RISKS AND REGULATION IN EUROPEAN ASSET MANAGEMENT: IS THERE A ROLE FOR CAPITAL REQUIREMENTS?

A Report by

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This report is an independent research project commissioned by the European Asset Management Association. The report has been written by Professors Julian Franks and Colin Mayer, and Oxford Economic Research Associates Ltd (OXERA).[1]

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Abbreviations

AEX	Amsterdam Exchanges Index
AFG-ASFFI	Association Française de la Gestion Financière
AUTIF	Association of Unit Trusts and Investment Funds
Bakred	Bundesaufsichtsamt für das Kreditwesen
BAV	Bundesaufsichtsamt für das Versicherungswesen
Bte	Besluit toezicht effectenverkeer
BVI	Bundesverband Deutscher Investment Gesellschaften
CAC40	Compagnie des Agents de Change 40 index
COB	Commission des Opérations de Bourse
Consob	Commissione Nazionale per la Società e la Borsa
CNMV	Comisión Nacional del Mercado de Valores
CR	concentration ratio
DAX	Deutscher Aktienindex
DGSFP	Dirección General de Seguros y Fondos de Pensiones
EAMA	European Asset Management Association
EdW	Entschädigungseinrichtung der Wertpapierhandelsunternehmen
FEFSI	Fédération Européenne des Fonds et Sociétés D'Investissement
FMA	Fund Managers' Association
FSA	Financial Services Authority
FTSE 100	Financial Times Stock Exchange 100 Index
IAIM	Irish Association of Investment Managers
ICI	Investment Company Institute
IIC	Instituciones de Inversión Colectiva
IMRO	Investment Management Regulatory Organisation
Inverco	Asociación de Instituciones de Inversión Colectiva y Fondos de Pensiones
ISA	investment savings account
ISEQ	Irish Stock Exchange Equity Overall Index
KAGG	Gesetz über Kapitalanlagegesellschaften
KWG	Kreditwesengesetz
MFI	monetary financial institution
MGAM	Morgan Grenfell Asset Management Ltd
MGIFM	MG International Fund Management
MGUTM	MG Unit Trust Managers
MIBTEL	Milano Italia Borsa
NASDAQ	National Association of Securities Dealers Automated Quotation System
OECD	Organization for Economic Cooperation and Development
ONS	Office of National Statistics
OPCVM	organismes de placement collectif en valeurs mobilière
OPEX	operating expenditure
OXERA	Oxford Economic Research Associates Ltd
RP	repurchase agreement
SEC	Securities and Exchange Commission
SICAV (France)	société d'investissement à capital variable
SICAV (Italy)	società di investimento a capitale varabile
SRO	self-regulating organisation
STE	Stichting Toezicht Effectenverkeer
UCITS	undertaking for collective investment in transferable securities
VAG	Versicherungsaufsichtsgesetz
Wte	Wet toezicht effectenverkeer

1. Introduction

1.1 Background

In 1989, Professors Julian Franks and Colin Mayer completed a report for the Investment Management Regulatory Organisation (IMRO) on the regulation of the UK investment management industry. That report was published as a book by Oxford University Press.[2]

In April 2000, the European Asset Management Association (EAMA) commissioned Professors Franks and Mayer and Oxford Economic Research Associates Ltd (OXERA) to extend their 1989 study to an analysis of the European asset management business. The objectives of the study were as follows.

- To determine the risks inherent in asset management businesses throughout Europe insofar as they affect:
  - the owners;
  - the employees;
  - the clients of the business;
  - other parties with which the businesses have a relationship; and
  - the financial system.
- To determine the extent to which legally imposed capital requirements ('regulatory capital') are capable of eliminating or mitigating these risks.

This report summarises the results of that study.

1.2 Asset management

Asset management is a major industry. In 1999, global assets under management amounted to €33 trillion.[3] Asset managers provide services to individuals, governments, public agencies, banks, pension funds, insurance companies and charities, to name a few. They are the interface between investors, on the one hand, and financial markets and companies, on the other. As securities markets, insurance companies and funded pension schemes grow in significance relative to deposit taking and bank lending, asset management will play an increasingly important role in economic activity around the world.

Traditionally, asset management has been primarily associated with the 'stock market' economies of the UK and USA. It has been much less significant in Continental Europe, the Far East and other 'bank-dependent' countries, where savings have been primarily through deposits and debt instruments, in particular pay-as-you-go pension schemes. However, as this report documents, it is not just in the UK and the USA that there has been a substantial growth in assets under management. Some of the most spectacular growth in activity has occurred in Continental Europe.

[2] Franks, J. and Mayer, C. (1989), *Risk, Regulation and Investor Protection: The Case of Investment Management*, Oxford: Oxford University Press.
[3] British Invisibles (2000), 'Fund Management', City Business Series 2000, Statistical Update.

This has presented opportunities and challenges. New forms of financial instruments and institutions have emerged in countries that have traditionally relied on debt and non-market forms of intermediation. Competition has intensified, and entry has occurred both within and across national markets. However, this growth has been accompanied by potential problems: while investors enjoy a wider range of products and services, they face more complex instruments and transactions. Therefore, the potential for failures, such as misdealing and fraud, may have increased.

The natural response is to strengthen regulation. Regulation is critical to the successful operation of financial markets. Without it, ill-informed investors may face unwarranted risks from those asset managers who are incompetent and dishonest. In the absence of adequate regulation, they will choose either not to invest, or to transfer their investments to financial centres that offer stronger protection. However, regulation can also undermine financial markets by imposing excessive costs on firms and investors, and potentially driving them elsewhere. There is therefore a fine balance to be struck between inadequate and excessive regulation of asset managers.

This is particularly complicated in the context of European capital markets. As noted above, European countries have traditionally had very different financial systems. As is documented in this report, this is reflected in the structure and operation of their asset management businesses. Not surprisingly, this in turn is mirrored in different approaches to regulating asset managers. The starting point is, therefore, heterogeneous forms and regulations of asset managers. How should the European Commission respond to this diversity? Should it seek to create greater uniformity through the imposition of common regulatory rules? Is this necessary to diminish the fragmentation of European capital markets and to create a greater degree of financial integration?

The particular focus of this report is financial resource requirements. Capital requirements play a central role in the regulation of financial institutions. They are fundamental to the enhancement of financial stability and a basic requirement of deposit-taking institutions around the world. There is currently an active debate about the role that they should play in asset management, particularly in the European context. Are they relevant? If so, at what level should they be set and should they be equalised across member states?

A prerequisite to answering these questions is to understand the nature of the asset management business in different countries and the risks that it faces. A primary function of this study has been to do exactly that, with the aim of understanding:

- how the asset management business operates;
- how it is organised;
- the nature and size of risks in the business, who bears them and how they are financed; and
- what the alternative forms of investor protection are, together with their associated costs and benefits.

It is important to appreciate that this study is not concerned with investment risks that investors face on their portfolios. Instead, it is solely concerned with *operational risks*—ie, the risks that arise from the operations of the asset management business itself (eg, failures in the purchase, execution and reconciliation of transactions, and fraud). Furthermore, the report refers to the management activities of assets held through

collective investment schemes (mutual funds or UCITS) and reports one failure, in a collective investment scheme, that may have important implications for asset management in general. Its main focus is on the regulation of discretionary asset management under mandates. Collective investment schemes raise their own sets of issues that warrant a separate study.

Five forms of analysis were undertaken, as follows.

(i) *An evaluation of the nature and structure of the asset management businesses in Europe*. The report focuses on seven European countries—France, Germany, Ireland, Italy, the Netherlands, Spain and the UK—and contrasts these with the largest and most-developed asset management market in the world, namely that in the USA. A survey of most published data was undertaken and approximately 50 asset managers in seven different markets were interviewed about the nature of their businesses. In addition, interviews were conducted with insurers and custodians of assets in Europe and the USA.

(ii) *A survey of the regulation of asset management in the seven countries and the USA.* Relevant published sources of information were collected, and regulators in four countries were interviewed. An interview was also held with the European Commission.

(iii) *An assessment of the risks in the asset management business*. A pilot questionnaire was circulated to ten asset managers in different European countries. On the basis of this, the questionnaire was extensively revised and sent to 83 asset managers in seven countries (including Spain). Completed responses were received from 39 asset managers from six European countries. Total assets under management for the sample amounted to approximately €2.3 trillion domestically (or over €5 trillion globally). The results of this survey were treated with the strictest confidence.

(iv) This assessment of risks was supplemented by a *prominent case study of a failure in the unit trust asset management process.* All of the information on this case was obtained from publications of the relevant regulatory authority, complemented with interviews. The objective of the case study was to gain a better understanding of how investors can be safeguarded by different forms of investor protection.

(v) Finally, an *extensive review of the academic literature on the regulation of financial institutions and professional firms* was undertaken.

1.3 The report

For a summary of the report's main conclusions, see section 2.7 and Chapter 3.

The report is structured as follows.

- Chapter 2 summarises the conclusions of the analysis, including the costs and benefits of different forms of protection.
- Chapter 3 presents a summary of the research findings.
- Chapter 4 describes the activities of the asset management industry in the seven European countries and the USA.
- Chapter 5 contrasts the structure of the industry in the different countries.
- Chapter 6 summarises their regulatory frameworks; with further details provided in the appendices to the chapter.
- Chapter 7 reports the results of the questionnaire.
- Chapter 8 describes a case study of failure in the asset management process.
- Chapter 9 surveys the academic literature on the regulation of financial institutions and the professions.

A large number of individuals and institutions in financial centres around the world have assisted in the preparation of this report. First and foremost among these is EAMA and, in particular, the members of the Advisory Panel for this project. They have devoted an immense amount of time in commenting and advising on all aspects of the study. They provided detailed comments on a first version of this report that have been invaluable in its redrafting. Second, the regulatory authorities in four countries and the European Commission have provided invaluable guidance. Third, in addition to members of the Advisory Panel, other European associations have been interviewed at length, including the Fund Managers' Association (FMA), Association of Unit Trusts and Investment Funds (AUTIF), Irish Association of Investment Managers (IAIM), Asociación de Instituciones de Inversión Colectiva y Fondos de Pensiones (Inverco), Assogestioni, Association Française de la Gestion Financière (AFG-ASFFI), Investment Company Institute (ICI), and asset managers in France, Germany, Ireland, Italy, the Netherlands, the UK and the USA, as well as custodians and insurers. We are grateful to all of the above for the considerable assistance that they have provided in the completion of this report.

2. Policy Implications

This report provides a detailed analysis of the structure and regulation of asset management businesses in seven European countries and the USA. It evaluates the operational risks that asset management firms incur in running their businesses, and estimates the size of losses sustained by the industry from these operational risks in 1999.

This chapter assesses the appropriate response of regulators to the risks of the asset management business and the way in which regulation should be framed at the European level. Different forms of investor protection give rise to different costs and benefits, including their impact on entry and competition. A key result of this study is that:

- industry structures differ markedly across countries;
- there is a close relationship between industry structures and regulation in different countries; and
- attempts to harmonise regulation across countries must be sensitive to these institutional differences.

The chapter begins by setting out the goals of regulation in section 2.1, followed by a description of the institutional setting in section 2.2. Section 2.3 describes regulatory systems in the six European countries included in this study and the USA, and evaluates alternative responses to the risks of the asset management business. In sections 2.4 and 2.5, financial requirements and other responses are discussed. Section 2.6 evaluates the costs and benefits of the alternative forms of investor protection, and section 2.7 concludes the chapter.

2.1 Goals of regulation

As noted in the review of the literature in Chapter 9, the goal of regulation for banks is clear; it is to provide stability to the financial system and to limit the risks of systemic failures. However, the analysis of the risks of the asset management industry indicates in this report that systemic risks are of much less significance. Unlike commercial and investment banks, and brokers and dealers, asset management firms do not, for the most part, take large positions on their own account. They invest on behalf of others. This is consistent with the results of the questionnaire, which reports that the levels of own positions are low and that financial insolvency is ranked as one of the lowest risks that asset management firms face.

One caveat to this is the rise of guaranteed products over the last decade, particularly in Continental Europe. Unless they are adequately hedged or provided by a third party such as a credit institution (as in the case of France), like own positions they expose firms to risks of financial failure. To date, there have only been occasional failures to meet guarantees, and the results of the questionnaire suggest that these guarantees are largely hedged. Nevertheless, guaranteed products are growing rapidly in significance and have not been fully tested in a bear market. Serious consideration needs to be given as to how investors should be protected in the future from failures to fulfil guarantees.

In the absence of systemic risks, Chapter 9 suggests that regulation of asset managers is closer to that of professional firms than that of banks. For example, in the legal profession, some of the principal risks are fraud against client funds and professional negligence. These are similar to the risks in the asset management industry. The literature

regarding the regulation of the professions points to an important trade-off, enhancing quality by restricting entry and competition. In exactly the same way, an important issue arises as to how regulation of asset managers can improve the quality of service (ie, investor protection), without having an undue effect on competition in the supply of services.

Inadequate or excessive investor protection can be costly. The costs of inadequate investor protection include the following:

- uninformed investors, fearing that they might be exploited, will be reluctant to invest, or will invest in other financial centres;
- shrinkage of the asset management business. 'Good' firms will be tainted with the failure of 'bad' firms and will withdraw from the market or migrate to other centres;
- small, uninformed investors will be particularly exposed, giving rise to large welfare losses;
- political opprobrium resulting from financial losses may give rise to expensive and inappropriate regulation.

The disadvantages of over-regulation are as follows:

- higher costs for firms and investors;
- altering the costs of entry and competition;
- loss of competitiveness of financial centres, leading to a migration of firms from over-regulated to better (or less) regulated markets.

The form and amount of regulation are therefore crucial in determining the success or otherwise of financial institutions and financial centres.

2.2 The institutional setting

The most striking feature of the structure of the asset management business reviewed in Chapters 4 and 5 is its diversity. Countries at similar stages of economic development have very different asset management businesses. This manifests itself in several different forms. The size of the business varies markedly across countries. Assets under management by pension funds in the UK comprise more than half of all pension fund assets in the seven European countries, and assets under management by insurance companies comprise just under half of all insurance companies' assets. However, the pension fund business in the USA is more than five times that of the UK, and the insurance company business is more than twice that of the UK.

One reason for these disparities is that Continental Europe has traditionally had less well-developed stock markets and therefore had less need for a substantial asset management business. That may well be changing as stock markets expand, but, at present, asset management remains a more substantial component of Anglo–American financial systems than of Continental European ones.

A second aspect of this diversity is that the nature of the asset management business differs appreciably across countries. While the UK dominates the European pension fund and insurance asset management business, it is a smaller player in mutual funds.

Differences in the size of pension-managed funds reflect the greater emphasis on funded pension schemes in the UK than in other European countries, where state pensions, pay-as-you-go and in-house corporate pension schemes predominate. The distinction in asset management businesses is not simply an Anglo–American versus Continental European one. There are significant variations within Continental Europe. For example, insurance companies are dominant in Germany, while the amount of mutual funds and insurance company funds are similar in France. Also, mutual funds are now growing rapidly in many Continental European countries (for example, in France, profiled funds, issued mostly by insurance companies, are sharply rising, and are one of the main components of the flows to the mutual funds market).

One implication is that both the business that is being regulated and the type of investor differ significantly across countries. In some countries, clients of asset management firms are predominantly large institutional investors, and, in others, private clients. In some countries, most investments are through pooled funds—the questionnaire reports that this is a particular feature of France and Italy—and, in others, through mandates (for example in Germany, the Netherlands and the UK). Regulation therefore has a potentially different impact on investor protection across countries because of differences in the nature as well as the size of asset management businesses.

Third, countries differ in the ownership as well as the activities of asset management firms. In the questionnaire, 87% of respondents reported that they were part of a larger group. Outside the UK and the USA, asset management firms are predominantly owned by banks and insurance companies, many of which may be classified as parts of large financial conglomerates. While this is the case in some of the largest asset management firms in the UK, there are also a large number of small independent firms, and, in the USA, there are nearly six times as many asset management firms as in the UK. Concentration of ownership is therefore appreciably higher in Continental Europe than in the UK and the USA. Furthermore, there are differences within Continental Europe, where France has seen a rapidly increasing number of small, independent asset management firms.

The significance of this observation is that organisation and ownership of firms crucially affect investors' exposure to loss. Firms that are part of large groups have more financial resources upon which to draw than independent firms, and may have more incentive than independent firms to provide protection to investors in the event of failure. If parent firms believe that either the intrinsic value of their asset management firms or the loss of their own reputations outweigh the cost of compensating investors, they will protect investors against loss. This was the case in Morgan Grenfell Asset Management, reported in Chapter 8, where Deutsche Bank spent more than £210m protecting investors against a loss in one of its fund management companies. The value of the earnings stream of that particular fund to Deutsche Bank was probably less than the cash injection to compensate investors. However, the impact of loss in reputation on profits in other parts of its funds management business and its non-asset management business may have exceeded the difference and justified the injection. Contrast that with the case of Barlow Clowes,[4] a UK asset management firm that failed in the latter part of the 1980s. In that case, there was no rich parent with a reputation to bail out investors, and losses of £150m were sustained.[5]

[4] See Securities and Investment Board Press Release, Ref. PRESS/SFT/3777S.

[5] In this case, the British government ended up compensating investors.

Where asset management firms are large and part of larger groups, investor exposure to loss is appreciably reduced by the ability of one part of a group to bail out another.

However, this presumes that losses across different parts of groups are uncorrelated and insufficiently large to threaten the solvency of the entire group. In the case of the Barings Group, the failure of the Bank and uncertainty about the scale of the losses prevented the company from raising sufficient funds to avoid the collapse of the entire group, including the fund management business. In this case, the company was acquired quickly and investors did not lose money; in other cases, however, the transfer might not have been effected so painlessly.

In sum, the design of regulation has to be sensitive to the fact that the size, the clients, the activities and the ownership of asset management businesses differ appreciably across countries, and that this affects the desired pattern of regulation.

2.3 The responses in different countries

- How have regulators responded to these very different institutional structures? Not surprisingly, the answer is that they have done so in diverse ways. Chapter 6, including appendices 3 to 9, reports regulatory rules and arrangements in seven countries. There are seven main forms of regulation that are employed: financial resource requirements; conduct-of-business rules; separation of clients' assets requirements; disclosure rules; enforcement; auditing; and investor compensation schemes. Some of these differences are illustrated below in relation to France, Germany, the UK and the USA.

- There are expenditure-based capital requirements in all three European countries. The broad rule is 25% of annual expenditures for these countries, but adjustments to take into account exposure to position risk, foreign-exchange risks, and separation of clients' monies, etc, are also present. Furthermore, in France, Germany and the UK, there are initial capital requirements. In contrast, in the USA, there are no capital requirements at the federal level, but there may be at the state level.

- There are extensive conduct-of-business rules in the UK and self-regulatory (professional ethics) rules of conduct in France. Conduct-of-business rules are far fewer in the USA and include 'fair execution', which is also common in other countries.

- In France, the assets of clients and those of the asset management company must be kept strictly separate. In Germany, asset managers must keep securities at a credit institution or be regulated as credit institutions themselves. In the UK, firms that hold clients' monies or assets are subject to more extensive capital requirements and conduct-of-business rules. In the USA, investment advisers that hold clients' securities are subject to more rigorous and random auditing.

- In the USA, there are extensive disclosure rules, auditing by private as well as public auditors, and enforcement through the courts.

- There have been significant calls on the compensation fund in the UK, amounting to more than £130m over the past five years. However, it is worth noting that firms regulated by IMRO—and, in particular, asset management companies—account for only a small proportion of total compensation paid. A limited compensation scheme for investment firms was recently introduced in Germany. There are no (direct) compensation schemes in France or the USA.

In summary, France emphasises conduct-of-business rules and custody requirements for collective investment schemes and mandates; Germany, capital requirements and separation of clients' assets; the UK, capital requirements, conduct-of-business rules and a compensation scheme; and the USA, disclosure, auditing and enforcement.

The various forms of regulation are complementary to the structures of asset management business in the four countries. In Germany, investors are in general institutional and asset management firms are part of large institutions. Investors are therefore for the most part relatively well informed and can be compensated in the event of failure by parent institutions wishing to preserve their own reputations. As a result, the cost of a mandatory compensation scheme is likely to be lower than in the UK, which has a higher number of small retail investors. The imposition of large capital requirements is consistent with the concentration of the German asset management business in large organisations.

In some countries, for example France, an asset management business has emerged over the last decade outside of the banking system and insurance companies, in particular in the form of mutual funds. Investor protection has therefore focused mainly on these institutions—for example, the imposition of depositary (trustee) requirements in France on the UCITS or mutual fund management business, but not on mandated portfolio management. The separation of clients' assets has, however, been imposed on UCITS as well as on individual mandates. The UK has a significant independent private client, business but a relatively small mutual fund business.[6] Regulation has therefore sought to protect investments made through mandates as well as collective schemes. This has been done through a combination of capital requirements, conduct-of-business rules, incentives to employ separate custodians, and a compensation scheme.

The USA has the largest independent asset management business both in mandates and collective schemes. However, its approach to regulation is quite different from that of the UK. It does not rely on capital requirements, custody rules or compensation schemes; instead, it emphasises disclosure, auditing and enforcement. UK regulation relies heavily on public contracting—the screening and monitoring of firms according to prespecified rules by public agencies—while the USA emphasises private contracting—the provision of information to investors and their ability to enforce contracts through the courts. The difference in emphasis is clearly in part a consequence of a greater reliance on the judicial process—in particular, the ease with which private investors are able to litigate in the two countries.

The following table summarises the institutional and regulatory forms of investor protection in the four countries.

[6] UK government initiatives to subsidise saving through schemes such as ISAs may be giving a large boost to sales of mutual funds.

	Institutional	Regulatory
France	High proportion of mutual funds	Conduct-of-business rules, capital requirements and custodianship
Germany	Reputational capital of parent institution	Capital requirements and custodianship
UK	–	Capital requirements, conduct-of-business rules, compensation schemes and custodianship
USA	–	Disclosure, auditing and enforcement through the courts

Investor protection should therefore be considered in the context of institutional arrangements in different countries, as well as in formal regulatory rules.

2.4 Financial resource requirements

The alternative responses described above are evaluated in this and the next section. This section begins, however, with financial resource requirements.

Capital requirements in asset management vary from substantial amounts in Germany to nothing in the USA, with the UK and France somewhere in between. What is the appropriate level of capital requirements for asset management firms?

Capital requirements are primarily considered in the context of banks. As noted in section 2.1, while the main function of the regulation of banks is to promote financial stability, asset management firms are not for the most part subject to systemic risks, except potentially in regard to guaranteed products. Only eight of the 39 firms that completed the questionnaire reported having capital at risk, and the levels of capital at risk averaged €47m. This is fundamental to a consideration of the merits or otherwise of capital requirements.

In the case of asset management firms, capital provides clients with a cushion against losses sustained from operating failures of the business. Losses can be covered up to the value of the reserves of the business. The cost of providing the capital is therefore the value of the 'put option' that the capital gives investors to protect their investments from the effects of operating losses. The mean cost of capital reported by firms in the survey is 15.7%, with a range from 7% to 30%. This large range possibly reflects variations in the values of the put options across firms.

The benefit of providing capital is that investors value this protection in terms of the price at which they are willing to transact with the asset management firm. In exactly the same way as capital of banks reduces the cost of raising deposits, so the capital of asset management firms raises the price at which clients will purchase asset management services. In determining the optimum amount of capital to employ, asset management firms will trade off the cost of the put option against the enhanced value of their business. Firms therefore voluntarily choose to hold capital for commercial reasons. The survey of asset management businesses reports that firms in general hold capital well in excess of regulatory requirements. The median ratio of capital held to requirements is 2.7 and the mean ratio is 5.7.

However, there is an important reason why the amount of capital that an institution chooses to hold might fall short of what is deemed to be 'socially desirable'—ie, what a

public agency might seek. The institution may fail to recoup all of the benefits from holding capital that investors derive. There are three factors that could cause a deviation between the optimal levels of capital that institutions privately choose to hold and what is collectively in the interest of investors and institutions as a whole.

The first is that some of the benefits from one firm's financial resources may accrue to other firms. There is, in the parlance of the economics literature, an 'externality'. The most pertinent example is the contagious failure of financial institutions—the instability of financial systems resulting from the failure of one institution spilling over to others. That is the fundamental justification for the imposition of capital requirements on banks in excess of what they might privately choose to hold (see Chapter 9). According to the literature, individually, banks do not take adequate account of the extent to which holding capital reduces the exposure of other institutions as well as their own, and some collective enforcement by a public agency is required. That is why it is of fundamental importance to appreciate that the regulation of asset management firms is not primarily concerned with systemic risks. The primary justification for the imposition of capital requirements on banks does not apply to asset management firms. However, there are other reasons why firms may not hold enough capital.

The second is that investors may not be well informed about risks to which they are exposed and therefore do not value them fully. There may be 'information asymmetries' in the parlance of the literature, leading to incorrect valuations. Regulators may therefore feel justified in imposing higher capital requirements on the grounds of the better information about investor risks that they possess.

The third is that asset managers have no interest in the value that clients attach to their services because they are intent on defrauding them. Levels of capital are not then chosen on the basis of 'fair' commercial criteria at all, and regulators may feel justified in imposing what they regard as fair levels.

While these last two justifications are superficially appealing, they both have serious pitfalls. First, they assume a considerable degree of information on the part of regulators, both in terms of the risks of businesses and more significantly in terms of how private levels of capital deviate from the optimal level. Even if they are fully informed about risks, regulators have little information about the costs of imposing capital requirements. As a result, regulators will find it difficult to set capital requirements across firms that are optimal from a social-welfare perspective. Put more prosaically, they will find it increasingly difficult to justify levels of capital requirements that bite for some firms.

Second, there is often a confusion of symptoms with causes. Fraudulent firms may hold little capital, but firms that do not hold much capital are not necessarily fraudulent. Requiring potentially fraudulent firms to hold capital raises the same problems as requiring potential thieves to hold more money. Firms would be required to hold very substantial amounts in order for the capital to provide effective protection against fraud. But, then, this would create formidable barriers for new entrants. If capital requirements are set at modest levels then the entry of dishonest and incompetent firms is not avoided; if they are set at high levels then entry of the honest and competent is discouraged. If information asymmetries and fraud are the two main 'market failures' that afflict asset managers then capital requirements are very poor solutions. These failures require very different responses.

2.5 Other forms of protection

The most serious failures reported in Chapter 7 in the survey of asset management firms were misdealing and breach of client guidelines. This was consistent with the frequency of failures, their impact when they occurred and actual losses sustained by firms. In terms of reported complaints, the most significant items were IT systems failure, misdealing and breach of client guidelines. Most losses were below €1m, although there were occasional losses of, for example, €3m for breach of client guidelines and €7m for misdealing. The interviews indicated that losses from these operational failures could occasionally be as much as €20m. The characteristics of operational risks are that they primarily relate to securities transactions and internal systems, and involve not infrequent modest losses.

Provided that investors are informed, they will be able to price these risks appropriately and will only be willing to purchase asset management services at an appropriately reduced price. However, if investors are ill informed about operational risks, they will not be properly priced. In this case, good firms will be unable to charge the premium over poor firms that they should be able to command. Information problems are therefore a primary source of market failure in asset management. The response in the USA has been to require extensive disclosure of information to investors and regulators.

In their 1989 study of the UK asset management business,[7] Franks and Mayer record that fraud was the main threat to investors. Subsequent to their analysis, the Robert Maxwell pension case reinforced the potential exposure of investors to this risk. However, risks of fraud now appear to be appreciably lower. While there was some reference to fraud by respondents in the survey, it was by no means regarded as the primary risk. Incidents of losses were small, perceived frequency was low, and there were no reported complaints about fraud.

One of the significant changes since the 1989 study is the growth of custody. Separation of client funds and the growth of custodianship have contributed significantly to enhanced investor protection and, in particular, to the avoidance of fraud. In 1989, the use of separate custodians by investment management firms in the UK was rare. Possibly in response to the Maxwell affair or possibly as a consequence of the development of the custodian industry, non-group custodians (ie, outside the group to which the asset manager belongs) now hold over 80% of UK firms' assets under management.[8] The survey reports that the use of non-group custodians is in general lower on the Continent than in the UK. This may reflect the greater use of custodians within the same group of firms on the Continent.

As noted above, most operating losses are of modest scale. As a consequence, respondents to the questionnaire report that they are able to finance most operating losses from internal earnings. However, occasional large losses do occur. The case reported in Chapter 8 is a clear example of this. Morgan Grenfell Asset Management suffered losses amounting to more than £210m. The case also illustrates the limitations of custodianship and trusteeship. While there was no theft of securities or monies, there were irregularities in the management of the funds that were not detected either internally or externally by

[7] Franks, J. and Mayer, C. (1989), op cit.

[8] This is confirmed by a recent British Invisibles study (2000, op cit), which reports a striking increase in custodianship in the UK, from 50% in 1997 to 71% in 1999.

the trustees. As a consequence, the regulator, IMRO, imposed fines of nearly £400,000 on the two trustees. It is unclear to what extent the trustees or custodians would have compensated investors for losses, had Deutsche Bank not injected £180m to rescue the asset management firm. In particular, it is unclear whether investors would have been fully protected from loss by the existence of both a trustee and custodian, had Morgan Grenfell Asset Management not been part of a large group. Therefore, while custodianship and trusteeship can go a long way to mitigate the market failures of information asymmetries and fraud, they may not provide complete protection. Regulators may wish to improve custody contracts to clarify the degree of investor protection.

Further protection can come from insurance markets. In the sample, 19 firms have indemnity insurance, 15 employee fidelity and fraud insurance, and nine other insurance, including civil responsibility, real estate, and directors' and officers' insurance. Firms regard insurance as particularly relevant to areas where substantial losses can occur as a consequence, for example, of fraud and failures in IT systems. However, some firms have expressed doubts about the promptness and reliability with which claims are met by insurers. Insurance markets, both private and mutual, are better developed in the USA than in Europe. This has led to greater standardisation of contracts, a higher level of protection, and lower costs. The greater degree of disclosure of information and auditing of companies in the USA may have contributed to this result.

In the absence of well-functioning insurance markets, there is more emphasis on compensation funds in Europe, in particular in the UK. Over the past five years, the Investors Compensation Scheme in the UK has paid out more than €100m. Since 1988, more than 12,000 people have received compensation and more than 700 firms have been declared in default. Of these totals, ten IMRO-regulated firms were declared in default by the scheme. In the case of eight of these companies, compensation, amounting to almost £14m, was paid to 317 investors.

Compensation schemes encourage (discourage) entry and competition where they are large (small) in relation to the regulatory burdens imposed on firms. In general they subsidise high-risk firms at the expense of low-risk firms or the taxpayer. They therefore, at least in part, make entry easier by mitigating the consequences of other forms of regulation, in particular capital requirements. However, like state aid, they distort competition between countries. The imposition of a common European compensation scheme might be thought to reduce this risk. In fact, differences in industry structures across countries mean that harmonised compensation schemes can be highly distorting. For example, a particular level of compensation will, on average, benefit the UK asset management industry, with its comparatively large number of small firms relative to the more highly concentrated German industry.

In addition, compensation schemes encourage firms to hold too little capital. Since clients of asset management firms do not bear all the costs of the firms' failure where compensation schemes are in operation, they do not value the full benefits of capital—compensation funds create externalities. While this might be thought to justify the imposition of capital requirements, regulators cannot readily establish the extent to which compensation schemes influence firms' capital structure decisions. The relationship between required levels of capital and the scale of compensation schemes is therefore unknown, and, for the reasons mentioned above, will be dependent on the structure of a particular country's asset management business.

Instead, distortions to competition from compensation schemes can be avoided by having risk-based fee structures. Since such structures reflect firms' holdings of capital, they automatically induce firms to choose optimal capital structures. Again, the question is how can regulators determine fee structures? One approach might be to encourage private insurers to offer standard contracts equivalent to those of compensation schemes. Since systemic risks are not a substantial problem in asset management, the market failures that cause insurance contracts to fail in relation to bank deposits should not be present in asset management. The feasibility of having privately supplied standard compensation contracts is worth further investigation.

The following table summarises the impacts of different responses on investor protection and entry/competition.

Responses	Investor protection	Impact on entry/competition
Capital requirements	Poor, unless when set at very high levels	Significant entry barrier
Custody/trustees	Reduce risks of fraud and operational failures	Low if markets are competitive
Disclosure/auditing	Promote awareness of risks	Enhance competition and entry
Insurance	Protection against large losses	High for small firms
Compensation schemes	High if schemes are generous	Subsidise entry and competition

2.6 An evaluation of alternative forms of investor protection

This report has emphasised the important interaction between institutional structure and forms of regulation. It has argued that investor protection comes both from specific institutional arrangements and from formal systems of regulation. In particular, in section 2.3 of this chapter, four forms of investor protection were identified: two institutional and two regulatory in nature. The institutional forms were the reputational capital of firms that are parts of groups (of which asset management in Germany is the best example), and the protection that custodians and trustees provide in mutual funds (for example, in France). The regulatory forms were the promotion of private contracting through rules regarding information disclosure, auditing and enforcement (as observed in the USA), and public contracting by regulatory bodies through capital requirements, conduct-of-business rules and compensation funds (which is particularly significant in the UK). Clearly, these distinctions are highly stylised, and there are elements of all forms of institutions and regulation in all countries. However, they serve to illustrate the different institutional and regulatory responses. The key question that they raise is what is their comparative performance?

This chapter began by stating that the goals of regulation are to promote financial stability and to provide investor protection while avoiding adverse effects on competition—in particular, the entry of new firms. It has been argued that, for the most part, systemic risk is not relevant to asset management firms, but significant potential problems have been highlighted that may be created by the growth of guaranteed products offered by asset managers. The risk to asset managers associated with guaranteed products is mitigated to some extent in France, where guarantees are only offered by institutions external to the asset manager, such as credit institutions specially authorised by the regulator to fulfil this function. These activities are subsequently regulated. Leaving this aside, the different

systems of regulation should be judged against two benchmarks: the degree to which they provide effective investor protection; and their impact on competition.

The private contracting system of the USA emphasises the operation of markets through information disclosure and auditing. It encourages high levels of entry and competition, but relies on the legal system to enforce contracts through private as well as public litigation. It is therefore essentially a system of caveat emptor.

The public contracting system of the UK offers investors greater protection through a compensation scheme, but at the expense of limiting competition through the imposition of capital requirements and conduct-of-business rules. The scale of protection is therefore primarily determined by the size of the compensation scheme, and the effect on competition by the size of capital requirements and the nature of conduct-of-business rules. The results of the questionnaire confirm that the cost of capital varies greatly across firms, indicating that the costs of an extra unit of capital are potentially high for some companies.

The parent firm system of Germany places less reliance on public agencies; to that extent, it is less interventionist than the UK. However, it limits entry to firms that have access to substantial amounts of capital and are in general parts of large organisations. So long as asset management firms have deep pockets on which to draw, and can rely on the reputation of the parent firm to bail them out in the event of failure, they offer investors high degrees of protection.

Where investments occur largely through mutual funds, as in France and Spain, protection comes primarily from ‘depositaires’ or ‘depositarios’ respectively.

Where the parent firm system is not dominant, there is a greater potential for entry, but also greater possibility of contractual disagreements between asset managers and custodians and trustees, as illustrated in the UK case study in Chapter 8. Investors may therefore be exposed to greater risks than under the parent firm system.

A summary of the forms of protection in different countries, the degree of investor protection they provide, and their effect on entry and competition is provided below.

System	Degree of investor protection	Entry and product variety
Private contracting (USA)	Low—caveat emptor	High
Parent firms, mutual funds (France, Spain and Germany)	Medium	Medium
Public contracting (UK)	Determined by compensation fund	Determined by capital requirements

2.7 Summary

There are several implications of the results reported elsewhere in this study.

- Attempts to harmonise regulatory rules across countries are inappropriate. Regulation and institutional arrangements are complementary. So long as the pronounced institutional differences that have been reported in this study persist, then so, too, should different forms of regulation.

- There is, in general, a trade-off between investor protection and competition, as suggested at the beginning of this study. High levels of investor protection can be achieved through large compensation funds and high capital requirements, but at the expense of competition, product variety and entry. Responses to the questionnaire suggest that the costs of higher capital requirements are large for some firms and could therefore have significant effects on competition.

- The market failures that occur in asset management are different from those that occur in banks. They arise from information asymmetries and fraud, not in general from systemic risks. They should be corrected directly by a combination of disclosure, auditing, enforcement, insurance, custody and trustees, rather than indirectly through capital requirements.

- The development of insurance markets, greater clarity of investor protection in custody arrangements, auditing, and enforcement through the courts are all key components of a move towards a more market-oriented system. The creation of an integrated financial market in Europe would benefit from such a development, but requires careful consideration of the way in which information, insurance and legal structure can be strengthened.

- A move towards raising capital requirements would be counterproductive. It would discourage the necessary development of markets in information and insurance, as well as having a direct impact on competition and entry. High capital requirements may place the European asset management industry at a competitive disadvantage in relation to other countries, most notably the USA. Unless capital requirements are set at unrealistically high levels, they could also provide a false sense of security.

3. Summary of Research Findings

- The purpose of the report is to identify the operational risks inherent in the asset management business and to evaluate the role of capital in mitigating these risks.

The nature of the asset management business (Chapters 4 and 7)

- There are significant differences in the nature of asset management businesses across Continental Europe, as well as between the UK and Continental Europe, and between the USA and Europe (sections 4.1 and 7.4).
- In France, collective investment schemes dominate, but mandates are growing in importance. In Germany, insurance companies have been the largest investor group, but investment funds are catching up. In Italy and Spain, collective schemes and asset management by banks are the largest investor groups. In the Netherlands and Ireland, pension funds and life insurance funds dominate (sections 4.2 to 4.7).
- In the UK and the USA, pension funds and life assurance companies are the largest investor groups (sections 4.8 and 4.9).
- Japanese and US equities account for about one-half of equity and bond transactions by European asset managers. European equities and bonds account for most of the remainder, with emerging markets accounting for around 5% of equity transactions and 1% of bond transactions (section 7.4).

Industry structure (Chapters 5 and 7)

- There are substantial differences in the ownership of asset management businesses across countries (sections 5.1 and 7.3).
- In Continental Europe and Ireland, asset management is dominated by banks and insurance companies. Levels of concentration are high and increasing in many countries (sections 5.2 to 5.7).
- In the UK and the USA, concentration levels are modest and there is a larger number of small investment management firms (sections 5.8 and 5.9).

Regulatory framework (Chapter 6)

- Capital requirements are broadly similar in European countries. In the USA, there are no federal capital requirements imposed on investment advisers and state capital requirements are small (section 6.2).
- There are custody requirements in all European countries under consideration. In the USA, an investment adviser with custody of clients' assets is obliged to supply the client with additional information (section 6.3).
- There are greater disclosure requirements in the USA than in Europe (section 6.4).
- There is a high level of enforcement in the USA through auditing, administrative proceedings and civil actions (sections 6.5 and 6.6).
- Compensation schemes have been implemented in most European countries under consideration. There is no compensation scheme in the USA (section 6.7).
- An investment company operating in the USA is required to have insurance against larceny and embezzlement; this is not the case for European firms (section 6.8).

- In Europe, regulators emphasise capital requirements, custody and compensation schemes to a varying extent. US regulators focus on disclosure, auditing, insurance and enforcement.

Operational risks in the asset management business (Chapters 7 and 8)

- Most asset managers offer discretionary services to their investors, although a significant fraction in Germany and Italy operate on an advice-only basis (section 7.5).
- There has been a substantial growth in guaranteed products offered by asset managers (section 7.5).
- Most transactions are conducted with firms outside of groups (section 7.5).
- The main operational risks to which investors are exposed are from misdealing and breach of client guidelines (section 7.6).
- The case study reported in Chapter 8 illustrates how potential failures of internal control systems can create large losses.
- Operational risks arising from new business acquisition were significant (section 7.6).
- Losses arising from fraud can have a significant financial impact (section 7.6).
- The largest operating loss reported by the sample of firms was €7.2m arising from misdealing. This corresponded to 17% of annual operating expenditure (OPEX) of the firm in question. The next largest loss was €3m arising from a breach of client guidelines, corresponding to 7.5% of annual expenditure (section 7.6).
- For the most part, losses incurred have involved average amounts of €1.3m. The interviews indicated that these occasional losses could be up to €20m in a particular year (section 7.6).
- Total losses identified for the whole sample amounted to approximately €40m (section 7.6).

Forms of protection in asset management (Section 7.7 and Chapter 8)

- Most losses are financed out of internal profits.
- 29% of firms that were parts of groups had specific guarantees from their parents.
- In all countries analysed, separation between client monies and firms' own money is widespread. Furthermore, the survey indicated increasing degrees of non-group custodianship. In the UK, for example, the median proportion of assets held by non-group custodians is 100%. The median for all countries in the sample is 85%.
- The case study reported in Chapter 8 raises questions about the extent to which the role of trustees/custodians can provide adequate investor protection.
- Approximately half of the sample of firms had indemnity insurance, and three-eighths had employee fidelity and fraud insurance.
- Claims on insurance were primarily as a result of misdealing and failure to collect income.
- Insurance may be appropriate for certain large exposures to fraud, for example. However, concerns were expressed about the reliability of recouping losses from insurers.
- Most firms hold capital well in excess of regulatory requirements. The mean ratio of actual to required capital was 5.7 and the median was 2.7.
- The average cost of raising capital cited by firms was 15%, but there was a wide range from 7% to 30% across the sample.

