkson, Jennifer L. Kao and Gordon D. Richardson, 'Evidence that management discussion and analysis (MD&A) is a part of a firm's overall disclosure package'. There may be other relevant research of which we are not aware.

The surveys differ in the disclosures that come within their scope. Some consider only separately identified risk reporting (eg, Campbell et al, 2011). Others include disclosures made outside what is labelled as risk reporting (eg, Linsley and Shrives, 2006). Many of them exclude what is in the financial statements. These and other differences in subject-matter and methodology make it impossible to compare the surveys.

While counting the number of risks disclosed is a feature of many of the studies, it is not clear that reporting more risks is an improvement. Indeed, in some of the studies this is explicitly denied (eg, Beretta and Bozzolan, 2004) and in at least one of them firms are criticised for reporting too many risks (ASB, 2009). Where qualitative assessments are made of firms' risk reporting, there is inevitably an element of subjectivity in the judgements. While there is no reason to dissent from the dissatisfaction with the quality of risk reporting expressed in a number of the surveys, this dissatisfaction is – in most cases – an expression of the researchers' opinion. It is conceivable that, though unsatisfactory, the reporting is none the less useful.

Recent research provides evidence suggesting that risk reporting may be useful (Campbell et al, 2011; Kravet and Muslu, 2011; Abraham et al, 2011), but it is in papers that are unpublished at the time of writing this report, so it is uncertain how much weight should be placed on it. Two of these papers tackle the methodological challenges of showing that qualitative disclosures have quantitative effects on, eg, share prices, bid-ask spreads, or share price volatility. They get around these problems by turning qualitative disclosures into quantitative ones. And they do this by counting words (Campbell et al, 2011) or sentences (Kravet and Muslu, 2011), and searching for statistical correlations with other quantities – changes in share prices, etc. The correlations appear to be statistically significant, so they no doubt show something.

As noted above, a number of other studies (Rajgopal, 1999; Linsmeier et al, 2002; Jorion, 2002; Campbell et al, 2011; Kravet and Muslu, 2011) are also based on statistical correlations between disclosures and changes in share prices, trading volumes, bid-ask spreads, or analysts' forecasts. As the authors of such papers often point out, it is difficult to know whether these correlations show that the disclosures are being used by investors or whether there is some alternative explanation for the findings.

There is not yet any empirical confirmation that risk reporting reduces the cost of capital. This may reflect problems with demonstrating that any disclosure affects the cost of capital, rather than provide evidence that risk reporting is in this respect less useful than other forms of disclosure. On the other hand, two current studies (Campbell et al, 2011; Kravet and Muslu, 2011) imply that increased risk disclosures may tend to raise the cost of capital by raising investors' perceptions of risk (see 3.8 below).

Recent research on investment analysts' views on risk reporting (Abraham et al, 2011) perhaps helps to explain some of the apparent contradictions in the research findings of other studies. It seems that users of corporate reporting information are divided in their views on qualitative risk reporting. Some consider it useful. Some consider it useless. So when some researchers query the value of risk disclosures, while others find evidence that it may affect share prices, it is conceivable that both are right. It is possible that the quality of risk disclosures is indeed not very good, and that they are ignored by some users, but that they are none the less used by others, and do have some effects, though it is difficult to know exactly what these are.

2.4 Risk reporting and the financial crisis

There is a widespread and understandable view that there must have been inadequate risk reporting by banks and other financial institutions in the period leading up to the financial crisis. We examine the evidence on this question in Appendix 4. While there is some relevant academic research, most of the information available to date comes from the investigations of banking regulators, finance ministries, legislative inquiries and similar sources.

Although some institutions appear to have misled investors, and many more had internal disagreements about the level of risk that they faced, there appears to be little evidence so far to support the view that qualitative risk reporting before or during the crisis failed to reflect banks' own assessments of their risks. It seems more likely that the misleading impression given by qualitative risk reporting ahead of the crisis was generally attributable to banks' mistaken assessments of risk, rather than to a failure to report recognised risks. These misperceptions of risk were widely shared, and not peculiar to bankers. Perhaps the most authoritative report on this issue is a 2008 report from the Financial Stability Forum (now the Financial Stability Board), *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience*.

The Board is an international grouping of finance ministries, central banks and banking regulators. It therefore seems likely to be as well informed as anybody on the causes of the crisis. Its report identifies a number of major failures of risk assessment as contributing to the crisis. The problems listed in the report include:

- Before the crisis, there was a 'global trend of low risk premia and low expectations of future volatility'.
- Banks 'misjudged the liquidity and concentration risks that a deterioration in general economic conditions would pose'.
- Banks 'misjudged the risks that were created by their explicit and implicit commitments to [off-balance sheet funding and investment vehicles], including the reputational risks arising from the sponsorship of the vehicles'.
- Banks 'misjudged the level of risks [on loans to households and businesses, including loans for buy-outs by private equity firms], particularly these instruments' common exposure to broad factors such as a weakening housing market or a fall in the market liquidity of high-yield corporate debt'.

Other investigations by governments and regulators around the world have arrived at similar findings. As banks significantly underestimated the risks that they faced, it was impossible for them to report those risks accurately. Financial crises are always a surprise, and between crises individual institutions will always give the impression that everything is under control – mainly because they will genuinely believe that it is.

Separately from these issues of qualitative risk assessment, however, it seems reasonable to conclude with the benefit of hindsight that banks' quantitative, analytical disclosures relevant to risk before the crisis were inadequate. In particular, inadequate information appears to have been given about off balance sheet risk, especially in the US. Banks generally appear to have complied with most of the applicable disclosure requirements, but there were weaknesses in the requirements themselves, and there appear to have been one or two US requirements for which compliance has been poor. Weaknesses in requirements have subsequently been addressed by changes in accounting standards and implementation and expansion of the requirements of Pillar 3 of the Basel II Accord on banking supervision. Further improvements may well be possible.

2.5 A puzzle

As we have seen, subjective assessments by researchers and regulators of the quality of risk reporting tend to express disappointment, and some users say that they ignore it. In one respect, the lack of progress by businesses generally in realising the ambitions of risk reporting's advocates is puzzling, as there are reasons to believe that high quality risk reporting should be in firms' own interests.

- First, it is commonly assumed that improved risk disclosures should reduce a firm's cost of capital.
- Second, it has been argued that risk reporting encourages more effective risk management.

If these arguments are correct, calling for better risk reporting should be like pushing on an open door. Managers should be keen to do it in their own interests.

How can we explain why risk reporting has not been a greater success? Those who have investigated the problem have suggested a number of possible reasons, which we discuss in the next chapter.

2.6 Chapter summary

Researchers who have looked at the experience of risk reporting by businesses across different sectors often express a degree of disappointment with it, sometimes suggest that disclosure requirements have had limited effect, and tend to make comments along the lines that there is 'formal disclosure but substantial non-disclosure'. Actual research findings are mixed. While there is some evidence that both quantitative and qualitative risk reporting may have been useful, there is also evidence that qualitative risk reporting is not considered useful by some users of corporate reporting. Indeed, users appear to have conflicting views on risk reporting – some finding it useful, some not.

As for banks specifically, there is a widespread and understandable view that there must have been inadequate risk reporting in the run up to the financial crisis. There appears to be little evidence so far, though, that qualitative risk reporting before or during the crisis failed to reflect banks' assessments of the risks that they faced. It seems more likely that the misleading impression given by qualitative risk reporting ahead of the crisis was in most cases attributable to banks' mistaken assessments of risk, rather than to a failure to report recognised risks. These misperceptions of risk were widely shared, and not peculiar to bankers. But with the benefit of hindsight, it seems reasonable to conclude that the requirements for banks' quantitative, analytical risk disclosures before the crisis were inadequate, and there may also have been a degree of non-compliance.

3. RISK REPORTING CHALLENGES

The benefits of business risk reporting – to both users and preparers – are unclear. Its costs are more obvious.

This contrast presents difficult challenges if risk reporting is to be improved. And if our expectations for risk reporting are unrealistic, we will always be disappointed by it.

3. **RISK REPORTING CHALLENGES**

3.1 Five challenges

We have suggested that it is puzzling that, while there appear to be good reasons why firms should ensure that they produce high quality risk reporting, the actual experience of risk reporting seems to have been disappointing. We identify five key challenges for risk reporting that help to explain the anomaly:

- inherent unreliability (Section 3.2);
- costs exceed perceived benefits (Section 3.3);
- generic disclosures (Section 3.4);
- risk management reporting difficulties (Section 3.5); and
- risks that will never be reported (Section 3.6).

3.2 Inherent unreliability

Judgements on risk are unavoidably subjective. Ten people involved in running a firm would probably give ten different – though overlapping – lists of its most significant risks. Some of these views may show better judgement, or be better informed, than others, but it is quite likely that none of them can be said to be right or wrong, even in the light of subsequent events. A 1997 discussion between researchers and standard-setters in the US noted that with risk reporting 'there is no ex post settling up so there is no basis for assessing completeness or accuracy of risk disclosures'.²⁰ Nor is a comprehensive ex post settling up possible – and any partial settling up could be misleading.

Subjectivity seems to be a problem that is inherent to risk reporting. It may pose difficulties for preparers in assessing the quality of their own risk reporting, and will certainly make it more difficult for users to know whether they are being provided with useful information.

With the benefit of hindsight, risk reporting will sometimes appear to have been incomplete or wrong in the sense that a firm may be hit by a risk that it had not mentioned or that it had stated to be under control. So firms will get blamed for allegedly poor risk reporting when things go wrong (see Panel 3.1 for an illustration). But they will not get credit where credit is due for identifying relevant risks. For if a firm is not adversely affected by a risk that it mentions, this may appear to mean that it was wrong to have mentioned it. The risk may have been real, even though it was not realised; indeed, it may not have been realised because the firm managed it well. But all that readers of the report will know is that managers pointed to a danger that did not materialise. Managers therefore appear to have got things wrong, even though they may have got things right.

Panel 3.1: Questioning the usefulness of risk reporting - BP

When something goes badly wrong at a firm, it is easy to be critical of its risk reporting, which – for any firm – is unlikely to indicate that anything is actually expected to go badly wrong. Banks' risk reporting before the financial crisis may be seen as one example of this. Another example is BP. An article in the *Financial Times*²¹ quotes these remarks by an authority on corporate social responsibility reporting: 'Nothing in BP's reporting would have given the vaguest signs that the Deepwater Horizon disaster was an issue and would have the impacts that it did'.

²⁰Catherine M. Schrand and John A. Elliott, 'Risk and financial reporting: a summary of the discussion at the AAA/FASB conference'.

²¹ Mike Scott, 'Putting people, planet and profit into the annual report'.

Panel 3.1: Questioning the usefulness of risk reporting - BP (continued)

The 2009 BP annual report, which was published shortly before the disaster, lists 25 risk factors and states that 'If any of these risks occur ... [o]ur business, financial condition and results of operations could suffer and the trading price and liquidity of our securities could decline.' One of the operational risks identified is process safety. On this the report states:

'Inherent in our operations are hazards that require continuous oversight and control. There are risks of technical integrity failure and loss of containment of hydrocarbons and other hazardous material at operating sites or pipelines. Failure to manage these risks could result in injury or loss of life, environmental damage, or loss of production and could result in regulatory action, legal liability and damage to our reputation.'

In the light of what happened subsequently, this seems to be a reasonable statement of the risks involved. It is true that, as the quotation in the article points out, there is no quantification of possible losses, but this is presumably because it would be impossible to provide a sensible quantification in advance of the event. The loss depends on how bad the spill is, where exactly it takes place, and what its effects are.

BP's report also states that 'We continue to show our ability to take on and manage risk, doing the difficult things that others either can't do or choose not to do.' No doubt this statement was true across the great majority of the firm's operations, despite the events of 2010 at one of them. But a firm that takes on risks that other firms won't is, on the face of it, a riskier firm.

An alternative angle on the problem is that 'the results of how well [companies] manage ... risks [are] evident from the financial results'.²² In other words, the ex post settling up is in the accounts. This is an interesting point of view and, in the long run, has something to be said for it. The problem is that, in risk management even more than in other matters, past performance is not a reliable guide to the future. And unfortunately, as it is often a matter of chance whether a particular risk materialises, good risk management and bad risk management may look identical in terms of short-term financial performance. Indeed, as good risk management is likely to be more expensive, in the short term it will often produce worse financial results than poor risk management. If the risk in question eventually materialises, the good risk managers will be vindicated, but if it does not, they will simply appear to have misjudged matters.

The subjectivity of risk reporting also places constraints on its auditability and on the enforceability of risk reporting requirements (but see Panel 3.2 below). As one academic paper puts it, risk reporting may be mandatory, but 'the quality of risk disclosures remains largely voluntary'.²³ These constraints must also reduce the reliance that can be placed on risk reporting.

Overall, the fact that there is no ex post settling up, only limited auditability and enforceability, and therefore no way of distinguishing good risk reporting from bad risk reporting, must limit its usefulness.

Panel 3.2: The UK approach to risk reporting enforcement

Regulatory authorities in the UK have recently adopted a tougher approach to enforcing qualitative risk disclosure requirements. This is of broader interest, partly because the statutory requirements in the UK derive from EU legislation and are therefore similar to those in the rest of the EU, but also because the approach adopted raises important issues about the potential effectiveness of risk disclosure requirements in all jurisdictions. Hitherto, it has been widely thought that the quality of descriptive risk disclosures is to a large extent inevitably voluntary. In the US the SEC has tried to improve the quality of risk reporting by cracking down on generic disclosures (see Section 3.4), but it does not yet appear to have been successful.

The UK requirement for risk disclosure is that a firm's business review in the directors' report 'must contain ... a description of the principal risks and uncertainties facing the company' (s417(3), Companies Act 2006). This is virtually identical to the wording in the relevant EU Directive (see Appendix 1, Section A1.2).

²²Philip Linsley and Philip Shrives, 'Risk management and reporting risk in the UK'. This perspective is put forward as one that managers may well take, rather than the authors' own view.

²³Todd Kravet and Volkan Muslu, Informativeness of Risk Disclosures in Corporate Annual Reports.

Panel 3.2: The UK approach to risk reporting enforcement (continued)

On 1 February 2011 the UK's Financial Reporting Review Panel issued a press release, 'The Financial Reporting Review Panel highlights challenges in the reporting of principal risks and uncertainties', listing risk reporting issues on which the Panel has 'challenged a number of companies'. While in several respects the issues listed in the 1 February 2011 press release might appear to go beyond the way in which the Companies Act's requirements have hitherto been understood, this is because the Panel's approach is not based solely on the requirement to report principal risks and uncertainties. It also relies on the broader business review requirement 'to inform the members of the company and help them assess how the directors have performed their duty ... to promote the success of the company' (s417(2)).

The points on which the Panel has challenged companies include:

- 'The directors' report does not clearly identify which risks and uncertainties the directors believe to be the principal ones facing the business.'
- 'A long list of principal risks and uncertainties is given and the list raises a question as to whether all the risks and uncertainties on the list are actually principal ones.' The Panel adds that in considering whether a risk is a principal one, a relevant question would be 'have the risks and uncertainties listed as principal been the subject of recent discussions at board or audit committee meetings?'
- 'The description given of a risk or uncertainty is in generic terms and it is not clear how that risk or uncertainty applies to the company's circumstances.' A relevant question here would be 'Is the description of each principal risk and uncertainty sufficient for shareholders to understand ... how it might affect the company?'
- 'The principal risks and uncertainties disclosed are not consistent with other information given in the report and accounts.' A relevant question here would be 'are there significant risks and uncertainties discussed elsewhere [in the report and accounts] which do not appear on the list?'
- 'The directors' report does not state how the company manages its principal risks and uncertainties.'

3.3 Costs exceed perceived benefits

3.3.1 Competitive costs

There are also positive disincentives to full disclosure of risks. Indeed, risk reporting creates its own risks and so needs to be undertaken by preparers, and interpreted by users, as an exercise in risk management.

One disincentive identified by researchers is the competitive costs of disclosure – usually referred to as 'proprietary costs'. A proprietary cost is any loss to the company, whether through increased costs or reduced income, attributable to competitors' actions. And in a competitive economy there is often a trade-off between transparency and profitability.

Risk management techniques and perceptions of risk are both sources of competitive advantage to firms. Imagine two firms that have different perceptions of the risk involved in a particular project. One sees it as relatively high risk while the other sees it as relatively low risk. Each firm's perception of the risks associated with the project is potentially valuable information to the other firm, especially if one of the firms is regarded as better at assessing risks. If the firm that is better at assessing risks discloses that it rates the risks relatively highly, this may put the other firm off risks that it would otherwise take (thereby saving the second firm, a competitor, from self-inflicted damage). If the firm that is better at assessing risks discloses that it rates the risks that it would otherwise avoid (thereby inflicting competitive damage on the first firm). So it may make sense for firms' risk disclosures to be vague and uninformative.

Firms compete on their ability to assess risks, but they also compete on their ability to manage risks. Again, informative risk management disclosures by a firm that is good at risk management are a free gift to its competitors. An obvious solution is for the firm to make uninformative disclosures.

One theoretical study on risk disclosures argues that firms that would benefit from making them will do so under a voluntary regime. But 'mandating risk disclosure forces firms that would not disclose in a voluntary regime to incur disclosure costs', so 'firm value falls'.²⁴ Though this point is

not made in the study, the evidence perhaps suggests that firms minimise involuntary disclosure costs by making ineffective disclosures.

3.3.2 Costs to managers

Another disincentive to informative risk reporting is the potential cost to managers. This can arise in two ways. One possibility is that risk disclosures will indicate expectations that fail to be realised, which creates a risk that managers will be sued for giving misleading forecasts or that their position in the firm will be weakened (eg, they will be dismissed or their bonuses cut). The other possibility is that the firm will subsequently be hit by problems that had not been identified as risks in its external reporting, which again creates a risk that managers' position will be weakened. The litigation threat can in principle be met by appropriate safe harbour legislation, as exists in the US – though this may in turn create fresh difficulties as to the reliability of the information reported. The problem that risk reporting/non-reporting will threaten managers' position within the firm is most likely to be met in practice by disclosures that are carefully worded so as to arouse no expectations and/or to leave no possible outcome uncovered. Neither approach is conducive to helpful reporting for users.

3.3.3 No evidence of benefits

A further problem identified at the US discussion of 1997 is that 'preparers have no evidence that risk disclosures affect the cost of capital'. We return to this question below (Section 3.8). If preparers do not see that they have anything to gain from effective risk reporting, this will tend to encourage a minimal-compliance mindset.

It is also possible that managers are not convinced that reporting risks externally leads to improvements in their own risk management. Common sense suggests that firms have strong incentives to manage risks effectively, as poor risk management can cause reduced profits, losses, or even insolvency. But the proposition has often been advanced that these incentives can be reinforced by requirements for risk reporting.²⁵ Indeed, it may be thought that common sense also suggests that disclosure should encourage firms to improve their risk management because:

- they will not want to disclose that their risk management practices are worse than their competitors';
- on the principle that people manage what they report (an analogous idea to the principle that they 'manage what they measure'), reporting risks should focus managers' attention on them;²⁶ and
- it will allow shareholders to oversee risk management practices.

But if, because actual disclosures are vague or not pertinent (Section 3.5), firms with good risk management and firms with poor risk management practices look much the same, then the argument would fail as there would be no reliable way of telling from a firm's risk disclosures how effective its risk management is.

There does not appear to have been any research to date to show whether external risk reporting requirements have improved risk management practices, so it would be useful to explore how far risk reporting does indeed help risk management. Does the need to report externally encourage managers to devote more attention to risk management? Does it encourage them to limit the risks that they take?

If the benefits to firms of making informative disclosures do not exceed the costs, this must limit the likelihood that risk reporting will ever become particularly informative. The paradigm for business reporting requirements is financial reporting, and people have grown used in this context to being able to require firms to disclose information that is on the face of it against their interests – eg, losses.

But financial reporting information is relatively objective and verifiable; qualitative risk disclosures are not. So there may be little scope for tightening up risk reporting requirements so as to compel firms to make disclosures that damage their own (or their managers') interests.

²⁴Bjorn N. Jorgensen and Michael T. Kirschenheiter, 'Discretionary risk disclosures'.

²⁵This issue is explored in Laura F. Spira and Michael Page, 'Regulation by disclosure: the case of internal control'.

²⁶ Philip Linsley, in the specific context of banks, suggests that 'the crafting of the risk narrative should be deemed a part of the risk management process – preparation of the risk narrative presents a significant opportunity for managers to reflect upon and question the perception of risk that permeates the bank': UK Bank Risk Disclosures in the Period Through to the Onset of the Global Financial Crisis. And the same argument would apply, though perhaps less strongly, to other types of business.

3.4 Generic risk reporting

Generic risk reporting discloses risks common to a number of businesses, which are, eg, in the same geographical location, the same economy, or the same industry. To the extent that the reporting simply identifies the existence of such generic risks it is usually regarded as unhelpful boilerplate. For example, one airline reports that 'Failure to prevent or respond to a major safety or security incident could adversely impact our operations and financial performance' (British Airways 2009-10 annual report). This is a real and significant risk. But as anyone who is an investor in airlines is presumably aware of the risk, reporting it will not tell them anything they don't know already. So it might be concluded that reporting generic risks only provides useful information where there is also information specific to the reporting entity, eg, quantification of potential effects on the firm or specification of measures taken to combat the risk.

But there is also a view that boilerplate disclosures are useful because they show that management is aware of, and presumably doing something about, the risks listed. If a firm decides not to list a particular risk because it assumes that everybody already knows about it and that 'disclosing' it would therefore be superfluous boilerplate, readers may draw a different conclusion. They may think that the risk's absence from the list indicates that managers are unaware of it or think it relatively unimportant. Two possible inferences from this are that:

- It may show that boilerplate risk lists are useful because they allow investors to draw conclusions about managers' perceptions and priorities.
- But it may also show that boilerplate risk lists are potentially dangerous, as they could prompt
 investors to draw the wrong conclusions (eg, that managers ignore what they do not report).
 Managers concerned by this possibility are likely to disclose all potential risks, even though
 this adds to the volume of boilerplate.

Panel 3.3: Negative views on risk reporting

'Risk factors are looked upon as boilerplate... [They] are almost meant not to be read, or relied upon' – Tom Paulli, US IPO analyst, 2005.

