NATIONAL AUDIT OFFICE

Report by the

Comptroller and Auditor General

Supporting innovation: Managing risk in government departments

HC 864 Session 1999-2000

17 August 2000

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John Bourn	National Audit Office
Comptroller and Auditor General	26 July 2000

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Executive summary

What is risk?

In this report 'Risk' is defined as something happening that may have an impact on the achievement of objectives as this is most likely to affect service delivery for citizens. It includes risk as an opportunity as well as a threat.

1 Government departments are responsible for a range of diverse services for citizens such as the payment of social benefits, support for business, the provision of health care and education, regulating industry and protecting the environment. All involve some degree of risk[1] – the risk in particular that as a result of unplanned events or circumstances arising, services are not delivered on time, or cannot respond to sudden changes in demand for them, or are of poor quality, or are not cost effective.

Figure 1

Typical risks which departments face:

- Anything that poses a threat to the achievement of a department's objectives, programmes, or service delivery for citizens.
- Anything that could damage the reputation of a department and undermine the public's confidence in it.
- Failure to guard against impropriety, malpractice, waste, or poor value for money.
- Failure to comply with regulations such as those covering health and safety and the environment.
- An inability to respond to or to manage changed circumstances in a way that prevents or minimises adverse effects on the delivery of public services.

Source: National Audit Office

2 Risks can also arise from not taking opportunities to deliver better and more cost effective public services. For example, advances in computer technology make it possible to deliver more services electronically, such as applying for driving licences and submitting tax returns, so that citizens can access public services more quickly - often 24 hours a day. Citizens and businesses can lose out if departments are slow to adopt new forms of cost-effective service delivery made possible by innovation and technological advances. But there are risks involved with doing things differently and new forms of service delivery need to be implemented in a way that minimises the risk of them failing or the quality of public services not being maintained or improved.

1 The Treasury's 'Orange Book' - Management of Risk - A Strategic Overview (February 2000) defines 'Risk' as the uncertainty of outcome, within a range of potential exposures, arising from a combination of the impact and probability of potential events.

What is risk management?

3 Risk management means having in place a corporate and systematic process for evaluating and addressing the impact of risks in a cost effective way and having staff with the appropriate skills to identify and assess the potential for risks to arise.

Risk is not a new concept

4 Risk is not a new concept to government departments. There is a well known need for sound controls to minimise financial risks, impropriety and malpractice, to safeguard public assets and to manage health, safety and environmental risks. Similarly much attention is also being given to the development of project management skills to ensure that government departments have the capacity to become purchasers and providers of public services. This is evidenced for example in the growth in Private Public Partnerships, such as contracts under the Private Finance Initiative which has highlighted the importance of identifying key risks and allocating responsibility for managing them to the party best able to do so. Underlying these developments is the need to assess and manage those risks which could prevent key objectives and programme outcomes from being achieved and consequently having an adverse effect on service delivery for citizens. This aspect of risk management is the main focus of this report.

5 In the private sector the importance of risk management is often better understood. The research paper – Business Risk Management in Government: Pitfalls and Possibilities which we commissioned Professor Christopher Hood and Dr Henry Rothstein of the London School of Economics and Political Science to produce identified three lessons which government departments could learn from the experience of the private sector (Figure 2).

6 Civil service culture – that is the values, ethos, ethics and training underpinning departments' management approaches – has traditionally been risk averse. This is partly because departments have tended to associate risk taking with increasing the possibility of something going wrong, of project failure or financial loss which could lead to Parliamentary and public censure. Conversely, in successful private sector companies well managed risk taking is considered to be important because companies have an incentive to improve service delivery to customers which is key to them maintaining and extending their competitive advantage.

7 The Modernising Government programme seeks to encourage departments to adopt well managed risk taking where it is likely to lead to sustainable improvements in service delivery. In pursuit of this the Cabinet Office and the Treasury are acting with departments to promote better risk management across government, including the requirement for all departments to produce by September 2000 frameworks setting out their approach to risk management in

Applying the private sector experience of risk management to the public sector

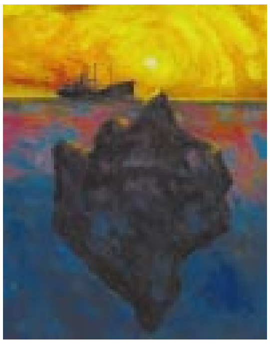
Figure 2

Private sector risk management lessons	Pitfalls of inappropriate application of risk management in the public sector	Possible solution
1. The main focus of private sector risk management is on maintaining and enhancing profitability - in contrast in departments the focus is on the implementation of objectives and service to the citizen.	■ Responsibility gets pushed on to the bodies that are not best placed to manage the risks.	■ Responsibility for risks should rest with the body best placed to manage them. Where departments are jointly working with other bodies the risks and the responsibility for managing them should be clearly identified.
2. Risk is assessed in terms of how it might adversely affect the value of the business as perceived by shareholders and financial markets. In the public sector risk is more about failure to deliver services to citizens.	■ Risk management should highlight key risks to public services. A short term focus on what might seem to suit the department could lead to inaction or inflexibility.	■ Develop risk management as part of the planning and decision making process. Focus on the risks to public services rather than the department.
3. Risk identification, assessment and management are linked to business objectives. The implication for departments is that risk management should be integrated into planning and key decision processes.	■ If departments do not make risk management an integral part of their planning and decision making processes they will not realise the benefits of improved risk management.	■ Avoid 'tick box' culture. Risk management requires careful thought and deliberation.

Source: Business Risk Management in Government: Pitfalls and Possibilities by Professor Christopher Hood and Dr Henry Rothstein of the London School of Economics and Political Science (Annex 2)

their areas of responsibility. Since 1997 the Treasury has been developing improved governance accountabilities. Statements on Internal Financial Control were introduced for the year 1998-1999, and work is underway on the appropriate method of adopting the principles of internal control reporting for listed companies to the central government sector. A key element of this work is the drive to have strategic risk identification and management processes in place in all government organisations, encompassing the whole range of risks relating to objectives which organisations face.

8 As the external auditor of government departments the National Audit Office support well managed risk taking intended to result in tangible benefits for taxpayers. This report is intended to help promote improvements in risk management by departments by identifying examples of good practice from both the public and the private sector. The report sets out (i) why risk management is important; (ii) how well risk management is understood and implemented by departments, agencies and non departmental public bodies (NDPBs) – collectively referred to as 'departments'; and (iii) what more needs to be done to improve risk management.



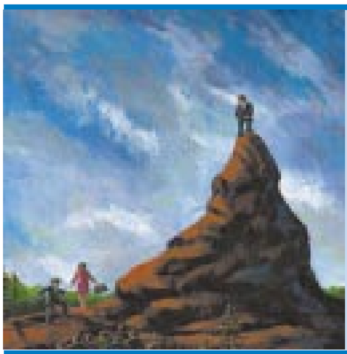
Part 1: Why risk management is important

9 Risk management can help departments improve their performance in a number of ways. It can lead to better service delivery, more efficient use of resources, better project management, help minimise waste, fraud and poor value for money and promote innovation. Citizens and businesses can waste time and lose out financially if public services are inadequate or inefficiently delivered. And the reputation of departments can suffer where services fail to meet the public's expectations. Assessing the risk of such circumstances arising can help departments ensure that they have adequate arrangements in place to deal with them or with something coming out of the blue.

Part 2: How well risk management is understood and implemented by government departments

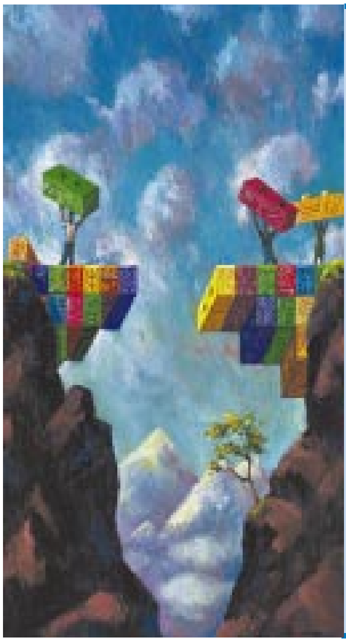
10 With the assistance of PricewaterhouseCoopers we carried out a survey in February 2000 of 257 departments, agencies and non departmental public bodies (NDPBs) of which 237 (92 per cent) responded (Appendix 2). The purpose of the survey was to provide an overview of the extent and practice of risk management across organisations responsible for delivery of public services. The survey asked them about their understanding of risk management and its importance to their performance, how they identify and assess risks, and the action they take to deal with them. The survey results reflect the make-up of the organisations surveyed. We supplemented this with interviews with twelve departments and two focus groups with representatives from departments. The results of the survey indicate that:

- **On departments' understanding of risk management.** While 82 per cent of departments agree that risk management is important to the achievement of their objectives, and recognise its role in preventing fraud and impropriety and safeguarding assets, they say they have less understanding of how it can help address the risks which threaten the delivery of services to citizens. Twenty per cent say they use a common definition of risk throughout the department. Twenty-five per cent of departments say, however, that they have set clear risk management objectives. Fourteen per cent of departments say that they have provided training on risk and how to manage it.



There is some inconsistency in departments' approach to risk management in that while many recognise that it is important to the achievement of their objectives they are less clear on how risks should be managed and few provide training on how to do so. Risk management will only become standard practice in government departments if there is better understanding of what it involves and the benefits which it can help to secure in terms of improved service delivery and achieving key objectives. Our survey suggests there is a need to raise staff's awareness of their department's risk management policies including their approach to risk taking and innovation. More training is also needed to equip staff with risk management skills.

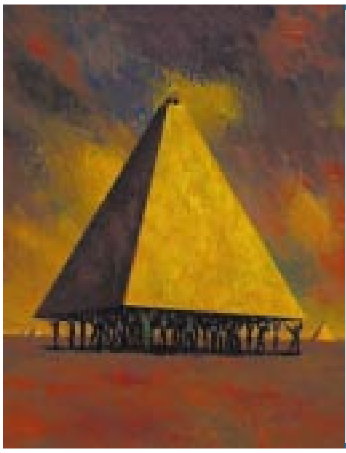
- **On how departments identify and assess risks.** Thirty-eight per cent of departments did not routinely assess risks. The risks most commonly identified by departments are **financial risk** (91 per cent) – the risk of financial loss or impropriety; **project risk** (89 per cent) – the risk of project failure, cost overrun or time delay; and **compliance risk** (85 per cent) – failure to comply with regulations for example, health and safety or environmental. Eighty-nine per cent say they assessed the risks to their organisation's **reputation** from failure to deliver a key service to the public. Well over half (56 per cent) of departments say that they identify the main risks relating to each of their main objectives. The risk of **missing an opportunity** to improve the delivery of organisations' objectives through for example, innovation is identified by 61 per cent of organisations. Only a small proportion – one in eight (13 per cent) know about the strengths and weaknesses of the risk management systems of other departments, agencies and private sector organisations which they work with. Forty-two per cent of organisations regard themselves as more risk averse than risk taking, but conversely 82 per cent say that they support innovation to achieve their objectives. Departments and agencies have identified a number of barriers which prevent risk taking and have suggested a number of incentives which might help overcome them (Figure 3). Departments use a range of tools to record and assess risk including risk analysis and sensitivity analysis to assess the probability of risks leading to an adverse impact. Most departments say that they find it relatively straightforward to prioritise risks, and assess their potential impact.



While departments recognise that missing an opportunity to deliver services in new and imaginative ways for the benefit of citizens is a risk in itself which needs to be managed, they believe that they are more risk averse than risk taking. If departments are to realise opportunities to improve service delivery, they need to understand how well managed risk taking can contribute to innovation. Initiatives by the Cabinet Office and Treasury such as the Invest to Save Budget have been designed to help promote innovation based on effective risk management.

One way of improving service delivery which is central to the Modernising Government programme is more joint working between departments which provide complementary services to citizens. Joint working involves different types of risk for example, if part of the service provided by one department is delayed or of poor quality the success of the whole programme is put at risk. It is important that departments who are involved in delivering joined up and innovative programmes jointly assess and manage the risks which might prevent them from being successful. As a first step in doing this, departments should know about the risk management approaches of the different partners including private sector organisations they work with and the types of risk which they cover.

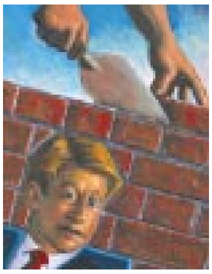
- **On the action departments take to manage risks**. Departments say they use a range of methods to manage risks including action plans for implementing decisions about identified risks, evaluations of controls to prevent or minimise the likelihood of risks materialising, and assessing the costs and benefits of addressing risks. Fifty-seven per cent of departments say they have procedures for reporting risk to senior management and 85 per cent say that their senior management is receptive to all communication about risk, including bad news. But only 34 per cent say that regular risk reports to senior management are an effective component of risk management in their organisation (Figure 4). Departments' responses to risk include action plans, reviewing existing controls, and prioritising risks requiring action. But the absence of early warning indicators for alerting senior managers to changing risks, and regular risk reports to senior management may mean that key risks are not identified, or are identified too late for effective action to be taken.



Most departments say they report risks to senior management and that management are receptive to such reports. Conversely, few departments say that these risk reports are an effective means of enabling the department to manage the key risks they face. To make most use of the range of work departments do to identify and manage risks, risk management should become an integral part of departments' business planning and management processes. It should include: (i) coherent approaches for identifying risks, assessing and reporting risks and action to deal with them; (ii) assigning to named individuals responsibility for managing risks and reporting them to senior management; and (iii) quality assurance arrangements so that the approach to risk management reflects current good practice.

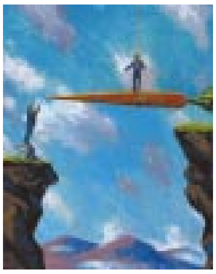
Figure 3

The main barriers and incentives for risk taking



Barriers

- Risk averse organisation - "It is not in our culture".
- Lack of expertise in risk management.
- Little information about risk faced by departments and what is appropriate risk taking.
- Lack of formal systems, processes and procedures for managing business risks.
- Unclear responsibilities for the management of risks.
- The status and activities of public bodies limits the risk departments can take with public services.
- Time, funding constraints and fear of project failure reduce scope for innovation.

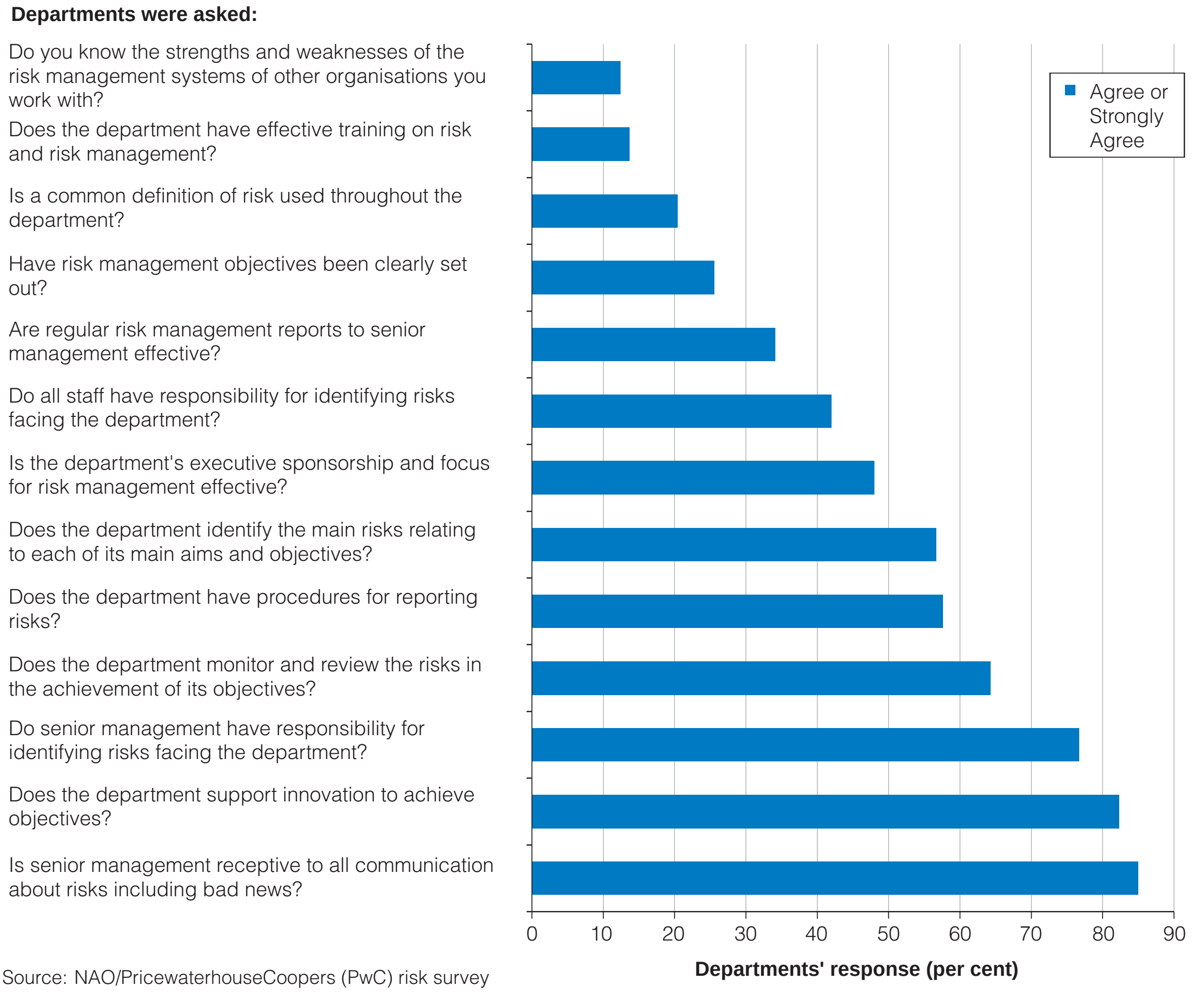


Incentives

- Senior management support of risk taking and innovation even where it is not fully successful (shift away from blame culture).
- Provide training on risk management.
- Improve communication about risks and the department's approach to risk taking (what risks can staff take in practice).
- Provide guidance and advice on risk management.
- Clarification of individual responsibilities and accountabilities for key risks.
- Dissemination of good practice on business risk management with examples where it has added value.
- Make more use of pilot projects to test innovative solutions.

Source: NAO/PricewaterhouseCoopers (PwC) risk survey and focus groups

Figure 4 Departments' approach to risk management



Source: NAO/PricewaterhouseCoopers (PwC) risk survey

Part 3: What more needs to be done to improve risk management

11 While our survey of departments found growing recognition of the importance of risk management and how it can help to promote innovation, departments were less sure as to how it should be implemented in practice. The Cabinet Office and the Treasury are addressing this through a number of different initiatives, including training events and guidance in support of innovation, creativity and risk management as part of the wider Civil Service Reform programme; funding innovative public service delivery projects through the Invest to Save Budget; and encouraging innovation and risk management through the PricewaterhouseCoopers sponsored Innovation and Risk Management Awards.

Our examination based on case studies of good practice adopted by four departments and agencies[2] and the experience of six private sector companies[3] suggests that six essential requirements need to be in place if risk management is to be effective and innovation encouraged. These requirements are summarised in Figure 5.

Figure 5

Key requirements of risk management

Requirement	Illustrated by
Risk management policies and the benefits of effective risk management should be clearly communicated to all staff (only 20 per cent of departments in our survey say that a common definition of risk management is used throughout their department, Figure 4).	The Home Office's Home Detention Curfew Scheme (electronic tagging) costing £28 million provides for the early release of prisoners – the overall aim of the scheme is to ease the transition of prisoners from custody back to the community. It has also had the effect of relieving pressure on the prison population. To ensure that all parties involved in the scheme were aware of their responsibilities for risk management, the Home Office discussed with them the risks posed by the scheme – such as risks of prisoners breaking their curfew or reoffending while on release, the technical risk of the electronic monitoring equipment not working and the operational risk from contractors failing to deliver the service. The Home Office together with those agencies responsible for administering the scheme developed a risk strategy and put contingency arrangements in place to minimise the impact of something going wrong or the unexpected happening.
	Benefits secured: Risk assessment has enabled the Home Office to limit the potential adverse effects of releasing prisoners early into the community by making all parties involved with the scheme aware of the risks and their responsibilities for managing them. Since its introduction in January 1999 some 21,000 (as at 31 May 2000) prisoners have been released on Home Detention Curfew with about 94 per cent of curfews successfully completed; most of the prisoners recalled to prison have been because they had breached curfew conditions and less than two per cent have been notified as having been convicted or cautioned or are awaiting prosecution for committing a further offence while subject to the scheme. So far, only eight prisoners have been recalled to prison because they posed a risk to the public.

continued ...

2 (i) Electronic Tagging, Home Detention Curfew - Home Office and HM Prison Service, (ii) Crime Reduction Programme - Intervention in Schools - Home Office, Department for Education and Employment and the National Assembly for Wales, (iii) The Yorkshire Link M1-A1 Lofthouse to Bramham Link Road - The Highways Agency and Department of the Environment, Transport and the Regions and (iv) The 1901 Census - The Public Record Office.

3 Associated British Ports Holdings PLC, Glaxo Wellcome plc, Allied Domecq PLC, Nomura International plc, Prudential plc, and Reuters Limited.

Figure 5

Key requirements of risk management

Requirement	Illustrated by	
■ **Senior management need to support and promote risk management** (48 per cent of departments in our survey say that senior management sponsorship for risk management is effective, Figure 4).	■ The Home Office, Department for Education and Employment and the National Assembly for Wales are supporting 38 projects in 110 schools, as part of the £250 million Crime Reduction Programme, to pilot and evaluate which approaches are likely to be most cost effective in reducing youth crime. With the support of their senior management the Departments adopted a portfolio type approach to risk management. For example, senior management accepted that some of the approaches being piloted such as home-school liaison workers appointed in schools to develop links between school and families with pupils at most risk of truancy and offending, were more experimental and more risky than others. But overall the success of the programme to reduce youth crime was not put at any greater risk because the portfolio of projects funded included a range of both lower and higher risk projects. This approach did, however, allow the Departments to consider and test more innovative ways to reduce crime. ■ **Benefits secured**: Senior management support has enabled the Departments to test a range of pilot approaches all involving different types and degrees of risk to improve behaviour in schools and at home. This in turn should also improve school attendance by, for example, training local employees to act as mentors for young people having difficulty at school. The Departments' approach should enable them to evaluate which pilot projects work best in reducing crime and promote their use in more schools.	Home Office BUILDING A SAFE, JUST AND TOLERANT SOCIETY
■ **The department's culture should support well thought through risk taking and innovation** (42 per cent of departments say they tended to be risk averse but 82 per cent say that they support innovation to achieve objectives, paragraph 10).	■ The Highways Agency's £200 million contract for the M1-A1 link road encouraged innovation by allowing contractors to suggest alternative road designs and specifications which had the potential to reduce maintenance and disruption to road users. ■ **Benefits secured**: The M1-A1 link road is one of the Highways Agency's largest Design, Build, Finance and Operate contracts. It was delivered safely and opened five months ahead of schedule in February 1999. Improved road design and specification have contributed to early benefits from the new road including relieving traffic congestion and improvements in road safety.	HIGHWAYS AGENCY
■ **Risk management should be embedded in management processes** (only 34 per cent of departments say that regular risk management reports to senior management are an effective component of risk management in their department, Figure 4).	■ Glaxo Wellcome have made risk management a standard feature of all of their business planning, control and quality assurance processes and reports to senior management. Risks are routinely considered in managing all aspects of the company's business and in particular in conducting clinical trials to test new products. ■ **Benefits secured:** Risk assessment has enabled Glaxo Wellcome to target and improve activities such as maintaining continuity of production, ensuring suppliers products are of appropriate quality and minimising any clinical failures which could affect patients and reduce revenue and company performance.	GlaxoWellcome

continued ...

Figure 5

Key requirements of risk management

Requirement	Illustrated by
■ **The management of risk should be closely linked to the achievement of objectives** (56 per cent of departments say their department identifies the main risks relating to each of their main aims and objectives, Figure 4).	■ Reuters Limited assess risks in terms of the likelihood of them maturing and their potential impact on company profitability and performance. Managers at all levels in the company have specific responsibility for assessing and managing risks. There is regular risk reporting to Reuters' Group Executive Committee which takes a wider strategic view of the risks faced by Reuters Limited which might affect the company's profitability and performance. ■ **Benefits secured**: The company have a £300 million investment programme in e-commerce. Risk management is helping to look at Group wide risks to ensure the investment is successful in improving the capability of Reuters to deliver services electronically to clients.
■ **Risks associated with working with other organisations should be assessed and managed** (only 13 per cent of departments say they know about the strengths and weaknesses of the risk management systems of other organisations which they worked with, Figure 4).	■ The Public Record Office has an internal budget of £1.2 million to manage the project to make public 1.5 million pages of information from 1901 Census Returns. This must be made available in January 2002, the statutory date. The success of the project depends on the Public Record Office working with the Defence Evaluation and Research Agency who are responsible for making census data available on the Internet. The two organisations assessed the risks which they were jointly and separately responsible for and drew up contingency plans to deal with any potential problems or circumstances arising which might put the success of the project at risk – For example, if data cannot be accessed immediately on the Internet information will still be available on microfiche. A pilot project is planned for 2001 to identify any potential problems which users might encounter in accessing information through the Internet so that they can be addressed by the Public Record Office and the Agency before the census information has to be available to the public in 2002. ■ **Benefits secured**: Based on progress so far the Public Record Office is currently on target to achieve its objective to make census information available publicly on the Internet by 2002. Schools and other users will have access to historical information without having to use the Public Record Office in London. In the event of problems there are contingency arrangements in place to provide information manually.

Recommendations

12 We recommend that the Cabinet Office, Treasury, and departments should:

For the Cabinet Office

- **Continue to encourage departments to adopt a coherent approach to managing risks which is likely to lead to sustainable improvements in public services**. Our February 2000 survey revealed that at the time departments were unclear about what the risk management frameworks they are required to produce by September 2000 should cover in terms of helping to deliver their key programmes and improve the quality of public services. In June 2000 the Treasury and Cabinet Office built on earlier Inter-Departmental Liaison Group on Risk Assessment advice and issued joint guidance on the requirement for departments to produce a progress report to Treasury towards preparing Statements of Internal Control and on what the published risk management frameworks which only need cover risks affecting the public should contain and how the two reporting exercises fit into the development of the department's overall risk management.

- This report highlights good practice examples which have been followed by a number of government departments and agencies and the approaches to risk management adopted by the private sector which we believe are equally applicable for government organisations. This good practice can help departments as they develop and take forward their risk management frameworks. It can also assist in benchmarking how departments perform in implementing sound risk management. **We encourage the Cabinet Office to disseminate these messages in a useful and easily understood form across government and to gain assurance from departments that they have an appropriate framework in place for managing risk.**

For the Treasury

- **Press ahead with work already underway to improve risk management and corporate governance in government departments**. A key requirement is that all departments should have strategic risk identification and management processes in place covering the main risks relating to the achievement of their objectives. The Treasury should gain assurance from departments that they are developing a strategic risk management process in preparation for the Statement of Internal Control to be made from 2001-2002.

For departments

- **Ensure that the principles of sound risk management are understood and widely adopted**. It is important that risk management is understood by staff so that they are committed to and focused on managing the key risks to the achievement of programme objectives and improvement of public services. Risk frameworks are only the initial step in establishing sound risk management across government. Once frameworks are in place departments and agencies will need to develop action plans for implementing them and ensure that their staff understand and accept the importance and the benefits of risk management and innovation and how to apply it.

- We suggest below some key questions for departments to address (Annex 1 to the Executive summary).

Annex 1

Key questions for Departments to consider when reviewing their approach to risk management

1. Do senior management support and promote risk management?

- Does a formal risk policy exist and is this documented, endorsed by the head of the organisation, readily available to all staff and subject to regular review?
- Does senior management have a good understanding of the key risks facing the organisation and their likely implications for service delivery to the public and the achievement of programme outcomes?
- Is senior management routinely in a position to be aware of the key risks and does it have systems in place to ensure that this is up to date?
- Are contingency arrangements in place to maintain standards of service to the public and the delivery of programmes in the event that risks result in adverse consequences?