Market failures in the asset management business (Chapters 7 and 9)

- The market failures arising in the asset management business are different from those in banks. Asset management firms do not in general take own positions. Where asset managers took own positions in the sample of firms, the median value of capital at risk was €10m. The financial risks that justify the imposition of capital requirements in banks are less relevant to asset management firms.
- The main market failures that arise in asset management come from imperfect information on the part of investors and risks of fraud. Capital requirements do not provide an appropriate correction for either form of market failure.
- One caveat is the growth in guaranteed products over the last few years. Careful consideration needs to be given to the financial exposure created by these innovations, including consideration of which parties bear the risks arising from this exposure. Capital would play a role if risks of such products were inadequately hedged.

Alternative forms of protection (Chapter 2)

- Regulation should seek to neutralise the market failures in asset management in much more direct ways than capital. Alternatives considered in the study are custody, information disclosure, enforcement, auditing, compensation schemes, insurance, and conduct-of-business rules.
- Countries employ these forms of regulation to varying degrees. There is a close complementarity between the form of regulation and institutional arrangements in different countries. Investor protection is provided in some countries primarily through institutional arrangements, and, in others, through formal systems of regulation.
- The USA emphasises disclosure, auditing, insurance and enforcement.
- The UK emphasises capital requirements, conduct-of-business rules and compensation schemes.
- Investor protection in Continental Europe comes primarily from a combination of capital requirements, conduct-of-business rules and institutional arrangements—in particular, the deep pockets and reputational capital of parent firms.
- There has been a growth of independent firms, in particular those managing mutual funds, in some Continental European countries. Investor protection relies considerably on the role of the independent custodian and trustee.
- These forms of institutional and regulatory protection offer investor protection and affect competition and entry to quite varying degrees.
- The US system promotes the greatest degree of competition and entry in asset management. However, it relies in large part on caveat emptor and the operation of the judicial system in enforcing contracts at low cost.
- The UK system is more prescriptive. Under this system, the degree of investor protection and effects on competition depend on the size of the compensation scheme and on the level of entry barriers created by regulatory rules, including capital requirements.
- The traditional reliance on the deep pockets of parent firms in Continental Europe provides high levels of investor protection, but at the cost of serious barriers to entry in some countries.
- The emerging institutional solutions (through, for example, mutual funds) open up markets to more competition. However, the case-study analysis suggests that protection from custodian and trustees may in practice be limited by the

complexity of contractual relations between the parties. The effectiveness of this form of protection is therefore yet to be clarified.

- The use of insurance markets in the asset management business is more prevalent in the USA than in Europe. The more highly developed insurance markets in the USA may reflect the greater degree of information disclosure.

Regulatory convergence (Chapter 2)

- In framing regulatory rules in Europe, the European Commission should be sensitive to the significant differences in regulatory and institutional arrangements that exist across countries.
- Attempts to harmonise regulation may not be appropriate and may be counterproductive. For example, harmonisation of compensation schemes may, in the face of different institutional structures, distort competition rather than promote level playing fields.
- Instead, greater integration of financial markets may be more effectively realised through improved information and disclosure, auditing (including by private agencies) and enforcement of contracts. Consideration should also be given to improving the functioning of insurance markets.

4. Assets under Management

This chapter begins by comparing the assets under management for eight countries—France, Germany, Ireland, Italy, the Netherlands, Spain, the UK and the USA. Detailed country-by-country analyses follow.

4.1 Cross-country comparison

Global assets under management during 1999 have been estimated at a value of €33 trillion.[9] This represents an increase of almost 95% since 1995, when the same source estimated global assets under management to be over €17 trillion. In 1999, pension funds, insurance companies and mutual funds accounted for roughly equal proportions of total assets. Assets managed on behalf of private individuals have been estimated to be worth €23 trillion. There may be some overlap between private wealth and institutional assets under management; for example, private individuals may have invested in pension funds.

Table 4.1 reports the assets managed on behalf of pension funds, insurance companies and mutual funds for seven European countries and the USA in 1999. This table allows a comparison between the size and the main components of the asset management industries for these countries. Figures for assets managed on behalf of private clients are reported in subsequent sections.

Table 4.1: Assets under management for eight countries, 1999 (€ billion)

Country	Pension funds	Insurance companies[1]	Mutual funds
France	66	830	705
Germany	129	673	515
Ireland	47	32	150
Italy	65	169	412
Netherlands	397	220	83
Spain	32	62	219
UK	1,270	1,266	345
Total	**2,006**	**3,252**	**2,429**
USA	7,225	2,403	6,388

Note: [1] The latest available figures are from 1998, and include life and non-life insurance companies.
Sources: InterSec Research Corp., CCF Charterhouse, OECD, Investment Company Institute, Fédération Européenne des Fonds et Sociétés D'Investissement (FEFSI), Association Française de la Gestion Financière (AFG-ASFFI), Inverco, De Nederlandsche Bank, Central Bank of Ireland, and British Invisibles, (2000), op cit.

Funds managed on behalf of institutional clients (pension funds and insurance companies) represent a higher proportion of total assets managed in the UK. Pension funds in the UK are at least four times larger than any of the other European countries considered, and account for 65% of the total pension fund assets for the European countries considered. Germany, Ireland, Italy and France have comparatively low levels of pension fund assets. Therefore, in this case, part of the reason for the difference in the sizes of pension fund assets may be the different sizes of the industries.

[9] British Invisibles (2000), op cit.

The difference between assets managed for insurance companies in Europe is less pronounced than that for pension funds. Assets managed for insurance companies in the UK account for a significantly lower proportion (40%) of the European total compared to that for UK pension fund assets. Of the total for the six European countries, the assets of insurance companies in Germany represent 21% and of those in France 26%. Furthermore, approximately the same value of insurance companies' assets is managed in the USA and Europe.

However, the European ranking, by size, of pension funds' and insurance companies' assets is reversed when mutual funds are considered. According to Table 4.1, France, Italy and Germany dominate the market for mutual funds of the seven European countries considered. In these countries, mutual funds are typically managed by institutions such as banks, insurance companies, or other financial conglomerates. However, in the UK, the mutual fund market is largely based on retail business, which is relatively small-scale. The mutual fund market is over three times larger in the USA than the total for the European countries reported in Table 4.1.

To conclude, the structure of the asset management business differs appreciably across countries, particularly between the UK, with its emphasis on pension funds and insurance companies, and Continental Europe, with its emphasis on mutual funds and, in some countries, such as France and Germany, on insurance companies.

The following sections analyse in detail the asset management industry in each of the countries listed in Table 4.1. Three aspects are detailed for each country analysis:

- total assets under management;
- sources of assets under management; and
- portfolio allocation of assets under management.

Consistency across countries has been maintained as far as possible. In particular, country-by-country statistics report assets managed for pension funds and insurance companies for all countries. However, in Germany, there is only a breakdown of assets into insurance companies and investment funds available, but not pension funds. Furthermore, there are differences in the breakdown of statistics obtained for each country, which have led to more detailed disaggregation in particular countries.

4.2 France

The French asset management industry mainly consists of portfolio management companies (sociétés de gestion de portefeuille) and UCITS management firms (sociétés de gestion d'organismes de placement collectif en valeurs mobilière, OPCVMs). The former undertake the management of financial assets on behalf of third parties, including all types of discretionary asset management, as well as the management of UCITS. The latter exclusively manage UCITS.

UCITS, or OPCVMs, are defined as in the 1985 European UCITS Directive. In France, they are divided into two main categories that differ with respect to their legal form: SICAVs (sociétés d'investissement à capital variable), which are open-ended investment companies, and fonds communs de placement, which have a contractual form and represent 'co-ownerships' of transferable securities.

In 1998 and 1999, portfolio and UCITS companies managed about 95% of total assets in France. The remaining 5% are managed by investment service providers, which offer a range of investment services and do not have asset management as their main activity.

Table 4.2 reports that, by the end of 1999, portfolio and UCITS management companies managed total assets equal to €1,223 billion. This represents an increase of over 18% on the previous year and almost 63% on 1997. The growth in the assets managed by portfolio management companies is responsible for this increase in total assets managed. As shown in Table 4.2, in 1998 and 1999 the share of assets managed by portfolio management companies increased relative to that of companies which exclusively manage UCITS.

Table 4.2: Total assets under management by portfolio and UCITS companies, 1997–99

	1997		1998		1999	
	€ bn	%	€ bn	%	€ bn	%
Portfolio management companies	662.2	88.2	983.3	95.1	1,158.3	94.7
UCITS management companies	88.5	11.8	50.3	4.9	65.0	5.3
Total	**750.8**	**100.0**	**1,033.6**	**100.0**	**1,223.0**	**100.0**

Source: Commission des Opérations de Bourse (COB).

AFG-ASFFI provides a breakdown between mandated portfolio management and UCITS management for the years 1996–99 (Table 4.3). While mandates made up only 13% of assets in 1996, their share increased to 40% in 1999. This is largely a consequence of the spin-off of asset management activities by insurance companies.

Table 4.3: Total assets under management, 1996–99 (€ billion)

	1996		1997		1998		1999	
	€ bn	%	€ bn	%	€ bn	%	€ bn	%
For individual mandates	65	12.7	328	40.3	443.8	42.9	483.6	39.5
For UCITS	446	87.3	485.4	59.7	589.8	57.1	739.7	60.5
Total	**511**	**100.0**	**813.4**	**100.0**	**1,033.6**	**100.0**	**1,223.3**	**100.0**

Sources: AFG-ASFFI and COB.

The net assets of institutional investors, such as OPCVMs, life insurance companies and pension funds, are reported in Table 4.4.

Table 4.4: Net assets of institutional investors,[1] 1994–99 (€ billion)

	1994	1995	1996	1997	1998	1999
Insurance companies	395	466	555	647	743	821
OPCVMs	425	410	446	485	573	708
Individual discretionary mandates	n/a[2]	n/a	n/a	589	444	484
Pension funds	49	49	54	58	64	71
Total net assets	**869**	**925**	**1,055**	**1,779**	**1,824**	**2,084**
				%		
Insurance companies	45.5	50.4	52.6	36.4	40.7	39.4
OPCVMs	48.9	44.3	42.3	27.3	31.4	34.0
Individual discretionary mandates	n/a	n/a	n/a	33.1	24.3	23.2
Pension funds	5.6	5.3	5.1	3.3	3.5	3.4

Note: [1] All categories reported at market value. [2] In this and subsequent tables, n/a means that the information is not available.
Sources: AFG-ASFFI and FFSA.

According to Table 4.4, over the period 1994–99, the net assets managed for these three groups of investors more than doubled. Each category of investor experienced growth. This is particularly so for insurance companies, whose assets doubled over the period under consideration. The assets of OPCVMs and pension funds increased by 67% and 45% respectively.

In 1994, the assets of OPCVMs accounted for 49% of the total net assets reported in Table 4.4. However, by 1999 this proportion had declined as a result of the increasing significance of individual discretionary mandates.

Table 4.5 provides a breakdown of total UCITS assets by investment fund category during 1997–99. Although money market funds, and bond and debt security funds, still remained important, there was a sharp rise in balanced funds and especially in equity funds. Together, equity-related funds represented approximately 55% of the total assets. Balanced funds invest in a mixture of securities, mainly including equities (55%). The increase in equity funds was driven mainly by the strong performance of the main equity markets, but it also reflects positive net inflows. If adjusted by the French CAC40 index, the growth in net equity funds was as high as 9% in 1998. Note also the presence of guaranteed funds accounting for approximately 5% of assets held through UCITS in 1999. These funds invested an average of 60% of their assets in equities in 1999. Between 1997 and 1999, they declined slightly, despite an increase in 1998.

Table 4.5: Breakdown of total UCITS assets by fund category, 1997–99

	1997		1998		1999		Change	
	€ bn	%	€ bn	%	€ bn	%	€ bn	%
Money market mutual funds	155.4	34.2	157.4	29.5	178.8	27.4	23.4	15.1
Bond and debt security funds	123.5	27.2	132.3	24.8	122.1	18.7	–1.4	–1.1
Sub-total	*278.8*	*61.4*	*289.7*	*54.2*	*300.9*	*46.2*	*22.1*	*7.9*
Balanced funds	86.3	19.0	122.4	22.9	163.7	25.1	77.4	89.7
Equity funds	63.8	14.0	91.3	17.1	153.6	23.6	89.8	140.8
Sub-total	*150.0*	*33.0*	*213.7*	*40.0*	*317.3*	*48.7*	*167.3*	*111.5*
Funds carrying minimum performance guarantee or capital loss hedge	25.6	5.6	31	5.8	33.5	5.1	7.9	30.9
Total	**454.5**	**100.0**	**534.4**	**100.0**	**651.7**	**100.0**	**197.3**	**43.4**

Source: AFG-ASFFI (1998), 'Statistical Overview of Collective Investment', forthcoming for 1999.

The portfolio allocation of OPCVMs is reported in Table 4.6.

Table 4.6: Portfolio allocation of OPCVMs

	1994	1995	1996	1997	1998	1999
Deposits	37.6	47.1	42.8	49.9	48.1	34.0
Money market instruments	103.1	85.1	84.6	73.5	77.3	85.9
Bonds and other fixed-revenue securities	214.1	205.6	223.6	222.8	256.9	279.6
Equities	52.7	52.5	68.5	106.7	154.8	258.4
Other	0.5	–0.9	2.5	1.2	–2.6	–5.7
Total net assets	**407.0**	**389.4**	**422.0**	**454.1**	**534.5**	**652.2**
				%		
Deposits	9.2	12.1	10.1	11.0	9.0	5.2
Money market instruments	25.3	21.9	20.0	16.2	14.5	13.2
Bonds and other fixed-revenue securities	52.5	52.8	53.0	49.1	48.1	42.9
Equities	12.9	13.5	16.2	23.5	29.0	39.6
Others	0.1	–0.2	0.6	0.3	–0.5	–0.9

Source: AFG-ASFFI.

According to Table 4.6, over the period 1994–99, the proportion of portfolios invested in deposits, money market instruments and other securities declined, although this was offset by an increase in the proportion of portfolios held in equity.

To summarise, in France, UCITS have been the prominent investment vehicle in the past, but mandates are rapidly increasing in importance. Although not the largest investment category, equity funds have grown sharply in significance.

4.3 Germany

Assets under management in Germany are held through collective investment schemes (investment funds) or mandates, or are funds of insurance companies. No details are available for mandated asset management, except in the survey analysis reported in Chapter 7. Table 4.7 reports the financial assets of insurance companies and investment

funds under management during the period 1994–1998. By the end of 1998, the combined financial assets of German insurance companies and investment funds were €1,566 billion. The largest investor group was insurance companies; in 1998 they accounted for 65% of total assets under management. However, over the last five years, the share of investment funds has been increasing, from 27% in 1994 to 35% in 1998. Investment funds are open-ended, and are either public (retail) funds or special (institutional) funds, as further explained below. By 1998, investment funds held €553 billion of financial assets.

The figures reported in Table 4.7 include pension fund assets. The insurance statistics contain life assurance contracts and pension funds provided by insurance companies ('Pensionskassen'), which, in Germany, have been one of the traditional ways to provide privately for retirement. They also contain the pension contracts entered by employers on behalf of their employees. In addition, some pension assets are counted as investment fund assets. Since 1998, investment funds can take the form of pension investment funds (AS-Fonds), as shown in Table 4.7 below.

Table 4.7: Financial assets of German institutions, 1994–98 (€ billion)

	1994	%	1995	%	1996	%	1997	%	1998	%
Insurance companies	615.1	72.6	681.6	71.6	758.4	69.9	915.7	67.8	1,012.9	64.7
Investment funds	232.5	27.4	270.6	28.4	327.4	30.1	435.0	32.2	553.0	35.3
Total	**847.6**	**100.0**	**952.1**	**100.0**	**1,085.8**	**100.0**	**1,350.7**	**100.0**	**1,565.8**	**100.0**

Source: Bundesbank, *Financial Accounts*.

Table 4.8 shows the allocation of portfolios, as recorded in the Bundesbank's *Financial Accounts*. While funds placed in banks and bonds were the largest classes of asset held in 1994, with each asset type accounting for 28%, by 1998 their share had fallen relative to corporate equity. The share of corporate equity in total financial assets rose from 17.5% in 1994 to 28% in 1998, while that of funds in banks and bonds fell to 23% and 24%, respectively. Thus, by 1998, the largest class of asset held was equities, followed by bonds and funds placed in banks. Part of the increase in equity is due to the performance of the equity market, which doubled in value from 1994 to 1998. However, it also reflects a strong net inflow, particularly in 1997 and 1998.

Table 4.8: Portfolio allocation by asset, 1994–98 (€ billion)

	1994	%	1995	%	1996	%	1997	%	1998	%
Funds placed with banks	236.3	27.9	268.7	28.2	304.8	28.1	333.9	24.7	361.1	23.1
Money market paper	4.1	0.5	4.0	0.4	2.7	0.2	2.5	0.2	2.7	0.2
Bonds	235.9	27.8	273.2	28.7	304.8	28.1	339.5	25.1	382.2	24.4
Investment fund certificates	70.7	8.3	83.3	8.7	106.8	9.8	148.3	11.0	190.0	12.1
Equity	147.9	17.5	160.1	16.8	199.1	18.3	351.6	26.0	448.3	28.6
Other	152.7	18.0	162.9	17.1	167.5	15.4	174.8	12.9	181.5	11.6
Total	**847.6**	**100.0**	**952.1**	**100.0**	**1085.8**	**100.0**	**1350.7**	**100.0**	**1565.8**	**100.0**

Notes: Funds placed in banks are mainly held in the form of time deposits. Investment fund certificates are shares in investment funds held by insurance companies.
Source: Bundesbank, *Financial Accounts*.

However, the portfolio allocation differs widely between insurance companies and investment funds (as shown in Table A1.5 in the appendix). In 1998, the largest asset class held by insurance companies was funds placed in bank deposits (32%), with the majority being held in the form of time deposits. Investment funds allocated 50% of their portfolio to bonds; the balance is largely held in equities (39%). This is significantly larger than the fraction of corporate equity held by insurance companies (23%).

Investment funds are also more internationally diversified than insurance companies. In 1998, about 36% of securities held by investment funds were overseas issues, compared with only 5% for insurance companies.

In Germany, investment funds may qualify as UCITS, as defined in the 1985 UCITS directive. They fall in one of two categories:

- public funds (Publikumsfonds), which are retail funds that issue shares to the general public and to an unlimited number of investors. In 1998, there were 805 public funds with a value of €207 billion (see Table 4.9);
- special funds (Spezialfonds), which are institutional funds that issue shares to a limited group of investors (mainly banks, insurance companies, non-financial companies, etc). In 1998, the value of the 4,245 special funds amounted to €372 billion (see Table 4.9).

Under the Third Capital Markets Promotion Act, the existing range of investment fund types was broadened. In particular, since 1998, investment funds can take the form of pension investment funds (AS-Fonds), which are similar to defined-contribution pension schemes. With AS-Fonds, investors pay a certain amount each month for a minimum of 18 years or until the investor's 60th birthday. At the end of the savings period, investors have the choice to redeem all shares or receive monthly annuities over a longer period of time. Thus, these investment funds are solely aimed at providing for retirement. At the end of 1998, 31 AS-Fonds had been registered with a volume of €0.4 billion (see Table 4.9). These AS-Fonds are expected to grow relative to the life assurance contracts and

pension funds offered by insurance companies, which have been the traditional way to provide privately for retirement.

Table 4.9 breaks down the total assets of domestic investment funds by fund category. In 1998, most were either equity- or bond-based, or mixed securities funds. Mixed funds invest in both equities and fixed-income securities. 70% of all public funds are securities funds. The fraction of special funds in securities is even higher, at 99%. In particular, mixed funds account for 60% of special funds. This is because these are popular for insurance companies, which are the largest customers of institutional funds. Insurers prefer a mix of investment type (equity, bonds, property), which can be tailored to match the different types of the insurers' liabilities. Real estate and money market funds are primarily public funds, and account for a share of 21% and 9%, respectively.

Table 4.9: Breakdown of investment funds, 1998

	Public funds			Special funds		
Type	**no.**	**€ bn**	**%**	**no.**	**€ bn**	**%**
Securities funds	718	144.1	69.68	4,222	369.2	99.18
of which:						
equity-based	296	67.5	32.63	300	38.9	10.44
bond-based	262	64.0	30.95	1,203	104.6	28.09
Mixed	160	12.6	6.10	2,719	225.8	60.65
Money market funds	39	18.2	8.81	2	0.1	0.03
Real estate funds	17	44.1	21.32	21	2.9	0.79
Pension funds (AS-Fonds)	31	0.4	0.19	–	–	–
Total	**805**	**206.8**	**100.00**	**4,245**	**372.3**	**100.00**

Notes: Mixed funds hold both equity and fixed-income securities. All funds are open-ended investment funds. Note that the combined total differs from the value of total fund assets in Table 4.6.
Source: Bundesbank, *Capital Market Statistics*.

In summary, insurance companies have been the largest investor group in Germany, but investment funds are growing in significance. The investment fund market is dominated by institutional funds rather than retail funds. Although bonds and bank finance have been the largest asset class for institutional investors, equity has grown in importance. The share of equity investment has been larger for investment funds than for insurance companies.

4.4 Ireland

Assets under management on behalf of Irish residents and non-residents amounted to €180 billion in 1999. These assets, which represent almost the entire asset management industry, are controlled by 15 asset management companies. Table 4.10 shows the assets under management of members of the Irish Association of Investment Managers (IAIM) during the last decade.

Table 4.10: Assets under management of IAIM members, 1992–99 (€ billion)

	1992	1995	1999
Pensions[1]			
Segregated	6.2	9.8	24.9
Endowment	1.6	2.7	5.1
Unit-linked	2.5	3.9	11.0
Unit trusts	0.9	2.0	5.8
Total	*11.1*	*18.4*	*46.8*
Charities/religious	*0.6*	*0.8*	*1.6*
Life funds[2]			
Unit-linked	3.3	3.8	7.7
Main fund/endowment	2.6	4.5	7.7
Shareholders	0.1	0.1	1.0
Total	*6.0*	*8.4*	*16.4*
Private clients			
Segregated	1.1	0.8	0.3
Unit trusts	0.2	0.5	1.0
Total	*1.3*	*1.3*	*1.3*
Tracker bonds	*0*	*0*	*1.1*
Other[3]	*1.8*	*3.3*	*5.9*
Total for Irish residents	**20.9**	**39.0**	**73.1**
Total (including non-residents)	**24.7**	**32.2**	**179.7**

Notes: [1] Pension funds are classified as segregated, endowment, unit-linked or unit trust. Segregated pension funds refer to funds that are managed for a single client and are therefore not pooled. Endowment funds refer to pension products sold by insurance companies. Unit-linked funds are also sold by insurance companies, and their value relates to that of the underlying fund. Typically, these funds do not offer a guarantee. Unit trust funds are similar to unit-linked funds, except that they are sold by companies other than insurance companies. [2] Life funds consist of main funds, unit-linked funds or shareholders' funds. Main funds are generally with-profits funds, or comprise life-cover premiums. Unit-linked life funds have the same characteristics as pension funds. Shareholders' funds refer to funds owned by the life company. [3] The 'Other' category includes general insurance, corporates, and building-society funds.
Sources: IAIM, and Datastream.

Table 4.10 shows a substantial increase in assets under management of IAIM members during the last decade—by 1999, these were over seven times larger than those reported in 1992. It is interesting to compare growth in assets under management with the level of growth in the Irish stock exchange.[10] Growth in the index of Irish shares (ISEQ) is reported in Table A2.1 for 1990–2000.

The value of the ISEQ index is over four times larger in 2000 than in 1990. Taking account of this growth in the value of equities, it is not surprising that assets under management have grown substantially. Between 1992 and 1995, equities increased by 83%, which is similar to the 87% growth in assets under management for Irish residents

[10] It should be noted, however, that the comparison is of limited relevance, given the increasing diversification of portfolios, of which domestic equity is just a small proportion.

over the same period. Furthermore, during the period 1995–99, the value of equities doubled, while total assets under management quadrupled (as reported in Table 4.10).

In 1992, assets managed on behalf of resident clients accounted for more than 80% of total assets under management (shown in Table 4.10). By 1999, this had fallen to approximately 40%, indicating a substantial increase in assets managed on behalf of international clients.

In 1999, pension funds accounted for the largest proportion of assets under management (over 60% of assets managed on behalf of residents). The substantial growth in total assets under management is reflected by growth in assets managed for the categories listed. Assets managed for institutions, such as pension funds, charities and life funds, as well as tracker bonds,[11] have increased significantly, while those managed for private clients did not experience any growth over the past decade.[12] However, since retail funds include unit-linked, life, segregated funds, unit trusts and tracker bonds, it is worth noting that the latter figures may also incorporate funds managed on behalf of private clients. Therefore, the growth of assets of private clients may be more pronounced than the above figures would suggest.

In conclusion, there has been substantial growth in the asset management industry in Ireland. Pension and life funds now dominate the business, while private client business remains modest.

4.5 Italy

Table 4.11 below reports the assets under management for Italy during 1994–99.

[11] Statistics on assets managed on behalf of tracker bonds are not reported for other countries.
[12] Statistics on private clients are not included for other countries, with the exception of Italy.

Table 4.11: Assets under management for Italy, 1994–99 (€ billion)

	1994	1995	1996	1997	1998	1999
Mutual-ended funds and SICAV	**69.6**	**69.1**	**109.0**	**202.9**	**395.6**	**538.9**
Italian open-ended funds	67.2	65.5	101.7	189.7	371.7	474.6
Italian SICAV[1]	–	0.08	0.30	0.54	0.62	0.73
Italian closed-ended funds	–	–	–	–	0.46	1.4
Other[2]	2.4	3.5	7.0	12.6	22.8	62.2
Asset management net of investment in mutual funds and SICAV	**–**	**–**	**130.0**	**159.0**	**187.5**	**192.6**
Banks	68.7	70.0	96.8	134.5	191.5	222.4
Società di intermediazione mobiliare [3]	15.0	19.6	27.2	59.4	89.0	48.1
Investment companies[4]	9.7	9.7	10.6	–	–	91.3
Asset management total	93.5	99.4	134.6	193.9	280.5	361.9
Life insurance net of investment in mutual funds and SICAV	**44.7**	**55.8**	**67.3**	**84.4**	**101.6**	**126.2**
Life insurance total	45.0	56.3	67.6	85.2	106.1	134.9
Pension funds[5]	**49.1**	**52.2**	**51.1**	**53.8**	**56.3**	**57.7**
Total assets managed[6]	**163.3**	**177.0**	**357.4**	**500.1**	**741.0**	**915.3**

Notes: [1] SICAV (società di investimento a capitale varabile) refers to an open-ended investment company that has its registered office in Italy and offers its shares to the public. [2] Includes pre-1993 Luxembourg funds and post-1993 Luxembourg/Ireland funds. [3] Securities houses. [4] Before 1997 investment companies were known as trust companies. [5] Pension funds include pre-1993 pension funds, which refer to defined-benefit pensions, and post-1993 defined-contribution pensions. The latter has been estimated by the Bank of Italy. [6] Net of duplication in mutual funds and SICAV.
Sources: Assogestioni and Bank of Italy.

Table 4.11 shows that, in 1999, collective investment schemes accounted for 59% of total assets under management. SICAVs are the company form of mutual funds, while open-ended funds represent the contractual form. Compared to open-ended funds, SICAVs represent a small proportion of total mutual funds. Following the terminology used by Assogestioni and the Bank of Italy, *asset management* is the second-largest category, accounting for 21% of assets under management. In addition to managing the assets of funds, this category also contains the assets of 'managed accounts', which refers to accounts set up in banks or with securities houses on behalf of private clients. Decisions regarding the investment of monies in these accounts are made by the banks or securities houses on behalf of individual investors. Most of these companies have become società di gestione del risparmio, which are also permitted to manage assets on behalf of mutual funds.

Società di gestione del risparmio can also manage assets on behalf of life insurance companies and pensions funds, which respectively account for 14% and 6% of total assets. Assets under management in 1999 were almost six times larger than those managed in 1994. This is a reflection of the growth in all categories identified in Table 4.11. However, by the end of the millennium, the market for mutual funds had grown to manage funds over seven times larger than those managed in 1994. These funds largely consist of open-ended funds. Conversely, pension funds have grown by only 2%.

It is interesting to compare the growth in assets under management with that in the Mibtel index of equities (reported in Table A2.2).

Over the period 1994–99, the value of the Mibtel index tripled. Taking this growth in the value of equities into account, it would appear that part of the growth experienced by assets under management can be explained by a general rise in the value of the stock market. However, other factors, such as an increase in the value of bonds, may also have affected growth in assets, because funds may invest in equities as well as bonds.

Table 4.12 reports the portfolio allocation of Italian open-ended mutual funds and SICAVs only. A similar breakdown is not available for the assets controlled by asset managers, life insurance companies or pension funds. In 1999 the split between domestic and foreign assets was approximately equal. However, for the earlier period, domestic assets constituted over 60% of portfolios. For domestic assets, government bonds are preferred to equities; for foreign assets, the split between bonds and equities has changed over the 1994–99 period. Figures for 1994 and 1995 show the larger proportion of asset holdings in equities. This scenario is reversed during 1997 and 1998, when a larger proportion of assets is held in the form of foreign bonds.

Table 4.12: Portfolio allocation of mutual funds in Italy (%)[1]

	1994	1995	1996	1997	1998	1999
Net asset value (€ bn)	67.2	65.5	101.7	189.7	372.3	475.3
Domestic	**60.4**	**68.3**	**75.0**	**64.7**	**63.9**	**46.8**
Government bonds	41.8	50.2	62.2	52.0	51.9	34.2
Corporate bonds	3.0	3.2	2.4	2.1	1.4	2.6
Equities	15.6	14.9	10.4	10.6	10.6	10.0
Foreign	**26.7**	**23.0**	**15.4**	**24.3**	**28.9**	**47.4**
Bonds	11.1	8.9	7.4	13.6	17.2	21.8
Equities	15.6	14.1	8.0	10.7	11.7	25.6
Other	**12.9**	**8.8**	**9.5**	**11.1**	**7.2**	**5.8**

Note: [1] Allocation for other assets not available.
Source: Assogestioni.

To conclude, there has been very rapid growth in asset management in Italy. This is particularly evident in the categories of mutual funds, SICAVs and *asset management* by banks. There has also been particularly fast growth in foreign bond and equity holdings.

4.6 The Netherlands

Limited data on asset management is available from the regulatory authorities in the Netherlands. Balance-sheet assets for insurance companies and pension funds supplied by the insurance regulator are shown in Table A1.1, although it is not clear whether these are estimated at market or book value. Furthermore, they may incorporate assets other than financial assets.

Table 4.13 shows a breakdown of assets managed on behalf of institutions.

Table 4.13: Disaggregation of assets under management in the Netherlands[1] (€ billion)

	1994	1995	1996	1997	1998	1999
Insurance corporations	103.7	116.0	132.7	156.3	215.4	233.8
Pension funds	225.7	244.2	274.1	309.1	365.7	404.1
Investment institutions	41.4	47.4	53.8	65.1	72.4	83.1[2]
Total	**370.8**	**407.6**	**460.5**	**530.5**	**653.6**	**721.0**
				%		
Insurance corporations	28.0	28.5	28.8	29.5	33.0	32.4
Pension funds	60.9	59.9	59.5	58.3	56.0	56.1
Investment institutions	11.2	11.6	11.7	12.3	11.1	11.5

Notes: [1] Based on balance-sheet totals. [2] Calculated as the average of the first two quarters of 1999 as a result of the start of a new series.
Sources: De Nederlandsche Bank (2000), 'Statistical Bulletin', March, and Datastream.

Table 4.13 shows that total balance-sheet assets of institutions almost doubled over the period 1994–99. This growth has been reflected in each of the categories considered above. In particular assets of investment institutions and insurance corporations have doubled over the period.

The majority of assets are managed on behalf of pension funds, although the proportion controlled by pension funds has declined over the period. In 1999, insurance companies controlled over 32% of total balance-sheet assets, while investment companies accounted for more than 11%.

Growth in assets under management may, in part, be attributable to an increase in the stock market (see Table A2.3).

There have been significant annual increases in the value of the Dutch all-share index—by 1999, it had grown to over three times its 1994 value. This increase in the value of equities may explain some of the doubling of the value of assets under management reported in Table 4.13.

The aggregate allocation of the portfolios for the institutions identified above is reported in Table 4.14 below.

Table 4.14: Portfolio allocation (€ billion)

	1994	1995	1996	1997	1998	1999
Claims on monetary financial institutions (MFIs)	7.7	7.3	10.7	11.1	17.7	19.7
Short-term claims	5.5	4.5	6.2	6.9	6.8	7.8
Capital market investments						
Dutch securities	109.6	133.5	164.7	195.4	234.8	227.2
Bonds	70.2	83.9	95.6	105.8	122.0	114.4
Equities	39.4	49.6	69.2	89.6	112.9	112.8
Foreign securities	63.7	77.4	102.6	144.4	209.4	283.6
Bonds	18.0	21.3	32.2	47.9	77.3	100.0
Equities	45.6	56.1	70.4	96.5	132.1	183.5
Private loans	113.4	114.2	104.4	95.8	95.4	86.3
Mortgages	32.5	29.6	31.0	32.9	37.6	40.7
Real estate not for own use	33.6	34.7	37.8	40.3	46.8	49.5
Total capital market investments	352.9	389.4	440.5	508.7	624.0	687.3
Real estate for own use	1.0	0.9	0.9	0.8	0.5	0.6
Miscellaneous assets	3.9	5.5	2.2	3.0	4.6	5.6
Total	**370.8**	**407.6**	**460.5**	**530.5**	**653.6**	**721.0**
				%		
Claims on MFIs	2.1	1.8	2.3	2.1	2.7	2.7
Short-term claims	1.5	1.1	1.4	1.3	1.0	1.1
Capital market investments						
Dutch securities	29.6	32.7	35.8	36.8	35.9	31.5
Bonds	18.9	20.6	20.8	19.9	18.7	15.9
Equities	10.6	12.2	15.0	16.9	17.3	15.6
Foreign securities	17.2	19.0	22.3	27.2	32.0	39.3
Bonds	4.9	5.2	7.0	9.0	11.8	13.9
Equities	12.3	13.8	15.3	18.2	20.2	25.5
Private loans	30.6	28.0	22.7	18.1	14.6	12.0
Mortgages	8.8	7.3	6.7	6.2	5.8	5.6
Real estate not for own use	9.1	8.5	8.2	7.6	7.2	6.9
Total capital market investments	95.2	95.5	95.7	95.9	95.5	95.3
Real estate for own use	0.3	0.2	0.2	0.1	0.1	0.1
Miscellaneous assets	1.0	1.3	0.5	0.6	0.7	0.8

Sources: De Nederlandsche Bank (2000), 'Statistical Bulletin', March, and Datastream.

In 1994 capital market investments accounted for 95% of total balance-sheet assets. Over the period 1994–99, this proportion remained relatively stable. The proportion of these capital market investments attributable to loans has declined over the period from over 30% in 1994 to 12% in 1999. This reduction in loans has been offset by an increase in Dutch and foreign securities. In particular, the latter accounted for 17% of balance-sheet assets in 1994. Five years later, this percentage increased to almost 40%, while Dutch securities amount to over 31% of balance-sheet assets. In 1999, domestic bonds and

equities are of the same importance. However, foreign equities account for 65% of foreign securities.

To conclude, pension funds in the Netherlands account for over 50% of total institutional assets under management. Investment institutions and insurance corporations have experienced growth. The components of portfolios have changed over the period 1994–99, with a shift away from loans to (foreign) equities and bonds.

4.7 Spain

The asset management industry in Spain consists mainly of UCIT management firms or 'Sociedades Gestoras de Instituciones de Inversión Colectiva', insurance companies and 'Entidades Gestoras de Fondos de Pensiones', which primarily manage pension funds.

UCITs are divided into two main categories that differ with respect to their legal form:

- Sociedades de Inversión de Capital Variable, which are open-ended investment companies, and Sociedades de Inversión de Capital Fijo, which are closed-ended investment companies; and
- Fondos de Inversión, which have a contractual form and represent 'co-ownerships' of transferable securities.

The net assets of institutional investors, such as Instituciones de Inversión Colectiva (IICs) (mutual funds and investment companies), life insurance companies and pension funds, are reported in Table 4.15.

Table 4.15: Net assets of Spanish institutional investors,[1] 1994–99 (€ billion)

	1994	1995	1996	1997	1998	1999
Insurance companies	29	35	42	50	58	69
IICs	69	76	115	167	212	219
Individual discretionary mandates	1	2	2	3	4	5
Pension funds	10	13	17	22	27	32
Total net assets	**109**	**126**	**176**	**242**	**301**	**325**
				%		
Insurance companies	27	28	24	21	19	21
IICs	63	60	65	69	71	67
Individual discretionary mandates	1	2	1	1	1	1
Pension funds	9	10	10	9	9	11

Note: [1] All categories reported at market values.
Sources: Direción General de Seguros y Fondos Pensiones (DGSFP), Comisión Nacional del Mercado de Valores (CNMV), and Inverco.

According to Table 4.15, over the period 1994–99, total net assets managed more than tripled. Each category of investor experienced growth. This is particularly the case for IICs, whose assets increased by more than three times during the period under consideration. The assets of insurance companies and pension funds doubled and tripled respectively.

In 1994, the assets of IICs accounted for 63% of the total net assets. This percentage increased to 67% in 1999. Meanwhile, in 1999, insurance companies' assets accounted for 21% of total net assets, a decline of 6 percentage points on the 1994 level.

Table 4.16 provides a breakdown of total mutual funds' assets by investment fund category during 1997–99. Although money market funds, and bonds and debt security funds, still remained important, there was a sharp rise in balanced funds, and particularly in equity funds. Together, equity-related funds represented approximately 36% of total assets. The increase in equity funds was driven mainly by strong performance of the main equity markets, but it also reflects positive net inflows. Note also the strong presence of guaranteed funds, which accounted for approximately 24% of assets held through UCITs in 1999.

Table 4.16: Breakdown of total mutual fund assets by fund category, 1997–99

	1997		1998		1999		Change 97–99	
	€ bn	%	€ bn	%	€ bn	%	€ bn	%
Money market mutual funds	61	38	51	25	42	20	–19	–31
Bond and debt security funds	49	30	53	26	42	20	–7	–14
Sub-total	*110*	*68*	*104*	*51*	*84*	*40*	*–26*	*–45*
Balanced funds	15	9	33	16	47	23	32	113
Equity funds	9	6	18	9	28	13	19	111
Sub-total	*24*	*15*	*51*	*25*	*75*	*36*	*51*	*214*
Funds carrying minimum performance guarantee or capital loss hedge	28	17	48	24	47	24	19	68
Total	**162**	**100**	**203**	**100**	**206**	**100**	**44**	**27**

Source: Inverco.

Table 4.17: Portfolio allocation of UCITs in Spain (%)

	1994	1995	1996	1997	1998	1999
Net asset value (€ bn)	69	76	115	165	212	219
Domestic	**93**	**91**	**92**	**89**	**75**	**65**
Government bonds	88	84	85	77	62	47
Corporate bonds	2	4	4	6	6	9
Equities	3	3	3	6	7	9
Foreign	**3**	**2**	**2**	**5**	**17**	**28**
Bonds	3	2	2	3	12	16
Equities	n/a	n/a	n/a	2	5	12
Other	**4**	**7**	**6**	**6**	**8**	**7**

Sources: CNMV and Inverco.

To summarise, in Spain, UCITs are the prominent investment vehicle. Although not the largest investment category, equity funds have grown sharply in significance.

4.8 UK

Table 4.18 reports the breakdown of assets under management for institutional clients in the UK, and shows how the relative components have grown over the period 1994 to 1998.

Table 4.18: Assets under management for UK institutions, 1994–98 (€ billion)

	1994	%	1995	%	1996	%	1997	%	1998	%
Insurance companies	512.6	41.6	586.0	43.0	698.0	43.3	993.6	44.3	1,106.4	46.1
Investment trusts	50.3	4.1	51.4	3.8	63.6	4.0	77.2	3.4	67.0	2.8
Pension funds	563.0	45.7	602.5	44.2	690.6	42.8	962.9	42.9	996.7	41.5
Unit trusts	106.0	8.6	123.3	9.0	160.0	9.9	211.1	9.4	232.4	9.7
Total	**1,231.9**	**100**	**1,363.1**	**100**	**1,611.9**	**100**	**2,244.8**	**100**	**2,402.6**	**100**

Sources: Office of National Statistics (ONS), 'Financial Statistics', and Datastream.

Total assets under management for institutional clients, pension funds and insurance companies in the UK increased by more than 70% over the period 1994 to 1998, largely owing to the growth in assets managed for insurance companies and unit trusts. Both these categories experienced growth in funds under management of over 90%.