Risk factor disclosures are a way of telling investors, 'Seriously anything can happen... By investing in our business, you are agreeing that we owe you no duty of care other than not being crooks. We can promise you nothing else' – a US corporate counsel, $2006.^{27}$

It is tempting to suggest that boilerplate could be avoided by firm-specific quantifications of the possible effects of particular risks. Unfortunately, the potential effects of most of the risks that firms disclose in their risk reports are not quantifiable. For example, the pharmaceuticals company GlaxoSmithKline discloses that 'when drugs and vaccines are introduced into the marketplace, unanticipated side effects may become evident'. This may give rise to product liability litigation. What would be the point in trying to quantify the potential losses from this risk? What would have been the point in BP's trying to quantify the potential losses from the Deepwater Horizon incident before it happened (Panel 3.1)? The potential losses in such cases depend on exactly what happens and where, and cannot be forecast.

In fact it is likely that the most important risks facing a business will often be the generic ones. Most of the risks that a business has to deal with derive from the nature of its activities and from the location of its operations. Firms with similar activities and based in similar locations will face much the same risks. Generic risk reporting may be boilerplate, but it may also provide the best description of the key risks the business faces.

If anything, it is perhaps unfortunate that risk reporting is not more generic. Firms with similar business models sometimes report different principal risks and different mitigating factors because the identification of which risks and which mitigating factors are worth reporting is a subjective process. It is therefore possible – even likely – that identical firms will report different lists of risks and different mitigating factors. The challenge for users is to try to work out whether the reporting differences indicate significant differences in risks and risk management or are merely random.

²⁷Both quotations appear in John L. Campbell, Hsinchun Chen, Dan S. Dhaliwal, Hsin-min Lu and Logan B. Steele, *The Information Content of Mandatory Risk Factor Disclosures in Corporate Filings*.

Panel 3.4: Research on boilerplate

Laura Spira and Michael Page, in 'Regulation by disclosure: the case of internal control', note that 'while the use of "boilerplate" has generally been deplored, there has been little analysis of why it occurs'. They suggest a number of reasons why companies adopt boilerplate forms of wording, and they distinguish 'boilerplate' from 'statements of the obvious'. The latter are no more (or less) informative than boilerplate, but use original wording rather than copying somebody else's. Using original wording, they suggest, can be a mistake as it might arouse readers' suspicions.

Tougher enforcement seems unlikely to make a difference. In the US, the SEC has complained that risk disclosures are 'too broad and generic' and told preparers that they should provide disclosures that are 'unique to you and your business'. But the outcome of such interventions may well be longer and fuller generic disclosures.²⁸

Nor are more specific requirements likely to provide a solution to the problem. Another comment from the 1997 discussion in the US was that 'the current requirements ... are subjective, openended and ambiguous, which allows firms to report almost anything (or nothing) without violating the requirements.' This position does not seem to have changed as regards qualitative disclosures. Indeed, a related conclusion at the same discussion was: 'Participants agreed that it is impossible to have a framework for risk selection that is specific about the types of risks that should be disclosed and at the same time, inclusive of all risks that firms face.' This suggests that effective framing of risk reporting requirements will always be problematic.

An alternative view at the same discussion was that 'allowing managers discretion to choose which risks to report based on which they believe are significant is, in itself, informative. Risk selection by managers provides information about firm strategy and, in particular, about the risks on which managers focus their attention.' So vague reporting requirements can also be a benefit.

3.5 Risk management disclosures

Risks are logically distinct from their management, and so reporting risks is different from reporting how they are managed. But it could be argued that the significance of a firm's risks cannot be properly assessed by users of its reporting without knowing how they are managed, and in practice many companies include risk management information with their risk disclosures.

Measures to deal with risks are also often generic (if not, they will probably be proprietary²⁹) and, though quantification is frequently impossible, it is often omitted even where it is possible. One research study³⁰ gives the following examples of risk management disclosures from FTSE 100 companies:

- 'There is an ongoing process for identifying, evaluating and managing the significant risks affecting the business and the policies and procedures by which these risks are managed'.
- 'The Group uses derivative financial instruments to manage its exposures to fluctuations in foreign exchange rates and interest rates'.

There is a problem here in that, as far as the managements of these companies are concerned, their disclosures may well seem to be relevant and useful. But it is difficult to see what users will get out of the first one, and while the second one may be more useful, it might be still more useful with some quantification. Does it mean, for example, that the firm's results are unaffected by changes in exchange rates and interest rates? If not, how far might future results be affected by changes in such rates? It is also – to reiterate our earlier point – difficult for users to know how reliable such statements are. Another research study comments:

'Nearly all companies explain that they use derivatives to "hedge". Few admit to outright speculation, even though the losses some corporations incurred are prima facie evidence to the contrary.'³¹

²⁸See the example in Sarah Johnson, 'SEC pushes companies for more risk information'.

²⁹ Robert S. Kaplan, in 'Accounting scholarship that advances professional knowledge and practice', notes that 'Risk management in organizations is highly complex and context-specific'.

³⁰Philip M. Linsley and Philip J. Shrives, 'Risk reporting: a study of risk disclosures in the annual reports of UK companies'.

³¹Philippe Jorion, 'How informative are value-at-risk disclosures?'

Disclosures on risk management are often a mixture of:

- position statements, indicating that management takes risk seriously;
- descriptions of structure, often listing committees and reporting lines; and
- descriptions of process, explaining what the committees do.

But the effectiveness of a firm's risk management depends on the quality of its managers, and this is something that position statements and disclosure of internal structures and procedures are unlikely to reveal. Reporting on the quality of management is notoriously difficult – because it is inherently subjective and extremely complex, because managers cannot sensibly be asked to report on themselves, and because there would be awkward practical consequences if the reports were negative.

Reporting on the quality of risk management is not exempt from these difficulties. So there is a danger that requirements for disclosures on the adequacy of risk management will tend to result in the development of:

- accepted procedures that can be evidenced; and
- an implicit convention that such procedures should be regarded as sufficient evidence of the adequacy of risk management.

Whether risks have in fact been properly managed is something that would in most cases become clear only after the event, in the results shown by the firm's financial reporting.

The conclusion (Section 2.4) that banks' risk reporting before the crisis was misleading because it reflected their own assessments of risk and these assessments were themselves significantly mistaken has important implications for risk reporting by firms generally. In particular, it seems unduly optimistic to have high hopes for better descriptive risk reporting as long as such reporting is merely a reflection of management's view of risk. Risk reporting of this sort can be no better than management's assessment of risk, and if management gets it wrong, investors will be none the wiser. Some risk reporting, of course, is not merely a reflection of management's view of risk (eg, risk disclosures in financial reporting).

The growth in the demand for risk reporting reflects, among other things, the expansion of risk management as a discrete activity and growing faith in the efficacy of risk management techniques. Some consider this faith is misplaced or at least that we know much less about how to manage risks than is commonly assumed (see Panel 3.5).

Panel 3.5: Doubts about risk management

The economist John Kay, in an article in the *Financial Times*, 'Don't blame luck when your models misfire', writes that:

'[T]he search for objective means of controlling risks that can reliably be monitored externally is as fruitless as the quest to turn base metal into gold. Like the alchemists and the quacks, the risk modellers have created an industry whose intense technical debates with each other lead gullible outsiders to believe that this is a profession with genuine expertise.'

In 'The risk management of nothing', Michael Power suggests that:

'[T]he growth of risk management from the mid-1990s onwards ... was less about managing risk as it is formally understood and more about creating organizational rhythms of accountability, and auditable representations of due process'.

Power focuses on the 'near theological belief' in enterprise risk management (ERM), especially the template for ERM provided by COSO – the Committee of Sponsoring Organizations of the Treadway Commission. He notes that this ERM model 'is strongly, if not exclusively, influenced by accounting and auditing norms of control, with an emphasis on process description and evidence'.

The motivation for Power's paper is the evident failure of risk management in the run up to the financial crisis. He suggests that ERM led to a 'rule-based compliance' approach to risk management, with 'regulations to be met, and ... extensive evidence, audit trails and box "checking"'. This approach can be seen as 'a defence against anxiety' that allows organizations to assure themselves and others that their risks are being effectively managed.

Panel 3.5: Doubts about risk management (continued)

Robert S. Kaplan, in 'Accounting scholarship that advances professional knowledge and practice', notes that much work is currently being done by COSO and others 'to promulgate rules and standards on companies' risk management practices'. He then poses the presumably rhetorical questions:

'Is the practice of risk management sufficiently stable, mature, and understood that now is a good time to develop risk standards and regulations? Or is it better for companies to innovate and experiment with different risk management approaches before regulators standardize and codify practices?'

An alternative approach to risk management disclosures involves distinguishing between manageable risks and unmanageable risks. For unmanageable risks, what is required is some measure of financial or operational strength or a disaster recovery procedure – features that we may describe as 'resilience'. In some ways, disclosures on how well a firm would be able to cope with unmanageable risks are more interesting than information about its procedures for dealing with manageable risks. For example, long explanations by a bank about how it manages risk might be less informative than information about its financial resilience, as this shows its ability to cope with both theoretically manageable risks and the unmanageable ones (which may turn out to include the supposedly manageable ones).

Resilience is not typically related to specific risks and their management. Indeed, the fact that it does not require specific risks to be identified in advance is an advantage. It allows firms to cope with losses or cash calls or physical disasters regardless of their precise origin. Before the financial crisis, growing faith in banks' ability to manage risks was accompanied by a deliberate reduction in their financial resilience – as shown in their capital ratios. As the crisis has dented confidence in the effectiveness of risk management techniques, there has been a renewed interest in resilience.

3.6 Inevitable limitations

Investors need to be aware that there are key risks that will never be disclosed by the firms in which they invest, but which may well prove to be the most important of all. For example, a major risk in most businesses is poor management decisions. It seems probable, to give a topical illustration, that some leading banks had to be rescued in the financial crisis because they made important acquisitions either before or during the crisis without performing full due diligence on the targets. Others did not have to be rescued because, while they tried to make the same mistakes, they were lucky enough to be outbid. No firm's disclosures are likely to include warnings of this sort of risk – though in the US firms do warn that 'acquisitions may have an adverse effect on our business'.

An investor's list of key risks that will never be reported might well include:

- **Poor management decisions.** Past success is no guarantee against making poor decisions. Indeed, the more successful managers have been, the greater the risk of hubris.
- 'It never occurred to us this could happen.' Businesses are often sunk by the risks they are unaware of or consider insignificant. Risk reporting will not capture these though some firms point out that, eg, 'Additional risks not presently known to us, or that we currently deem immaterial, may also impact our business' (Vodafone 2009-10 annual report).
- **Regime risks.** A firm that has made a major investment in a country with a corrupt or unstable regime is unlikely to provide, in its public reporting, a frank assessment of the risks involved.

There are other risks that firms may well recognise, but are liable to underestimate. Prominent among these are:

- Competition. Every firm is confident in public that it can cope with the competition.
- Technical change. This can make firms' business models unexpectedly obsolete.
- Changes in demand. Changes in consumer tastes and fashions are difficult to predict.
- Legal risks. Future changes in the law can be difficult to predict and incidents that give rise to major litigation are often unexpected.

- Forces of nature. Every year there are earthquakes, hurricanes, floods or droughts that are, in the affected areas, 'the worst since records began'. Why would people expect something that they have never experienced?
- Unprecedented events. It's not just natural events that are unprecedented. The financial crisis or elements of it also seemed to be unprecedented. For example, those who invested in subprime mortgages comforted themselves with the reflection that across the US as a whole, as opposed to in specific parts of it for at least 60 years there had never been a fall in domestic property values.³²
- **Rare events.** In some business activities there seems to be an inbuilt tendency to underestimate the likelihood of rare events, which can have disastrous consequences. This may be particularly so in finance where probabilities are sometimes calculated on the basis of relatively short (often unusually stable or benign) periods of experience.³³
- **Systemic risks.** While managers may be able to forecast and manage risks that are specific to their business, it is much more difficult for them either to forecast or to manage systemic risks. These can only be understood, provided for, and reported on by those who have a good overview of the system as a whole.
- **Connected risks**. It is difficult for managers to understand in advance how risks are connected. Systemic risks are a specific and potentially extreme case of such connectedness.
- **Reputational risk.** Before the E.coli outbreak of May 2011, Spanish growers can hardly have taken into account the risks to their business from inaccurate statements by the German government. Equally, trivial events, if they are picked up by the media, can have a disproportionate effect on a firm's reputation. Firms underestimate the risks precisely because the effects can be so disproportionate that they are unpredictable.³⁴
- **Political risks.** People tend to assume that the world, or at any rate the more prosperous parts of it, will remain stable and peaceful. History shows that wars and political instability are not unusual, but are often a surprise.

The business reporting of risks cannot be expected to cope successfully with these very significant issues. The real world of business is always likely to be riskier than risk reporting will convey. In general, this bias towards optimism may be no bad thing as a completely realistic appraisal of risks might have an unduly dampening effect on entrepreneurial activity.³⁵

There are also other risks for which individual firms are unlikely to be the best sources of information. For example, the fortunes of every firm are dependent to a greater or lesser degree on the business cycle, but forecasts of the level of business activity are best obtained from professional forecasters rather than from firms' business reporting. Similarly, as noted above, no individual firm's risk reporting is likely to provide a good view of systemic risks. This information needs to be provided by a body that can take an overview of the system – presumably a financial stability regulator or similar organisation.

3.7 Users' responses to risk information

It seems likely that professional investors will often understand the business models of the firms that they invest in, including the risks that they involve. So it should not in general be expected that lists of principal risks would provide investors with new information, unless the investor had not previously understood the firm's business model. Investors' understanding of risk will draw on information from a number of sources and will not depend purely on the disclosures made by the managers of the firm in which they invest or are considering as an investment. Managers have inevitable limitations in their knowledge, biases in their expectations and incentives that

³²Michael Lewis, *The Big Short*, p89.

³³Nassim Nicholas Taleb draws attention to this tendency in *Fooled by Randomness* and, at greater length, in *The Black Swan*. In a diagram representing a probability distribution, the parts of the distribution showing the probabilities of extreme positive and negative outcomes are the 'tails'. Risk from rare events is therefore sometimes referred to as 'tail risk'. Where the probabilities of extreme positive or negative outcomes are higher than in a normal distribution, the distribution is said to have 'fat tails'. Fat tails seem to be common in probability distributions of changes in market prices.

³⁴The best known example in the UK is Gerald Ratner's jokey, disparaging remarks in 1991 about some of his jewellery company's products. This severely damaged the business and led it to change its name from Ratners Group to Signet Group, as well as to Mr Ratner's departure.

³⁵Frank Knight suggests that a measure of optimism is essential to entrepreneurial activity. An entrepreneur always believes that 'he can make productive services yield more than the price fixed upon them by what other persons think they can make them yield': *Risk, Uncertainty, and Profit*, p281.

affect their disclosures. Sensible investors make allowances for this, diversify their sources of information and look for checks on the information provided by managers (a form of risk management by the investor).

Firms' risk disclosures are therefore made to an audience that already has expectations as to what they will contain. The question for investors is always: does this information confirm what I thought or does it contain a surprise? As different investors will have different degrees of knowledge and different objectives in using risk information, their reactions to risk disclosures are also likely to be highly varied.

Where investors do encounter information about a risk that they had not previously considered, it will probably be difficult for them to know how to reflect it in their own decisions. Possible reactions are:

- concluding that the new information is insignificant ie, ignoring it;
- reflecting it in their valuation of the firm which will be a subjective matter, as the risk will almost certainly be unquantifiable; or
- deciding that the new information significantly changes their view of the firm, such that they no longer wish to invest in it.

This last category is worth a further look. What sort of information might have such consequences? One type of information that might have this effect would be something leading the investor to the conclusion that the firm's management is untrustworthy. Another might be the emergence of a significant and previously unsuspected litigation risk (eg, to take historical examples, asbestosis for the asbestos industry or the discovery that smoking can cause lung cancer). Another might be the unexpected emergence of significant political risks or of major technological changes that would make a firm's products redundant. These are all major risks that could well have significant effects on an investor's decisions. However, they are not the sort of risks about which investors would expect to be informed, in the first place, by the firm itself.

On the other hand, investors who would not otherwise understand a firm's business model may well learn a good deal about it from the firm's descriptive risk reporting. An investor may understand a firm's business model up to a point, but find that risk disclosures usefully deepen his understanding. And different investors will no doubt have very different levels of understanding of such things. Investors are not born with the knowledge that oil firms face losses if they are responsible for oil spills or that pharmaceuticals companies face litigation if their products harm people. No doubt for such investors the risk reports that they read are, when they first read them, useful and informative. Even the best-informed investors start off uninformed and have to get their education from somewhere.

3.8 The cost of capital problem

The research evidence available to date does not show conclusively that risk reporting in general either reduces or raises the cost of capital. This problem is not unique to risk disclosures. It is difficult to demonstrate a link between any particular disclosure and the cost of capital. However, it is at least worth considering the possibility that increased risk disclosures might not reduce firms' cost of capital.

The theoretical case in favour of the proposition that risk reporting reduces the cost of capital is, as we stated earlier (Section 1.1), that it reduces information asymmetries,³⁶ therefore reduces investors' uncertainties, and therefore reduces the return that investors will demand to compensate them for uncertainty. A lower return to investors translates into a lower cost of capital for business.

What are the arguments on the other side, in favour of the proposition that risk disclosures do not reduce the cost of capital? There seem to be four possible reasons why this might be the case:

• The disclosure is not news. Investors have an understanding of the business they invest in – its model and its risks – even in the absence of specific risk disclosures by the business. It is quite possible that lists of risks in the company's annual report add nothing useful to what investors know already. Indeed, it could be argued that if the first time investors learn of a significant risk is when they read the annual report, there has been a significant failure in communication.

³⁶As we noted in Chapter 1, this also involves reducing investors' estimation risks.

- The disclosure is irrelevant. Typical disclosures on risk management position statements, descriptions of structure and process do not seem relevant to helping investors decide how well the risks are managed.
- The disclosure is not credible. Management disclosures can achieve credibility either through independent verification or through the managers' establishing a track record for reliability. Lists of principal risks are not independently verifiable at the time (because they are too subjective) and not verifiable by subsequent experience (because there is no ex post settling up), so managers cannot establish a reputation for credible risk disclosures.
- The disclosure is bad news. If, contrary to the point made above, a risk disclosure is genuine news to investors (and relevant and credible), it may be bad news in the sense that it leads investors to conclude that the business is riskier than they had realised. This would tend to increase the cost of capital. Relevant and credible risk disclosures may not always be bad news, of course, but managerial incentives tend to encourage them towards getting good news into the market, while hoping that bad news will go away. So if risk disclosure requirements compel managers to disclose risks that they would not otherwise have reported, these risks are more likely to be bad news than good news. Some of the research evidence points to risk disclosures being taken as bad news by the market, and so increasing the cost of capital.

This analysis does not apply to all disclosures that are relevant to an assessment of risk. For example, analyses of income or assets (eg, showing concentrations on particular sectors or customers) or segmental analyses of results probably provide users with new, credible and relevant information for the assessment of risk. It may therefore have the desired effects of reducing investors' uncertainties (though it may also increase their assessment of the firm's risks) and allowing them to make a more confident assessment of the risks of a particular investment. However, such information is not what people usually have in mind when they talk about risk reporting, which is descriptive risk lists.

3.9 Realistic expectations

Perhaps the most important challenge for risk reporting comes from the high expectations that surround it. These have been building up for decades, but have been intensified by the financial crisis. They are legitimate, but may well be disappointed.

One academic writer on risk reporting concludes:

'In a voluntary disclosure regime, risk reports will be of poor value for the investors first of all because the forward-looking information disclosed is non-verifiable at an ex ante stage. This allows for discretion and manipulation, and cannot be overcome, but [may be] slightly limited by regulation. Mandatory risk disclosure does not necessarily change the results obtained under voluntary disclosure. In consequence, consistent with empirical findings the value of risk reporting for its users must not be overestimated.' He adds that his paper implies that 'the value of risk reporting is generally overestimated'.³⁷

To some extent this perhaps reflects a broader problem. This is the usefulness (or lack of it) of many qualitative forward-looking disclosures, whether about risk specifically, or about the firm's plans and prospects in a more general sense. Again, great faith has been placed in the efficacy of such disclosures in recent decades and they have grown enormously in volume, but it remains to be shown how useful they are. The evidence suggests that, for forward-looking disclosures generally, the quantified and verifiable tend to be more useful than the qualitative and unverifiable.³⁸

Because none of us has perfect foresight, all forward-looking information is liable to be falsified by subsequent events. Even the best risk reporting will not save investors and others from unpleasant surprises. Donald Rumsfeld's famous comments on uncertainty are a succinct summary of the position:

'There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns – the ones we don't know we don't know' (press conference, 12 February 2002).

³⁷ Michael Dobler, How Informative Is Risk Reporting? A Review of Disclosure Models.

³⁸See Saverio Bozzolan, Marco Trombetta and Sergio Beretta, 'Forward-looking disclosures, financial verifiability and analysts' forecasts: a study of cross-listed European firms'. Users of risk reporting need to recognise its limitations. Sensible investors will use other sources of information to make their own assessments of, for example, political risks. They will not expect a realistic public estimate of the risks of doing business in Country X from the managers of a business that is heavily invested there. But they have a right to expect full disclosure of how much of the firm's business is done there, how much capital it has there, and how much of its profits are made there. All this information should appear in the firm's quantitative disclosures. Investors can then make their own assessments of the firm's risks and make their own decisions as to whether – or at what price – they are willing to invest their own money in such a firm or whether, if they are already investors in the firm, a stewardship intervention would be appropriate.

If expectations of risk reporting are unrealistic then, even if the reporting of business risks improves along the lines that we suggest in the next chapter, people will still be disappointed by it. So before any recommendations for change are put into effect, there is a need to consider what can be learnt from the experience of risk reporting to date and to reflect these lessons in realistic expectations of what it can achieve in the future.