2. Does the department support well thought through risk taking and innovation?

- Is there an explicit policy to encourage well managed risk taking where it has good potential to realise sustainable improvements in service delivery and value for money and is this policy actively communicated to all staff?
- Is individual success rewarded and support given by management when things go wrong so as to avoid a blame culture?
- Are staff encouraged to take responsibility for risks when they are best placed to do so rather than transferring it to other organisations?
- Are staff encouraged to report bad news to senior officials as well as good?

- Are staff encouraged to challenge existing practices, to identify new ways of doing things and to be innovative?

3. Are risk management policies and the benefits of effective risk management clearly communicated to staff?

- Are there clear statements which set out the organisation's risk policies and its approach to risk taking and innovation, and are staff encouraged to read them?
- Is a common definition of risks and how they should be managed, adopted by all staff throughout the organisation with detailed guidance for staff drawing up or implementing programmes?
- Is it clearly communicated?
- Are appropriate staff clearly assigned responsibilities for assessing, reporting and managing identified risk and are these responsibilities regularly reviewed?
- Do staff receive appropriate guidance and training on the typical risks which the organisation faces and the action to take in managing these risks?

4. Is risk management fully embedded in the department's management processes?

- Are there well established approaches for (i) identifying risk and (ii) assessing and reporting risk which are fully understood by staff?
- Are arrangements in place, such as reviews by internal audit and benchmarking with other organisations, to ensure that risk management approaches reflect current good practice?
- Has management sought advice from internal and external audit on good practice in the development, implementation and maintenance of robust risk management processes and systems?

- Has professional advice been taken to ensure that the most appropriate tools and techniques are used to assess risk and the likelihood of it maturing?

- When practicable is a monetary or other numerical value put on risk to emphasise to staff the potential loss or missed opportunity which could occur if risks are not well managed?

- Is the action planned to deal with consequences of risks maturing such as the impact on the delivery of services to the public regularly reviewed to ensure that it remains appropriate, sufficient and cost effective?

- Is risk management ongoing and integrated with other procedures so that staff accept it as a standard requirement of good management and not a one-off or annual activity?

5. Is the management of risk closely linked to the achievement of the department's key objectives?

- Are the risks which could result in key objectives or service delivery responsibilities not being met identified and the likelihood of them maturing regularly assessed?

- In assessing risks are the potential implications for key stakeholders – citizens as both taxpayers and consumers of government services and specific client groups such as business – taken account of?

- Are early warning indicators in place – covering for example, quality of service or seasonal increase in customer demand not being met – to alert senior management of potential problems in service delivery or that the risk of planned outcomes not being met is increasing?

- Are reliable contingency arrangements in place so that if problems arise services to the public will be maintained and the adverse impact on key programme outcomes such as late delivery or reduced quality will be minimised?

- Is there a reliable communications strategy in place so that if risks mature those most affected by the potential adverse consequences fully understand and have confidence in the remedial action which the department may need to take?

6. Are the risks associated with working with other organisations assessed and managed?

- Are all those organisations which are likely to have some influence over the success of a programme or service to the public identified?

- Is consideration being given to the need for a consistent and common approach to managing risks which cut across departmental boundaries, for example cross-departmental projects?

- Are the risks associated with joint working not being successful jointly identified and assessed, with responsibility for managing them by all those involved in the joint working or partnership clearly assigned and understood?

- Do organisations understand and have confidence in the risk management arrangements of all those involved in the joint working or who could influence the success of the programme?

- Has the extent to which risks can be transferred to organisations – both public and private – best placed to manage them been considered and acted upon?

- Is there reliable and regular information to monitor the risk management performance of all those organisations involved in a joined up programme and partnerships?

- Are there adequate contingency arrangements to minimise the adverse effects on public service delivery of one or more party failing to deliver?

Annex 2

Business Risk Management in Government: Pitfalls and Possibilities – paper by Professor Christopher Hood and Dr Henry Rothstein of the London School of Economics and Political Science

1. Introduction

1.1 Business risk management, taking a variety of forms, has been a growth point in corporate management in recent years. That change in emphasis is said to stem from responses to high-profile disasters like Bhopal and Exxon Valdez, increasing legal and regulatory pressure on risk management and a search for new approaches to formulating corporate strategy.[4]

1.2 Risk management of many types is well-established in the public sector, in domains as various as the management of offenders, health-care systems, tax audits and the operations of weapons systems.[5] Risk management has always been central to strategic planning in defence, internal security and foreign affairs.[6] But risk management systems in government tend to be policy-domain-specific. Most are directed towards policy rather than 'business' risks[7] and some are focused on risks to third parties rather than risks to producer organisations[8]. Accordingly, if the various private-sector business risk approaches raise issues for the design of institutional routines in government, the issue concerns how far a generic approach to factoring risk into decision-making at senior managerial level is appropriate across government.

4 See Andersen 1999; Tritton 1999; Power 1999; ICAEW 1999.

5 The variety of ways in which different government organisations assess risk and set standards has been documented by ILGRA in several reports (HSE, 1996, 1998).

6 See Frei and Ruloff 1989.

7 There are exceptions to this pattern. One is the generic focus on risk management introduced by the Regulatory Impact Assessment Unit and its predecessors. Another is the focus on business risk management and organisational controls developing in the NHS (NHS 1999). A third is the traditional policy-advisory craft skill of higher civil servants and political advisers in spotting political risks, based on unwritten lore rather than explicit procedures.

8 By policy risk we mean risks relating to the achievement of public policy objectives (like economic policy aimed at stable growth without inflation). By business risks we mean risks to the continued existence or financial status of a particular organisation (like risks of insolvency or fraud). By systemic risk we mean risks affecting an industry or set of organisations (like risks of general banking collapse), as distinct from risks to the position of any individual organisations.

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1.3 In principle a case could be made for a more generic approach that involved the integration of business risk management techniques into management control and organisational strategy in the public sector. Many of the environmental and technological changes causing risk management to assume greater importance in business strategy (like increased litigation risks, risks of IT failure, financial risks arising from global markets) affect governments as well as business. There is evidence that the 1999 Turnbull ICAEW report on internal control has influenced public as well as private sector developments. Inquiries into government decision making often produce examples of risks being taken with public money or the quality of public services without adequate strategic consideration at senior management level or careful contingency planning. Yet public servants are almost equally often berated for being too risk-averse and not sufficiently entrepreneurial.[9] A business risk management approach offers the possibility for striking a judicious and systematically argued balance between risk and opportunity in the form of the contradictory pressures for greater entrepreneurialism on the one hand and limitation of downside risks on the other that are experienced by contemporary public sector managers.[10]

2. Equivalences between Private and Public Sector Risk Management

2.1 If a generic business risk management approach for the public sector is needed, how should it be developed? Should it be 'home-grown', building on public-sector-specific experience and problems? Or should it be read across from developing business models? The latter 'read across' option is not straightforward, for two reasons. One, what counts as 'business risk management' in the private sector varies across different business domains and professionals (like bankers, insurers, accountants). Two, to the extent that risk management models in business have common features, translating them for government may be problematic. Most risk management approaches in business include at least three features for which no exact equivalence is found in government (see Figure A1):

a) They are aimed at the enterprise (or profit centre) as the primary decision unit.

9 More specifically they are sometimes accused of tending to commit 'Type II' rather than 'Type I' errors in risk management, ie to prefer errors of commission to errors of omission, especially in regulation (see Brennan 1992; Durodie 1999; and contrast Shrader-Frechette 1991. For a definition of these types of errors see Royal Society 1992: 139-40).

10 The institutional processes required would belong to a family of systems designed to balance rival desiderata that are commonly found in public sector management (cf. Dunsire 1978; Hood 1996).

Equivalences between Private and Public Sector Risk Management

Figure A1

Source Domain: Private Sector Risk Management	Target Domain: Public Sector Risk Management
Primary focus on enterprise/profit centre	**Possible Equivalent** Agency, bureau or budget centre as focus of business risk management **Alternative or Difference** Focus on services or hazards involving several organisations
Risk mainly conceived in relation to shareholder value of enterprise	**Possible Equivalent** Focus on risk to each organisation's financial viability, operational capacity, reputation etc. **Alternative or Difference** Focus on Public Value and on Systemic Risk as well as 'Organisational Risk'
Business Risk Management approaches developing as heuristic frameworks to aid corporate strategy (mostly in top-down mode) within an information regime of commercial confidentiality	**Possible Equivalent** Focus on developing business risk management at management board level or equivalent in public organisations within an information regime of Freedom of Information **Alternative or Difference** Focus on developing business risk management at multiple levels (starting with the cabinet) and through multiple routines (e.g Procurement Regime, Regulatory Impact Regime etc.)

b) They conceive risk mainly in terms of shareholder value to the organisation and the various factors that can either add to or detract from that value (like reputation, operations, etc.).[11]

11 Less sophisticated business risk approaches deal only with compliance, prevention, crisis aversion or general operating performance.

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c) They seek to develop decision aids and tools of discovery (like risk webs and risk maps) to assist risk identification, assessment and management and link it with general corporate strategy.[12]

2.2 To read across feature (a) above to government, we might equate agencies, bureaus or other budget centres with business firms. Those organisations certainly have important business risks (like IT failure or litigation risks) to manage and some strategic management routines and units to which business risk approaches can be applied. At the same time, many public services delivered to citizens involve several public-service organisations. Accordingly, if the 'business' on which the risk focus is laid is on the service to citizens or clients rather than on the well-being of any one organisation, there is a case for a cross-organisational approach to risk management concerned with services or particular hazards. An example of the latter focus is found in the management of risk (of reoffence) posed by registered sex offenders on release from custody, a risk which is assessed and managed through multi-organisational committees convened by the police and also involving probation services and local authority housing and social services.

2.3 To read across feature (b) above to government, it has become conventional in public management to equate shareholder value with 'public value'[13] in the sense of 'results citizens value'.[14] Public value so defined is more diffuse than shareholder value in business in that it relates to substantive public wants as well as conventional 'value for money considerations',[15] and gauging public value is not like painting by numbers.[16] Moreover, a focus on public value rather than shareholder value also tends to move the business-risk emphasis away from potential damage to, or opportunity for, particular organisations and towards risks

12 A range of approaches is available (at least in part responding to the 1999 ICAEW Turnbull report), including 'bottom-up' processes to identify organisational risks (as in KPMG's risk self-assessment approach) and top-down approaches (see Hanley 1999). The latter include risk mapping (as in PwC's business risk management framework), scenario planning and a variety of approaches intended to identify risk factors across different parts of an organisation (as in the integrated process approach used by Arthur Andersen and AIRMIC or Zurich International's portfolio-management approach).

13 Moore 1995.

14 Barzelay 1992.

15 In parliamentary democracies it is conventional to regard the final arbiters of public value as voters and elected representatives. Beyond that, public value might be equated with general public values relating to public services as revealed by opinion polling or focus group discussions.

16 For instance, there is a difference between informed and uniformed public opinion, between deliberative and non-deliberative opinion surveying, and (most difficult in ethical analysis) between what gains popular support or opposition and what deserves to. Such differences are often crucial to what is to be counted as public value in the management of technical risks that are unfamiliar to the general public.

to services or from particular hazards. More generally, it raises the question of how far the accent on risk management in the public sector should be laid on systemic risk (little considered in private-sector corporate risk management in practice) as against risks to the survival, financial position or reputation of individual organisations.

2.4 To read across feature (c) above to government, business risk management needs to be incorporated into planning routines and key decision processes. But decision-making over business risk in government often differs from that applying to the conventional company board setting in at least two ways. First, strategic decisions affecting risk in the public sector are frequently dispersed across multiple organisations and routines. Arguably that feature makes the need for 'integrated process' approaches to business risk management if anything more potentially relevant to government than to private firms, but it implies a multi-organisational rather than single-enterprise focus. Second, whereas company board decisions over high-level strategy are normally made behind the screen of commercial confidentiality,[17] government decision-making is subject to strong and rising expectations of transparency and public accountability. This feature raises tricky questions of how public-sector business risk management can be conducted in a way that secures frank consideration of potential threats and opportunities.

3. Potential Pitfalls of Inappropriate Risk Management in Government

3.1 It was suggested earlier that business risk management approaches could be used as a systematic way of balancing the pressures on public managers to be entrepreneurial risk-takers and the pressures on them for prudence and risk-avoidance. But if inappropriately applied, risk management could produce negative side-effects by accentuating already strong blame-avoidance imperatives in public organisations[18]. Among the potential pitfalls of inappropriately applied risk management, three are identified below (see Figure A2), and are illustrated in the 'street festival' example shown in Figure A4.

17 It is possible that the development of risk management approaches, associated with regulatory changes and the guidance on reporting on the effectiveness of internal control systems to shareholders, may increase the transparency of private-sector decision processes. If so, it would mean a two-way transfer of routines and styles between government and business rather than a one-way transfer.

18 There is also increasing awareness in the business sector of the pitfalls of inappropriate risk management (for instance, mechanistic quantification and aggravation of blame cultures).

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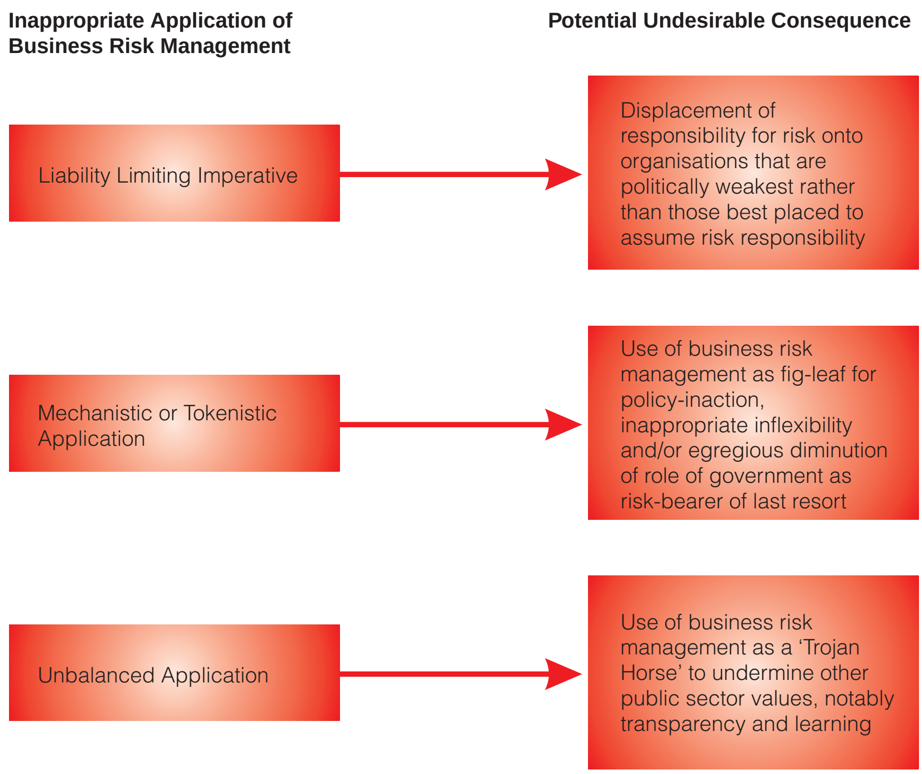
Figure A2

Three Potential Pitfalls of Inappropriate Business Risk Management in Government



3.2 Business risk management primarily designed to limit liability or avoid blame to particular public organisations could obstruct appropriate systemic risk management. Risk management systems need to be carefully designed if they are not to encourage public service organisations to shuffle blame on to others. Effective policy delivery in many domains requires different public organisations to work together – a theme that has been much stressed by the current UK government and requires cross-organisational trust and managerial 'craftsmanship' of a high order.[19] Systems that put too much stress on limiting downside business risk at organisational level can trigger risk-displacement processes among different organisations that create nil (or negative) 'public value'. Such processes can result in the greatest exposure to risk being borne by organisations that are politically weakest rather than those best placed (through knowledge or resources) to assume responsibility for risk[20].

19 See Bardach 1999.

20 As in the classic use of 'unacknowledgeable means' where states have traditionally used disavowable instruments in high-risk operations.

3.3 Risk management can also be used to deflect blame without creating public value if it is applied in a mechanical or tokenistic way. Public organisations often respond to disturbances in their environment by applying new procedures in ways that reflect what is readily do-able or protects existing operations, rather than what adds public value.[21] A classic example is Blau's case of US welfare agencies that encouraged dependency rather than independence in their clients in order to boost their performance ratings.[22] Risk management if inappropriately applied can serve as a fig-leaf for policy inaction (for example where a business risk assessment paper trail can be used as a procedural defence for lack of substantive action), or as an excuse for sticking to procedural rules that may be ill-adapted to particular problems. And what may in some cases be the proper role of public organisations as risk-bearers of last resort in society may be hard to fit into conventional business-risk management ideas.

3.4 Inappropriately applied business risk management approaches could also be used to undermine other public sector values, notably transparency and learning from experience. Contemporary business doctrine on risk management stresses obligations to report system audits to stockholders, increasing pressures for transparency in one sense. But risk management approaches that were designed to induce public organisations to behave more like private corporations in limiting blame or liability for errors could exacerbate existing tendencies by public authorities to restrict the publication of information about errors or malfeasance.[23] To the extent that that happened, it would also further obstruct processes of learning from mistakes that need to build on such information.

4. Implications for Good Practice

4.1 Business risk management in government needs to be designed to minimise negative side effects such as those discussed earlier, because the risks from poorly conceived or applied risk management systems are not trivial. No authoritative guide to good practice in public sector risk management yet exists, but at least three implications for good practice can be tentatively identified (see Figure A3); and they are also illustrated in the 'street festival' example in Figure A4.

21 See Clay and Schaffer 1984; Bardach 1979.

22 See Blau (1955).

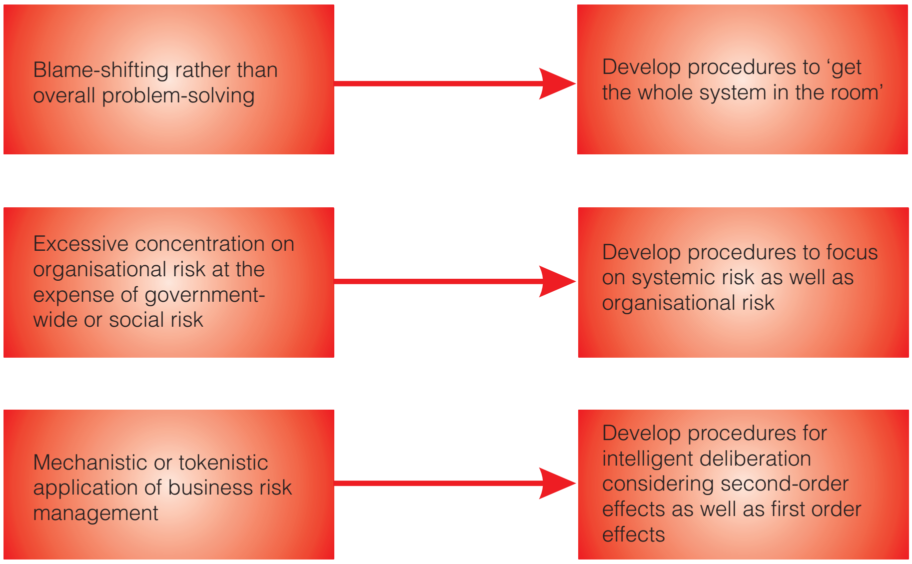
23 As it is, outsourcing of services to commercial suppliers and the use of commercial insurers of risks rather than the tradition of self-insurance by public authorities means that the release of information is frequently attended by considerations of business risk.

Implications for Good Practice

Figure A3

Pitfall to be avoided in application of business risk management in government

Possible solution



a) **'Getting the Whole System in the Room.'** One is the need for procedures aimed at 'getting the whole system in the room' (Bunker and Alban 1997) rather than having risk management dictated by partial bureaucratic geography and associated imperatives of institutional blame avoidance.[24] 'Getting the whole system in the room' is a recipe often applied to the handling of complex and conflictual policy issues. It means going beyond the integrated business risk management approaches used in corporations to a cross-organisational focus, bringing together all the systems and organisations responsible for setting targets, for gathering information and for affecting behaviour or enforcing rules. It is often difficult to achieve, since as noted above public-policy risks are typically handled at different institutional and constitutional levels.[25] A risk management system that cannot 'get the whole system in the room' is unlikely to be more than a palliative.

24 The relatively integrated approach to managing risks associated with released sex offenders mentioned earlier is an example of an attempt to follow this practice.

25 For example, it is commonly said that many inappropriate military purchasing decisions in the USA (over-ordering of materiel that is not needed) tend to stem from the horse-trading in Congressional committees designed to bring work to key electoral districts rather than errors by senior military professionals. 'Getting the whole system in the room' is impossible to achieve in this case.

b) **Focusing on Systemic Risk.** Second is a need for procedures focusing on the management of systemic risk to public services rather than organisational blame-avoidance through excessive emphasis on risk to particular organisations. As noted earlier, 'systemic risk' (a term often used in financial management) means risk affecting a whole industry or service, as distinct from risks to the position of any individual organisation. In some cases a service focus will neatly - or nearly - map onto the boundaries of an organisation, but frequently that will not be the case. In some cases (like health care) policy responsibility over systemic risk is placed at a different organisational level from responsibility for the risk faced by individual public organisations, and information-sharing among the different organisations is consequently crucial to the effectiveness of risk management at both levels. Risk management systems that sideline systemic risk issues may unintentionally weaken rather than strengthen overall risk management in government.

c) **Focusing on Intelligent Deliberation.** Third is a need for business-risk management procedures that foster intelligent and sustained deliberation over risk rather than unreflective routinization in a tick-the-box style. That means designing deliberative procedures that require careful attention to be paid to likely second-order effects as well as first-order effects of risk management, and to 'reflective practitioner' processes.[26] Procedures for assessing clinical systems and processes in health care are examples of routines aimed at intelligent deliberation among reflective practitioners, and the same goes for procedures like HAZOP[27] in the chemical and engineering world. Such procedures to be effective need time, trust and local commitment. They require careful thought about the balance between open and confidential discussion, between discussion restricted to professionals and wider public participation, and between proceduralized or legalistic approaches and more informally-structured risk management discussions.

26 By second-order effects we mean the obligation and capacity to think about unintended side or reverse effects of risk management decisions, and to think at the system level. For example, the possibility that system engineers might deliberately choose to turn off all the plant's safety systems was not on the fault tree for the ill-fated Chernobyl nuclear power plant.

27 HAZOP (Hazard and Operability Study) is a systematic and critical procedure for identifying hazards that might arise through the malfunction of any component of a system under investigation (see Kletz 1986).

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4.2 Business risk management is emphatically not a panacea for solving all the intractable polyvalent policy problems faced by government (sometimes referred to as 'wicked problems').[28] Nor is it something that can effectively be done by numbers in an unreflective way. Top business leaders often stress that risk management is an art or craft. And in some conditions, as argued earlier, risk management procedures could unintendedly exacerbate blame-avoidance tendencies in public bureaucracies. Achievable successes are likely to be limited and in the middle range. But as was suggested earlier, intelligently applied business risk management approaches have the potential to increase public value by helping to ensure continuity and quality of public services.

Risk Management of Street Festivals

Figure A4

Ethnic and other street festivals are common events in big cities across the world. They can bring immediate economic benefits to the host city as well as less tangible or longer-term benefits (like putting the host city on the cultural map, inter-ethnic bonding, or simply collective pleasure). But they also present financial risks to organisers and funders, since parades on public streets are free for anyone to watch. And they present other interrelated risks too, like risks of crowding, crime and public order, transport congestion and public health. Those upside and downside risks form part of the business risks faced by the many different public organisations involved in such events, for instance funding and local development bodies, police and emergency services, transport utilities and municipal authorities.

Events of this type pose a particular challenge to risk management, since in many cases they have grown up incrementally over time from informal or spontaneous beginnings. If each of the public organisations involved applies a standard business risk management approach to its part in such events in isolation from the others, the result may be efforts to pass financial or other risks from one institution to another (for instance if subway stations are closed to prevent crowding, the result may be increased congestion above ground or for other transport operators). Moreover, measures taken by one organisation to limit its downside business risk (for instance, insistence on levying a substantial bond on festival organisers by other public organisations) may unintentionally produce a broader system failure, in preventing the event from taking place at all or causing it to migrate to another location. Considerations of short-term blame-avoidance may outweigh longer-term benefits or lead to restriction on information about decisions and processes.

To avoid such potential pitfalls of business risk management in public services, it is necessary to conduct a risk analysis at the level of the project or event as a whole as well as at the level of the various public organisations involved. That involves an interactive forum or network permitting mutual adjustment of the business risks faced by the various players. It also requires the development and use of ways of intelligently mapping the interactions among the different elements of the overall system, for instance by use of the sort of 'soft systems methodology' developed by Horlick-Jones and Rosenhead (2000). Careful attention needs to be paid to possible second-order effects of risk management decisions, such as the possible emergence of alternative free festivals springing up in response to measures to control the risks of established festivals (for instance, by making them secure all-ticket events).

28 See Churchman 1967.

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Part 1: Why risk management is important

1.1 Government departments are responsible for a wide and diverse range of activities including for example, delivering services to the public such as social welfare benefits and health care; procuring and managing major equipment and construction projects; sponsoring research and development; regulating industry and collecting revenue. All of these activities involve some form of risk – the risk that planned levels of service delivery are not met, or may be delayed or that access is denied to some citizens intended to benefit from a government programme; the risk of financial loss, fraud, waste or inefficiency; or the risk that opportunities to deliver services in new ways are missed.

1.2 Risk management means having in place a corporate and systematic process for evaluating and addressing the impact of risks in a cost effective way and having staff with the appropriate skills to identify and assess the potential for risks to arise.

1.3 This part of the report sets out:

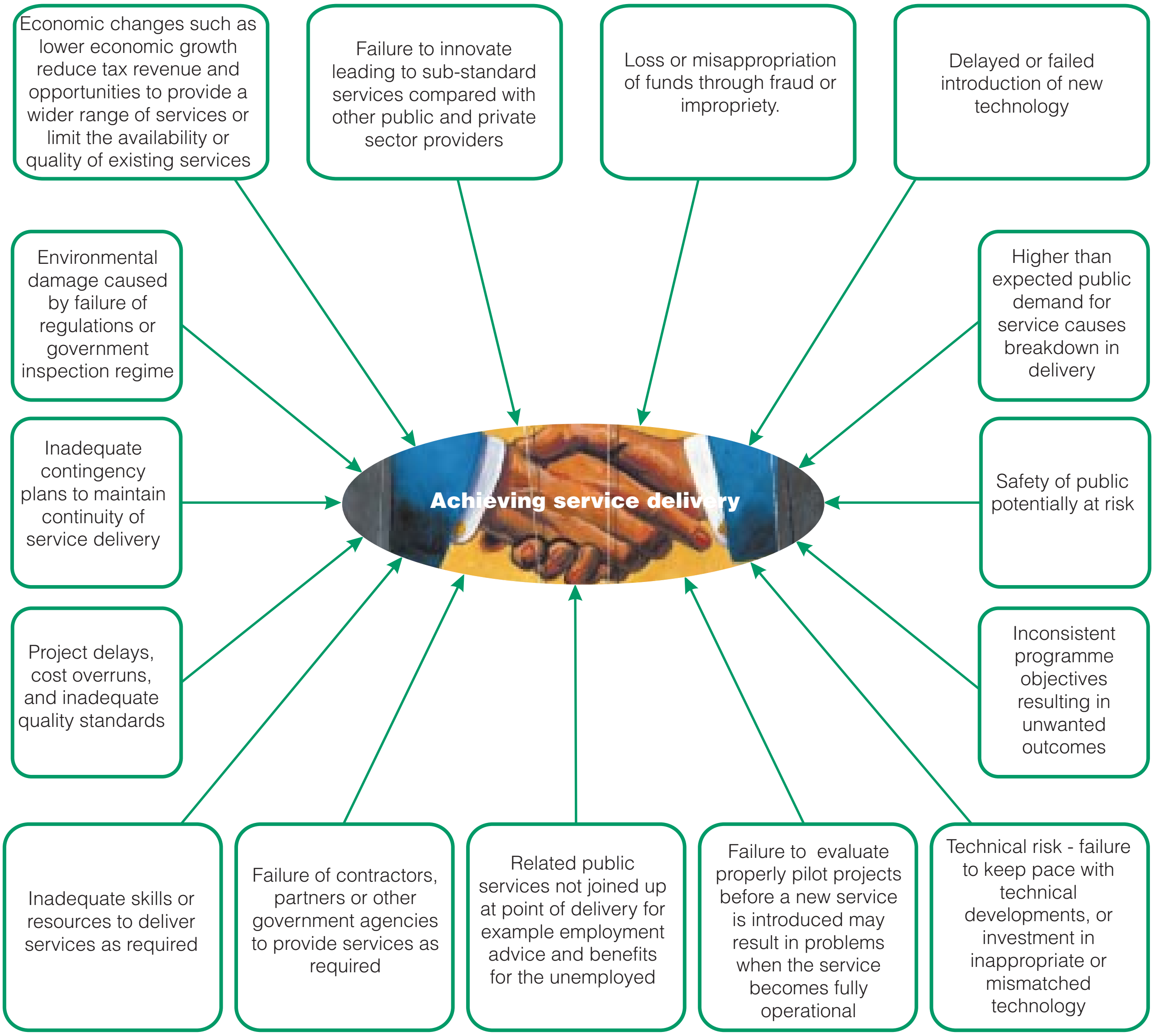
- the potential benefits of risk management and its importance to departments;
- the key features of risk management; and
- why we carried out the examination and how we set about it.