There are two explanations for this significant increase in assets under management. First, there may be an increase in the number of funds or clients. Second, it may be a result of the increase in the stock market. The FTSE 100 index, a proxy of stock market movements, grew by 72% from 1994 to 1998, which suggests that an increase in the value of the stock market played some role in the substantial increase in assets under management (see Table A2.4). However, because it consists of domestic equities, growth in this index can only partly explain the growth in assets under management, because assets can be invested in vehicles other than equities, such as bonds.

By 1998, insurance companies accounted for over 45% of total assets managed in the UK (see Table 4.18). The percentage of assets managed for investment trusts and pension funds declined over the period under consideration. Furthermore, the proportion of assets managed on behalf of overseas pension funds and private clients fell between 1995 and 1999 (as shown in Tables A1.2 and A1.3).

Table 4.19 shows the allocation of assets managed on behalf of UK institutions by type of asset.

Table 4.19: Portfolio allocation of UK institutions by asset, 1994–98 (€ billion)

	1994	1995	1996	1997	1998
Domestic					
Short-term assets	36.5	47.2	64.5	90.6	97.2
UK government securities	140.5	161.0	194.2	282.4	318.7
Corporate securities—equities	556.0	632.8	751.8	1,083.4	1,080.4
Corporate securities—other	45.5	55.1	63.4	97.7	124.7
Unit trust units	55.0	63.6	82.5	106.1	136.6
Property	76.6	67.6	73.7	97.5	100.2
Other	67.2	67.2	70.2	89.2	111.6
Sub-total	*977.3*	*1,094.5*	*1,300.3*	*1,847.0*	*1,969.4*
Overseas					
Short-term assets	2.3	2.3	2.8	5.0	3.5
Government securities	23.4	24.7	25.1	32.1	47.7
Corporate securities—equities	218.6	231.7	269.5	343.2	358.8
Corporate securities—other	9.0	7.3	11.7	15.3	20.4
Other	1.3	2.7	2.5	2.3	2.7
Sub-total	*254.6*	*268.7*	*311.6*	*397.9*	*433.2*
Total	**1,231.9**	**1,363.1**	**1,611.9**	**2,244.8**	**2,402.6**

Sources: ONS, 'Financial Statistics', and Datastream.

The majority of assets under management are held in domestic assets. The division of total assets under management between domestic and overseas appears to have been stable over the period 1994 to 1998. The substantial increase in assets under management has not led to a change in the relative market shares of domestic and overseas assets.

Most domestic and overseas assets comprise equity, although the proportion has declined over the period. The next-largest category is government securities.

Table A1.4 reports investment in different categories of assets by institution. All institutions choose to hold the majority of their assets in equity, a trend that was reflected in the aggregate statistics in Table 4.19. Investment trusts hold more equity than any other institution.

To summarise, the UK asset management industry is dominated by insurance companies and pension funds. Mutual funds represent a modest proportion of total assets under management. Despite a rapid rise in assets under management, the proportions allocated to insurance companies, investment trusts, pension funds and unit trusts have remained relatively constant since the mid-1990s. Domestic securities, particularly equities, dominate asset holdings.

4.9 USA

Table 4.20 contains information on the value of assets managed by asset managers, or 'investment advisers' as they are called in the USA, that are registered with the Securities

and Exchange Commission (SEC).[13] These figures do not include state-regulated investment advisers, which manage assets of less than $25m.

Table 4.20: Assets managed by SEC-registered investment advisers (€ trillion)

Year	Total assets	Assets managed for investment companies
1995	8.1	2.2
1996	8.6	2.8
1997	11.7	4.1
1998	12.5	4.3
1999	16.7	5.9
2000[1]	22.6	9.2

Note: [1] Estimate.
Sources: SEC Budget, and Datastream.

Assets managed by SEC-registered investment advisers almost trebled over the period 1995–2000 as reported in Table 4.20. This is partly explained by the significant growth in assets managed on behalf of investment companies or mutual funds. In 2000, assets managed on behalf of investment companies are estimated to increase to be over four times their value in 1995. This increases the share of total assets managed by investment advisers from almost 30% to 40%.

It is interesting to compare the growth in the value of assets under management with that in the stock exchange (see Table A2.5).

The NYSE Composite index more than doubled from 1993 to 1999. Therefore, a significant part of the growth in assets under management identified in the table may be due to an overall increase in the stock market.

Total financial assets for various institutions are shown in Table 4.21. Since investment advisers are not required to provide information on their clients when registering with the SEC, no such information is available. The Board of Governors of the Federal Reserve System publishes 'Flow of Funds Accounts of the United States', which contains totals for the industry. It is worth noting that these are not totals for investment advisers, but for the industry. Therefore, the divergence between the assets managed by investment advisers (as reported in Table 4.20) and total financial assets (reported in Table 4.21) may in part be explained by the exclusion of US-registered investment advisers that are located outside the USA (see Table 4.21). There are approximately 350 registered investment advisers located outside the USA. The SEC statistics also include assets managed by foreign firms that have received authorisation from the SEC to operate in the USA. In addition, state-registered investment advisers are included in Table 4.21 but not in Table 4.20.

[13] An investment adviser that generally manages assets greater than $25m must register with the SEC. Those that generally manage less than this amount must register with the state.

Table 4.21: Total financial assets for the USA (€ billion)

	1994	1995	1996	1997	1998	1999[1]
Insurance companies	**1,995**	**2,143**	**2,419**	**3,022**	**3,048**	**3,562**
Life insurance companies	1,462	1,577	1,802	2,263	2,304	2,732
Other insurance companies	532	566	618	759	744	829
Pension funds	**2,863**	**3,336**	**3,986**	**5,473**	**5,828**	**6,909**
Private pension funds	1,932	2,216	2,581	3,477	3,648	4,314
State and local government employee retirement funds	930	1,119	1,405	1,997	2,180	2,595
Mutual funds	**1,723**	**2,085**	**2,706**	**3,762**	**4,229**	**5,294**
Money market mutual funds	471	566	711	938	1,106	1,356
Mutual funds	1,160	1,416	1,879	2,690	3,004	3,790
Closed-end funds	92	103	116	134	119	148
Total	**6,581**	**7,563**	**9,111**	**12,257**	**13,105**	**15,764**
				%		
Insurance companies	**30.3**	**28.3**	**26.6**	**24.7**	**23.3**	**22.6**
Life insurance companies	22.2	20.8	19.8	18.5	17.6	17.3
Other insurance companies	8.1	7.5	6.8	6.2	5.7	5.3
Pension funds	**43.5**	**44.1**	**43.7**	**44.7**	**44.5**	**43.8**
Private pension funds	29.4	29.3	28.3	28.4	27.8	27.4
State and local government employee retirement funds	14.1	14.8	15.4	16.3	16.6	16.5
Mutual funds	**26.2**	**27.6**	**29.7**	**30.7**	**32.3**	**33.6**
Money market mutual funds	7.2	7.5	7.8	7.7	8.4	8.6
Mutual funds	17.6	18.7	20.6	21.9	22.9	24.0
Closed-end funds	1.4	1.4	1.3	1.1	0.9	0.9

Note: [1] Calculated as the average of four quarters.
Source: Board of Governors of the Federal Reserve System (2000), 'Flow of Funds Accounts of the United States: Flows and Outstandings Second Quarter 2000', September, Washington DC.

Throughout the 1994–2000 period, private pension funds remains the largest category, despite a decline in their proportion of total financial assets of almost 2 percentage points, from 29.4% in 1994 to 27.2% in 2000. On aggregate, pension funds have fallen by less owing to the increasing significance of state and local government employee retirement funds. A comparison with the UK may be informative, where the proportion of pension funds in total assets under management has similarly declined, by four percentage points during the period 1994 and 1998 (see Table 4.18).

The gap between private pension funds and mutual funds in the USA has been closing. The percentage of mutual funds has increased from 17.6% in 1994 to 25.7% in 2000. The proportion of mutual funds or unit trusts in the UK has also been growing, although mutual funds only account for 10% of total assets under management in the UK, compared with almost 26% in the USA. Total financial assets in 2000 are almost three times the size of the figure reported in 1994. This is a reflection of the growth in all the categories, but particularly in mutual funds.

The portfolio allocation of assets under management is reported in Table 4.22.

Table 4.22: Portfolio allocation, (€ billion)

	1994	1995	1996	1997	1998	1999[1]
Checkable deposits and currency	14.8	11.9	16.2	24.0	22.2	19.7
Foreign deposits	12.3	15.1	18.5	20.9	25.5	42.7
Time and savings deposits	106.8	124.9	158.9	209.7	208.1	245.6
Money market fund shares	37.5	46.1	88.5	143.2	149.2	187.5
Security repurchase agreements (RPs)	150.2	175.1	192.4	245.6	261.0	290.2
Credit market instruments	3,382.0	3,540.5	3,929.8	4,738.6	4,881.1	5,695.2
Open market paper	262.8	295.8	341.7	464.9	519.6	656.7
US government securities	1,249.5	1,273.9	1,359.1	1,537.4	1,537.8	1,756.9
Treasury	653.0	649.9	690.9	762.5	710.5	793.0
Agency	586.4	615.6	659.1	765.9	819.6	956.0
Municipal securities	425.1	437.2	488.3	591.1	606.5	689.2
Corporate/foreign bonds	1,006.4	1,090.2	1,272.8	1,608.3	1,696.1	1,996.5
Policy loans	67.1	73.3	80.6	93.3	86.4	92.3
Mortgages	190.5	183.5	189.6	213.1	209.7	245.5
Corporate equities	2,101.5	2,737.2	3,628.1	5,406.9	6,026.2	7,478.3
Mutual fund shares	169.2	262.3	361.0	559.6	619.4	759.1
Trade receivables	41.5	43.8	45.9	53.9	51.3	60.4
Miscellaneous assets	565.0	606.3	672.1	854.6	861.6	985.9
Total	**6,580.8**	**7,563.1**	**9,111.3**	**12,257.1**	**13,105.6**	**15,764.5**
				%		
Checkable deposits and currency	0.22	0.16	0.18	0.20	0.17	0.13
Foreign deposits	0.19	0.20	0.20	0.17	0.19	0.27
Time and savings deposits	1.62	1.65	1.74	1.71	1.59	1.56
Money market fund shares	0.57	0.61	0.97	1.17	1.14	1.19
Security RPs	2.28	2.31	2.11	2.00	1.99	1.84
Credit market instruments	51.39	46.81	43.13	38.66	37.24	36.13
Open market paper	3.99	3.91	3.75	3.79	3.96	4.17
US government securities	18.99	16.84	14.92	12.54	11.73	11.14
Treasury	9.92	8.59	7.58	6.22	5.42	5.03
Agency	8.91	8.14	7.23	6.25	6.25	6.06
Municipal securities	6.46	5.78	5.36	4.82	4.63	4.37
Corporate/foreign bonds	15.29	14.42	13.97	13.12	12.94	12.66
Policy loans	1.02	0.97	0.88	0.76	0.66	0.59
Mortgages	2.89	2.43	2.08	1.74	1.60	1.56
Corporate equities	31.93	36.19	39.82	44.11	45.98	47.44
Mutual fund shares	2.57	3.47	3.96	4.57	4.73	4.82
Trade receivables	0.63	0.58	0.50	0.44	0.39	0.38
Miscellaneous assets	8.59	8.02	7.38	6.97	6.57	6.25

Note: [1] Calculated as the average of four quarters.
Source: Board of Governors of the Federal Reserve System (2000), op cit.

Credit market instruments, including government and corporate bonds, accounted for over 50% of portfolios in 1994. However, the proportion of assets invested in both US government and corporate and foreign bonds has declined over the period 1994–99. Conversely, the proportion of portfolios held in equities has increased significantly over the period under consideration.

To conclude, pension funds are the largest component of the asset management business in the USA. Mutual funds have grown rapidly in significance. The overall portfolio allocation has shifted away from bonds and loans towards equities.

4.10 Summary

The structure of the asset management business differs appreciably across countries. Particularly pronounced is the difference between the UK, with its emphasis on pension funds and insurance companies and a modest mutual fund business, and most of Continental Europe and the USA. Insurance companies have been dominant in Germany and France. Mutual funds have been significant in France, Italy, and Spain and have grown rapidly in most Continental European countries and the USA. Assets held under mandates have grown significantly in France, and equities have risen in significance in most markets.

5. Industry Structure

While Chapter 4 examines the size and constituent parts of the asset management business, this chapter focuses on the structure of the industry in the seven countries studied in this report. In particular, the number and ownership of firms and the level of concentration in these industries are examined. This allows any similarities or differences between the countries to be identified, which may be relevant when the regulatory framework is considered in the following chapter.

5.1 Cross-country comparison

Table 5.1 reports the number and ownership of firms in the seven European countries under consideration and the USA.

Table 5.1: Number and ownership of asset management companies, 1998

	Number of firms	Types of institution[1] (%)			
		Bank	Insurance company	Investment manager	Pension fund
France	473	69.2	23.1	7.7	0
Germany	21[1]	25.0	53.6	17.9	3.6
Ireland	15	66.7	33.3	0	0
Italy	55	60.0	30.0	10.0	0
Netherlands	13[1]	15.4	38.5	7.7	38.5
Spain	7[1]	85.7	0	14.3	0
UK	1,160[2]	11.4	34.3	31.4	22.9
USA	18,650[3]	n/a	n/a	n/a	n/a

Notes: [1] Details of the structure of ownership for all countries and the number of firms for Germany and the Netherlands have been calculated using the InterSec 250. These figures only represent the upper range of the industry. For example, in Germany there are more than 500 independent asset managers, in addition to the number that are subsidiaries of larger groups. [2] This figure is the total number of firms regulated by IMRO. [3] This figure represents the total number of investment advisers in the USA. There are 6,650 investment advisers registered with the SEC and managing assets over $25m. The remainder are registered with state securities authorities.
Sources: InterSec 250, Euromoney, IAIM, Assogestioni, IMRO, SEC, and COB.

It is difficult to compare the size of the asset management industries within Europe because information on the number of firms is unavailable in some countries. However, comparing the sizes of the industry in the USA and the UK, the number of state- and federal-registered investment advisers operating in the USA is several times larger than their counterparts in the UK.

The InterSec 250[14] provides details on the types of institutions represented in the top 250 asset management companies. Firms are classified as banks, insurance companies, investment managers, internally managed pension funds, or independent unit trusts or mutual fund companies. The information on the type of institution reported in Table 5.1 was based on this classification for firms according to their total assets under

[14] InterSec Research Corp. conduct an annual survey of the largest, non-US-based, institutional investors. The top 250 companies are ranked by total assets under management, which is the sum of domestically and foreign-managed assets.

management. Consequently, Table 5.1 provides details of the types of institution operating at the upper end of the market, and not the total number of firms operating in the asset management industry for each country.

Table 5.1 shows that there is a higher proportion of UK firms categorised by InterSec as investment managers than any of the other countries considered. Asset managers in France, Germany, Ireland, Italy, the Netherlands and Spain are more likely to be subsidiaries of larger parent groups. In particular, those in France, Italy and Ireland are more likely to owned by banks, while those operating in Germany are owned by insurance companies. The Netherlands has the highest proportion of self-managed pension funds.

The concentration ratios for the top five, ten, and 15 European firms listed in the InterSec 250 are reported in Table 5.2. The concentration ratios in the table show the proportion of total InterSec assets that are controlled by companies in France, Germany, Ireland, Italy, the Netherlands, Spain and the UK.

Table 5.2: Concentration ratios (CRs) for seven European countries (%)

	CR5	CR10	CR15
1996	11.3	17.0	21.0
1997	12.3	18.7	22.9
1998	12.9	17.9	22.3

Sources: InterSec 250, and Euromoney.

These ratios suggest that the largest companies of the seven European countries listed in InterSec 250 do not control a large proportion of the total InterSec assets. However, concentration among the top five, ten and 15 firms did increase over the period 1996 to 1998.

The following sub-sections provide information on the market shares of asset managers in each country. Data on the market shares of asset managers was not available for Germany, Italy, the Netherlands or the USA. Table 5.3 reports the market shares of the largest 5, 10 and 15 companies operating in France, Ireland, Italy and the UK.

Table 5.3: Market shares (%)

	Top 5	Top 10	Top 15
France	42	58	–
Ireland	77	–	–
Italy	–	71	–
UK	21	37	46

Sources: AFG-ASFFI, IAIM, Bank of Italy, and FMA.

According to the market shares reported in Table 5.3, the five largest asset managers in Ireland control the majority of the market. However, the size of the industry in terms of the number of players could have an impact on this figure. Furthermore, the asset management industries in France and Italy are more concentrated than in the UK. Taking France and Italy as examples, this would suggest that asset management industries in Continental Europe are characterised by a higher degree of concentration.

Industry characteristics are discussed at country levels in the following sub-sections. For each country, annual statistics are reported on:

- the number of companies;
- the size of companies; and
- concentration levels.

5.2 France

The French asset management industry consists mainly of portfolio management companies, which engage in all types of discretionary asset management, and UCITS management companies, which manage UCITS exclusively. As shown in Table 5.4, in 1999 there were 353 portfolio management companies and 120 UCITS management companies.

Portfolio and UCITS management companies manage about 95% of total assets in France. The remaining 5% of assets are managed by around 160 investment service providers, which include subsidiaries of credit institutions and insurance companies, and for which asset management is not their sole activity.

Table 5.4: Number of portfolio and UCITS management companies, 1996–99

	1996	1997	1998[1]	1999
Portfolio management companies	162	301	334	353
UCITS management companies	294	203[2]	131	120
Total	**456**	**504**	**465**	**473**

Notes: Portfolio management companies are the sociétés de gestion de portefeuille and UCITS management companies are the sociétés de gestion d'OPCVM. [1] The 1998 figures are adjusted. [2] This figure includes 66 companies that have not yet been certified.
Source: COB, *Facts and Figures 1998, 1999*.

Table 5.5 considers the size of companies and reports the number of firms within different size categories as measured by their assets under management. In 1998, the large majority of companies (83%) managed a total portfolio of assets of less than €1.5 billion. Fifteen companies (4%) managed more than €15.2 billion each.

Table 5.5: Number of portfolio and UCITS management companies by size of assets under management, 1996–98

Assets under management by company (€ bn)	1996		1997		1998	
	no.	%	no.	%	no.	%
< 1.5	137	93.20	285	83.33	296	82.68
1.5–3	0	0.00	21	6.14	19	5.31
3–15.2	5	3.40	26	7.60	28	7.82
>15.2	5	3.40	10	2.92	15	4.19

Notes: The figures for 1996 include only portfolio management companies. For 1997 and 1998 only the management companies actually active in the market are included. Figures are calculated on the basis of the companies that had filed their annual accounts by December 31st 1998.
Source: COB.

Table 5.6 reports the assets managed by the 11 largest asset managers operating in France.

Table 5.6: Largest asset managers in France, 1999 (€ billion)

	Ownership	Assets under management	Market shares (%)
CDC Asset Management	Bank	149.4	11.7
INDOCAM	Bank	140.5	11.0
AXA Investment Managers	Insurance	95.6	7.5
Société Générale Asset Management	Bank	84.0	6.6
AGF Asset Management	Insurance	62.6	4.9
Credit Lyonnais Asset Management	Bank	50.6	4.0
FINAMA Asset Management	Insurance	44.8	3.5
BNP Gestions	Bank	42.4	3.3
Victoire Asset Management	Insurance	37.2	2.9
Banques Populaires Asset Management	Bank	34.8	2.7
Paribas Asset Management	Bank	33.1	2.6
Sub-total		*775.0*	*60.9*
Total assets under management		**1,273.0**	**100.0**

Sources: AFG-ASFFI (2000), 'Annuaire de la gestion financière 2000', COB, and companies' annual reports.

According to Table 5.6, the largest 11 asset managers in France control 61% of the market. The top five asset management companies control 42% of the market. Seven of the 11 largest asset managers are part of banking groups, while the remainder are subsidiaries of insurance companies.

5.3 Germany

The industry structure information for Germany is taken from InterSec250 and therefore only considers the largest asset managers in Germany. Table 5.7 reports the 21 German managers listed in InterSec250 and ranked by the value of their domestically managed assets.

The 21 largest players in the German asset management industry together own assets worth €881 billion. Ten (48%) of the top 21 asset managers are insurance companies or part of an insurance company group, seven (33%) are banks or part of a banking group, and three (14%) are companies that InterSec classifies as an independent asset manager. One asset manager (Siemens) is a large industrial group that manages its own pension fund.

Table 5.7: 21 largest German asset managers, 1998

Type of ownership	Institution
Bank	Deutsche Bank Group
	HypoVereinsbank
	Dresdner Bank Group
	Commerzbank Group
	Westdeutsche Land
	Sal Oppenheim
	BHF Bank Group
Insurance	Allianz Group
	Volksfursorge
	Aachener & Munchner
	Gerling Konzern
	Iduna Group
	Deutsche Kronken
	Alte Leipziger
	Karlsruher Lebensverich
	Deutsche Ring Gruppe
	Hannoversiche Lebensv
Investment management	Deka Bank
	Union Investment
	Metzler Investment
Pension fund	Siemens

Source: Intersec 250.

The Association of Investment Management Companies (Bundesverband Deutscher Investment Gesellschaften, BVI) collects asset ownership information on its members. Although the data refers to investment funds and not to mandated asset management, it allows an assessment of the degree of concentration in the German fund management industry. Table 5.8 reports the total assets of the ten largest investment companies, as well as the companies' shares in the total market. The table refers to public (retail) funds only, and distinguishes between real estate and other funds. As can be seen, the three largest investment companies managing public funds together own more than half of all industry assets. No corresponding statistics are available for special (institutional) funds.

Table 5.8: German investment funds (public funds only), 1999

Total assets (excl. real estate funds)			Total assets (real estate funds only)		
Company	**€ bn**	**% share of total market**	**Company**	**€ bn**	**% share of total market**
DWS	54.3	23.1	DESPA	12.3	24.3
DEKA	40.7	17.3	DIFA	8.6	17.7
DIT	36.3	15.4	DEGI	8.3	16.6
Union Investment	26.3	11.2	DGI	5.7	11.4
ADIG-Investment	17.5	7.4	CGI	5.0	9.9
DVG	7.3	3.1	III GmbH	4.1	8.1
Frankfurt-Trust	5.7	2.4	BfG ImmoInvest	2.0	3.9
Allianz	4.5	1.9	WestInvest	1.8	3.6
Oppenheim	3.9	1.6	CS Ass Man. Immo	0.9	1.8
Zurich Invest	3.8	1.3	HansaInvest	0.6	1.2

Notes: Public funds are open-ended investment funds offered to the general public. Real estate funds are distinguished from other funds, which are mainly securities funds. The market share is calculated by the BVI with respect to the entire market in the funds.
Source: BVI.

5.4 Ireland

The asset management industry in Ireland manages assets of approximately €180 billion, which are controlled by 15 companies. The level of concentration in the Irish asset management industry is quite high, with five IAIM members managing 77% of the total assets on behalf of Irish residents. This excludes assets managed on behalf of international clients. Three Irish firms are listed in the InterSec 250, two of which are owned by banks and one by an insurance company.

The last two years have been a period of increased consolidation. Mergers and acquisitions during this period have included:

- New Ireland Investment Managers acquired by the Bank of Ireland;
- Irish Life merged with Irish Progressive;
- ESB Fund Mangers taken over by Aberdeen Asset Managers;
- Guinness Mahon taken over by Irish Life & Permanent;
- Hibernian Investment Managers taken over by Commercial General Union;
- Norwich Union merged with Commercial General Union (now Commercial General & Norwich Union); and
- Ulster Bank Investment Managers taken over by KBC Belgium.

Ownership details of 14 members of the IAIM are reported in Table 5.9. Over 20% of investment managers are Irish-owned; the remainder are foreign-owned, of which there is an almost equal split between the UK and other EU countries.

Table 5.9: Ownership of IAIM members

	Number of firms	% of firms
Irish-owned	3	21
Foreign-owned	11	79
of which		
UK	6	43
EU	5	36
Total	**14**	**100**

Source: IAIM.

5.5 Italy

Table 5.10 reports the growth in the number of asset management companies in Italy.

Table 5.10: Number of asset management companies

	Number of asset management companies	Annual % change
1985	25	–
1986	34	36.0
1987	38	11.8
1988	50	31.6
1989	56	12.0
1990	58	3.6
1991	53	–8.6
1992	55	3.8
1993	51	–7.3
1994	53	3.9
1995	54	1.9
1996	54	0
1997	53	–1.9
1998	59	11.3
1999	55	–6.8

Source: Assogestioni.

According to the table, the number of asset management companies has more than doubled since 1985, reaching a peak in 1998. Most of this growth took place during the late 1980s. The rate of growth has since slowed and, in some years, declined, mainly as a result of increased consolidation in the industry. This may also explain the change in market shares of the largest companies with domestically managed assets listed by InterSec. These shares, reported in Table 5.11, have been calculated for the firms listed in InterSec with domestically managed assets, and are therefore not based on domestically managed assets for the asset management industry in Italy.

Table 5.11: Largest Italian firms, 1996–98

1996		1998	
Company	**Domestically managed assets (€ bn)**	**Company**	**Domestically managed assets (€ bn)**
IMI	13.2	San Paolo	51.4
INA	12.8	Generali Group	28.4
Riunione	10.4	Arca	26.7
Cariplo	10.4	INA	20.8
Banca Commerciale Italiana	10.0		
Fondiaria	6.6		
Generali Group	5.7		
Total	**69.1**	**Total**	**127.3**

Sources: InterSec, Euromoney and Datastream.

The number of firms, listed in InterSec, which domestically manage assets has declined during the period 1996–98. However, assets managed by Italian firms listed in InterSec increased to €127 billion by the end of 1998. Evidence of increased concentration has been reported in the 1999 Annual Report of the Bank of Italy,[15] which finds that the ten largest companies, in terms of assets under management, control 71% of assets.

Table 5.12 reports the details of ownership of asset management companies.

Table 5.12: Ownership of asset management companies (% net assets managed)

	1993	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Banks	63.7	66.7	74.1	80.8	83.8	93.8	94
Independent companies	19.3	16.5	8.7	3.7	–	–	–
Insurance	7.3	7.2	7.9	8.4	7.9	5.1	4.9
Other[1]	9.7	9.6	9.3	7.1	8.3	1.1	1.1

Note: [1] The 'Other' category includes joint ventures, non-financial intermediaries, and individual owners.
Sources: Assogestioni and Commissione nazionale per la società e la borsa (Consob).

From 1993 to 1999, net assets controlled by banks increased by almost 30 percentage points, at the expense of the other categories listed above. Moreover, this is consistent with the 1999 Annual Report of the Bank of Italy,[16] which notes that, of the top ten asset management companies, only two are owned by insurance groups, while the remainder are subsidiaries of banking groups.

[15] Banca d'Italia (1999).
[16] Banca d'Italia (1999).

5.6 The Netherlands

The number of institutions under supervision in the Netherlands is reported in Table 5.13.

Table 5.13: Number of institutions under supervision

Year	Life insurance	Non-life insurance	Pension funds
1989	93	392	1,156
1990	96	385	1,141
1991	96	385	1,139
1992	97	391	1,122
1993	98	393	1,114
1994	95	314	1,102
1995	96	280	1,090
1996	99	288	1,081
1997	107	284	1,058
1998	108	294	1,039
1999	103	281	1,015

Source: Verzekeringskamer.

The number of life insurance companies has increased by 11% over the last decade, while that of non-life insurance companies and pension funds has declined, by approximately 30% and 12% respectively. Despite this fall in the number of institutions under supervision, balance-sheet assets for these institutions have more than doubled over the period 1994 to 1999 (as shown in Table A1.1).

Table 5.14 reports the number of institutions regulated by the securities board of the Netherlands, the Stichting Toezicht Effectenverkeer (STE).

Table 5.14: Institutions supervised by the STE

Institutions	1997	1998	1999
Off-exchange institutions (portfolio managers and securities brokers)	154	181	206
Exempt off-exchange institutions[1]	3,070	4,384	5,877

Note: [1] Includes institutions, such as insurers, investment companies, pension funds and credit institutions, that do not need a licence to trade securities.
Source: STE, 'Annual Report 1999'.

The number of portfolio managers and securities brokers, referred to as off-exchange institutions, under the supervision of the STE increased during 1997–99. The number of such institutions that do not require a licence has also increased by a larger proportion.

Table 5.15 reports the domestically managed assets for Dutch companies listed in InterSec at the end of 1996 and 1998.

Table 5.15: Largest Dutch companies, 1996–98

1996		1998	
Company	**Domestically managed assets (€ bn)**	**Company**	**Domestically managed assets (€ bn)**
Algemeen Burgerlijk Pensioenfonds	114.9	ING Group	49.2
ING Group	80.9	Algemeen Burgerlijk Pensioenfonds	48.2
Aegon	71.6	Aegon	34.0
Robeco	38.2	Achmea	28.5
ABN Amro	28.4	Robeco	18.5
PVF	19.9	PGGM	15.1
Achmea	18.7	Pens Schootse Poort	14.7
SNS Group	16.2	Bouwnijverheid Bedrijfspensioenfonds	13.6
PGGM	16.1	Shell	11.5
Delta-Lloyd	15.3	Interpolis	11.0
Philips	12.4	SNS Group	7.9
Metaalnijverheid Bedrijfpensioenfond	11.6		
Shell	11.6		
Bouwnijverheid Bedrijfspensioenfonds	9.7		
Stad Rotterdam	9.0		
Interpolis	3.5		
Total	**478.1**	**Total**	**252.2**

Sources: InterSec, Euromoney and Datastream.

Table 5.15 shows that the number of Dutch firms listed in the InterSec 250 declined over the period 1996–98. In addition, domestically assets managed by the largest Dutch companies fell by almost 50%.

The ownership details of the Dutch firms listed in InterSec are reported in Table 5.16.

Table 5.16: Ownership of largest Dutch firms

	1996	**1997**	**1998**
Bank	2	2	2
Insurance company	6	6	5
Investment manager	2	2	1
Pension fund	6	6	5
Total	**16**	**16**	**13**

Sources: InterSec 250, and Euromoney.

According to Table 5.16, the largest categories of institutional investor are pension funds and insurance companies. As a consequence of the reduction in the total number of institutional investors in 1998, the number of firms in each category fell.

5.7 Spain

The Spanish asset management industry mainly consists of UCITS management companies, insurance companies and pension fund management companies. As shown in Table 5.17, in 1999 there were 127 UCITS management companies, 370 insurance companies and 112 pension fund management companies.

UCITS management companies and insurance companies manage about 88% of total assets in Spain. The remaining 12% of assets are managed by pension fund management companies and other investment service providers.

Table 5.17: Number of UCITS and pension fund management companies and insurance companies, 1996–99

	1996	1997	1998	1999
UCITS management companies	136	133	131	127
Insurance companies	398	392	378	370
Pension fund management companies	107	107	110	112
Total	**641**	**632**	**619**	**609**

Note: UCITS management companies are 'Sociedades Gestoras de IIC'.
Sources: CNMV, DGSFP, and Inverco.

Table 5.18 considers the size of mutual funds management companies and reports the number of firms within different size categories, as measured by their assets under management. In 1998, the large majority of companies (83%) managed a total portfolio of assets of less than €1.5 billion. Only three companies (2%) managed more than €15 billion each.

Table 5.18: Number of UCITS management companies by size of assets under management, 1996–98

Assets under management by company (€ bn)	1996		1997		1998	
	no.	%	no.	%	no.	%
< 1.5	123	90.6	114	85.7	109	83.2
1.5–3	6	4.4	10	7.5	10	7.6
3–15	5	3.6	7	5.2	9	6.8
>15	2	1.4	2	1.6	3	2.4

Source: Inverco.

The Association of UCITS and Pension Funds (Asociación de Instituciones de Inversión Colectiva, Inverco) collects asset ownership information on its members. Although the data refers to investment and pension funds, not to mandated asset management, it allows an assessment of the degree of concentration in the Spanish fund management industry.

Table 5.19 reports the assets managed (UCITS and pension funds) by the ten largest asset managers operating in Spain.

Table 5.19: Largest asset managers in Spain, 1999 (€ billion)

	Ownership	Assets under management	Market shares (%)
BSCH	Bank	54.5	22.9
BBVA	Bank	50.9	21.4
La Caixa	Saving bank	16.5	6.9
Ahorro Corporacion	Saving bank	12.0	5.0
Caja Madrid	Saving bank	10.0	4.2
Banco Popular	Bank	8.5	3.5
Bankinter	Bank	6.3	2.6
Banco Sabadell	Bank	5.5	2.3
Ibercaja	Saving bank	4.4	1.8
Deutsche Bank	Bank	4.3	1.8
Sub-total		*172.9*	*72.7*
Total assets under management		**237.8**	**100.0**

Source: Inverco.

According to Table 5.19, the largest ten asset managers in Spain control 73% of the market. The top five asset management companies control 60% of the market. Six of the ten largest asset managers are part of banking groups, while the remainder are subsidiaries of saving banks.

5.8 UK

The number of firms regulated by IMRO is reported in Table 5.20.

Table 5.20: Firms regulated by IMRO, 1993–2000

	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
Number of regulated firms at start of year	1,209	1,142	1,153	1,100	1,055	1,047	1,090
Applications							
New firms admitted	60	98	78	55	79	108	108
Firms resigned/terminated	(127)	(87)	(131)	(100)	(87)	(65)	(38)
Number of firms regulated at end of year	1,142	1,153	1,100	1,055	1,047	1,090	1,160

Source: IMRO, 'Report & Accounts 1999–2000'.

During the past seven years, the number of firms regulated by IMRO has declined from a peak of 1,209 in 1993/94 to 1,160 in 1999/00. This decrease of almost 5% may be explained by an increase in consolidation in the industry, or by the excess of withdrawals over admissions. The level of entry of regulated firms increased by 80% over the period 1993/94 to 1999/00, which was accompanied by a 70% reduction in the number of resignations and terminations. However, only in the last two years does the number of new firms admitted exceed the number of firms resigning.

Table 5.21 reports the assets under management of the top five, ten and 15 members of the FMA as a proportion of the total assets managed by FMA members. These figures were calculated on the basis of the UK operations only of 73 FMA members. These asset

managers are managing clients' assets worldwide. Therefore, for Table 5.21, the market is defined as all UK fund managers managing worldwide assets. The FMA members control approximately 80% of this market. Total assets under management for the 73 FMA members amount to £2,071.5 billion.

Table 5.21: Concentration ratios of FMA members

	Assets under management (£ bn)	Market share (%)
Top five companies	550.6	26.6
Top ten companies	949.6	45.8
Top 15 companies	1,196.1	57.7
Total assets under management of FMA members	2,071.5	100.0

Source: FMA.

The ownership of the largest firms, according to total assets under management, listed by InterSec, is shown in Table 5.22.

Table 5.22: Ownership of UK firms, as listed in Intersec 250

	1996	1997	1998
Bank	6	7	4
Insurance company	18	17	12
Investment manager	11	11	11
Pension fund	6	6	8
Total	**41**	**41**	**35**

Sources: InterSec 250, and Euromoney.

Of the largest fund managers operating in the UK in 1998, the majority were owned by insurance companies, despite the declining number of insurance companies listed in the InterSec 250. The number of pension funds has increased over the period, while, conversely, the number of banks has declined and the number of investment managers has remained stable.

5.9 USA

Table 5.23 contains information on the number of investment advisers registered with the SEC. These figures do not include state-regulated investment advisers.

Table 5.23: SEC-registered investment advisers

Year	Number of advisers
1995	22,000
1996	22,400
1997	12,698
1998	8,000
1999	6,650
2000[1]	6,850

Note: [1] Estimate.
Source: SEC Budget.

The total number of SEC-registered investment advisers declined following the enactment of the National Securities Markets Improvement Act 1996, which established new requirements for an adviser to register or remain registered with the SEC. Advisers that did not meet the revised criterion are regulated by the state. It has been estimated that 12,000 investment advisers are registered with state securities authorities.

Despite this decline of approximately 70% in the number of investment advisers registered with the SEC, total assets managed by investment advisers have increased by almost 80% since 1995 (as shown in Table 4.20). This would suggest that the market controlled by investment advisers registered with the SEC has become more concentrated. Between 900 and 1,000 investment advisers provide services to investment companies.

5.10 Summary

In all of the countries considered, with the exception of the UK, asset management is dominated by banks and insurance companies. Levels of concentration are high in these countries and are apparently increasing. Concentration is relatively low in the UK.

6. Regulatory Framework

This chapter summarises the regulatory framework in several European countries and the USA. Extensive descriptions of the regulatory regime in each country are provided in the appendices to the report. The topics covered are:

- regulatory authorities;
- capital requirements;
- separation of clients' assets;
- disclosure;
- enforcement;
- audit;
- compensation;
- insurance;
- complaints;
- authorisation; and
- supervision.

6.1 Regulatory authorities

France	COB authorises and regulates asset managers.
Germany	The Bundesaufsichtsamt für das Kreditwesen (BAKred), the federal banking supervisory authority, regulates companies that provide financial services, other than insurance companies.
	Insurance companies are regulated by the Bundesaufsichtsamt für das Versicherungswesen (BAV), the federal insurance supervisory authority.
Ireland	The Central Bank of Ireland is responsible for the authorisation and supervision of asset management companies.
	Asset management activities conducted within an insurance company or a pension fund are supervised by the Department of Enterprise, Trade and Employment or the Pensions Board, respectively.
Italy	The Bank of Italy and Consob are responsible for the regulation of asset management companies.
Netherlands	Portfolio managers are regulated by STE, the securities board of the Netherlands.
	The Insurance Chamber (Verzekeringskamer) regulates insurance companies and pension funds that manage their own assets. Collective investment schemes are regulated by the Dutch Central Bank.
Spain	Comisión Nacional del Mercado de Valores (CNMV) authorises and regulates asset managers and UCITS managers.
	Dirección General de Seguros y Fondos de Pensiones (DGSFP) authorises and regulates pension fund managers and insurance companies.
UK	The Financial Services Authority (FSA) regulates asset management.
	The introduction of the Financial Services and Markets Act 2000 established the FSA as the single body responsible for the regulation of all financial services. Previously this was the responsibility of IMRO, a self-regulatory organisation authorised by the FSA.
USA	Investment advisers managing assets of less than $25m are regulated by state securities authorities.
	The SEC is responsible for the supervision of investment advisers with assets under management greater than $25m.

6.2 Capital requirements

Capital requirements imposed on asset managers by regulators in seven European countries and the USA are summarised below.

	Initial capital	Liquid capital requirement					
		Expenditure -based	Position risk	Settlement/ delivery/ counterparty/ underwriting	Large-exposure [1]	Foreign-exchange [2]	Other assets [3]
France	✔	✔	×	×	×	×	×
Germany	✔	✔	✔	✔	✔	✔	✔
Ireland	✔	✔	✔	✔	✔	✔	✔
Italy	✔	✔	×	×	×	×	×
Netherlands	✔	✔	✔	✔	✔	✔	✔
Spain	✔	✔	×	×	×	×	×
UK	✔	✔	✔	✔	✔	✔	✔
USA	×	×	×	×	×	×	×

Notes: [1] Large-exposure risk arises as a result of exposure to a counterparty. [2] Foreign-exchange risk. [3] Refers to risks arising from other assets.
Source: OXERA.

Unlike their US counterparts, regulators in each of the European countries under consideration have imposed a capital requirement on asset management companies. For France, Germany, Ireland, Italy, the Netherlands, Spain and the UK, regulators have devised a capital requirement with two components. The first is an initial capital requirement. Typically, this is fixed at three levels, as set out in the Capital Adequacy Directive—€50,000, €125,000 and €730,000, depending on the activities conducted. If the firm does not hold clients' assets, deal for its own account, or underwrite issues, then its initial capital requirement is €50,000. If the asset manager deals for its own account or underwrites issues, its initial capital requirement is €730,000. Holding the clients' assets requires initial capital of €125,000. In the Netherlands, this middle level of initial capital has been removed and the lower requirement has been reduced to €35,000 for firms that transmit orders from the client to another firm. The other two levels of requirement (€50,000 and €730,000) remain unchanged. Asset managers in Italy face an initial capital requirement of 2 billion lire (€1.033m), irrespective of the services offered by the firm. In France, the initial capital requirement is FFr350,000 (€53,357). The initial capital requirement in Spain is set at Ptas10m (€60,101).

In addition to the initial capital requirement, there is a liquid capital requirement. The composition of this requirement is similar in France, Germany, Ireland, the Netherlands and the UK. In these countries, the liquid capital consists of an expenditure-based requirement and requirements for position risk, settlement/delivery/counterparty failure, underwriting risk, large-exposure risk, foreign-exchange risk and other assets risk. In France, Germany[17], Ireland and the Netherlands, the expenditure-based requirement is equal to 25% of the fixed overheads in the previous year. This is similar to the '13-week' rule placed on UK asset managers, which states that the expenditure-based requirement is

[17] In Germany, the 25% rule has not yet been transmitted into domestic law.

equal to 13 weeks of annual audited expenditure.[18] Unusually, in Italy, the liquid capital requirement is a function of the value of assets under management and must be at least equal to 25% of fixed operating costs in the previous financial year. The capital requirement is calculated as 0.5% of the value of assets in open-ended funds, SICAVs and pension funds; 2% for closed-ended funds; and an additional capital charge in the case of pension funds that guarantee the repayment of principal.