3.10 Chapter summary

We identify five main reasons why the usefulness of risk reporting by businesses across different sectors sometimes seems to be in doubt:

- It is impossible to know even after the event whether most qualitative, and some quantitative, risk reporting is accurate or inaccurate. This must limit the reliance that users can place on it.
- There are often competitive costs to informative risk disclosures and they also have potential costs for managers. These costs may exceed the perceived benefits of risk reporting, leading to uninformative disclosures. Indeed, risk reporting creates its own risks and so needs to be undertaken by preparers, and interpreted by users, as an exercise in risk management.
- It may well be appropriate to comply with requirements for the provision of risk lists by making generic disclosures, even though they will be seen as boilerplate.
- The effectiveness of a firm's risk management depends on the quality of its managers, and this is something that statements of the company's attitude to risk and disclosures of internal structures and procedures are unlikely to reveal.
- There are some risks that firms will never report and others that they are always liable to understate.

For many users, therefore, risk lists may provide little if any useful new information. When they do provide new information, it may be difficult for users to know how to reflect it in their own decisions.

Because of the problems with risk reporting that we have identified, it is unclear whether improved risk disclosures actually reduce the cost of capital, as had been hoped. It is possible that they increase the cost of capital.

In the final chapter of this report, we suggest seven principles for better risk reporting by businesses. But even if these principles are adopted, people will still be disappointed by risk reporting if their expectations for it are unrealistic. With the benefit of hindsight, people often wonder why firms failed to foresee problems ahead and they tend to forget that the future is always full of unknowns, including 'unknown unknowns'. Investors need to recognise the inevitable limitations of risk reporting and so have realistic expectations of how much it can achieve.

4. THE WAY FORWARD

How can risk reporting be improved? We need to know more about what users want from it and how they use it. We need to recognise the strengths of financial reporting as a source of information about risk. And we can improve how risk information is presented and delivered.

Perhaps less 'risk reporting' would mean better information about risks?

4. THE WAY FORWARD

4.1 Better risk reporting

While perfection in risk reporting will never be achieved, it should be possible to improve it, and in this chapter we suggest how it could be improved. Risk reporting is, after all, still a relatively new phenomenon as a deliberate activity, and we should not be too dismayed that it has proved to be difficult. The way forward that we suggest may result in less in annual reports that is labelled as 'risk reporting'. But annual reports should not be viewed as the sole source of reporting on risks and in some respects they are far from ideal for this purpose. As we noted in an earlier publication in the *Information for Better Markets* series³⁹, the annual report forms only a fraction of a firm's total reporting, and is perhaps more useful as a work of reference than as a way of transmitting important new information.

To a large extent, where information about risk continues to appear in the annual report, it should be integrated with other disclosures. And perhaps the most useful information will appear in the financial statements. The result of our proposals, therefore, might well be less 'risk reporting', but the communication of better information about risk – which should be the real objective.

In recent years firms have made efforts to think more carefully about how to improve their risk reporting and this has resulted, at least in some cases, in new approaches to disclosure. For example:

'In 2010, Barclays stood back to consider how our principal risk disclosure could be more informative. Ideally, this disclosure should summarise the key risk exposures and link to other parts of the annual report that provide further analysis. In the interests of clarity and conciseness, we used a tabular format to present information on the following areas:

- the nature of the risk including the events or circumstances that led to it;
- the process in place to manage the risk; and
- how the risk currently affects Barclays, making specific reference to the most significant risk areas and how they are mitigated.⁴⁰

We believe that it would be helpful to put forward some ideas of potentially general application, and we therefore suggest seven principles for better risk reporting:

- tell users what they need to know (Section 4.2);
- focus on quantitative information (Section 4.3);
- integrate into other disclosures (Section 4.4);
- think beyond the annual reporting cycle (Section 4.5);
- keep lists of principal risks short (Section 4.6);
- highlight current concerns (Section 4.7); and
- report on risk experience (Section 4.8).

It is important to have practical solutions to the problem of how to improve risk reporting. Risk reporting requirements vary widely among different jurisdictions, and so it would be impractical to put forward improvements to them that would have general validity. In any case, and perhaps more importantly, the evidence suggests that risk reporting requirements often have only limited effectiveness.

³⁹ Developments in New Reporting Models, Chapter 1.

⁴⁰Wendy Stanford, 'How to declutter reporting'.

For these reasons, we do not propose new or tougher regulation of risk reporting. The seven principles are purely points for consideration by those interested in improving risk reporting and by preparers of corporate reporting information. They are intended to apply to public companies in all sectors. (We use the term 'public companies' to refer internationally to what are commonly known in the UK as 'listed companies'.)

4.2 Tell users what they need to know

Users of corporate reporting want information about a company's risks so that they can make their own assessment of risk. Companies should focus on this objective in deciding what to disclose.

Companies should know what is of interest to their users. As the Financial Reporting Council points out:

'The company is best placed to know what users of annual reports and financial statements are interested in – because it is the board of directors and management that have direct contact with investors, analysts and other users of the annual report and the financial statements.⁴¹

Across the market as a whole, though, relatively little is known about what information users find helpful in making their own risk assessments, so it would also be useful to investigate this. The investigation should look at how risk disclosures are integrated into users' analyses of firms' prospects rather than be a sort of beauty contest where users are asked to judge risk reports – an exercise that can end up focusing on characteristics other than usefulness. The research should also show how risk reporting is reflected in users' outputs or decisions. Better risk reporting should, for example, be reflected in better identification of risks in analysts' reports on companies. It would be useful to see how far analysts' risks match those identified by the companies themselves and to understand how analysts form their views on risk.⁴²

Different users have different information needs and different views on which sources are most useful in meeting these needs, so understanding users' needs may give unclear or conflicting pointers as to what needs to be done. But the exercise should be helpful none the less, even though decisions would then have to be taken as to which specific needs it would be easiest and most useful to meet, and how best to do it.

It may also be useful to pay special attention to the information that credit-rating agencies and regulators find most helpful, as their job is to assess risk. They are interested in a special type of risk, though: the probability of default. And both groups have access to private information. Other users, reliant on public information, may be interested in risk more broadly understood; however, they will also be interested in the probability of default.

One interesting question to pursue as part of this inquiry might well be: how do some firms avoid being criticised for boilerplate? Are they omitting risks that they assume readers of their reports will already be aware of? Are there special features of their business model that give rise to idiosyncratic risks? Are they able to make useful, firm-specific disclosures about risk without incurring proprietary costs?

Panel 4.1: Potentially useful disclosures

We set out below a number of potential risk disclosures by firms. It would be useful to know how far they would help to meet investors' needs, and companies might experiment with disclosures such as these and see whether users find them helpful:

- **Insurance cover.** This would indicate in one respect the extent to which potential risks have been mitigated by management action, and might also provide useful information as to which risks management considers most serious.
- Whether particular risks are growing or diminishing. While it may be impossible to measure most risks, managers probably have a view on whether they are getting better or worse.⁴³

⁴¹ Financial Reporting Council, *Effective Company Stewardship: Next Steps*.

⁴²Another source of information for the inquiry could be submissions to regulators and standard-setters from representative groups of users, although it may not always be clear from these submissions how the information requested would be used.

⁴³This disclosure is advocated in PricewaterhouseCoopers, *Guide to Forward-Looking Information*.

Panel 4.1: Potentially useful disclosures (continued)

- Whether the firm's risk appetite is growing or diminishing. Calls for firms to disclose their risk appetite are common at present, but it is not clear how a firm can usefully describe to outsiders what its risk appetite is. Every firm wishes to convey the message that is both eager to seize opportunities and appropriately cautious in doing so. However, while it may be impossible to measure risk appetite, managers should know whether the firm is becoming more risk averse or more risk seeking.
- The firm's internal discount rate or required rate of return. This could give a measure of the firm's risk appetite. The argument is that, as higher returns usually mean higher risks, the higher a firm's required rate of return, the higher its implied risk appetite. On the other hand, sharply discounting future income could be a sign of risk aversion.
- Key risk indicators (KRIs). A recent publication from COSO⁴⁴ gives examples of KRIs for use by management, but similar though probably less detailed KRIs might also be used for corporate reporting purposes. Examples include:
 - For a 'buffet-style restaurant chain [that] monitors gas prices to identify sales and profitability trends that may signal the need for modifications to sales strategies' useful KRIs might be: 'Trends in per-gallon gasoline prices in the chain's geographic markets' and 'Trends in oil futures prices'.
 - For a 'regional grocery store chain [that] seeks to grow earnings by adding new stores in Northern Virginia and Washington, DC area' useful KRIs might include: 'Employment outlook for federal government agencies and government supportive businesses' and 'Consumer spending trends in Washington, DC area'.
- **Stress testing.** Going concern disclosures could be made more useful by stating how the going concern assumption was tested.

There is a view that users are really interested not in the identification of risks, but in knowing that risks are being properly managed. If correct, this should give a different slant to risk reporting, although it would also raise problems because of the difficulties in providing credible and relevant information on risk management (see 3.5 above).

Another view is that users do not in fact pay any attention to what is labelled as risk reporting as they know that it is of no value. It would be interesting to investigate this claim and see whether this is indeed the view of some users.⁴⁵ To the extent that it is true, it might fit with a hypothesis that demands for better risk reporting come more from regulators and other authorities rather than from users. However, if some users do regard risk reporting as unhelpful, it may also be because of the way in which risk lists are often presented, without appropriate contextual information.

An outcome of the proposed research may well be best practice examples that companies can look to when they prepare their own reports. In the UK, the ASB's operating and financial review guidance already includes useful hypothetical examples, but illustrations of instances that have actually been shown to be useful would be even better.⁴⁶

What can firms do now? Firms that want to improve their risk reporting now could ask the users of their own corporate reporting how their risk disclosures could be improved.

4.3 Focus on quantitative information

There is a perception that risk reporting is primarily something that belongs outside the financial statements. This is because the explicit risk reporting in annual reports typically appears in qualitative lists of risks. But as we pointed out in *No Surprises*, there is a good deal of risk reporting within financial statements, even if it is not labelled as risk reporting.

 Geographical analyses of activities imply different risks for each location in terms of, eg, varying growth prospects, political risks, and currency risks.

⁴⁴ Mark S. Beasley, Bruce C. Branson and Bonnie V. Hancock, *Developing Key Risk Indicators to Strengthen Enterprise Risk Management.*

⁴⁵ Santhosh Abraham, Claire Marston and Phil Darby, *Risk Reporting: Clarity, Relevance and Location,* suggests that it is.

⁴⁶The publications at PricewaterhouseCoopers' corporatereporting.com website include useful examples of best practice risk reporting.

- Sectoral analyses of activities imply different risks in terms of, eg, market growth, competition, and technological change.
- In general, any disaggregation of information within the accounts assists in risk assessment.⁴⁷
- Every asset on the balance sheet has implicit risks as regards the recoverability of the amount at which it is stated. The nature of these risks varies from asset to asset. The reported amount of an asset could also be seen as setting a limit to the possible loss on it, and therefore as a measurement of risk.⁴⁸
- Every liability on the balance sheet and every commitment not on the balance sheet carries implicit risks as to whether the firm will be able to settle it and, in the case of liabilities that are provisions, whether it will prove to be more expensive than currently expected. Unlike measurements of assets, the reported amount of a provision does not mark an upper limit to the potential loss that it represents. The measurements of provisions that appear in the balance sheet depend on probabilistic assessments of future events, as is also the case for the recoverable amounts of many assets.
- Financial reporting is full of information that equity investors and lenders use in considering risk: for example, the profit or loss and trends in profit or loss; net assets and trends in net assets; dividend cover and trends in dividend cover; interest cover and trends in interest cover; the gearing ratio and trends in the ratio; the current asset ratio and trends in the ratio; cash flows, the composition of cash flows, and trends in cash flows; and so on. As there is a presumed link between risk and return, if a firm's financial reporting shows that it is earning higher returns, this may in itself be evidence of higher risks.

Financial reporting therefore carries a great deal of information about risk even in the absence of explicit risk reporting (see the research referred to at Appendix 3, Sections A3.7-A3.9). There may also be extensive disclosures within financial reporting that are more clearly about risk – for example, disclosures under IFRS 7, *Financial Instruments: Disclosures*, information on contingent liabilities and contingent assets, or disclosures about going concern uncertainties.

From the point of view of investors, the great merit of quantitative disclosures in financial reporting, and to a lesser extent (because the disclosures may not be audited) elsewhere in a firm's reporting, is that most of them do not set out to provide management's view of risk. Instead, they provide the raw materials for investors to make their own assessments of risk. They also have other advantages: they are more likely to be checkable and capable of being standardised.

We suggest that, in future, more emphasis should be given to the role that the financial statements already play in risk reporting, and to identifying where incremental risk information can be brought within their scope. However, there may well be proprietary costs involved in disclosures of this sort.

The production of quantitative data is typically easier for financial instruments than for other assets and liabilities, and therefore for financial than for non-financial companies. And even though banks already provide large amounts of financial disclosures related to risk, there may still be scope for improvement. For example, with the benefit of hindsight, what more detailed quantitative information on banks' assets, liabilities and commitments would have been helpful ahead of the financial crisis? And have these changes subsequently been picked up through compliance with Basel II Pillar 3 requirements or by changes in these requirements or in accounting standards?

The stress tests organised by banking and insurance supervisors also provide valuable information about risk, and it would be helpful to explore the use of such disclosures as an additional form of risk reporting by banks and insurers. This idea has already been implemented to some extent in the US, where the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 mandates stress tests for banks and requires summary results of the tests to be published; the market would no doubt find detailed results more helpful. If stress tests are to provide useful information, they must be based on appropriate assumptions. Regulators sometimes require politically convenient assumptions, eg, regarding the value of sovereign debt.

⁴⁷ Stephen G. Ryan, 'A survey of research relating accounting numbers to systematic equity risk, with implications for risk disclosure policy and future research', notes that banking and insurance regulators receive significant disaggregated information to assist their assessments of risk, and calls for more disaggregated information to be publicly disclosed.

⁴⁸An alternative view is that the maximum loss on the asset would be measured by its deprival value – a basis of measurement not currently used in financial reporting. For more on deprival value (or 'value to the business'), see the *Information for Better Markets* report, *Measurement in Financial Reporting*, Chapter 3.

In calling for more emphasis on quantified information in risk reporting, we are not calling for more quantification of the probability that specific risks will be realised or of the potential losses from operational risks. In general, we do not think that attempts to quantify the probability of one-off future events or to forecast the potential losses that might result from them are likely to provide useful information.

What can firms do now? Firms can refer in their descriptive risk reporting to the valuable information on risk provided by their financial reporting and to any quantitative information elsewhere in their reporting, including on their website. They can consider whether there is any additional quantitative analysis that they can usefully provide.

4.4 Integrate into other disclosures

4.4.1 Disadvantages of separate risk reporting

Those who debate the structure of business reporting often assume two key principles:

- Users should be able to find everything that they need to know about a particular subject in one place. This, which we will call the all-in-one-place principle, lies behind proposals that risk reports should be a separate and self-sufficient feature within annual reports.⁴⁹
- Reports should not repeat information in different places. This seems to be an obviously sensible point repeating information suggests that it is badly organised. We will call this the no-repetition principle.

Unfortunately, except in special circumstances, the two principles are incompatible. They are only compatible where the various subjects of business reporting do not overlap. Where they do overlap, there is a choice between satisfying the all-in-one-place principle and satisfying the no-repetition principle. They cannot both be satisfied at the same time.

In practice, the subjects covered by business reporting have expanded so significantly in recent decades that, for a public company, they inevitably overlap. Risk reporting provides an excellent example. It overlaps with, most conspicuously:

- disclosure of the business model (4.4.2);
- discussion of future plans and prospects (4.4.3);
- discussion of past performance (4.4.4); and
- financial reporting information on past performance and current position (4.4.5).

So while it may or may not be desirable to have separate reports on business risks, it will never be possible for them to include all relevant information without repeating what appears elsewhere in the corporate report. And although the trend in risk reporting has been to separate it from other disclosures, in one respect this is a psychologically unattractive approach. It means that risk reporting tends to become just a long list of risks, a recital of gloom and negativity, which will either put readers off or give them the implicit message that 'You can ignore all this stuff, but they force us to put it in here.'

Risks are integral to business, and anyone who wants to understand a business needs to understand its risks. 'Risk is part of every decision a company makes.'⁵⁰ But because risks are integral to a business, it will not usually make sense to report on them separately as though they could be detached from its business model or its performance or its future plans and prospects or even its financial reporting. The question is: what is the most effective way to communicate information about risk?

This does not mean that there is no place for a separate statement of business risks in corporate reporting, and indeed statutory and other requirements may mean that in practice such statements are currently unavoidable. Separate risk reports may well be useful for some firms – most obviously banks – where information about risks and their management is perceived to be especially important. For these institutions a 'risk narrative' (see Appendix 4, Section A4.3) may be an important feature of their reporting. But for many, perhaps most, firms a separate and self-contained statement of business risks will probably not be ideal. All of this reinforces the conclusion of *No Surprises* that what matters is providing the relevant information, not necessarily providing it in a separate report labelled 'Risks'.

⁴⁹ Audit of Banks: Lessons from the Crisis notes stakeholders' concern that information on risk is often presented in a piecemeal way. The Financial Reporting Council, in *Effective Company Stewardship: Next Steps*, concludes that 'any description of the risks a company faces should not be ... scattered about the annual report'.

⁵⁰International Corporate Governance Network, *ICGN Corporate Risk Oversight Guidelines*.

Whether our proposal that risk reporting should be integrated with other disclosures is indeed the best approach is an empirical question. It would therefore be helpful for researchers to investigate what form of presentation of risk disclosures is most useful for investors. Any research on this issue would need to bear in mind that it is not investors' understanding of risk alone that matters, but their overall understanding of the firm and its prospects. There is no point in improving users' understanding of one aspect of a business if it is at the expense of their understanding of other equally important aspects.

4.4.2 Business model disclosures

In the UK, listed companies are now required by *The UK Corporate Governance Code* to disclose their business models. While terms such as 'business model' and 'strategy' have no generally accepted meaning, it seems reasonable to regard the two terms as equivalent for the purposes of disclosure. In which case, the new requirement matches the call in *No Surprises* for companies to disclose their strategies, though this did not envisage a mandatory requirement. Other jurisdictions have similar requirements, though we are not aware of any others that use the words 'business model'.

Panel 4.2: Business model disclosures in practice

In April 2011 the Black Sun consultancy conducted a review of practice shortly after the introduction of the business model requirement in the UK, *The Business Model – Is It the Missing Link?* They write:

'For many businesses, having to consider disclosing the business model has acted as a catalyst for internal debate over what it actually is. Indeed, in some cases, several different descriptions of the business model can be proposed by individuals from the same company. This is often quite a helpful and productive debate to have as it helps management consolidate views and ensure that there is cohesion internally in terms of what the business is trying to do and what its purpose is.'

Views may differ on how useful this process is. As we noted in the Information for Better Markets report *Business Models in Accounting*, there is 'a risk that the disclosed business model will be – without any dishonesty – "what we agree to tell people when they ask us what our business model is" rather than the possibly changeable and uncertain set of ideas that actually drives the business.'

As a firm's key risks will typically be inherent in its business model, it would be appropriate to explain them in explaining the business model, rather than to explain the model in one report and then point out the risks that it involves in another one. So the UK requirement further diminishes the case for a separate report on business risks. Where there are similar requirements in other jurisdictions, the same argument would apply.

Sometimes risk reporting is uninformative because there is inadequate contextual information. Users may not understand what exactly a disclosed risk means or how it might affect the firm. Understanding risks often requires a sophisticated understanding of the business and its context, which preparers of risk reports are able to take for granted because they work in the business. But they need to think about what external users will or will not understand without further explanation. Integrating risk reporting into business model disclosures may help users understand its significance.

4.4.3 Performance discussion

A key motive for users' interest in information about risk is that they want to know how far past performance is a reliable guide to the future. So the discussion of past performance could be seen as primarily a risk disclosure. The forward-looking purpose of such discussions is, helpfully, explicit in North American requirements for management discussion and analysis, but not in Europe. As such material is company-specific, it should be able to avoid the accusation of boilerplate.

The relevant reporting requirements have changed in recent years, at least in the UK and in the EU as a whole. In the UK, the Companies Act requirements for a business review mandate 'a balanced and comprehensive analysis of the development and performance of the company's business during the financial year'. We would expect the disclosures in this review to contain useful information about the risks the company faces as they will highlight special factors that affected the company's performance during the year.

It may be helpful for preparers to consider the factors they have identified in discussing past performance and the factors that were not worth mentioning in relation to past performance but which may well affect future results, and to highlight these in the firm's discussion of its plans and prospects.

4.4.4 Plans and prospects

It seems natural to incorporate a discussion of risks into any disclosure of the firm's plans and prospects. This would also give an opportunity to discuss opportunities as well as risks. In this report we have focused on risk as it is conventionally understood, which is about what might go wrong. But even if risk is understood in this one-sided way, it is important that forward-looking reporting should cover uncertainties that have potentially positive outcomes as well as uncertainties that have potentially negative outcomes.

Again, the relevant reporting requirements have changed in recent years, in the UK, in the EU as a whole and no doubt in other countries. In the UK, the Companies Act requirements for a business review mandate disclosures on 'the main trends and factors likely to affect the future development, performance and position of the company's business'. These disclosures should contain useful information about the risks the company will face in the future.

For many risks, potential upsides are already assumed in managers' expectations of the firm's prospects. Managerial assumptions about the future inevitably tend towards the optimistic, as the only projects undertaken are those that are expected to succeed, whereas in practice many of them will fail. Projects that are not expected to succeed, even though some of them might succeed if they were undertaken, are usually not undertaken in the first place.⁵¹ It would therefore be reasonable to take the view that upside 'risks' are often already incorporated in managerial expectations. What is of interest to investors is therefore what might cause these expectations to be disappointed.

No doubt some firms do better than they expect, but this is less common than the opposite experience. Negative 'profit warnings' are more frequent than positive 'estimated results improvements'. When results are better than expected, expectations tend to be adjusted upwards relatively quickly. When results are worse than expected, managers are reluctant to adjust expectations downwards and instead seek ways to remedy the problem or, in some cases, reasons to explain it away.