The potential benefits of risk management and its importance to departments

1.4 There are two aspects to risk – (i) dealing with uncertainty which may result in something happening both good or bad which was not expected or was not planned. In the private sector, for example, Prudential Banking plc launched initially a direct-telephone banking and internet service called 'Egg:' but because customer demand was much greater than expected Prudential (Appendix 5) took the opportunity to develop 'Egg:' into the first major internet only bank; and (ii) taking planned and well managed risks which contribute to innovation and doing things in new and better ways. A good example is the Home Office's approach to electronic tagging to enforce Home Detention Curfew which is intended to manage prisoners' transition from custody back to the community, which has also helped to relieve the pressure on the prison population (paragraph 3.4). Some of the different types of risk which departments may face are shown in Figure 6. Risk management can help departments improve their performance in a number of ways (Figure 7). In particular, it can lead to better service delivery, more efficient use of resources, better project management and help minimise waste, fraud and poor value for money.

Figure 6

What are the typical risks that government departments may face?



Government departments have to manage the risks which are likely to impact on service delivery and the achievement of desired programme outcomes. This figure sets out many of the risks which departments face - there may well be other risks relevant to particular departments.

Source: National Audit Office

Figure 7

How risk management can help departments improve their performance

Area of activity	How risk management can help
 **Better service delivery** There are a number of risks associated with delivering services to the public - services may be delayed, be of poor quality, unreliable or not be easily accessible; departments may not be able to respond to sudden increases in demand; or complementary services may not be joined up at the point of delivery.	Assessing the likely impact of risks can help departments ensure that the risks are avoided or at least that adequate arrangements are in place to deal with them.
 **Managing change** Change is very much a normal feature of the environment in which departments operate - new social and economic problems may require government action; rapid technological changes may require civil servants to develop new skills and new ways of delivering services in response to increases in the public's expectations of the standard of service they should receive.	Risk management can help departments to assess the likelihood of major changes occurring which might impact on resource requirements and how they deliver services. By doing so departments can develop contingency plans to maintain services if things go wrong, and consider ways of responding to the demand for services during periods of change through for example, good communication with citizens.
 **More efficient use of resources** Effective risk management should identify the main risks to the achievement of programme outputs and outcomes.	Prioritisation: departments can help to identify those areas that may be over-controlled or over-regulated so that resources can be released to address higher risk areas.
 **Better project management** With all types of equipment, IT and construction projects there is the risk that they will be delivered late, over budget or will not meet operational and quality requirements.	Risk assessment at the feasibility and appraisal stage can help to develop forecasts; maximise the allocation of risk to the parties best able to manage them; and help clarify responsibilities for managing identified risks.
 **Minimising waste, fraud and poor value for money** Departments need to assess regularly whether their internal management controls are reliable and sufficient to minimise the risk of fraud, impropriety and waste.	Effective risk management will include a regular assessment of the performance measures, processes and other systems supporting the department's, objectives, programme outputs and delivery of services. In doing so it can help assess their reliability and how they might need to be enhanced.
 **Innovation** Failure to innovate can be a risk in itself if, for example, departments do not keep pace with developments in the use of information technology to the extent that they cannot realise the improvements in efficiency and service delivery which such technological developments make possible.	Risk management requires the assessment of a range of options in terms of the likely opportunities for improved service delivery and programme outcomes, and what needs to be done to manage the risks associated with each option. In doing so it can provide a framework for adopting more innovative approaches and managing the risks associated with them.

1.5 Two initiatives in 1999 raised the importance of sound risk management - in the public sector the Modernising Government White Paper (CM 4310) published in March 1999 and in the private sector guidance on Internal Control developed by a working party of the Institute of Chartered Accountants in England and Wales chaired by Nigel Turnbull (Executive Director Rank Group Plc) published in September 1999.

1.6 The **Modernising Government White Paper** set out a programme to improve the way departments and agencies manage and deliver services. One aspect of this is improving the way departments manage risk and encouraging them to adopt more innovative approaches drawn from a range of sources – public and private – to improve service delivery. The action plan for implementing the Modernising Government programme requires all departments to prepare by September 2000 framework documents setting out their procedures for reaching decisions on the risks for which they are responsible.

1.7 A key feature of the Civil Service reforms agreed at the meeting of Permanent Heads of Departments at Sunningdale in September 1999 was that departments should improve their planning processes so that the various components – objectives, target setting, monitoring, performance review and measurement – become fully integrated. An important aspect of this is to give proper emphasis to competencies and behaviour such as innovation, creativity and risk management so that risks that could result in key departmental objectives not being met are identified early on and well managed.

1.8 **Internal Control: Guidance for Directors on the Combined Code**. Public concern about standards of companies' financial reporting and accountability led to the Financial Reporting Council, the London Stock Exchange and the accounting profession to set up the Committee on the Financial Aspects of Corporate Governance chaired by Sir Adrian Cadbury. This issued a code of Best Practice in December 1992. In 1998 the London Stock Exchange issued a revised version of this code – known as the Combined Code and a working party was established to develop guidance on implementing those aspects of the Code which relate to the need for review of effectiveness of Internal Control. This working party was chaired by Nigel Turnbull. The guidance on internal control which the working party developed applies to UK-incorporated listed companies of all sizes and requires that internal control is firmly embedded in the operations so as to manage significant risks to the achievement of a company's objectives. Companies are required to prepare annually statements on internal control which indicate that there is an ongoing process for identifying, evaluating and managing the significant risks and also to summarise the process applied for reviewing the effectiveness of the system of internal control. This guidance is providing a major impetus for companies to improve their risk management and departments have to prepare similar statements of control from 2001-2002. This requirement is closely linked to the Modernising Government programme to improve the way risks are managed by government departments. Since 1997 Treasury has been developing improved governance accountabilities. Statements on Internal Financial Control were introduced for year 1998-1999, and work is underway on the appropriate method of adapting the principles of the "Turnbull Report" to the central government sector. A key element of this work is the drive to have strategic risk identification and management processes in place in all government organisations, encompassing the whole range of risks relating to objectives which organisations face.

1.9 Departments and agencies have responsibility for managing their own risks with the Treasury and the Cabinet Office having responsibility for providing general guidance and advice on risk management. A chronology of some of the key developments that have led to a greater awareness of the importance of risk management is shown in Figure 8. The main responsibilities for risk management across government are shown in Figure 9.

1.10 The Cabinet Office's Central Information Technology Unit (CITU) review – **Successful IT: Modernising Government in Action** published in May 2000 identified a number of weaknesses in risk management with information technology projects (Figure 10).

1.11 Existing Treasury guidance on risk and uncertainty is covered in a number of sources (Figure 8). For example the "Green Book": 'Appraisal and Evaluation in Central Government 1997' requires that in assessing different project and programme options government organisations take account of risks and uncertainties in their estimates of costs and benefits. The guidance emphasises that risk can take many forms, the most common being that project costs or benefits of an option are optimistic and that risk analysis should aim to eliminate the effects of optimistic bias. The Treasury are revising the Green Book to make more explicit the link between strategic and project risk as well as providing revised guidance on risk assessment and evaluation. To revise the importance of sound risk management the Treasury have also produced a consultation draft in February 2000 the 'Orange Book': 'Management of Risk – A Strategic Overview' which poses some key questions for departments to ask themselves about their management of risk and sets out the key components of an effective risk management system.

Figure 8

Chronology of recent developments that have contributed to the evolution of risk management in government

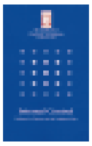
December 1992	The Committee on Financial Aspects of Corporate Governance (chaired by Sir Adrian Cadbury) report and code of Best Practice which required listed companies to report on internal financial control.
June 1994	Guidance note on Risk Management.
July 1997	"The Green Book": 'Appraisal and Evaluation in Central Government' which requires that in assessing different project and programme options government organisations take account of risks and uncertainties in their estimates of costs and benefits.
November 1997	Guidance on statement of internal financial controls to be issued by departments' Accounting Officers.
	Managing the Risk of Fraud – guidance for managers on fraud risks and control measures required to manage them. Treasury promulgated this guidance at a seminar held in December 1997.
June 1998	London Stock Exchange; Principles of Good Governance and Code of Best Practice: 'The Combined Code' recommended by the Committee on Corporate Governance chaired by Sir Ronald Hampel which combined the Cadbury report and the Greenbury report on Directors remuneration and required listed companies to comply with the provision of 'the combined code'.
February 1999	Update on Corporate Governance issues and advice to departments on how to propose statements of internal financial control for 1998-1999 and later years.
March 1999	Modernising Government White Paper stated that the Government would assess, manage and communicate risk as part of the policy-making process and is committed to better promotion co-ordination and implementation of risk best practice. It also set out the Government's commitment to encourage innovation in public service delivery.
June 1999	Risk and insurance conference – organised by the Treasury which examined the extent of government's exposure to risk and raised awareness about systems of insurance in use in the private sector.
Summer 1999	Departmental Statements on Internal Financial Control for year ended 1998-1999 which for the first time set out departments' assurance about their systems of internal financial control.
September 1999	 Internal Control: Guidance for Directors on the Combined Code; Institute of Chartered Accountants England and Wales, (http://www.icaew.co.uk/internal control) (Chairman Nigel Turnbull Executive Director Rank Group Plc). This clarifies to boards of directors of listed companies what is required of them to maintain and report on a company's system of internal control. The guidance is based on the adoption by a company's board of a risk-based approach to establishing a sound system of internal control and reviewing its effectiveness.
September 1999	Implementing Turnbull - Centre for Business Performance (ICAEW) which set out a number of practical steps for directors to follow to meet the Turnbull recommendations. It sets out a number of pitfalls to avoid and describes ways of introducing risk management in a simple and straightforward manner.
October 1999	Modernising Government Action Plan. The plan included initiatives to improve the way risk is managed across government. Government was to produce a public declaration on the approach to managing risk by December 1999 (later amended to September 2000), and all departments to make public the framework and procedures they use for reaching decisions about the risk for which they are responsible by September 2000.
December 1999	Civil Service Reform Report. The report set out an action plan to drive forward a new agenda of Civil Service reform, based around six themes. These themes are: stronger leadership with a clear sense of purpose; better business planning from top to bottom; sharper performance management; a dramatic improvement in diversity; a Service more open to people and ideas, which brings on talent; and a better deal for staff. As part of this proper emphasis is to be given to competence and behaviours such as innovation, creativity and risk management.
December 1999	Schemes to reward innovative ideas - Cabinet Office guidance on key ingredients of successful innovation ideas schemes.
February 2000	Treasury seminar on the treatment of risk in corporate governance which brought together speakers from the private and public sector and the NAO to set out some of the key issues facing departments to manage risk and report on systems of control.
February 2000	Treasury consultation draft on 'Management of Risk – A Strategic Overview' the 'Orange Book' which posed some key questions for departments to ask themselves about their management of risk and set out the key components of an effective risk management system.
March– June 2000	Cabinet Office's Centre for Management and Policy Studies seminars for Ministers and senior civil servants on risk, policy development and public service delivery; risk and the corporate governance role of Ministers and senior officials involved in managing large scale Information Technology projects; and integrating communication into risk strategies.
March 2000	Treasury letter to Principal Finance Officers requiring departments to make a progress report to Treasury around September 2000 on their progress on the development of risk assessment processes related to their Statement of Internal Control (SIC) for the financial year 2001-2002 onwards.

Figure 9

Who is responsible for risk management in government?

Cabinet Office
Monitors departments' response to Modernising Government action plan, reports to ministers on progress and is responsible for guidance on the content of risk frameworks. **The Cabinet Office's Centre for Management and Policy Studies** provides management training on risk management. The **Central IT Unit** is overseeing the implementation of changes recommended in its review of major government IT projects – see Figure 10.

monitoring, guidance and advice on risk frameworks and training on risk management →

Treasury
Responsible for developing corporate governance across government, and providing guidance and advice on risk management, appraisal and evaluation as well as policy for internal audit activity. The **Central Computer Telecommunications Agency (CCTA)**, an executive agency of **the Office of Government Commerce** in the Treasury, provides guidance on developing Information Systems strategies and implementing IS/IT-enabled programmes, projects and services. CCTA works closely with the **Central IT Unit of the Cabinet Office (CITU)**

guidance and advice on risk management and corporate governance →

technical advice and guidance on managing programme and project risk →

Interdepartmental Liaison Group on Risk Assessment (ILGRA) is a forum for exchanging information on risk assessment and develops advice on technical and policy aspects of risk assessment.

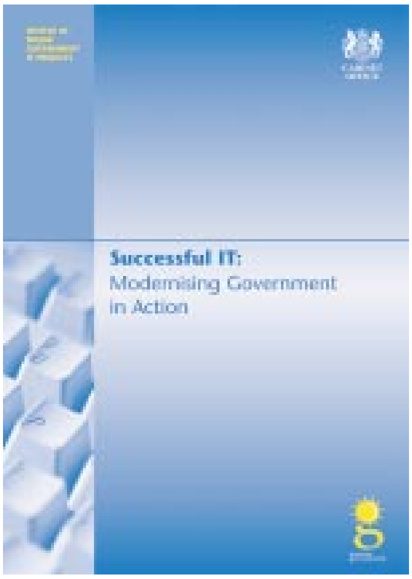
guidance and advice on risk assessment →

Departments, executive agencies and non-departmental public bodies responsible for managing the risks associated with their activities, programmes, objectives and public service delivery. Some, such as the Health and Safety Executive and the Environment Agency have government wide responsibility for risks to the public and the environment

→ Departments' public statements on risk frameworks, on systems of control, regulations covering public safety and the environment and requirements for reporting on risk management as part of corporate governance

Source: National Audit Office

Figure 10 Review of Major Government IT Projects - May 2000



The review found that the quality of risk management varies widely across Government. Its application ranges from simple lists (without ownership of risks or actions to mitigate them), to the allocation of full-time risk managers with comprehensive risk registers. Some of the reasons for poor risk management include:

- having a narrow focus looking only at the inward-facing project risks that are tangible and within the project manager's control, without considering risks to the organisation's business as a whole;
- relying too much on tabulating numerous risks in a register without prioritising them or considering the extent to which they may be correlated with each other;
- failing to understand that the ultimate risks of not meeting the business objectives or realising the business benefits, or ending up with an unsatisfactory delivery of services to the public, cannot be transferred to a partner or supplier;
- failing to understand or define the boundary between the responsibilities of the supplier and the purchasing department or agency;
- depending on the contract or its penalty clauses to mitigate risk rather than taking action or forming effective contingency plans; and
- failing to monitor the effectiveness of mitigating action and contingency plans or to refer risks, which fall outside of tolerance, to the appropriate level in good time.

The report recommended that taking into account the National Audit Office and the Treasury initiatives already underway, the Office of Government Commerce (OGC) should investigate methods for risk reporting supported by guidelines for project managers by December 2000 for example to encourage departments to break projects into smaller more manageable components to reduce the risk of failing to meet some, or all of their goals.

Key features of risk management

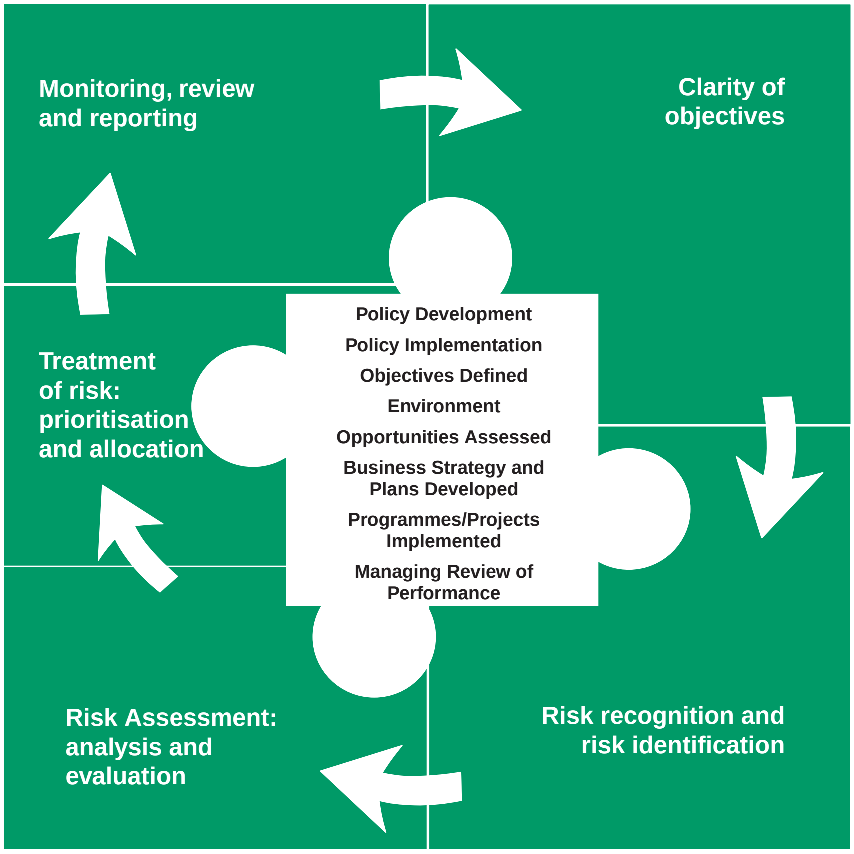
1.12 A key principle of risk management is that it should be fully integrated with an organisation's business planning processes (Figure 11).

1.13 Risk management should not be a bureaucratic or mechanistic process but an attitude of mind whereby staff are aware that events or circumstances may occur which can prevent or adversely affect the achievement of planned outcomes and that such factors need to be carefully managed. Risk management involves a series of well defined steps that support better decision-making contributing to a greater insight into risks and their likely impacts. The main steps of risk management are:

- **STEP 1: Clarity of objectives.** For departments this means formulating clear mission statements, aims, objectives and plans for delivery of programme outputs, services and outcomes, and ensuring that their objectives are clearly expressed and communicated throughout the

Integration of risk management with an organisation's planning processes

Figure 11



Source: The Association of Insurance and Risk Managers – A Guide to Integrated Risk Management 1999

organisation. If objectives are unclear then the risks of under-performance or failing to meet objectives will be unclear also. Departmental objectives and targets for improving public services are set out in Public Service Agreements and associated Service Delivery Agreements.

- **STEP 2: Identification of risk.** For departments this means recognising and identifying the key risks for which they are responsible and those risks which are most likely to impact on their performance and delivery of public services.

- **STEP 3: Assessment of risk.** This should involve an analysis and evaluation of risks to provide an overall assessment of the potential impact of identified risks, and the timescale over which the risks need to be managed.

- Analysis should determine existing controls and their reliability in terms of (i) minimising the likelihood of the risk maturing and (ii) if the risk does mature, minimising its adverse consequences. Consequence and likelihood may be combined to produce estimated level of risks, quantified wherever possible, or qualified in a range of low to high.

- Evaluation then enables identified risks to be ranked so as to set management priorities and present information for business decisions about which risks need to be addressed (for example those with a major potential impact and a high likelihood of the risks maturing).

- **STEP 4: Response to risk.** For departments this means determining the level and type of risk that is acceptable, determining resources needed to manage identified risks, and prioritising and allocating responsibility for them. For example, it may be more cost effective to accept low priority risks and simply monitor them and take remedial action when needed. Treatment of higher priority risks may require adopting alternative means of project, programme, or service delivery so that risks are reduced or made more manageable. A set of key indicators which alert senior management to the need for action to deal with increased levels of risk, or risks beginning to mature, should be considered as part of the integrated approach to risk management.

- **STEP 5: Monitoring and review.** Risk management is a continuous process which should include monitoring and reviewing identified risks, and being open to new or changed risks and opportunities resulting from evolving circumstances.

1.14 It is not possible to eliminate all risk but departments which actively identify and manage risks are more likely to be better prepared to respond quickly when things go wrong and to respond to change in general.

Why we carried out the examination and how we set about it

1.15 Risk is not a new concept to departments. The importance of sound controls and procedures to minimise financial risks and risks of impropriety and malpractice is well known. Some departments play a key role in ensuring that the public are protected from the risk of poor standards of food quality and health and safety. And the growth in Private Finance Public Private Partnerships such as the Private Finance Initiative contracts have highlighted the importance of identifying risk and allocating responsibility for managing it to the party best able to do so. What is relatively new to some departments, however, is the need to assess and strategically manage those risks which could prevent key objectives and programme outcomes from being achieved and having an adverse effect on service delivery for citizens.

1.16 A number of government reports have highlighted the importance of risk management (Appendix 4). Previous reports by the Committee of Public Accounts and the National Audit Office have also highlighted ways by which departments and agencies could improve their risk management (Figure 12).

1.17 We focused our examination on two issues:

i) How well risk management is understood and implemented by government departments (part 2); and

ii) What more might be done to improve risk management (part 3).

Figure 12

Lessons in the management of risks identified in previous National Audit Office and Committee of Public Accounts reports

On realistic business cases

- Business cases used by public bodies to justify any new computer system should test the likely financial costs of different options on a sufficiently wide range of business volumes, taking account of the impact of any likely changes in policy.[1]
- Pay special attention to the interaction between the new system and those expected to use it, and take into account users' views on the practicability and usability of the new system.[1]
- Public bodies should consider carefully the scale and complexity projects which are too ambitious to undertake in one go. This is particularly important if a project connects with the business operations of other parties, or depends on the development of IT undertaken by other parties.[2]
- Public bodies should have robust forecasting techniques, to enable them to manage their business efficiently.[1]

On testing and piloting of systems

- Adequate testing of any new system before committing to live operation, in particular for staff to learn and work the system.[1]
- Pilot tests of any new system which is critical to business performance should be on a limited scale so that any shortcoming do not have a major impact on service delivery.[1]

On risk-sharing with partner organisations

- Ensure that they are in a position to claim any compensation due from contractors for failure to meet agreed performance standards, subject to appropriate risk-sharing within the partnership.[1]
- Departments need to be clear about those risks that cannot be transferred to the supplier, in particular, the wider business risks that might mature if they do not have a fully operational system on the date required.[2]
- Important ingredients of successful management of strategic partnerships include active involvement by top management, a recognition that both parties need to secure benefits, active management of the risks associated with this type of procurement approach, and a commitment to resolving issues arising in a positive, constructive manner.[3]

On risk management and innovation

- Public bodies should undertake a formal risk analysis before introducing new computer systems and have realistic plans to maintain services to the public if things go wrong.[1]
- It is essential to monitor thoroughly the risks to successful implementation and manage them rigorously.[4]
- Successful implementation of IT systems calls for imagination and well-conceived risk management, as well as sound project management methodologies.[2]
- An overall strategy for managing the risks of fraud should be prepared and reflected in more detailed risk assessments, for areas such as property management.[5]

On contingency planning and information for the public

- Public bodies should have contingency plans in place to maintain adequate levels of services. These should take full account of reasonable public expectations of service standards, the likely cost and the level of risk.[1, 2]
- A realistic assessment should be made of whether public bodies have the capacity to deal with potential problems and be prepared to seek early assistance if necessary.[1]
- When service delivery is threatened, public bodies should have the capability to keep the public well informed, so as to avoid unnecessary anxiety and relieve pressure on services.[1, 6]

continued...

Figure 12

Lessons in the management of risks identified in previous National Audit Office and Committee of Public Accounts reports *continued*

On senior management involvement

- Key decisions on IT systems can have a profound effect on an organisation's ability to provide services to its customers and are therefore business decisions, not technical ones, and should involve senior management. Commitment of senior management can be a critical factor in securing a successful outcome.[2]
- Risk assessment and management should become a routine element of all policy development and implementation. Policy option appraisals should include a section on risks.[4]
- The use of project management and risk management approaches for policy development and implementation may be areas suitable for examination under the peer review process being organised by the Cabinet Office.[4]
- At project level' risk assessment and management should encompass a range of features, including that;
  - the risks to achievement in the timescale and budget available be clearly identified from the start of the project;
  - risks be treated as the responsibility of the top level board given the potential impact on the project or on the use of resources;
  - the likelihood and impact of risks be analysed separately, and named individuals be made responsible for mitigating them and reviewing mitigation plans on a regular basis; and
  - when mitigation plans are altered, this fact is reported to the Senior Accountable Officer for the project, and recorded on a simple risk/control matrix so that the impact of multiple, apparently minor, changes in different areas can be seen and understood, and their combined impact assessed and dealt with.[4]

Notes:
1. NAO Report: The United Kingdom Passport Agency: The passport delays of Summer 1999 (HC 812, October 1999).
2. Committee of Public Accounts First Report 1999-00 – Improving the delivery of Government IT Projects.
3. NAO Report: Inland Revenue EDS Strategic Partnership: Award of New Work (HC 351, March 2000).
4. NAO Report: State Earnings - Related Pension Scheme: The failure to inform the public of reduced pension rights for widows and widowers (HC 320, 1999-00).
5. NAO Report: Ministry of Defence – The Risk of Fraud in Property Management (HC 469, 1999-00).
6. Committee of Public Accounts Seventh Report 1999-00, the Home Office: The Immigration and Nationality Directorate's Casework Programme.

1.18 In undertaking the examination we:

- carried out a survey, with the assistance of PricewaterhouseCoopers, of all departments, agencies and non departmental public bodies to ascertain their approach to risk management;
- undertook four case studies of innovative examples of risk management adopted by departments;
- conducted structured interviews with senior personnel in twelve departments on their risk management practices;
- organised two focus groups of civil servants who had responsibility for risk management in their departments;

- sought the advice of six private sector companies (Associated British Ports Holdings PLC, Glaxo Wellcome plc, Allied Domecq PLC, Nomura International plc, Prudential plc and Reuters Limited) on their approach to risk management;

- commissioned a research paper from Professor Christopher Hood and Dr Henry Rothstein of the London School of Economics and Political Science on current thinking on risk management (Annex 2 to the Executive summary);

- appointed an expert panel to advise on the study.

  - Bryan Avery, Deputy Director, Modernising Public Services Group, Cabinet Office

  - James Foreman-Peck, Economic Adviser, HM Treasury

  - Mark Butterworth, Chairman AIRMIC, the Association of Insurance and Risk Managers

  - Professor Michael Clarke, The University of Birmingham

  - Professor Christopher Hood, The London School of Economics and Political Science

  - Liz Taylor, Chief Executive ALARM, the Association of Local Authority Risk Managers

  - Steven Beet, Partner, PricewaterhouseCoopers

More details about the study methodology are provided in Appendix 1.