A two-tier system of regulation operates in the USA. Investment advisers that manage assets of less than $25m are regulated by the state, while advisers controlling assets over $25m are required to register with the SEC, the federal regulator. In regulating these investment advisers, the SEC focuses on enforcement and disclosure, and does not impose regulatory capital requirements. However, capital requirements may be imposed at the state level—for example, in California, these range from $1,000 to $25,000, depending on the activity conducted by the company.

6.3 Separation of clients' asset

France	Assets under mandate are required to be held by a company outside the asset management company. The assets of OPCVMs are held by a depositaire which is responsible for custodianship and inspection.
	In addition, safe-custody provisions are included in the code of conduct defined by the trade association.
Germany	Portfolio managers must keep client securities in a safe-custody account at a credit institution.
Ireland	Client money must be held separately from that of the company.
Italy	Clients' assets are to be separated from those of other clients and from those of the company.
Netherlands	Asset management companies must ensure that clients' assets are held separately from those of the firm.
	The degree of separation depends of the type of activities conducted by the firm. For example, a firm that only acts as a financial intermediary must hold clients' assets in a bank account in the client's name.
Spain	An asset manager must ensure that clients' assets are separately identifiable from the assets of the asset manager and from those of other clients. The assets of OPCVMs and pension funds are held by a depositaire, which is responsible for custodianship and inspection.
UK	An asset manager must ensure that clients' assets are separately identifiable from assets of the firm. The purpose of this rule is to prohibit the mingling of client and firm assets.
	A firm that is a custodian, or appoints a custodian on behalf of the client, must perform a reconciliation of the client's account at least twice a year.
USA	An SEC-registered investment adviser with custody of clients' assets is required to provide additional information to clients. For example, the client must be provided with an itemised statement of the securities in the possession of the firm.
	All such funds and securities of clients will be examined and verified by an independent accountant at least once during each calendar year and without prior notice to the investment adviser. Following the examination, the accountant's report will subsequently be filed with the SEC.

Source: OXERA.

[18] This may be reduced to six weeks if the company does not act as a custodian or appoint a custodian on behalf of the client.

6.4 Disclosure

France	Clients must be periodically notified of the value and composition of the portfolio.
Germany	Regular fund reporting is required under the Investment Company Act.
Ireland, Italy, Netherlands, UK	Clients must be notified of the value and composition of the portfolio.
Spain	Clients must be periodically notified of the value and composition of the portfolio. Clients must also be notified when there are conflicts of interest.
USA	In addition to notification of the value and composition of the portfolio, the 'Brochure Rule' requires investment advisers to disclose at least the information contained in Part II of Form ADV, the registration form. The information contained in Part II includes the education and business background of the investment adviser, and any disciplinary events.

Source: OXERA.

6.5 Enforcement

France	COB can impose administrative sanctions concerning practices contrary to regulations.
Germany	The regulatory authority is allowed to impose sanctions and fines to punish breaches and enforce compliance.
Ireland	There are several powers available to the Central Bank of Ireland which may be imposed on firms that fail to comply with regulations. For example, authorisation may be revoked or an application for authorisation refused. In some circumstances, penalties, such as a fine or a term of imprisonment, may be issued.
Italy	Penalties of imprisonment and fines may be imposed on individuals who provide investment services without authorisation or who breach regulations.
Netherlands	The STE has the power to penalise and fine companies that do not comply with regulations.
Spain	CNMV can propose to the Ministry of Finance the imposition of administrative sanctions and fines concerning practices that contravene regulations, in respect of UCITS managers and individual portfolio managers. DGSFP can propose to the Ministry of Finance the imposition of administrative sanctions and fines concerning practices that contravene regulations, in respect of pension fund managers and insurance companies.
UK	There are a number of actions available to IMRO to enforce regulations, such as warnings, powers of intervention, investigation, enforcement committee and disciplinary tribunal.
USA	The Division of Enforcement conducts investigations into possible violations of regulations, and is responsible for prosecuting the civil suits of the SEC in the federal court, as well as its administrative proceedings.

Source: OXERA.

6.6 Audit

France	Asset managers are required to submit audited accounts. The COB and senior management within the company must be notified of any irregularities discovered by auditors during their examinations of the company.
Germany	Institutions must submit audited accounts. The auditor must immediately report facts that warrant the qualification or withholding of the audit certificate.
Ireland	External auditors must inform the Central Bank of any deficiencies in the financial systems, matters that affect the solvency of the company, and inaccuracies in the returns to the Bank.
Italy	Any irregularities discovered by auditors during their examination of the company must be promptly reported to the Bank of Italy and Consob.
Netherlands	Portfolio managers are required to submit accounts to the STE on a regular basis. External auditing is conducted annually by a company appointed by the asset manager. On average, the STE conducts a visit of a portfolio manager once a year.
Spain	Asset managers, UCITS managers and pension fund managers are required to submit audited accounts on a regular basis. External auditing is conducted annually by a company appointed by the management company. The audit must be performed in accordance with auditing standards.
UK	An auditor must be appointed by a company to prepare its annual financial returns to IMRO. The audit must be performed in accordance with auditing standards. IMRO has the power to appoint a second auditor to report the financial statements.
USA	The Office of Compliance and Examinations at the SEC is responsible for conducting examinations and inspections of investment advisers.

Source: OXERA.

6.7 Compensation

France	There is no specific compensation scheme for clients of asset managers. However, a scheme operates whereby deposits, bonds and cash are guaranteed. The investments of asset managers' clients are covered under this scheme.
Germany, Ireland, Netherlands	The Investor Compensation Directive has been introduced into domestic legislation. The compensation scheme will provide payment to private investors in the event that an asset management company is unable to return securities or monies owing to the client. The amount of compensation payable is 90% of the claim, subject to a maximum payment of €20,000.
Italy	There are two compensation schemes in operation: one for clients of banks and the other for clients of asset managers and securities houses. The latter has been in operation since 1991.
Spain	There is no specific compensation scheme for clients of asset managers, UCITS managers, or pension fund managers.
UK	The Investors Compensation Scheme was established in 1986 to provide compensation to private investors. The amount of compensation is currently set at a maximum of £48,000 (€74,146). This is calculated as the full payment of the first £30,000 (€46,404) of the claim, plus 90% of the next £20,000 (€30,936).
USA	There is no specific compensation scheme in operation.

Source: OXERA.

6.8 Insurance

France, Germany, Ireland, Italy, Netherlands, Spain, UK	There is no compulsory insurance requirement.
USA	Under the Investment Companies Act 1940, an investment company[1] is required to obtain a bond against larceny and embezzlement. No such requirement is placed on investment advisers.

Note: [1] An investment company is equivalent to a mutual fund.
Source: OXERA.

6.9 Complaints

France	COB deals with complaints against asset managers. Complaints that are upheld can lead to sanctions, referral to the courts or amicable settlement.
Germany	Internal procedures dealing with complaints are required under conduct-of-business rules (for banking groups).
Ireland	Asset management companies are required to maintain a written record of all complaints. Complainants have the right to report the matter to the Central Bank, should they not receive satisfaction from the company.
Italy	There is no specific ombudsman to deal with complaints concerning asset management companies. However, individual companies may complain to Consob, with the possibility of taking the complaint before the courts.
Netherlands	Regulations require that companies deal with complaints within a reasonable period of time. A record of all complaints must be maintained. Complainants have the right to notify the STE of the matter, should they not receive satisfaction from the company. In addition, the Dutch Securities Institute has established a complaints committee to deal with complaints from private investors concerning firms regulated by the STE.
Spain	There is no specific ombudsman to deal with complaints concerning asset management companies, UCITS, or pension funds. However, there is an ombudsman to deal with complaints regarding insurance companies. UCITS and pension fund clients may complain to CNMV or DGSFP, with the possibility of taking the complaints before the courts.
UK	Companies are required to have a procedure to deal with written complaints. The Investment Ombudsman was appointed to deal with complaints relating to services provided by firms regulated by IMRO/FSA.
USA	If an investor has failed to receive settlement of a complaint from a firm, the complainant may report the matter to the Office of Investor Education and Assistance at the SEC. It may then decide to refer the matter to the Enforcement Division for further investigation. The Office of Investor Education and Assistance will send a report to the firm and the investor. If the complaint remains unsettled, there is a limited time period within which the investor may commence legislative action.

Source: OXERA.

6.10 Authorisation

France	COB's review of the application for authorisation focuses on the adequacy of the asset manager's legal form, the capitalisation, and the management and operational infrastructure necessary to conduct business.
Germany	In addition to the minimum capital requirement and the organisational arrangements necessary for the proper operation of the business, institutions must have trustworthy managers with the necessary qualifications.
Ireland	The Central Bank must be satisfied that the management of the company comprises persons of probity and competence; that the firm has sufficient capital; and that the regulations set out by the bank are likely to be met. It must also understand the risks of the business; the suitability of shareholders and directors must be assessed; the financial position of the firm must be examined; and compliance with regulations must be ensured.
Italy	The management of the company must fulfil integrity and experience requirements set out by the Minister of the Treasury. The name of the company must contain the words 'società di gestione del risparmio' and it must have a registered office in Italy.
Netherlands	Management must be reliable and competent, and comprise of at least two people; there must be a minimum level of shareholder equity and own resources; certain accounting procedures must be adopted and information disclosed to investors.
Spain	Asset management companies and UCITS management companies must be authorised and registered by CNMV. Pension fund managers must be authorised and registered by DGSFP. Both types of managers must fulfil different capital requirements and the management and operational infrastructure necessary to conduct business.
UK	An asset management company must prove that it has and will continue to have 'fit and proper' persons to undertake investment business. This criterion is judged on the basis of compliance with ten principles devised by the FSA.
USA	Registration as an investment adviser with the SEC involves the completion of the registration Form ADV; compliance with the 'Brochure Rule'; maintaining accurate and current books and records; and being subject to inspection and examination by SEC staff.

Source: OXERA.

6.11 Supervision

France	Supervision by the COB includes on-site inspections of business premises.
Germany	Supervised institutions must provide the necessary information. The authority can carry out audits, inspect business premises and send representatives to general meetings.
Ireland	An asset management company is subject to continual supervision. This includes on- and off-site monitoring.
Italy	The Bank of Italy and Consob carry out inspections of authorised asset managers.
Netherlands	Portfolio managers are assessed on a regular basis. Financial adequacy is investigated, and any violation of the regulations will result in the imposition of penalties and fines.
	The STE must be notified of a change in the management or scope of the business.
Spain	Institutions must provide the CNMV or DGSFP with the necessary relevant information. An asset management company is subject to continual supervision, including on-site inspections of business premises.
UK	Asset management companies are continually monitored. Adequacy of financial resources is examined, and penalties are imposed on firms that have violated regulations.
USA	The Office of Compliance and Examinations at the SEC is responsible for conducting inspections of investment advisers. Furthermore, investment advisers with custody of clients' assets are subject to examination by independent auditors without prior notification.

Source: OXERA.

6.12 Summary

There are several significant points to be drawn from this section.

- Capital requirements are broadly similar in European countries. There are no federal capital requirements imposed on investment advisers in the USA.

- There are custody requirements in all European countries under consideration. In the USA, an investment adviser with custody of clients' assets has to supply the client with additional information.

- There are greater disclosure requirements in the USA than in Europe.

- Different forms of compensation schemes exist in all European countries under consideration. There is no compensation scheme in operation in the USA.

- An investment management company operating in the USA is required to have insurance, which is not the case for European firms. Finally, a high level of enforcement occurs in the USA through auditing, administrative proceedings and civil actions.

In some European countries, regulators emphasise capital requirements, custody and compensation schemes. US regulators focus on disclosure, auditing, insurance and enforcement.

7. Survey of European Asset Managers

This chapter focuses on the results of a questionnaire that was devised to obtain information on the types and frequency of operational risks faced by asset management companies in six European countries. It is estimated that the companies in the sample have more than €5 trillion of assets under management globally.

The chapter is structured as follows:

- section 7.1 details the functions of the asset management company;
- section 7.2 sets out the methodology used in devising the questionnaire;
- section 7.3 describes the sample;
- section 7.4 explores the distribution of assets under management for the companies in the sample;
- section 7.5 describes the activities of the companies in the sample;
- section 7.6 examines the operational risks and losses in discretionary asset management;
- section 7.7 provides a summary of the responses on the forms of protection against operational losses and risks; and
- section 7.8 summarises the main results of the survey.

The sample of firms that responded to the questionnaire are first described in terms of the location of main operations, the type of institution and size, which is measured by assets under management, employment and transactions. The type of services offered and activities conducted by the firms are then analysed. Third, the size of losses as a result of operational risks is examined. Finally, the forms of protection implemented to mitigate the impact of operational risks are reported.

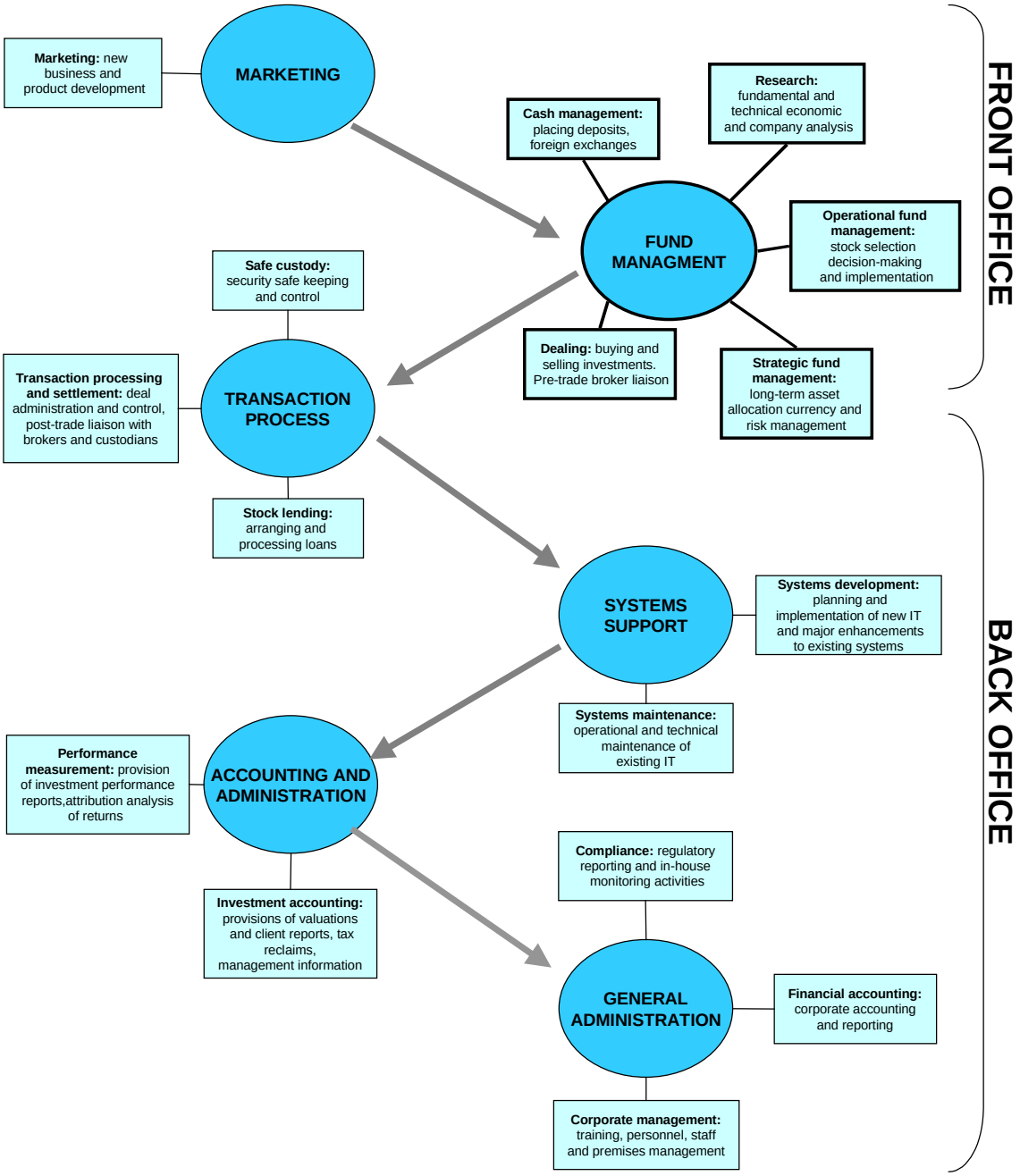
A copy of the questionnaire sent to asset managers is provided in Appendix 10.

7.1 Functions of the asset management industry

The following diagram provides a simplified description of the various activities in asset management.[19] This is helpful in order to understand the analysis of operational risks provided in subsequent sections. Activities related to a unit trust management are not explicitly noted since they are outside the scope of this study.

[19] The diagram, provided by British Invisibles, was originally produced by PriceWaterhouseCoopers (PWC).

Figure 7.1: Functions of the asset management industry



Source: British Invisibles, PWC.

7.2 Methodology

The sample was selected on the basis of the countries under consideration in this report including France, Germany, Ireland, Italy, the Netherlands, and the UK, with the focus on companies that provided discretionary asset management services. Companies were asked to complete the questionnaire for their domestic operations only. Contacts were made with asset management associations (namely AFG-ASFFI, Assogestioni, EAMA, FMA, IAIM, Inverco) and with a large number of contacts in asset management companies. Trade associations in these countries provided a large proportion of the sample, and additional companies were identified from other sources. To obtain a representative sample, asset managers of various sizes were included. Responses were typically received from either heads of risk, compliance officers, finance directors, or, occasionally, the managing director of the asset management business. Questionnaire responses were treated in the strictest confidence and confidentiality statements were signed. Great care has been taken in presenting the analysis of the responses to the questions to ensure that no firm-specific information has been divulged.

During the initial stages of the report, a pilot questionnaire was sent to ten companies. Interviews were conducted with these firms with the purpose of improving and revising the structure of the questionnaire. Subsequently a revised questionnaire was sent to 83 companies in seven European countries (France, Germany, Ireland, Italy, the Netherlands, Spain, and the UK). Twenty-nine replies were received from this mailing, in addition to the ten already received. Thus the total number of completed questionnaires received was 39. The overall response rate was 42%.

The following sections provide an analysis from 39 completed questionnaires that were received from asset management companies throughout Europe. Results usually relate to the financial year of 1999.

7.3 Description of the sample

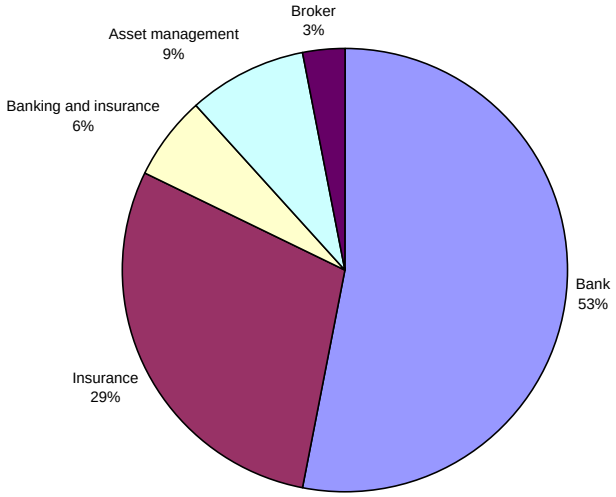
The sample comprises asset management companies that are based in six European countries. Of the 39 companies that responded to the questionnaire, two have their head office in the Netherlands, three in Germany, four in Ireland, seven in Italy, eight in France, and 15 in the UK. No responses were received from Spain.

Of those that responded to the questionnaire, 34 are subsidiaries of a group, and five are independent, stand-alone companies.

Regulatory bodies of the asset management companies and their parent firms are reported in Table A10.1.

Firms were classified according to the activity of their parent firm, which was divided into five categories: banking, insurance, banking and insurance combined, asset management, and brokerage. The category ‘asset management’ is used to define the situation where both the parent and the subsidiary are asset managers. The difference between an asset manager as just defined and an independent company is that the latter is not a subsidiary of a parent group. The 34 subsidiaries of larger groups in the sample have been divided according to the activity of the parent firm in Figure 7.2.

Figure 7.2: Activity of parent firm

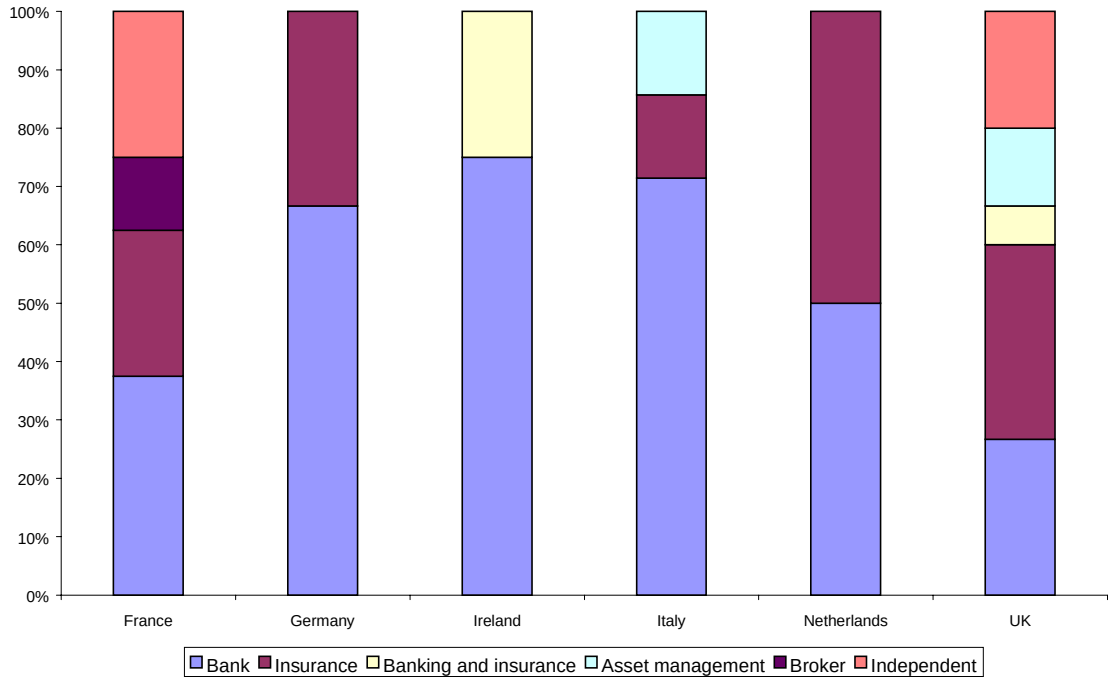


Source: OXERA.

Over half of the asset management companies are owned by banking groups, and approximately a third of companies are subsidiaries of insurance companies. The remainder are owned by asset management companies, bank and insurance service providers or brokers.

Figure 7.3 shows the ownership of the asset management companies in the sample divided according to location of head office.

Figure 7.3: Ownership of asset management companies by country



Source: OXERA.

Over 70% of Italian firms in this sample are owned by banks. A similar proportion of firms operating in Ireland and Germany are also subsidiaries of banking groups. The sample of firms in France consists of almost equal proportions of independent companies and subsidiaries of insurance companies. There is an approximately equal split of ownership of UK companies between banks and insurance companies. The results are broadly consistent with the observation from the aggregate industry statistics in Chapter 4 that there is a more significant ownership of asset management companies by banks in Continental Europe than in the UK.

7.4 Size

Assets under management

Thirty-seven companies provided aggregate figures on assets under management. Table 7.1 shows the distribution of the firms in the sample that provided data on total assets under management.

Table 7.1: Distribution of sample by domestic assets under management

€ bn	Number of firms	Median (€ bn)	Mean (€ bn)
< 12	10	0.5	3.1
>12 and <40	9	26.4	26.1
>40 and <80.5	9	61.1	63.4
>80.5	9	126.9	157.7

Source: OXERA.

Total *domestic* assets under management for the 37 companies amounted to €2,255 billion. It is estimated that, *globally*, these companies manage over €5 trillion of assets. However, only 33 companies supplied detailed information on the division of total assets under management into pooled funds (ie, assets held through collective investment schemes) and mandates, as shown in Table 7.2. Pooled schemes include unit trusts, open-ended investment companies and closed-ended funds.

Table 7.2: Distribution of assets under management (€ billion)

Type of vehicle	Number of responses	Median	Total	%
Pooled	32	9.1	524.7	28
Mandates	28	20.6	1,181.6	63.1
Other	10	4.2	166.3	8.9

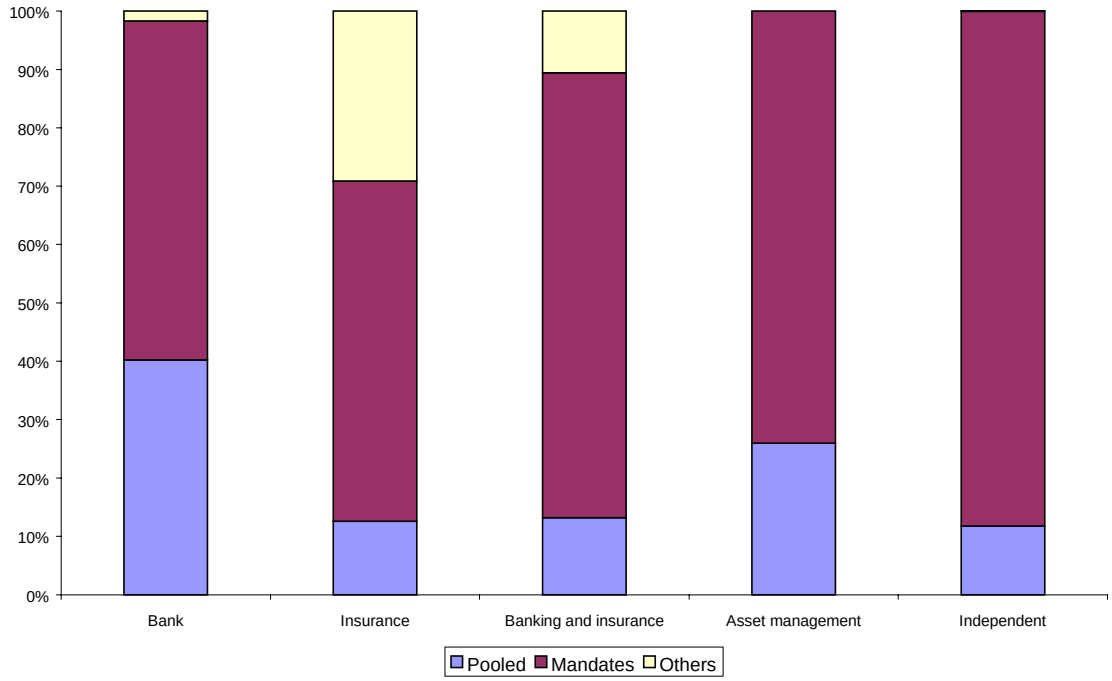
Source: OXERA.

Most asset managers engage in both management of pooled funds and discretionary mandates. Assets under management divided according to the above classification amount to €1,873 billion. In aggregate, collective schemes account for 28% of assets under management, while 63% of the assets under management in the sample are mandates. Under the 'Other' category, companies have reported US defined-contribution pension plans (known as '401(k) funds'), real estate funds, direct investments in equities, institutional funds, charities, and a fund for the parent firm.

There may be some overlap between the different categories of funds—for example, some pension funds may also be investing in collective investment schemes.

Figure 7.4 shows the breakdown of assets under management for the firms in the sample according to parent activity.

Figure 7.4: Assets under management by institution and vehicle (%)

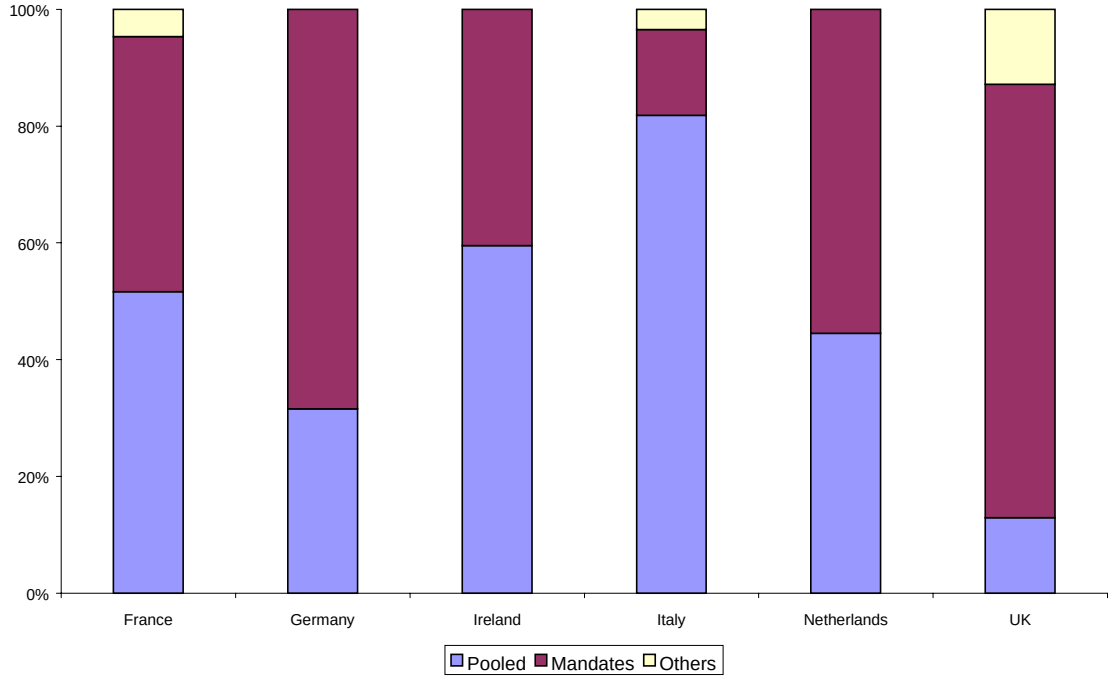


Source: OXERA.

For all categories of institutions, the majority of assets under management are in the form of mandates. Banking groups have a relatively higher proportion of assets held through pooled investments.

Figure 7.5 shows the breakdown of assets under management according to country.

Figure 7.5: Assets under management by country and vehicle (%)



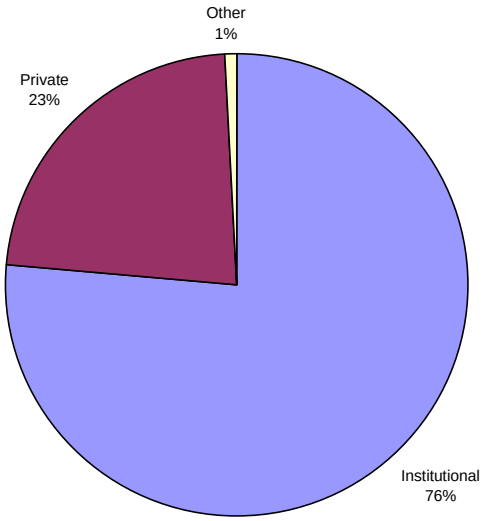
Source: OXERA.

The companies in the sample that operate in France, Ireland and Italy have invested over half of assets under management in pooled investments. This is a reflection of the relative importance of collective investment schemes in these countries. Mandates accounted for approximately 45% of assets under management of the French companies and considerably less for the Italian companies.

Mandates are the largest category of assets under management reported by the UK companies. This reflects the UK industry as a whole, where pension and insurance company funds together account for over 80% of assets under management. The above results are consistent with the observations drawn from aggregate statistics in Chapter 4 of a comparatively more significant mutual fund business in Continental Europe than in the UK.

The second part of this question asked firms to provide information on the percentage of assets that were managed according to type of client. Eighteen companies provided the amount of assets managed on behalf of institutional and private clients. Institutional clients accounted for 76% of assets managed, and private clients (including retail and mutual funds) for 23% (see Figure 7.6). This result is consistent with the noticeable shift in the client base of asset management companies. Asset management was originally established to provide a service to private clients. However, this focus has shifted from private to institutional clients, such as pension funds or insurance companies.

Figure 7.6: Distribution of clients

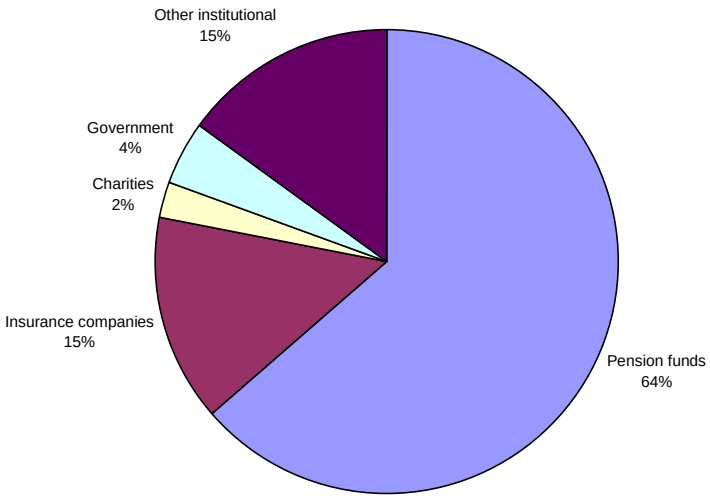


Source: OXERA.

The reduction in the proportion of assets managed on behalf of private clients is consistent with a trend in the UK. The British Invisibles report on fund management states that individual share ownership has declined from over 50% in 1965 to nearly 17% of total share ownership in 1998.[20]

Furthermore, 16 companies provided a disaggregation of institutional clients into pension funds, insurance companies, government, charities and other institutional clients. This breakdown is in Figure 7.7.

Figure 7.7: Disaggregation of institutional clients



Source: OXERA.

[20] British Invisibles (2000), op cit.

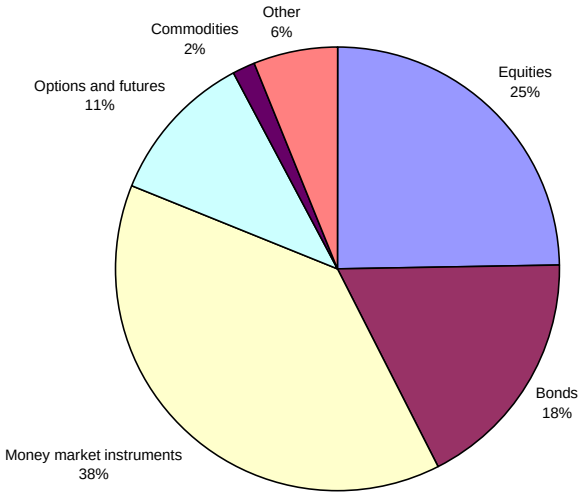
Pension funds are the single largest category of institutional client, accounting for 64% of assets under management. Insurance companies and other institutional clients (such as banks) are jointly the second-largest category.

Thirty-one companies provided details of the division of assets under management into the percentage actively or passively managed. Passive management implies that assets track a particular index of the stock market, whereas active management involves strategic investment on behalf of the asset manager. The median percentage of assets that are actively managed is 100% for all types of clients. The mean percentage of assets actively managed ranged from 85–100% (depending on the type of client).

Transactions

Transactions were broken down into the following categories: equities, bonds, money market instruments, options and futures, and other. Figure 7.8 shows this breakdown.

Figure 7.8: Breakdown of transactions, by value

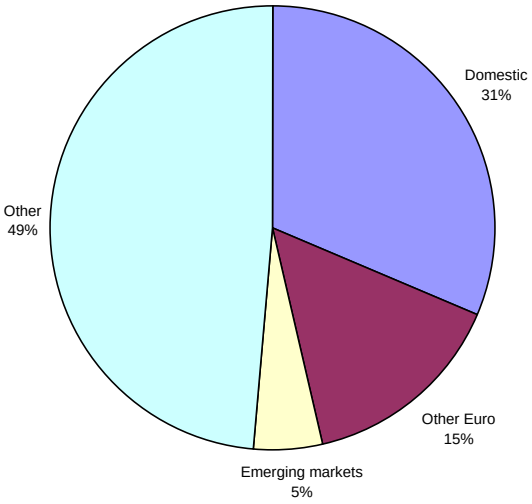


Source: OXERA.

Thirty-two companies provided this detailed disaggregation of transactions. The total value of transactions reported by the firms that responded to this question amounted to €6,809 billion. The 'other' category largely consisted of transactions in foreign exchange or property. The figure for bonds includes both corporate and government bonds.

A further breakdown of transactions of equities and bonds into 'domestic', 'other Euro', 'emerging markets' and 'Other' was provided by a number of companies. For equities, the breakdown of transactions for 21 companies is shown in Figure 7.9.

Figure 7.9: Breakdown of equity transactions

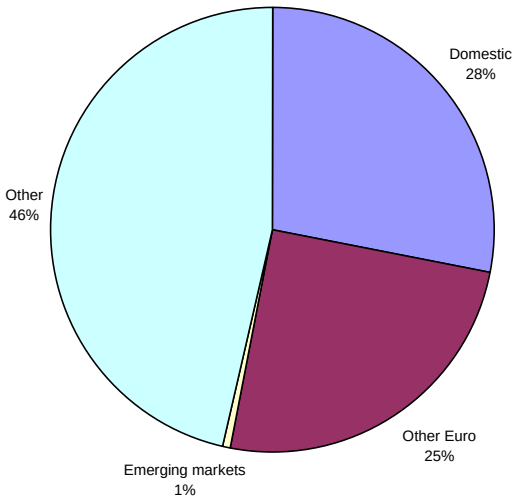


Source: OXERA.

The value of transactions in equities covered by this breakdown amounts to €717 billion. The 'Other' category accounts for almost half of transactions, most of which are conducted with the USA and Japan. Domestic transactions account for about one-third of total transactions in equities. The smallest category is emerging markets, which accounts for only 5% of the total value of transactions.

The breakdown of (government and corporate) bonds for 19 companies is shown in Figure 7.10.

Figure 7.10: Breakdown of transactions in bonds



Source: OXERA.

The value of transactions covered by this breakdown is €786 billion. The breakdown of transactions in bonds reflects a similar pattern to the breakdown of equities. Similarly, the 'Other' category accounts for over 45% of the total value of transactions, most of which

are conducted with the USA and Japan. Transactions with emerging markets account for 1% of the total value of reported transactions.

Employment

Firms were questioned on the number of people they employed (in terms of full-time equivalents). The whole sample of 39 companies replied to this question. The mean number of employees is 416 and the median is 220. The minimum number of employees is less than 10 and the maximum is over 2,500. Table 7.3 reports the breakdown of employment in the sample according to location of head office.

Table 7.3: Number of employees in the sample by location of head office

Country	Mean	Median	Total
France	224	150	1,795
Germany	210	200	631
Ireland	159	146	637
Italy	110	80	769
Netherlands	521	521	1,042
UK	758	421	11,363

Source: OXERA.

According to the mean level of employment, UK asset managers employ the largest number of workers.

Costs

Firms were asked to report their annual OPEX, working capital and fixed costs for the last 12 months. These expenditures and costs are reported in Table 7.4.

Table 7.4: OPEX, working capital and fixed costs (€m)

	Number of responses	Mean	Median
OPEX	35	117.3	42.3
Working capital	27	61.1	22.9
Fixed costs[1]	31	22.8	15.7

Note: [1] OPEX may include fixed costs.
Source: OXERA.

7.5 Activities

Stock lending

Firms were asked whether they lend stock. All the firms in the sample responded to this question, and 18 companies replied that they lent stock. Of these, 15 companies provided detailed information on the amount available for lending. The mean amount available for lending was €10.2 billion and the median was €3.4 billion. The mean percentage of stock lent to assets under management was 14.5% and the median was 9.2%. The minimum percentage was 0.003% and the maximum was 40.8%.The common mechanism in place to safeguard stock lending is collateral. Two Italian companies replied that the regulator placed a limit on the amount of stock lending. Another company responded that, although it did not lend stock itself, there may be such arrangements between the client and the custodian.

Guaranteed products

Firms were asked whether they manage funds that include an implicit or explicit guarantee of return (eg, principal protection or equity return). All firms in the sample replied to this question, with 12 responding that they offer products that carry a guarantee. Of these, five are located in France, two in Italy and two in the UK, and one in the Netherlands, Germany and Ireland. According to statistics produced by FEFSI, the number of guaranteed funds operating in France is 691, with assets worth €33.5 billion, compared to 11 funds which provide a guarantee in the UK, with assets of €1.2 billion. One company replied that it did offer a guaranteed product, but that at the time of completing the questionnaire, this product had no investors. Guarantees mentioned include:

- a pension fund with a minimum guaranteed return of 1.5% (currently unsubscribed);
- a guarantee of a maximum loss of 5% per quarter; and
- various guaranteed funds.

Ten firms provided detailed information on the value of funds with a guarantee. The mean size of these funds is €2.4 billion and the median is €833m. The mean ratio of the assets of the guaranteed funds to total assets under management is 2.9% and the median ratio is 1.07%.

Of the 12 firms that offer guaranteed products, seven replied that they had hedged against the risks involved in providing guaranteed products. Only two companies provided information on the cost of hedging. The average cost of hedging for these companies is €15.75m. A number of companies replied that hedging was not necessary because structured products included implicit hedging.