While this analysis might indicate that separate identification of possible positive risks will be even more difficult than separate identification of negative risks, there will be many risks where a positive outcome is in principle as likely as a negative one. This will often be the case for example with market risks arising from possible changes in prices and rates (eg, interest rates or exchange rates). Disclosure of both positives and negatives is perhaps especially important in such cases as derivative positions may well skew the firm's position so as to limit losses. A US study gives an example of a firm that discloses the effect of both a 10% appreciation in exchange rates (a \$9 million increase in the fair value of options and forwards) and a 10% depreciation (a \$6 million decrease in the fair value of options and forwards).⁵² We would envisage that such disclosures would be included in a firm's financial statements.

4.4.5 The financial statements

At 4.4.2 to 4.4.4 we have discussed the integration of risk reporting with business model disclosures, the discussion of past performance, and information on plans and prospects. But risk reporting also needs to be integrated with the firm's financial reporting. As we have emphasised, the financial statements contain much valuable information on risk. It will be important to cross-refer to this in any discussion of risk elsewhere in the firm's reports in order to give an accurate picture of its risks.

4.4.6 Existing reporting requirements

Existing reporting requirements sometimes require separate reports on risk, so the approach that we advocate would not be compatible with such requirements unless they allow compliance by reference to other disclosures.

⁵¹A possible exception would be firms that take a portfolio approach to projects. They expect some of them to fail, but do not know in advance which will do so. However, they expect the portfolio as a whole to succeed. Firms that engage in, eg, exploration for minerals, new product development, and funding for start-up investments may take this approach.

⁵²Leslie Hodder, Lisa Koonce and Mary Lea McAnally, 'SEC market risk disclosures: implications for judgment and decision making'.

In the UK, the Companies Act business review requirement to provide 'a description of the principal risks and uncertainties facing the company' is most obviously complied with by a separate report. Indeed, the Accounting Standards Board regards the absence of a separate report as non-compliance with the Act's requirements.⁵³ The wording of the Act does not appear to be incompatible with integration of the disclosures in parts of the business review dealing with, eg, 'the development and performance of the company's business during the financial year' and 'the main trends and factors likely to affect the future development, performance and position of the company's business'. But preparers are unlikely to wish to adopt this interpretation of the Act as long as regulators are known to take a different view.

At Panel 3.2 we noted the Financial Reporting Review Panel's interpretation of the UK's statutory requirements, which suggests that generic risk disclosures would be insufficient to meet these requirements.

What can firms do now? Firms can review how well their disclosures on such matters as the business model, future plans and prospects, etc, make clear what the related risks are. Where they are implicit, do they need to be spelt out?

4.5 Think beyond the annual reporting cycle

Companies have an annual reporting cycle. Public companies in most jurisdictions usually also report more often than this – every six months or every quarter, but on a less comprehensive basis than in the annual report. This periodic approach to reporting is appropriate where the core of the report is financial statements, which necessarily cover a defined period of time. A periodic approach is also useful in terms of fitting in with the provision of information for corporate governance purposes, in particular for the annual meeting, and as a matter of practical convenience.

But companies also report much information as the need arises – for example, when they secure an important new contract, or make an acquisition or a divestment, or make changes in top management, or face an unexpected alteration in the trading outlook.

Risks don't change once a year. The risks that firms face are often determined by their business model and location, and are much the same from one year to the next. But some risks are highly fluid and variable. Either way, an annual report does not seem to provide the most appropriate frequency for discussing business risks. What is needed is a form of reporting that in some respects constitutes a permanent record of the risks that are inherent to the business and in other respects changes as the need arises to reflect the way that risks change in the real world. The internet, which was still in its early days as a corporate reporting medium when *No Surprises* was published, seems to be the ideal way to provide both types of information. There may also be other items that currently appear in annual reports that would be better dealt with on firms' websites.⁵⁴

One of the key points made in *No Surprises* was that firms disclose more about risks in prospectuses than they do in their annual reports (and do so without excessive boilerplate). Extensive disclosures about risk are now frowned on by some regulators and commentators, but to the extent that it is still thought useful to have more, rather than less, information about risks, a move to disclosing it in a 'shelf' document on the internet would help keep disclosures up to prospectus standards.⁵⁵

We therefore recommend that consideration be given to how risk reporting, and perhaps other forms of reporting too (including disclosure of the business model), might be taken out of the annual reporting cycle and instead updated as the need arises on firms' websites. Putting information on the website also allows users to 'drill down' to further, supporting data where they wish to. This approach would imply changes in statutory or regulatory requirements in many jurisdictions, including the EU and the US. It would also raise important issues as to, eg, how far the information would be audited and how far 'safe harbour' provisions applicable to information in the annual report would extend to reporting on the internet.

⁵³Accounting Standards Board, A Review of Narrative Reporting by UK Listed Companies in 2008/2009.

⁵⁴ A point also made in the ASB report, *Cutting Clutter: Combating Clutter in Annual Reports* and in the Department for Business, Innovation and Skills' consultation paper, *The Future of Narrative Reporting*. In the US, any changes in the most significant risk factors have to be reported quarterly.

⁵⁵There is also a view that prospectus disclosures are rightly more extensive than those in an annual report, so it should not be expected that the annual report would keep up the disclosure standards found in the prospectus. On this view, a prospectus is an attempt to raise money from people who are deemed to be in a state of ignorance about the business. An annual report addresses those who have already decided to become investors in the business, and who can therefore be reasonably assumed at least in some respects not to be in a state of ignorance about it.

Panel 4.3: What is the best place for risk reporting?

In 'Risk disclosure: an exploratory study of UK and Canadian banks' Philip M. Linsley, Philip J. Shrives and Mandy Crumpton ask:

'[I]s the annual report the most appropriate place for the disclosure of risk information? Although it is an important public document it is only published once a year and its primary focus is upon what has happened in the past... Risks alter, sometimes dramatically, and sometimes over very brief periods of time. Therefore, useful risk information may need disseminating by some other method.'

This is an appropriate question for research, so as to establish the best place for risk reporting. The answer may well differ for different users and for different types of risk reporting.

We do not envisage that risk-relevant information within financial reporting would be transferred to the website in this way. Nor do we envisage that a new continuous reporting obligation would be created specifically in relation to risks. It is already usual for jurisdictions with modern capital markets to impose generalised continuous reporting obligations on public companies. In the UK, for example, the requirement is to disclose information that would, 'if generally available, be likely to have a significant effect on the [share] price'.⁵⁶ Where such an obligation exists, any additional continuous reporting requirement relating specifically to risks would probably be superfluous and confusing.

What can firms do now? Firms can consider what permanent information on risk they can usefully put on their websites and, as risks change, what more ephemeral information it would be useful to provide there.

4.6 Keep lists of principal risks short

Those preparing risk reports sometimes produce long lists of what might go wrong rather than focusing on a few key risks. Long lists of risks are inevitably a deterrent to readers and they may offend against the principle set out in *Prospective Financial Information* (see Section 1.4 above) that disclosure should not become 'too complex or extensive to be understood or used by investors'.

Risk reporting might have more impact if firms focused on a small number of risks. This probably reflects many firms' actual practice in their internal reporting, where limits on management and non-executive time often make it essential to focus attention on limited numbers of risks. Firms should also disclose other risks if they consider it appropriate, but identifying a small number of key risks would give readers the opportunity to focus on something of reasonable length. In recent years firms have made efforts to think more carefully about which risks should be disclosed and this has indeed resulted, at least in some cases, in shorter lists.

Producing shorter lists of principal risks will only work if users of corporate reporting are prepared to accept that it will become more likely that, when things go wrong, they will not have been warned in the prioritised listing of key risks. So focusing users' attention on some risks to the exclusion of others would create its own risks for managers if users are unhappy with the results of this process. There may of course be more extensive listings of risks elsewhere in the company's reporting, and it would be wrong to discourage firms from reporting risks that they consider significant. There is also evidence that some users find long lists of risks helpful, and some statistical correlations suggesting that the stock market may view the length and number of risk disclosures as indicators of risk. This is another question on which more research is needed.

What can firms do now? Firms can highlight the small number of risks that they consider to be the principal ones facing the business. But they should not be discouraged from reporting any risks that they consider significant.

⁵⁶Financial Services and Markets Act 2000, s118C, and the Financial Services Authority's Disclosure and Transparency Rules, DTR 2.2. These could be seen as requirements that the annual report should not contain any significant new information, if significance is interpreted in terms of potential effects on the share price, as any significant new information should have been disclosed earlier, when management became aware of it.

4.7 Highlight current concerns

Users sometimes say that it would be helpful to know which risks managers are currently talking about. This tells them something about the business and – as users will second-guess which risks managers ought to be focusing on – something about the managers. Investors may also view this sort of disclosure as 'the start of a conversation'⁵⁷ with management, rather than as something complete in itself. It also has the advantage that it is relatively objective, in that it is a factual question whether a risk currently is or is not a matter that appears on the agenda for board and management meetings. It may therefore be useful for firms to disclose this information. 'Current concerns' should be interpreted broadly. It would be helpful to regard management discussions on resilience (see 3.5) as falling within its scope.

We do not envisage that this would be a requirement. It is just something that firms can do if they want to provide more useful information on risk.

At any one time, different groups within the firm will be talking about different risks for different reasons, so it may be difficult to know what it would be most useful to disclose. For example, firms might disclose risks that are currently being discussed by the board or by the audit committee (neither of which will necessarily reflect managers' concerns as opposed to those of broader groups within the firm, including non-executives) or by the risk management committee (but many firms may not have such a committee).

Three other practical issues that would arise with this proposal are that: it may be difficult to determine the point at which concerns should be disclosed; it may be difficult to distinguish between reporting risks and reporting problems; and it may involve proprietary costs.

When should risks be disclosed? When a new risk emerges or becomes more significant, it may occupy managers' attention, but their focus initially will probably be on taking action to prevent it from becoming a significant risk. At a later stage, the risk may pass quickly from being a risk to being a loss, ie, a realised risk. For example, if managers become aware of a possible disruption to their supply chain, they will first of all seek ways to address the problem, eg, by using alternative suppliers. There may be a period of uncertainty when it is not clear how successful managers' efforts will be, though they are optimistic that they will be successful. But perhaps there comes a point when they suddenly find that they have not succeeded and that the business is faced with significant disruption. During the period in which management is doing its best to prevent the risk from being realised, should its concerns be disclosed? Frequent disclosures of risks that then turn out not to be a major problem are an unattractive prospect and, by increasing share price volatility, could increase the cost of capital.⁵⁸

Distinguishing between risks and problems. As the previous paragraph implies, it may be difficult to distinguish between which risks currently most concern managers and which problems most concern them. Even when a risk is realised and has become a loss, arguably it continues to be a risk as management action will be aimed at containing the loss – the risk is that it will not be contained. An oil spill would be an example of this kind of problem. It is a risk before it happens. Once it happens the risk is realised (to some extent), but arguably it sstill appropriate to classify it as a risk as long as there remains uncertainty about how bad it will be. There may then be consequential risks as to litigation, loss of reputation, and possible regulatory action.

Proprietary costs. Managers go to considerable lengths not to cause unnecessary alarm about the problems they face. To do otherwise would damage morale and motivation within the firm, reduce external stakeholders' confidence in it, and assist competitors. Problems in firms often relate to the competence of management at some level of the organization – not necessarily the most senior level. The issue is not normally evident to outsiders, as managers no doubt succeed in resolving most of the problems they face. But it becomes clear that problems have existed or have been bigger than the company was prepared to admit when management – often new management – accepts defeat and announces that a product or service will be discontinued, or a plant closed, or a subsidiary sold, or senior managers have been replaced. Companies are not completely transparent about such things in the period before the decision is taken because there would be real costs involved in full disclosure. It may therefore be thought unlikely that managers will be fully open about what currently concerns them. If you ask people, 'What keeps you awake at night?', it would be naïve to expect an honest answer.

⁵⁷Laura Spira and Michael Page, 'Regulation by disclosure: the case of internal control'.

⁵⁸See Christine A. Botosan and Marlene A. Plumlee, 'A re-examination of disclosure level and the expected cost of equity capital', for evidence that increasing frequency of disclosure might increase the cost of capital. The proposal to highlight current concerns is not intended to replace longer lists of significant risks; and the risks that occupy managers' attention at any specific time are not necessarily its principal risks, so – if disclosed separately – it would be an additional disclosure. We envisage, though, that the most effective way of highlighting current concerns would be to do so in the course of other disclosures – about current plans and prospects, for example.

Against this, it could be argued that such disclosures are by their nature ephemeral. For example, following the March 2011 earthquake and tsunami in Japan, many firms around the world encountered supply chain risks, which would probably not have featured on their lists of current concerns in February 2011. Over time, such issues are resolved – how quickly will vary from one firm to another – and at some point they cease to be current concerns. So, given the ephemeral nature of such lists, their disclosure may be more appropriate for firms' websites rather than their annual reports. But that would imply separate disclosure rather than integration with other disclosures.

What can firms do now? Firms can highlight which risks currently cause them most concern.

4.8 Report on risk experience

Companies could usefully review their experience of risk in the reporting period. What went wrong? What lessons have been learnt? It would have been interesting, for example, after the onset of the financial crisis, to read what lessons about risk the surviving banks considered they had learnt.

The review could also look at how the firm's experiences during the period match up with the risks that it had previously reported. This would provide at least a partial ex post settling up, though unless it is recognised as merely partial it could be misleading.

Such a review might overlap with disclosures of principal risks and current concerns, as the firm's risk experience for the period might well shape its perception of risks for the future or feature prominently in the matters that currently command managers' attention.

What can firms do now? Firms can report on their risk experience over the past year, discuss how far it matches their previous risk reporting, and explain what lessons they have learnt.

4.9 Chapter summary

It is important to have practical solutions to the problem of how to improve risk reporting. Risk reporting requirements vary widely among different jurisdictions, and so it would be impractical to put forward improvements to them that would have general validity. In any case, and perhaps more importantly, the evidence suggests that risk reporting requirements often have only limited effectiveness.

For these reasons, our suggestions – set out in seven principles – do not include any proposals for new or tougher regulation. The principles are purely points for consideration by those interested in improving risk reporting and by preparers of corporate reporting information, and are intended to apply to public companies in all sectors. The seven principles for better risk reporting are:

- Tell users what they need to know. Users of corporate reporting want information about a company's risks so that they can make their own assessment of risk. Companies should focus on this objective in deciding what to disclose.
- Focus on quantitative information. Disclosing more detailed analyses of the quantitative data that firms already provide would give helpful new information. Too much weight has been placed on the production of descriptive risk lists. This is not a call for quantification of risks, which usually involves dubious assumptions about the probability of future events. Nor is it a call for qualitative information to be neglected. What we have in mind is more information on the breakdown of firms' activities, geographically and by sector, and on their assets, liabilities and commitments.
- As far as possible, integrate information on risk with other disclosures. Financial reporting provides much information on risks already, and this should be integrated with other risk disclosures. But information on risk should also be integrated with firms' descriptions of their business models, their forward-looking disclosures, their discussion of past performance, and their financial reporting. A firm's risks are usually inherent in its business model, so explaining the business model should involve explaining its risks. Risk is forward-looking and cannot be fully understood except in the context of broader forward-looking information about a firm's performance, plans and prospects.

- Think beyond the annual reporting cycle. Many risks stay the same from one year to the next. Others are highly variable and information on them needs to be updated more frequently than once a year. The internet, rather than the annual report, would probably be the right place for information on both sorts of risk.
- Where possible, keep lists of principal risks short. Users are currently faced with long and indigestible risk lists that are all too easy to ignore. Where it is useful for companies to disclose other risks as well as those identified as the principal ones, they should still do so.
- **Highlight current concerns.** It is likely to be of interest to users to know what risks are currently most discussed within a firm. These will often be different from the firm's principal risks, and disclosing them could give users a valuable insight into the business.
- **Review risk experience.** Companies could usefully review their experience of risk in the reporting period. What went wrong? What lessons have been learnt? How do their experiences match up with the risks that they had previously reported?

As for banks, their quantitative risk disclosures have already been expanded since the onset of the crisis through changes in accounting standards, implementation of Pillar 3 of the Basel II Accord on banking supervision and expansion of its requirements. Further improvements may be possible. Stress tests organised by banking and insurance supervisors, where they are based on appropriate assumptions, can also provide valuable information about risk, and it would be helpful to explore the use of such disclosures as an additional form of risk reporting by banks and insurers.

One outcome of all the changes that we suggest might well be that there is less of what is labelled as 'risk reporting' in companies' annual reports. But the proposed changes would mean that, overall, there is more useful information about risks. This should assist investors and other users of corporate reporting to form their own judgements on risk and, in this way, should also contribute to better stewardship of companies, a more efficient allocation of resources, and greater financial stability.

APPENDIX 1: REQUIREMENTS FOR RISK DISCLOSURES

Requirements for risk disclosures around the world, particularly including those in accounting standards, are now voluminous. What follows is merely a selection of some of the more important requirements.

A1.1 US

A1.1.1 Risk factors

The US Securities and Exchange Commission (SEC) requires publicly traded companies to disclose 'risk factors' in their annual (Form 10-K) reports and to update them in their quarterly 10-Q reports if they change. The factors to be disclosed, defined in the SEC's prospectus requirements (Regulation S-K, Item 503, paragraph (c)), are 'the most significant factors that make the offering speculative or risky'.

SEC guidance suggests that firms should 'generally avoid mitigating language' in their risk disclosures – eg, 'clauses that begin with "while," "although" or "however".' In practice, companies disclose how they manage risks in their MD&A disclosures (see below).

A1.1.2 Management discussion and analysis

The US SEC's requirements for publicly traded companies include an annual management discussion and analysis (MD&A). The requirements in their current form go back to 1980, although they have been amended on a number of occasions since then. The MD&A is to some extent about risks that the company faces. For example, there are requirements to:

'Identify any known trends or any known demands, commitments, events or uncertainties that will result in or that are reasonably likely to result in the registrant's liquidity increasing or decreasing in any material way' (Regulation S-K, Item 303, paragraph (a) (1))

'Describe any known material trends, favorable or unfavorable, in the registrant's capital resources. Indicate any material changes in the mix and relative cost of such resources' (paragraph (a) (2) (ii)).

'Describe any known trends or uncertainties that have had or that the registrant reasonably expects will have a material favourable or unfavourable impact on net sales or revenues or income from continuing operations' (paragraph (a) (3) (ii)).

The motivation for the requirements is the risk that users of the company's financial statements will draw unwarranted conclusions about the future from the historical information in these statements. The SEC's instructions to preparers state:

'The discussion and analysis shall focus specifically on material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition... This would include descriptions and amounts of (A) matters that would have an impact on future operations and have not had an impact in the past, and (B) matters that have had an impact on reported operations and are not expected to have an impact upon future operations' (Instruction 3 to Paragraph 303(a)). The SEC's guidance on the MD&A recognises that its requirements are for information that cannot be standardised:

'The MD&A requirements are intentionally flexible and general. Because no two registrants are identical, good MD&A disclosure for one registrant is not necessarily good MD&A disclosure for another. The same is true for MD&A disclosure of the same registrant in different years.'⁵⁹

Canada has requirements for an MD&A similar to those in the US.

A1.1.3 Sarbanes-Oxley Act

The US Sarbanes-Oxley Act of 2002 contains a requirement at s404 for the SEC to prescribe rules requiring publicly quoted companies to include in their annual reports 'an assessment ... of the effectiveness of [their] internal control structure and procedures ... for financial reporting'. As the controls and procedures that underlie a firm's financial reporting system are important components of its overall controls, these disclosures are potentially useful for assessing a firm's risks and/or its risk mitigation procedures.

A1.2 EU

The EU's Accounts Modernisation Directive of 2003 (Directive 2003/51/EC) includes a requirement that:

'The annual report shall include at least a fair review of the development and performance of the company's business and of its position, together with a description of the principal risks and uncertainties that it faces' (Article 1 (14)).

This provision applies to the reports of individual companies. A similar provision in the same directive applies to the reports of groups (Article 2 (10)). The requirements apply to all companies and groups regardless of size, but the directive allows EU member states when they implement it to exempt small companies and groups. Another directive sets maxima for what can be defined as small for this purpose.

The EU's Transparency Directive of 2004 (Directive 2004/109/EC) includes a requirement that 'The interim management report shall include ... a description of the principal risks and uncertainties for the remaining six months of the financial year' (Article 5 (4)). This directive applies only to public companies.

A1.3 Germany

Germany has risk reporting requirements additional to those imposed by the EU. In 1998 a legal requirement was introduced for German companies to disclose information on material risks in the management report section of the annual report. This requirement was amplified in 2001 by the German Accounting Standards Board's GAS 5, *Risk Reporting*. This specifies the content and format of risk disclosures. Risk is interpreted as 'the possibility of a future negative impact on the economic position'.⁶⁰ GAS 5-10 and GAS 5-20 deal respectively with risk reporting by banks and by insurers.

A1.4 UK

The UK also has risk reporting requirements additional to those imposed by the EU.

The UK Corporate Governance Code, which is issued by the Financial Reporting Council (FRC) and applies to listed companies, states:

C.2 'The board is responsible for determining the nature and extent of the significant risks it is willing to take in achieving its strategic objectives. The board should maintain sound risk management and internal control systems.'

C.2.1 'The board should, at least annually, conduct a review of the effectiveness of the company's risk management and internal control systems and should report to shareholders that they have done so.'

⁵⁹SEC, SEC Interpretation: Management's Discussion and Analysis of Financial Condition and Results of Operations; Certain Investment Company Disclosures.

⁶⁰ Michael Dobler, 'National and international developments in risk reporting: may the German Accounting Standard 5 lead the way internationally?'

These requirements are supported by guidance from the FRC, *Internal Control: Revised Guidance for Directors on the Combined Code* ('the Turnbull Guidance'). *The Combined Code* has now been superseded by *The UK Corporate Governance Code*, and the guidance is therefore slightly out of date. However, it states:

'33 The annual report and accounts should include such meaningful, highlevel information as the board considers necessary to assist shareholders' understanding of the main features of the company's risk management processes and system of internal control, and should not give a misleading impression.

'34 In its narrative statement of how the company has applied Code Principle C.2, the board should, as a minimum, disclose that there is an ongoing process for identifying, evaluating and managing the significant risks faced by the company, that it has been in place for the year under review and up to the date of approval of the annual report and accounts, that it is regularly reviewed by the board and accords with the guidance in this document.