Part 2: How well risk management is understood and implemented by government departments

2.1 In order to determine how well risk management is understood and implemented across government, in February 2000 we carried out a survey of all departments, executive agencies and non departmental public bodies (collectively referred to as "departments" in this report). The purpose of the survey was to provide an overview of the extent and practice of risk management across these organisations. The results of our survey are factual statements of opinions expressed and reflect the make-up of the organisations surveyed. They do not necessarily represent best practice or comply with Cabinet Office or Treasury guidance being developed at the time of the study. The findings suggest that a significant amount of work still needs to be done by departments to achieve best practice. In presenting the results from the survey, no distinction has been made between the types of organisation or their size or level of spending and application of the lessons learnt needs to be done in a way that reflects the nature and size of the organisation. Taken collectively, the organisations[29] covered by our survey have responsibility for managing the risks associated with their activities and delivery of services to the public – the focus of this report. A questionnaire was sent to 257 organisations in total, and 237 organisations responded (92 per cent) (Appendix 2). We supplemented this with interviews with twelve departments and two focus groups with representatives from departments. Our survey asked departments about:

- their understanding of risk management and its importance to their performance;
- how they identify and assess risks; and
- the action which they take to manage risks.

i) What is departments' understanding of risk?

Understanding of risk

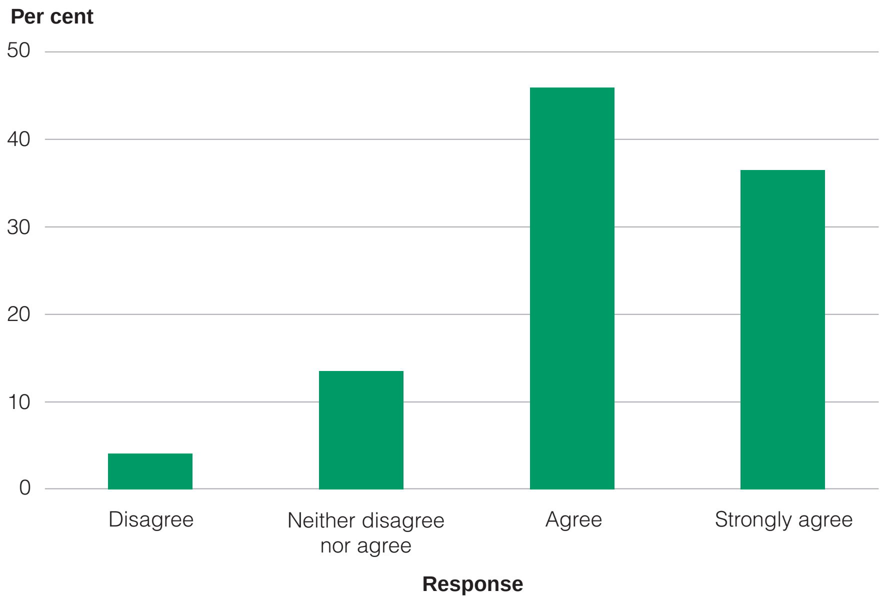
2.2 Eighty-two per cent of departments responding to our survey agree or strongly agree that risk management is important to the achievement of their organisation's objectives (Figure 13). Seventy-seven per cent also say that the level

29 The organisations included in the survey were 19 Departments, 14 Non-ministerial Departments, 82 Executive Agencies, 132 Non Departmental Public Bodies and 10 other organisations.

Do you agree that effective risk management is important to the achievement of your organisation's objectives?

Figure 13

Eighty-two per cent of departments agree or strongly agree that risk management is important to the achievement of their objectives.

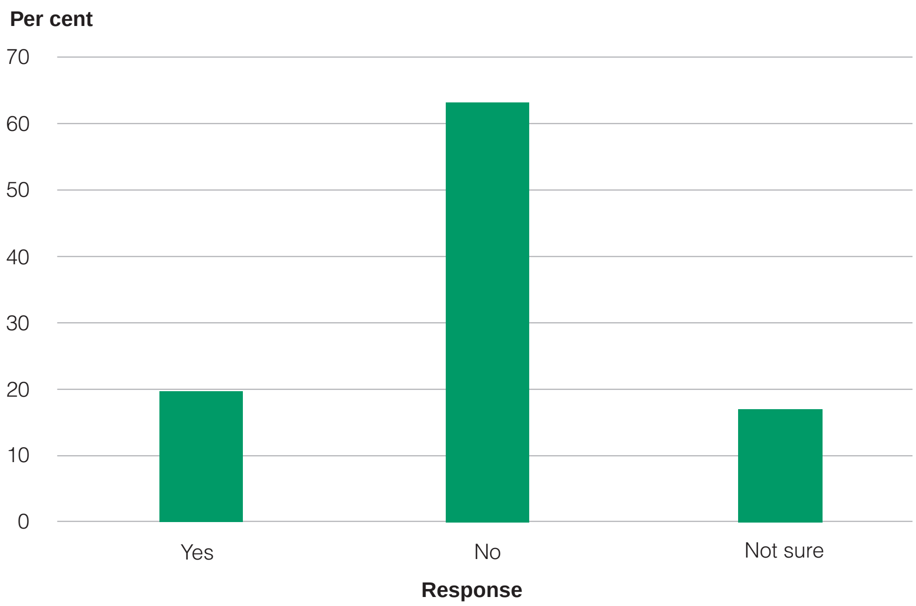


Source: NAO/ PricewaterhouseCoopers (PwC) risk survey

Is a common definition of risk used throughout your organisation?

Figure 14

Only 20 per cent of departments say that a common definition of risk is used throughout their organisation.



Source: NAO/ PwC risk survey

of risk which they face has increased in recent years. Departments are much less clear, however, as to what risk means in practice and only 20 per cent say that a common definition of risk is used throughout their organisation (Figure 14). Frequent definitions of risks are:

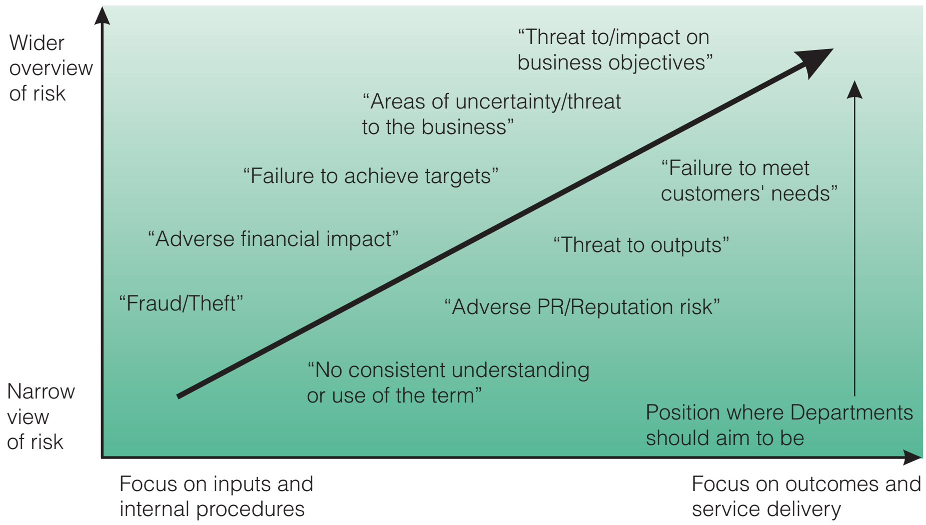
- anything that might pose a threat to or have an impact on business objectives;
- anything that could adversely affect reputation;
- something that could have adverse financial consequences; and
- areas of uncertainty such as future threats to departments' key activities or an inability to respond to change.

2.3 The results of our survey supported by our focus group discussions indicate that departments' current understanding of risk is that it is more about preventing fraud, failure and uncertainty which might have an adverse impact on their performance. There is less recognition of the concept of risk as a threat to the delivery of services to citizens and businesses and the achievement of departments' key outputs and outcomes. Figure 15 shows some of the responses from our survey and indicates that there is a range of understanding of the term 'risk' by departments.

Departments understanding of the term "risk"

Figure 15

Departments' understanding of risk ranges from a narrow internal view to recognising that risk can affect all aspects of their performance and in particular the delivery of key services.



Source: NAO/PwC risk survey

ii) What is departments' understanding of risk management?

Understanding of risk management

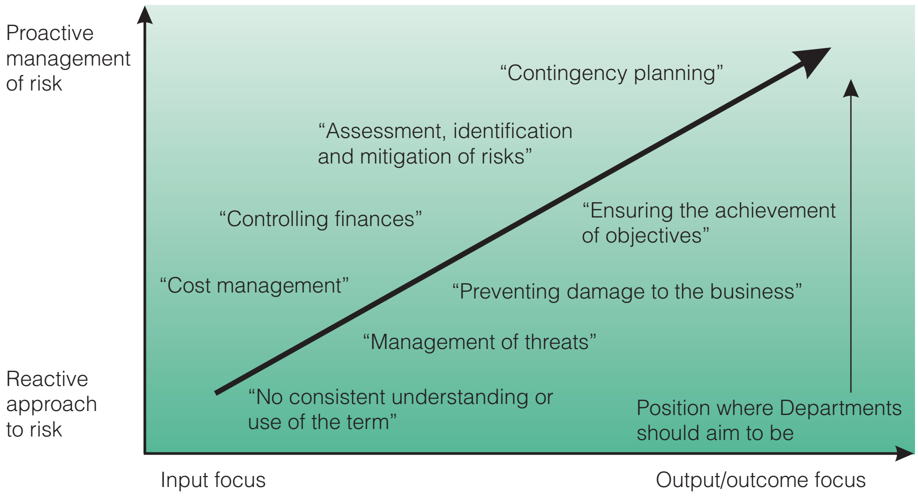
2.4 Departments also had differing understanding of what risk management involves. Typical definitions suggested in response to our survey include the assessment, identification and mitigation of risks, preventing financial loss to the department, contingency planning and ensuring that appropriate systems and controls were in place to reduce risk or to prevent it occurring. Our assessment based on the survey results is that departments' current approach to risk management is very much focused on inputs such as minimising financial loss or preventing impropriety and safeguarding assets. While this is clearly fundamentally important there is less recognition by departments that risk management is also about ensuring the achievement of outputs and outcomes, and having reliable contingency arrangements to deal with the unexpected which might put service delivery at risk. The heart of risk management is the culture, processes and structures that are directed towards recognising and making effective responses to the risks and opportunities that could have an impact on an organisation's overall aims and objectives.

2.5 We asked departments what they understand by the term risk management. Departments' understanding varies widely from an internal reactive focus to a proactive approach which focuses on outcomes (Figure 16).

Departments' understanding of the term "risk management"

Figure 16

Departments' understanding of risk management ranges from an input focused, reactive approach to a more comprehensive business risk management approach focusing on proactive outcome delivery as well as inputs.



Source: NAO/ PwC risk survey

Linking risks to departmental objectives

2.6 Over half (56 per cent) of departments say they identify the main risks relating to each of their aims and objectives. Less than half (47 per cent) say that the linking of risks to objectives is effective with six per cent saying that the link is ineffective and 19 per cent saying that the link is not in place. Our two focus groups told us that their experience was that objective setting and risk identification are treated as two separate processes and these are not routinely linked. The focus groups said that to some extent this is changing but that not enough attention is paid by managers to identifying the main factors that could put the achievement of key objectives at risk.

2.7 Sixty-two per cent of departments say that they assess changes in risks when their organisation's role and responsibilities change. About half of departments identify and assess the impact of changes in risks on their objectives on an ongoing basis. Our two focus groups emphasised the importance of staff having a clear understanding of what their department's risk management policies are. There was, however, a mixed response to the statement that "the organisation knows how much risk it may take in the achievement of its objectives"; 39 per cent in our survey agree with this, 30 per cent do not and the remainder did not have a view.

Setting risk management objectives

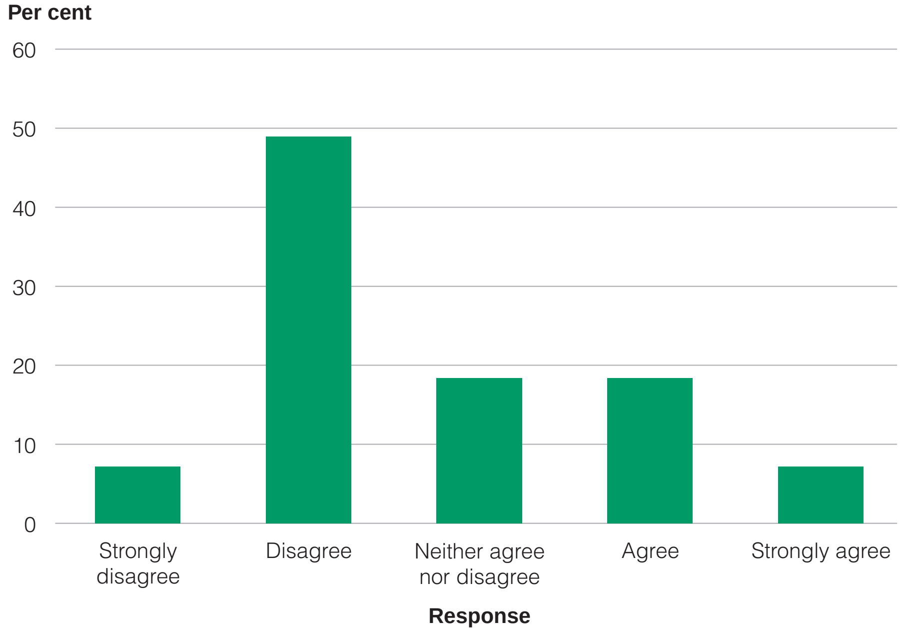
2.8 Twenty-five per cent of departments say that their risk management objectives have been clearly set out, whilst 56 per cent say they have not (Figure 17). We asked the 25 per cent who say they have risk management objectives what these covered. The most common risk management objectives identified were:

- implementing risk identification, assessment and management strategies to ensure the achievement of corporate objectives;
- regularly assessing and prioritising risks with a view to minimising them;
- reducing the risk of poor performance, complaints, disruption of service and adverse events;
- avoidance of fraud and financial loss; and
- embedding risk management throughout the organisation.

Do you agree that your department's risk management objectives have been clearly set out?

Figure 17

Only one quarter of departments agree or strongly agree that their risk management objectives have been clearly set out.



Source: NAO/PwC risk survey

2.9 Staff are more likely to be committed to risk management if they have the backing and support of senior managers. We therefore asked departments whether they have clear management statements on the importance of risk management and guidance on how to implement it. Just one quarter of organisations in our survey told us that they have. Only 14 per cent of departments say they have effective training on risk and risk management in place.

There is some inconsistency in departments' approach to risk management in that while many recognise that it is important to the achievement of their objectives they are less clear on how risks should be managed and few provide training on how to do so. Risk management will only become standard practice in government departments if there is better understanding of what it involves and the benefits which it can help to secure in terms of improved service delivery and achieving key objectives. Our survey suggests there is a need to raise staff's awareness of their department's risk management policies including their approach to risk taking and innovation. More training is also needed to equip staff with risk management skills.

iii) How departments identify and assess risks

2.10 Ensuring that risks are identified and managed requires that responsibility for risk management activities is clearly allocated to appropriate staff; the frequency with which risk is assessed is determined; the types of risks most likely to impact on a department's performance are identified; and appropriate techniques are used to assess risk. Our survey covered each of these aspects of risk management. A key objective of the Modernising Government programme is to encourage more joined up working between departments to improve service delivery for citizens. Our survey also asked whether departments manage the risks associated with joint working to ensure that it is successful.

Allocating responsibility for risk management

2.11 Responsibility for identifying risks, assessing them and deciding what action to take in dealing with them varies between departments.

2.12 Overall two-thirds of departments told us that responsibility for the identification of risk rests with the Chief Executive or Director of Finance while three-quarters say it is the responsibility of the Board or senior management team (Figure 18). Sixty-three per cent also say that internal audit has responsibility for identifying risks. Just 42 per cent of departments say that staff have responsibility for identifying risks.

2.13 Few departments indicated that they have a dedicated risk manager with responsibility for identifying (13 per cent) and assessing (15 per cent) risk. Generally finance personnel and internal audit are heavily involved in providing reports to senior management on risks. This is consistent with practice in the private sector where line managers generally take lead responsibility for identifying and reporting on risks, with internal audit reviewing the effectiveness of risk management processes and providing guidance to line management on risk assessment.

Who has responsibility for identifying and assessing risk?

Figure 18

Over two-thirds of departments say that identifying risk is the responsibility of the chief executive, management board or director of finance, or combinations of these. Assessing risk is most commonly the responsibility of the management board and director of finance.

Source: NAO/PwC risk survey

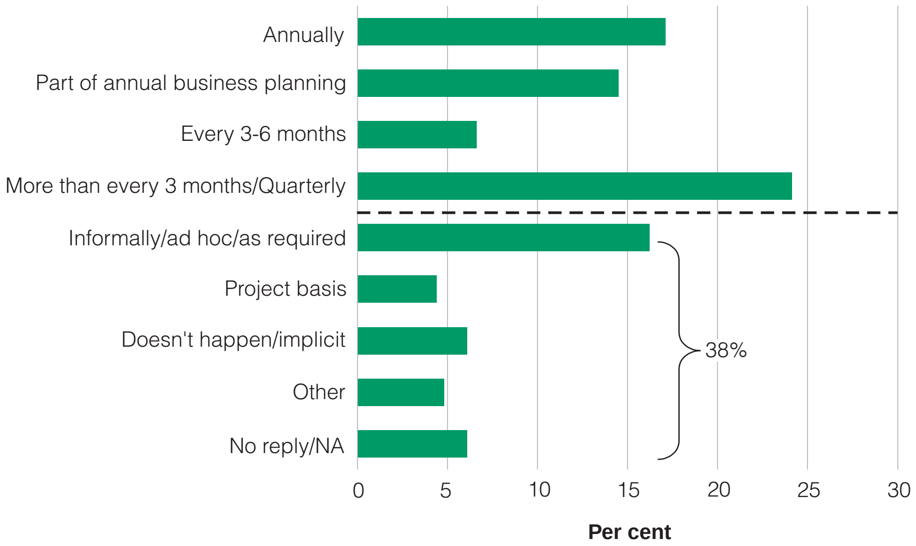
Frequency with which risk is assessed

2.14 An important component of risk management is the routine assessment of risks and their impact on the business. Thirty-eight per cent of departments in our survey do not however, routinely assess their overall risks or only assessed them on a project by project basis (Figure 19).

How often do departments assess overall risks?

Figure 19

Thirty-eight per cent of departments do not routinely assess their overall risks.



Source: NAO/PwC risk survey

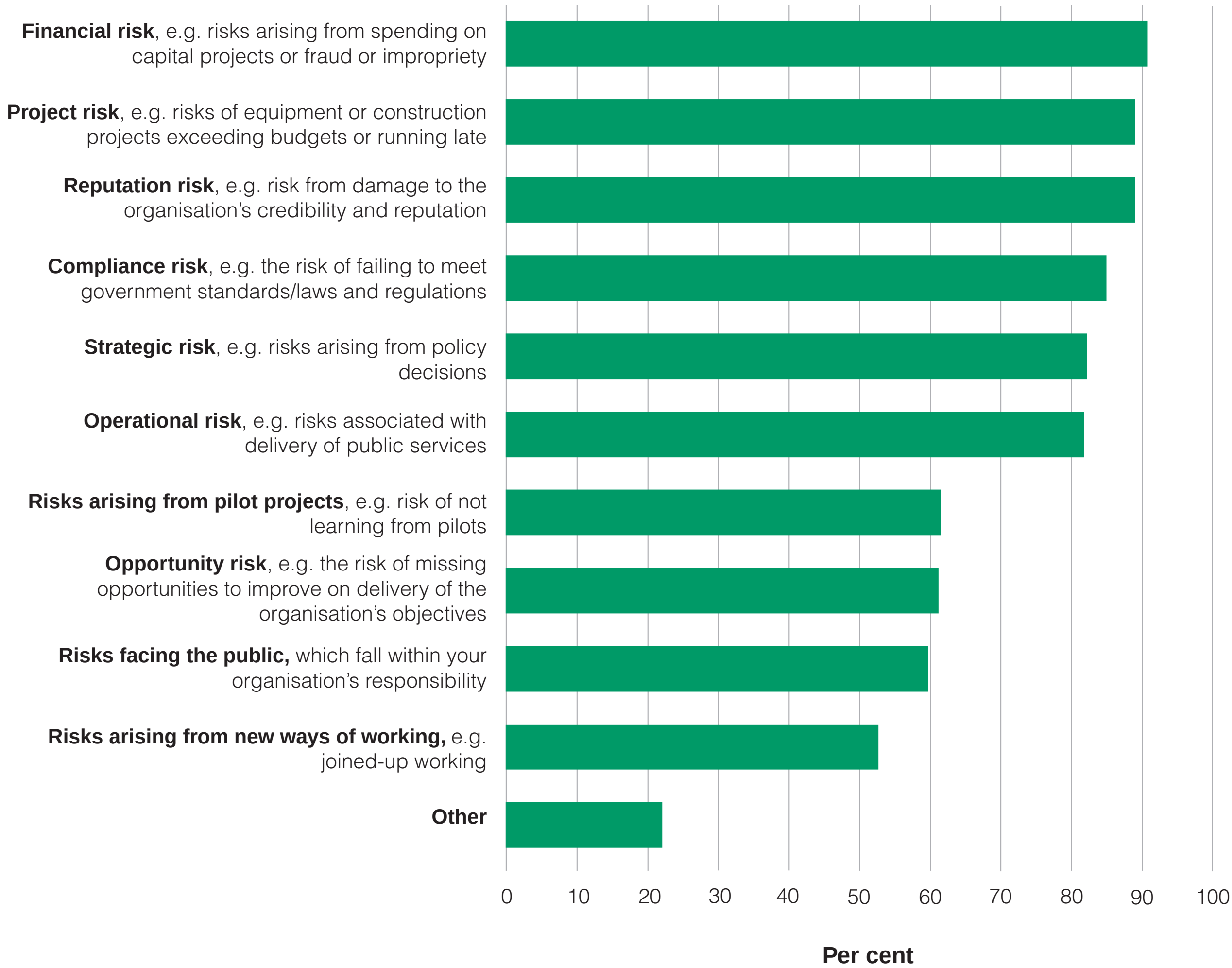
Types of risks identified

2.15 Departments say that they are alert to a range of risks. The most common which were referred to by around 90 per cent of departments are financial – the risk of financial loss or impropriety; project – the risk of project failure, cost overrun or time delay; and compliance – failure to comply with regulations for example, health and safety or environmental (Figure 20). Eighty-nine per cent of departments assess risk in terms of a potential effect on their reputation. Reputation is not a risk in itself but other risks such as failure to deliver a key service to the public can damage a department's reputation, and undermine Parliament's and the public's confidence in it.

Figure 20

What types of risk are identified by departments?

Nearly 90 per cent of departments identify financial, reputation and project risks.



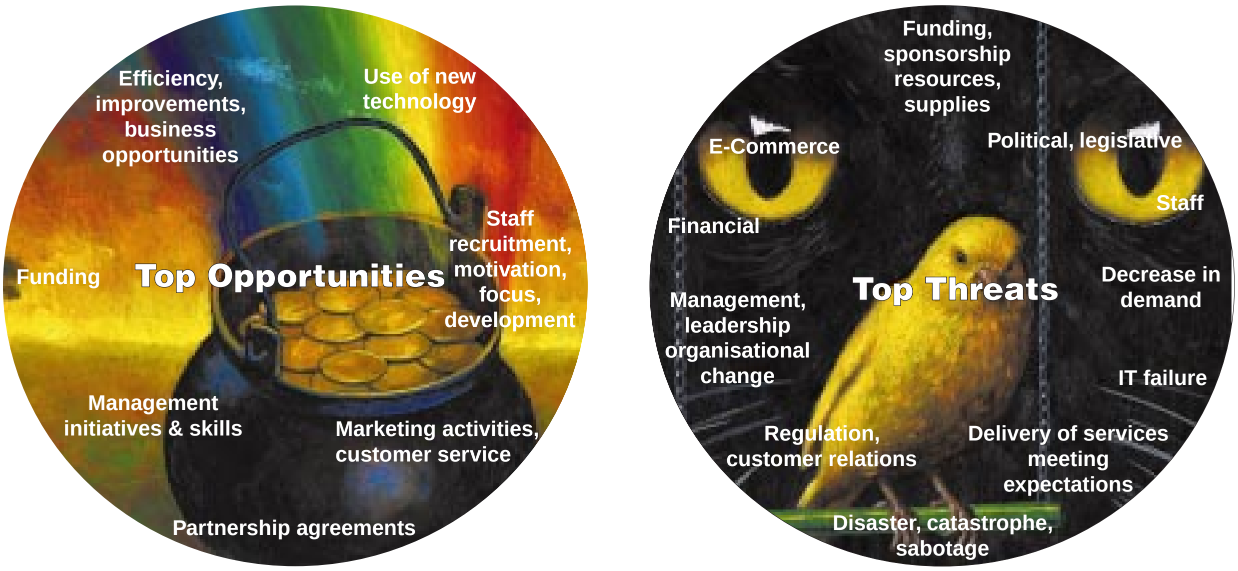
Source: NAO/PwC risk survey

2.16 The risk of missing an opportunity to improve the delivery of a departments' objectives through, for example, innovation is identified by 61 per cent of departments. We also asked them to identify the top risks that could threaten the achievement of their objectives over the next twelve months and also the main opportunities likely to help them meet or exceed their objectives. Figure 21 summarises the departments' responses.

Figure 21

What are the top opportunities and threats which departments say are likely to have an influence on their performance over the next twelve months?

Departments told us the top opportunities and threats facing them over the next twelve months. This illustrates some of the most commonly identified.



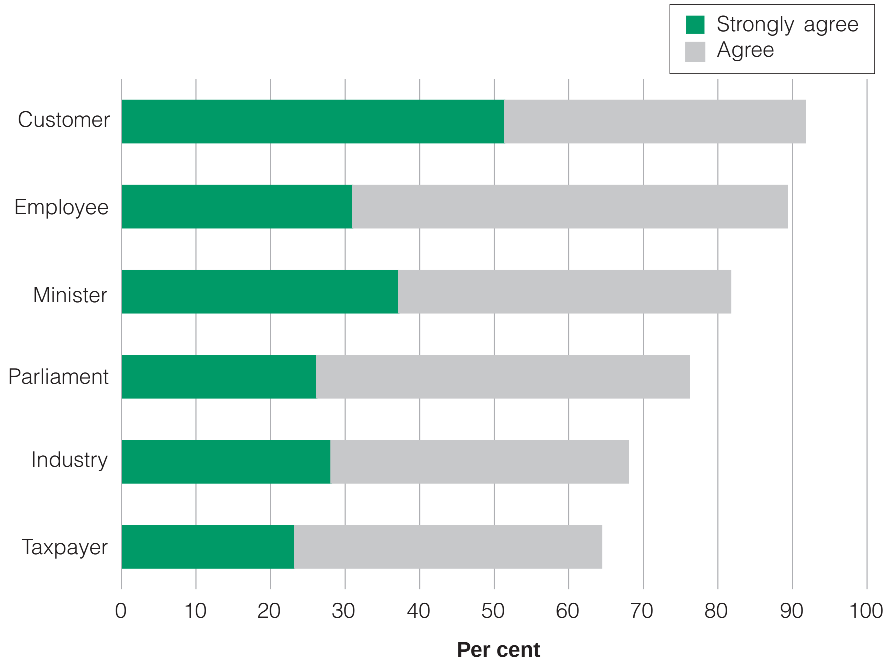
Source: NAO/PwC risk survey

2.17 We asked departments which of their stakeholders were important when assessing risks – for example the extent to which these stakeholders would be affected if something went wrong. Figure 22 shows that 92 per cent of departments regard their customers as important; 89 per cent – employees; 82 per cent – Ministers; 76 per cent – Parliament; and 64 per cent regard tax payers to be important (14 per cent disagreed that taxpayers are important when assessing risk, and 22 per cent neither agreed nor disagreed).

Which stakeholders do departments regard as important when they are assessing risk?

Figure 22

Ninety-two per cent say that their customers are important when assessing risks.