Services

Firms were asked to detail the percentage of clients (by value) that receive advice-only, execution-only, or discretionary services. Thirty-one companies replied to this question. The mean and median number of clients is reported in Table 7.5.

Table 7.5: Services provided to clients

	Mean (%)	Median (%)
Advice-only[1]	6.6	0
Execution-only	3.3	0
Discretionary services	90.1	100

Note: [1] These figures include a firm that provides both advice and execution for 5% of clients.
Source: OXERA.

The majority of client accounts receive discretionary services from firms. In order to identify country-specific patterns, Table 7.6 reports the services provided to clients according to the location of head office.

Table 7.6: Services provided to clients by country (%)

	Advice-only		Execution-only		Discretionary services	
	Mean	Median	Mean	Median	Mean	Median
France	1.2	0	0	0	98.8	100
Germany	24.8	7.5	0	0	75.2	92.5
Ireland	0.3	0	0.3	0	99.3	100
Italy	25	0	0	0	75	100
Netherlands	0	0	0	0	100	100
UK	1.7	0.2	7.2	0	91.1	99.5

Source: OXERA.

Asset managers in Italy and Germany provide advice to a higher proportion of their clients.

Similarly, Table 7.7 reports the type of services received by clients according to the activity of the parent firm.

Table 7.7: Services provided to clients by institution (%)

	Advice-only		Execution-only		Discretionary services	
	Mean	Median	Mean	Median	Mean	Median
Bank	8.0	0	0.1	0	91.8	100
Insurance	8.0	0	0	0	92.0	100
Banking and insurance	0	0	0	0	100	100
Asset management	0	0	50	50	50	50
Independent	5.1	5	0	0	94.9	95

Source: OXERA.

The company that is classified as a broker did not reply to this question. All institutions provide almost all of their clients with discretionary services.

Internal and external transactions

Firms were asked to divide the value of transactions (eg, transactions conducted with a broker) into those conducted within the parent group and outside the group. Thirty-three companies replied to this question, and Table 7.8 reports the results.

Table 7.8: Internal and external transactions (%)

	Mean	Median
Within parent group	14.8	1
Outside group	85.2	99

Source: OXERA.

Most transactions are conducted with institutions outside the group. This question has been analysed further according to institution and country for asset management companies. Table 7.9 examines the breakdown of transactions for the categories of institutions identified in this sample.

Table 7.9: Breakdown of internal and external transactions according to institution (%)

	Number of responses	Within group		Outside group	
		Mean	Median	Mean	Median
Banking	14	28.0	11	72.0	89
Insurance	10	0.7	0	99.3	100
Banking and insurance	1	1	1	99	99
Asset management	2	1.5	1.5	98	98
Broker	1	87	87	13	13
Independent	5	0	0	100	100

Source: OXERA.

The split between internal and external transactions has also been disaggregated according to country in Table 7.10.

Table 7.10: Breakdown of internal and external transactions according to country (%)

	Number of responses	Inside group		Outside group	
		Mean	Median	Mean	Median
France	6	18.6	0.8	81.4	99.2
Germany	2	25	25	75	75
Ireland	3	6.2	6	93.8	94
Italy	7	37.9	52.1	62.1	47.9
Netherlands	1	0	0	100	100
UK	14	3.1	0.5	96.9	99.5

Source: OXERA.

Table 7.10 shows that there is considerable variation across countries, with the percentage of transactions carried out within the same group as the asset manager being larger in Italy compared to the UK. This is not surprising, given the result from the previous table that banks are more likely to conduct transactions within their group, and that over 70% of the Italian firms in the sample are subsidiaries of banks.

7.6 Operational risks and losses

Risks

Firms were asked to rank a list of operational risks according to size and frequency of possible loss. Figures 7.11 and 7.12 shows the ranking assigned to operational risks in terms of size of possible loss and frequency, with a value of 1 assigned to risks that had the smallest financial impact and were least likely to occur.

The list of risks described in the figures was drawn on the basis of a series of pre-survey interviews. Pre-survey interviewees were asked what risks were considered to be part of the operation of an asset management business. The list of risks identified is as follows.

- *Breach of client guidelines*—this refers to a violation of the guidelines as set out by the client in their contract with the asset management company. For example, a client may specifically request that their portfolio does not contain any tobacco

companies' stocks. Inadvertently purchasing tobacco stocks for this client would therefore contravene the client's guidelines. In order to reverse the transaction, the asset management company must sell the shares. In the meantime, the price of the share could have fallen, which could result in a loss for the asset manager.

- *Misdealing*—this refers to generally unintentional errors, for example in issuing orders to brokers.

- *Risks arising in the process of taking over new business*—operational failures may occur when a client mandate has been acquired from another asset management company. The previous asset manager may not have maintained current records, which implies that there may be discrepancies between what is reported and what is actually held in the client's account. This is a particular problem for businesses that are growing and are therefore taking on a relatively high proportion of new clients.

- *Fraud*—this occurs as a result of dishonest behaviour conducted by employees or managers. Segregation of duties reduces the level of control that any one individual may have over a single transaction, and therefore reduces the probability of fraud.

- *Failure to meet guarantees*—this arises when an asset manager is unable to provide the client with the return that was guaranteed on a particular product. This problem has a potentially large impact if there is a downturn in the stock market and the risks are unhedged or imperfectly hedged.

- *IT systems failure*—this occurs as a result of a breakdown in the computer system. Installing back-ups to take over from the primary system may reduce any subsequent loss from a failure of the IT system.

- *Failure to reconcile assets under custodianship and internal records*—this may arise when an asset manager is unable to reconcile the assets according to its own internal records with those according to the reports from the custodian. In order to minimise the probability of such a failure occurring, asset managers may conduct daily reconciliations of clients' accounts.

- *Failure to best execute*—this refers to a failure to obtain the best price for a client.

- *Counterparty failure*—this arises when a third party to an asset manager, such as a broker, becomes insolvent. The risk of counterparty failure is particularly high in dealing with financial intermediaries in emerging markets.

- *Settlement problems*—these may occur, for example, when the asset management company has already paid the cost of purchasing stocks, but the broker, for some reason, is unable to deliver the stocks. This problem can be limited to some extent by implementation of a delivery-versus-payment system, which means that an

asset management company will only pay the cost of the transaction upon receipt of the stocks.

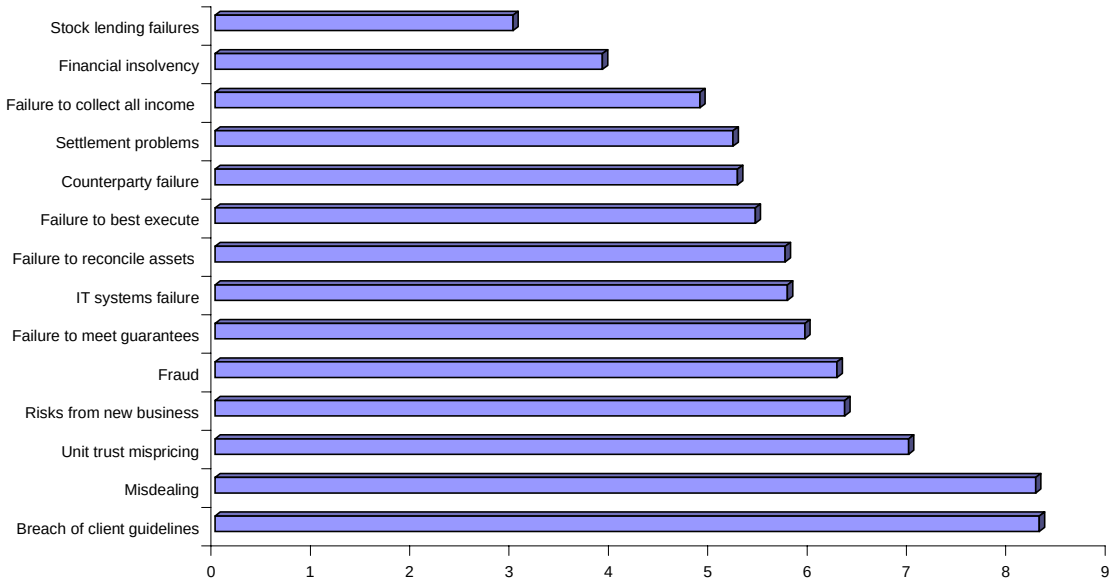
- *Failure to collect all income*—an obvious example of this type of risk occurs in the event of a corporate action failure. For example, a client may hold stock in company A, which is being taken over by company B. Failure to complete the relevant documentation before a specified deadline may result in failure to transfer stock in company A into stock in company B. This could lead to losses, for example, in cases of depreciation of stock value.

- *Stock lending failure*—this arises when the party that borrowed the stock is unable to repay the amount and collateral is insufficient to cover the total value of the stock lent.

In the process of gathering a list of risks, two risks were included in the survey that are not within the scope of this analysis: unit trust mispricing and financial insolvency. Unit trust mispricing is an important risk and is included to the extent that the sample of asset managers are also managing assets held through collective investment schemes, such as unit trusts. Financial insolvency is not an operational risk per se, but is included with a view to establishing whether insolvency is likely to occur.

Figure 7.11 shows the average ranking of each of the risks in terms of the potential financial impact these operational failures may have on the asset manager. A ranking of 8.4 was assigned to the operational risk with the largest potential financial loss—ie, breach of client guidelines.

Figure 7.11: Impact of operational risks



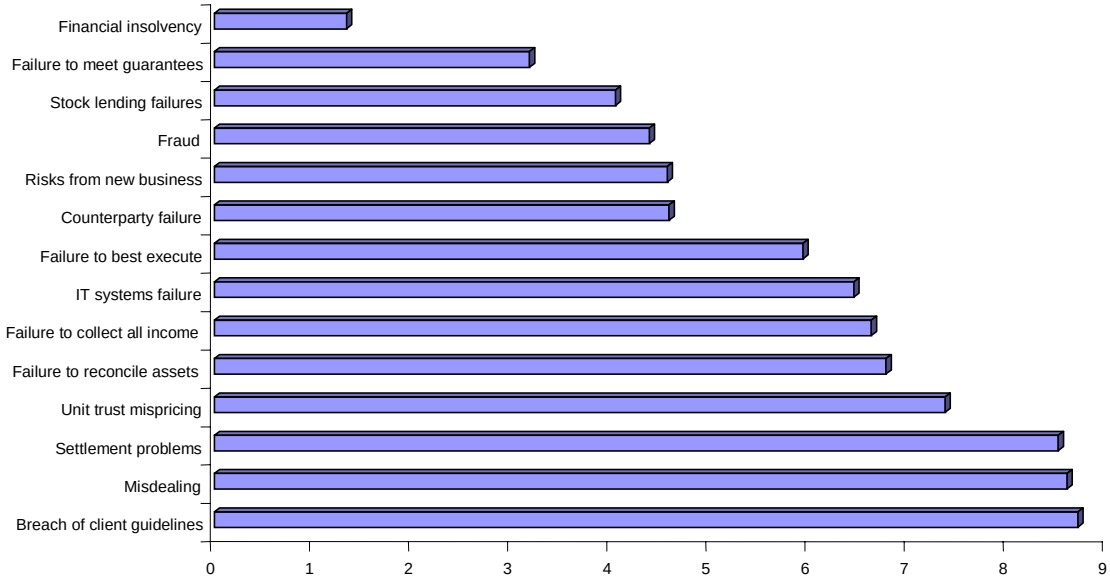
Source: OXERA.

The results from Figure 7.11 are as follows:

- misdealing and breach of client guidelines were cited by almost all respondents as the two operational failures which could be associated with the largest possible loss;
- the risk of operational failures arising from new business acquisition, which can result from lack of information about the new business or client, was also ranked as having a potentially high financial impact;
- losses arising from fraud could also be associated with large financial impact; and
- stock lending failures were the operational failure with the lowest possible loss.

Figure 7.12 ranks operational risks according to the frequency of occurrence.

Figure 7.12: Frequency of operational risks



Source: OXERA.

Firms have ranked financial insolvency as the risk least likely to occur. Breach of client guidelines and misdealing were ranked as most likely to occur. The pattern of results from the analysis of frequency of operational risks is to a large extent consistent with the pattern identified for the ranking of operational risks according to size of possible loss. Settlement problems arise frequently, but their financial impact is small.

Losses

Firms were asked to provide detailed information on the level of losses resulting from the operational risks listed above. Twenty-two firms responded to this question.

Table 7.11 records reported losses for a sample of 22 asset managers that responded to the specific question on losses and their detailed causes. For example, of the sample of 22 asset managers, 13 (ie, 59%) reported losses arising from misdealing. The largest loss reported amounted to €7.2m.

Table 7.11: Reported losses for sample of 22 asset managers (€m)

	Number reporting losses	Largest loss (€m)	Mean total loss (€m)	Total losses (€m)
Misdealing	13	7.2	0.88	11.48
Breach of client guidelines	10	3	0.59	5.87
Failure to collect all income (including corporate action failures)	6	2.6	0.90	5.37
Settlement problems	8	0.2	0.13	1.00
Unit trust mispricing	7	0.3	0.08	0.58
Failure to reconcile assets under custodianship and internal records	2	0.1	0.2	0.4
IT system failure	2	0.1	0.14	0.28
Risks arising in the process of taking over new business	1	0.2	0.2	0.2
Failure to meet guarantees	1	–	0.1	0.1
Counterparty failure	1	–	0.1	0.1
Fraud	1	0.03	0.03	0.03
Stock lending failures	0	–	–	–
Financial insolvency	0	–	–	–
Failure to best execute	0	–	–	–

Source: OXERA.

The next-largest loss borne by an asset manager was €3m, arising from a breach of client guidelines. A company that responded to the questionnaire reported that, as a result of a breach of client guidelines, it had incurred a loss of €0.75m (its largest loss from all the operational risks listed above). The situation that resulted in this loss arose from excessive cash being held for a period of time in the account, instead of being paid into the funds. The asset manager failed to invest two cash payments received from the client, and the subsequent loss as a result of this error was calculated on the basis of the opportunity cost of lost earnings (ie, the estimated earnings that the client could have made if cash had been paid into the funds).

The largest loss as a result of failure to collect all income was identified as €2.6m. This resulted from a corporate action failure in which the asset manager missed the deadline. In addition, a loss of €1.2m was identified, again as a result of corporate action failures. In this particular instance, shares were held in a company that was going through a takeover bid. The asset management firm failed to complete the paper work and, as a result, was left with a minority holding in the company. By the time this error was detected, the market had moved by 2–3%, which resulted in a loss of €1.2m.

Settlement failures, although they may occur frequently, lead to low operational losses. This is consistent with the results reported in Figures 7.11 and 7.12. No firms reported losses as a result of failure to best execute, stock lending failures, or financial insolvency.

In some cases, firms listed risks other than those specifically mentioned. These other risks and their losses are reported in Table 7.12.

Table 7.12: Losses resulting from other risks

	Number reporting losses	Largest loss (€m)	Total losses (€m)
Foreign-exchange dealings	1	0.8	0.9
In specie transfer failures	2	0.14	0.792
Cash movement	1	–	0.07
Inaccurate reporting	1	0.04	0.046
Client service	1	–	0.04
Human error from manual activities	1	0.019	0.04
Order capture	1	–	0.03
Asset allocation	1	–	0.02
Client claims from mutual funds	1	0.003	0.007
Fund management	1	–	0.001
Portfolio valuation	1	–	0.001

Source: OXERA.

Total losses for the 22 asset managers amounted to €27.2m for the particular year analysed in the questionnaire. On average, this corresponds to annual losses of approximately €1.3m per asset manager.

The largest loss as a result of each risk identified in Table 7.11 is reported in Table 7.13 as a proportion of that particular firm's OPEX, domestic assets under management and other scaling factors.

Table 7.13: Ratios of losses to scaling factors

	Largest loss (€m)	OPEX (%)	Assets under management (%)	Transactions (%)	Actual capital (%)
Misdealing	7.20	17.021	0.00941	0.0027	37.500
Breach of client guidelines	3.00	7.500	0.00566	0.0011	4.412
Failure to collect all income (including corporate action failures)	2.60	0.139	0.00112	0.0043	0.163
Unit trust mispricing	0.30	0.283	0.00049	n/a	0.291
Risks arising in the process of taking over new business	0.20	0.087	0.00037	0.0002	0.100
Settlement problems	0.20	0.011	0.00009	0.0003	0.013
Failure to reconcile assets under custodianship and internal records	0.10	0.005	0.00004	0.0002	0.006
IT systems failure	0.10	0.044	0.00018	0.0001	0.050
Fraud	0.03	0.018	0.00003	n/a	0.012

Source: OXERA.

Table 7.13 shows that the largest reported loss (€7.2m), which resulted from a misdealing error, corresponds to 17% of annual OPEX. Using OPEX as a scaling factor allows a comparison to be drawn with the capital requirement rule typically used in the European countries represented in this sample. Therefore, in the case of this particular asset manager, capital equivalent to 25% of annual expenditures would have been sufficient to

fund the operational loss that arose from misdealing. The second-largest loss resulting from a breach of client guidelines amounts to 7.5% of OPEX. Thus, during the period covered by the survey, no asset management company reported a loss that was in excess of reported OPEX.

In addition, the ratio of the largest loss to assets under management and transactions suggests that the losses reported account for only a very small proportion of each company's business, even in the case of the largest loss. The maximum loss as a proportion of total assets under management is 0.0094%.

The final two columns of Table 7.13 show the largest losses as a proportion of actual capital held and regulatory capital. The firm that reported a loss of €7.2m holds capital in excess of that amount. According to Table 7.13, this loss amounts to 37.5% of the capital held by that company. As for the loss arising from the breach of client guidelines, this amounts to 4% of capital held. The remaining losses each account for less than 1% of each company's capital.

From interviews held with some of the largest companies responding to the questionnaire, it was widely thought that losses from misdealing could amount to, say, €20m in one particular year. For example, a mistake on a transaction of €100m could amount to a significant loss if there was a significant deterioration in the value of the stock involved in the transaction.

A simulation of the impact of losses

To establish the financial impact of such loss, a straightforward simulation was run on average figures from four large asset managers in the sample. Total assets under management for these firms amount to €729.5 billion. Table 7.14 reports the result of a simulation that examines hypothetical losses ranging from €7.2m to €100m as a proportion of the variables used above. Figures for OPEX, assets under management, transactions, actual capital and capital requirements have been calculated as the average of four large firms that participated in the survey.

Table 7.14: Financial impact of potential largest loss for four large asset managers

Loss (€m)	OPEX (%)	Assets under management (%)	Transactions (%)	Actual capital (%)	Regulatory capital (%)
7.2	1.19	0.004	0.002	1.2	3.8
20	3.3	0.011	0.005	3.2	10.6
40	6.6	0.022	0.010	6.4	21.2
60	9.9	0.033	0.015	9.6	31.8
80	13.2	0.044	0.020	12.8	42.4
100	16.5	0.055	0.025	16.0	53.0

Source: OXERA.

According to this table, a loss of €100m amounts to 16% of average OPEX for the four large firms. A capital requirement based on the 25%-expenditure rule would be sufficient to finance this loss. Furthermore, the losses shown in Table 7.14 represent less than 0.06% of assets under management and transactions. Firms hold capital far in excess of the amount of the loss. Therefore, the loss of €100m represents only 16% of actual

capital. Current regulatory capital requirements would have been sufficient to cover losses of the magnitude reported above.

Total losses for the sample

As an alternative to providing detailed information on the level of losses, which may be either too time-consuming to provide or too confidential, firms were asked whether there were losses over the last 12 months, and to provide details of the losses in ranges. In addition to the 22 companies that provided detailed information on losses, 15 companies replied that there had been losses over the last 12 months. Table 7.15 provides information on the range of values for these losses.

Table 7.15: Range of losses

Range	Number of responses
<€100,000	6
€100,000–€500,000	2
€500,000–€1m	3
>€1m	4

Source: OXERA.

Therefore, an estimate of the total losses for 37 companies is approximately €40m.

This question only asks firms to report data on losses for the previous 12 months. However, as a further check of the robustness of the results, nine companies were asked during interviews to report their largest loss over the last ten years. The losses ranged from €0.2m to €7.2m. Table 7.16 reports these losses and their causes.

Table 7.16: Largest loss for nine asset managers over the last ten years

Size of loss (€m)	Number of companies	Type of loss
0–0.75	2	Breach of client guidelines
		Misdealing
0.75–1	1	Breach of client guidelines
0.5–2	1	Failure to reconcile assets under custodianship and internal records
1–2	1	Undisclosed
2–3	2	Fraud of third party
		Corporate action failure
3.5–4	1	Undisclosed
5–10	1	Misdealing

Source: OXERA.

It is widely accepted that the last ten years has been a bull market and therefore the losses presented in this analysis may not be a perfect indication of the largest losses that may occur during a bear market.

Companies were asked whether there was a provision for losses in their company accounts. Eighteen companies replied to this question, and only nine responded that they had made internal provision for losses in their accounts. The maximum was €3m. The

median provision was €1.2m and the mean was €1.5m. This is consistent with the data on losses reported in Table 7.11.

Complaints

Companies were asked to report the number of complaints that resulted from the operational risks listed above, and 17 companies responded. However, one firm that had experienced 22 complaints was unable to provide a detailed breakdown.

Table 7.17: Reported complaints

	Mean number of (non-zero) complaints	Total number of complaints
Misdealing	6	18
Failure to best execute	–	–
Settlement problems	1	1
Counterparty failure	–	–
Breach of client guidelines	10.25	41
Fraud	–	–
IT systems failure	31	62
Failure to meet guarantees	–	–
Unit trust mispricing	2.3	7
Failure to reconcile assets under custodianship and internal records	1	1
Failure to collect all income (including corporate action failures)	1	1
Stock lending failures	–	–
Financial insolvency	–	–
Risks arising in the process of taking over new business	2	2
Other		
Foreign-exchange dealing, business processes, fees	34	34
Outsourced retail administration	20	20
Clients' claims in mutual funds	3	3
In specie transfer failures	10	10
Inaccurate reporting	26	26
Fee billing error	3	3
Uninvested cash	4	4
Poor service to clients	20	20

Source: OXERA.

7.7 Forms of protection

Capital

Firms were asked to report the level of actual capital held and regulatory capital. Table 7.18 reports the mean and median levels of capital and regulatory capital.

Table 7.18: Actual and regulatory capital

Company	Capital requirements (€m)	Actual capital (€m)	Ratio of actual capital to regulatory capital
Mean	32.8	119.0	5.7
Median	7.2	20.2	2.7

Source: OXERA.

Table 7.18 shows that firms hold capital in excess of regulatory requirements. When interviewed, respondents stated that the reason for holding capital in excess of regulatory capital requirements was not related to the risks faced by the business. For example, a number of firms stated that their capital was high as a result of merger and acquisition activity. A large proportion of firms had not conducted research into the calculation of the level of capital as a result of operational risks.

Eight companies from the entire sample replied that they had capital at risk as a result of taking own positions. The mean value of capital at risk for these firms is €47m. The median is €9.5m.

Seventeen companies replied to the question on the cost of obtaining additional capital. The mean internal rate of return for obtaining additional capital is 15.7% and the median is 15%. The minimum cost of obtaining additional capital is 7% and the maximum is 30%.

Firms were asked for their opinion on the appropriateness of the *current* regulatory rules on capital requirements. Thirty companies responded to this question: 17 (57%) believed that capital requirements were appropriate; 12 (40%) did not think that current capital requirements were appropriate; and one was uncertain. The main reason why current capital requirements were not considered appropriate is because regulatory capital does not distinguish high-risk from low-risk firms.

Comments include the following.

- Company A: 'Capital requirements underestimate operational risks and are not based on actual operational volumes.'
- Company B: 'Capital requirements allow an asset management company to settle its expenses during a full quarter, even if it earns no management fee.'
- Company C: 'Regulatory capital requirements are not applicable to fund-management businesses. There are no capital requirements for US fund managers.'
- Company D: 'Capital requirements are not appropriate for eventual misdealing. However they may be appropriate for funds if capital is separated from company capital.'
- Company E: 'The regulator has a risk profile of each investment manager. However, this profile does not have any impact on capital requirements. A higher capital requirement should be required for high-risk investment managers.'

Compliance

Firms were asked to report the number of workers that were employed in the compliance department (in terms of full-time equivalents). Thirty-eight firms responded to this

question. Statistics on the number of workers employed in compliance are reported in Table 7.19.

Table 7.19: Number of employees in compliance department

	Mean	Median	Minimum	Maximum
Employees	8.1	5	1	80

Source: OXERA.

The minimum was one person employed in compliance, and the maximum was 80. The mean number of employees in the compliance department is approximately eight people. The mean number of employees in the compliance department as a percentage of the total number of employees is 5.1% and the median percentage is 2.2%. This ranges from 0.3% to 27.3%.

Respondents were asked to report expenditure on formal compliance activities. Details of expenditure on compliance and the ratios of actual and anticipated expenditure to the total number of employees are reported in Table 7.20.

Table 7.20: Annual actual and anticipated expenditure on formal compliance activities

	Number of responses	Mean	Median
Actual expenditure (€m)	30	1.11	0.54
Anticipated expenditure (€m)	31	1.41	0.68
Actual expenditure per employee (€)	29	3,276	2,381
Anticipated expenditure per employee (€)	30	3,942	2,903

Source: OXERA.

Firms were asked to report which activities were included as part of their risk-management process and the number of internal and external workers employed in each activity. Table 7.21 reports the number of firms that responded to this question and the proportion of those that responded that provide these activities.

Table 7.21: Activities in risk-management process

	Total number of respondents	Percentage of respondents
Compliance department	39	100
Internal audit	38	95
Operational risk management	34	79
Credit risk management	34	76
Market risk team	34	74
Legal support	37	92
Portfolio risk and performance management	36	97
Product approval team	33	85
Derivatives control team[1]	34	47
Control self-assessment processes[2]	24	58
Staff training development on risk-management issues[2]	23	70
FRAG21[3]	33	70

Notes: [1] From follow-up interviews, it can be concluded that, in some cases, firms do not have a derivatives control team because they do not trade in derivatives. [2] Firms that responded to the pilot questionnaire were not asked whether they employed control self-assessment or staff training as part of risk management. [3] A FRAG 21 or SAS 70 is a report on a company's internal control systems, produced by auditors. Although originally produced by non-group custodians, FRAG21 documents may also be produced by asset management companies and distributed to clients.
Source: OXERA.

Table 7.21 shows that all firms have compliance departments and the majority of firms include other activities as part of the risk-management process. A relatively low proportion of firms have a derivatives control team, and, in general, the explanation for this result is that these firms do not deal in derivatives. Some firms noted in their completed questionnaires that some activities were performed at a group level. Furthermore, one firm replied that, for some compliance activities, all employees in the company were involved. Other organisations include daily general manager control, formal risk committee, and global risk structure as part of the risk-management process.

Table 7.22 reports the mean number of internal and external workers employed in each of the activities listed in Table 7.21.

Table 7.22: Number of internal and external employees

	Internal employees		External employees	
	Number of respondents	Mean	Number of respondents	Mean
Compliance dept[1]	38	8.1	–	–
Internal audit	22	7.6	4	3.5
Operational risk management	14	8.5	–	–
Credit risk management	12	8.0	–	–
Market risk team	9	9.1	–	–
Legal support	20	5.2	4	2.5
Portfolio risk and performance management	22	9.6	–	–
Product approval team	15	10.1	–	–
Derivatives control team	6	13.4	–	–

Note: [1] This includes a firm which reported that all its employees were involved in some activities.
Source: OXERA.

Firms employ external institutions only for internal audit and legal support.

Parent firm guarantee

Firms were asked if their parent company provided an explicit or implicit guarantee for the case in which the asset management company becomes financially insolvent. Of the 35 firms that belong to a larger group, 29% replied that they had specific guarantees from their parent company. The type of guarantee varied across firms, and those mentioned include:

- specific guarantees for funds;
- an implicit guarantee to bail out the asset management company in order to protect the reputation of the group as a whole;
- a letter of comfort from the parent company;
- a guarantee from the parent for a small number of clients to provide additional protection in the event of the asset manager being liable;
- a guarantee for the liabilities of the asset management subsidiary;
- a guarantee of due investment or operational performance for certain clients.

Although one company replied that it did not receive a guarantee from its parent company, the parent does provide a declaration of backing. This is a form of implicit guarantee that is not required to be entered on the balance sheet, as a guarantee would. Therefore, this declaration of backing is not subject to a regulatory capital charge.

Non-group custodianship

Firms were asked to provide information on the proportion of clients' assets that were held by custodians outside the firm's group. The mean percentage of clients' assets held by non-group custodians is 63%. The median percentage is 85.5%. Table 7.23 reports the proportion of clients' assets held with non-group custodians according to activity of the parent firm.

Table 7.23: Non-group custodianship of clients' assets according to institution (%)

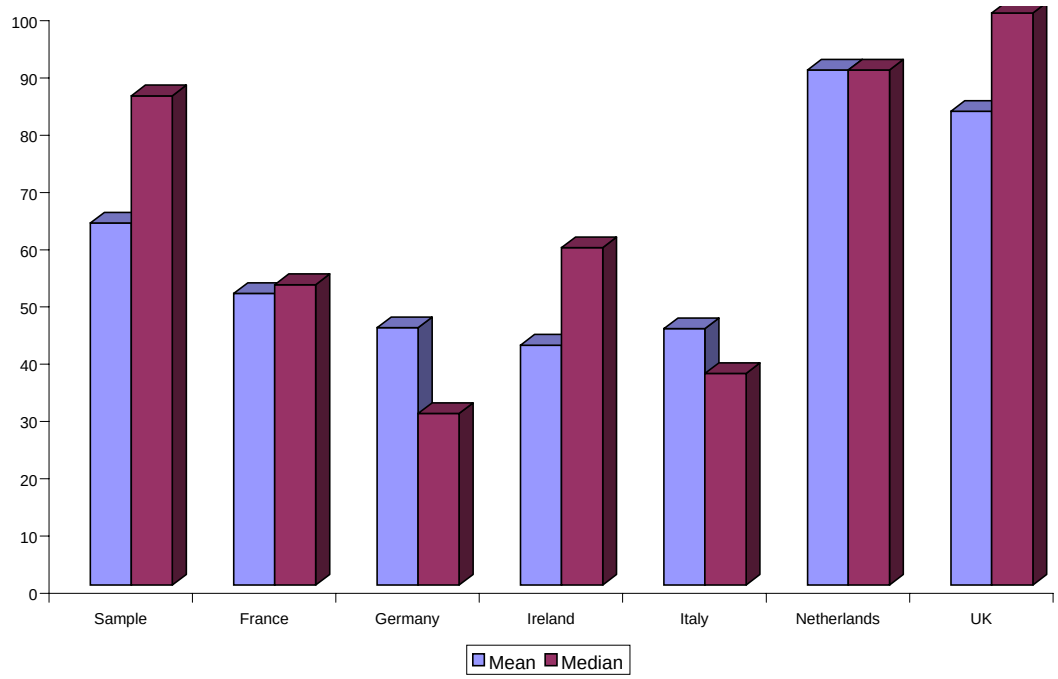
	Mean	Median
Bank	39.6	25
Insurance	/88.1	100
Banking and insurance	91	91
Asset management	90	100
Broker	0	0
Independent	90	100

Source: OXERA.

The proportion of clients' assets held with a custodian outside the group is lower for asset managers which are part of banks.

Figure 7.13 provides statistics on the percentage of clients' assets held by custodians outside the group according to country of head office.

Figure 7.13: Non-group custodianship of clients' assets according to country (%)



Source: OXERA.

Asset managers operating in the UK outsource the custodianship of a large percentage of their clients' assets to external parties (ie, parties outside the holding group, of which asset management is an activity). This is consistent with the finding in the recent British Invisibles report[21] that the proportion of funds in the UK using independent custodians has risen from 50% in 1997 to 71% in 1999. Conversely, in Italy, a lower proportion of clients' assets is outsourced to non-group custodians. This is not surprising, given that more than 70% of Italian firms in the sample are owned by banks, which usually act as

[21] British Invisibles (2000), op cit.

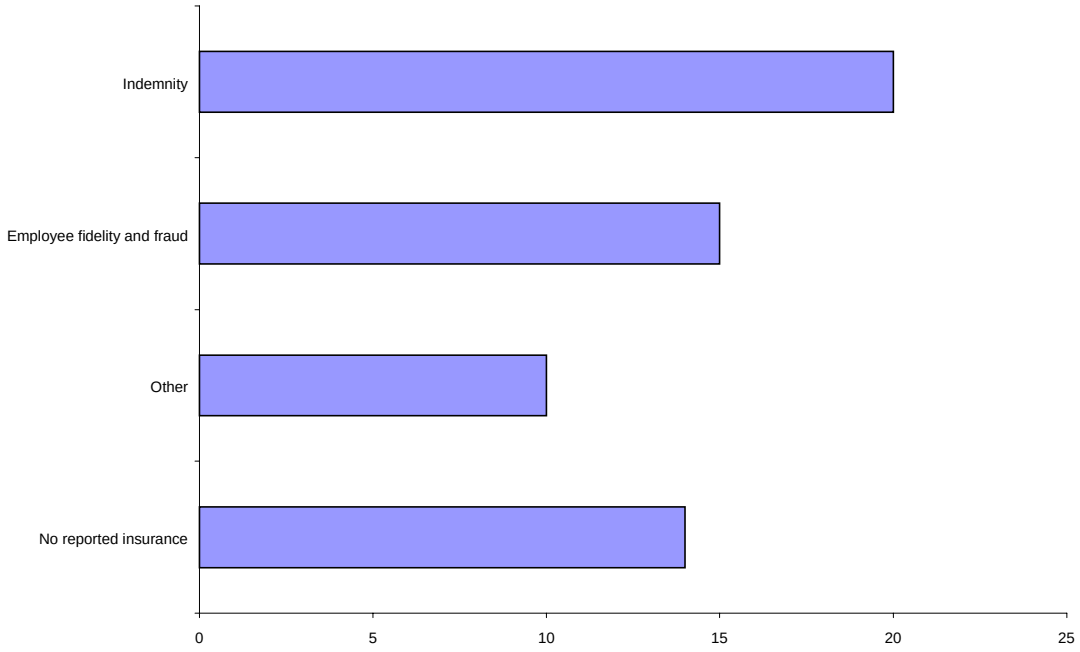
custodians or sub-custodians. It should be noted that separation of clients' assets was widespread across all countries.

Firms were asked whether they had delegated any functions to parties inside or outside their group. Twenty-seven companies replied to the first part of this question, 59% of which had delegated functions within their group. The remainder replied that they had not. These functions included settlement, fund administration, and custody. Twenty-five companies replied to the second part of the question: 68% of companies responded that they had delegated some activities to parties outside their group. Custody was the activity that was most frequently outsourced to external parties.

Insurance

Firms were asked to report on the value, excess and premium of their insurance (see Figure 7.14). Twenty companies provided detailed information on indemnity insurance; 15 on employee fidelity and fraud; and ten on other insurance. Fourteen companies reported no information on insurance and one replied that, as a result of size, it decided to self-insure. Furthermore, without providing detailed information, five companies stated that they had indemnity and employee fidelity insurance, and six responded that they had other insurance. Twelve companies specifically stated that the insurance cover for the asset management business was incorporated in a group insurance policy to cover global operations. Fourteen companies provided information on the companies with which they insure. Most of the smaller asset managers did not have insurance policies.

Figure 7.14: Number of firms with insurance



Source: OXERA.

Table 7.24 provides detailed information on the value, excess and premium on indemnity insurance.

Table 7.24: Indemnity insurance

	Sample	Minimum (€m)	Maximum (€m)	Mean (€m)
Value	19	4.4	480	100.5
Excess	16	0.04	12.7	2.4
Premium	11	0.2	1.8	0.5

Source: OXERA.

For one firm, this is the Errors & Omissions policy; for another, this is the sum of indemnity insurance/employee fidelity and fraud insurance.

Detailed information on employee fidelity and fraud insurance is reported in Table 7.25.

Table 7.25: Employee fidelity and fraud insurance

	Sample	Minimum (€m)	Maximum (€m)	Mean (€m)
Value	15	0.5	880	117.5
Excess	11	0.04	10	1.8
Premium	7	0.06	1	0.3

Source: OXERA.

One firm commented that employee fidelity and fraud insurance was necessary under the Employee Retirement Income Security Act 1974.

Table 7.26 reports the value and premium for indemnity and employee fidelity insurance as a proportion of OPEX and assets under management.

Table 7.26: Ratios of value and premium to OPEX and assets under management (%)

Ratio of	Indemnity insurance		Employee fidelity and fraud	
	Mean	Median	Mean	Median
Value to OPEX	347.93	118.20	420.36	43.62
Premium to OPEX	1.69	0.95	0.62	0.27
Value to assets under management	33.97	0.11	0.41	0.10
Premium to assets under management	0.14	0.001	0.001	0.0003

Source: OXERA.

According to the mean ratios in Table 7.26, firms have insurance coverage that exceeds their OPEX. The cost of obtaining this insurance as a proportion of OPEX is less than 2%.

Details of any other types of insurance reported by firms are contained in Table 7.27.

Table 7.27: Other insurance

	Sample	Minimum (€m)	Maximum (€m)	Mean (€m)
Value	9	0.63	68	38.1
Excess	2	0.15	10	5.1
Premium	4	0.03	0.4	0.14

Source: OXERA.

Other types of insurance quoted by respondents included fraud, civil responsibility, real estate and Directors & Officers.

Firms were asked whether they had ever made a claim on their insurance. Twenty-one companies replied to this question, and six (29%) responded that they had made a claim. Of the claims, three were paid in full, one 'as agreed', one received all compensation apart from the amount of the excess, and one firm did not provide details of the payment of the claim. For four claims, the companies said that they were paid promptly. Compensation for another claim that was reported was paid with a delay of approximately 12 months. During interviews, asset management companies raised significant concerns about the failure of insurance companies to pay compensation in full, and about the length of time before compensation was determined.

Firms were asked to report the value of claims on insurance.

Table 7.28: Reported claims on insurance

	Mean value of (non-zero) claims	Total value of (non-zero) claims
Misdealing	7.2	7.2
Failure to collect all income (including corporate action failures)	1.4	4.1

Source: OXERA.

The value of four claims on insurance was reported. These claims were primarily as a result of misdealing and failure to collect all income.

Means of financing losses

Firms were asked to rank the most frequently used method of financing losses arising from operational failure. Those listed were (regulatory) capital, insurance, parent-firm guarantees or internal profits, and Table 7.29 reports the mean ranking of the methods of financing risks. A ranking of 1 is an indication that that particular method of funding losses is used most often.

Table 7.29: Mean ranking of methods of financing losses (1 = most frequently used)

	Capital	Insurance	Parent firm guarantees	Internal profits
Misdealing	2	2.7	2.3	1
Failure to best execute	2	2.4	2	1
Settlement problems	2.2	2.3	1.7	1.1
Counterparty failure	2.3	2	2	1.1
Breach of client guidelines	2.5	2.2	3	1
Fraud	2.6	1.3	3	1.2
IT systems failure	2.2	1.8	2	1.1
Failure to meet guarantees	2.5	3	3	1
Unit trust mispricing	2.3	2.3	2	1
Failure to reconcile assets under custodianship and internal records	2.2	1.7	2.5	1
Failure to collect all income (including corporate action failures)	2.2	2	2.5	1
Stock lending failures	3	2		1
Financial insolvency	1.4	1.5	1	1

Source: OXERA.

According to Table 7.29, firms would use internal profits to finance losses more often than any of the other methods identified. For some risks, such as fraud, insurance is more likely to be used to finance losses than internal profits, parent firm guarantees or capital. Note also that, in the case of financial insolvency, firms reported that parent firm guarantees are an important means of financing losses.

7.8 Summary

- Almost 90% of the companies that responded to the questionnaire are subsidiaries of a larger group. These larger groups are mostly banks or insurance companies. Asset managers operating in Continental Europe are more likely to be part of financial conglomerates.
- The majority of assets under management in the sample are in the form of mandates. Pooled funds are relatively more prevalent in Continental Europe.
- Most clients are institutions, in particular pension funds.
- The majority of transactions are conducted in money market instruments, although equities and bonds also account for a significant proportion.
- Most companies that responded to the questionnaire do not lend stock or offer guaranteed products.
- Most clients receive discretionary services from asset managers.
- Most transactions are conducted with parties outside the group of the asset manager.
- The operational risks that were ranked as most likely to occur or to result in the largest loss were breach of client guidelines and misdealing. In fact, the largest loss reported by the asset managers that responded to the questionnaire amounted to €7.2m as a result of misdealing. The total losses for those firms that provided information on losses was €40m.