'35 The disclosures relating to the application of Principle C.2 should include an acknowledgement by the board that it is responsible for the company's system of internal control and for reviewing its effectiveness. It should also explain that such a system is designed to manage rather than eliminate the risk of failure to achieve business objectives, and can only provide reasonable and not absolute assurance against material misstatement or loss.

'36 In relation to Code Provision C.2.1, the board should summarise the process it (where applicable, through its committees) has applied in reviewing the effectiveness of the system of internal control and confirm that necessary actions have been or are being taken to remedy any significant failings or weaknesses identified from that review. It should also disclose the process it has applied to deal with material internal control aspects of any significant problems disclosed in the annual report and accounts.'

The Financial Services Authority's Disclosure and Transparency Rules for listed companies require the directors' report to include a corporate governance statement. This statement 'must contain a description of the main features of the [company's] internal control and risk management systems in relation to the financial reporting process' (DTR 7.2.5). *The UK Corporate Governance Code* comments that 'While this requirement differs from the requirement in the UK Corporate Governance Covernance Code, it is envisaged that both could be met by a single internal control statement.'

A1.5 Basel II Accord

The 2004 Basel II Accord establishes minimum standards for the international regulation of banks. It has three pillars. Pillar 1 sets minimum capital requirements, which are designed to reflect risks. Pillar 2 – 'supervisory review' – concerns the regulatory processes for dealing with the minimum capital requirements. Pillar 3 is 'market discipline'. This sets disclosure requirements for banks, with a focus on risks, to allow the market to exert its own discipline on these institutions. These requirements had not come into effect before the financial crisis. Most European banks, for example, did not have to comply with them until 2008.

Basel II disclosures do not necessarily form part of the financial statements and some banks publish them as a separate statement (which may overlap to some extent with financial reporting disclosures). HSBC Holdings, for example, publishes a separate report, *Capital and Risk Management Pillar 3 Disclosures*, which for 2010 runs to 66 pages.

A1.6 IFRS

There are some requirements in IFRS that require risk disclosures without necessarily mentioning the word 'risk'. In some cases they refer to 'uncertainties' rather than 'risks'. For example, IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, requires that:

- for each class of provision 'an indication of the uncertainties about the amount or timing' of expected outflows should be disclosed (paragraph 85); and
- for each class of contingent liabilities, unless the possibility of any outflow is remote, 'where practicable ... an indication of the uncertainties relating to the amount or timing of any outflow' should be disclosed (paragraph 86).

For some reason, there are no comparable requirements for uncertainties about contingent assets. It seems reasonable to regard any disclosures on the subject of contingencies – whether they are classified as contingent assets or contingent liabilities – as risk disclosures.

IAS 1, *Presentation of Financial Statements*, requires firms to disclose information on the assumptions it makes about the future, and other major sources of estimation uncertainty.

In relation to going concern uncertainties, it requires that:

'When preparing financial statements, management shall make an assessment of an entity's ability to continue as a going concern...

'When management is aware, in making its assessment, of material uncertainties related to events or conditions that may cast significant doubt upon the entity's ability to continue as a going concern, the entity shall disclose those uncertainties. When an entity does not prepare financial statements on a going concern basis, it shall disclose that fact, together with the basis on which it prepared the financial statements and the reason why the entity is not regarded as a going concern.

'In assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least, but is not limited to, twelve months from the end of the reporting period.'

IFRS 7, *Financial Instruments: Disclosures*, has extensive risk disclosure requirements. These are reproduced in Panel A1.1 below:

Panel A1.1: IFRS 7 risk disclosures

Nature and extent of risks arising from financial instruments

31 An entity shall disclose information that enables users of its financial statements to evaluate the nature and extent of risks arising from financial instruments to which the entity is exposed at the end of the reporting period.

32 The disclosures required by paragraphs 33–42 focus on the risks that arise from financial instruments and how they have been managed. These risks typically include, but are not limited to, credit risk, liquidity risk and market risk.

Qualitative disclosures

- 33 For each type of risk arising from financial instruments, an entity shall disclose:
- (a) the exposures to risk and how they arise;
- (b) its objectives, policies and processes for managing the risk and the methods used to measure the risk; and
- (c) any changes in (a) or (b) from the previous period.

Quantitative disclosures

34 For each type of risk arising from financial instruments, an entity shall disclose:

- (a) summary quantitative data about its exposure to that risk at the end of the reporting period. This disclosure shall be based on the information provided internally to key management personnel of the entity (as defined in IAS 24 *Related Party Disclosures*), for example the entity's board of directors or chief executive officer.
- (b) the disclosures required by paragraphs 36–42, to the extent not provided in (a), unless the risk is not material (see paragraphs 29–31 of IAS 1 for a discussion of materiality).
- (c) concentrations of risk if not apparent from (a) and (b).

35 If the quantitative data disclosed as at the end of the reporting period are unrepresentative of an entity's exposure to risk during the period, an entity shall provide further information that is representative.

Panel A1.1: IFRS 7 risk disclosures (continued)

Credit risk

36 An entity shall disclose by class of financial instrument:

- (a) the amount that best represents its maximum exposure to credit risk at the end of the reporting period without taking account of any collateral held or other credit enhancements (eg netting agreements that do not qualify for offset in accordance with IAS 32);
- (b) in respect of the amount disclosed in (a), a description of collateral held as security and other credit enhancements;
- (c) information about the credit quality of financial assets that are neither past due nor impaired; and
- (d) the carrying amount of financial assets that would otherwise be past due or impaired whose terms have been renegotiated.

Financial assets that are either past due or impaired

37 An entity shall disclose by class of financial asset:

- (a) an analysis of the age of financial assets that are past due as at the end of the reporting period but not impaired;
- (b) an analysis of financial assets that are individually determined to be impaired as at the end of the reporting period, including the factors the entity considered in determining that they are impaired; and
- (c) for the amounts disclosed in (a) and (b), a description of collateral held by the entity as security and other credit enhancements and, unless impracticable, an estimate of their fair value.

Collateral and other credit enhancements obtained

38 When an entity obtains financial or non-financial assets during the period by taking possession of collateral it holds as security or calling on other credit enhancements (eg guarantees), and such assets meet the recognition criteria in other IFRSs, an entity shall disclose:

- (a) the nature and carrying amount of the assets obtained; and
- (b) when the assets are not readily convertible into cash, its policies for disposing of such assets or for using them in its operations.

Liquidity risk

39 An entity shall disclose:

- (a) a maturity analysis for non-derivative financial liabilities (including issued financial guarantee contracts) that shows the remaining contractual maturities.
- (b) a maturity analysis for derivative financial liabilities. The maturity analysis shall include the remaining contractual maturities for those derivative financial liabilities for which contractual maturities are essential for an understanding of the timing of the cash flows (see paragraph B11B).
- (c) a description of how it manages the liquidity risk inherent in (a) and (b).

Market risk

Sensitivity analysis

- 40 Unless an entity complies with paragraph 41, it shall disclose:
- (a) a sensitivity analysis for each type of market risk to which the entity is exposed at the end of the reporting period, showing how profit or loss and equity would have been affected by changes in the relevant risk variable that were reasonably possible at that date;
- (b) the methods and assumptions used in preparing the sensitivity analysis; and
- (c) changes from the previous period in the methods and assumptions used, and the reasons for such changes.

Panel A1.1: IFRS 7 risk disclosures (continued)

41 If an entity prepares a sensitivity analysis, such as value-at-risk, that reflects interdependencies between risk variables (eg interest rates and exchange rates) and uses it to manage financial risks, it may use that sensitivity analysis in place of the analysis specified in paragraph 40. The entity shall also disclose:

- (a) an explanation of the method used in preparing such a sensitivity analysis, and of the main parameters and assumptions underlying the data provided; and
- (b) an explanation of the objective of the method used and of limitations that may result in the information not fully reflecting the fair value of the assets and liabilities involved.

Other market risk disclosures

42 When the sensitivity analyses disclosed in accordance with paragraph 40 or 41 are unrepresentative of a risk inherent in a financial instrument (for example because the year-end exposure does not reflect the exposure during the year), the entity shall disclose that fact and the reason it believes the sensitivity analyses are unrepresentative.

IFRS 7 also has extensive disclosure requirements for hedges (paragraphs 22-24), which should provide useful information for assessing how far certain risks have or have not been mitigated.

In one respect, IFRS requirements for reporting risk-relevant information have diminished in recent years. IAS 14, *Segment Reporting*, used to define both business segments and geographical segments in terms of their risks and returns. In 2006, IAS 14 was superseded by IFRS 8, *Operating Segments*, which no longer defines reporting segments in terms of risk and returns. However, segmental information on the new basis remains relevant to the assessment of risk.

APPENDIX 2: CALLS FOR IMPROVED RISK REPORTING

As with requirements for risk disclosures, calls for improved risk reporting have become frequent in recent decades. What follows is a selection of some of the more significant ones from the past 20 years.

A2.1 Operating and Financial Review

Operating and Financial Review is a non-mandatory statement of best practice first issued by the UK's Accounting Standards Board (ASB) in 1993; it has subsequently been rewritten extensively. The 1993 statement recommends that UK listed companies should include in their annual reports an operating and financial review (OFR) 'to discuss and analyse the business's performance and the factors underlying its results and financial position'. The OFR could be seen as primarily backward-looking, in the sense that it is a discussion of last year's reported performance. But as with the MD&A in the US, its central purpose is to allow users of the accounts to judge how far they can use last year's results as a basis for predicting future performance. So it could equally be seen as primarily forward-looking.

It states that one of the 'essential features' of an OFR should be a discussion of 'known events, trends and uncertainties that are expected to have an impact on the business in the future'. This point is enlarged on in the statement's detailed guidance:

'The OFR should ... discuss the main factors and influences that may have a major effect on future results, whether or not they were significant in the period under review. This would include a discussion identifying the principal risks and uncertainties in the main lines of business, together with a commentary on the approach to managing these risks and, in qualitative terms, the nature of the potential impact on results.'

The statement gives examples of matters that may be relevant:

- 'scarcity of raw materials;
- skill shortages and expertise of uncertain supply;
- patents, licences or franchises;
- dependence on major suppliers or customers;
- product liability;
- health and safety;
- environmental protection costs and potential environmental liabilities;
- self insurance;
- exchange rate fluctuations;
- rates of inflation differing between costs and revenues, or between different markets.'

The ASB issued a revised guidance statement, *Operating and Financial Review*, in 2003, but the changes as regards the disclosure of risks and uncertainties were not significant.

A much-expanded Reporting Statement, *Operating and Financial Review*, was issued by the ASB in 2006. It recommends that 'The OFR should include a description of the principal risks and uncertainties facing the entity, together with a commentary on the directors' approach to them.' The statement includes 20 pages of guidance, including examples, on how to comply with this recommendation. The statement was originally prepared to provide requirements implementing the EU's 'business review' requirements, but, in a change of plan by the UK government, subsequently appeared in a non-mandatory form. However, it continues to reflect the EU requirements.

A2.2 Improving Business Reporting – A Customer Focus

Improving Business Reporting – A Customer Focus (1994), known as 'the Jenkins Report', notes that in spite of MD&A requirements 'users believe disclosures about opportunities and risks should be improved'. It accordingly calls for business reporting to 'Provide more information with a forwardlooking perspective, including management's plans, opportunities, risks, and measurement uncertainties.' It also calls for more segmental information to be disclosed. 'The goal of segment reporting,' it says, 'is to provide additional insight into the opportunities and risks a company faces' and 'industry [rather than geographic] segment information most frequently provides the greatest insight into the opportunities and risks a company faces'. But it also proposes that geographic segment information should be required 'when it provides insights into the opportunities and risks a company faces'. The report recommends that firms should provide a 'Comparison of actual business performance to previously disclosed opportunities, risks, and management's plans'.

The report also proposes 'Improved disclosures about the identity, opportunities and risks of offbalancesheet financing arrangements'.

A further recommendation in the report is that companies should 'Improve disclosures about the uncertainty of measurements of certain assets and liabilities.' While it might be thought that measurement uncertainty and business risk are distinct issues, the report explains why disclosures on one are likely to cast light on the other. Essentially, this is because accounting measurements make assumptions about future events:

'Information about uncertainties in the measurement of assets and liabilities is directly relevant to assessing opportunities and risks related to those specific assets and liabilities... Information about measurement uncertainties also can be helpful in judging opportunities and risks affecting the business. For example, increasing uncertainty in measuring bad debts related to trade receivables may indicate problems with a company's customer base, which, in turn, may indicate increased risk of sustaining an upward trend in revenues, margin, and earnings.'

A2.3 Senior Supervisors Group

In April 2008 the Senior Supervisors Group (SSG) issued *Leading-Practice Disclosures for Selected Exposures*. This report, as its title suggests, identifies what are regarded as best practice disclosures for certain exposures. Its context is reporting by banks rather than risk reporting by firms generally. While the disclosures are not labelled 'risk reporting', that is in substance what they are. The SSG's summary of the recommended disclosures is given at Panel A2.1.

Panel A2.1: SSG – leading-practice disclosures

Special Purpose Entities (SPEs)—General

Size of SPE versus firm's total exposure Activities of SPE Reason for consolidation (if applicable) Nature of exposure (sponsor, liquidity and/or credit enhancement provider) Collateral type Geographic distribution of collateral Average maturity of collateral Credit ratings of underlying collateral

Collateralized Debt Obligations

Size of CDOs versus firm's total exposure Breakdown of CDOs—type, tranche, rating, etc. Breakdown of collateral by type Breakdown of subprime mortgage exposure by vintage Hedges, including exposures to monolines⁶¹, other counterparties Creditworthiness of hedge counterparties Credit valuation adjustments for specific counterparties Sensitivity of valuation to changes in key assumptions and inputs

⁶¹Monoline insurers guarantee repayments on bonds.

54

Panel A2.1: SSG - leading-practice disclosures (continued)

Other Subprime and Alt-A Exposures⁶²

Whole loans, RMBS⁶³, derivatives, other Detail on credit quality (such as credit rating, loan-to-value ratios, performance measures) Breakdown of subprime mortgage exposure by vintage Sensitivity of valuation to changes in key assumptions and inputs

Commercial Mortgage-Backed Securities

Breakdown of collateral by industry Breakdown of collateral by geography Change in exposure from the prior period, including sales and write-downs

Leveraged Finance

Funded exposure and unfunded commitments Change in exposure from prior period(s), including sales and write-downs Distribution of exposure by industry Distribution of exposure by geography

A2.4 IASB's management commentary framework

The IASB Practice Statement *Management Commentary: A Framework for Presentation* includes guidance on risk disclosures. The principal points are:

'31 Management should disclose an entity's principal risk exposures and changes in those risks, together with its plans and strategies for bearing or mitigating those risks, as well as disclosure of the effectiveness of its risk management strategies. This disclosure helps users to evaluate the entity's risks as well as its expected outcomes. Management should distinguish the principal risks and uncertainties facing the entity, rather than listing all possible risks and uncertainties.

'32 Management should disclose its principal strategic, commercial, operational and financial risks, which are those that may significantly affect the entity's strategies and progress of the entity's value. The description of the principal risks facing the entity should cover both exposures to negative consequences and potential opportunities. Management commentary provides useful information when it discusses the principal risks and uncertainties necessary to understand management's objectives and strategies for the entity. The principal risks and uncertainties can constitute either a significant external or internal risk to the entity.'

But paragraphs 33 (on relationships) and 36 (on prospects) are also relevant:

'33 Management should identify the significant relationships that the entity has with stakeholders, how those relationships are likely to affect the performance and value of the entity, and how those relationships are managed. This type of disclosure helps users of the financial reports to understand how an entity's relationships influence the nature of its business and whether an entity's relationships expose the business to substantial risk.'

'36 Management should provide an analysis of the prospects of the entity, which may include targets for financial and non-financial measures. This information can help users of the financial reports to understand how management intends to implement its strategies for the entity over the long term. When targets are quantified, management should explain the risks and assumptions necessary for users to assess the likelihood of achieving those targets.'

⁶²Alt-A loans fail to meet traditional underwriting guidelines.⁶³Residential mortgage-backed securities.

A2.5 International Corporate Governance Network guidelines

In December 2010 the International Corporate Governance Network issued *ICGN Corporate Risk Oversight Guidelines*. The object of the guidelines is 'to help investors assess how well a ... company's board ... is effectively overseeing risk management'. It recommends a number of disclosures by companies and its key principle in this respect is that 'The board should concisely disclose information sufficient for investors to make judgments on the quality of the board's oversight of the risk management process.' The guidelines include a number of more specific disclosure proposals in support of this central objective.

A2.6 Financial Reporting Council

In the UK, the Financial Reporting Council (FRC) issued *Effective Company Stewardship: Next Steps* in September 2011. This states that:

'the FRC has concluded that in future narrative reports, companies should:

- focus primarily on strategic risks rather than those risks that arise naturally and without action by the company (such as volcanic interruptions of air travel or earthquake damage); and
- disclose these risks and the major operational risks inherent in their business model and their strategy for implementing that business model, explaining how they will address those risks and any obstacles that may be encountered as a result of changes in the business environment.

... The FRC believes that any description of the risks a company faces should not be made difficult to assess by being scattered about the annual report. Consequently, if a company considers that the risks it faces are best understood if discussed in the context of the company's strategy, those risks should also be included in the company's description of principal risks in the Business Review ...'

APPENDIX 3: RESEARCH EVIDENCE ON RISK REPORTING

This appendix summarises at A3.1-A3.6 the major research of which we are aware on the quality and usefulness of risk reporting. At A3.7-A3.9 we refer briefly to research on the covariance of firms' profitability, which is relevant to the assessment of risk, and on the usefulness of financial reporting in general for assessing risks in the sense of variability of returns and for predicting default.

A3.1 US

Schrand, 1997

In 'The association between stock-price interest rate sensitivity and disclosures about derivative instruments' Catherine M. Schrand looks at information on derivatives in unpublished regulatory returns of 57 public savings and loan associations from 1984 to 1988. The author finds 'evidence that off-balance-sheet derivatives activities are positively associated with lower stock-price interest rate sensitivity' and that 'on-balance-sheet exposures to interest rate changes ... are also value-relevant' (ie, show a correlation with changes in share prices).

The significance of this is that the information in the regulatory filings is analogous to disclosures proposed by FASB and the SEC in the 1990s, in SFAS 119, *Disclosures about Fair Values of Derivative Financial Instruments and Fair Values of Financial Instruments,* and the proposals that preceded FRR 48, *Disclosure of Accounting Policies for Derivative Financial Instruments etc.* 'Therefore, the results suggest that the proposed disclosures will provide value-relevant information about interest rate risk for S&Ls.'

Rajgopal, 1999

In 'Early evidence on the informativeness of the SEC's market risk disclosures: the case of commodity price risk exposure of oil and gas producers' Shivaram Rajgopal looks at commodity price risk disclosures made by 52 US public oil and gas companies between 1993 and 1996. These disclosures were made in accordance with SFAS 69, *Disclosures about Oil and Gas Producing Activities*, and SFAS 119, *Disclosures about Fair Values of Derivative Financial Instruments and Fair Values of Financial Instruments*. He finds that the disclosures are associated with the stock market's sensitivity to changes in oil and gas prices.

The author cautions that:

'Such association, by itself, does not demonstrate the incremental utility of these risk measures to investors. For example, equivalent information may be available to the market from sources other than the footnote disclosures used in the paper.'

On the basis of his findings, the author suggests that disclosures under FRR 48 are also likely to be 'significantly associated with O&G firms' stock return sensitivities to oil and gas price movements', but his study data precede actual disclosures under FRR 48.

Elmy et al, 1998

In 'A review of initial filings under the SEC's new market risk disclosure rules' Frederick J. Elmy, Louis P. LeGuyader and Thomas J. Linsmeier examine the first filings under the SEC's Financial Reporting Release (FRR) 48. They conclude that 'Overall, ... the quality of the quantitative and qualitative disclosures by registrants that were the first to comply with FRR 48 was less than satisfactory.' But they attribute this to 'the newness and complexity of the requirements'.

Roulstone, 1999

In 'Effect of SEC Financial Reporting Release No. 48 on derivative and market risk disclosures' Darren T. Roulstone compares the derivative and market risk disclosures made by 25 SEC registrants before (1996) and after (1997) FRR 48. He finds that the 1997 filings 'contained more comprehensive and specific accounting policy and market risk disclosures'. But 'the increased disclosures were not presented in accordance with SEC guidelines'. While 'the quantitative disclosures provided information on the magnitude of market risk exposures ... this magnitude was often difficult to understand due to the lack of contextual information.' Also, 'too many disclosures leave readers unsure of how changes in specific rates and prices will affect the registrant.'

Roulstone finds that, in their qualitative disclosures, some firms 'used vague, apparently "boilerplate" language to state that derivatives were used to hedge some risks, without providing details such as amounts, positions and instruments. This made it difficult to understand the registrant's risk-management goals and its ability to achieve those goals.'

Overall, Roulstone endorses Elmy, LeGuyader and Linsmeier's verdict that the quality of the disclosures under FRR 48 is 'less than satisfactory'.

Linsmeier et al, 2002

'The effect of mandated market risk disclosures on trading volume sensitivity to interest rate, exchange rate, and commodity price movements' is a paper by Thomas J. Linsmeier, Daniel B. Thornton, Mohan Venkatachalam and Michael Welker. It is based on the theory that when investors generally are better informed about the likely effects of an event on a firm's prospects, they will tend to trade its shares less than when they are poorly informed. The rationale behind this is that trading is more likely where there is uncertainty and diversity of opinion. Improved information should reduce uncertainty and diversity of opinion, and therefore reduce the volume of trading.

The authors compare trading levels at the time of changes in interest rates, exchange rates and commodity prices before and after FRR 48. They find that trading volume sensitivity to changes in interest rates, exchange rates and commodity prices declines after FRR 48 information becomes available. This is consistent with investors' being better informed on the likely effects of such changes.

The authors caution that 'Because the theoretical and empirical determinants of trading volume are not completely understood, our interpretation of the results may be vulnerable to the omission of as-yet-unidentified determinants of trading volume.'

Jorion, 2002

In 'How informative are value-at-risk disclosures?' Philippe Jorion looks at the value-at-risk (VAR) disclosures of eight major US commercial banks between 1995 and 1999 to see whether they help predict the variability of trading revenues. He finds that they do: 'Banks with large VAR measures experience much greater fluctuations in unexpected trading revenues.'