Source: NAO/PwC risk survey

Techniques used to assess risk

2.18 Well over half of departments say that they do not find it difficult to assess the likelihood of risks occurring (58 per cent), their potential impact (62 per cent) and the relative priority which they should give to them (57 per cent) (Figure 23); 20-26 per cent neither agree nor disagree with these statements.

2.19 Departments use a range of mechanisms to record risks, and tools and techniques to assess them; for example formal registers on which all identified risks are recorded and self assessment questionnaires whereby staff record the risks they are aware of. Only 19 per cent of departments regard their risk recording tools as effective. For assessing identified risks to determine the appropriate action needed to deal with them departments use a range of techniques including risk analysis and sensitivity analysis to assess the probability of risks actually leading to an adverse impact.

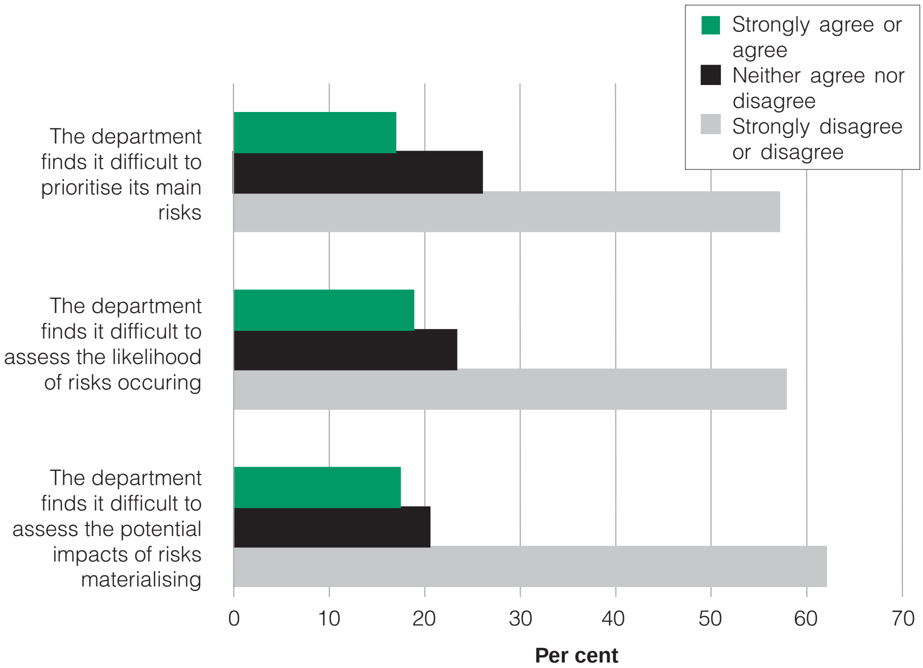
Risks associated with working with other organisations

2.20 The Modernising Government programme encourages more joint working between departments and agencies and other public and private sector organisations to improve service delivery for citizens. If joint working is to be successful departments need to be alert to the risks associated with working with others which might adversely affect service delivery. For example, where two agencies or more provide complementary services for citizens there may be a risk that some people may be excluded because responsibilities for providing different

How easy departments find it to prioritise and assess risks

Figure 23

Well over half of departments say they do not find it difficult to prioritise their main risks, and assess their likelihood and potential impact.



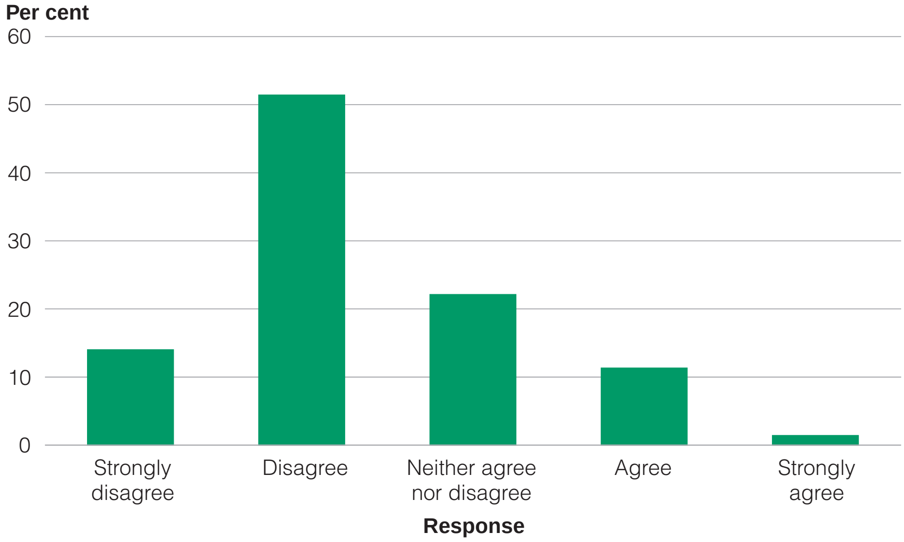
Source: NAO/PwC risk survey

aspects of the service are not clearly defined or understood. Our survey indicates that only a small proportion of organisations – one in eight (13 per cent) – know about the strengths and weaknesses of the risk management systems of other organisations with which they work (Figure 24).

Do you agree that your department knows about the strengths and weaknesses of the risk management systems of other organisations it works with?

Figure 24

Only 13 per cent agree or strongly agree that they know about the strengths and weaknesses of the risk management systems of other organisations they work with.



Source: NAO/PwC risk survey

2.21 Our two focus groups told us that the risks of working with organisations is often perceived by departments to be covered by some form of contractual relationship. Partnerships between public and voluntary sector organisations are often, however, looser relationships built on trust. In both formal and informal relationships departments often act as the operator of last resort, where the department is wholly or partially dependent on a partner to deliver public services. But should that partnership, for whatever reason, break down it is the department which takes ultimate responsibility for delivering or maintaining the service to the public. The importance of potential partners embracing overall government objectives, sharing their risk assessments and knowledge about systems for dealing with risk is illustrated by the experience of the Highways Agency's M1-A1 Link Road scheme (paragraph 3.16) and the Home Office's Home Detention Curfew scheme (paragraph 3.4). In both cases the risks, such as delays in opening the road or causing delay and disruption to existing road users and failure of the prisoner monitoring equipment, were minimised by having shared objectives covering how risks should be dealt with and regular reports on how risks were being managed.

While departments say that missing an opportunity to deliver services in new and innovative ways for the benefit of citizens was a risk in itself which needs to be managed they believe that they are more risk averse than risk taking. If departments are to realise opportunities to improve service delivery they need to understand how well managed risk taking can contribute to innovation. Initiatives by the Cabinet Office and Treasury such as the Invest to Save Budget have been designed to help promote innovation based on effective risk management.

One way of improving service delivery which is central to the Modernising Government programme is more joint working between departments which provide complementary services to citizens. Joint working involves different types of risk for example, if part of the service provided by one department is delayed or of poor quality the success of the whole programme is put at risk. It is important that departments who are involved in delivering joined up and innovative programmes jointly assess and manage the risks which might prevent them from being successful. As a first step in doing this, departments should know about the risk management approaches of the different partners including private sector organisations they work with and the types of risk which they cover.

iv) The action which departments take to manage risks

2.22 Our survey found that departments' action to manage risks include:

- action plans for implementing decisions about identified risks (76 per cent in the survey say that they have these);
- evaluations of the effectiveness of existing controls to prevent and minimise the likelihood of risks materialising (70 per cent do this);

- prioritising risks that need active management (69 per cent say that they do this); and

- assessing the costs and benefits of addressing risk (55 per cent say that they do this).

2.23 Only 42 per cent of departments collate risks for decisions on what action to take. It is important to bring together individual assessments of risks to form a comprehensive overview of the full range of risks which departments face. Without such an overview it is difficult for departments to prioritise risks and decide where best to target their action to deal with them. Internal reporting of risk to management and how it is dealt with is variable. Over half (57 per cent) of the government organisations in our survey have procedures for reporting risk. Eighty-five per cent tell us that their organisation's senior management is receptive to all communication about risks including bad news, but only 34 per cent say that regular risk management reports to senior management are an effective component of risk management in their organisation (Figure 25).

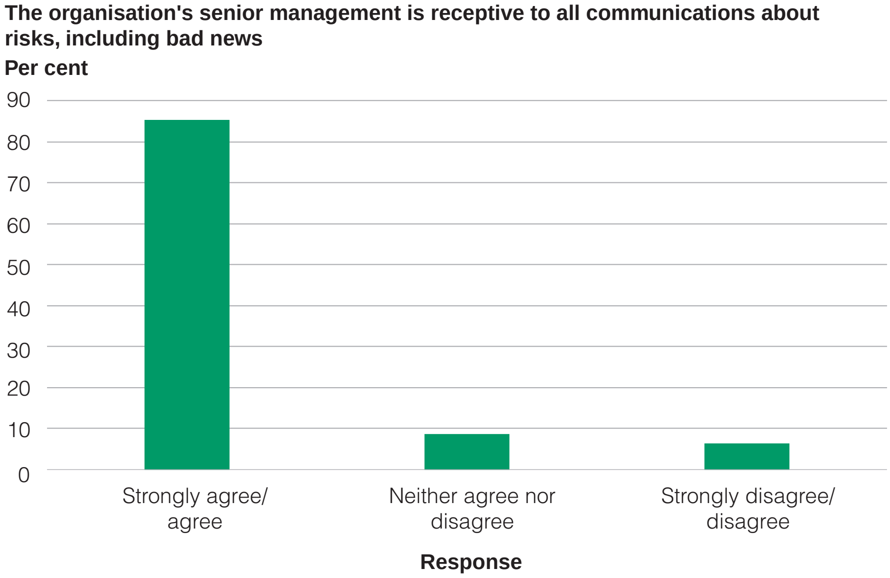
2.24 Early warning indicators - such as sudden increases in claims for damages, increases in customer complaints, IT or quality failures, and significant time delays in processing benefit claims - are useful for alerting managers that risk is increasing or that circumstances have changed to the extent that new risks may exist. Fifty-three per cent of departments say that such early warning reporting mechanisms are not in place or are ineffective. Monitoring the effectiveness of risk management is an integral part of routine management reporting in less than one-third of the organisations in our survey. Forty-six per cent say, however, their senior management regularly reviews their organisation's performance in managing its risks.

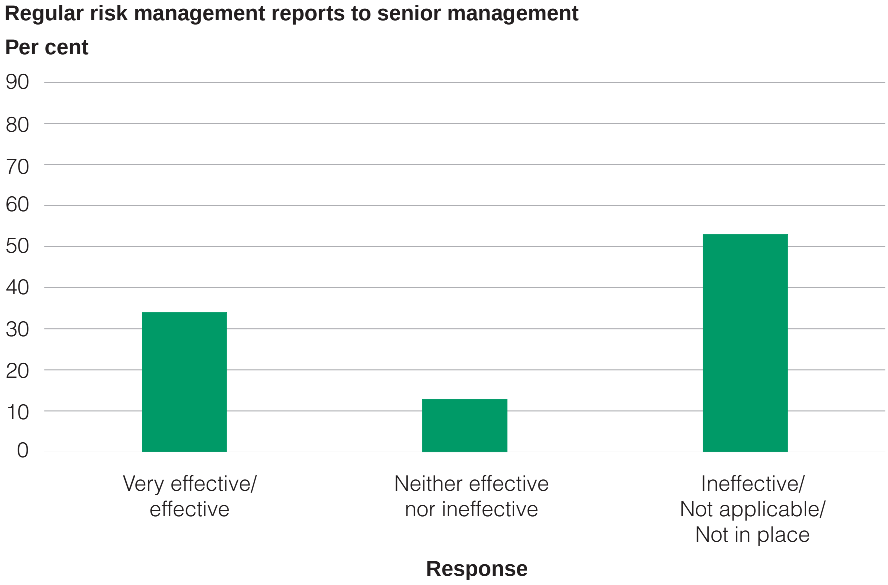
Most departments say they report risks to senior management and that management are receptive to such reports conversely few departments say that these risk reports are an effective means of enabling the department to manage the key risks they face. To make most use of the range of work departments do to identify and manage risks, risk management should become an integral part of departments' business planning and management processes. It should include: (i) coherent approaches for identifying risks, assessing and reporting risks and action to deal with them; (ii) assigning to named individuals responsibility for managing risks and reporting them to senior management; and (iii) quality assurance arrangements so that the approach to risk management reflects current good practice.

How departments report risk internally

Figure 25

Nearly all departments say their senior management is receptive to all communications about risks, including bad news. However, regular risk management reports to senior management are effective in only one-third of departments.





Source: NAO/PwC risk survey

Part 3: What more needs to be done to improve risk management

3.1 The results of our survey of departments indicate that while there is growing recognition of the importance of risk management, the extent to which it is understood and focused on the achievement of objectives across government is variable. The requirement for departments and agencies to produce frameworks by September 2000 setting out how they manage risks; the publication of the Treasury's consultation paper - Management of Risk - A Strategic Overview in February 2000 which encourages departments to develop strategic risk assessments; and high profile training events such as the joint policy seminar for ministers and senior civil servants on risk management held in March 2000 (Appendix 4) are important initiatives intended to promote a wider understanding of sound risk management and how it should be applied.

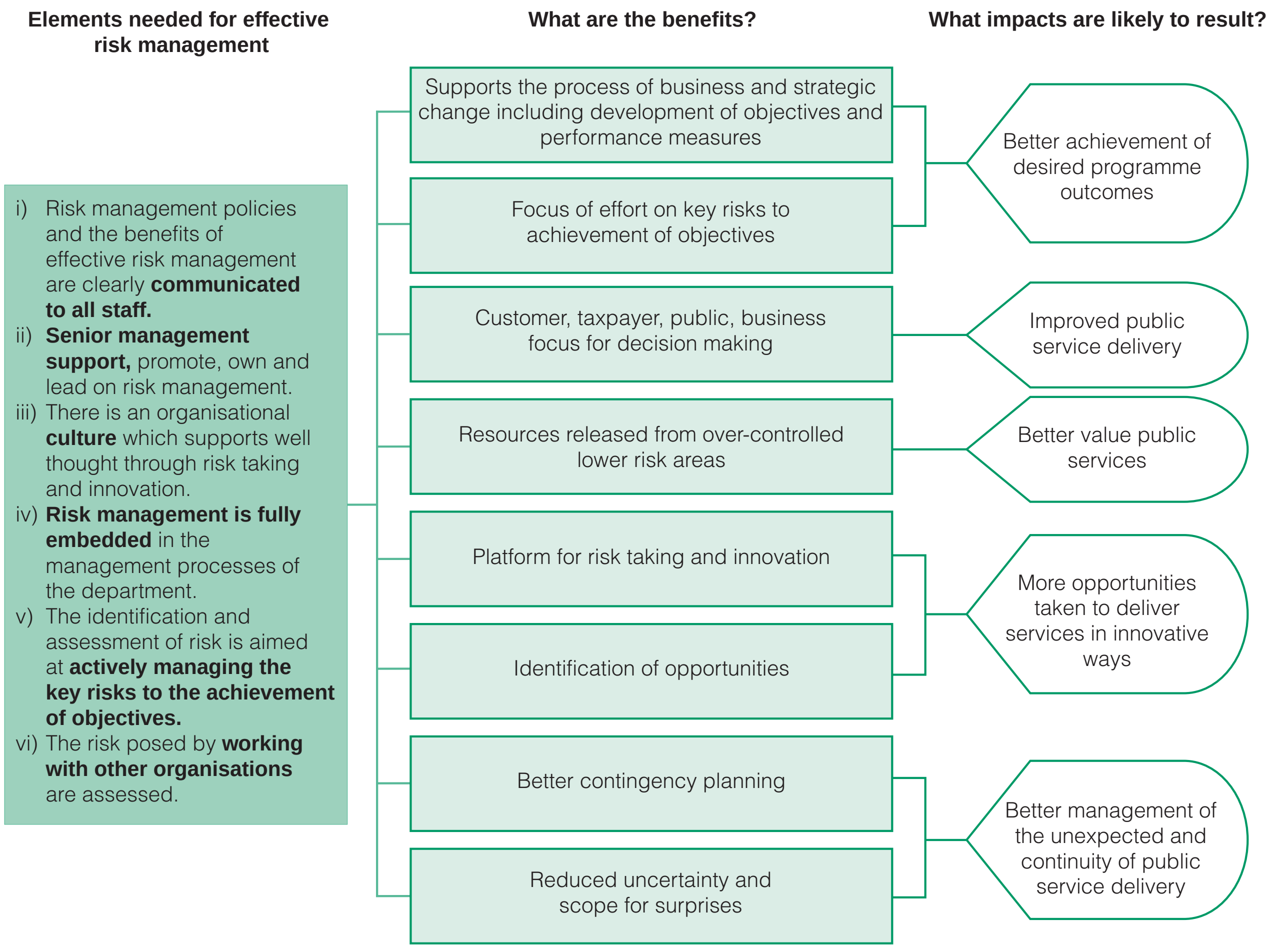
3.2 Our survey results, case studies of good practice followed by departments and discussions with private sector companies about their approach to managing risk (Appendix 5) suggest that **six essential requirements** need to be in place if risk management is to be effective and innovation encouraged. These are:

- risk management policies and the benefits of effective risk management should be clearly communicated to all staff;
- senior management need to own, support, promote and lead on risk management;
- the department's culture should support well thought through risk taking and innovation;
- risk management should be fully embedded in the management processes of government departments;
- the management of risks should be closely linked to the achievement of objectives; and
- the risks associated with working with other organisations should be assessed and managed.

This part of the report covers each of these six elements and how they should work in practice (Figure 26).

Figure 26

The benefits and potential impact of improved risk management



Source: National Audit Office

i) Risk management policies and the benefits of effective risk management should be clearly communicated to staff

'Without communication, risk management won't work'-

Source: NAO/PwC focus groups

3.3 Only 20 per cent of the departments in our survey say that a common definition of risk management is used throughout their department (paragraph 2.2). Risk management will only become standard practice across government if there is much better understanding of what it involves and the benefits which it can help to secure in terms of improved service delivery and achieving key objectives. The results of our survey suggest that there is a need to increase staff's awareness of their department's risk management policies including the approach to risk taking and innovation. Better communication is needed to encourage staff to become innovative and committed to the process of managing risks so that they become standard practice. Part of this process should include:

- assessing whether existing reporting mechanisms are reliable enough to report all significant risks to senior management and the action proposed to deal with them;
- assigning clear responsibilities and accountabilities for risks;
- identifying early warning mechanisms for alerting senior management to changing risk profiles and potentially significant issues before a problem becomes a crisis. Existing key performance indicators may not be sufficient to provide sufficient early warning;
- fine tuning internal control mechanisms to manage risk; and
- encouraging a culture of the reporting of bad news as well as good.

3.4 The Home Office's approach in using electronic tagging to manage prisoners' transition from custody back to the community, which has also helped to relieve the pressure on the prison population, is a good example of clearly communicating the risks to all parties involved in the programme (Case Study 1). The Home Office ensured that all the agencies involved in administering the scheme understood the risks that might lead to the scheme not being successful and their responsibilities for managing these risks. This included a strategy to deal with the risk of prisoners breaking the curfew or reoffending while on release.

Electronic Tagging, Home Detention Curfew - Home Office and HM Prison Service

Case Study 1

This case study shows how the Home Office, working with HM Prison Service, used risk management to develop an approach to countering risks which was clearly communicated to, and understood by all parties involved in implementing this innovative approach to the early release of prisoners. The scheme is run by the Home Office, with the monitoring equipment and service provided by private contractors. The scheme involved communicating to all the agencies administering the scheme the overall risks and their responsibilities for managing these risks, including a strategy to deal with the risk of prisoners breaking the curfew or reoffending while on release. The overall aim of the scheme is to ease the transition of prisoners from custody back to the community. It has also had the effect of relieving pressure on the prison population.

What did the Home Office do?

1. The Home Office identified and evaluated the key risks relating to the operation and enforcement of Home Detention Curfew, a form of early release from prison where prisoners released into the community under the scheme agree to abide by an electronically monitored curfew.
2. A risk identification workshop assessed the impact and probability of each risk associated with the contract for prisoner monitoring. The Home Office developed risk assessment procedures for prison governors to make decisions on prisoners and test the risk assessments to establish approximate scale of releases onto Home Detention Curfew, and to ensure that prisoners with a low likelihood of reoffending or breaking the curfew and low risk to the public were selected. An evaluation was conducted of the use of electronic monitoring equipment on other schemes and overseas, to understand its performance and risks, and the scheme's overall success is being evaluated as it progresses.

What were the main risks and how were they addressed?

The risk management was directed at overcoming the key risks to the success of the scheme.

- The **risk that prisoners reoffend** whilst on the scheme was addressed by training for prison officials in undertaking of risk assessment to identify suitable prisoners for release, and by application of specific risk reduction criteria in prisoner selection for release, for example, prisoners who posed a low risk to public safety.
- The **technical risk** associated with electronic monitoring equipment was addressed by requiring contractors to develop contingency plans and regularly test these in the event of operational failure of the equipment.
- The **operational risk** from delayed implementation or failure to deliver the service was addressed by emphasising the importance of managing overall risks to the public. In the event of any one of the contractors failing to deliver the service, any of the remaining contractors can be required to take on the Home Detention Curfew and other monitoring work of the failed party in order to guarantee continuity of the electronic monitoring service (and therefore minimise any potential risks to the public materialising).
- The Home Office obtained weekly and monthly data from contractors for scheme evaluation. HM Prison Service evaluated scheme failures and shared lessons learnt with prisons by rolling-out best practice through bulletins and reports. A longer term evaluation of the success and costs and benefits of the scheme is currently being undertaken.

continued…

What have been the benefits?	3. Since its introduction in England and Wales in January 1999, the Home Office has spent £28 million on Home Detention Curfew. As at 31 May 2000, 21,000 prisoners have been released on Home Detention Curfew, and about 94 per cent of curfews have been completed without the prisoner being recalled to prison. Of those prisoners on Home Detention Curfew who have been recalled to prison, the most common reason is that curfew conditions have been breached. Only eight prisoners have been recalled to prison because they posed a risk of serious harm to the public. The total number of known convictions, cautions or pending prosecutions of curfewees was 401. The numbers released onto Home Detention Curfew have been lower than originally anticipated, but the successful completion rate was also higher.
Good practice from the Home Office's Home Detention Curfew Scheme	✓ Evaluation of the key risks and detailed consideration of ways to minimise these risks at the planning stage ✓ Use of methods proven to work on other similar schemes and in other organisations in the UK and overseas ✓ Clear communication to all parties involved in the scheme of risks and those which they are specifically responsible for with responsibility for minimising risk exposure which might adversely impact on the achievement of the scheme's objectives ✓ Sufficient resources devoted to training and support during the introduction of the scheme ✓ Contingency plans developed and regularly tested in the event of operational failure of equipment and inspections of contractors to ensure that risks are continuously managed ✓ Regular reports to management on the performance of the scheme and briefing for dealing with problem issues such as prisoners reoffending while on the scheme ✓ A contract which balanced the department's exposure to risk, contractors' monitoring of risk, incentives for the contractors, and value for money for taxpayers.

3.5 Some of the private sector companies which we consulted told us of the tendency for some organisations to put too much emphasis on the identification of risk and not enough on action planning and risk management. And in doing so create risk identification overload such that every conceivable risk, however small and remote, is identified and recorded and then simply filed and forgotten and no action taken. The emphasis should be on prioritising risk and directing management effort to those risks which if they matured could cause most damage. One approach to doing this is to view risks in terms of the potential impact they could have on key stakeholders such as citizens or business who rely on services which are only provided by government such as the issuing of driving licences and passports. These risks if they matured are likely to have the most impact on the reputation of the department and the public's perception of the standard of service which they provide.

ii) Senior management own, support, promote and lead on risk management

'Staff are not actively encouraged to identify risks'

Source: NAO/PwC focus groups

3.6 Staff at all levels in departments will only be committed to risk management and innovation supported by well thought through risk taking if they know that the senior management of their organisation consider that all three are key to the achievement of their corporate objectives and maintaining and improving standards of service delivery. This can be supported when senior management demonstrate ownership and leadership on risk management. All the private sector companies which we consulted emphasised the importance of senior management:

'Not sure that the risks to the achievement of objectives are identified'

Source: NAO/PwC focus groups

- ensuring that the key objectives of their organisation and the risk policies in place to promote their achievement are clearly linked;
- promoting an organisational culture which supports well thought through risk taking to maintain competitive advantage or ongoing improvements in service delivery, and not getting left behind as technology advances;
- ensuring that sound systems of internal control are in place to deal with risks; and
- providing staff with appropriate training in risk management.

3.7 Just under half (48 per cent) of the departments in our survey say that senior management sponsorship and support for risk management was effective; one third (32 per cent) of departments considered that it was either ineffective, not in place or was not applicable.

A portfolio approach to risk management means taking higher risks on certain projects activities or programmes without putting the achievement of an organisation's core objectives, business or service delivery at any higher overall risk. It is likely to mean that some higher risk projects may fail but because of proper contingency plans service delivery will be maintained. For example, Nomura International plc (Appendix 5) use a portfolio approach to managing risks posed by individual financial traders allowing individual teams to take higher risks than the overall portfolio.

3.8 The Intervention in Schools scheme under the Crime Reduction Programme uses a range of pilot projects to test new ways to reduce the incidence of crime. The three sponsoring bodies – the Home Office, the Department for Education and Employment and the National Assembly for Wales jointly agreed objectives for the scheme and these were jointly communicated to schools and local education authorities. The sponsoring bodies recognised at the outset that information was needed from schools to evaluate the success of the pilots. Schools were asked to identify risk indicators such as pupil exclusion and truancy rates to establish the impact of the projects and to provide data on the outcomes achieved over the life of the scheme (Case Study 2). The Case Study also shows how a portfolio approach to risk can allow a department to learn lessons from higher risk pilot schemes without putting at risk the whole programme before implementing the pilots more widely.

3.9 The private sector companies we consulted emphasised the importance of getting senior management support and sponsorship of risk management in terms of identifying the key risks, integrating the principles of risk management into the company's business and setting out what they expect improved risk management to deliver, for example in terms of operational and financial savings (Figure 27).

Figure 27

Other examples of senior management support and sponsorship of risk management

- **Associated British Ports Holdings PLC** use meetings of senior management to identify the key risks facing the business and assess the risks in terms of the likelihood of them being realised and the severity of their impact (low, medium and high) to develop a risk profile (Appendix 5).

- **Prudential plc** has a risk management programme which seeks to embed the principles of risk management into the company's business process and culture, for example the Management Board review the risk profile of the various groups within the company structure and review the effectiveness of risk management (Appendix 5).

- **Allied Domecq PLC** risk management plan was agreed at Board level which set out deliverables expected from improved risk management to help to identify opportunities to improve commercial advantage, identify operational and financial savings, clarify responsibilities for dealing with risk and to report changes in key risks to the Board (Appendix 5).

Crime Reduction Programme - Intervention in Schools - Home Office, Department for Education and Employment and the National Assembly for Wales

Case Study 2

This case study illustrates how senior management have supported the use of risk management to address the risks posed by funding a range of projects as part of the £250 million Crime Reduction Programme to pilot and evaluate measures on what is cost effective in reducing crime. The projects aim to contribute to reversing the long term rise in crime through a combined effort of central and local government, the police and local communities to secure regular attendance of children at school, reduce truancy and exclusions, and improve behaviour - important factors in preventing future offending.

What did the sponsoring bodies do?

1. Working with Local Education Authorities, the three sponsoring bodies are supporting and evaluating 38 two year projects (1999-2000 and 2000-2001) in 110 schools to improve schools management of attendance, behaviour and bullying and to provide extra support for pupils at risk of exclusion, so as to reduce the risk of future offending. Risks were identified by the sponsoring departments, and objectives were agreed and jointly communicated to schools and Local Education Authorities by Ministers.

What were the risks and how were these addressed?