- On average, losses in the year (1999) amounted to a little over €1m. However, interviews helped to determine that losses from misdealing could amount to over €20m under specific circumstances (eg, during periods of significant stock-market downturns).
- Firms reported that the level of actual capital held was larger than regulatory capital requirements. During interviews, firms stated that this was a result of strategic decisions, such as acquisition activity, and not due to the risk profile of the company.
- All companies have a compliance department. The majority of firms have also adopted other activities involved in the risk-management process.
- 29% of firms have a guarantee from their parent firm.
- In general, and particularly in the UK, clients' assets are held with non-group custodians (ie, outside the group to which the asset manager belongs). This statistic is particularly important, given that the focus of this analysis is on discretionary asset management of assets under mandates, and not unit trust management.
- A significant number of firms have insurance, although relatively few claims are reported.
- Most respondents were persuaded that regulatory capital was not the main means of financing losses arising from operational risks. The main reason why some companies stated that regulatory capital was not the appropriate way to deal with operational risks is that regulatory capital does not distinguish between high- and low-risk companies. Typically losses were offset against annual income and, for larger, infrequent losses, insurance was the main method.

8. A Case Study in Authorised Collective Schemes

In this chapter, a case of large losses is examined in detail. The case took place in the unit trust management industry, not in discretionary asset management under mandates, which is the main focus of the research. Nevertheless, it raises generic issues for investor protection, and illustrates:

- the way in which failures in the investment management process can occasionally create large losses;
- how parent firms with deep pockets and reputational capital at stake can provide investor protection;
- potential deficiencies in the protection provided by separate custodians and trustees;
- that capital requirements may not be an appropriate regulatory response to the occasional large losses described in this chapter.

This chapter begins by summarising the key points of the case study. It then analyses the origins of failure, the role of internal control systems, and the role of other parties, such as trustees and auditors, in the supervision process.

The entire chapter is based on official information from IMRO press releases. It is not intended to indicate inappropriate behaviour by any individual or company.

8.1 Key facts

- In September 1996, dealings in three Morgan Grenfell funds were suspended after the discovery of irregularities in the management of the funds. Trading resumed after Deutsche Bank, the parent company, injected £180m into the funds.
- For a period of time, the irregularities that took place remained undetected by the internal control system of Morgan Grenfell Asset Management Ltd (MGAM) and the external supervision by the trustees. IMRO brought forward charges against Morgan Grenfell's fund management subsidiaries, responsible senior employees and compliance staff, and the funds' trustees.
- Investors in the three funds were compensated directly by MGAM for the difference between the investment return from their Morgan Grenfell fund and the investment return provided by a specially compiled index of comparable funds. The total compensation costs borne by the firm for losses amounted to more than £210m.

8.2 Background

MGAM was the UK asset management arm of Deutsche Morgan Grenfell and part of the Deutsche Bank Group. Its subsidiary, MG Unit Trust Managers (MGUTM), was the appointed fund manager of the MG European Growth Trust and the MG Europa Fund. MGUTM delegated the day-to-day management of the two unit trusts to another subsidiary, MG International Fund Management (MGIFM). MGIFM was also delegated responsibility to manage the MG European Capital Growth Fund, a Dublin-registered investment fund.

8.3 Origins of the failure

After taking over the management of the funds in 1994, the individual fund manager started changing the nature of the funds' investments. From being well diversified, the portfolios in due course became increasingly concentrated in high-risk holdings of unlisted securities. While pursuing this investment strategy, the fund manager faced two primary barriers arising from unit trust regulations:

- the regulatory rule that restricted unit trust holdings in unapproved securities (ie, securities which were not listed in an eligible securities market and which were not issued on terms that a listing would be applied for within 12 months) to 10% of a fund; and
- the rule that prevented unit trusts acquiring more than 10% in securities issued by one issuer.

To assist in circumventing these regulations, the fund manager set up holding companies, mainly in Luxembourg. These companies were used as special purpose vehicles to hold or acquire problem securities in the funds. They created an indirect exposure to unapproved securities in excess of that permitted by strict adherence to the spirit, as well as the letter, of the rules. In addition, the funds held bonds that had been structured to exploit loopholes in the regulations.[22] By April 1996, the fund manager had increased the proportion of unlisted, risky companies in the European Growth portfolio to 33% and thus far above regulatory concentration limits.[23]

Overall, it may be claimed that the funds were managed in a way that abided by the letter rather than the spirit of the regulations, leading to a risk and investment profile that was inappropriate for retail funds and could have created liquidity problems.

8.4 IMRO's investigation

The problems in the management of the Morgan Grenfell funds were discovered by IMRO towards the end of August 1996, and dealings in the funds were suspended on September 2nd 1996. Trading in the funds resumed on September 5th after Deutsche Bank, MGAM's parent institution, injected approximately £180m into the portfolios by buying the particular securities out of the funds.

The fund manager was suspended and, on September 16th, finally dismissed. In mid-October, the chief executive of MGAM and four other senior employees left the company.

On December 20th 1996, IMRO and MGAM finalised the investor compensation package. All investors in the three funds at any time between August 1995 and September 1996 were compensated directly by MGAM for the difference between the investment return from their Morgan Grenfell fund and the investment return provided by a specially compiled index of comparable funds. In addition, MGAM paid interest on the compensation payments from April 1997. The total compensation costs borne by the firm for losses in this case amounted to more than £210m.

[22] See IMRO Press Release, Ref. 05/97.
[23] See IMRO Press Release, Ref. 01/99.

8.5 Failure of internal control systems

For its part, IMRO spent the next eight months investigating and imposing penalties for what it perceived as ineffective controls at Morgan Grenfell, and the lack of effective oversight on the part of the funds' trustees. The fund manager himself became, and at the time of writing still is, the subject of a continuing investigation by the Serious Fraud Office.

According to IMRO, the fact that the fund manager's actions continued for a lengthy period of time, and that MGAM's management and its compliance staff failed to ensure that the funds were managed according to the regulations and their prospectuses, was largely owing to a lack of adequate internal control and monitoring procedures.[24] In particular, investigations revealed problems related to inadequate documentation requirements and record keeping. The lack of control allowed the fund manager to build up excessively risky portfolios and push the investments beyond existing regulatory limits on unit trust holdings in unquoted equities or securities of a single issuer. Due diligence was not sufficiently exercised to avoid the assets of the funds being used or invested contrary to unit trust regulations—for instance, it was not recognised that some of the holding companies were not genuine investments but special purpose vehicles used to circumvent regulatory rules.[25]

By no later than April 1996, however, it was known to the board of MGAM that the risk and investment profile of the European Growth Trust managed by the fund manager was inappropriate and could lead to liquidity problems. The chief executive of MGAM and his management team were informed that the unit trust held 33% in unlisted securities and that full documentation about those unlisted securities was not available.[26] Steps were taken to instigate an internal review of the portfolio holdings and implement management changes aimed at dealing with the situation.

IMRO argued that the chief executive should have done more to satisfy himself personally that the advice and progress reports he was receiving were correct. Moreover, IMRO argued that he should have required the compliance department to investigate and report to him on how the state of affairs with the European Growth Trust had been allowed to occur. Furthermore, the chief executive failed to inform IMRO in April 1996, when he was informed about the situation, or two months later, when he knew that, despite the internal review and management changes instigated by him, the level of investment in unlisted securities in the fund remained high and full documentation was still not available.[27] As a result of IMRO's findings, the chief executive was reprimanded and charged IMRO's investigation costs and a contribution to its disciplinary costs.

On April 16th 1997, IMRO also fined Morgan Grenfell's subsidiaries, MGIFM and MGUTM, £2m for mismanagement of the European funds.[28] In addition to the £2m fine, the investment firms had to pay £1m to defray IMRO's investigation costs. In deciding on an appropriate fine, IMRO took into account the number of investors affected, the

[24] See IMRO Press Releases, Ref 05/97, 01/99.
[25] See IMRO Press Releases, Ref 07/98, 05/97.
[26] See IMRO Press Release, Ref. 01/99.
[27] See IMRO Press Release, Ref. 01/99.
[28] See IMRO Press Release, Ref. 05/97.

potential losses, and, in mitigation, Morgan Grenfell's quick action to compensate investors in the funds.

Phillip Thorpe, IMRO's Chief Executive, commented:

> The mismanagement of these funds has caused unnecessary concern to an enormous number of investors. It is right that this is being corrected promptly and thoroughly.
>
> The firm has paid dearly as a consequence of inadequate management control. This affair plainly illustrates the dangers of ignoring clear and repeated warnings. We expect that other investment managers will ensure that they are not exposed to the same risks. [29]

8.6 Other parties' failures

IMRO investigation and proceedings extended to the funds' trustees. Under UK regulation, trustees have two main functions:

- to take the assets of a unit trust into custody and hold them in trust for unit-holders;
- supervision to ensure that unit trust managers comply with regulatory rules and investment objectives. This function extends to reporting to unit-holders on manager compliance.

General Accident was trustee of a number of unit trusts managed by MGUTM, including the European Growth Trust and the Europa Fund. When General Accident resigned in early 1996, the Royal Bank of Scotland took over the trusteeship of the funds. Both General Accident and the Royal Bank of Scotland agreed to a settlement of the disciplinary proceedings and to fines of £120,000 and £290,000, respectively. The trustees were also charged the IMRO investigation costs of more than £247,416 for General Accident and £143,020 for the Royal Bank of Scotland. The fines were brought on the basis that the trustees did not exercise an appropriate level of supervision of MGUTM's operation of the unit trusts, and did not identify and report that the trusts' investments in unapproved securities were in excess of the concentration limits permitted by the regulations. In addition, General Accident was charged for not taking into its custody or providing safe custody for bearer share certificates[30] in two companies acquired by the European Growth Trust on August 2nd 1995 for £16m.[31]

8.7 Some lessons

The events at MGAM show that much larger losses can occur than those reported in the previous chapter, which described losses reported in the questionnaire from operational risks. They also raise questions about the nature of the contract between the asset manager, in this case a unit trust manager, and the trustee and custodian. The concern is that, if MGAM had not had a parent with a deep pocket and a valuable reputation, investors might not all have received adequate compensation. While the compensation fund would have provided some recompense to investors, it is not obvious that it would

[29] See IMRO Press Release, Ref. 05/97.

[30] A bearer share certificate is not registered in the name of the holder, who can sell it or claim dividends upon presentation of the certificate to a bank or a broker.

[31] See IMRO Press Releases, Ref. 03/98, 04/98.

have provided full compensation to all investors. It is also unclear to what extent the trustee and custodian would have been obliged by the nature of their contract, and the duty of care inherent in it, to contribute. In other words, the concern is that the implied duty of care in these contracts is not clear and unambiguous, and therefore may not provide the investor protection in the event of failure by the investment manager illustrated in this case. Finally, this case illustrates that capital requirements cannot provide adequate investor protection. Setting capital requirements at several hundred millions of euros for many asset management firms would seriously limit competition within Europe and make the industry uncompetitive with the USA. These issues are also discussed in Chapter 2.

9. Literature Review

This chapter reviews the various strands of academic literature that are relevant to a study of capital regulation of asset managers. There are three that are of particular significance. The first is the corporate finance literature on how firms make capital structure decisions in an unregulated environment. The second examines the role of capital adequacy requirements in the banking sector. The third is regulation of quality and the professions.

The capital structure literature (section 9.1):

- establishes when capital structure is and is not relevant to the value of a firm;
- emphasises the importance of asymmetries in information and corporate control in determining a firm's optimal capital structure;
- demonstrates that the imposition of regulatory capital requirements that differ from firms' optimal levels is costly.

The banking literature (section 9.2):

- identifies the 'market failures' that can arise in banking;
- evaluates possible responses to systemic risks in banking;
- describes the role of capital requirements in providing protection against systemic failures;
- establishes the costs of imposing capital requirements that differ from banks' preferred levels, and the actions that banks may take to diminish these costs.

Since systemic risks are not the primary market failure that arises in asset management, this literature may be less relevant to the current study than that on regulating professions (section 9.3). The literature on professions (section 9.4):

- describes the market failures that arise from imperfect information ('adverse selection' and 'moral hazard'), and how these can undermine the operation of markets;
- discusses alternative responses in the forms of quality licensing, certification by regulators and capital requirements;
- evaluates the costs that these regulations impose in the form of barriers to entry and restrictions on customer choice;
- suggests that capital requirements will rarely be an appropriate form of investor protection in asset management.

9.1 Capital structure

Capital requirements that are low relative to a firm's chosen level are ineffective. Very high requirements may impose excessive costs on firms by forcing them to choose capital structures that are different from preferred ones. Thus, corporate finance theory, which explains how corporate capital structure decisions are made, is a central part of a study of capital regulation of investment managers.

Modern theory of capital structure began with the seminal paper of Modigliani and Miller (MM, 1958) that, under certain conditions, capital structure decisions are irrelevant. The MM proposition contrasts with the intuitive notion that a firm with risk-free debt could borrow at an interest rate below the required return on equity, thereby reducing its

weighted-average cost of capital and increasing its value by substituting debt for equity. However, the arbitrage arguments employed by MM demonstrate that market prices will compensate for any leverage decision the firm takes. Borrowing increases the expected rate of return on shareholders' investment, but it also increases the risk of the firm's shares. MM show that the risk increase exactly offsets the increase in expected returns, leaving shareholders no better or worse off. The cost of equity increases just enough to keep the weighted-average cost of capital constant. Also, debt is priced at levels that reflect risks of encountering financial difficulties. Higher interest rates will have to be paid to debt-holders as a compensation for risks of default on interest and principal obligations. In the case where the costs of debt and equity adjust to reflect the risks that are incurred by different classes of investors, the capital structure decision is a matter of indifference to firms.

The implications of the MM proposition in the context of regulatory capital requirements are twofold. First, if any capital structure is as good as any other, regulators have an easy task: they can set capital ratios arbitrarily high at no costs and thereby eliminate the risks associated with corporate failure. Equally important, the proposition suggests that the mere existence of risk would not present a problem since it would be fully reflected in market prices. Risk per se would not call for regulatory intervention.

However, the irrelevance of the capital structure proposition only applies in a perfect world of full information and complete markets. Subsequent corporate finance research has focused on deviations from the MM frictionless world that make capital structure relevant. Much of the banking literature described below is built on, or related to, these extensions (see Berger et al., 1995). Banks are seen as having an 'optimal' capital structure that maximises their value in the absence of regulatory capital requirements. Regulators therefore face a trade-off between achieving their regulatory objectives and the cost which higher regulatory capital levels impose on the firms.

Informational frictions are one of the main reasons why capital structure may not be a matter of indifference to firms. Two types of asymmetric information are important: first, firms have an informational advantage vis-à-vis their investors; and, second, information differs between different types of investors.

Managers generally have more information about earnings prospects and the financial condition of their firms than capital markets. Because of this asymmetry, the market will draw inferences from the actions of firms. Capital structure decisions may be one of the tools available to managers to signal information to the market. If optimistic managers find it less costly to signal good earnings prospects through increased gearing than managers who are pessimistic about prospects, a signalling equilibrium may exist in which firms that expect to have better future performance have less equity capital (Ross, 1977).

Asymmetric information combined with transactions costs of new issues may also influence the relative costs of internal versus external finance and the relative costs of debt and equity. In Myers (1984) and Myers and Majluf (1984), managers use private information to issue shares when they are overpriced. Investors are aware of this asymmetric information problem and discount the firm's new and existing shares when equity issues are announced. Because managers anticipate these price discounts, they are reluctant to issue equity. This reluctance is reinforced by the costs of issuing equity. Managers therefore prefer to finance projects with retained earnings, which involve no

asymmetric information problem and no issue costs. If internal funds are exhausted, debt is preferred to equity because its issuing costs are usually lower. Equity will be issued only when the debt capacity is running out and financial distress threatens. The result is the so-called pecking order of finance.

A significant part of the literature concentrates on models in which capital structure decisions are explained by agency conflicts that emerge under asymmetric information. On the one hand, there is a conflict of interest between equity-holders and debt-holders. Debt contracts are such that, if an investment yields large returns, equity-holders capture most of the gain. However, if the investment fails, because of limited liability, debt-holders bear the consequences. If creditors do not have sufficient information to react, equity-holders have a moral hazard opportunity to exploit creditors by investing suboptimally and substituting riskier assets for safer ones (Jensen and Meckling, 1976). In addition, when firms are likely to go bankrupt in the near future, shareholders may lack the incentives to contribute new capital, since most of the benefits would be captured by the debt-holders (Myers, 1977). The greater the risk of creditor expropriation, the higher the costs of bonding firms to their creditors and the lower the levels of gearing will be.

On the other hand, debt may reduce agency conflicts between shareholders and managers that result from the separation of ownership from control. Where the owners of equity have imperfect information about managerial actions, managers may have an incentive to exert insufficient effort in managing firm resources (Jensen and Meckling, 1976). They may also want to invest all available funds, even if paying out cash is better for investors (Jensen, 1986; Stulz, 1990). In these cases, increasing the fraction of the firm financed by debt raises firm value by mitigating agency conflicts. Debt limits managerial discretion because payments to service debt reduce the free cash flow of the firm.

In these agency models, shareholders are confronted with two offsetting effects. Higher capital avoids expropriation problems between shareholders and creditors, but aggravates conflicts of interest between shareholders and managers. The optimal capital structure then emerges as the trade-off between the costs and benefits of debt relative to equity.

Capital structure theories based on asymmetric information provide explanations for why firms may have a preferred debt–equity choice. The theories also imply that deviating from the optimal choice, for example because of statutory capital requirements, imposes costs on firms and reduces firm value. However, none of the theories provides a rationale for government intervention. Government intervention cannot reduce the distortions in capital structure that result from the asymmetric information problems listed above.

The corporate finance literature also considers corporate control as a determinant of capital structure. In a world where financial contracts are inherently incomplete, firms must determine how investment and operating decisions left out of the corporate charter ought to be taken. The corporate control literature argues that financial structure acts as a determinant of the allocation of control rights among claim-holders, and, in particular, when and how these claim-holders can intervene in management. The capital structure decision thus becomes a problem of selecting an efficient structure of corporate governance.

Shareholders are not only the residual claimants on the firm’s earnings, but also the owners of the firm’s assets. Therefore, shareholders have the right to determine how a firm’s assets are managed. Creditors generally do not have such a right, unless the firm is

in default, in which case control passes to creditors. Bankruptcy is seen as a mechanism for transferring control rights between claim-holders (eg, Aghion and Bolton, 1992; Dewatripont and Tirole, 1994).

In this view, debt provides a mechanism of allocating control rights contingent on corporate financial performance. If performance (reflected in earnings) is so low that a firm cannot meet its debt obligations, the firm defaults, and creditors obtain the right to liquidate the firm. Alternatively, creditors may agree to a reorganisation. If financial performance is adequate, shareholders remain in control. When is the transfer of control rights from shareholders to creditors justified? It is justified at the point when shareholders have demonstrated that they are less competent than creditors at running the firm. Therefore, if the performance of the firm is informative about the ability of shareholders and their managers, then there exists an optimal level of debt that determines a minimum performance of the firm.

The corporate control theories emphasise the important point that a preferred financial structure only exists where financial performance is related to the underlying quality of firm management. If there is no correlation between financial performance and the quality of management, then there would be no reason for using financial structure to effect changes in control. That is, capital structure only has a role to play where financial returns assist in distinguishing between good and bad management.

9.2 Capital regulation for banks

In contrast to non-bank financial services, the economic literature has extensively examined the role of banking regulation. The principal concern raised is systemic risk. Prudential regulation of banks ensures the stability of the financial system, which would otherwise be undermined by widespread bank failures.

The instability inherent in banking is a reflection of the composition of bank assets and liabilities. Banks transform short-term deposits into long-term loans. This leaves them exposed to withdrawals that necessitate the premature liquidation of long-term assets. If the net realisable value of assets falls below deposits, then banks are unable to service withdrawals in full and insolvency may result. Depositors perceive this risk of bankruptcy. When they observe large withdrawals from their bank, they may respond by withdrawing their own deposits, even if the bank is solvent. This may be rational either because depositors are uncertain that a bank is in fact solvent, or because they fear that a solvent bank can be made insolvent by the uninformed actions of other depositors. In addition, depositors may take the view that, while the probability of a bank failure is low, it would nevertheless be serious to them if it were to occur. Furthermore, if insolvency does occur, claims are paid on a first-come, first-served basis such that those who withdraw early are paid in full whereas latecomers are not. The seminal article providing a model of how a sound bank can be forced into bankruptcy by a pure panic run on deposits is Diamond and Dybvig (1983).

Withdrawals in excess of the current expected demand for liquidity not only generate a negative externality for the bank experiencing the liquidity shortage, they can also generate an externality for the whole banking system. Public information about the condition of individual banks is highly imperfect. When a number of banks fail, it may be difficult to tell whether the cause is idiosyncratic shocks to individual banks or a more widespread shock that jeopardises the financial system. Thus, the news that some banks

failed may create panic runs from other solvent, but illiquid banks (Bhattacharya and Thakor, 1993). In particular, if the ability of other banks to rescue troubled banks is dependent on their own financial condition, then investors may correctly infer information about the soundness of the financial system (Aghion et al., 1988). In addition to these confidence-related effects, failure of one bank might have direct contagion effects through liabilities to other financial institutions (Guttentag and Herring, 1987). In these cases, bank runs, which affect individual firms, may develop into a bank panic, which concerns the whole banking industry.

While not all observers agree that systemic risk is an important issue (eg, Benston and Kaufman, 1995), widespread banking failure may inflict heavy social costs. These costs comprise reductions in credit availability, bottlenecks in the payments system, less effective monetary policy, or the general collapse of confidence in the macroeconomy (Bernanke, 1983; Bernanke and Blinder, 1992).

Several remedies to the risk of bank runs have been put forward in the literature. The obvious way to prevent instability of the banking system is to require that, under any possible circumstance, all banks can fulfil their contractual obligations. Since the risk arises from bank deposits being liquid and callable at notice, while bank assets are illiquid or realisable only at substantial cost, safety could be ensured by the 'narrow bank' proposal, according to which the maturity structure of bank assets is perfectly matched with that of bank liabilities (Friedman, 1960; Litan, 1987). However, these requirements are seen to be too restrictive and antagonistic to the primary function of a bank to transform short-term liabilities into long-term assets.

An alternative solution to eliminate inefficient bank runs is to insure depositors. In this case, even if the bank is not able to fulfil its obligations, depositors receive the full value of their deposits, the difference being paid by the deposit insurance scheme, financed by taxes if the system is publicly run. This removes loss of confidence in banks and incentives for premature withdrawal, at least as long as insurance is 100%.

However, considerable analytical attention has been paid in the literature to the problem of moral hazard in deposit insurance. Regulatory guarantees on the value of deposits remove incentives for depositors to monitor the portfolio allocations or to seek a return that compensates for the risks of liquidation. Deposit institutions are induced to pursue inefficient concentration of risk or to accept an uncomfortably large probability that their firm will fall into an economically insolvent condition (Merton, 1978; Buser et al., 1981).

Various measures have been proposed to offset directly the moral hazard effects of deposit insurance, by enhancing incentives for monitoring of banks and improving market discipline. These measures include capping of statutory insurance limits at lower levels, introducing more co-insurance, making more use of market-priced subordinated debt, ensuring extensive disclosure of the banks' financial conditions, and making insurance fees more risk-based.

In this context, some have argued in favour of private insurance schemes because competition between companies provides incentives for information extraction and accurate pricing (eg, Kareken, 1986). However, the market mechanism may not be sufficient to provide banks with insurance against liquidity shocks. Weakness in reserve availability and enforcement powers may undermine private insurance schemes (Kane, 1989; Calomiris, 1992). Since runs create risks of simultaneous bank failures, insurers

could face devastating claims. Moreover, private insurance lacks credibility unless backed by the government, which, in turn, casts doubt on the incentives of private companies to look for accurate pricing of deposit insurance. In addition, theoretical papers show that, in the presence of asymmetric information, fairly priced deposit insurance may not be feasible (Chan et al., 1992) or, in some cases, not socially desirable (Freixas and Rochet, 1995).

As regards the monitoring solution, while bank supervision is widely believed to be important, it is imperfect in many ways. For example, one question that has been addressed in the literature is whether regulators have incentives to perform adequately the monitoring role (eg, Kane, 1995; Campbell et al., 1992).

It is for these reasons that regulators consider capital requirements. Capital requirements achieve a higher safety for banks and reduce the social costs from a systemic crisis. In the presence of deposit insurance, capital requirements have the additional role of protecting regulators and taxpayers against the costs of banking failures. Essentially, the ability to default and the right to sell the bank's assets to the insurer for the face value of insured deposits is a put option on bank assets (Merton, 1977). This put option becomes 'in the money' whenever stockholder-contributed capital falls below zero. The value of the option increases with the risk of investments made by the bank, and falls with the capital that the bank holds. As capitalisation approaches 100%, both the amount of deposits and the value of the option fall to zero. To keep risks of default below certain levels, banks should be required to hold capital.

However, if banks do have an optimal capital ratio (for reasons explained in the literature on capital structure), regulatory requirements to increase capital beyond the unconstrained optimal level reduce the value of banks and increase the cost of financing. In the long run, regulatory capital costs are likely to be passed on to bank customers. Thus, capital regulation is seen to involve a trade-off between the benefits of reducing the risk of the negative externalities from bank failures and the social costs of higher prices for financial services (Santomero and Watson, 1977).

Since this trade-off differs across banks, the ideal regulatory system would reflect these differences and tailor capital requirements for each bank. Similarly, the ideal system would continuously update the requirements to reflect changes in the risk position and the external costs of these risks. Implementation of such an ideal system would be too costly, if not impossible, to operate. Therefore, real-world capital regulation can at best be an approximation to the ideal.

Actual capital standards in place have been subject to extensive comment and criticism in the literature. In this respect, particular attention has been paid to the impact of the 1988 Basle Accord on bank behaviour. The Basle capital requirements oblige banks to maintain equity and quasi-equity funding equal to a risk-weighted proportion of their asset base. The most obvious undesirable distortion is that excessive differentials in the weights applied to different categories of assets might induce banks to substitute away from assets with high risk-weights. This may cause a credit crunch (Berger and Udell, 1994; Hancock and Wilcox, 1994). Commercial loans are assigned high risk-weights, which provides incentives to substitute from commercial lending into lower risk-weighted categories, thereby inducing a credit reduction of both weakly and well-capitalised banks.

The other concern is that capital requirements may have the perverse effect of exacerbating risk-taking because, within each category, banks may shift towards riskier assets. Kim and Santomero (1988) show formally how a bank that maximises risk–return preferences and faces uniform proportional capital requirements may substitute towards riskier assets. Other theoretical contributions include Keeley and Furlong (1990) and Rochet (1992).

Recently, concern has been expressed about what is termed 'regulatory capital arbitrage' (Jones, 2000). This may take the form of banks restructuring traditional balance-sheet positions through the use of securitisation or credit derivatives so as to place the positions within lower-risk-weighted classes. Alternatively, banks can artificially inflate capital by devices such as gains trading or under-provisioning for loan loss reserves. The problem, as perceived by regulators, is that, through capital arbitrage, a bank may achieve an overall regulatory capital ratio that is nominally high, but may mask capital weakness—that is, despite a high capital ratio, the bank may have an unacceptably high probability of insolvency. Mingo (2000) views the 1988 Basle Accord as a 'lose–lose' proposition. From the regulator's perspective, high risk-based capital ratios may have been achieved, but there is no guarantee that banks are sound. Meanwhile, regulatory capital arbitrage is costly, therefore deflecting banks from achieving their goal of maximising firm value. Additionally, competitive inequities may emerge to the extent that regulatory capital arbitrage is not equally available to all banks.

Empirical evidence of the impact of the Basle capital requirements on the behaviour of banks is mixed (Basle Committee, 1999*a*). While the effects on risk-shifting and the credit crunch are uncertain, there is strong evidence that the volume of regulatory capital arbitrage is large and growing rapidly, especially among the large banks. New proposals have been put forward to redress the possible deficiencies of the 1988 Basle Accord. These give a priority to ensuring that the economic risks of financial transactions are better captured by capital charges (Basle Committee, 1999*b*, European Commission, 1999).

While the analysis of problems associated with actual capital requirements in the banking sector is relevant to the present discussion, it is important to stress again that, in prudential bank regulation, capital requirements have the role of protecting against systemic risks of banking failures.

9.3 Capital regulation for non-bank financial institutions

Systemic risks are considerably less evident or non-existent for the non-banking financial sector (eg, Llewellyn, 1999). Contagion is less likely because of the nature of the contracts involved. Asset managers, for example, do not usually offer debt contracts that guarantee particular rates of return. Instead, they act as agents for investors who delegate portfolio selection and administration to an asset manager. Brokers and dealers merely effect transactions on behalf of others. In neither case are there similar externalities between investors to those that exist in banks. In addition, while banks rely on potentially volatile, unsecured, short-term deposits for the bulk of their funding, most other financial institutions have a much higher proportion of long-term funding. Dale (1996) points out that other financial institutions, in particular insurance companies, have the reverse maturity transformation from banks: marketable, and, hence, liquid assets and long-term liabilities. The marketability of assets also means that, in contrast to banks, the value of firms in liquidation differs little from the value on a going-concern basis. If an investment

firm fails and client funds are held separately from the firm's own assets, portfolios under management can be transferred at a low cost from one manager to another (Franks and Mayer, 1989). Moreover, provided that asset managers do not take positions on their own account, interlinkages between firms are limited. There is therefore little reason to believe that financial collapse of one asset manager should have repercussions elsewhere.

In the case of brokers and dealers, failure can have more contagious effects, since client assets are closely associated with those of the firm. Since brokers and dealers take investment positions on their own account, a financial collapse elsewhere can endanger assets and threaten solvency. Moreover, brokers and dealers enhance liquidity and accelerate the execution of transactions. A disruption of this function may be of broader significance outside the financial sector if securities markets are of wider relevance to economic activity. There is therefore stronger justification for prudential regulation to protect systemic failures in brokers and dealers than in asset management, but even then it is not as compelling as with banks.

One argument for extending capital requirements to non-banks is to ensure a level playing field between banks and other financial institutions by equalising the regulatory costs across all suppliers of financial services. However, Schaefer (1992) and Dimson and Marsh (1995) point out that there is no case for a level playing field if the socially optimal capital requirement for a particular type of institution depends on the systemic costs imposed on society by its failure and if these costs differ across firms.

It is therefore not surprising that the theoretical literature advocates, or at least considers, capital requirements mainly in the context of banks. As argued in Franks and Mayer (1989) and Mayer and Neven (1991), the case for financial regulation of non-banking financial institutions is based on arguments that are different to those found in the banking literature. In particular, non-banking regulation is more concerned with investor protection than the prevention of systemic failure. These arguments are further explored in the literature on the regulation of quality and the professions.

9.4 Regulation of quality and the professions

Microeconomic theory suggests that markets fail in the provision of quality due to the existence of asymmetric information. Suppliers of goods and services know their business better than their customers. This asymmetry gives rise to two well-known types of problems: adverse selection, which results from the fact that customers are imperfectly informed about the quality of the suppliers or the products purchased; and moral hazard, which results from hidden actions of the suppliers.

Faced with a risk that product quality may be low, customers' willingness to pay falls. If customers are uninformed about the quality of different firms and their products, they will attribute the average quality to all firms. So firms that offer low quality and firms that offer high quality will all be able to sell their products at the same price because customers cannot distinguish between them. Assuming that providing quality is costly, this implies that high-quality firms expect to earn less than similar firms offering low quality. In fact, prices may be so low that high-quality firms leave the market. In this case, the proportion of low-quality firms in the market increases, and customers' willingness to pay falls further in appreciation that the quality of the market is poor. The market steadily declines as the quality of firms deteriorates. The bad firms drive out the good. This is the essence of Akerlof's (1970) model of the used-car market. Buyers are

unable to distinguish between the quality of cars, and the average quality on the market determines the price. Owners of high-quality cars are discouraged from putting vehicles on the market, and the average quality declines further. In the extreme, adverse selection may cause the market to break down completely.

The second problem relates to the moral hazard that arises because actions of suppliers cannot be perfectly observed. Although actions could in principle be monitored, customers may find it too costly to establish firm behaviour individually and rely on other customers to engage in monitoring. Free-riding in the collection of information thus aggravates the moral hazard problem. Suppliers are given leeway to act in a way detrimental to the customer. The additional problem that emerges is that 'good' firms are induced to behave badly because they either see bad behaviour in others, or have no assurance that their competitors behave well.

The application to financial institutions is immediate if 'poor quality' is defined in terms of negligence, incompetence, mismanagement or dishonesty in the provision of financial services (Mayer and Neven, 1991). Investors cannot, or find it too costly to, establish the quality of a financial institution or the services it provides. Since asymmetric information between institutions and investors may result in sub-optimally low quality levels if left to the free market, a case can be made for the intervention of a public agency to regulate the financial sector.

Benston (1998) argues that, although customer protection can be a valid justification for regulation, there is no reason for regulating financial institutions or products more than other firms or products. However, Mayer and Neven (1991) and Llewellyn (1999) point out that most financial products are 'credence goods', for which neither before nor after the purchase of the product does the quality become fully known to the investor. By their very nature, financial services involve investments whose quality cannot be evaluated *ex ante*. *Ex post*, investors find it difficult to establish the quality of services, both because financial performance is difficult to measure and because negligence and incompetence are often indistinguishable from bad luck. These features exacerbate the risks of adverse selection and moral hazard that investors face in the financial sector compared to most other sectors.

The other issue that has been addressed is whether private markets are, by themselves, capable of overcoming the main consequences of informational problems. In particular, firms may refrain from acting badly so as to maintain good reputation and ensure continuing demand for their financial services (Benston, 1998). If reputation rectifies market failures, external government intervention is not necessary. Indeed, theoretical models show that firm incentives may be improved by repeat purchases and reputation (Shapiro, 1983; Kreps and Wilson, 1982; Milgrom and Roberts, 1982). In these models, consumers repeat purchases of firms as long as they are not deceived about quality. Firms then choose to supply high quality to avoid being classified as low-quality firms. This strategy is profitable if the value of the reputation of being high quality exceeds the costs saved by cutting quality and deceiving consumers.

Reputation as a disciplinary mechanism may work well in wholesale financial markets where those involved are professional and well informed, and where the provider of the financial services wishes to be involved in many repeated contracts. However, it may work less well for small investors where the risks of losing reputation are lower (Goodhart, 1988). Moreover, if the quality of financial services cannot be established *ex*

post as well as *ex ante* (credence goods), reputation may be inadequate to sustain good behaviour. Indeed, as firm reputation improves, incentives to cheat may increase. Turning the argument around, if investors cannot evaluate quality, reputations are vulnerable to incorrect assessments, and firms may suffer from unwarranted loss of reputation. Finally, reputation takes time to acquire and requires experimentation on the part of the investors (Diamond, 1989). If investors fear that wealth can be appropriated by dishonest firms, they are unlikely to engage in experimentation. Thus, reliance on reputation may also create barriers to entry. It is for these reasons that reputation may have to be supplemented by regulation.

The most straightforward type of market intervention is the introduction of a minimum quality standard that prevents firms from selling products of a quality level lower than the standard, or that excludes firms with a low quality from entering the market in the first place. The first model that explicitly addresses this issue is Leland (1979) within a typical Akerlof-type framework. The argument is that the prices suppliers receive for services provided reflect the average level of quality, not the marginal level. Thus, so long as the average quality exceeds the marginal, there is an incentive for firms to enter the market, thereby depressing average quality supplied. In this case, a minimum quality standard prevents quality from being driven down.

However, the literature emphasises the important point that regulation does not come without risk. If the professions set regulation, Shaked and Sutton (1980) show that there are incentives to impose barriers to the entry of new members into the profession. Rents thereby accrue to existing members to the detriment of consumers, who are forced to pay higher prices.

Shapiro (1986) compares licensing and certification as different methods of regulating entry to ensure quality. Licensing sets a minimum level of (human capital) investment that all producers must make; this leads to excessive training by providers of low quality and induces more producers to supply high-quality goods. With certification, high-quality producers have an incentive to undertake excessive training to signal their quality. Both policies increase the average quality level, but the cost of doing so may be so high that total welfare is reduced. The policies may also have undesirable distributional implications: those who require the provision of high-quality services may benefit, but those who do not will lose out because low-quality services will not be available at a low price.

In Gehrig and Jost (1995), firms cannot credibly signal a higher quality of products individually, but have an incentive to self-regulate market conduct. A self-regulatory club emerges that sets minimum standards. The club has a strong incentive credibly to enforce these standards because, if one member of the club deviates from the prescribed standard, all club members lose credibility. The problem is that self-regulation is costly to society as it confers some degree of monopoly power to the club. Nevertheless, self-regulation is of potential social value whenever the club members have better access to information about rivals' product qualities than an external regulator. In this sense, the desirability of self-regulation is shown to depend on the trade-off between the costs of false statutory regulatory action and those of granting monopoly power. The example provided by the authors is the self-regulation of Swiss banks.

Another application to the financial sector can be found in Mayer and Neven (1991). In their model, quality affects the performance of firms as measured by their profits.

However, instead of supplying services honestly, firms can cheat and earn higher returns entirely at the expense of investors. Two classes of regulation to protect investors are considered: capital requirements, and direct penalties if misbehaviour of firms is observed. Capital requirements are imposed to prevent financial institutions, which would otherwise behave badly, from entering the industry. The problem is that capital requirements may also exclude some honest firms from the industry. This is because of possible misperceptions on the part of regulators about the degree of dishonesty in firms. Thus, there is a trade-off between allowing dishonest firms to enter and the exclusion of honest firms. The closer the correspondence of capital with the actual and acceptable quality levels, and the lower the precision in imposing direct penalties, the more advantageous are capital requirements. However, capital requirements that are unable to distinguish between firm quality are undesirable. They exclude too many honest firms from the market.

Instefjord *et al.* (1998) examine the role of regulation in the context of recent cases of securities fraud. It is argued that regulators who attempt to limit fraud by firm insiders can operate only by encouraging firms to improve their control environments. In this context, capital requirements may be important, not so much because of the cushion they provide against losses, but because variations in their level give regulators a lever to persuade firms to improve controls. Other types of *ex-ante* regulations to prevent fraud include the issuance of guidance concerning systems and controls, inspections, audits or more intensive monitoring. However, the difficulty of observing firms' internal operations and the considerable costs that such interventions may impose on firms reduce the attractiveness of *ex-ante* regulation. Instead, it is much more cost-effective for regulators to penalise frauds *ex post* than to prevent frauds by *ex-ante* controls. Regulators should therefore impose *ex-post* penalties that provide incentives to improve internal control systems or operate existing systems in an appropriate fashion. The theoretical analysis by Instefjord et al. further shows that, in order to prevent fraud, it is crucial to penalise those in the hierarchy who are responsible for the fraudster, not just the fraudster.

While the literature of quality regulation suggests that imperfections in the operation of markets may call for government intervention, it equally stresses that regulation does not come without risks. Asymmetric information does not only involve the customer, but the regulator as well. This may result in false and costly statutory actions. Where informational problems are severe, control may best be self-administered. No matter whether self-administered or publicly regulated, in seeking to correct the distortions that result from asymmetric information, other distortions may be introduced. In particular, regulation may restrict the supply side of the market, thereby reducing choice, raising price and conferring rents to incumbent firms. The wrong type of regulation may also impose excessive costs on firms without achieving the desired result of improving quality.

9.5 Summary and conclusions

The three branches of literature that have been discussed emphasise different issues that are relevant to the study of capital regulation of investment firms. The literature on capital structure is important when assessing the costs that capital requirements impose on firms. If firms have an optimal capital ratio, any statutory capital regulation that forces a deviation from the optimal choice is costly to firms. However, while the literature explains why asymmetric information or other market imperfections may give rise to

particular types of capital structure, it generally does not provide any justification for capital regulation to correct the distortions.

The banking literature shows that the general issues that legitimise prudential regulation of banks do not apply for most other parts of the financial sector. In particular, risks of systemic failures associated with banks are less important or non-existent in other parts of the financial sector. The literature also highlights that, for capital requirements to have the desired effects, they need to reflect the underlying economic risks of financial transactions.

Government intervention may be justified in cases where asymmetric information causes markets to fail in providing adequate quality. This is important in financial services, where investors cannot distinguish honest from dishonest, competent from incompetent, and conscientious from negligent firms. However, the literature warns that quality regulation may not always increase social welfare. Distributional problems may arise, in that consumers with a lower willingness to pay are often penalised by a quality-increasing regulation; regulation may create barriers to entry; and when informational asymmetries involve the regulator's ability to observe quality levels, the power of regulation is reduced even further. In particular, rules that cannot distinguish between firms of different quality are inefficient.

The literature review therefore suggests that the case for capital requirements in asset management is limited. Asset managers simply manage portfolios whose values may diminish without imposing any risk of default on the asset manager. Moreover, provided that asset managers do not take positions on their own account, interlinkages between firms are limited. In the case of default, the risk of losses to investors is small if client funds are strictly separated from the firm's own assets and can be transferred at no or low cost to new management. Unlike other parts of the financial sector, there is therefore little evidence of systemic risks and large costs of financial failures in asset management. This weakens the theoretical case for capital requirements.

Regulation of investment businesses is more concerned with investor protection than the prevention of systemic failure. Where client funds are separated and risks of default are limited, investors are mainly exposed to the risks of fraud, theft, incompetence, or negligence on the part of the investment managers. In these cases, capital regulation may have a role if capital is informative about, or correlated with, the quality performance of investment firms. In general, however, capital requirements are unlikely to be cost-efficient ways of protecting investors from the risks of poor or fraudulent management. This suggests that the appropriate regulation of investment firms is very different from that of other financial institutions, and may not involve the traditional regulatory tool of capital charges.