Campbell et al, 2011

In an unpublished paper, *The Information Content of Mandatory Risk Factor Disclosures in Corporate Filings*, John L. Campbell, Hsinchun Chen, Dan S. Dhaliwal, Hsin-min Lu and Logan B. Steele examine the words used in US-quoted companies' 'risk factor' disclosures in their 10-K reports between 2005 and 2008. The sample is 10,174 firm-year observations. They quantify firms' risk disclosures by counting the number of words. So, 10,000 words is regarded as twice as much disclosure as 5,000 words. They also identify key words that relate to different categories of risk (ie, financial, idiosyncratic, litigation, systematic, and tax). They take stock-price volatility as a measure of the firms' actual risks but use other proxies for some of the specific categories of risk (eq, size for litigation risk and financial leverage for financial risk).

The authors find that:

- Firms that face greater risks have longer risk disclosures. The length of these disclosures by category reflects the different types of risks that firms face. 'In other words, managers provide informative risk disclosures.'
- There is a positive association between the length of risk disclosures and post-disclosure market assessments of firm risk. This may suggest that longer risk disclosures lead investors to revise upwards their assessments of firm risk.

- However, longer risk disclosures are also associated with a lower subsequent bid-ask spread for the share price, which the authors take as a measure of information asymmetry. That is, longer disclosure may decrease information asymmetry.
- There is a negative association between the length of risk disclosures and the subsequent stock price. That is, longer risk disclosures may lead to lower stock prices.

Kravet and Muslu, 2011

In an unpublished paper, *Informativeness of Risk Disclosures in Corporate Annual Reports*, Todd Kravet and Volkan Muslu examine textual risk disclosures in US-quoted companies' 10-K reports – not just their 'risk factor' disclosures – between 1994 and 2007. The sample is 28,110 firm-year observations. They quantify firms' risk disclosures by counting the number of sentences that contain key words (such as 'risk, 'uncertain', 'may', 'might', etc), and compare year-on-year changes in the level of disclosure.

The authors find that:

Increased risk disclosures 'are associated with increased stock return volatility and trading volume around and after the [10-K] filings. The increases in risk disclosures are also associated with more dispersed earnings forecasts and forecast revisions after the filings.' These findings 'suggest that risk disclosures reveal unknown unknowns and increase the market's perception of risk and uncertainties'.

A3.2 Canada

Lajili and Zéghal, 2005

In 'A content analysis of risk management disclosures in Canadian annual reports' Kaouthar Lajili and Daniel Zéghal review the risk management disclosures in the 1999 annual reports of the constituent companies of the TSE (Toronto Stock Exchange) 300. The review covers the firms' MD&A disclosures and the notes to the accounts. The authors conclude that 'While [the] disclosure rate appears relatively high, one might question the degree of relevance and potential analytical usefulness of the information disclosed.' Risk disclosure, they state, 'persists in being general, scattered, and sometimes ambiguous'.

Lajili and Zéghal note 'the clear emphasis by Canadian companies on the down-side aspect of risk and the absence of the up-side risk potential or opportunity-seeking strategies in risk management to create economic value'. They also comment that 'it is not clear ... whether derivatives are used to reduce or increase risk exposure'.

The authors suggest that the limited value of the disclosures 'is probably intentional since the competitive pressures and proprietary information costs associated with [more useful] disclosure could be substantial'.

A3.3 Germany

Kajüter, 2004

In an unpublished paper, *Risk Disclosures of Listed Firms in Germany: A Longitudinal Study*, Peter Kajüter reviews the risk disclosures by non-financial firms in the DAX 100 index as at 31 December 2001, looking at their annual reports for the years 1999 to 2003. Risk disclosures were required for German companies throughout this period, but the initial requirement was supplemented from 2001 by an accounting standard. The disclosures are required in the management report, however, not in the accounts.

Kajüter finds that:

- the volume of risk reports more than doubled in the period under review, as did the number of risks disclosed;
- the disclosures are almost entirely focused on downside risk;
- more 'external' risks, which are common to firms in the same industry, are reported than 'internal' risks;
- 'in most cases risks are described insufficiently', with little information on potential negative impacts; and

• 'it is usually impossible to distinguish the ... most important risks from those with less relevance'.

Overall Kajüter concludes that 'the findings of this study ... reveal that most risk reports are ... deficient as regards depth and precision' and describes his findings as 'rather disappointing'.

Dobler, 2005

In *How Informative Is Risk Reporting? A Review of Disclosure Models*, Michael Dobler briefly summarises earlier research on risk reporting in Germany, comprising Kajüter's paper referred to above and two German-language papers. He states: 'Empirical evidence from Germany implies that risk disclosures just slightly improved after explicitly obliging firms to report on their risks'.

Dobler comments that (as quoted at Section 3.9 above):

'In a voluntary disclosure regime, risk reports will be of poor value for the investors first of all because the forward-looking information disclosed is non-verifiable at an ex ante stage. This allows for discretion and manipulation, and cannot be overcome, but [may be] slightly limited by regulation. Mandatory risk disclosure does not necessarily change the results obtained under voluntary disclosure. In consequence, consistent with empirical findings the value of risk reporting for its users must not be overestimated.' He adds that his paper implies that 'the value of risk reporting is generally overestimated'.

Berger and Gleissner, 2006

In *Risk Reporting and Risks Reported* Thomas Berger and Werner Gleissner of the RMCE RiskCon consultancy review the risks reported in the 2000 to 2005 annual reports of 92 German public companies. They use a scoring system to rate the reports' information content with a potential maximum score of 15. They find that the information content improves over time, from an average score of 5.2 in 2000 to 8.3 in 2005, but comment that 'this is far from being good' and that risk reporting quality is still 'at a low level'. They note that companies seem more likely to disclose risks that are outside managers' control and that they 'do not provide much quantitative information'. For 2005 the authors find an average of 10.6 risks disclosed per company.

A3.4 Italy

Beretta and Bozzolan, 2004

In 'A framework for the analysis of firm risk communication' Sergio Beretta and Saverio Bozzolan analyse risk disclosures by 85 non-financial firms quoted on the Italian Stock Exchange at the end of 2001. The authors argue that 'the quantity of disclosure is not a satisfactory proxy for the quality of disclosure'. They therefore develop measures of risk disclosure quality that reflect different dimensions of the information disclosed. There were limited requirements for risk disclosures at the time, and so the disclosures were 'almost totally voluntary'.

The authors' preliminary conclusions from the sample are:

'First, analyzed firms voluntarily disclose some information concerning their future strategies but avoid communicating about their expected impact, not only in quantitative terms, but even in economic direction (expected profit or loss). Second, voluntary disclosure appears systematically biased towards management's self-justification of expected negative impacts: the rich disclosure of the expected limitations to business coming from new regulations is a clear symptom. Third, analyzed firms prefer to disclose management's thoughts and expectations on the future rather than to communicate the decisions and actions taken in the realm of risk management.' In short, 'analyzed firms are clearly oriented towards a policy of "formal disclosure but substantial nondisclosure" of the expected impact of risk factors on future performance'.

In their discussion, the authors point out that 'the types of risks a company faces are strictly related to both the unique critical-success factors and to the typical business models of an industry'. This has implications for what types of risk disclosure are likely to be useful.

A3.5 UK

Solomon et al, 2000

In 'A conceptual framework for corporate risk disclosure emerging from the agenda for corporate governance reform' Jill Solomon, Aris Solomon, Simon Norton and Nathan Joseph report the results of a survey of 97 UK institutional investors undertaken in 1999, some years after the UK's voluntary operating and financial review guidance was introduced. The survey found that on average respondents tended to agree with the proposition 'I believe that the current state of risk disclosure by our UK investee companies in inadequate'. However, the strength of agreement with the proposition was low. Responses were on a scale of 1 to 7, with 1 indicating strong disagreement, 4 indicating a neutral response, and 7 indicating strong agreement. The mean for responses to this question was 4.5.

There was stronger agreement with the proposition 'I believe that increased corporate risk disclosure would help institutional investors in their portfolio investment decisions'. The mean for responses to this proposition, agreement with which might seem to imply a view that current risk reporting is inadequate, was 5.0.

Linsley and Shrives, 2006

In 'Risk reporting: a study of risk disclosures in the annual reports of UK companies' Philip Linsley and Philip Shrives analyse the risk reporting content of 79 non-financial firms in the FTSE 100, using the reports with a year-end date nearest to 1 January 2001. Their definition of risk includes 'good risk' as well as 'bad risk' and they find, amongst other things, that firms make a significantly greater number of good risk disclosures. They also find that there is statistically significant disclosure of forward-looking risk information – a result they describe as 'unexpected' in the light of previous research.

Marshall and Weetman, 2008

In Managing Interest Rate Risk and Foreign Exchange Risk: Disclosure of Objectives, Policies and Processes, Andrew Marshall and Pauline Weetman investigate the risk management practices and disclosures of 30 UK companies, using questionnaires and the companies' annual reports for 2004 to 2006. They find that the companies surveyed disclose about half the information available to management on their objectives, policies and processes for managing interest rate risk and foreign exchange risk. They comment that:

'we do not know whether having companies report 50% of what they know provides too much, too little, or just the right amount of information that is needed for informed decision making'.

ASB, 2009

In *A Review of Narrative Reporting by UK Listed Companies in 2008/2009* the Accounting Standards Board (ASB) analyses the non-financial reporting of 50 UK listed companies in their 2008 or 2009 annual reports.⁶⁴ It finds that '66% of the sample were technically compliant [with the UK's Business Review requirements] because they listed some risks, but in our view needed to make improvements to meet the spirit of the requirements.' It finds that 'One company had 33 risks and eight companies [ie, 16%] had 20 or more.' As the requirement is to list principal risks, the ASB considers such lists excessive. The ASB notes the tendency to report 'Generic risks that could easily be cut and pasted into any report – for example, "influenza outbreak" or "terrorism"' and to provide 'Too little detail to understand the risk'.

FRC, 2011

In *Boards and Risk: A Summary of Discussions with Companies, Investors and Advisers*, the Financial Reporting Council (FRC) summarises discussions with senior people from over 40 major listed companies and a selection of investors and advisers. The FRC reports that:

'The majority of investors who participated in the meetings felt there was scope for considerable improvement in reporting on risk and internal control. Most participants from companies acknowledged shortcomings in reporting, but many of them felt there were obstacles to more meaningful disclosure.

⁶⁴Key findings from this report also appear in the Accounting Standards Board's Rising to the Challenge.

'Some institutional investors said that they placed more importance on the assurance they received from discussions with boards and management than on the words in the annual report. This was particularly the case when it came to assessing the quality of risk management and internal control, for which their main source of assurance was the quality of the board... Participants from companies said that in their experience most investors rarely asked questions about risk or internal control...'

Abraham et al, 2011

Risk Reporting: Clarity, Relevance and Location is a forthcoming report by Santhosh Abraham, Claire Marston and Phil Darby, presented as a paper at the 2011 Financial Reporting and Business Communications Conference.⁶⁵ The report is based on interviews with 32 investment analysts in 2009-10 and analysis of the 2009 annual reports of 18 listed companies in the food and drink sector.

The authors find that on average the investment analysts regard both 'financial risk factors' and 'business risk factor statements' in annual reports as useful. However, there are wide differences of view within the sample group. Seven of the analysts think that 'annual-report risk disclosure is very general and therefore provides no additional relevant information.' But nine of them 'view the annual report as being of primary importance in understanding overall investment risk' (the annual report includes the financial statements). And four of them 'point out that a large list of risk factors is helpful'.

The survey of annual report risk disclosures finds that the sample companies disclose 12 risks on average. The authors comment that the 'risk information [is] general in nature', but that 'on rare occasions, a very company-specific risk is declared'.

A3.6 Banks

Linsley et al, 2006

In 'Risk disclosure: an exploratory study of UK and Canadian banks', Philip M. Linsley, Philip J. Shrives and Mandy Crumpton examine the risk disclosures in the annual reports of nine Canadian and nine UK banks for the year end closest to 31 December 2001. They find that:

'Overall, general statements of risk management policy dominate the risk disclosures although these are not as useful to the reader as specific risk or risk management information. It is also the case that the other characteristics noted as being more useful in relation to risk information, namely quantitative and future risk information, are disclosed much less often than qualitative and past information.'

Woods et al, 2008a

In 'The value of risk reporting: a critical analysis of value-at-risk disclosures in the banking sector' Margaret Woods, Kevin Dowd and Christopher Humphrey review the value-at-risk (VaR) disclosures of six of the world's largest banks for 2001 and 2002. They also draw on evidence of VaR disclosures produced by the Basel Committee. They describe the rise of VaR as a basis for external reporting and analyse its problems and limitations. For example, VaR measurements with a 95% confidence level may be informative as to what is at stake 95% of the time, but give no indication of how much might be lost on the other 5% of occasions.

The authors conclude:

'In summary, our discussion suggests that very little can be gleaned from published VaR figures, especially when taken on their own... Major international banks seem willing to offer generic, non-sensitive VaR information to signal that their risk management practices are up to date, but they also seem increasingly reluctant to give away information that could be used to draw sensitive conclusions about their risk management and other practices. A cynic might suggest that we have the appearance of disclosure, combined with careful attempts to avoid disclosing anything of real significance.'

⁶⁵The summary here is taken from the slides used for the conference presentation.

On risk reporting more generally, they comment: 'The key to risk disclosure is to appear to be "on the ball" and give out the same vacuous information as competitors and ... vacuous information has the extra advantage of being difficult to disprove.'

Woods et al, 2008b

In 'Market risk reporting by the world's top banks: evidence on the diversity of reporting practice and the implications for international accounting harmonisation' the same three authors review market risk disclosures by 25 large international banks in their annual reports for 2000, 2003 and 2006. They use a scoring system to mark the banks' reporting against a list of 41 potential market risk disclosures. On average, they find 'a mildly increasing trend' of disclosures, but there are significant reductions in disclosure by some banks. The authors note that the four banks that show the greatest reduction all switched from local GAAP to IFRS during the survey period.

They also draw attention to:

'the case of Société Générale, which achieved a "perfect" score of 41 in 2006. This score is especially revealing in the light of the recent events at the bank, where the activities of a "rogue trader" generated direct losses of around \in 5 billion. This result ... emphasizes the dangers of assuming that high levels of disclosure go hand-in-hand with the existence of effective risk management systems.'

A3.7 The covariance of profitability

A firm's earnings are likely to vary during the different phases of the business cycle (and for other reasons) and the extent of their variability is one indicator of risk. Variability of earnings itself varies from industry to industry. Some industries are more variable than others, and the business cycle for a particular industry may not coincide with that for the economy as a whole. It is therefore of interest to know how far a particular business's earnings vary with changes across the economy as a whole, how far with other businesses in the same sector, and how far for idiosyncratic reasons.

Philip Brown and Ray Ball, in 'Some preliminary findings on the association between the earnings of a firm, its industry, and the economy' (1967), examine these questions for a sample of 316 US firms (451 firms for the purpose of 'the economy') between 1947 and 1965. They find that 'on average, approximately 35%-40% of the variability of a firm's annual earnings numbers can be associated with the variability of earnings numbers averaged over all firms' and that 'on average, a further 10%-15% can be associated with the industry average'. They point out, though, that industry classifications can be arbitrary and suggest that one possibility would be to define an industry in terms of covariability of earnings.

Studies of other economies or at other times would presumably yield different results; as individual firms, sectors and economies change, so would the relevant covariances.

A3.8 Accounting and the variability of returns

There was interesting research published in the late 1960s and the 1970s on financial reporting's informativeness on risk in the sense of variability of returns (in terms of movements in share prices). Indeed, if risk is defined as variability of returns, then arguably this is the key information about risk that users need to know.

Among the pioneering works are Ray Ball and Philip Brown, 'Portfolio theory and accounting' (1969); William Beaver, Paul Kettler and Myron Scholes, 'The association between market determined and accounting determined risk measures' (1970); and William Beaver and James Manegold, 'The association between market-determined and accounting-determined measures of systematic risk: some further evidence' (1975).

Stephen G. Ryan, 'A survey of research relating accounting numbers to systematic equity risk, with implications for risk disclosure policy and future research' (1997), reviews the literature extant at that time and makes recommendations for accounting practice.

Peter Pope, 'Bridging the gap between accounting and finance' (2010) notes that the early work referred to above is now 'apparently largely forgotten' and that 'The time is right for theoretical and empirical academic research to revisit the ability of accounting information to reveal risk.' As Pope notes, there is some more recent empirical work. This includes Stephen P. Baginski and James M. Wahlen, 'Residual income risk, intrinsic values, and share prices' (2003); Begoña Giner

and Carmelo Reverte, 'The risk-relevance of accounting data: evidence from the Spanish stock market' (2006); and Leslie D. Hodder, Patrick E. Hopkins and James M. Wahlen, 'Risk-relevance of fair-value income measures for commercial banks' (2006).

All this research – both in the 1960s/70s and more recently – indicates that financial reporting is informative on risk in the sense of variability of stock market returns.

A3.9 Accounting and the probability of default

There is also a significant research literature on the usefulness of accounting ratios in predicting default. In 'Have financial statements become less informative? Evidence from the ability of financial ratios to predict bankruptcy' William H. Beaver, Maureen F. McNichols and Jung-Wu Rhie (2005) note that 'It is well established that financial ratios do have predictive power up to at least five years prior to bankruptcy.' Examining US public companies from 1962 to 2002 they find 'a slight decline in the predictive ability of financial ratios' in forecasting bankruptcy. A broader and more recent survey of the subject is William H. Beaver, Maria Correia and Maureen F. McNichols, 'Financial statement analysis and the prediction of financial distress' (2010).

A well-established UK-based bankruptcy prediction model that uses accounting data is the Taffler z-score model. On this, see Vineet Agarwal and Richard J. Taffler, 'Twenty-five years of the Taffler z-score model: does it really have predictive ability?' (2007).

APPENDIX 4: RISK REPORTING AND THE FINANCIAL CRISIS

This appendix expands on the information on risk reporting and the financial crisis in Chapter 2. For the sake of completeness, some of the material given in that chapter is repeated here.

A4.1 The response to the crisis

We noted in Chapter 1 that demands for improved risk reporting have intensified since the financial crisis. Those who have made calls of this sort include the Financial Stability Forum (FSF), the European Commission, and, in the UK, the House of Commons Treasury Committee, Sir David Walker in his review of corporate governance in financial institutions and the Financial Reporting Council.⁶⁶ Such calls reflect a widely shared view that managers, investors and regulators all underestimated the risks that key financial services businesses were taking on. Better risk reporting, it is thought, should allow interested parties in future to understand risks better, help to prevent excessive risk-taking, and so make both future crises and individual business failures less likely.

The call for better risk reporting following the crisis reflects an understandable view that risk reporting before the crisis was inadequate. To some extent this may reflect a common perception, which we discussed in Chapters 2 and 3, that risk reporting in general is inadequate. But it must also reflect a view that, in financial institutions specifically, risk reporting failed to give adequate warnings that problems were imminent or even conceivable.

Some steps to improve quantitative disclosures by financial institutions have already been taken. Risk reporting requirements for financial instruments have been strengthened, internationally through the revised version of IFRS 7, *Financial Instruments: Disclosures*, issued in March 2009, and in the US through amendments to US GAAP. And banks' risk disclosures in many jurisdictions have also improved since the onset of the crisis through implementation and expansion of the Basel II Pillar 3 requirements, which specify disclosures to facilitate the exercise of market discipline on banks.

A4.2 Possible explanations

If risk reporting ahead of the crisis was indeed inadequate, there are very broadly three possible explanations for this. They are not mutually exclusive and it may be found that each of them helps to explain some part of the complex pattern of events in the many and diverse institutions around the world that were affected by the crisis. The three broad possibilities are:

- Risk reporting requirements were inadequate.
- Risk reporting requirements were adequate, but managers, although aware of the risks, did not report them.
- Managers were generally unaware of the risks or significantly underestimated them. In which case, to some extent, it would have been irrelevant what the risk reporting requirements were.

As we have indicated, the general view at present seems to be that there was a widespread underestimation of risk, which would point to the third possibility as a likely explanation of the inadequacy of risk reporting. But it also seems likely that requirements for quantitative, analytical risk disclosures were inadequate. These are matters that require further empirical investigation, looking at both risk reporting and risk assessment ahead of the crisis, and at how they changed during the crisis. In a letter to the *Financial Times* published on 10 December 2010, Professor Avinash D. Persaud wrote:

'[C]rashes are not random; they always follow booms. And booms are not caused by people doing things they know are risky, but people doing things they perceive as safe; so safe as to justify doubling up and betting the house.'

A4.3 Research findings

There seems to date, however, to have been little research on risk reporting and the financial crisis. The one major study of which we are aware is *UK Bank Risk Disclosures in the Period Through to the Onset of the Global Financial Crisis* by Philip Linsley of the University of York.⁶⁷ This looks at the risk disclosures of eight UK banks in their annual reports for the period 2002-2008. Five of the eight were subsequently rescued, directly or indirectly, by the British government. A sixth, though not in financial distress, thought it prudent at the peak of the crisis to sell itself to a larger bank.

Key findings of the study include:

'[A] risk narrative is identifiable for each of the sample banks, but ... it is hidden. Consequently, substantial effort is required to piece together the overall narrative. There is no evidence that there is deliberate intent on the part of the banks to make the risk narrative inaccessible...⁷⁶⁸

'In all cases prior to the crisis the narratives portray the banks as having a sound awareness of the risk environment and a propensity to adapt their risk management approaches as the risk environment changes. They display a confidence in their ability to manage the risks they are confronted with and there is no forewarning that a crisis may be imminent within these narratives.

'The analysis of the tone of the risk narratives indicates that there is an increasing optimism present in the risk narratives as the pre-crisis period progresses... The mood of optimism noted in respect of the pre-crisis risk disclosures dissipates post-crisis...

'[T]he risk- and risk management-related information that formed the basis of the risk narratives identified in the study is widely dispersed throughout the annual report. Therefore, the identification of a risk narrative for each bank is only possible if a reader is prepared to spend considerable time searching for relevant risk disclosures and then analysing key risk themes. Further, it would be difficult to identify the risk narrative if an annual report is read in isolation as the risk narratives only become discernible when a sequence of annual reports are examined covering a period of some years. The presentation of key risk factors that is present in many annual reports tends to be a rehearsal of generalised risks that face the overall banking sector and this does not aid in understanding the risk narrative of the individual bank.'