2. A number of risks were identified.

- **Risks of pilots failing** - funded schemes may not deliver effective ways of reducing offending. This was addressed by setting objectives for the programme at the outset: “investing for knowledge of what works” and requiring schools to state how their proposals related to other authority wide plans, and local initiatives for crime reduction.
- **Risk of not knowing what is cost effective** - spreading funds too thinly across schools would not give sufficient evidence of the cost effectiveness of pilot schemes. In response a range of different experimental pilot approaches was employed to test new approaches - both single school and multiple school projects were included in the programme. The risk was also addressed by asking schools to identify performance indicators prior to funding from the scheme such as levels of bullying, exclusions and truancy, and to provide measures to evaluate the impact of projects.
- **Risk of poorly targeted funds** - opportunity cost of funding was that money could be better spent elsewhere on reducing crime. This was addressed by requiring schools and the Local Education Authorities to provide data to monitor and evaluate the effectiveness of the pilot schemes as a condition of project funding. This was tested in single school projects to ensure the usefulness of pilot schemes in gathering evidence. Also, Local Education Authorities were expected to match second year funding to ensure buy-in to projects.
- **Risk of double funding** - schools were asked about whether other Department for Education and Employment or National Assembly for Wales funds had been applied for and what effect these would have on the project.

What has been the outcome of the scheme?

3. The funding for this scheme began in September 1999, so it is too early to evaluate outcomes or the effectiveness of the scheme. However, the approach to experimentation taken by the Departments has ensured that funding for a variety of projects is underway which will provide information about the cost effectiveness of crime reduction measures. The kind of pilot projects funded include improving behaviour by dedicated home-school workers to work alongside pupils, parents and school staff in promoting setting and enforcement of rules at school and at home; and improving attendance by training local employees to act as mentors for young people having difficulty at school.

iii) The department's culture should support well thought through risk taking and innovation

'The message is clear from the top – we operate a no blame culture. Unfortunately staff do not believe what senior management preach'

Source: NAO/PwC focus groups

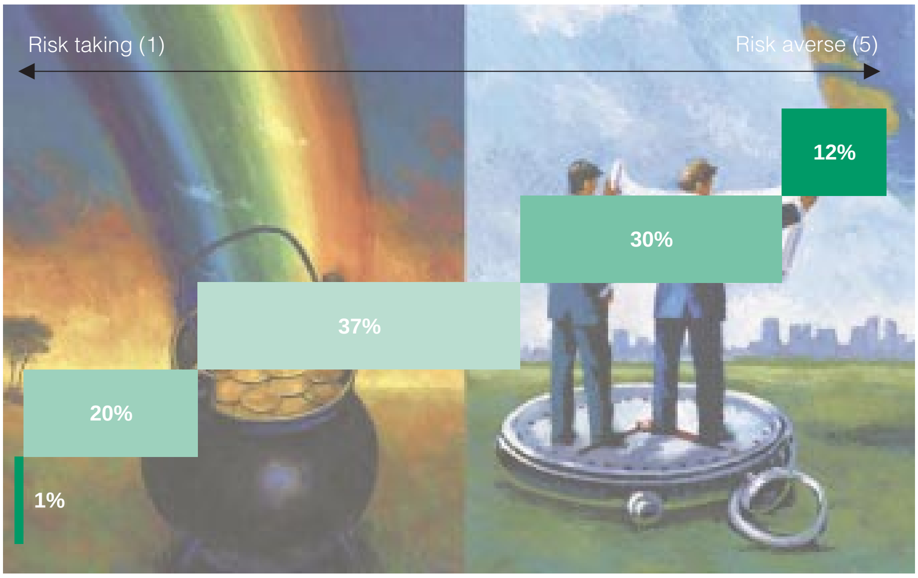
3.10 The culture of an organisation - that is the values, ethics and ethos underpinning its management style and approach can have a strong influence on how staff perceive and approach risk management. An organisation with a risk averse culture is less likely to realise the improvements in service delivery which advances in technology or experimenting with new ways of doing things make possible. Conversely, an organisation that has little regard for risks is less likely to be able to respond effectively to the unexpected and in the worst case scenario may suffer financial loss and impropriety. Clearly some balance is required whereby organisations have a strong awareness that risks need to be identified and managed while at the same time have the confidence to take well thought through risks to realise the benefits of change. The research paper on Business Risk Management in Government (Annex 2 to the Executive summary) which we commissioned Professor Hood of the London School of Economics and Political Science to produce also suggests that if risk management approaches are inappropriately applied they could result in a 'blame - avoidance' culture by departments displacing the responsibility for risk onto other organisations rather than those best placed to assume risk responsibility.

3.11 Civil service culture - that is the values, ethos, ethics and training underpinning departments' management approaches - has traditionally been risk averse. This is partly because departments have tended to associate risk taking with increasing the possibility of something going wrong, of project failure or financial loss which could lead to Parliamentary and public censure. Although in practice departments can be major risk takers particularly in introducing large and complex information technology systems they tend to regard themselves as more risk averse than risk taking. We asked those in our survey to rate their department on a scale of 1 to 5 with 1 representing a more risk taking approach and 5 suggesting a risk averse culture. Forty-two per cent of departments told us that they tend to be more risk averse than risk taking, whereas 21 per cent regarded themselves as more risk taking than risk averse (Figure 28).

Do you regard your department as risk taking or risk averse?

Figure 28

Forty-two per cent of departments say they are more risk averse than risk taking.



Percentage response from departments where they position themselves on a scale from 1 to 5 where 1 is risk taking and 5 risk averse

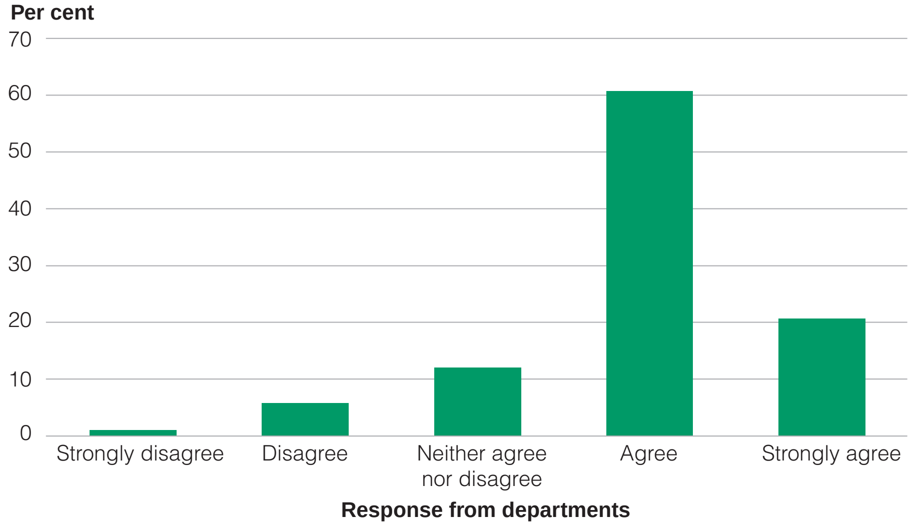
Source: NAO/PwC risk survey

3.12 In contrast, our survey also found that 82 per cent of departments say they support innovation to achieve their objectives (Figure 29). They highlight, however, a number of barriers which they say prevent the effective management of risk and being more innovative. Our focus groups emphasised that if less risk

Does your department support innovation to achieve objectives?

Figure 29

Over 80 per cent of departments say they support innovation to achieve objectives.



Source: NAO/PwC risk survey

averse cultures were to come about guidance on risk management and incentives were required to motivate staff to be innovative. They also suggest a number of incentives which might help promote well thought through risk taking (Figure 30).

Figure 30

Departments' views on barriers and incentives to better risk management

Barriers to effective management of risks	Incentives to encourage risk taking
"Risk averse culture"	"better recognition and reward schemes for initiative, innovation and well managed risk taking"
"lack of a culture which appreciates risk and risk management"	"top management remove the blame culture and fear of failure"
"there is a blame culture within the department"	"clear leadership by example"
"risk taking is difficult in the public sector"	"encouragement from the board/senior management"
"lack of awareness about risk management"	"better training, involvement and education in risk management"
"lack of time and resources"	"innovation award schemes"
"lack of training, knowledge and formal risk management tools"	"individual accountability for results and achievements"
"lack of clear guidelines for staff"	"an explicit corporate risk management policy"
"uncertainty over funding"	
"absence of a risk management strategy or policy"	

Source: NAO/PwC risk survey

3.13 Recognising the need to remove barriers and provide incentives for encouraging innovation in the public sector, the Cabinet Office and the Treasury have launched a number of initiatives:

- **"Invest to Save Budget"** managed by the Treasury in consultation with the Cabinet Office which provides financial support (£230 million over three years) to help develop projects which bring together two or more public service bodies to deliver services in an innovative and more efficient manner;

- Cabinet Office guidance published in December 1999 on **Schemes to reward innovative ideas** which sets out the key ingredients of successful innovation ideas schemes one of which is the commitment of senior management;

- Launching the **Public Sector Benchmarking Project** to spread the use of the European Foundation for Quality Management (EFQM) Excellence Model to help organisations identify their strengths and areas in which they need to improve;

- **Innovation and Risk Management Awards** sponsored by PricewaterhouseCoopers for the Cabinet Office, to recognise innovation and effective risk management in the public sector in line with the Modernising Government programme. In 2000, the first year of the competition which was open to all agencies and larger non departmental public bodies, the overall winner was the Public Record Office. Their Learning Curve educational website enables users to look at key historical documents illustrating major events from history and sets the standard in entertaining and stimulating online learning from original source material.

3.14 In addition, the Public Services Productivity Panel[30] report - Incentives for Change published in January 2000 reviewed performance incentives for front line staff in four agencies (the Benefits Agency, HM Customs and Excise, the Employment Service and the Inland Revenue). The report made recommendations for enhancing civil servants' rewards and incentives - one spin off of which would be promoting and rewarding innovation.

Examples of innovation in the public sector:

- Social Security Agency and Training and Employment Agency, Northern Ireland pilot project providing new joined up process for jobseekers to help them find jobs
- Companies House Direct – an internet service providing customers access to over 20 million company documents (won the PwC innovation award for business impact)
- Countryside Agency website making Board papers available to the public and providing details of future meetings
- HM Customs and Excise developed a business partnership with Heathrow Airport Limited in which a third party, Travelex, processes low risk/low value VAT refund forms for qualifying travellers.
- Employment Service Direct has a 'virtual call centre' which provides a telephone matching service to callers nationwide through a single, local call rate number.

3.15 A culture of well thought through risk taking does not necessarily mean that a government programme will be more effective in delivering its objectives. Nor does it mean that risks will not materialise. Nor does it mean taking reckless or careless risks. It does mean, however, that decisions at each stage in a programme are based on a thorough assessment of risk to the achievement of the department's objectives and that they are transparent and actively managed. When things go wrong this is reported to senior management and ministers so that the

30 The Public Services Productivity Panel was established in November 1998. Its remit is to bring in outside experts, senior business people and public sector managers to advise the Government on ways of improving the productivity and efficiency of government departments and other public sector bodies and by May 2000 had produced five reports.

organisation can take action to mitigate their impact, evaluate why they occurred and draw lessons for the future. Opportunities should be exploited when an evidenced and assessed approach indicates there are benefits to be gained.

3.16 The Highways Agency's contract for the M1-A1 link road project encouraged innovation by allowing contractors to develop alternative technical solutions and departures from standard specifications provided that they delivered equivalent standards of service for example, whole life design of the road carriageway to reduce maintenance and therefore disruption to road users. The Agency and the Design, Build, Finance and Operate company also set up team building workshops with all the parties involved such as contractors, designers and banks so that all were aware of the risks and their responsibility as a team for project delivery. In doing so the road was delivered early and has reduced traffic congestion and improved road safety (Case Study 3).

iv) Risk management should be fully embedded in management processes

'Many departments have a range of disparate systems for identifying, assessing and reporting risks. The problem is to pull them together into an overall system'

Source: NAO/PwC focus groups

3.17 Many of the basic components of good risk management and internal control such as assessing the risks associated with individual projects, recording risks and reporting risks are already in place in departments. The requirements to produce risk framework documents by September 2000 (paragraph 1.6) and an embedded risk framework for overall governance and management purposes (Figure 8) should give further impetus to departments and agencies to implement sound processes for managing risk. Risk management should be incorporated into the delivery of the Civil Service Reform programme commitments on business planning[31]. If, however, risk management is to become a standard feature of the way departments and agencies operate it should be an integral part of all that departments do. The research paper on Business Risk Management in Government (Annex 2 of the Executive summary) which we commissioned from Professor Hood from the London School of Economics and Political Science suggests that in government business risk management should be incorporated into the planning and key decision making processes.

31 All departments have agreed to seek independent review of their business planning. See page 9 of the Civil Service Reform: Report to the Prime Minister from Sir Richard Wilson, Head of the Home Civil Service, Cabinet Office. This is on the Cabinet Office website at http://www.cabinet-office.gov.uk/civilservice-reform/index.htm.

Case Study 3

The Yorkshire Link – M1-A1 Lofthouse to Bramham Link Road – the Highways Agency and the Department of the Environment, Transport and the Regions

This case study shows how the Highways Agency encouraged innovation and identified and managed risk by agreeing responsibility for managing appropriate risks with a private sector partner, and allowed contractors to suggest alternative solutions for road construction to meet the standards required. The purpose of the Yorkshire Link is to provide a safe and effective route between the M1 and A1(M) north of Leeds, and reduce congestion on existing motorways, improve journey times, reduce accidents, significantly reduce traffic flows on some routes, and contribute towards a fully integrated transport network for the area.

What did the Highways Agency do?

1. The Highways Agency's approach to the Design, Build, Finance and Operate contract for the M1-A1 Yorkshire Link Road with a construction cost of more than £200 million, agreed responsibility for handling risks involved in design, construction and operation of the road with a private sector partner, whilst minimising the public sector's financial contribution. This provided opportunities to use innovative technical solutions and new materials to reduce the 'whole life' cost of the road by reducing maintenance requirements and minimising disruption to road users. Also the responsibilities and obligations in the contract are consistent with the Highways Agency objectives. In doing so the contractor adopted joint objectives with the Agency for example in delivering an adequate service to road users in terms of safety and road maintenance.

What were the risks and how were these addressed?

2. Identified risks to the project included the risk to public safety and convenience, disruption from construction work, risks arising from public – private sector working, the risks of project delay and compensation payments to the contractor, and risks of damage to the Department/Agency's reputation arising from the joint working, particularly in those areas involving interfaces with the public and third parties.
3. To address the risks involved, the Highways Agency and the Design, Build, Finance and Operate Company established a Project Forum, on which all stakeholders for the project were represented. The project forum enabled risks to be monitored, reviewed and resolved on a day to day basis by effective partnering during the construction of the project on a without prejudice basis. For example, there were some 20 archaeological investigations necessary which can hold up construction and cause significant delays. Co-operation and planning between the parties enabled work to be progressed and the risks of delay to be managed. Additional direct costs to the Agency for archaeological work of £1.2 million were agreed, but the consequential costs if construction work had been delayed could have considerably exceeded this figure. The co-operative and partnered approach between the main parties enabled such costs to be avoided.
4. The Highways Agency identified the opportunity to promote more innovation than conventional methods of procurement by allowing contractors to use alternative approaches provided they deliver equivalent levels of service and durability for the work (for example, almost 200 amendments to design standards during construction were agreed which delivered benefits to the project).

What has been the outcome?

5. The road, one of the largest and most ambitious of the Highways Agency's Design, Build, Finance and Operate contracts, was delivered safely, and opened five months ahead of schedule in February 1999. It involved 5 million cubic metres of excavation, building over 150 structures, widening 12km of existing carriageway, constructing 18km of new road, and providing two motorway interchanges and five junctions. The new road has achieved early realisation of key benefits with some 60,000 vehicles per day using the link (some 20 million in the first year since opening), removing 8000 lorries a day from Leeds city centre, improving road safety and reducing traffic volumes and congestion by up to 40 per cent on some routes.

Note: The contract for the M1-A1 link road was covered in NAO's report on Department of the Environment, Transport and the Regions: The Private Finance Initiative: The First Four Design, Build, Finance and Operate Roads Contracts January 1998 (HC 476).

'We are moving towards nominating managers with formal responsibilities for managing risks'

Source: NAO/PwC focus groups

3.18 At the time of our examination in February and March 2000, many departments were in the process of developing their risk frameworks. For example Inland Revenue, Customs and Excise, and the Health and Safety Executive were using the process to reassess the risks associated with their operational activities such as collecting revenues and duties and investigating safety incidents. The Department for Education and Employment have proposals for a comprehensive risk management strategy covering all aspects of the Department's work so that:

- the Department's Management Board advised by the Audit Committee is responsible for the overall management of high level risks;
- the operational day to day management of risks becomes an integral part of policy development and implementation – managing risks is to become a standard feature of the department's processes;
- risk management is quality assured by internal audit; and
- reporting of risk management activity and its outcome are included in the Department's standard internal reporting mechanisms to enable the Accounting Officer to give assurance to the Treasury that risks are well managed, and also to promote internal accountability for sound risk management.

3.19 The Interdepartmental Liaison Group on Risk Assessment issued brief guidance in March 1999 on frameworks for risk based decision making. In June 2000 the Treasury and Cabinet Office issued joint guidance as to what the published risk management frameworks (which need cover only risks directly affecting the public) should contain and what the Treasury was expecting by way of progress reports towards preparing Statements on Internal Control, and as to how the two reporting exercises could be fitted into the development of the department's overall risk management strategy. The objective behind the publication of the frameworks that departments use for making decisions on the risks for which they are responsible, is that there should be a clear statement in the public domain covering all the significant risks faced by the public which might warrant some form of government intervention. This will usually be covered in the department's published risk framework, and the publication requirement does not, therefore, apply in general to executive agencies and non departmental public bodies, unless they have responsibility for managing significant risks faced by the public that are not covered in departmental risk frameworks.

The risk frameworks should cover:

- how risks affecting the public are identified;
- how information about how their impact on the public is obtained;
- how they are assessed, taking into account expert advice and the degree of uncertainty;
- how options to deal with them are identified, taking into account constraints, such as international obligations;
- how decisions on risk management are made, including the criteria departments use to decide when further risk reduction is necessary, taking into account costs and benefits to society, and, where necessary using a precautionary approach;
- how such decisions are implemented, including the principles guiding the choice of how to intervene (for example, education, information, inspection etc) and on whom to target intervention;
- how actions are evaluated for their effectiveness; and
- how stakeholders are engaged throughout the process.

3.20 At the time of our examination the Cabinet Office had not issued formal guidance on what risk frameworks should cover and many departments asked for advice on developing risk strategies. Drawing on the experience of the private sector companies which we consulted risk strategies should be unique to each department and reflect the specific types of risk which they face in ensuring the achievement of their objectives and delivering their services to the public. Whilst recognising that departments need to comply with the best practice guidance issued by the Cabinet Office in June 2000, this private sector experience suggests that as a minimum strategies should cover:

- **The department's risk policy** – The department's high level approach for managing risk, for example Prudential plc's policy is to identify, understand and manage the risks inherent in their business and strategies as an essential element of maximising shareholder value

(Appendix 5). Departments could also usefully set out their approach for managing the risks inherent in each of their key objectives for example, the risk of a social welfare programme not reaching all of its target client group, or the risk of a major capital project not being delivered on time, or the risk of the department not being able to respond to a sudden seasonal increase in customer demand for a specific service.

- The **main approaches** for **(i) identifying risks** – that is the tools and techniques they use to do this for example, risk surveys and the frequency with which they are carried out, and also the key strategic areas where risk monitoring should be given greater priority; **(ii) assessing identified risks and reporting them** – that is, setting out how risks should be prioritised and how the likelihood of them maturing is to be determined, and allocating responsibility for reporting risk to senior management and communicating risk management practice to all staff; and **(iii) action to deal with risks** – that is, for example, the contingency arrangements that are in place so that if risks mature the delivery of services to citizens is still maintained.

- **Responsibilities** for managing risk and reporting it to senior management – This should make clear that risk management is the responsibility of all staff. Departments should specify management responsibilities for assessing, managing and reporting risk; in particular responsibilities for risks which cut across core activities and organisational boundaries for example, health and safety, information technology and services delivered by executive agencies and non departmental public bodies.

- **Assurance** arrangements so that management can gain assurance about the effectiveness or otherwise of the risk management system. The approach to risk management reflects current good practice – internal audit has an important role to play in reviewing the operation of departments' risk management systems, so as to provide assurance to senior management that the department's risk management reflects good practice.

3.21 All the private sector companies we consulted had or were developing their risk management approaches to embed them into their existing business planning and management processes. For example, Glaxo Wellcome plc have made risk management a standard feature of all their business planning, assurance processes and reports to senior management (Case Study 4). Prudential plc were developing a risk framework which draws on existing management reporting mechanisms to facilitate the reporting of risks to senior management and review by internal audit (Appendix 5).

Quantifying risks

3.22 Putting a monetary or a numerical value on risk can help reinforce the importance of managing risks – it puts in perspective the potential loss or missed opportunity which could occur if risks are not well managed. Quantifying risk can, however, be difficult for example, the risk associated with not delivering an aspect of health policy could result in lower standards of patient care or longer periods of patient incapacity and such factors are difficult to quantify precisely. There are techniques which can assist in quantifying risk including putting a numerical value on the probability of risks maturing, and it is common practice in the private sector to at least assess risks as high, medium or low. Reuters Limited is an example of how these semi-quantified methods are used in practice (Appendix 5 and Case Study 5). Appendix 6 summarises some of the standard techniques available to assess and quantify risks. Care is needed in applying these tools because no one technique is applicable to all situations or risks government departments face.

Case Study 4

GlaxoWellcome

Why is risk management important?

1. Risk management is central to Glaxo Wellcome's science-based business. The pharmaceutical industry is highly regulated and operates multinationally. Clinical trials and quality control assurance are part of the core activities of the business to provide assurance about the quality of medical products to patients and to limit the cost of insurance against possible litigation in the United Kingdom and worldwide. Losing a licence to sell a product would put the company at risk. Risks also arise from health, safety, environmental and ethical issues.

What have Glaxo Wellcome done?

2. Glaxo Wellcome have made risk management a standard feature of all of their business planning, control and quality assurance processes and reports to senior management. Risks are routinely considered in managing all aspects of the company's business and in particular in conducting clinical trials to test new products.

What are the benefits?

3. Risk assessment has enabled Glaxo Wellcome to target and improve activities such as maintaining continuity of production, ensuring suppliers products are of appropriate quality and minimising any clinical failures which could affect patients and reduce revenue and company performance (Appendix 5).

v) The management of risks should be closely linked to the achievement of objectives

3.23 Risk management will only assist in this if risks are, as a first priority, assessed in terms of the impact they are likely to have on the achievement of key organisational objectives. Well over half (56 per cent) of departments who responded to our survey say that their department identifies the main risks relating to each of its main aims and objectives (paragraph 2.5). Ninety-two per cent of departments in our survey say that they have a process for reviewing the link between their staff's personal objectives and those for their organisation as a whole and that this is done at least annually. Just a quarter (24 per cent) say, however, that the management of risk and individual members of staff's responsibility for it in the context of achieving organisational objectives is considered in setting staff objectives, agreeing their work programme and reviewing their performance.

3.24 In responding to our survey departments identify the lack of appropriate training in risk management. Sixty-six per cent of departments told us that appropriate training on risk management is either not in place or not effective. Thirty-three per cent of organisations say that they covered risk management in the general training which they provide for their staff. Without adequate training in risk management, awareness of its importance and how it should be applied, it will not become more widely used across government.

3.25 Understanding the risks associated with the achievement of key objectives is important because failure to identify and manage them may result in services to the public not being delivered, being of poor quality or not giving value for money. The Home Office for example, as part of their business monitoring link their risk assessment to their objectives which enables senior management to form a more reliable assessment of the likelihood of key targets not being achieved and helps them to identify any remedial action that may need to be taken. Experience from the private sector indicates that senior managers need to focus on the top 10-15 key risks and opportunities which their organisation faces. Any more than this and management effort can become too diffuse across a larger number of less strategically important risks - better dealt with at an operational level - to the extent that risk management becomes less effective. The private sector companies we spoke to such as Reuters Limited linked their risk management to the achievement of business objectives (Case Study 5).

Case Study 5

What have Reuters Limited done?

1. Reuters Limited have linked risk management to the achievement of their business objectives. They assess risks in terms of the likelihood of them maturing and their potential impact on company profitability and performance. Managers at all levels in the company have specific responsibility for assessing and managing risks. There is regular risk reporting to Reuters Group Executive Committee which takes a wider strategic view of the risks faced by Reuters Limited which might affect the company's profitability and performance.

2. Reuters Limited have developed a simple database to record and monitor the current status of risks (red, amber, green), who is responsible and the action taken.

What benefits have been secured?

3. The company have a £300 million investment programme in e-commerce. Risk management is helping to ensure the investment is successful in improving the electronic capability of Reuters' service to clients (Appendix 5).

vi) Risks associated with working with other organisations should be assessed and managed

'The approach to risks taken by organisations we work with is often ignored or managed by contractual relationship'.
'Knowledge of other organisations' approach to risk is a problem when co-ordinating cross cutting issues'

Source: NAO/PwC focus groups

3.26 The Modernising Government programme emphasises the importance of greater co-operation and joint working between departments and agencies and between the public and private and voluntary sectors. This is because often no one single department has sole responsibility for delivering services to citizens. For example, programmes for helping the unemployed depend on services provided by the Department for Education and Employment, the Benefits Agency, the Department of Trade and Industry, the Department of the Environment, Transport and the Regions and local authorities. And increasingly departments are entering into partnerships with the private sector to deliver services for citizens on behalf of government. The main aim of joined up government or joint working is to improve the delivery of public services for the benefit of citizens.

Risks associated with joined up government

- Service delivery breaks down or the whole programme fails because one organisation does not deliver
- Unclear responsibilities for service delivery results in delays in programme delivery, inadequate quality of public services and unclear lines of responsibility for the public to raise complaints
- Services are joined up unnecessarily leading to inefficient use of resources and higher than necessary administrative costs
- Objectives of organisations are inconsistent resulting in unclear programme targets, poor value for money and less than desired outcomes
- Programmes are not evaluated, the outcomes are unclear and lessons about joined up service delivery are not learnt
- Organisations do not have the necessary management structures and processes in place to enable joined up working to operate for example, shared information on programme performance

3.27 Joint working and partnerships often involve more complex types of risk which can adversely affect service delivery for example, if part of the service provided by one department or agency is delayed or of poor quality the success of the whole programme can be put at risk. There is also the risk that citizens can be excluded from a service if there is confusion over who is responsible for different aspects of service delivery.

3.28 It is, therefore, important that departments who are involved in delivering joined up programmes for citizens assess and manage the risks which might prevent them from being successful. As a first step in doing this departments should know about the risk management approaches of the different partners they are working with and the types of risks they cover. Exchanging information about risk management strategies in this way can help to ensure that all risks which might result in the joined up programme's objectives and planned outcomes not being met are identified and managed. The research paper on Business Risk Management in Government (Annex 2 to the Executive summary) we commissioned from Professor Hood from the London School of Economics and Political Science suggests a cross-organisational approach to risk management when the risk focus is on the citizen rather than the well-being of one organisation for example, the multi-organisational approach to the management of risks posed by prisoners convicted of certain offences on release from prison.

3.29 A good example of assessing the risk management of partners and organisations who provide complementary services is the approach adopted by the Department for Culture, Media and Sport. The Department promoting the arts, culture and sporting activities is dependent on a large number of non departmental public bodies such as UK Sport, the Museums, the English Tourism Council and the British Film Institute. The Department needed assurance that its own business risk management and that of all of its non departmental public bodies were consistent. It, therefore, supported a proposal from its Quality, Efficiency and Standards Team (QUEST) to assess the nature and extent of business risk strategies in each body, identify good practice, and provide an early warning system of key risks and also opportunities within the cultural sector. QUEST plans to publish its findings in the summer of 2000.

3.30 The Public Record Office project to make available 1.5 million pages of census information involved assessing the risks of working with other parties and is a good example of assessing the risks associated with other organisations. The Office has developed a thorough understanding of its supplier's systems and the risks associated with them, backed up by contingency plans to ensure that the service is delivered on time, for example that the historical information is available to schools on the internet, which removes the need to visit the Public Record Office in London (Case Study 6).