Appendix 1: Assets under Management

A1.1 The Netherlands

Table A1.1: Assets according to balance sheet in the Netherlands, 1989–98 (€ billion)

Year	Life insurance	Non-life insurance	Pension funds	Total
1989	71.8	10.4	154.5	236.7
1990	76.8	10.8	161.9	249.5
1991	86.9	11.4	174.5	272.7
1992	99.7	12.3	189.9	301.9
1993	116.6	13.8	217.4	347.8
1994	124.6	14.7	230.4	369.8
1995	143.1	18.0	256.6	417.7
1996	154.2	19.9	278.2	452.3
1997	150.1	22.2	314.9	487.1
1998	198.2	24.9	372.4	595.5

Sources: Verzekeringskamer, and Datastream.

A1.2 The UK

Table A1.2: Assets under management for overseas institutional clients, 1996 and 1999 (€ billion)

	1996	%	1999	%
Insurance companies	83.95	20	90	18
Investment trusts	3.7	0.9	16.5	3
Pension funds	286.4	68	312	63
Unit trusts	44	11	73.6	15
Total	**418**		**492**	**492**

Source: British Invisibles (1997 and 2000), 'Fund Management', City Business Series.

Table A1.3: Assets under management for private clients, 1995/96 and 1998/99 (€ billion)

	1995/96	%	1998/99	%
UK	168	83	437	85
Overseas	35	17	75	15
Total	**203**		**512**	

Source: British Invisibles (1997 and 2000), 'Fund Management', City Business Series.

Table A1.4: Portfolio allocation of different institutions in 1998 (%)

	Insurance companies	Investment trusts	Pension funds	Unit trusts
Domestic				
Short-term assets	6.0	0	4.8	0
UK government securities	18.9	2.9	16.0	3.5
Corporate securities—equity	45.2	88.1	58.8	86.2
Corporate securities—other	10.2	5.1	1.4	8.6
Unit trust units	9.6	0.5	5.4	0
Property	6.8	0.2	4.3	0
Other	3.3	3.2	9.3	1.7
Overseas				
Short-term assets	1.1	0	1.1	0
Government securities	17.4	2.5	12.0	0
Corporate securities—equity	72.9	97.2	84.0	93.4
Corporate securities—other	8.6	0	3.0	3.3
Other	0	0.2	0	3.3

Source: ONS, 'Financial Statistics'.

A1.3 Germany

Table A1.5: Portfolio allocation by asset in 1998 (%)

	Insurance companies	Investment funds
Funds placed with banks	31.8	7.1
Money market paper	–	0.5
Bonds	10.2	50.5
Investment fund certificates	18.8	–
Shares	22.8	39.3
Other	16.5	2.6
Total	**100.0**	**100.0**

Source: Bundesbank, *Financial Accounts*.

A1.4 Exchange rates

Table A1.6: Euro exchange rates, 1990–2000

	French franc	Deutschmark	Irish punt	Italian lira	Dutch guilder	Sterling	US dollar
1990	6.90	2.06	0.77	1,543.69	2.32	0.70	1.36
1991	6.98	2.05	0.77	1,531.90	2.31	0.70	1.21
1992	6.66	1.96	0.75	1,723.08	2.21	0.80	1.29
1993	6.72	1.90	0.81	1,850.79	2.14	0.78	1.16
1994	6.56	1.91	0.80	1,953.37	2.15	0.79	1.27
1995	6.56	1.86	0.83	2,123.83	2.09	0.84	1.31
1996	6.50	1.93	0.78	1,918.06	2.16	0.79	1.25
1997	6.61	1.97	0.75	1,922.84	2.22	0.68	1.11
1998	6.56	1.96	0.79	1,936.23	2.21	0.70	1.20
1999	6.56	1.96	0.79	1,936.27	2.20	0.65	1.07
2000	6.56	1.96	0.79	1,936.27	2.20	0.58	0.84

Note: Most firms provided responses to the questionnaire in euros. It is therefore difficult to establish which exchange rate was used.
Source: Datastream.

Appendix 2: Domestic Indices

Table A2.1: Growth in ISEQ index, 1990–2000

	ISEQ index	Annual change (%)
1990	1,342.7	–
1991	1,437.6	7.1
1992	1,148.0	–20.1
1993	1,783.5	55.4
1994	1,810.6	1.5
1995	2,107.7	16.4
1996	2,666.0	26.5
1997	3,821.1	43.3
1998	4,196.7	9.8
1999	4,627.4	10.3
2000	5,726.7	23.8

Source: Datastream.

Table A2.2: Mibtel index, 1993–99

	Mibtel index	Annual change (%)
1993	9,914	–
1994	10,191	2.8
1995	9,453	–7.2
1996	10,571	11.8
1997	16,806	59.0
1998	23,695	41.0
1999	28,976	22.3

Source: Datastream.

Table A2.3: Amsterdam Stock Exchange All-share index, 1994–99

	All-share index	Annual change (%)
1994	378.8	–
1995	439.0	15.9
1996	598.3	36.3
1997	838.6	40.2
1998	1,000.0	19.3
1999	1,296.8	29.7

Source: Datastream.

Table A2.4: Change in FTSE 100 index

Year	FTSE 100 index	Annual % change
1994	3,032.8	–
1995	3,531.5	16.4
1996	4,028.4	14.1
1997	4,991.5	23.9
1998	5,217.1	4.5
1999	6,058.9	16.1
2000	6,315.9	4.2

Source: Datastream.

Table A2.5: New York Stock Exchange Composite index, 1993–99

	NYSE Composite index	Annual change (%)
1993	259.1	–
1994	250.9	–3.1
1995	329.5	31.3
1996	392.3	19.1
1997	511.2	30.3
1998	595.8	16.6
1999	650.3	9.1

Source: Datastream.

Appendix 3: Regulatory Framework in France

A3.1 Regulatory authorities

Asset managers in France are governed by the regulations and fall under the jurisdiction of the Commission des Opérations de Bourse (COB), which is the French securities and exchange commission. The COB is an independent administrative body, composed of a president and nine members. It is responsible for the authorisation and supervision of the activity of individual and collective portfolio management. It is also the regulatory authority responsible for investor protection in France and for law enforcement, partly through the imposition of administrative sanctions in respect of breaches of its regulations.

The Financial Activities Modernisation Act 1996 allows management companies the freedom of choice of their purpose. They can either manage exclusively UCITs (sociétés de gestion d'OPCVM), or expand their purpose to cover all types of discretionary asset management, including UCITs, in which case they are called portfolio management companies (sociétés de gestion de portefeuille).

Asset managers play a role in the regulatory and supervision process through their participation in the Consultative Council of Asset Management (Comité Consultatif de la Gestion Financière) and in the Disciplinary Council of Asset Management (Conseil de Discipline de la Gestion Financière). The Consultative Council of Asset Management is to be consulted by the COB in relation to the authorisation of portfolio management companies; to the approval of proposals to engage in portfolio management as part of any investment firm or credit institution's activities; and to rules and regulations relating to portfolio management. The Disciplinary Council of Asset Management is a disciplinary body with powers to sanction any breach of French legislation applicable to funds and the offer of portfolio management services.

While most assets are managed by portfolio management companies and UCIT management companies, about 5% are managed by investment service providers. These fall under the regulations of the Credit Institutions and Investment Companies Commission (Comité des Etablissements de Crédit et des Entreprises d'Investissement); however, for the purposes of this report, these will largely be ignored here.

A3.2 Capital requirements

The authorisation to carry out asset management activities as a portfolio or UCIT management company may only be granted by the COB if the company shows that it has sufficient own funds to carry out the business. According to the COB, the minimum capital requirement is FF350,000, or 25% of the overheads in the anticipated or previous year's profit and loss accounts.

A3.3 Separation of clients' assets

Clients' assets must be held separately from those of the asset management company. Assets under mandate must be held, in the client's account, with a credit institution outside the asset management company. Therefore, strict separation of clients' monies and securities is compulsory in the case of mandated asset management.

The assets of OPCVMs are held by depositaires which act as custodian. This requirement was set out in legislation in 1988. In November 1993, COB also imposed a regulation regarding the functions of a depositaire of an OPCVM.

The possible lack of contractual obligations between the asset manager and the institution acting as custodian of assets, and the lack of control by the depository is considered in the 'Mandated Individualised Portfolio Management Professional Ethics', which is a set of rules of conduct defined by AFG-ASFFI. The rules of conduct for asset managers are summarised in Section A3.11 below.

A3.4 Disclosure

Asset management companies are required to provide clients with periodic reports detailing the value and composition of the portfolio.

A3.5 Enforcement

Under the law of August 2nd 1989, the COB can impose administrative sanctions concerning practices contrary to its regulations. When the COB observes infringements of its regulations, it can pronounce a fine amounting to as much as FF10m, or, when profits have been realised, up to ten times their amount. The fine depends on the gravity of the infringements committed and is in proportion to the advantages or profits derived. The sanction procedure is made public, and the decision is subject to appeal at the Cour d'Appel in Paris.

As a protective measure, and following a formal investigation and sanction procedure, the COB also has the right to withdraw the authorisation if the company does not meet the requirements under which it was granted.

A3.6 Audit

Asset managers must prepare and submit audited accounts. The COB must be notified of any irregularities discovered by auditors during their investigation of the company. Similarly, the senior management of the company must also be informed.

A3.7 Compensation

There is no specific compensation scheme in operation for the clients of asset managers. However, there is a scheme whereby deposits, bonds and cash are guaranteed. A client's investments are also covered under this scheme.

A3.8 Complaints

The COB receives some 2,500 complaints every year, although the great majority are unrelated to asset management. For the most part, the complainants are not acquainted with their rights and the Commission is able to provide them with the necessary information. If the complaint is well founded, the COB considers four courses of actions: a fine; referral to the Public Prosecutor, should the case reveal the existence of criminal fraud; referral to the civil courts if compensation appears justified; or amicable settlement of the dispute.

A3.9 Authorisation

The COB licenses portfolio management companies and UCIT management firms, and approves the activities concerning asset management of all the investment service providers. It is required to treat an application for authorisation within three months of receiving it. Prior to issuing approval of a portfolio management company, the COB undertakes to verify:

- the existence of the company's headquarters in France;
- the existence of adequate initial capital;
- the identity and status of the shareholders;
- the integrity and experience of senior executives;
- the presence of at least two persons in a position to determine the company's general policy;
- the adequacy of the legal framework; and
- the existence of a programme of activities for each of the services to be provided.

The programme of activities must indicate for the three years ahead the extent of the authorisation that the company is seeking (collective investment schemes or portfolio management), the investment strategy, the marketing strategy, human resources and technical means.

COB's review of the application focuses on the adequacy of the asset manager's legal form, capitalisation, and management and operational infrastructure to conduct its business.

A3.10 Supervision

The supervision carried out by the COB is designed to detect all those practices and conduct likely to be harmful to the security of the investor. In this respect, the COB is particularly concerned with prudential control and supervising the rules of conduct connected to this. It ensures that the controls and procedures that are submitted to the COB during the authorisation process are put in place, that a compliance officer and an individual responsible for internal control are appointed, and that all rules and regulations are complied with. On its part, the management company is required to inform the COB of any event that may compromise the company's ability to comply with its licence.

Among the supervision rights is the right of the COB chairman to order an investigation at any point in time. An investigation is often triggered as a result of observations arising from market supervision and the follow-up of corporate activities, or as a result of complaints. The COB investigators are entitled to:

- enter all business premises;
- have made available to them all documents and to obtain a copy of those documents; and
- summon and interview any person likely to be able to supply information.

A3.11 Professional ethics and rules of conduct

The 'Mandated Individualised Portfolio Management Professional Ethics', published in April 1997 by AFG-ASFFI, contains a set of 60 rules of conduct. These recall, specify or complete the legislative or regulatory provisions in effect, and the basic uses and practices of professional ethics usually observed in France. Observance of the rules is obligatory for members of the AFG-ASFFI who are involved in mandated individualised portfolio management. The rules may therefore be seen as a form of complementary self-regulation of the French asset management industry.

Broadly, the professional ethics concern rules and guidelines on the following.

- *The management and prevention of conflicts of interest*—the asset management company must set up an organisation that allows it to carry out its functions in the exclusive interest of the principals (clients). If asset management is performed within an institution or group that operates in several areas, the fields of activities and operations must be separated. Portfolio managers must carry out asset management for third parties as their principal activity. They should never manage at the same time the portfolio belonging to the company, to companies in the group, or to companies acting as custodian of the assets they manage.

- *The obligation of means*—the company must have available at all times the personnel, organisation and equipment suitable for the type of services offered and the level of expansion of its activities.

- *The contractual relationship between manager and principals*—the portfolio management mandate must contain provisions concerning the purpose of the mandate and management objectives; the authorised operations and types of products; the selected investment area; the minimum investment levels; any existence of a guaranteed result; the remuneration of the manager; the methods for informing the principal; the absence of responsibility of the mandated agent with regard to transactions carried out at the principal's request; the obligation on the part of the principal to inform the mandated agent of any event that could alter the provisions of the contract; and the duration of the mandate and the procedures required for its termination. Also confirmed in writing is the possible obligation on the part of the company to have recourse to a custodian or intermediaries chosen by the investor.

- *The relations with principals*—for example, the manager has a duty to keep its principals informed. Any documents sent must be objective, clear and comprehensible, particularly those sent to non-professional principals.

- *The relations with intermediaries*—the choice of intermediaries must be made on the basis of objective criteria taking into consideration the quality of services provided. Among the criteria are the rules of professional ethics proper to intermediaries, in particular the separation of activities on their behalf from those on behalf of third parties.

- *The marketing of individualised management under mandate*—for example, the asset management company must not engage in wrongful or misleading advertising practices.

- *The behaviour of the portfolio manager employed by the company*—among other rules, portfolio managers are required to show reserve in the market transactions they carry out on their own behalf so as to avoid finding themselves in a situation of conflict of interest.

Appendix 4: Regulatory Framework in Germany

A4.1 Regulatory authorities

There is no single authority supervising the German asset management industry. The relevant regulatory body for asset managers and investment companies is the Federal Banking Supervisory Authority (Bundesaufsichtsamt für das Kreditwesen, BAKred); for insurance companies, it is the Federal Insurance Supervisory Authority (Bundesaufsichtsamt für das Versicherungswesen, BAV). The two authorities are responsible for authorisation and solvency supervision. Solvency supervision is broadly defined as monitoring the companies' ability to safeguard their continuing existence by pursuing an appropriate business policy and by maintaining sufficient capital.

Since fewer insurance companies are managing their own funds, regulation of investment management has increasingly shifted to the BAKred, with the BAV continuing to regulate insurance companies' own funds. No statistics are published on how many insurance companies have outsourced asset management and how many continue to manage their funds in-house.

To the extent that asset managers trade in securities, they are also supervised by the Federal Supervisory Office for Securities Trading (Bundesaufsichtsamt für den Wertpapierhandel), which is responsible for market supervision. Broadly, market supervision serves to ensure the protection of depositors, the transparency of the securities markets and the integrity of the capital market.

The legal basis for all financial services institutions, including those that provide portfolio management services, is provided by the Banking Supervisory Act (Kreditwesengesetz, KWG). The Investment Companies Act (Gesetz über Kapitalanlagegesellschaften, KAGG) regulates the operation of domestic investment companies. Investment companies manage investment funds, but can also provide portfolio management activities for third parties. Private and public insurance companies are not considered as financial services institutions, and do not therefore fall under the legislation of the KWG. Instead, they are separately regulated by the Insurance Supervision Act (Versicherungsaufsichtsgesetz, VAG).

Other relevant legislation includes:

- the Securities Trading Act (Wertpapierhandelsgesetz), which implements the prudential and conduct-of-business rules for trading with securities;
- the Safe Custody Act (Depotgesetz), which governs deposits of securities and applies to all safe-custody activities; and
- the Deposit Guarantee and Investor Compensation Act (Einlagesicherungs- und Anlegerentschädigunggesetz), which provides for basic investor compensation in the event of losses.

A4.2 Capital requirements

All financial services institutions, including those providing portfolio management for third parties, are subject to the capital adequacy rules laid down in the KWG. Capital requirements for investment companies are legislated in the Investment Companies Act (KAGG). Separate solvency regulation, which applies to insurance companies, including

the asset management part if it has not been outsourced to a separate business, is contained in the Insurance Supervision Act.

A4.2.1 The Banking Act

Anyone wishing to provide financial services in Germany, including portfolio management, generally needs a written licence from the Federal Banking Supervisory Authority. As laid down in the Banking Act (KWG), the Authority may only grant a licence if the following mandatory minimum capital requirement is met:

- €50,000, if the applicant company does not have power of attorney and does not trade for its own account;
- €125,000, if the applicant company has power of attorney;
- €730,000, if the applicant company engages in own-account trading for others; or
- €5m, if the applicant engages in deposit-taking activities.

The initial capital must be freely available and must not result from borrowing. The KWG contains details on how the initial capital is calculated (mainly paid-up capital and reserves, less withdrawals by, and loans granted to, general partners, or less the total nominal amount of the cumulative preferential shares). The Federal Banking Supervisory Authority reserves the right to change the minimum capital requirement on an individual basis.

As an ongoing capital requirement, the KWG legislates that portfolio managers or other financial services institutions must have own funds amounting at least to one-quarter of their costs shown in the profit and loss account of the last set of annual accounts under general administrative expenses, depreciation of tangible and intangible fixed assets and value adjustments. If a set of annual accounts has not yet been drawn up, the figure is to be estimated by those contained in the current business plan.

In addition, financial services institutions are subject to own-funds requirements that take into account market risk positions. These additional requirements only apply to institutions which conduct trading for their own account, or which are authorised to obtain ownership or possession of funds or securities of customers.

A4.2.2 The Investment Companies Act

The Investment Companies Act (KAGG), which is the decisive law for German investment companies in addition to the KWG, provides that the Banking Supervisory Authority may grant a financial institution the licence to carry out investment fund activities if the paid-in nominal capital is at least DM 5m (€2.6m). There is no variable component in the capital requirement for investment companies.

A4.2.3 The Insurance Supervision Act

The capital requirements contained in the Insurance Supervision Act (VAG) only apply to asset managers that are insurance companies that continue to manage their own funds in-house. To ensure that their liabilities under the insurance contracts can permanently be met, the VAG requires insurance undertakings to establish free uncommitted own funds in an amount not less than the solvency margin. This margin depends on the total volume of business. One third of the margin is deemed to be the guarantee fund.

The Decree on the Capital Requirement of Insurance Companies (Kapitalausstattungs-Verordnung) of April 16th 1996 contains the provisions on the calculation of solvency margins. For life assurance companies, the solvency margin depends on the mathematical reserves and the risk capital. The Decree also lays down the minimum guarantee funds. For life assurance companies, the minimum guarantee fund is €800,000. These solvency requirements for the insurance business capture the capital requirements for the asset management part of insurance.

A4.3 Separation of clients' assets

Basic safe-custody rules are laid down in the Safe Custody Act (Depotgesetz) and apply to all non-private persons performing safe-custody activities. This Act specifies the legal responsibility of the custodian to ensure safe keeping and provides for punishment in case of breaches.

The Banking Act (KWG) classifies custodian services as a banking activity that correspondingly requires a licence from the Banking Supervisory Authority. Only in very rare cases is a custodian not a credit institution.

According to the Banking Act, financial services institutions that manage assets on a discretionary basis (portfolio managers) have to keep securities in a safe-custody account of the customer at a credit institution; otherwise, portfolio managers would require a licence to conduct safe-custody business and hence would be credit institutions themselves.

Strict safe-custody rules arise for investment companies according to the Investment Companies Act (KAGG). The KAGG requires that assets purchased with the funds paid in by investors have to be kept physically separate from the business assets and liabilities of the company managing the fund. They are held in safe custody and under the supervision of a depository bank (Depotbank). The depository bank can be part of the same group as the investment company.

In the case of investment companies, Depotbanks have the following authorities and responsibilities:

- they must act purely in the clients' interest;
- they must ensure that the KAGG and any other contractual obligations with clients are satisfied;
- they are empowered and required to take action against the investment companies in their own name on behalf of clients;
- they must place and hold all assets held in custody in a blocked account; and
- they distribute the assets held in custody on default of the investment firm.

Still in the case of investment companies, the custodian controls and supervises asset allocation rules. The role extends to calculating the value of collective investment schemes, but there is no legal requirement to do so in individual schemes. If there is a mistake, then the custodian only pays for misevaluations. Other mistakes are the responsibility of the investment company.

Separate obligations apply to life assurance companies as laid down in the Insurance Supervision Act (VAG). Assets must be held physically separate and secured in such a

way that they can only be accessed upon written approval of a trustee or a deputy of the trustee, who have been appointed by the supervisory board of the business and approved by the Insurance Supervisory Authority. At the end of the balance sheet, the trustee must certify that funds have been invested and kept in compliance with the applicable rules.

A4.4 Disclosure

According to the Investment Companies Act, firms are required to submit reports on funds on a regular basis.

A4.5 Enforcement

Under the Banking Act (KWG), the Banking Supervisory Authority is allowed to impose sanctions and fines in accordance with the provisions of the Administration Enforcement Act (Verwaltungsvollstreckungsgesetz) to punish breaches with administrative regulations and enforce compliance. The Act also contains details on the upper limits of the fines. Additional rights include dismissing the managing director or withdrawing the licence to pursue investment management business.

The Insurance Supervision Act grants similar enforcement rights to the Insurance Supervisory Authority.

A4.6 Compensation

Prior to 1998, there was no specific investor compensation scheme to provide for monetary losses arising as a direct result of failure of investment firms handling securities transactions. However, a voluntary deposit protection or guarantee fund, managed by the Federal Association of German Banks, covered deposits in private commercial banks. Payments were made on the default of deposit-holders to all non-banking institutions and private persons up to a limit of 30% of the defaulting bank's equity capital per creditor.

In August 1998, the Deposit Guarantee and Investor Compensation Act came into force. It implements EC Directive 94/19 on deposit guarantee schemes and EC Directive 97/9 on investor compensation schemes into national law. Since then, all registered providers of financial services are legally obliged to join and financially contribute to the Compensatory Fund of Securities Trading Companies (Entschädigungseinrichtung der Wertpapierhandelsunternehmen, EdW). Investment companies are only required to join if they undertake third-party portfolio management. The scheme grants compensation if an affiliated company gets into financial difficulty and cannot repay or meet its obligations. It provides for minimum protection only. The amount of compensation granted is limited to 90% of the value of deposits taken, up to a maximum of €20,000; and to 90% of the liabilities from security transactions, again up to a maximum of €20,000 per investor and financial services institution. Excluded from compensation are insurance companies, capital investment companies, medium-sized and large companies, and state-owned companies.

Prior to commencing a commercial relationship, institutions are required to inform their non-institutional customers about the guarantee provisions, including the scope and amount of the guarantee, in a written and easily comprehensible form.

A4.7 Complaints

Conduct-of-business rules require firms (in banking groups) to implement internal procedures to deal with complaints.

A4.8 Authorisation

A4.8.1 The Banking Act and Investment Companies Acts

Any enterprise wishing to pursue financial services, including asset management activities, needs a written licence from the Federal Banking Supervisory Authority. In addition to satisfying the minimum capital requirements, conditions to be granted a licence include the following.

- The institution must have trustworthy managers with the necessary professional qualifications.
- Proprietors, legal representatives or general partners of an enterprise holding a qualified participating interest must be trustworthy, and must satisfy the requirements regarding sound and prudent management of the institution.
- The institution must be in a position to make the organisational arrangements necessary for the proper operation of the business.
- If the institution is a subsidiary of another enterprise domiciled abroad, the parent must be effectively supervised in the state where it is registered or has its head office. The appropriate supervisory body must be prepared to cooperate satisfactorily with the Federal Banking Supervisory Authority.
- The institution must file with the application a business plan that contains:

  – projected financial accounts for the first three financial years;
  – a detailed description of the planned operations;
  – customer contracts, business management agreements, and safe-custody authorisations, where they have been drawn up;
  – a description of the organisational structure; and
  – a description of the planned internal monitoring procedures.

A4.8.2 The Insurance Supervision Act

Licences to carry out insurance business are granted by the Insurance Supervisory Authority. When applying for a licence, the enterprise must file a detailed operating plan which, in addition to the minimum capital requirement outlined above, must contain:

- a description of the purpose and organisation of the insurance undertaking;
- information about the classes of insurance to be provided;
- details on any proposed outsourcing of activities, such as portfolio management;
- estimates of expenses and the liquidity situation for the first three financial years; including a statement on how liabilities under insurance contracts and the requirements with respect to the financial resources are to be met;
- information about intended reinsurance;
- information necessary to judge the reliability and qualification of managers and directors;
- information on major participations held;
- information about close relations existing between the insurance undertaking and another natural or legal person; and

- information necessary to judge the reliability and qualification of the responsible actuary.

A4.9 Supervision

The Banking Act grants the Banking Supervisory Authority (BAKred) several supervision rights including:

- upon request, supervised institutions must provide information about all business activities and present documentation;
- the BAKred may carry out audits and inspect business premises, even if there is no special reason for them;
- the BAKred may send representatives to shareholders' meetings or general meetings.

The regulator checks the asset allocation of investment firms every month or every three months. In addition, institutions must submit their monthly returns on a quarterly basis. They are also required to deposit the annual accounts with the BAKred within three months of the following financial year. The final audited accounts must be submitted immediately after the completion of the audit. Furthermore, institutions have to inform the BAKred immediately about important events, such as significant losses or changes in management.

Similar provisions are laid down in the Insurance Act. While the BAV may only inspect insurance companies every seven or eight years, firms need to inform the regulator about asset structure every three months and provide other information every year. The BAV also has the right to carry out random audits and business inspections, or to send representatives to meetings.

Appendix 5: Regulatory Framework in Ireland

A5.1 Regulatory authorities

The Department of Finance is responsible for the development of legislation regarding the regulation of financial services. The principal regulatory body with responsibility for implementing legislation regarding the asset management industry is The Central Bank of Ireland (the Bank). All credit institutions,[32] investment managers and investment intermediaries are authorised and supervised by the Bank. As lead regulator for financial groups headquartered in Ireland, the Bank has ultimate supervisory authority for all of a group's financial activities.

The Bank receives its statutory powers under the provisions of a number of Acts,[33] and legislation governing the operation of collective investment schemes. The Department of Enterprise, Trade and Employment devises legislation concerning the regulation of collective investment schemes, which are directly authorised and regulated by the Bank.

At the end of 1998, the Bank was responsible for the supervision of some 877 institutions. Of these, 742 were supervised under the Investment Intermediaries Act 1995, of which 175 were International Financial Services Centre companies. The number of banks supervised was 77. In addition, a total of 1,500 funds (including sub-funds) were authorised under collective investment scheme legislation, and the Bank supervised five professional bodies, three exchanges and their member firms.

The Department of Enterprise, Trade and Employment is responsible for the authorisation and supervision of insurance companies. Where the asset management function is carried out by an insurance company, it comes under the supervision of the Department. Conversely, where an insurance company establishes a subsidiary, which is not an insurance company itself, it is authorised and supervised by the Bank. Similarly, the Pensions Board has responsibility in relation to pension funds and the trustees of those funds. However, it is common practice for pension funds to have their assets managed by institutions that are primarily regulated elsewhere (eg, by the Bank or the Department).

The Investment Intermediaries Act 1995 provides the legislation necessary for the authorisation and supervision of investment firms by the Bank. This Act was introduced in order to transpose the Investment Services Directive into Irish law.[34]

A5.2 Capital requirements

In accordance with the EU Directive on the Capital Adequacy of Investment Firms and Credit Institutions, the Central Bank of Ireland has devised rules for Irish investment firms. Capital is defined as own funds and financial resources. Firms are required to hold capital that is equal to or greater than the largest of the following:

[32] The credit institutions supervised by the Bank include licensed banks, building societies, Trustee Savings Bank, ACC Bank, ICC Bank and ICC Investment Bank.

[33] The Central Bank Acts, 1971–1998, the Building Societies Act 1989, the Trustee Savings Bank Act 1989, the Investment Intermediaries Act 1995, the Stock Exchange Act 1995, the ACC Bank Act 1992, and the ICC Bank Act 1992.

[34] Although the provision of investment advice is a non-core activity within the Investment Services Directive, it is covered by the Investment Intermediaries Act, and investment advisers are subjected to a similar regulatory regime as other investment businesses.

- the firm's capital shall never be less than one-quarter of the fixed overheads in the proceeding year;[35] or
- firms must ensure that financial resources are sufficient to cover the sum of the capital requirements calculated in respect of position risk, underwriting, settlement and counterparty risk, foreign-exchange risk, and large exposures for their trading book business; imposed in the Solvency Ratio Directive and imposed by the Bank to cover risks arising in connection with business outside the scope of the Capital Adequacy Directive and Solvency Ratio Directive.

Firms that hold clients' money and/or financial instruments must hold initial capital of €125,000 (IR£98,446). Firms that only receive and transmit orders from investors and are not authorised to hold clients' money or financial instruments, to deal for own account, or to underwrite issues on a firm commitment basis must have initial capital of €50,000 (IR£39,378). All other firms must have initial capital of €730,000 (IR£574,922). The Bank reserves the right to impose additional capital requirements on firms that are exposed to higher levels of operational risk.

A5.3 Separation of clients' assets

Section 52 of the Investment Intermediaries Act 1995 places requirements on authorised investment firms regarding the safekeeping of clients' funds and instruments. In general, an authorised firm must hold client money separate from its own money. Where an authorised firm holds money on behalf of a client, it must ensure that the money is held in a client account with a credit institution that is continually assessed. If an authorised firm deposits client's money with an institution that is part of the same group as the authorised firm, then:

- an ongoing risk assessment of that institution must be undertaken, ensuring that this assessment is as rigorous as that faced by any other institution that is not part of the group;
- the firm must inform the client in writing; and
- the identity of the institution concerned must be made known to the client.

A5.4 Disclosure

Each new client must be given a copy of the firm's investment management agreement. The purpose of this agreement is to set out the basis on which the firm's services are provided. The following information should be included in the investment management agreement:

- an outline of the services to be provided;
- an outline of the firm's understanding of the client's investment objectives and investment restrictions, if any;
- details of the firm's charges;

[35] Fixed overheads include all expenses incurred by the firm with the following exceptions: exceptional and extraordinary items that have previously been agreed with the Bank; shared commissions paid, other than to officers and staff of the firm; profit shares, bonuses, etc; losses arising on the translation of foreign currency balances; depreciation; and any other non-fixed expense that has been agreed with the Bank.

- an outline of the firm's policies in relation to conflicts of interest;
- details of the firm's policy in relation to the taking of principal positions;
- details of the firm's arrangements for custody of investments held for clients; and
- in the case of any discretionary client or any client for whom the firm borrows money or deals in derivatives, underwriting or stock lending, the terms shall include details of such services and the firm shall procure that the terms are signed by the client.

In addition, an investment manager must send a statement to a client at least once every six months. This statement must detail the value of the portfolio at the beginning and end of the period, its composition at the end, and, for a discretionary client, changes in its composition between those dates. Unless stated otherwise in the investment management agreement, the periodic information should include:

- the contents and value of portfolio—the number of units of each asset in the portfolio on the date on which the statement is made up, the opening value of the portfolio, the value of each of the assets at the closing date, and the aggregate of their values at that date;
- the basis of valuation—a statement explaining the calculation of the value of the portfolio at the closing date;
- details of any assets loaned or charged—details of assets that were on loan to a third party at the closing date, or assets that were charged to secure borrowings made on behalf of the portfolio;
- income received—the aggregate income received on behalf of the client, earned on all assets contained in the portfolio;
- interest paid—details of interest paid in respect of amounts borrowed on behalf of the portfolio;
- transaction details—particulars in respect of each transaction entered into by the manager in the assets of the portfolio during the account, and details of each payment made to the client and amount received from the client by the manager during that period;
- manager's remuneration—a statement of the fees and charges for the period, unless previously advised;
- manager's remuneration from third parties—a statement of any remuneration received by the manager from a third party which is attributable to transactions entered into by the manager for the portfolio; and
- a statement of the difference between the value of the portfolio at the closing date and its opening value, paying particular attention to:

  – the total amount of assets received from the client and added to the portfolio during the period of account;
  – the aggregate of the value of assets transferred, or of amounts paid, to the client during the period of account;
  – the aggregate of income received on behalf of the client during the period of account in respect of all the assets comprised in the portfolio;
  – the aggregate of interest payments referred to above; and
  – the aggregate realised and unrealised profits or gains and losses attributable to the assets comprised in the portfolio during the period of account.

If the portfolio contains open positions in derivatives, the following information should be included in the statement of periodic information:

- the name and address of the manager;
- the client's designation and account number;
- each payment made and amount received by the manager in respect of the account during the month;
- a statement of the resulting profit or loss to the client after deducting commission in respect of each transaction;
- a statement of the amount of the unrealised profit or loss attributable to each open position; and
- a statement of the aggregate of each of the following in the client's account: cash; collateral; unrealised profits attributable to open positions; and unrealised losses attributable to open positions.

A5.5 Enforcement

Under the Investment Intermediaries Act 1995, the Central Bank of Ireland has the authority to enforce compliance with the regulations. The following actions may be taken by the Bank in the event of a violation of the regulations:

- at the time of authorisation or any subsequent time, conditions may be imposed on a firm relating to advertising, acquiring transactions or holding client money;
- an application for authorisation from a firm may be denied;
- upon the issue of a Direction, a firm may be instructed to conduct, or discontinue an activity;
- authorisation to conduct investment activities may be withdrawn;
- a second audit of the firm's accounts may be ordered;
- an application may be submitted to the court to remove an officer or employee from a firm;
- inspectors may be appointed to examine the activities of the firm;
- offences contained in the Act may be prosecuted. Convictions may result in fines (of £1,000 or £1m) and/or a term of imprisonment (of one or ten years);
- a 'Determinations Committee' may be established with responsibility to impose fines and other enforcement measures. The establishment of this committee is waiting upon the mandatory ministerial decision, which had not been made at the time of writing.

A5.6 Audit

Legislation stipulates that, in certain circumstances, external auditors of credit institutions are required to provide the Central Bank with information about the company. For example, the external auditor must notify the Bank if, during the course of an audit:

- matters arise that are likely to affect the solvency of the company;
- there are material deficiencies in the financial systems of control; or
- there are significant omissions or inaccuracies in returns to the Bank.

The Bank must be informed if the auditor intends to publish a qualified report. If the auditor wishes to resign their post, then the Bank must be notified. The Bank has the right to seek specific information from the auditors in relation to the affairs of the company.

A5.7 Compensation

The Investor Compensation Company was established under the Investor Compensation Act 1998 with the aim of providing compensation to private clients of a failed investment firm.[36] This Act transposed the Investor Compensation Directive into law. According to this directive, all member states are required to have an investor compensation scheme for firms authorised in their own country to conduct certain types of investment business. This compensation scheme must guarantee a minimum level of protection for the private investor if an investment firm cannot compensate investors. These firms are entitled to carry out that same business in any other member state, without having to be authorised by that country's regulator. Individual member states may increase this level for their own compensation schemes.

The Investor Compensation Company is funded by contributions from member firms. Firms covered by the scheme include:

- investment firms regulated by the Central Bank;
- stockbrokers regulated by the Central Bank;
- insurance brokers, agents and tied agents;
- banks and building societies licensed by the Central Bank which carry out investment services; and
- accountants certified by their professional bodies to conduct investment business.

The types of investment covered by the scheme include:

- public and private company shares;
- units in collective investment schemes;
- prize bonds;
- life and non-life insurance policies;
- tracker bonds; and
- futures and options.

Compensation is only payable where the firm is unable, due to its financial circumstances, to return a client's money or investments as determined either by the courts or the Central Bank. As set out in the Investor Compensation Directive, the maximum level of compensation payable is 90% of the net loss, subject to a maximum payment of IR£15,751 (€20,000). Investors have five months from the time the investment firm is deemed to have failed to make a claim.

Currently the Investor Compensation Company has made a provision of £640,000 in the accounts on the basis of claims, awaiting verification, from investors in Money Markets International Stockbrokers, a stock broker, which has gone into liquidation.

[36] Investors that suffer a decline in the value of investments as a result of poor advice, market movements or inflation are not eligible to receive compensation.

A5.8 Complaints

Asset management companies are required to maintain a record of all written complaints received against them from their clients, including a record of their response and any action taken as a result of the complaint. An adequate procedure must be in place to ensure the effective handling of complaints. If a client is not satisfied with the company's response to a complaint, then the company should inform the complainant of their right to refer the matter to the Central Bank.

A5.9 Authorisation

Prior to authorisation, an investment firm must satisfy the Bank that:

- the directors and managers of the company are persons of probity and competence;
- the firm has sufficient capital; and
- the requirements set out by the Bank are likely to be met.

In order to receive authorisation for an investment business from the Bank, the following steps must be satisfied:

- the Bank must fully understand the nature of the activity and the risks involved;
- the suitability of shareholders must be assessed, including, where relevant, the ultimate and beneficial shareholders;
- the probity and competence of directors and senior management in relation to their proposed function must be examined. Where appropriate, it may be necessary to use detailed questionnaires and contacts with other supervisors and security checks;
- the applicant's financial standing must be assessed, with particular emphasis on the capacity to provide for the future capital needs of the business;
- it is necessary to establish that the entity can be supervised effectively with particular reference to the need for consolidated supervision of each financial group and ensuring that the business is controlled from Ireland; and
- compliance with legislative requirements and those of relevant EU directives must be ensured.

At the time of authorisation, the Bank may impose further detailed requirements on the entity in accordance with the relevant legislation. Non-bank firms are subject to requirements that fall into the following categories:

- general reporting requirements;
- capital requirements;
- requirements in relation to the safekeeping of client assets;
- advertising requirements;
- conduct-of-business requirements; and
- guidelines in relation to anti-money laundering.

The Bank has issued a code of conduct for investment managers, which details general and specific principles to which the investment manager must adhere when conducting all

transactions. The general principles state that an investment manager shall ensure that, in all transactions, it:

- acts honestly and fairly in conducting its business activities in the best interests of its clients and the integrity of the market;
- acts with due skill, care and diligence in the best interests of its clients and the integrity of the market;
- has and employs effectively the resources and procedures that are necessary for the proper performance of its business activities;
- seeks from its clients information regarding their financial situations, investment experience and objectives as regards the services requested;
- makes adequate disclosure of relevant material information, including commissions, in its dealings with its clients;
- makes a reasonable effort to avoid conflicts of interests and, when they cannot be avoided, ensures that its clients are fairly treated;
- complies with all regulatory requirements applicable to the conduct of its business activities; and
- adheres to the code of conduct.

An investment firm must also ensure that the transactions it executes on behalf of a client or advice given to a client is suitable to the client. The firm must also ensure that it deals to the best advantage of its clients.

A5.10 Supervision

Following authorisation, a firm faces ongoing supervision, which depends on the type of institution and activities being conducted. The Bank may generally conduct both on- and off-site monitoring, which are common to all firms. Off-site monitoring includes regular collection and analysis of data; regular review meetings with management; and addressing issues as they arise.

The Bank receives returns from regulated firms or individuals on a monthly, quarterly or six-monthly basis. Returns submitted to the Bank typically include profit and loss accounts and balance sheets, as well as detailed calculations in relation to the firm's capital position. Upon examination of this information, the Bank can check compliance with regulatory rules, and monitor any changes in the financial statements or the pattern of income and expenditure. Furthermore, external auditors of regulated firms are required to notify the Bank in writing if they have any reason to believe that there are material inaccuracies in, or omissions from, any returns of a financial nature.

Review meetings take the form of discussions with senior management of supervised institutions and, on average, are held with each institution twice a year. These meetings provide a forum for discussion of issues such as:

- the financial performance of the institution;
- the impact of any organisational changes;
- agreeing remedial action to deal with any areas of prudential concern;
- the institution's future plans and projections; and
- a general discussion of the changing business and financial environment, and its impact on the institution.

On-site inspections involve the examination of the books and records of the supervised entity (and any subsidiary, if appropriate), and an assessment of its compliance with the Bank's supervisory requirements and with relevant legislative provisions. The frequency of such inspections depends on many considerations, including the structure of the supervised entity (locally incorporated or a branch), its quality of ownership, size, the activities of the institution and the associated risks—including risks associated with investor protection, risks to the financial system, financial risks to the institution, and risks associated with poor internal controls.

The frequency of inspections can range from several in one year to once every two or three years. Inspections may be of a broad, general nature, seeking to examine most of the institution's main activities. Alternatively, they may focus on a specific activity or area, such as treasury operations, credit-control procedures, or compliance with client asset requirements. Following an inspection, a report is prepared and a letter is issued to the relevant entity, recommending remedial action where appropriate.

Appendix 6: Regulatory Framework in Italy

A6.1 Regulatory authorities

According to the Consolidated Law on Financial Markets (Legislative Decree 58/1998), which came into force on July 1st 1998, supervision of financial intermediaries is divided between the Bank of Italy and Consob. The Bank of Italy is responsible for prudential supervision, information monitoring, and conducting on-site controls with the aim of limiting risks and ensuring the stability of intermediaries. Consob has a role in ensuring transparency and proper conduct.