A4.4 Other investigations

There is a large and growing literature on the crisis. Although relatively little seems to have been done to investigate the quality of risk reporting, there has been significantly more work on the quality of risk assessment ahead of the crisis. This is not primarily academic research, but the findings of banking regulators and other authorities, which are at least to some extent based on their access to information that is not publicly available.

Two important reports from the Senior Supervisors Group (SSG) of international banking regulators are:

• Observations on Risk Management Practices during the Recent Market Turbulence (6 March 2008). As the date of the report indicates, it was prepared before the crisis had reached its peak. It is based on an analysis of 11 of the world's largest banking and securities firms, with contributions from five more firms at a roundtable held in February 2008.

⁶⁷A study supported by ICAEW's charitable trusts for research.

⁶⁸The idea of a risk narrative is an interesting one and fits with the proposition, discussed earlier (Section 4.4.1), that risk disclosures need to be brought together so that they give a self-sufficient and coherent view. The case for such an approach is perhaps particularly strong for banks.

• *Risk Management Lessons from the Global Banking Crisis* (21 October 2009). This is a more general review, looking back on the crisis.

In the first of these reports, the SSG concludes that:

'The predominant source of losses for firms in the survey through year-end was the firms' concentrated exposure to securitizations of US subprime mortgage-related credit. In particular, some firms made strategic decisions to retain large exposures to super-senior tranches of collateralized debt obligations that far exceeded the firms' understanding of the risks inherent in such instruments...

'Another risk management challenge concerned firms' understanding and control over their potential balance sheet growth and liquidity needs. For example, some firms failed to price properly the risk that exposures to certain off-balance-sheet vehicles might need to be funded on the balance sheet precisely when it became difficult or expensive to raise such funds externally.'

The SSG's second report, while consistent with its earlier one, goes more widely in identifying risk management failures:

'The events of 2008 clearly exposed the vulnerabilities of financial firms whose business models depended too heavily on uninterrupted access to secured financing markets, often at excessively high leverage levels. This dependence reflected an unrealistic assessment of liquidity risks of concentrated positions ...

'Our report highlights a number of areas of weakness that require further work by ... firms to address, including the following (in addition to the liquidity risk management issues described above):

- the failure of some boards of directors and senior managers to establish, measure and adhere to a level of risk acceptable to the firm; ...
- inadequate and often fragmented technological infrastructures that hindered effective risk identification and measurement; and
- institutional arrangements that conferred status and influence on risk takers at the expense of independent risk managers and control personnel.'

A report from the FSF (now the Financial Stability Board – FSB) in April 2008 identifies a number of major failures of risk assessment as contributing to the crisis.⁶⁹ The problems identified in the report include:

- Before the crisis, there was a 'global trend of low risk premia and low expectations of future volatility'.
- Banks 'misjudged the liquidity and concentration risks that a deterioration in general economic conditions would pose'.
- Banks 'misjudged the risks that were created by their explicit and implicit commitments to [off-balance sheet funding and investment vehicles], including the reputational risks arising from the sponsorship of the vehicles'.
- Banks 'misjudged the level of risks [on loans to households and businesses, including loans for buy-outs by private equity firms], particularly these instruments' common exposure to broad factors such as a weakening housing market or a fall in the market liquidity of high-yield corporate debt'.

Other investigations by governments and regulators around the world have arrived at similar findings. We discuss below what conclusions we might draw from this in relation to risk reporting.

A4.5 Discussion

A4.5.1 Philip Linsley's study

Does Philip Linsley's UK Bank Risk Disclosures report show that there was a failure of risk reporting ahead of the crisis? It seems clear that, before the crisis, the banks in the sample disclosed no

⁶⁹ Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience. Although this report was issued before the crisis reached its peak, subsequent statements by the Forum/Board do not indicate that its analysis of the causes of the crisis has subsequently changed.

indication of the problems to come.⁷⁰ But whether this means that there was a failure in risk reporting is another matter. The study is based primarily on an examination of annual reports, though the firms' press releases were also covered. It is impossible on the basis of such purely external evidence to know how well firms' external disclosures accurately reflected their internal views on risk, though we have no reason to doubt the integrity of the disclosures examined. But this limitation does mean that studies of this sort cannot tell us whether the absence of any warning of potential problems ahead was because managers were aware of the risks but failed to report them or because they were just unaware of the risks. It would only be possible for researchers to investigate this question if they had access to banks' internal records and it is probably unrealistic to expect that, in the ordinary course of events, they ever would be given access in this way, especially on such a sensitive issue, unless they have the support of bank regulators.

While banking regulators and other authorities will often have positions to defend, their access to evidence means that their investigations may offer a better chance of understanding how well banks understood their risks ahead of the crisis. As we have noted, the consensus among relevant authorities is that banks did not understand their risks properly.

A4.5.2 Were risk reporting requirements adequate?

It seems likely that in important respects, risk reporting requirements ahead of the crisis were inadequate. This is a judgement made with the benefit of hindsight and is not intended to be a criticism of those responsible for setting the requirements.

In firms' financial reporting, there appears to have been significant understatement of risk, particularly in the US, because of the extensive use of off balance sheet vehicles.⁷¹ Indeed, the chairman of the IASB has argued that:

'The current credit crisis has to a large extent been caused by a lack of transparency in the financial markets. Huge risks were allowed to build up on and off balance sheet without being noticed.'⁷²

US GAAP requirements in this respect were looser than those of IFRS. The relevant US GAAP requirements have subsequently been tightened up, as have those of IFRS. The fact that a liability is off balance sheet does not necessarily mean that users are unaware of it. Indeed, there is research suggesting that the stock market views securitised assets and liabilities held off balance sheet as though they were on the firm's balance sheet. But users may not always know enough about off balance sheet items to arrive at such a view.⁷³

Before the crisis, insufficient analysis of financial reporting items was given to allow users of the accounts to make a proper assessment of risks. The US *Financial Crisis Inquiry Report (FCIR)* indicates that when in the spring of 2007 banks first disclosed the reliability of the measurements of their financial instruments reported at fair value, analysed by three levels of measurement input (and liquidity), the information came as a surprise to the market:

'The sum of more illiquid Level 2 and 3 assets at [financial companies] was "eyepopping in terms of the amount of leverage the banks and investment banks had," according to Jim Chanos, a New York hedge fund manager. Chanos said that the new disclosures also revealed for the first time that many firms retained large exposures from securitizations. "You clearly didn't get the magnitude, and the market didn't grasp the magnitude until the spring of '07, when the figures began to be published, and then it was as if someone rang a bell, because almost immediately upon the publication of these numbers, journalists began writing about it, and hedge funds began talking about it, and people began speaking about it in the marketplace."'⁷⁴

⁷⁰Indicators of market dislocation were disclosed in accounts for the calendar year 2007. See, eg, the supplementary memorandum by John P. Connolly, Deloitte, in the report of the House of Lords Select Committee on Economic Affairs, *Auditors: Market Concentration and Their Role*, vol 2, at p232: comments on audits for the year ended 31 December 2007. By this point the crisis was already under way. But it became worse during 2008 and so reports on 2007 may well have provided useful indicators of further difficulties to come.

⁷¹ S. P. Kothari, Karthik Ramanna and Douglas J. Skinner, 'Implications for GAAP from an analysis of positive research in accounting', argue that there was 'a failure of the balance sheet to achieve one of its fundamental economic objectives – to provide outsiders with a clear view of the entity's obligations'.

⁷²Hans Hoogervorst, 9 February 2011, speech at a conference organised by the European Commission, 'Financial reporting and auditing – a time for change?'

⁷³ See Wayne R. Landsman, Kenneth V. Peasnell and Catherine Shakespeare, 'Are asset securitizations sales or loans?' The authors note the limitations of the information actually disclosed by firms undertaking securitisations.

⁷⁴National Commission on the Causes of the Financial and Economic Crisis in the United States, *The Financial Crisis Inquiry Report*, p234.

As the quotation indicates, at least some gaps in risk reporting were repaired in the US as the crisis was about to emerge. Similar requirements were subsequently imposed under IFRS after the crisis had struck. But it seems likely that additional analysis would have been useful in allowing users to make a proper assessment of risk.⁷⁵ We mention elsewhere (Appendix 2 and A4.5.4 below) specific proposals from the SSG designed to improve risk disclosures, which have subsequently been largely adopted.

A4.5.3 Failure to report known risks?

Did banks fail to meet reporting requirements for risks of which they were aware?

Judging from the information available to date, firms' financial reporting of risk seems generally to have been in accordance with most of the relevant requirements,⁷⁶ though it is possible that future inquiries, litigation and disciplinary proceedings will identify exceptions to this generalisation. It has been suggested, though, that US banks' disclosures may not have been fully compliant with two relevant provisions of US GAAP⁷⁷:

- SFAS 5, Accounting for Contingencies, requires firms to disclose as contingencies losses that are
 reasonably possible that is, the chance of the loss is more than remote but less than likely.
 As the crisis emerged, one would have expected increasingly extensive disclosures by banks
 under this requirement, but they do not appear to have been made.
- SFAS 107, Disclosures about Fair Value of Financial Instruments, requires firms to disclose

 'all significant concentrations of credit risk arising from all financial instruments'. Banks'
 disclosures under this requirement appear to have been poor.

For risk reporting outside the financial statements, it also seems to be likely, on the information available to date, that firms' disclosures generally complied with requirements. However, again there were exceptions. In the UK, in July 2010, the finance director of Northern Rock during the period from February 2007 to February 2008 was disciplined by the Financial Services Authority for reporting (outside the financial statements) misleading information on impaired loans. In the US, *FCIR* notes that in September 2004 the Chief Executive Officer of Countrywide Financial believed that the firm's lending policies could have 'catastrophic consequences'. He expressed similar concerns in August 2005.⁷⁸ These concerns were not reflected in Countrywide's public risk reporting. The US Senate report, *Wall Street and the Financial Crisis: Anatomy of a Financial Crisis (WSFC)* examines the collapse of Washington Mutual. This is another instance where public risk reporting may have been inadequate (see Panel A4.2).

Panel A4.2: Washington Mutual

WSFC notes that Washington Mutual, though it held itself out to be a prudent lender, adopted what its own managers called a 'High Risk Lending Strategy' in January 2005.⁷⁹ Shortly afterwards, the company's CEO commented in an internal email, 'I have never seen such a high risk housing market'.⁸⁰

WSFC does not refer to the company's risk disclosures, but the phrase 'high risk' does not appear in its 2005 annual report. However, the annual report does state:

'If unemployment were to rise and either a slowdown in housing price appreciation or outright declines in housing prices were to occur, borrowers might have difficulty repaying their loans. As a result, the Company could experience higher credit losses in its mortgage and home equity portfolios, which could adversely affect its earnings.

⁷⁹ WSFC, pp 48 and 58.

⁸⁰ WSFC, pp 67-68.

⁷⁵This is also the conclusion of Mary E. Barth and Wayne R. Landsman, 'How did financial reporting contribute to the financial crisis?', which provides a useful summary of relevant research.

⁷⁶Lehman Brothers is one possible exception. See the examiner's report of Anton R. Valukas.

⁷⁷The comments here are based on remarks by Stephen Ryan in a panel session on 'Financial market regulation and opportunities for accounting research' at the American Accounting Association annual meeting in Denver in August 2011.

⁷⁸ *FCIR*, pp xxii and 108.

Panel A4.2: Washington Mutual (continued)

It also states, 'Certain residential loans have features that may result in increased credit risk when compared to residential loans without those features.' It then discloses, if the reader adds up the numbers, that 45% of its loans are of this sort. The report further indicates that the risks associated with these loans are mitigated by, among other things, rising house prices and early repayment. The report does not spell this out, but early repayment would presumably result from either sale of the property or remortgaging.

While Washington Mutual's disclosures hardly amount to a full and frank avowal that it is pursuing a high risk lending strategy, and they do not share with readers the CEO's personal assessment of the housing market, a skilled advocate could perhaps make a case that its disclosures were not actively misleading.

Its risk management disclosures seem more clearly deficient. *WSFC* claims that Washington Mutual was 'lacking in effective risk management',⁸¹ and the evidence in the report appears to support the allegation. The company's public reporting conveys the opposite impression.

WSFC and *FCIR* do not mention other instances quite like these, so it is difficult to know whether they are isolated cases or examples of a widespread problem.

FCIR also makes the general statement that 'Lenders made loans that they knew borrowers could not afford and that could cause massive losses to investors in mortgage securities'.⁸² It would be reasonable to expect that, where the loans remained on the originator's balance sheet, such risks would have been reported. The fact that the lenders would expect to – and did – retain significant stakes in the loans could be seen as evidence that they thought the risks were in fact significantly lower than the *FCIR*, looking back on the crisis, judges them to have been.⁸³

There are separate but related questions as to whether the buyers of mortgage securities understood the risks (clearly, in some cases, they did not) and whether the originators of the securities disclosed the risks in the supporting issuance documentation (again, at least in some cases, they did not – see Panel A4.3). While these are not financial reporting questions, they have important implications for financial reporting, as the investors' understanding (or ignorance) of the risks involved will have affected their own financial reporting as well as their risk disclosures outside the accounts. It also needs to be borne in mind that:

- the risks involved in making loans to subprime borrowers may be compensated for by higher interest rates or higher collateral;
- investors may have placed reliance on rating agencies' assessments of the securities and on insurance against losses on them.

So for various reasons the assets may not have been regarded as particularly risky.

In the event, all the safeguards failed. But at the time most people thought such an outcome highly improbable, so even in cases that appear in retrospect to be obviously high risk, it is quite plausible that the banks' public reporting of risk accurately reflected their perceptions.

Panel A4.3: Inadequate disclosure to investors

In some cases, the securitisation process seems to have been dependent on investors' not knowing that the securities were risky, while their originators did. See *WSFC*, Chapters 3, 5 and 6. '[Washington Mutual] securitized loans that it had identified as likely to go delinquent, without disclosing its analysis to investors to whom it sold the securities, and also securitized loans tainted by fraudulent information, without notifying purchasers of the fraud that was discovered and known to the bank': *WSFC*, p116.

In 2008 Countrywide Financial was acquired by Bank of America. In 2011 Bank of America provided \$14bn in its accounts to meet claims by investors alleging that the documentation for mortgage-backed securities issued by Countrywide Financial 'contained materially false and misleading statements and omitted material information'.

⁸¹WSFC, p75.

⁸²At pxxii.

⁸³The securities were sliced into different tranches with different degrees of risk. The originator would usually retain the riskiest slice to give some reassurance to investors in the other tranches. Lenders assumed that borrowers could afford the loans because they would be able to repay them either from the properties' future sale proceeds (which required that the properties' values not fall) or by remortgaging ('pass the parcel').

We have not seen in the investigations of other authorities any examples in addition to those of Countrywide and Washington Mutual of chief executives or those in similar positions expressing concerns at significant known risks, which are not then reflected in the firm's public reporting. Also, a momentary expression of view by a CEO is not necessarily the same thing as an institution's considered view.

So far, therefore, there is only limited evidence of managers possibly misreporting risks, as they saw them, outside the financial statements, although those that have been identified are important in their own right because of the size of the institutions involved and their subsequent failures. There is also evidence suggesting that, in terms of protecting their own interests, managers behaved as though they were genuinely unaware of the risks of impending disaster. This comes from research finding that:

'[US] Bank CEOs did not reduce their holdings of shares in anticipation of the crisis or during the crisis; there is also no evidence that they hedged their equity exposure. Consequently, they suffered extremely large wealth losses as a result of the crisis.'⁸⁴

As there have now been a number of investigations, it seems reasonable to suppose that in the period leading up to the crisis most banks accurately reported the qualitative risks that they faced as they saw them. But it would be useful to investigate this matter further if it is possible – perhaps with the support of regulators – to gain access to the relevant internal records.

Panel A4.4: Publicising internal risk dialogues

In *UK Bank Risk Disclosures* Philip Linsley suggests that banks should disclose their internal 'risk dialogues'. The information in *FCIR* and *WSFC* on dissenting views on risk within both Countrywide Financial and Washington Mutual indicates that such dialogues, if made public, would probably be of great interest. The SSG's October 2009 report (see above) refers to risk managers' lack of status and influence, and this hints at differences of view within banks ahead of the crisis.

Such differences of view must be a constant feature of life in banks. It is a risk officer's job to prevent unduly risky courses of action, to ensure that risks are mitigated where this is possible, and to warn colleagues of potential downsides to their current positions and proposed actions. This creates an almost inevitable tension within the institution between those who have differing views on which risks it is appropriate to take. There is no simple formula that can determine how these tensions should be resolved in any particular case. The skill of management collectively is to arrive at the right balance between taking risks and avoiding (or controlling) them.

Firms work hard to present a consistent message to the world. Publicising internal dialogues would be a major departure from current practice, and it would be necessary to consider what the consequences of such publicity might be. For example, in practice would it encourage or discourage the expression of dissenting views within firms?

A4.5.4 Underestimation of risks?

Risk reporting before the crisis was almost certainly misleading in the sense that it reflected the banks' own assessments of risks and these assessments were themselves significantly mistaken. We do not make this point as a criticism of the banks concerned. On the contrary, as the reports by banking regulators and other authorities point out, there was a common underestimation of risk among financial services firms, investors, rating agencies, regulators and governments. Banks shared in the common delusion and their risk reporting reflected it.

As FCIR comments, 'It appeared to financial institutions, investors, and regulators alike that risk had been conquered'.⁸⁵

This applied to subprime exposures as much as to any other risk. In September 2007, Chuck Prince, Chief Executive Officer of Citigroup, learnt that the bank had \$40 billion of assets based on subprime mortgages. He told the Financial Crisis Inquiry Commission that it was of no significance that he had not known of this any earlier:

'It wouldn't have been useful for someone to come to me and say, "Now, we have got \$2 trillion on the balance sheet of assets. I want to point out to you there is a one in a billion chance that this \$40 billion could go south."

⁸⁴Rüdiger Fahlenbrach and René Stulz, Bank CEO Incentives and the Credit Crisis.
⁸⁵At pxxiv.

That would not have been useful information. There is nothing I can do with that, because there is that level of chance on everything.⁷⁸⁶

Two points of interest in these remarks are that subprime assets were regarded as no riskier than anything else and that the level of inescapable risk for any asset was estimated to be no more than one in a billion.

But there is a good deal of information that financial services firms already disclose that is relevant to risk, yet does not depend on management's perception of risk. Many of the disclosures required by IFRS 7, *Financial Instruments: Disclosures*, which are reproduced in Appendix 1, provide examples of this sort of information. Some of the disclosures required by the standard are what might be regarded as conventional descriptive risk reporting (eg, the entity's objectives, policies and processes for managing risks). But some of them are relatively objective, quantitative information⁸⁷ that allows users to form their own views on the entity's risks. Disclosures of this sort include analyses of assets that are overdue ('past due'), maturity analyses, and sensitivity analyses.

Another example is the recommendations for banks in the SSG's 2008 report, *Leading-Practice Disclosures for Selected Exposures*, which are reproduced in Appendix 2. Almost all the recommended disclosures in this report are hard, quantified information. There is very little that depends on subjective views of risk. The SSG's recommendations were endorsed by the FSF and have now mostly been incorporated into the Basel II, Pillar 3 disclosure requirements.⁸⁸

The need for specific disclosures of the type required by IFRS 7 and recommended by the SSG is likely to change from time to time. The requirements of IFRS 7 were extended in the light of the financial crisis, and the SSG report is an attempt to learn from how some banks responded to it by improving their disclosures on certain items. But the items for which the recent crisis revealed a need for more information may become less important, while other items – unimportant in this crisis – may emerge as important in the future. It is therefore desirable that requirements for specific disclosures should be kept under constant review and that reporting institutions should communicate information that they recognise to be important, even when there is no specific requirement to do so. This implies a principles-based approach as well as specific requirements. The FSF made important recommendations in this respect in its 2008 report referred to earlier:

'[I]nvestors, financial industry representatives and auditors should work together to provide risk disclosures that are most relevant to the market conditions at the time of the disclosure. To this end:

- Investors, industry representatives and auditors should develop principles that should form the basis for useful risk disclosures.
- Investors, industry representatives and auditors should meet together, on a semi-annual basis, to discuss the key risks faced by the financial sector and to identify the types of risk disclosures that would be most relevant and useful to investors at that time.'

In a 2011 report the FSB (successor to the FSF) notes that these proposals have not been acted on and it accordingly makes a fresh proposal:

'The FSB should facilitate work by investors, industry representatives and auditors to take the 2008 FSF recommendations forward by encouraging them to develop principles for useful risk disclosures as market conditions and risk profiles change.⁸⁹

The FSB adds that if this new approach does not succeed, 'a more prescriptive approach by securities market regulators, prudential authorities or accounting standard-setters may prove necessary'. The 2011 report also makes the point that 'Transparency is often better served by clearer explanations than by more detailed numerical analysis.'

⁸⁶ FCIR, p260. On 15 October 2007 Citigroup reported \$1.8bn in subprime write-downs for the quarter to 30 September. On 4 November it reported a further fall in value of subprime assets of between \$8bn and \$11bn, and the retirement with immediate effect of Mr Prince.

⁸⁷They may not be completely objective even when quantified. The analysis of fair value measurements into Levels 1, 2 and 3, for example, contains a subjective element. IFRS 7 requires that measurements are classified as Level 1, 2 or 3 depending on 'the lowest level of input that is significant to the fair value measurement in its entirety'. The judgement of significance is subjective. And many Level 3 measurements are highly subjective.

⁸⁸As noted in the FSB's Thematic Review on Risk Disclosure Practices at p20, n32.

⁸⁹ Thematic Review on Risk Disclosure Practices.

As a consequence of the financial crisis, banking supervisors have required selected banks to conduct stress tests to check the adequacy of their capital in the event of various specified negative developments. Some of the information from these stress tests has been published.⁹⁰ This provides useful information on risk, though the EU's tests have been criticised for not being tough enough in their assumptions (eg, on sovereign debt risk) and the market may therefore not take the results of the tests at face value. None the less, although their usefulness will depend on the assumptions that underlie the tests, the information provided by such exercises seems to be precisely the sort of thing that those who want better risk reporting by banks (and insurers) are after. The discussion in Panel A4.5 of Lehman Brothers' risk reporting also suggests the sort of stress-test information that might well provide useful risk disclosures. How would a bank's balance sheet look, for example, in the event of a 5% fall in property prices?