The 1901 Census – The Public Record Office

PUBLIC RECORD OFFICE
The National Archives

Case Study 6

This case study shows how the Public Record Office is working with the Defence Evaluation and Research Agency to introduce innovative improvements to accessing historical documents for its customers in the UK and overseas, whilst at the same time recognising and managing the risks that this entails to delivery of its statutory obligations to provide access to the 1901 Census data in January 2002.

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What did the Public Record Office do?

1. During 1998 the Public Record Office established a programme of improvements to its entire public service operation to see how it could improve access to the public records and promote their value and use as a national information and educational resource, with a priority to increase the accessibility of the public records by electronic means and respond to future customer expectations and rising demand.

2. The first major project centres on the 1901 Census, which the Public Record Office are required by statute to make available by the start of 2002. This involves the digitisation of around 1.5 million images with details from the 1901 Census on the Internet – documenting some 127 metres of shelf space – containing over 32 million names, which customers would then be able to access worldwide. To finance the project, the Public Record Office entered into a commercial partnership in October 1999 with the Defence Evaluation and Research Agency. The contract is to design, build and finance the digitisation of data and the operation of the website upon release. Public sector payments under this contract were £0.8m in 1998-1999, with a similar amount during 1999-2000. The internal Public Record Office budget for the whole project (1999-2002) is £1.2 million.

What were the main risks and how have they been addressed?

3. Several key risks were identified. These included:

- **Risk of failing to meet the statutory requirement** to make the census information publicly accessible in January 2002;
- **Risk of slippage** in the timetable to make the data available on line;
- **Risk of disruption to users** wishing to use the service, or not understanding the new service;
- **Risk of failing to meet expected demand** from the public, and in particular, to minimise the risk of visitors to the Office exceeding its annual capacity of 200,000 and therefore not being able to view the records promptly;
- **Risk that contractors would not meet their commitment** to capture all the data in the census so the information provided would be incomplete.

continued…

4. The overall programme risks, the link to the Public Record Office's objectives, and risks to customer service were assessed by a high level panel consisting of senior management and representatives of user groups. This included question and answer sessions with the bidders to ensure that all key concerns relating to achievement of objectives were addressed and a joint communication strategy with the partners was agreed to inform users of the scheme. A formal project was set up to manage and monitor risks using PRINCE methodology (PRojects IN Controlled Environments – the standard method for project management in government IT projects). A list of risks was compiled, assessed and scored in terms of likelihood and impact on the overall objectives (high, medium or low), responsibility assigned, with routine review and updating.

5. Contingency plans were also developed and routinely reviewed as to their impact on the achievement of overall objectives (such as meeting statutory obligations and objectives to provide public access to data if the Public Record Office have to run the website in the event of failure of the contractor). The action plan and contingency plans for managing the risks were then reviewed and adjusted as necessary. For example, the Public Record Office may use auto-response lines to assist with excess calls to the Office's contact centre, and on-line help to minimise the need to contact a help desk. A pilot release of data for the 1891 Census during 2001 will test the demand for this service and the type of help required.

What have been the benefits?

6. The anticipated interest in the 1901 Census data was an incentive to look for an innovative solution in line with the Public Record Office's overall aim to develop a more inclusive service and reach those deterred from visiting the Office's premises. The internet based solution also enables management of the anticipated high demand for the data, and counter the risk of queues at the office's premises. The contractors incentives include an opportunity to share in the revenues from the scheme. The Census is an excellent source of historical information for schoolchildren and other educational users. By digitising the Census and making it available over the internet schools and other users will have access to the information, without needing to visit the Family Records Centre in London.

Appendix 1

Study methodology

The main aspects of our methodology were:

- We collected and analysed information to provide an overview of the extent and practice of risk management across government by use of a questionnaire. The survey was prepared and undertaken jointly with PricewaterhouseCoopers. The questionnaire and a summary of the results are available on the National Audit Office web site at http://www.nao.gov.uk/publications/nao_reports/index.htm.

- We sent the questionnaire to 257 departments, agencies and non departmental public bodies. A total of 237 responses were received (a 92 per cent response). Organisations responding to the questionnaire are shown in Appendix 2. We appointed PricewaterhouseCoopers to advise us on risk management during the study and to assist with the survey, the private sector and public sector interviews, reviews of literature, membership of the expert panel, and to undertake the two focus groups.

- We conducted structured interviews with senior personnel in twelve organisations (Department of the Environment, Transport and the Regions; Department of Social Security; Inland Revenue; HM Customs and Excise; Department for Culture, Media and Sport; Department for Trade and Industry; Ministry of Defence; Department for Education and Employment; The Home Office; Department for International Development; Health and Safety Executive; The Public Record Office). The interviews gathered qualitative information which gave a more in-depth understanding of the risk management activities undertaken in departments, and provided practical examples of how risk management is being implemented or plans for implementation.

- On behalf of NAO, PricewaterhouseCoopers held two focus groups convened from officials who had some responsibility for risk management activities in their departments. The first was held early on during the fieldwork (end January) to collect evidence on the understanding of risk and the barriers to better risk management in departments. The second focus group, held in mid March, commented on the findings from the survey and emerging conclusions for the study.

- We met six private sector organisations to establish how they manage risk in practice, and what wider lessons could be learnt from this (see Appendix 5):
    - Prudential plc (and also Egg: the internet bank, a part of Prudential Banking plc)
    - Glaxo Wellcome plc
    - Reuters Limited
    - Allied Domecq PLC
    - Nomura International plc
    - Associated British Ports Holdings PLC
- We also commissioned a short academic paper from the London School of Economics and Political Science to present a synthesis of views and the current debates about risk management across government, with an analysis of the forces which shape the components and systems used to manage risk (see Annex 2 of the Executive summary).
- We analysed four case studies of risk management in government to illustrate in more detail existing public sector good practice in risk management as an integral part of achieving overall business aims and objectives (Case Studies 1-3 and 6).
- We constituted an expert panel to provide informed comment on the scope and completeness of our study, our findings and the presentation of information in this report.

The National Audit Office Expert Panel

- Bryan Avery, Deputy Director, Modernising Public Services Group, Cabinet Office
- James Foreman-Peck, Economic Adviser, HM Treasury
- Mark Butterworth, Chairman AIRMIC, the Association of Insurance and Risk Managers
- Professor Michael Clarke, The University of Birmingham
- Professor Christopher Hood, The London School of Economics and Political Science
- Liz Taylor, Chief Executive ALARM, the Association of Local Authority Risk Managers
- Steven Beet, Partner, PricewaterhouseCoopers

- We also participated in a joint seminar for ministers and senior civil servants on risk management organised by the Centre for Management and Policy Studies in March 2000.

Appendix 2

Organisations covered by the NAO survey

1. We sent our questionnaire to 257 departments, agencies and non departmental public bodies of which 237 (92 per cent) responded. A copy of the questionnaire used and a summary of the responses can be viewed on the National Audit Office website at http://www.nao.gov.uk/publications/nao_reports/index.htm.

Figure 1

Organisations responding to the 'Managing Business Risk in Government' questionnaire

Type of Organisation	Number of organisations included	Number of Responses
Departments	19	17
Non-ministerial Departments	14	13
Executive Agencies[1]	82	78
Non Departmental Public Bodies (NDPBs)	132	119
Other	10	10
Total	**257**	**237**

Source: NAO/PwC risk survey

2. A list of organisations covered in the survey is shown overleaf.

1 Agencies which are also non-ministerial Departments are classified as Agencies

Organisation	Type of body	Response received
Advantage West Midlands	Regional Development Agency	✓
Advisory, Conciliation and Arbitration Service	NDPB	✗
Army Base Repair Organisation	Executive Agency	✓
Army Personnel Centre	Executive Agency	✓
Army Technical Support Agency	Executive Agency	✓
Army Training and Recruiting Agency	Executive Agency	✓
Arts Council of England	NDPB	✓
Audit Commission	NDPB	✓
BECTA	NDPB	✓
Benefits Agency	Executive Agency	✓
Britain-Russia Centre	NDPB	✗
British Association for Central and Eastern Europe	NDPB	✓
British Council	NDPB	✓
British Film Institute	NDPB	✗
British Government Panel on Sustainable Development	NDPB	✗
British Hallmarking Council	NDPB	✓
British Library	NDPB	✓
British Museum	NDPB	✓
British Potato Council	NDPB	✓
British Tourist Authority	NDPB	✓
Broadcasting Standards Commission	NDPB	✓
Buying Agency	Executive Agency	✓
Cabinet Office	Ministerial Department	✓
Central Computer and Telecommunications Agency	Executive Agency	✓
Central Council For Education and Training in Social Work	NDPB	✓
Central Office of Information	Executive Agency	✓
Central Science Laboratory	Executive Agency	✓
Centre for Environment, Fisheries and Aqua Science	Executive Agency	✓
Centre for Information on Language Teaching and Research	NDPB	✓
Charity Commission	Non-ministerial Department	✓
Child Support Agency	Executive Agency	✓
Churches Conservation Trust	NDPB	✓
Civil Justice Council	NDPB	✓
Civil Procedure Rule Committee	NDPB	✓
Civil Service College	Executive Agency	✓
Coal Authority	NDPB	✓
Commission for Racial Equality	NDPB	✓
Commonwealth Scholarships Commission	NDPB	✓
Communications Electronic Group	Ministerial Department	✗

Organisation	Type of body	Response received
Community Development Foundation	NDPB	✓
Companies House	Executive Agency	✓
Competition Commission	NDPB	✓
Construction Industry Training Board	NDPB	✓
Contributions Agency	Executive Agency	✓
Council for the Laboratory of the Research Councils	NDPB	✓
Countryside Agency	Executive Agency	✓
Court Service	Executive Agency	✓
Criminal Cases Review Commission	NDPB	✓
Criminal Injuries Compensation Appeals Panel	NDPB	✓
Criminal Injuries Compensation Authority	NDPB	✗
Crown Prosecution Service	Executive Agency	✓
Defence Analytical Services Agency	Executive Agency	✓
Defence Aviation Repair Agency	Executive Agency	✓
Defence Bills Agency	Executive Agency	✓
Defence Clothing and Textiles Agency	Executive Agency	✓
Defence Dental Agency	Executive Agency	✓
Defence Estates HQ	Executive Agency	✓
Defence Evaluation and Research Agency	Executive Agency	✓
Defence Medical Training Organisation	Executive Agency	✓
Defence Postal and Courier Services Agency	Executive Agency	✓
Defence Procurement Agency	Executive Agency	✓
Defence Secondary Care Agency	Executive Agency	✓
Defence Storage and Distribution Agency HQ	Executive Agency	✓
Defence Transport and Movements Organisation	Executive Agency	✓
Dental Practice Board	NDPB	✓
Department for Education and Employment	Ministerial Department	✓
Department for International Development	Ministerial Department	✓
Department for Culture, Media and Sport	Ministerial Department	✓
Department of the Environment, Transport and the Regions	Ministerial Department	✓
Department of Health	Ministerial Department	✓
Department of Social Security	Ministerial Department	✓
Department of Trade and Industry	Ministerial Department	✓
Design Council	NDPB	✓
Disposal Sales Agency	Executive Agency	✓
Driver and Vehicle Licensing Agency	Executive Agency	✓
Driving Standards Agency	Executive Agency	✓
Duke of York’s Royal Military	Executive Agency	✗
East Midlands Development Agency	Regional Development Agency	✓

Organisation	Type of body	Response received
East of England Development Agency	Regional Development Agency	✓
Education Transfer Council	NDPB	✓
Employment Service	Executive Agency	✓
Employment Tribunals Service	Executive Agency	✓
Engineering & Physical Sciences Research Council	NDPB	✓
Engineering Construction Industry Training Board	NDPB	✓
English Heritage	NDPB	✓
English National Board for Nursing, Midwifery and Health Visiting	NDPB	✓
English Nature	NDPB	✓
English Partnerships	NDPB	✓
English Sports Council	NDPB	✓
English Tourism Council	NDPB	✓
Environment Agency	NDPB	✓
Equal Opportunities Commission	NDPB	✓
Fleet Air Arm Museum	NDPB	✓
Food From Britain	NDPB	✓
Football Licensing Authority	NDPB	✓
Foreign and Commonwealth Office	Ministerial Department	✓
Forensic Science Service	Executive Agency	✓
Forest Enterprise	Executive Agency	✓
Forestry Commission	Non-ministerial Department	✓
Further Education Funding Council	NDPB	✓
Gaming Board for Great Britain	NDPB	✓
Gas Consumers Council	NDPB	✓
Geffrye Museum	NDPB	✓
Government Car and Dispatch Agency	Executive Agency	✓
Government Communications HQ	Ministerial Department	✗
Great Britain-China Centre	NDPB	✓
Health and Safety Executive	NDPB	✓
Health Education Authority	NDPB	✗
Higher Education Funding Council for England	NDPB	✓
Highways Agency	Executive Agency	✓
Historic Royal Palaces	NDPB	✓
HM Customs and Excise	Non-ministerial Department	✓
HM Land Registry	Executive Agency	✓
HM Prison Service	Executive Agency	✓
HM Treasury	Ministerial Department	✓
Home Office	Ministerial Department	✓

Organisation	**Type of body**	**Response received**
Home-Grown Cereals Authority	NDPB	✓
Horniman Museum and Gardens	NDPB	✓
Horserace Betting Levy Board	NDPB	✓
Horserace Totalisator Board (Tote)	NDPB	✓
Horticulture Research International	NDPB	✓
Housing Corporation	NDPB	✓
Human Fertilisation and Embryology Authority	NDPB	✓
Imperial War Museum	NDPB	✓
Independent Television Commission	Public Corporation	✓
Information Technology Services Agency (ITSA)	Executive Agency	✓
Inland Revenue	Non-ministerial Department	✓
Insolvency Service	Executive Agency	✓
Intervention Board	Executive Agency	✓
Investors In People UK	NDPB	✓
Joint Nature Conservation Committee	NDPB	✗
Law Officers' Department	Ministerial Department	✓
Legal Aid Board	NDPB	✓
Logistic Information Systems Agency	Executive Agency	✓
London Pensions Fund Authority	NDPB	✓
Lord Chancellor's Department	Ministerial Department	✓
Maritime and Coastguard Agency	Executive Agency	✓
Marshall Aid Commemoration Commission	NDPB	✗
Meat and Livestock Commission	NDPB	✓
Medical Devices Agency	Executive Agency	✓
Medical Practices Committee	NDPB	✓
Medical Research Council	NDPB	✓
Medicines Control Agency	Executive Agency	✓
Mental Health Act Commission	NDPB	✓
Meteorological Office	Executive Agency	✓
Microbiological Research Authority	NDPB	✓
Military Survey Defence Agency	Executive Agency	✓
Milk Development Council	NDPB	✓
Millennium Commission	NDPB	✓
Ministry of Agriculture Fisheries and Food	Ministerial Department	✓
Ministry of Defence	Ministerial Department	✓
Ministry of Defence Police	Executive Agency	✓
Museum of London	NDPB	✓
Museum of Science and Industry in Manchester	NDPB	✓
Museums & Galleries Commission	NDPB	✓

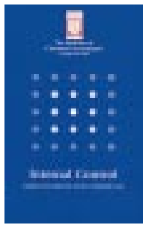
Organisation	Type of body	Response received
National Army Museum	NDPB	✓
National Biological Standards Board	NDPB	✓
National Blood Authority	NDPB	✓
National Consumer Council	NDPB	✓
National Debt Office	Non-ministerial Department	✗
National Film and Television School	NDPB	✓
National Forest Company	NDPB	✓
National Gallery	NDPB	✓
National Health Service Litigation Authority	NDPB	✓
National Health Service Supplies Authority	NDPB	✓
National Heritage Memorial Fund	NDPB	✓
National Lottery Charities Board	NDPB	✓
National Maritime Museum	NDPB	✓
National Museum and Galleries on Merseyside	NDPB	✓
National Museum of Science and Industry	NDPB	✓
National Portrait Gallery	NDPB	✓
National Radiological Protection Board	NDPB	✓
National Savings	Executive Agency	✓
National Weights and Measures Laboratory	Executive Agency	✗
Natural Environment Research Council	NDPB	✓
Natural History Museum	NDPB	✓
Naval Bases and Supply Agency	Executive Agency	✓
Naval Manning Agency	Executive Agency	✓
New Millennium Experience Company	NDPB	✓
NHS Estates	Executive Agency	✓
NHS Pensions Agency	Executive Agency	✓
North West Development Agency	Regional Development Agency	✓
Occupational Pensions Regulatory Authority	NDPB	✓
Office for National Statistics	Executive Agency	✓
Office for Standards in Education	Non-ministerial Department	✓
Office of Fair Trading	Non-ministerial Department	✓
Office of Rail Regulator	Non-ministerial Department	✓
Office of the Data Protection Registrar	Non-ministerial Department	✓
OFGEM	Non-ministerial Department	✓
OFTEL	Non-ministerial Department	✓
OFWAT	Non-ministerial Department	✓
Oil and Pipelines Agency	NDPB	✓
One North East	Regional Development Agency	✓
Ordnance Survey	Executive Agency	✓

Organisation	Type of body	Response received
Parole Board for England & Wales	NDPB	✓
Particle Physics & Astronomy Research Council	NDPB	✓
Patent Office	Executive Agency	✓
Pay and Personnel Agency	Executive Agency	✓
Pensions Compensation Board	NDPB	✓
Pesticides Safety Directorate	Executive Agency	✓
Planning Inspectorate	Executive Agency	✓
Policyholders Protection Board	NDPB	✓
Post Office Users' National Council	NDPB	✓
Prescription Pricing Authority	NDPB	✓
Privy Council Office	Ministerial Department	✓
Property Advisers to the Civil Estate	Executive Agency	✓
Public Health Laboratory Service Board	NDPB	✓
Public Record Office	Executive Agency	✓
Public Trust Office	Executive Agency	✓
Qualifications Curriculum Authority	NDPB	✓
Radio Authority	Other	✓
Radiocommunications Agency	Executive Agency	✓
RAF Logistics Support Services Agency	Executive Agency	✓
RAF Signals Engineering Establishment	Executive Agency	✗
RAF Training Group Defence Agency	Executive Agency	✓
Remploy Limited	NDPB	✓
Royal Air Force Museum	NDPB	✓
Royal Armouries Museum	NDPB	✓
Royal Botanic Gardens	NDPB	✓
Royal Commission on Historical Manuscripts	NDPB	✓
Royal Marines Museum	NDPB	✓
Royal Mint	Executive Agency	✓
Royal Naval Museum	NDPB	✓
Royal Navy Submarine Museum	NDPB	✓
Royal Parks Agency	Executive Agency	✗
Sea Fish Industry Authority	NDPB	✓
Security Service	Ministerial Department	✓
Serious Fraud Office	Non-ministerial Department	✓
Simpler Trade Procedure Board	NDPB	✗
Sir John Soane's Museum	NDPB	✓
South East England Development Agency	Regional Development Agency	✓
South West Regional Development Agency	Regional Development Agency	✓
Sport England	NDPB	✓

Organisation	Type of body	Response received
Student Loans Company	NDPB	✓
Tate Gallery	NDPB	✗
Teacher Training Agency	NDPB	✓
The Crown Estate	Non-ministerial Department	✓
Traffic Director for London	NDPB	✓
Treasury Solicitor's Department	Executive Agency	✓
UK Atomic Energy Authority	NDPB	✗
UK Debt Management Office	Executive Agency	✓
UK Passport Agency	Executive Agency	✓
UK Register of Organic Food Standards	NDPB	✓
UK Sport Council	NDPB	✓
UK Transplant Support Service Authority	NDPB	✓
Valuation Office Agency	Executive Agency	✓
Vehicle Certification Agency	Executive Agency	✓
Vehicle Inspectorate	Executive Agency	✓
Veterinary Laboratories Agency	Executive Agency	✓
Veterinary Medicines Directorate	Executive Agency	✓
Victoria and Albert Museum	NDPB	✓
Wallace Collection	NDPB	✗
War Pensions Agency	Executive Agency	✓
Waste Standards Board of the Vintners' Company	NDPB	✗
Westminster Foundation for Democracy	NDPB	✓
Wilton Park	NDPB	✓
Yorkshire Forward	Regional Development Agency	✓

Appendix 3

Internal control – Guidance for Directors on the Combined Code. The Institute of Chartered Accountants in England and Wales (Appendix on assessing the effectiveness of the company's risk and control processes)



Some questions which the board may wish to consider and discuss with management when regularly reviewing reports on internal control and carrying out its annual assessment are set out below. The questions are not intended to be exhaustive and will need to be tailored to the particular circumstances of the company.

This Appendix should be read in conjunction with the Turnbull guidance on Internal Control, which can be viewed at www.icaew.co.uk/internalcontrol/.

1. Risk assessment

- Does the company have clear objectives and have they been communicated so as to provide effective direction to employees on risk assessment and control issues? For example, do objectives and related plans include measurable performance targets and indicators?

- Are the significant internal and external operational, financial compliance and other risks identified and assessed on an ongoing basis? (Significant risks may, for example, include those related to market, credit, liquidity, technological, legal, health, safety and environmental, reputation, and business probity issues).

- Is there a clear understanding by management and others within the company of what risks are acceptable to the board?

2. Control environment and control activities

- Does the board have clear strategies for dealing with the significant risks that have been identified? Is there a policy on how to manage these risks?

- Do the company's culture, code of conduct, human resource policies and performance reward systems support the business objectives and risk management and internal control system?

- Does senior management demonstrate, through its actions as well as its policies, the necessary commitment to competence, integrity and fostering a climate of trust within the company?

- Are authority, responsibility and accountability defined clearly such that decisions are made and actions taken by the appropriate people? Are the decisions and actions of different parts of the company appropriately co-ordinated?

- Does the company communicate to its employees what is expected of them and the scope of their freedom to act? This may apply to areas such as customer relations; service levels for both internal and outsourced activities; health, safety and environmental protection; security of tangible and intangible assets; business continuity issues; expenditure matters; accounting; and financial and other reporting.

- Do people in the company (and in its providers of outsourced services) have the knowledge, skills and tools to support the achievement of the company's objectives and to manage effectively risks to their achievement?

- How are processes/controls adjusted to reflect new or changing risks, or operational deficiencies?

3. Information and communication

- Do management and the board receive timely, relevant and reliable reports on progress against business objectives and the related risks that provide them with the information, from inside and outside the company, needed for decision-making and management review purposes? This could include performance reports and indicators of change, together with qualitative information such as on customer satisfaction, employee attitudes etc.

- Are information needs and related information systems reassessed as objective and related risks change or as reporting deficiencies are identified?

- Are periodic reporting procedures, including half-yearly and annual reporting, effective in communicating a balanced and understandable account of the company's position and prospects?

- Are there established channels of communication for individuals to report suspected breaches of laws or regulations or other improprieties?

4. Monitoring

- Are there ongoing processes embedded within the company's overall business operations, and addressed by senior management, which monitor the effective application of the policies, processes and activities related to internal control and risk management? (Such processes may include control self-assessment, confirmation by personnel of compliance with policies and codes of conduct, internal audit reviews or other management reviews.)

- Do these processes monitor the company's ability to re-evaluate risks and adjust controls effectively in response to changes in its objectives, its business, and its external environment?

- Are there effective follow-up procedures to ensure that appropriate change or action occurs in response to changes in risk and control assessments?

- Is there appropriate communication to the board (or board committees) on the effectiveness of the ongoing monitoring processes on risk and control matters? This should include reporting any significant failings or weaknesses on a timely basis.

- Are there specific arrangements for management monitoring and reporting to the board on risk and control mattes of particular importance? These could include, for example, actual or suspected fraud and other illegal or irregular acts, or matters that could adversely affect the company's reputation or financial position?

Appendix 4

Recent Government reports and initiatives emphasising the importance of risk management

1 A number of government reports and initiatives have highlighted the importance of risk management:

- A report by the **Cabinet Office – Professional Policy Making for the Twenty First Century** – in September 1999 recognised that being innovative usually involved taking risks and emphasised that effective policy making should encompass the identification, assessment and management of risk. The report found, however, limited evidence that risks were being identified by departments or managed.

- **Wiring it Up – Management of Cross Cutting Issues** by the Cabinet Office's Performance and Innovation Unit published in January 2000 found that cross cutting policies and programmes which are the responsibility of more than one department frequently have a complex set of risks such as some citizens being excluded where responsibility for different aspects of service delivery falls between two departments. The report emphasised the importance of departments using the most appropriate tools to assess and manage these risks.

- In February 2000 the Treasury published their consultation draft **Management of Risk – A Strategic Overview** which encourages departments to develop strategic risk assessments related to their organisational objectives which cascade through all levels of a department. The report emphasises the benefits of this in that priorities can be systematically assessed to allow the ownership of risk to be assigned at a senior level and objectives at all levels can be related to a department's overall priorities.

- Between March and June 2000 the Cabinet Office's Centre for Management and Policy Studies held three **Seminars for Ministers and senior civil servants** on risk, policy development and public service delivery; risk and the corporate governance role of Ministers and senior officials involved in managing large scale IT projects; and integrating communication into risk strategies.

Appendix 5

The Private Sector Experiences

Associated British Ports Holding PLC experience of risk management shows senior management's role in identifying and prioritising key risks.

Why is risk management important?

1. The Turnbull report and the requirements under corporate governance have been the main drivers in raising the profile of risk management within ABP. Essentially this meant formalising a lot of what had already been done informally or as part of normal business management. Given the importance to ABP's core business of health and safety issues for those working in ports and the high profile of marine safety and environmental issues much of the main focus of ABP's approach is risk neutral. The culture of ABP is more risk averse than risk taking except in some of the more commercial ventures. ABP when considering business risk use the 20/80 rule (the risks inherent in having 20 per cent of customers providing 80 per cent of the business).

How is risk management being developed?

2. Meetings of senior managers brainstorm to identify the key risks facing the business and chart these in terms of likelihood and severity of impact (low, medium and high) to construct a risk profile for the organisation. This profile is tested against other groups within and outside ABP. As a result health and safety risks were given a higher profile. ABP have set up a formal process and procedures for reporting and monitoring action against the key risks including:

- Confirming with operating units that the risks are set at the appropriate level for their area of business – for example the level of financial loss to a smaller port operator will be lower than that for the larger ports.

- Regular monthly reporting from divisional heads on the action taken on the key risks providing the Board with an early warning system.

- In addition key functional areas such as marine safety, health and safety report annually risks which cut across business activities

- ABP's internal audit review the monitoring and reporting system to assess its effectiveness and report to the Audit Committee which in turn reports to the Board.

What are the advantages of effective risk management?

3. The advantages of risk management include:

- Tightening up of corporate governance which is good for the investor, the business and customers.
- Enables management and staff at all levels to communicate about the risks to the business using a common language.
- It does cost money to implement but like insurance unless something negative happens, you don't see the benefits.
- The success or otherwise of the system is dependent upon the culture in the organisation. While business continuity plans and disaster recovery are embedded in ports, contingency plans are in place to tackle major incidents but the success largely depends on getting the right people. This means training them in managing a crisis and communicating with customers.

What are the lessons for effective risk management?

- Risk management is part of ongoing management process.
- Senior management brainstorm to identify key risks.
- Regular reports on risks provide early warning system.
- Effective management of risks requires communication and a supportive culture.
- Business continuity planning important to mitigate impact of risks.

Glaxo Wellcome's approach shows how risk management is integrated into existing quality assurance and control mechanisms.

GlaxoWellcome

Why is risk management important?

1. Risk management is central to the science-based business. The pharmaceutical industry is highly regulated and operates multinationally. Clinical trials and quality control assurance are part and parcel of the core activities of the business to provide assurance about the quality of medical products to patients and healthcare providers and to limit the cost of insurance against possible litigation in the United Kingdom and worldwide. Losing a major licence to sell a product would put the company at risk. Risks also arise from health, safety, and environmental and ethical issues.

How is risk management being developed?

2. The company reviews and updates its assessment of the risks affecting the business and the policies and procedures by which these risks are managed in response to the extended requirements of 'Principles of Good Governance and Code of Best Practice' (the Combined Code) issued by the London Stock Exchange in 1998 for the guidance of listed companies.

3. The responsibilities of the Group have been reinforced, and internal reporting procedures converted from exception reporting to a process of positive confirmation. The assessment of Group risks is now reviewed and updated annually. At the operating level companies are required to undertake risk assessment and mapping and ensure adequate risk control measures are in place to manage the identified risks. Compliance Boards have been established in the main Group functions and at the major subsidiaries, and review reports from independent compliance teams. Risk management within Glaxo Wellcome includes:

- A Policy Manual outlining all relevant compliance and corporate risk policies within the organisation;
- Self-assessment and sign-off procedures for Group companies to report on policy compliance;
- On-site audit and monitoring of policy compliance by central function (including product quality, manufacturing standards, environmental care, health and safety, insurable risk and financial practice);
- Major Group functions reporting regularly on risks and how they are managed to Internal Audit, with upward reporting to both the Executive Committee and the Audit Committee which in turn reports to the Board. The Audit Committee reviews the key risks inherent in the business. The company has identified 14 major risks, which include IT compliance.

What are the advantages of effective risk management?

4. Some of the benefits of risk management are protection and improvement of the business and better allocation of resources. For example, risk assessment techniques identified that 15 production sites were key as they were associated with major revenue streams. These were then targeted to receive increased fire and loss protection systems.

5. Risk assessment techniques are also used when addressing health, safety and environment issues so that corporate targets on for example lost time accidents are achieved. Risk is also an important factor when outsourcing, working with others or procuring goods and services as poor risk management by third parties can put the organisation's reputation and business at risk, for example any suppliers providing raw materials or components for medicines have to be carefully monitored as this is a tightly regulated business.

6. The business and risk priorities also take account of global issues. This can provide opportunities for innovation and new products, for example, Glaxo Wellcome has had a 10 year programme in place to develop alternatives to, and phase out ozone depleting chlorofluorocarbon (CFC) propellants in metered dose inhalers (MDI) used by asthma sufferers. To date Glaxo Wellcome non-CFC MDIs have been launched in over 20 countries including the UK.

What are the lessons for effective risk management?

- Concentration on management of key risks.
- Use of other systems to support risk management such as quality control.
- Importance of assessing risks posed by suppliers.
- Risk response provides opportunities for innovation.

Allied Domecq PLC is integrating risk management into the Company's existing reporting processes across its diverse range of businesses.

ALLIED DOMECQ

Why is risk management important?

1. Allied Domecq has changed over the years, combining several well-known brands in the spirits and wine and quick service restaurant sectors. The aim is to develop a business risk framework that provides commercial advantage without unnecessary bureaucracy. This framework seeks to further integrate functions and business units to take advantage of the Company's size and brand strength. Embedding risk management is part of the corporate glue which gives the Executive and Board an overall picture of the top risks and opportunities facing the business, in order to lend a competitive edge.

How is risk management being developed?

2. Clear leadership from the Board had been set out to embrace a risk management culture. The first step was agreeing a risk management action plan at board level, which set out "deliverables" expected from improved business risk management:

- A Board desire for an overall view of the top risks faced, through a top-down and bottom-up assessment of the risks facing the business on a countrywide basis.

- Use of structured risk management by managers to add value to their business, using established business objectives as the starting place.

- Identifying in which markets risks are not being taken but where there might be opportunities missed.

- Identification of operational and financial savings through more effective and efficient risk management.

3. A project risk manager has rolled out the initiative across the organisation, with two Board-level executives sponsoring the project. Communication of the process starts at the top, and is cascaded through the organisation with few, strong messages. Key elements of the strategy include the establishment of a senior-level risk committee, numerous facilitated risk workshops at the business unit and executive levels, an annual company-wide self assessment process, and reporting/monitoring that is integrated within the regular Company reporting process.

4. One-day business risk workshops provide a forum to identify risks to achievement of stated business objectives, with a facilitated consensus of key risks facing the business. Initial action plans are also brainstormed during the session, providing the business with a head start in developing robust actions designed to mitigate risks. Another key element in the embedding of risk management in the business is the appointment of a "Business Risk Champion" within each business and at the regional level, responsible for driving the process forward.

5. Through the workshop and self-assessment process, top-level risks are identified and are ultimately discussed at Executive and Board levels.

What are the advantages of effective risk management?

6. Allied Domecq is a large organisation made up of many different businesses that deliver a range of products in different markets. Board members recognize that responsibility and accountability go hand in hand, and so have an incentive to keep abreast and be aware of the key risks in their parts of the business. The advantages of embedding risk management include:

- Risk management responsibility and accountability is accepted by all levels of management.
- Risk is managed in an integrated, enterprise-wide fashion, and also considers risk as an opportunity.
- Quantification and likelihood of risks, with transparency of critical risks at Board level.

What are the lessons for effective risk management?

- Importance of communicating and cascading Board requirements for risk reporting.
- Demonstration of how risk management adds value without adding bureaucracy. This mandates the involvement of the business units during development and implementation to ensure relevancy.
- Integration of risk identification and monitoring into the Company's regular reporting process.

Nomura International plc shows how the private sector adopt a portfolio approach to managing risks.

Why is risk management important?

1. Risk processes are embedded in Nomura's business. At the trading desk, traders are paid according to risk adjusted returns made on their capital, based on profit and loss earnings. It is essential to get rid of blame culture, from the highest level down and report bad news (Bill Gates' maxim: "Don't bring me good news, only bad news"). A historic problem for Nomura and the financial industry as a whole has been one of inadequate controls, rather than over-control.

How is risk management being developed?

2. Nomura uses a matrix approach to management. The organisation is arranged along product and geographical lines. The risk manager reports to the Chief Executive Officer (CEO) and also sits in the capital allocation committee (Risk Manager, CEO and one other), which routinely reviews each month as a standard item the main risks the business is facing. The capital allocation committee scrutinises any departures from the accepted risk profile of Nomura, and new or high 'specific risks' are scrutinised carefully before capital is allocated.

3. Internal audit has an active role, in particular in assessment of operational risk, and has sponsored debate into development of operational risk methods. Internal audit remains outside the process of managing risk.

4. The role of the Risk Manager is to avoid concentrations of risk and maximise the benefits of diversification.

5. Nomura uses a portfolio approach to different types of risk. Key to this is feedback from the different businesses (traders) about what was acceptable to them in terms of capital allocations. Nomura look beyond what the regulators require and use what is useful to the business.

6. Different players have different incentives and rewards, for example managers and traders. At times managers encourage their traders to take more market risks (as managers only benefit from transactions above certain earnings thresholds), and this has a possible perverse impact on overall business risk (i.e. traders being encouraged by their managers to take more risk than the organisation would wish). Portfolio risks behave differently to individual risks. Individual teams are unlikely to have sufficient overview of the overall portfolio, even though they are well aware of individual risk they are taking. A broad understanding of the concepts which guide traders (internal rates of return, opportunity cost, probability and volatility) as part of the corporate culture creates a better chance of risk being managed effectively.

What are the advantages of effective risk management?

7. Nomura is a number of small businesses (traders) working side by side. This enables lots of diversification – the key is getting this to work together as a coherent whole. To promote an effective culture of risk awareness and management in Nomura the following were important – a culture of transparency, a known 'profit and loss' of each trader; and management information systems on risks for example daily reports on profit and loss, movements in risk capital and balance sheet information such as how much unsecured funding.

What are the lessons for effective risk management?

- Use of portfolio approach to risk.
- Importance of management information on risks.
- Incentives to encourage well thought through risk taking.
- Transparency of risks across the organisation.

Prudential plc's experience shows how developing a risk framework for managing risks builds on risk management already undertaken across the business.

PRUDENTIAL

Why is risk management important?

1. For a business of Prudential's size and complexity, a common language and approach is needed to ensure they can manage risk most effectively. A risk framework helps Prudential to maximise value and satisfy corporate governance requirements. Successful businesses actively anticipate and manage risk, seizing opportunities and managing potential hazards. Risks change constantly, in the rapidly evolving financial services industry. Therefore the identification and management of risk cannot be a static process but must be constantly reviewed using a framework ensuring that all risks (including potential "blind spots") are rapidly identified. There are increased external pressures to demonstrate significantly enhanced risk management from regulators, rating agencies and the investment community. Specifically, UK corporate governance and financial service regulators are moving towards group wide risk management.

How is risk management being developed?

2. The process of risk identification and management is now more explicit and visible in Prudential, building on existing processes and culture. A risk framework has being developed, and this is being adopted across the Group (see below). Prudential are holding workshops with each business unit to produce risk profiles and 'opportunity for improvement' action plans. The plans will include the steps required to meet standards set by the Risk Framework and address highest priority risks.

Extract from Prudential's Risk Framework

Policy

3. Prudential's policy is to proactively identify, understand and manage the risks inherent in their business and strategies as an essential element of maximising shareholder value. Prudential are holding workshops with each business unit.

4. Risk management is a front line activity. Business units are responsible for the risks they take and their management, including the establishment of a suitable organisation structure, clear delegation of responsibility and embedding risk management into management processes.

5. The primary role of Group Head Office (GHO) is to set policies and minimum standards to support and enhance risk management (including internal control), to encourage risk taking that adds value and to monitor the Group's risk profile.

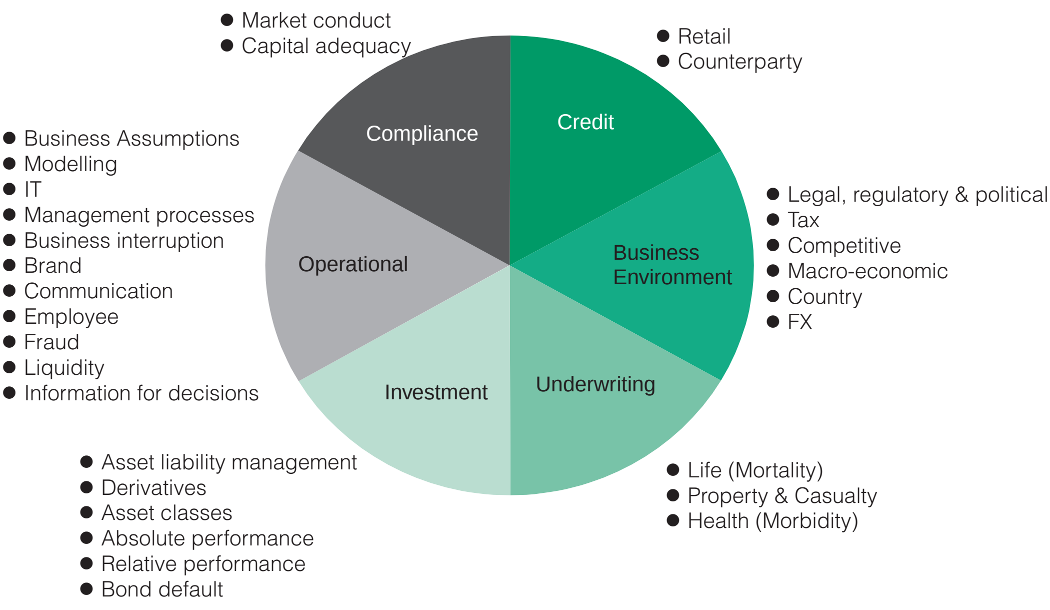
Risk Identification includes:

- Management ensuring there are processes in place to identify risks arising from ongoing business and strategic initiatives (e.g. new products).

- The Group Risk Map (below) provides a definition of the universe of risk facing the Group, can assist in systematic identification of risks and forms the basis for risk reporting.

- Risk Owners will be delegated responsibility for management of risks according to the Risk Management Cycle (below)

Group Risk Map



Risk quantification focuses primarily on shareholder value impact and the likelihood of occurrence. It includes:

- Various techniques to quantify risk, in some cases quantification will be subjective or qualitative.

- Risk Profiles providing information on the size and likelihood of risks and used as the basis for risk reporting to business unit management and GHO.

Risk Evaluation

Management will assess the value potential of material risks to ensure financial returns are commensurate with the risk.

Risk Solutions

Alternative solutions for managing risks will be considered including acceptance, rejection, mitigation and transfer. Also:

- Standards, limits and performance measures will be established for the management of material risks.

Risk Monitoring and Reporting includes:

- Monitoring of indicators will be regularly monitored to ensure risks are managed according to required standards and limits.
- Business unit Risk Profiles and Action Plans will be reported on a regular basis to local executive management.
- Management will at least annually review the quality and effectiveness of the systems of risk management and internal control.

Risk Management Cycle

Responsibilities and accountabilities are set out for example:

Prudential Board

- Reviews group-level Risk Profile.
- Reviews and forms a view on the effectiveness of risk management and internal control.
- Approves the annual statement in relation to risk management and internal control.

Group Chief Executive

- Ensures appropriate management of business risks.
- Agrees business unit risk solutions for material risks.
- Reports Group-level Risk Profile to the Board.

Business Unit Managing Director

- Responsible and accountable for the risks faced and their management, including understanding their impact on strategy, performance, capital adequacy and liquidity.
- Reviews and monitors business unit Risk Profile and ongoing management on a regular basis.
- Establishes the risk management organisation structure, including relationship between any relevant management committees (e.g. Executive, Risk, Audit Committees).
- Reports material risks to GHO.

Head of Internal Audit

- Reviews application of the Risk Framework and assesses business unit risk management.
- Uses Risk Profiles to assist in planning the internal audit programme.

Group Treasurer

- Co-ordinates risk reporting to GHO.
- Monitors developments in risk management updating policies, standards and methodologies as appropriate.
- Provides support and advice to business units.

What are the advantages of effective risk management?

6. By helping to embed good risk management into the business processes and culture across the Group, the Group Risk Framework ensures business imperatives and compliance requirements (particularly Turnbull) are met. Good risk management will over time lead to better strategic decisions, risk taking that adds value and fewer losses. Through implementing the Group Risk Framework Prudential plc have been able to reinforce the view that risk management is not about control and reducing risk but about understanding the risks being taken and ensuring they are being managed to maximise value.

What are the lessons for effective risk management?

- The Risk Workshops used to introduce the Group Risk Framework can be a very effective way for management teams to ensure they have considered all risk through brainstorming and to ensure there is a common understanding of the key issues facing their business.
- While introducing a risk framework can be a powerful trigger for improving risk management, it should not overlook how much good risk management is already undertaken across the business.
- Good risk management must be led from the top and clearly delegated throughout a business – risk co-ordinators is a better term than risk managers for describing those who help ensure good risk management is embedded and support managers in their work.

Reuters Limited experience shows how the management of risk should be closely linked to the achievement of company objectives.

REUTERS

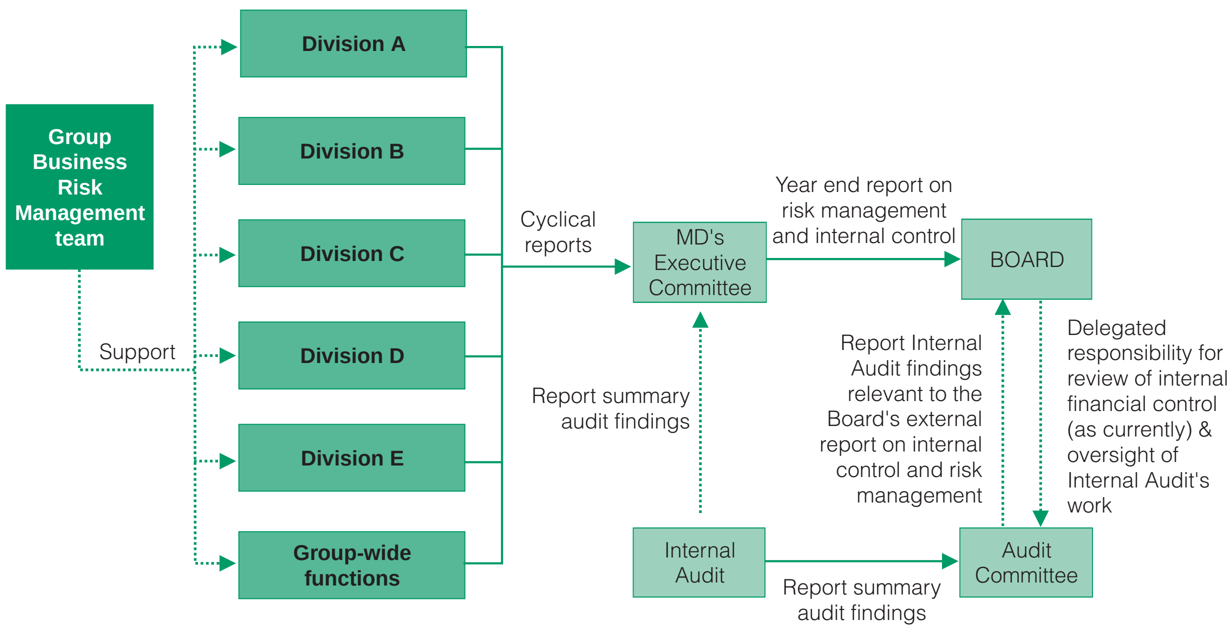
Why is risk management important?

1. Turnbull requires a statement on internal control mechanisms and Reuters Limited include a statement in their annual report but they recognise that risk management is not just an annual reporting exercise. Reuters consider risk management should ideally be embedded as part of the job – periodically reviewing risks is management practice. The risk management framework makes explicit what has usually been done implicitly to manage risks. It also provide a forum to look at Group wide risks (e.g. use of web-based technology, Reuters have a £300M investment programme in e-commerce).

How is risk management being developed?

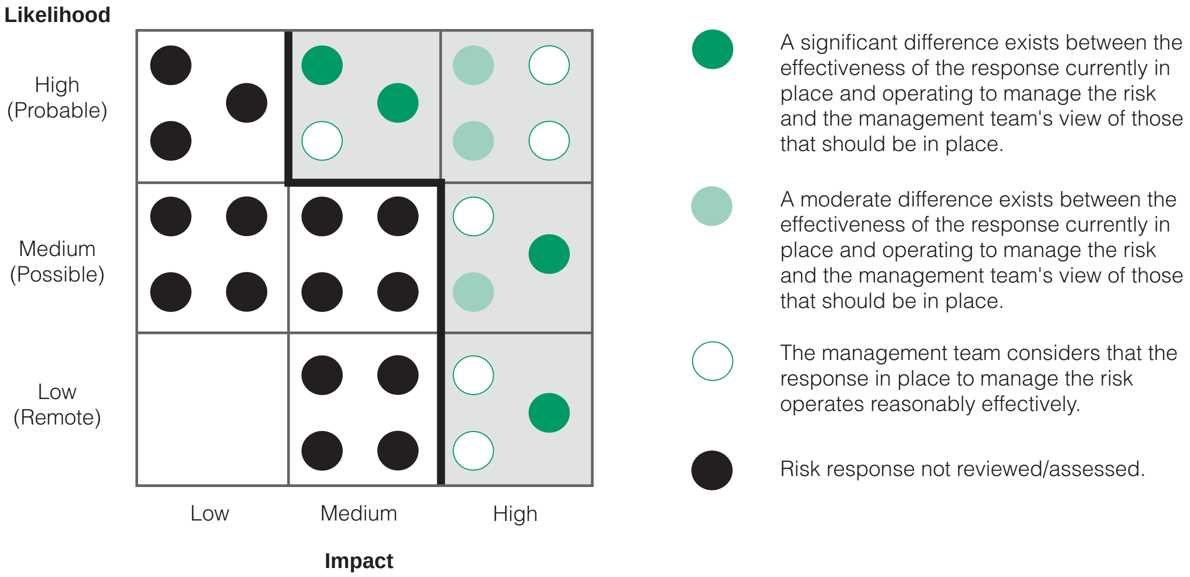
2. The management of risks is in the hands of operational management who periodically report to senior management on the risks faced by each division. It is not a function of Internal Audit or the Audit Committee. The process is owned by management. Management committees in each main division of Reuters periodically report on risks to the Group Executive Committee (GEX) which takes a wider view of risk faced by Reuters to the achievement of business objectives.

Reuters: business risk management organisation structure



3. The Group Business Risk Management team has facilitated workshops with divisions to identify and prioritise risk and also to get management buy-in to the process. The Risks are considered in terms of 'business impact' and 'likelihood'. This enables the high risks to be identified and managed. The workshops are followed by interviews with management to establish ownership and responsibilities for managing specific risks so that regular reports on action taken can be produced.

Reuters: an example of a business risk profile



What are the advantages of effective risk management?

4. Reuters have developed a simple database of risks to record and monitor current status (red, amber and green), who is responsible, and action taken. The identified risks are also grouped and mapped out in terms of strategic, operational and financial risks so that all the key risks faced by the Group can be seen at a glance. Reuters have also managed to filter the identified risks down to ten key risks.

Reuters: an example of a risk database

Risk and primary responsible manager	**16. Recruitment/retention of suitably skilled staff (Person responsible)**
Risk definition and business impact	**The risk that we do not recruit, develop and retain sufficient skills to enable us to meet existing and emerging market place needs.** This could be due to the relative competitiveness of reward structures, an ineffective recruitment process with limited focus on the future, the loss of staff to competitors (including internet 'start ups') and poor staff motivation. **Financial impact** (MEDIUM); **Reputation impact** (MEDIUM)
Current risk management and monitoring	1. An annual exercise is conducted to measure staff turnover by country and assess demographic trends. 2. A leadership capability review is conducted annually to assess company wide leadership capabilities and shortfalls. 3. An extensive company wide training programme exists to address leadership skills enhancement and product and content knowledge requirements of staff. 4. The corporate HR and remuneration committee continues to keep remuneration plans under review.
Possible improvement actions	1. Being developed

What are the lessons for effective risk management?

- Get senior management rather than Internal Audit to sponsor and monitor implementation of risk management.
- Ensure the documentary evidence does not become an administrative burden and is relevant to the management needs.
- A lot of the process for managing risks is already in place, the benefit comes from continued improvement, better focus on key risks (releasing resources from lower risk areas which appear over controlled).
- Importance of effective reporting mechanism for key risks.
- Use of a business risk profile to identify key risks.
- Use of workshops to get management buy-in and establish ownership.

Appendix 6

Examples of technical approaches to risk management

Risk Management tools and techniques

Method	1. Expected Monetary Value	2. Statistical sums	3. Visual Interactive Simulation	4. Monte Carlo	5. Decision Trees	6. Risk index model	7. Grids	8. Fault trees	9. Critical path analysis
Circumstances used	Expected profit or loss	Calculate range of total costs from cost estimates	To identify optimal solutions	Financial modelling; investigating sensitivity of risk models	Decisions anlaysis	To judge probability and impact of something happening	Relates hazards and potential victims to identify priority actions	Disaster event analysis	Optimise complex activities
Type of data needed	Probability of event and Risk Event Value	Probability of event and Expected Value	Probabilities Timings and Distributions	Interest rates etc	Probability of event and Expected Value	Any relevant data	None	None	Time and Cost data
Skills needed	Mathematical and Statistics	Statistics	Computer package and Statistics	Spreadsheet Monte Carlo model	Statistics	Simple modelling	-	-	-
Examples of use	Budget decisions	Quantify risk of alternative budgets	Hospital queue for beds	Cash flow predictions	Choice of investment	Likelihood of risk occurring	Stakeholder risk analysis	Technical risk analysis	Building hospital
Advantages	Simple Easy to use	Simple	Powerful Detailed Robust	Stochastic Realistic	Single number answer	Qualitative method of judging risk	Identifies risks	Strong method to identify risk	Overview of whole project
Dis-advantages	Too basic. Probabilities have to be known and investigated	Too basic. Probabilities have to be known and investigated	Could be used for wrong purpose	Programming knowledge needed	May over-simplify problem	Could over simplify risk or could produce incorrect results	No probability of risk occurring involved	No probability of risk occurring involved	Input to CPA could easily be wrong

Notes on techniques:

1. Expected monetary value

Expected monetary value as a tool for risk quantification, is the product of two numbers:
'Risk event probability' – an estimate of the probability that a given risk event will occur, and
'Risk event value' – an estimate of the gain or loss that will be incurred if the risk event does occur.

Often used as input for further analysis, e.g. decision tree analysis, since risk events can occur individually, in groups, in parallel or in sequence.

2. Statistical sums

Statistical sums can be used to calculate a range of total project costs from the cost estimates for individual work items. The range of total project costs can be used to quantify the relative risk of alternative project budgets or proposals. This is essentially a sensitivity analysis.

3. Visual Interactive Simulation

This is a method that enables the user to see on a computer how a system or process operates under different conditions to judge the risk of a certain event happening.

4. Monte Carlo

Monte Carlo simulation involves running a model many times on a computer so that overall risk can be judged. For example, a cash flow, which includes probability distributions for items such as interest rate and exchange rate, can produce a probability distribution for its expected profit in ten years time.

5. Decision Trees

A decision tree is a diagram that depicts key interactions among decisions and associated chance events as they are understood by the decision-maker. The branches of the tree represent either decisions or chance events.

6. Risk index model

This enables the likelihood of a risk occurring to be assessed. For example, in the instance of finding the risk of cancer, this model would ask the user to answer a number of questions. Each question is prioritised in a grid and the answers therefore carry different weights. The results of the grid are then summed and a risk number or rating (e.g. above average) is produced.

7. Grids

A simple method of identifying risk is a grid of hazards and potential victims of them. A matrix showing hazards on one axis and those potentially at risk on the other identifies through its intersections the areas to be examined.

8. Fault trees

A fault tree is a diagrammatic representation of all the ways an event could happen. The process is usually described in a flow chart and a tree is then produced to identify the likely causes quickly and accurately.

9. Critical path analysis

This system is used to optimise the time required for a specific task that is made up of many smaller tasks, for example the building of a hospital. This task can be divided into elements such as recruitment and IT systems implementation. If the cost and time for each element are known then a critical path analysis can be drawn up (for example as in project management). The time and cost can often be found using expert knowledge judgement.

Glossary

Business planning	A tool which assists departments to move towards achievement of their objectives - components include setting and reviewing objectives, target setting and monitoring, performance measurement and review.
Compliance risk	The risk of failing to meet government standards, laws and regulations.
Contingency plan	Arrangements in place to minimise the impact of something going wrong or the unexpected happening to maintain standards of service to the public and the delivery of programmes.
Control	Any action, procedure or process undertaken to either contain a risk to an acceptable level of potential or to increase the probability of a desired outcome.
Early warning indicators	Key data, indicators and other management information which can alert senior management to changing risks and their potential impact so that action can be taken.
Financial risk	The risk of financial loss or impropriety.
Impact	The effect or result of a particular outcome actually happening (and evaluated as such).
Innovation	Something new which may lead to better services, achievement of objectives and improved value for money.
Internal Control	An organisation's ongoing processes for identifying and managing all significant risks to achievement of objectives and review of the effectiveness of the systems of control for financial reporting and accountability.
Opportunity risk	The risk of missing chances to improve on achievement of objectives or delivery of services.
Portfolio of risk	A programme which includes a range of both lower and higher risk projects and different types and degrees of risk, as a way of experimenting with different approaches, without the overall success of the programme being at risk.
Project risk	The risk of project failure, cost overrun or time delay.
Risk	Something happening that may have an impact on the achievement of objectives.

Risk Analysis	A tool used to record risks which enables them to be measured and prioritised.
Risk assessment	The process and approach used to prioritise and determine the likelihood of risks occurring and their potential impact on the achievement of objectives.
Risk frameworks	A statement on the procedures and processes used for reaching decisions on the risks which departments are responsible for. These should be unique to each department and form a comprehensive overview of how a department approaches the specific types of risks which they might face in ensuring the achievement of their objectives and delivering services to the public.
Risk identification	The process for finding and specifying the key risks which face a department in terms of achievement of its objectives.
Risk management	Risk management means having in place a corporate and systematic process for evaluating and addressing the impact of risks in a cost effective way and having staff with the appropriate skills to identify and assess the potential for risks to arise.
Risk profiles	An overview of the key risks facing a department, usually presented in terms of high/low impact and probability or likelihood of the risks maturing.
Sensitivity analysis	A tool used to assess impact of changes in individual risks on key objectives or projects.
Technical risk	The failure to keep pace with technical developments, investment in inappropriate or mismatched technology and the failure of the technology itself.

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