It would therefore be useful to explore stress testing information as an additional form of risk reporting and to investigate precisely what data would be relevant and how much could be disclosed. However, the costs of preparing the information would also have to be taken into account in deciding how best to proceed. This idea has already been implemented to some extent in the US, where the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 mandates stress tests for banks and requires summary results of the tests to be published; the market would no doubt find detailed results more useful.

Panel A4.5: Lehman Brothers' risk reporting

Robert S. Kaplan's paper 'Accounting scholarship that advances knowledge and practice' is based on his plenary address to the 2010 annual meeting of the American Accounting Association. In the paper he briefly discusses Lehman Brothers' risk disclosures made in 2008. These included the statement that:

'In the event of changes in market conditions, such as interest or foreign exchange rates, equity, fixed income, commodity or *real estate valuations*, liquidity, availability of credit or volatility, our business could be adversely affected in many ways ... Further declines in real estate values in the US and continuing credit and liquidity concerns could further reduce our level of mortgage loan originations and increase our mortgage inventory while adversely affecting its value' [emphasis added by Kaplan].

Kaplan comments:

'Does this sound like the risk exposure of a huge financial institution that would file for bankruptcy less than two months after this 10-K submission? Yet this was the "risk disclosure" in the 2008 second quarter filing of Lehman Brothers, a financial institution born in the South in the 1850s. Lehman survived the US Civil War, World War I, the Great Depression of the 1930s, and World War II. It built its capital during the great post-World War II global expansion, and somehow failed after a 5 percent decline in US real estate prices. After 40+ years of academic research on capital markets and financial economics, is Lehman's 10-K disclosure the best we can offer to quantify and disclose a company's risk exposure? I hope not.'

In his address, Kaplan added the pertinent comment:

'If Lehman Brothers had said that "We are holding this large asset of mortgage-based securities and our ability to have our assets higher than our liabilities is contingent on housing prices, which in the last six years have increased from three times median income to four times median income in the United States, not starting a mean reversion back to three times median income. Should that occur, our assets will soon be worth less than our liabilities" – that would be an interesting risk disclosure.'

⁹⁰ See Board of Governors of the Federal Reserve System, The Supervisory Capital Assessment Program: Overview of Results; Committee of European Banking Supervisors [now the European Banking Authority], Aggregate Outcome of the 2010 EU Wide Stress Test Exercise Coordinated by CEBS in Cooperation with the ECB; and European Banking Authority, European Banking Authority 2011 EU-Wide Stress Test Aggregate Report.

ACKNOWLEDGEMENTS

ICAEW is grateful to the following commentators for providing helpful reactions in a personal capacity to drafts of this report.

Saverio Bozzolan Ian Brindle Kathryn Cearns lain Coke Sarah Deans Jerry Edwards Günther Gebhardt Begoña Giner Mary Hardy Martin Hoogendoorn Chris Humphrey Jonathan Hunt Martyn Jones Robert Kaplan Bill Knight Miriam Kraus Keith Labbett Philip Linsley **Richard Macve** Tony Powell Mike Power Brian Shearer Nigel Sleigh-Johnson Laura Spira William Underhill

Members of ICAEW's Technical Strategy Board and Internal Audit Committee

None of the commentators should be assumed to agree with the views expressed in this report, and they are not responsible for any errors or omissions.

The report's principal authors are Brian Singleton-Green and Robert Hodgkinson.

BIBLIOGRAPHY

Abraham, Santhosh, Marston, Claire, and Darby, Phil, *Risk Reporting: Clarity, Relevance and Location*, Edinburgh: Institute of Chartered Accountants of Scotland, 2011 (forthcoming).

Accounting Standards Board, *Operating and Financial Review*, Milton Keynes: Accountancy Books, 1993.

Accounting Standards Board, *Operating and Financial Review* (revised), Kingston upon Thames: ASB Publications, 2003.

Accounting Standards Board, *Operating and Financial Review* (Reporting Statement), Kingston upon Thames: ASB Publications, 2006.

Accounting Standards Board, A Review of Narrative Reporting by UK Listed Companies in 2008/2009, London: Financial Reporting Council, 2009.

Accounting Standards Board, *Rising to the Challenge: A Review of Narrative Reporting by UK Listed Companies*, London: Financial Reporting Council, 2009.

Accounting Standards Board, *Cutting Clutter: Combating Clutter in Annual Reports*, London: Financial Reporting Council, 2011.

Agarwal, Vineet, and Taffler, Richard J., 'Twenty-five years of the Taffler z-score model: does it really have predictive ability?', *Accounting and Business Research*, vol 37 (2007), pp285-300.

American Institute of Certified Public Accountants, *Report of the Task Force on Risks and Uncertainties*, New York: AICPA, 1987.

American Institute of Certified Public Accountants, Special Committee on Financial Reporting, Improving Business Reporting – A Customer Focus, New York: AICPA, 1994.

Arthur Andersen & Co, Arthur Young, Coopers & Lybrand, Deloitte Haskins & Sells, Ernst & Whinney, Peat, Marwick, Mitchell & Co and Touche Ross & Co, *The Future Relevance, Reliability, and Credibility of Financial Information*, 1986.

Baginski, Stephen P., and Wahlen, James M., 'Residual income risk, intrinsic values, and share prices', *The Accounting Review*, vol 78 (2003), pp327-51.

Ball, Ray, and Brown, Philip, 'Portfolio theory and accounting', *Journal of Accounting Research*, vol 7 (1969), pp300-23.

Barron, Orie E., Kile, Charles O. and O'Keefe, Terrence B., 'MD&A quality as measured by the SEC and analysts' earnings forecasts', *Contemporary Accounting Research*, vol 16 (1999), pp75-109.

Barth, Mary E., and Landsman, Wayne R., 'How did financial reporting contribute to the financial crisis?', *European Accounting Review*, vol 19 (2010), pp399-423.

Beasley, Mark S., Branson, Bruce C., and Hancock, Bonnie V., *Developing Key Risk Indicators to Strengthen Enterprise Risk Management*, Durham, North Carolina: COSO, 2010.

Beaver, William H., Correia, Maria, and McNichols, Maureen F., 'Financial statement analysis and the prediction of financial distress', *Foundations and Trends in Accounting*, vol 5 (2010), pp99-173.

Beaver, William, Kettler, Paul, and Scholes, Myron, 'The association between market determined and accounting determined risk measures', *The Accounting Review*, vol 45 (1970), pp654-82.

Beaver, William H., McNichols, Maureen F., and Rhie, Jung-Wu, 'Have financial statements become less informative? Evidence from the ability of financial ratios to predict bankruptcy', *Review of Accounting Studies*, vol 10 (2005), pp93-122.

Beaver, William, and Manegold, James, 'The association between market-determined and accounting-determined measures of systematic risk: some further evidence', *Journal of Financial and Quantitative Analysis*, vol 10 (1975), pp231-84.

Beretta, Sergio, and Bozzolan, Saverio, 'A framework for the analysis of firm risk communication', *The International Journal of Accounting*, vol 39 (2004), pp265-88.

Berger, Thomas, and Gleissner, Werner, *Risk Reporting and Risks Reported: A Study on German HDAX-listed Companies 2000 to 2005*, Nürnberg: RMCE, 2006.

Black Sun, The Business Model - Is It the Missing Link?, London: Black Sun, 2011.

Board of Governors of the Federal Reserve System, *The Supervisory Capital Assessment Program: Overview of Results*, Washington, DC: BGFRS, 2009.

Boritz, J. Efrim, *Approaches to Dealing with Risk and Uncertainty*, Toronto: Canadian Institute of Chartered Accountants, 1990.

Botosan, Christine A., 'Disclosure level and the cost of equity capital', *The Accounting Review*, vol 72 (1997), pp323-49.

Botosan, Christine A., 'Disclosure and the cost of capital: what do we know?', Accounting and Business Research, vol 36 (2006), International Accounting Policy Forum special issue, pp31-40.

Botosan, Christine A., and Plumlee, Marlene A., 'A re-examination of disclosure level and the expected cost of equity capital', *Journal of Accounting Research*, vol 40 (2002), pp21-40.

Bozzolan, Saverio, Trombetta, Marco, and Beretta, Sergio, 'Forward-looking disclosures, financial verifiability and analysts' forecasts: a study of cross-listed European firms', *European Accounting Review*, vol 18 (2009), pp435-73.

Brown, Philip, and Ball, Ray, 'Some preliminary findings on the association between the earnings of a firm, its industry, and the economy', *Empirical Research in Accounting, Selected Studies, 1967*, pp55-77, supplement to *Journal of Accounting Research*, vol 5 (1967).

Bryan, Stephen H., 'Incremental information content of required disclosures contained in management discussion and analysis', *The Accounting Review*, vol 72 (1997), pp285-301.

Campbell, John L., Chen, Hsinchun, Dhaliwal, Dan S., Lu, Hsin-min, and Steele, Logan B., *The Information Content of Mandatory Risk Factor Disclosures in Corporate Filings*, 2011 (unpublished but available at www.ssrn.com).

Clarkson, Peter M., Kao, Jennifer L., and Richardson, Gordon D., 'Evidence that management discussion and analysis (MD&A) is part of a firm's overall disclosure package', *Contemporary Accounting Research*, vol 16 (1999), pp111-34.

Committee of European Banking Supervisors [now the European Banking Authority], *Aggregate Outcome of the 2010 EU Wide Stress Test Exercise Coordinated by CEBS in Cooperation with the ECB*, London: CEBS, 2010.

Department for Business, Innovation and Skills, *The Future of Narrative Reporting*, London: BIS, 2011.

Dobler, Michael, *How Informative Is Risk Reporting? A Review of Disclosure Models*, Munich: Munich School of Management, 2005.

Dobler, Michael, 'National and international developments on risk reporting: may the German Accounting Standard 5 lead the way internationally?', *German Law Journal*, vol 6 (2005), pp1191-1200.

Elmy, Frederick J., LeGuyader, Louis P., and Linsmeier, Thomas J., 'A review of initial filings under the SEC's new market risk disclosure rules', *The Journal of Corporate Accounting and Finance*, Summer 1998, pp33-45.

European Banking Authority, *European Banking Authority 2011 EU-Wide Stress Test Aggregate Report*, London: EBA, 2011.

European Commission, *Corporate Governance in Financial Institutions and Remuneration Policies* (Green Paper), Brussels: EC, 2010.

Fahlenbrach, Rüdiger, and Stulz, René, *Bank CEO Incentives and the Credit Crisis* (working paper), Zurich: National Centre of Competence in Research – Financial Valuation and Risk Management, 2009.

Financial Reporting Council, Internal Control: Revised Guidance for Directors on the Combined Code, London: FRC, 2005.

Financial Reporting Council, Effective Company Stewardship: Enhancing Corporate Reporting and Audit, London: FRC, 2011.

Financial Reporting Council, Effective Company Stewardship: Next Steps, London: FRC, 2011.

Financial Reporting Council, Boards and Risk: A Summary of Discussions with Companies, Investors and Advisers, London: FRC, 2011.

Financial Stability Board, *Thematic Review on Risk Disclosure Practices: Peer Review Report*, Basel: FSB, 2011.

Financial Stability Forum, *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience*, Basel: FSF, 2008.

Giner, Begoña, and Reverte, Carmelo, 'The risk-relevance of accounting data: evidence from the Spanish stock market', *Journal of International Financial Management and Accounting*, vol 17 (2006), pp175-207.

Hodder, Leslie, Koonce, Lisa, and McAnally, Mary Lea, 'SEC market risk disclosures: implications for judgment and decision making', *Accounting Horizons*, vol 15 (2001), pp49-70.

Hodder, Leslie D., Hopkins, Patrick E., and Wahlen, James M., 'Risk-relevance of fair-value income measures for commercial banks', *The Accounting Review*, vol 81 (2006), pp337-75.

House of Commons Treasury Committee, *Banking Crisis: Reforming Corporate Governance and Pay in the City*, London: The Stationery Office, 2009.

House of Lords Select Committee on Economic Affairs, *Auditors: Market Concentration and Their Role*, London: The Stationery Office, 2011.

ICAEW, Financial Reporting of Risk: Proposals for a Statement of Business Risk, London: ICAEW, 1997.

ICAEW, Inside Out: Reporting on Shareholder Value, London: ICAEW, 1999.

ICAEW, Internal Control: Guidance for Directors on the Combined Code, London: ICAEW, 1999.

ICAEW, No Surprises: The Case for Better Risk Reporting, London: ICAEW, 1999.

ICAEW, No Surprises: Working for Better Risk Reporting, London: ICAEW, 2002.

ICAEW, Prospective Financial Information: Guidance for UK Directors, London: ICAEW, 2003.

ICAEW, Measurement in Financial Reporting, London, 2006.

ICAEW, Developments in New Reporting Models, London: ICAEW, 2009.

ICAEW, Audit of Banks: Lessons from the Crisis, London: ICAEW, 2010.

ICAEW, Business Models in Accounting: The Theory of the Firm and Financial Reporting, London: ICAEW, 2010.

International Accounting Standards Board, *Provisions, Contingent Liabilities and Contingent Assets* (IAS 37), London: IASC Foundation, 2008.

International Accounting Standards Board, *Presentation of Financial Statements* (IAS 1), London: IASC Foundation, 2009.

International Accounting Standards Board, *Financial Instruments: Disclosures* (IFRS 7), London: IASC Foundation, 2009.

International Accounting Standards Board, *Management Commentary: A Framework for Presentation*, London: IFRS Foundation, 2010.

International Corporate Governance Network, ICGN Corporate Risk Oversight Guidelines, London: ICGN, 2010.

Johnson, Sarah, 'SEC pushes companies for more risk information', CFO.com, 2 August 2010.

Jorgensen, Bjorn N., and Kirschenheiter, Michael T., 'Discretionary risk disclosures', *The Accounting Review*, vol 78 (2003), pp449-69.

Jorion, Philippe, 'How informative are value-at-risk disclosures?', *The Accounting Review*, vol 77 (2002), pp911-31.

Kajüter, Peter, *Risk Disclosures of Listed Firms in Germany: A Longitudinal Study*, 2004 (unpublished working paper).

Kaplan, Robert S., 'Accounting scholarship that advances professional knowledge and practice', *The Accounting Review*, vol 86 (2011), pp367-83.

Kay, John, 'Don't blame luck when your models misfire', Financial Times, 2 March 2011, p13.

Knight, Frank H., *Risk, Uncertainty, and Profit*, London: The London School of Economics and Political Science, 1933 [1921].

Kothari, S. P., Ramanna, Karthik, and Skinner, Douglas J., 'Implications for GAAP from an analysis of positive research in accounting', *Journal of Accounting and Economics*, vol 50 (2010), pp246-86.

Kravet, Todd, and Muslu, Volkan, *Informativeness of Risk Disclosures in Corporate Annual Reports*, 2011 (unpublished but available at www.ssrn.com).

Lajili, Kaouthar, and Zéghal, Daniel, 'A content analysis of risk management disclosures in Canadian annual reports', *Canadian Journal of Administrative Sciences*, vol 22 (2005), pp125-42.

Landsman, Wayne R., Peasnell, Kenneth V., and Shakespeare, Catherine, 'Are asset securitizations sales or loans?', *The Accounting Review*, vol 83 (2008), pp1251-72.

Lang, Mark H., and Lundholm, Russell J., 'Corporate disclosure policy and analyst behavior', *The Accounting Review*, vol 71 (1996), pp467-92.

Lewis, Michael, The Big Short, London: Penguin, 2011.

Linsley, Philip M., UK Bank Risk Disclosures in the Period Through to the Onset of the Global Financial Crisis, London: ICAEW, 2011.

Linsley, Philip M., and Shrives, Philip J., 'Risk management and reporting risk in the UK', *Journal of Risk*, vol 3 (2000), pp115-29.

Linsley, Philip M., and Shrives, Philip J., 'Risk reporting: a study of risk disclosures in the annual reports of UK companies', *The British Accounting Review*, vol 38 (2006), pp387-404.

Linsley, Philip M., Shrives, Philip J., and Crumpton, Mandy, 'Risk disclosure: an exploratory study of UK and Canadian banks', *Journal of Banking Regulation*, vol 7 (2006), pp268-82.

Linsmeier, Thomas J., and Pearson, Neil D., 'Quantitative disclosures of market risk in the SEC release', *Accounting Horizons*, vol 11 (2007), pp107-35.

Linsmeier, Thomas J., Thornton, Daniel B., Venkatachalam, Mohan, and Welker, Michael, 'The effect of mandated market risk disclosures on trading volume sensitivity to interest rate, exchange rate, and commodity price movements', *The Accounting Review*, vol 77 (2002), pp343-77.

Macdonald, W. A., (chairman), *Report of the Commission to Study the Public's Expectations of Audits*, Toronto: Canadian Institute of Chartered Accountants, 1988.

Marshall, Andrew, and Weetman, Pauline, *Managing Interest Rate Risk and Foreign Exchange Risk: Disclosure of Objectives, Policies and Processes*, London: ICAEW, 2008.

National Commission on the Causes of the Financial and Economic Crisis in the United States, *The Financial Crisis Inquiry Report*, Washington DC: US Government Printing Office, 2011.

Pope, Peter F., 'Bridging the gap between accounting and finance', *The British Accounting Review*, vol 42 (2010), pp88-102.

Power, Michael, The Risk Management of Everything, London: ICAEW, 2004.

Power, Michael, 'The risk management of nothing', Accounting, Organizations and Society, vol 34 (2009), pp849-55.

PricewaterhouseCoopers, Guide to Forward-Looking Information, London: PwC, 2007.

Rajgopal, Shivaram, 'Early evidence on the informativeness of the SEC's market risk disclosures: the case of commodity price risk exposure of oil and gas producers', *The Accounting Review*, vol 74 (1999), pp251-80.

Ricciardi, Victor, A Risk Perception Primer: A Narrative Research Review of the Risk Perception Literature in Behavioral Accounting and Behavioral Finance, 2004 (unpublished but available at www.ssrn.com).

Roulstone, Darren T., 'Effect of SEC Financial Reporting Release No. 48 on derivative and market risk disclosures', *Accounting Horizons*, vol 13 (1999), pp343-63.

Ryan, Stephen G., 'A survey of research relating accounting numbers to systematic equity risk, with implications for risk disclosure policy and future research', *Accounting Horizons*, vol 11 (1997), pp82-95.

Schrand, Catherine M., 'The association between stock-price interest rate sensitivity and disclosures about derivative instruments', *The Accounting Review*, vol 72 (1997), pp87-109.

Schrand, Catherine M., and Elliott, John A., 'Risk and financial reporting: a summary of the discussion at the 1997 AAA/FASB conference', *Accounting Horizons*, vol 12 (1998), pp271-82.

Scott, Mike, 'Putting people, planet and profit into the annual report', *Financial Times, FTfm* supplement, 29 November 2010.

Securities and Exchange Commission, SEC Interpretation: Management's Discussion and Analysis of Financial Condition and Results of Operations; Certain Investment Company Disclosures, Washington: SEC, 1989.

Senior Supervisors Group, Leading-Practice Disclosures for Selected Exposures, no place: SSG, 2008.

Senior Supervisors Group, Observations on Risk Management Practices during the Recent Market Turbulence, no place: SSG, 2008.

Senior Supervisors Group, *Risk Management Lessons from the Global Banking Crisis of 2008*, no place: SSG, 2009.

Solomon, Jill F., Solomon, Aris, Norton, Simon D., and Joseph, Nathan L., 'A conceptual framework for corporate risk disclosure emerging from the agenda for corporate governance reform', *The British Accounting Review*, vol 32 (2000), pp447-78.

Spira, Laura F., and Page, Michael, 'Regulation by disclosure: the case of internal control', *Journal of Management and Governance*, vol 14 (2010), pp409-33.

Stanford, Wendy, 'How to declutter reporting', *FS Focus* (published by ICAEW), May 2011, pp10-11.

Taleb, Nassim Nicholas, Fooled by Randomness: The Hidden Role of Chance in Life and in the Markets, New York: Texere, 2004.

Taleb, Nassim Nicholas, *The Black Swan: The Impact of the Highly Improbable*, London: Allen Lane, 2007.

Treadway, Jr., James C., (chairman), *Report of the National Commission on Fraudulent Financial Reporting*, National Commission on Fraudulent Financial Reporting, 1987.

US Senate Permanent Subcommittee on Investigations, *Wall Street and the Financial Crisis: Anatomy of a Financial Collapse*, Washington DC: US Senate, 2011.

Valukas, Anton R., *In re Lehman Brothers Holdings Inc et al*, New York: United States Bankruptcy Court Southern District of New York, 2010.

Walker, Sir David, A Review of Corporate Governance in UK Banks and Other Financial Industry Entities, London: HM Treasury, 2009.

Woods, Margaret, Dowd, Kevin, and Humphrey, Christopher, 'The value of risk reporting: a critical analysis of value-at-risk disclosures in the banking sector', *International Journal of Financial Services Management*, vol 3 (2008), pp45-64.

Woods, Margaret, Dowd, Kevin, and Humphrey, Christopher, 'Market risk reporting by the world's top banks: evidence on the diversity of reporting practice and the implications for international accounting harmonisation', *Revista de Contabilidad – Spanish Accounting Review*, vol 11 (2008), no 2, pp9-42.



The ICAEW is a founder member of the Global Accounting Alliance, which represents over 775,000 professional accountants in over 165 countries worldwide, to promote quality services, share information and collaborate on important international issues.

ICAEW is a professional membership organisation, supporting over 136,000 chartered accountants around the world. Through our technical knowledge, skills and expertise, we provide insight and leadership to the global accountancy and finance profession.

Our members provide financial knowledge and guidance based on the highest professional, technical and ethical standards. We develop and support individuals, organisations and communities to help them achieve long-term, sustainable economic value.

Because of us, people can do business with confidence.

ICAEW Chartered Accountants' Hall Moorgate Place London EC2R 6EA UK

T +44 (0)20 7920 8100 F +44 (0)20 7920 6009 E frfac@icaew.com