An asset management company managing a fund will therefore be supervised by the Bank of Italy, while one managing assets on behalf of a private client or managed account is supervised by Consob. In practice, it is difficult to distinguish precisely between the role of Consob and the Bank of Italy in the regulation of asset management companies.

It is worth noting that the Consolidated Law allows asset management companies to engage jointly in the activities of management on a client-by-client basis as well as a collective basis.

A6.2 Capital requirements

Capital adequacy requirements are determined by the Bank of Italy. The capital requirement imposed on asset management companies consists of two components: a fixed and a variable amount. The current legislation requires a single level of share capital of 2 billion lire (€1.03m) to be met. Prior to the implementation of the legislation contained in the Consolidated Law, the amount of share capital set for asset management companies differed according to the type of funds managed. This change in legislation is a result of a change in the licensing arrangements. Asset management companies are now granted a single licence that allows them to establish and manage funds of any kind.

In addition to this fixed component, capital adequacy requirements are also a function of the value of the assets under management, and are equal to:

- 0.5% of the value of assets in open-ended funds, SICAVs and pension funds;
- 2% for closed-ended funds; and
- an additional capital charge required in the case of pension funds that guarantee the repayment of principal.

In any event, the total capital requirement must be at least equal to 25% of the company's fixed operating costs in the previous financial year. However, the proportion of OPEX for each company is determined by the Bank of Italy. In effect, the proportion may be higher or lower than 25%, depending on the regulator's evaluation of the company's business plan and activities.

A6.3 Separation of clients' assets

The Bank of Italy has issued new rules to deal with the holding of clients' assets, in order to ensure that there is separation between the assets of individual customers, and between customers' assets and those of the intermediary. The regulations include:

- the separation of clients' assets from those of other clients and from those of the company. In effect, this means that clients' assets must be held outside the company, but may be held within the group to which the company belongs;
- the separate reporting of the assets of each customer;
- the prohibition of the use of clients' assets by intermediaries, unless authorised in writing by the customer; and
- the prompt deposit with a bank of sums of money received from customers.

A6.4 Disclosure

The Bank of Italy and Consob may require the following information:

- the names of asset management companies' shareholders;
- the directors of companies and entities that hold capital in asset management companies to provide the names of their controllers;
- trust companies that hold capital in asset management companies to provide the names and details of the beneficiaries.

A6.5 Enforcement

In the event of serious administrative irregularities or violations of regulations, the administrative body of an asset management company may be replaced by a provisional administrator, appointed by the chairman of Consob, for a maximum of 60 days.

The Minister of the Treasury may issue a decree dissolving the management of an asset management company where:

- serious administrative irregularities or violations of laws, regulations or bylaws governing its activity are found;
- serious capital losses are expected;
- the dissolution has been the object of a reasoned request by the management, an extraordinary meeting of shareholders or the provisional administrator appointed by the chairman of Consob.

Similarly, the Minister of the Treasury may issue a decree withdrawing authorisation to continue business, and ordering compulsory liquidation of asset management companies.

Provision of investment services without authorisation or a breach of regulations will result in imprisonment and a fine.

A6.6 Audit

Authorised asset management companies, or their auditors, may be required to provide data and information to the Bank of Italy and Consob. Any irregularities discovered by the auditors during their examination of the company must be promptly reported to the Bank of Italy and Consob. In addition, firms engaged to audit the accounts of an asset management company are also required to provide an opinion on the investment fund's statement of operations. Auditors are not permitted to conduct examinations of companies without prior warning.

A6.7 Compensation

The provision of investment services is dependent on the membership of a compensation scheme aimed at protecting investors. The organisation and operation of the scheme is determined by the Minister of the Treasury following consultation with the Bank of Italy and Consob.

There are two separate compensation schemes. Banks have developed a scheme whereby their clients may claim for any losses. Asset management companies and security houses have developed a joint scheme, which has been in operation since 1991. However, in light of failures by security houses, there is currently a debate on whether a separate compensation scheme should be established for clients of asset management companies.

A6.8 Complaints

There is no specific ombudsman to deal with complaints relating to asset management activity against firms regulated by Consob and the Bank of Italy. However, individual investors may complain to Consob, with the potential of taking the complaint before the courts.

A6.9 Authorisation

The provision of the service of collective asset management and management on a client-by-client basis is authorised by the Bank of Italy, after consultation with Consob. To receive authorisation, the following conditions must be satisfied:

- the legal form adopted is that of a 'società per azioni';
- the registered office and the head office of the company are located in Italy;
- the paid-up capital is not less than that established on a general basis by the Bank of Italy;
- the persons performing administrative, managerial or control functions must fulfil integrity and experience requirements set out by the Minister of the Treasury;
- the shareholders must fulfil integrity requirements set out by the Minister of the Treasury;
- the structure of the group of which the company is part is not prejudicial to the effective supervision of the company;
- any information required by the regulator is provided;
- a programme of initial operations and a description of the organisational structure have been submitted, together with the instrument of incorporations and bylaws; and
- the name of the company contains the words 'società di gestione del risparmio'.

A6.10 Supervision

The Bank of Italy and Consob may conduct inspections of authorised persons. In supervising companies, Consob may assign a ranking to asset management companies, although the methodology used to develop this ranking is not publicised. On the basis of this, Consob will increase the frequency of visits to those companies that are deemed to be of higher risk. Inspections conducted by Consob or the Bank of Italy are not publicised.

Appendix 7: Regulatory Framework in the Netherlands

A7.1 Regulatory authorities

The Stichting Toezicht Effectenverkeer (STE) was established in 1988 as an independent organisation charged with the supervision of securities trade in the Netherlands. Its creation provided for the separation of regulation from the government and from the industry itself. STE's objective is to ensure the proper functioning of the securities markets, to protect the position of investors, and to increase the transparency of the securities markets.

Two groups of institutions are regulated by the STE. The first consists of securities institutions that operate directly in one of the securities markets in the Netherlands. The second consists of securities institutions, known as 'off-exchange institutions', which do not trade directly on a securities market in the Netherlands. Off-exchange institutions refer to securities brokers and portfolio managers. Portfolio management is defined as the management or investment of securities owned by another party. Portfolio managers invest client monies subject to a prior contractual agreement, at their discretion and in the interests of the clients. They are not permitted to hold clients' money or securities. Collective investment schemes are regulated by the Dutch Central Bank (De Nederlandsche Bank). Insurance companies and pension funds that manage their own funds are regulated by the Insurance Chamber (Verzekeringskamer).

On June 15th 1992, the Supervision of Securities Trade Act (Wet toezicht effectenverkeer, Wte) transferred the responsibilities and powers of the finance minister to the STE. Under this Act, the STE is responsible for exercising its mandate, such as granting licences, reviewing stock exchange regulations and investigating cases of insider trading. The Wte contained only framework regulations. Full regulations were detailed in the Decree on the Supervision of Securities Trade (Besluit toezicht effectenverkeer, Bte) and in the Further Regulation on the Supervision of Securities Trade, drafted by the STE. Furthermore, on December 31st 1995, the Wte was replaced by the Supervision of Securities Trade Act 1995 (Wte 1995). This new legislation, the aims of which are similar to those of the original Wte, was necessary in order to incorporate the Investor Services and Capital Adequacy Directives into domestic legislation.

A7.2 Capital requirements

According to 'Further Regulations on the Supervision of the Securities Trade 1999', the amount of capital a portfolio manager is required to hold is made up of two components: equity capital and actual own funds. The former refers to:

- the issue and paid-up share capital, excluding cumulative preference shares, in the case of a company limited by shares or a private limited company;
- the individual paid-up capital contributions of the partners, in the case of a general partnership;
- the individual paid-up capital contributions of the managing partners, and the paid-up capital contributions of the limited partners, in the case of a limited partnership;
- the capital paid-up or contributed by the members, in the case of a cooperative; or
- in any other case, the positive difference between assets and liabilities.

The level of equity capital is at least equal to the following.

- €35,000, if the portfolio manager receives orders from clients and transmits these orders to another company.

- €50,000, if the portfolio manager:

  – receives and transmits orders on behalf of clients in another state that is subject to the agreement regarding the European Economic Area;
  – receives and executes orders on behalf of clients;
  – offers to obtain receivables by opening accounts;
  – operates as a local enterprise;
  – carries out portfolio management, where portfolio management is defined as the management of clients' financial instruments or monies, including transmission or execution of orders.

- €730,000, if the portfolio manager:

  – trades on its own account;
  – underwrites issues of securities;
  – executes transactions in order to maintain a market in financial instruments.

These levels are similar to those set out in the Capital Adequacy Directive. However, the middle level of equity capital of €125,000 identified in the Capital Adequacy Directive has been excluded. The reason reported for this is that this level of capital was to be imposed on 'securities institutions' that held clients' monies. However, under Dutch legislation, custody rules prohibit any 'securities institution' from holding clients' monies unless it is a credit institution.

The level of actual own funds is equal to the highest of at least 25% of the fixed costs[37] of the institution in the preceding year, or the minimum of the sum of the capital adequacy requirements to cover:

- position risk;
- settlement, delivery and counterparty risk;
- large exposures;
- foreign-exchange risk; and
- other risks.

[37] Fixed costs include all costs except the variable costs of staff whose contract of employment cannot be determined immediately and without payment of compensation; the costs of staff whose contract of employment can be determined immediately and without payment of compensation; the variable costs relating to the securities services performed for the securities institution; depreciation; interest costs on subordinated loans; extraordinary costs of a non-recurring nature; and other variable costs that have been approved by the STE in writing.

A7.3 Separation of clients' assets

It is the duty of the portfolio manager to make necessary arrangements that will ensure that clients' assets are protected. Legislation details custody rules for firms according to their activities. Asset management companies that only act as a financial intermediary must ensure that the monies and securities of clients are held in one or more bank accounts in the client's name. For institutions that execute transactions or conduct securities operations, clients must hold their monies or assets in one or more accounts in their name with a financial institution that is involved in the settlement of transactions in accordance with the tripartite agreement in place between the asset manager, the client and the institution itself. In the case of 'beleggersgiro',[38] clients' accounts must be strictly separate from that of the institution. This strict separation is realised by placing accounts into a legally separate entity (the 'effectengiro') and imposing on it a number of conditions relating to securities depository institutions. In addition, alternative custody rules take effect in the case of cross-border securities transactions and custody outside the Netherlands.

To summarise, clients' monies must be held separately from the assets of the company, but not necessarily held in the custody of a third party, with the exception of a 'beleggersgiro', who must ensure that clients' assets are held with a separate legal entity.

Institutions that hold client monies are required to ensure that records are available to the client of the assets held in custody.

A7.4 Disclosure

A portfolio manager is required to provide returns to the STE each quarter. The return will include company accounts, such as balance sheet, profit and loss account, the level of actual own funds and large exposures. The company is also required to provide clients with a statement of their account every quarter.

Sufficient information must be disseminated to clients in order to enable them to make an informed assessment of the institution. In particular, the following information must be provided to the client:

- the name, place of registered office and place of business of the institution;
- a list of the services provided by the institution;
- details of the characteristics of the financial instruments to which the services relate, including the specific investment risk attached to the financial instruments;
- the types of costs that will be charged to the client and the calculation on which such costs are based;
- information about potential or existing conflicts of interest;
- details of any other institution that may be involved with the client; and
- information about the termination of the contract.

[38] According to the Wte 1995, a 'beleggersgiro' refers to anyone acting in a professional or commercial capacity who offers others the opportunity to obtain financial assets in the form of securities by opening an account by means of which transactions in securities may be effected.

A7.5 Enforcement

On January 1st 2000, the Wte 1995 was amended to include two instruments to be used for enforcement purposes. As a result, the STE may impose a fine in the case of a breach of regulations set out in the Wte 1995, the Bte 1995 and Further Regulations on the Supervision of Securities Trade 1999. In addition, the STE will have the power to penalise institutions for continually failing to comply with regulations.

Both measures will be imposed by order. The order imposing a fine will detail the regulation that was breached, the amount to be paid, the basis upon which the amount of the fine has been determined, and the period within which this amount must be paid. The STE will notify the institution of its intention to impose a fine in advance. In some cases, the institution will be invited to put its case before the STE in relation to the breach in question.

Institutions have the right to appeal and object to any fines, and objections must be lodged with the STE. A decision on the objection may be appealed against to the court in Rotterdam, after which there is the option of appeal to the Industrial Appeals Court.

During 1999 the STE took steps to sanction institutions, as detailed below.

Table A7.1: Cases of supervisory measures

Supervisory measures	1999
Issues of reprimands	20
Refusals of licence applications/withdrawals of licences	17
Reports	26
Appointments of secret receivers	1
Public earnings	5

Source: STE, 'Annual Report 1999'.

In total, there were 69 cases of enforcement conducted by the STE. The measures most frequently used were reprimands, refusals to grant licences, or withdrawals of licences and reports.

Furthermore, companies are required to record breaches of regulations and provide a regular report to the STE on all breaches combined.

A7.6 Audit

External audit of portfolio managers is conducted on an annual basis. The auditor is appointed by the portfolio management company. Annual audited accounts must be submitted to the STE.

A7.7 Compensation

On September 26th 1998 the Investor Compensation Scheme directive was implemented in the Netherlands. Consequently, two investor compensation schemes were initiated:

- the Collective Guarantee Scheme of Credit Institutions for Repayable Funds and Portfolio Investments, which is administered by De Nederlandsche Bank, and

provides compensation to investors and creditors in the event of a credit institution no longer being able to meet its commitments as a result of its financial position;

- the Investor Compensation Scheme, which is administered by the STE, with the aim of providing compensation to investors, should a securities institution be unable to meet its commitments as a result of its financial position. A securities institution is defined as an institution that is required to hold a licence under Section 7, subsection 1 of the Wte 1995. Under the Investor Compensation Scheme, an investor can receive compensation, up to a maximum payment of €20,000, in the event that an institution is unable to return monies or securities owing to investors. Compensation can only be paid to non-professional investors.

A7.8 Complaints

Each institution supervised by the STE must comply with the further regulations concerning the handling of complaints, which specify that complaints must be dealt with within a reasonable period of time. In most cases, the responsibility to ensure the suitable handling of complaints falls with the managers of the institution. The complaint, and the way in which it is handled, must be recorded in order to track the complaints process and for internal and external audit process. If a proposed solution fails to provide satisfaction to the complainant, then the company must inform the complainant of their right to notify the STE of the matter. The STE may also be notified during the initial stages. Although the STE does not have the power to compensate the complainant, it can ensure that such a problem does not recur.

In addition, the Dutch Securities Institute has established a complaints committee to deal with complaints from private investors concerning firms regulated by the STE. The committee arbitrates on cases where the complainant fails to receive satisfaction from the firm.

A7.9 Authorisation

Section 7, subsection 1 of Wte 1995 states that it is prohibited to operate as a portfolio manager without a licence. A licensed institution must meet several legal requirements, including the following:

- management must consist of at least two people;
- management must prove themselves reliable and competent;
- conditions relating to a minimum of shareholders' equity and own resources;
- rules concerning accounting procedures; and
- requirements relating to information to be issued to investors.

The STE monitors compliance with these regulations.

A7.10 Supervision

Portfolio managers are subject to continual assessment and monitoring by the STE. In particular, the adequacy of financial resources is investigated. Violations of regulations will result in the imposition of fines and penalties.

Appendix 8: Regulatory Framework in the UK

A8.1 Regulatory authorities

Regulation of financial services in the UK is overseen by the Financial Services Authority (FSA), which was established in October 1987 as an independent non-governmental body to replace the Securities and Investment Board. The FSA is responsible for the supervision of banks under the Banking Act 1987, a duty transferred from the Bank of England, and from the date of implementation the regulation of investment business under the Financial Services and Markets Act 2000.

Frontline regulatory bodies, or self-regulating organisations (SROs), authorised, recognised and supervised by the FSA are involved in the supervision of firms that provide financial services.[39] The Investment Management Regulatory Organisation (IMRO) is the SRO charged with the supervision of companies that:

- manage the investments of others;
- operate unit trusts and manage assets of those trusts;
- manage the investments of pension funds and investment trusts;
- provide investment advice to institutional or corporate clients; and
- act as a trustee of unit trusts.

In practice, this implies that IMRO regulates firms involved in such activities in the following categories:

- fund managers;
- unit trust managers and trustees;
- banks;
- life offices and friendly societies;
- local authorities;
- trustees and in-house managers of pension funds;
- venture capital managers; and
- institutional investment advisers.

The implementation of the Financial Services and Markets Act 2000 will establish the FSA as the single regulator of financial services. Steps have already been taken to transfer responsibility for financial services supervision to the FSA. Staff previously employed by IMRO and other SROs have transferred to new contracts of employment with the FSA.

A8.1.1 Three-tier regulation

The implementation of the Companies Act in 1989 led to a change in the regulatory framework implemented under the Financial Services Act 1986. The new approach introduced three tiers to the regulation of investment business:

[39] Under the Financial Services Act 1986, the FSA must be satisfied that the rules of an SRO provide adequate protection to investors.

- principles—introduced by the FSA to ensure particular standards for persons authorised to provide investment services;
- core rules—which relate to the conduct of business and financial resources.
- third-tier rules—which provide guidance from SROs.

A8.1.2 Principles

To conduct investment business of the type described above, a firm or person must receive authorisation from IMRO. The process of authorisation requires firms to prove that they are, and will remain, fit and proper persons to undertake investment business. In judging whether a firm is behaving appropriately in carrying out its business, IMRO examines whether the firm has observed the Principles as set out in the IMRO *Rulebook*. The ten principles require that a firm:

- maintain high standards of integrity;
- act with due skill, care and diligence;
- maintain high standards of market conduct;
- obtain information about clients, such as investment objectives;
- supply to the client any information that will allow the client to make an informed decision;
- avoid conflict of interests;
- ensure that clients' assets are properly protected by segregation;
- maintain adequate financial resources;
- ensure that staff are properly trained and supervised; and
- cooperate with the regulator and inform the latter of any relevant issues.

In addition, internal systems and controls must be installed to ensure compliance with IMRO Rules. The financial condition of the firm must be reported to the regulator periodically. The firm must provide the regulator with any requested information and cooperate with any investigation by IMRO. It must agree to be subject to the disciplinary system of IMRO and pay its share of the costs of IMRO.

A8.2 Capital requirements

Regulatory financial requirements are contingent on the types of services offered by the firm. The financial resources requirement for an authorised UK investment firm consists of an own-funds requirement and a liquid capital requirement. The liquid capital requirement is equivalent to a total capital requirement. A firm must calculate its own funds and liquid capital in the manner set out below.

Table A8.1: Calculation of own-funds requirement

Financial resources		Category
Tier 1		
	Paid-up share capital (excluding preference shares)	A
	Share premium account	
	Audited reserves	
	Non-cumulative preference shares	
Less:	Investments in own shares	B
	Intangible assets	
	Material current-year losses	
	Material holdings in credit and financial institutions	
Tier 1 capital = (A – B)		C
Plus:	**Tier 2**	
	Revaluation reserves	D
	Fixed-term cumulative preference share capital	
	Long-term qualifying subordinated loans	
	Other cumulative preference share capital and debt capital	
	Qualifying arrangements	
'Own funds' = (C + D)		E
Plus:	**Tier 3**	
	Net trading book profits	F
	Short-term qualifying subordinated loans and excess Tier 2 capital	
Less:	Illiquid assets	G
Add:	Qualifying property	
	Other allowable items	
'Liquid capital' = (E + F – G)		

Source: IMRO *Rulebook*.

Having calculated own funds as above, an Investment Services Directive firm's own-funds requirement is:

- €730,000, if the firm deals for its own account and/or underwrites issues; or
- €125,000, if the firm holds clients' monies or assets, but does not deal for its own accounts or underwrite issues; or
- €50,000, for a firm that does not hold clients' monies or assets, or participate in dealing for its own account or underwriting issues.

The liquid capital requirement is the total capital requirement that is the sum of its:

- expenditure-based requirement;
- position risk requirement;
- counterparty risk requirement;
- foreign-exchange requirement; and
- other assets requirement.

The expenditure-based requirement is equal to a fraction of the annual audited expenditure of the firm.[40] The relevant fraction is determined by the activities of the firm. According to the '13-week' rule, the fraction is set at 13/52 or one-quarter of annual audited expenditure if the firm is an investment manager or a custodian and the firm either:

- holds clients' monies or assets itself; or
- procures the appointment as custodian of its clients' monies or assets of an associate of the firm that is not an approved bank.

The lower fraction of 6/52 will be set as the expenditure-based requirement if the firm:

- is an authorised unit trust manager; or
- acts only as an authorised corporate director of a UK open-ended investment company; or
- is an investment manager, which includes the operator of an unregulated collective investment scheme in relation to which the firm carries on the activity of an investment manager.

Apart from the risk requirements calculated as part of a firm's capital requirements, an investment firm is also required to monitor its large exposures and ensure that exposure to counterparties does not exceed the limits, as set by IMRO.

A8.3 Separation of clients' assets

IMRO has devised rules that apply to a firm which is itself the custodian of a client's assets, or which has recommended another firm to provide this service. The primary purpose of the rules is to restrict the commingling of client and firm assets. The rules state that:

- client investments must be 'separately identifiable' from those belonging to the firm;
- investments must be properly registered in the client's name, the name of a nominee, or a custodian;
- client investments must not be released into the possession or control of a third party unless it has proper authority from the client to do so;
- appropriate internal controls and systems must be in place in order to ensure the protection of clients' investments;
- the firm will be responsible for any acts of an own nominee in the event of clients' investments registered in the name of an own nominee;
- a firm may employ, or recommend, the services of another to safeguard clients' assets, provided that the firm is satisfied that that firm is suitable;
- proper records must be maintained of client investments which the firm has in its custody, or which are held in custody by another person;
- a reconciliation must be performed at least twice in every calendar year by a firm that is the custodian, or which appoints another firm to be the custodian; and

[40] Annual audited expenditure is the amount described as total expenditure in the most recent annual financial return.

- a firm must send clients a statement of their investments that are in the custody of the firm, or which are held by another firm.

A8.4 Disclosure

An authorised investment firm is required to provide its private clients with its identity and business address, the identity and status with the firm of employees and other relevant agents with whom the customer has contact, and the identity of the firm's regulator.

Details of transactions must be reported to the regulator. The format of such reports is set out in the *Transaction Reporting Handbook*. The report must contain details on the following aspects of the transaction:

- the identity of the relevant investment, and the quantity of units bought or sold;
- the date and time of the transaction;
- the price paid or received; and
- the identity of any other European investment firm which is a counterparty to the transaction.

Furthermore, clients must be notified of any sale or purchase that was conducted on their behalf. Such a report is known as a contract note.

As investment manager, a firm must send a report to the client stating the value of the portfolio or account at the beginning and end of the period, its composition at the end, and, in the case of a discretionary portfolio or account, changes in its composition between those dates. The periodic statement must include:

- details of the contents and value of the portfolio;
- the basis of valuation;
- details of any assets loaned or charged;
- details of income received;
- transaction details;
- details of the charges and remuneration;
- details of any movement in the value of the portfolio;
- any changes in the composition of discretionary managed portfolio; and
- benchmarks.

A8.5 Enforcement

IMRO may take a number of actions to enforce regulations, including the following.

- A warning may be issued if the firm has failed to comply with a particular rule or if the management of the firm is no longer deemed fit and proper. In the event that a fine is to be imposed on the firm, previous warnings will be taken into account. Failure to refine conduct will result in disciplinary proceedings.
- Powers of intervention allow IMRO to place restriction or impose requirements on firms. For example, it may prohibit a firm from conducting business.

- A summary fine will be imposed if a firm fails to supply the regulator with financial returns or a statement of representation.
- An investigation of the firm may take place if the firm has failed to comply with regulations or it is no longer deemed fit and proper. The investigation team presents a report to the Enforcement Committee. Depending on the decision of the committee, the case may proceed to the Disciplinary Tribunal. The latter may decide to reprimand the firm, impose a fine, remedy the situation, or suspend or terminate membership or registration of IMRO. Appeals against decisions of the Disciplinary Tribunal will be heard and determined by the Appeal Tribunal.

A8.6 Audit

An investment management firm that is required to submit annual audited financial returns to IMRO must appoint a properly qualified auditor to prepare such accounts. A firm must require its auditor to report to IMRO, stating whether the audit has been conducted in accordance with auditing standards and whether, for example, in the auditor's opinion:

- the annual financial return together with the annual accounts are a reflection of the affairs of the firm; and
- the annual financial return has been properly prepared in accordance with the financial returns rules.

A second auditor may be appointed by IMRO to examine and report to it on any financial statements prepared under the rules, or on any other information reported on, or verified by, the firm's auditor.

A8.7 Compensation

A scheme was established by the FSA in the form of a separate company, under the Financial Services Act 1986, to provide compensation to private investors in the event of a firm being unable to meet its defined investment business liabilities.[41] The amount of compensation paid by the Investors Compensation Scheme is currently set at a maximum of £48,000. This is calculated as the full payment of the first £30,000 of the claim plus 90% of the next £20,000. Investors who make a claim under the scheme are not charged. The funds used to pay compensation come from other authorised investment firms.

Table A8.2 shows the total number of claims dealt with by the Investors Compensation Scheme on an annual basis throughout the period 1988–98. During the year until March 31st 2000 the Investors Compensation Scheme completed 7,966 claims. This represents almost 31% of the total number of decisions on claim applications since 1988.

[41] Investors that have received bad investment advice or poor investment management typically resolve problems with the firm using the complaints procedure that the firm is required to have in place. However, should the firm be unable to pay investors' claims as a result of incorrect advice or poor service, the Investors Compensation Scheme will provide compensation to investors.

Table A8.2: Total claims completed, 1988–2000

	1988/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
Completed claims	917	272	1,869	2,015	2,662	999	1,466	2,251	2,061	3,480	7,966
% of total claims since 1988	3.5	1.0	7.2	7.8	10.3	3.8	5.6	8.7	7.9	13.4	30.7

Note: [1] This table reports the number of claims completed, which is not necessarily equal to the number of new claims received. For example, during 1999/2000 the Investors Compensation Scheme received 7,400 new claims. This represents an increase on the previous year, when total new claims amounted to 5,624.
Source: The Investors Compensation Scheme, '1999 Annual Report' and '2000 Annual Report'.

Since the beginning of the scheme in August 1988 to date, compensation and interest payments have totalled £193m (€271m). Payments over the last year amounted to £51.6m (€84.3m).

Table A8.3: Compensation paid by the Investors Compensation Scheme, 1988–2000 (€m)

	1988/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
Compensation paid	4.8	2.6	16.5	23.5	32.8	19.6	31.4	15.2	15.6	24.8	84.3

Source: The Investors Compensation Scheme, '1999 Annual Report' and '2000 Annual Report'.

Table A8.4 shows that, during the last year, 3,762 investors received compensation from the scheme. This brings the total number of people who have received compensation from the scheme to 16,329 since 1988, which means that each investor received an average of over £11,800 compensation over the period.

Table A8.4: Number of investors compensated, 1989–2000

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
Investors compensated	971	231	1,598	1,723	2,271	909	1,524	914	973	1,507	3,762

Source: The Investors Compensation Scheme, '1999 Annual Report' and '2000 Annual Report'.

Since August 1988, the Investors Compensation Scheme declared a total of 1,321 firms in default. A firm can be declared 'in default' by the scheme if it fails to return money or investments owed to private investors, or is unable to pay investors' losses. During 1999–2000, the scheme declared 346 firms in default following almost 1,100 completed solvency investigations. This represents 45% of the total number of firms declared in default since the beginning of the scheme.

Table A8.5: Number of investment firms in default, 1988–2000

	1988/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
Failed firms	7	11	35	38	39	52	71	46	81	346	595

Source: The Investors Compensation Scheme, '2000 Annual Report'.

Apart from 1996/97, the number of firms declared in default has been increasing—the largest increase was in 1999/2000.

Of the total number of default investment firms, only ten were regulated by IMRO. This is a very small proportion of the total number of firms regulated by IMRO. This number may consist of asset managers as well as other financial firms that are regulated by IMRO. The majority (1,210) of firms in default were regulated by FIMBRA; 60 by the Personal Investment Authority; 4 by the Securities and Investment Board; 22 by the SFA and 15 by the IBRC.

Table A8.6 provides information on the amount of compensation and the number of investors compensated for eight IMRO-regulated firms declared in default by the Investors Compensation Scheme.

Table A8.6: IMRO-regulated firms declared in default

Name of firm	Declared in default	Number of investors paid	Compensation paid (£ '000)
Allied Equity Ltd	1988–90	54	271
Herrington Financial Services Ltd	1991/92	244	2,988
DBRN Ltd	1995/96	3	39
Independent Property Securities Ltd	1995/96	2	124
Lancaster Hilton Investments plc	1995/96	2	23
Wessex Asset Management	1996/97	1	2
A P Black Ltd	1997/98	9	287
Adams & Neville Asset Management Ltd	1999/2000	2	64
Total		**317**	**3,798**

Source: The Investors Compensation Scheme, '2000 Annual Report'.

In only one of these eight cases, the amount of compensation paid exceeds the maximum of £48,000, as set by the Scheme. The average compensation payment for investors in the above eight companies amounted to £11,981. This is broadly consistent with the average size of claims paid since the Scheme began. It is worth noting that no compensation claims were paid to investors of the other two IMRO-regulated firms declared in default by the Scheme.

A8.8 Complaints

According to the IMRO Rules, regulated firms are required to have a written complaints procedure. The minimum provisions that this procedure must contain are also set out in the IMRO *Rulebook* as follows.

- Any complaint must be considered by an Officer or employee of suitable seniority who was not personally involved in the case. Where this is not possible, the case must be considered by an Officer or employee of the firm or an appointed representative. A substantive reply must be sent promptly.
- If within one month of the substantive reply being sent to the complainant, the firm has not heard anything from the complainant, to the effect that they are not satisfied, then the case can be considered settled.
- If the complaint has not been settled within two months of it being received, the firm must give notice to IMRO of the details of the complaint and of the action taken in response to it. The complainant should be informed that IMRO has been notified.
- If the first substantive reply to the complainant fails to offer a reasonable settlement, then the complainant must be notified of their right to complain directly to the Investment Ombudsman and a copy of the Informal Guide to the Investment Ombudsman service must be enclosed.
- Having notified IMRO of a complaint, the firm must also notify it if the complaint is settled and the terms of settlement.
- A full record of each significant complaint, and of the action taken in response to it, must be kept by the firm for three years after the date of the last response.

A8.8.1 The Investment Ombudsman scheme

The Investment Ombudsman has been appointed to deal with complaints relating to investment business against firms regulated by IMRO. The Ombudsman investigates such complaints independently, with a view to recommending to the parties a settlement that is considered fair and reasonable. In appropriate cases, an adjudication may be arranged. Claims for financial loss are normally limited to a maximum of £100,000, and claims for distress and inconvenience to a maximum of £750.

Reasons for complaints are given in Table A8.7. The number of new complaints received during the period 1997 to 2000 increased by 45%. The principal cause for complaint seems to be poor administration, followed by failure to carry out instructions. Complaints arising from poor administration have increased by 96% since 1997. These problems are almost invariably as a result of human error.

Table A8.7: Analysis of basis for new complaints

	1997/98	1998/99	1999/00
Poor administration	173	273	339
Failure to carry out instructions	110	118	58
Inadequate explanations	39	53	49
Customer agreements	54	30	29
Performance	37	30	20
Unsuitable advice/product	27	27	18
Misleading documentation	25	24	17
Inadequate documentation	20	18	8
Fees/charges	19	16	5
Conflicts of evidence	17	15	5
Churning	3	7	3
Best execution	5	3	3
Inadequate knowledge of customer	4	3	3
Advertising	3	3	2
Conflicts of interest	–	–	2
Other	46	52	28
Total	**582**	**672**	**589**
New complaints received	299	395	433

Note: The total number of complaints reported in this table exceeds the number of complaints received in each year because a complaint may have a number of different causes.
Source: IMRO, 'Report & Accounts 1998–99' and 'Report & Accounts 1999–00'.

Details of payments awarded by the Investment Ombudsman are reported in Table 8.8.

Table A8.8: Size of awards, 1999 and 2000

	Year ended March 31st	
Size of awards	**1999**	**2000**
£100 or less	100	94
£101–£500	56	69
£501–£1,000	12	21
£1,001–£5,000	11	21
£5,001–£10,000	1	1
£10,00120,000	3	1
Over £20,000	0	0
Total number of awards	**183**	**207**
Highest award made during year	**£16,000**	**£14,415**
Total of all awards made during year	**£101,999**	**£109,209**

Source: The Investment Ombudsman, 'Annual Report 1999/2000'.

The total number of awards given during 1999–2000 is greater than in the previous year. The average award given during 1999 was approximately £557, while the average award in 2000 was approximately £50 lower, at £527. This suggests that the increase in the

number of awards is larger than the increase in compensation, thereby resulting in a decline in the average size of the award.

A8.9 Supervision

The supervision of investment firms incorporates the following steps.

- Authorised firms are continually monitored. This involves assessing the adequacy of financial resources and internal systems and controls.
- Dealings with investors are examined to ensure that there is disclosure of information and that investors are protected.
- Arrangements are made for handling complaints against firms and the resolution of disputes.
- Penalties are imposed on those firms that have breached regulatory rules. The range of penalties can vary, from firms providing compensation to investors in the case of bad advice, to the withdrawal of IMRO authorisation. According to IMRO's 'Report & Accounts 1999–00', seven fines were imposed on firms during 1999–2000—three less than the previous year, as shown in Table A8.9. The number of firms that received fines and registrations is a small percentage of the 1,160 firms regulated by IMRO.

Table A8.9: Disciplinary tribunals/enforcement committee from 1994

	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
No public action taken[1]	29	60	46	32	24	22
Reprimand issued	1	0	1	1	1	1
Fine imposed	7	15	16	11	10	7
Authorisation terminated[2]	0	2	1	0	0	2
Total number of cases completed in year	**37**	**77**	**64**	**44**	**35**	**32**

Notes: [1] Includes warning or no action. [2] Firms and individuals.
Source: IMRO, 'Report & Accounts 1998–99'.

The number of cases of enforcement action declined by 14% over the period 1994 to 1999/2000. The number of cases of disciplinary action reached a peak of 77 in 1995/96. However, it is worth noting that 80% of these cases resulted in no public action.

Appendix 9: Regulatory Framework in the USA

A9.1 Regulatory authorities

To be regulated as an investment adviser, generally a firm or person must satisfy three requirements: the firm or person must engage in business of providing advice, making recommendations, issuing reports, or furnishing analyses on securities, directly or through publications; and receive compensation. The following groups are not considered as investment advisers:

- a bank, or bank holding company as defined in the Bank Holding Company Act 1956 which is not an investment company (ie, a US domestic bank);
- any broker or dealer for whom the provision of advice is incidental to the conduct of their business, and who therefore receives no additional compensation;
- any lawyer, accountant, engineer or teacher whose provision of advice is incidental to the practice of their profession;
- the publisher of any bona fide newspaper, news magazine, or business or financial publication of general and regular circulation;
- government securities dealers; or
- any other persons identified by the SEC who cannot be classified as an investment adviser according to the definition.

The regulation of investment advisers is governed by the Investment Advisers Act 1940. Investment advisers can be regulated at a state or federal level, a split that occurred in 1996 when Congress passed the National Securities Markets Improvement Act, dividing regulatory jurisdiction over investment advisers between the SEC[42] and the states. In general, advisers with $25m or more assets under management or which provide advice to investment company clients are permitted to register with the SEC. Smaller advisers register under state law with state securities authorities.

There is some overlap between federal regulation, as applied to SEC-registered advisers, and that applied to state-registered advisers. Although the latter are governed primarily by state law, several provisions of the Investment Advisers Act and Commission Rules apply to such advisers. For example, they are required to comply with federal regulations that prohibit fraudulent behaviour.

A9.2 Capital requirements

The SEC does not impose a regulatory capital charge on the investment advisers it regulates,[43] although some state securities authorities do place capital requirements on advisers. For example, in California, an investment adviser that has power of attorney over, or custody of, clients' assets is required to:

- ensure that total aggregate indebtedness does not exceed 500% of its tangible net capital or permit its current aggregate indebtedness to exceed its current net capital; and

[42] The Division of Investment Management, within the SEC, is charged with the regulation of investment advisers.
[43] However, it is worth noting that investment advisers are required to disclose their financial position in the registration form, Form ADV.

- maintain tangible net capital of not less than:
  - $25,000; or
  - $5,000, if the investment adviser is charged with power of attorney from any investment advisory client to execute transactions and not having custody of the client's securities or funds; or
  - $1,000, if the investment adviser does not have power of attorney or custody of client's assets, and it receives fees for periodic publications or other investment advisory services.

A9.3 Separation of clients' assets

Under the Investment Advisers Act 1940, advisers are permitted to hold clients' securities and funds. An adviser will be deemed to have custody if it directly or indirectly holds client funds or securities, has any authority to obtain possession of them, or has the ability to appropriate them. However, such advisers are subject to additional requirements. An SEC-registered adviser with 'custody' must provide the following information to clients.

- Securities held on behalf of a client must be segregated, clearly marked as the funds of the client, and held in a place free from risk of destruction or loss.
- Clients' funds in the custody of the investment adviser must be deposited in one or more bank accounts that contain only clients' funds. Such account, or accounts, must be maintained in the name of the investment adviser as agent or trustee for such clients. A separate record of each account containing clients' funds must be maintained and details regarding the composition of these accounts must be sent to the relevant client.
- Having accepted custody or possession of funds from a client, the investment adviser must immediately notify the client in writing of the details concerning how such securities and funds will be held and any changes to this information.
- An itemised statement must be sent to each client at least every three months. This statement must show the funds and securities in the custody of the adviser at the end of the period and any transactions during this period.
- All such funds and securities of clients will be examined and verified by an independent accountant at least once during each calendar year and without prior notice to the investment adviser. Following the examination, the accountant's report will subsequently be filed with the SEC.

A9.4 Disclosure

Under the Investment Advisers Act 1940, every adviser is required to send to each prospective client a written disclosure statement. This 'brochure' must describe the adviser's business practices and educational and business background. Existing clients must also receive a copy of this brochure every year. The information included in the brochure is the same as that contained in Part II of Form ADV. To comply with the brochure rule, an investment adviser may deliver Part II of Form ADV, or another document containing at least the information disclosed in Part II of Form ADV.

Advisers are not required to deliver a brochure to investment company clients or clients for whom they provide only impersonal services for less than $200. An adviser entering into a contract for impersonal advisory services for $200 or more need only offer to deliver the brochure.

The Division of Investment Management requires that an investment adviser must disclose to clients all material information regarding its compensation, such as if the adviser's fee is higher that that typically charged by other advisers for similar services. An investment adviser must disclose all potential conflicts of interest between the adviser and its clients, even if the adviser believes that a conflict has not affected and will not affect the adviser's recommendations to its clients. This obligation to disclose conflicts of interest includes the obligation to disclose any benefits the adviser may receive from third parties as a result of recommendations to clients.

An SEC-registered investment adviser that has custody of clients' funds is required to disclose promptly to the clients and prospective clients any financial conditions of the adviser that are reasonably likely to impair the ability of the adviser to meet contractual commitments to clients. The rule also requires advisers to disclose promptly to clients legal or disciplinary events that are material to an evaluation of the adviser's integrity or ability to meet its commitments to clients.

A9.5 Enforcement

The Division of Enforcement is responsible for enforcing the federal securities laws. As part of this charge, the Division conducts investigations into possible violations of federal securities laws and recommends appropriate remedies for consideration by the SEC. Furthermore, the SEC's civil suits are prosecuted by the Division in the federal courts, as well as its administrative proceedings.

In civil suits, the SEC seeks injunctions to prohibit future violations. If a person is found to have violated such an injunction, they will be subject to fines or imprisonment for contempt. Frequently, the SEC seeks civil money penalties and the disgorgement of illegal profits. The courts may also bar or suspend individuals from acting as corporate officers, directors, or in other capacities in the industry, such as employees or advisers.

Administrative proceedings, brought by the SEC, are heard by administrative law judges and the SEC itself. With respect to regulated entities, such as investment advisers, and their employees, the SEC may instigate administrative proceedings to revoke or suspend registration, or to impose bars or suspensions from employment. In proceedings against regulated persons, the SEC is authorised to order the payment of civil penalties as well as disgorgement.

Table A9.1 shows the enforcement actions that were initiated over the period 1995–99.

Table A9.1: Enforcement actions initiated, 1995–99

	1995	1996	1997	1998	1999	Total
Civil injunctive actions	171	180	189	214	198	**952**
Administrative proceedings	291	239	285	248	298	**1,361**
Contempt proceedings	23	32	14	15	29	**113**
Reports of investigation	1	2	1	0	0	**4**
Total	**486**	**453**	**489**	**477**	**525**	**2,430**

Source: SEC, 'Annual Report 1999'.

The SEC initiated 2,430 enforcement actions from 1995 to 1999, over half of which took the form of administrative proceedings. The total number of enforcement actions has increased by 8% over this period.

Table A9.2 reports the number of enforcement cases that were brought against investment advisers and investment companies during 1999.

Table A9.2: Enforcement cases initiated by the SEC against investment advisers and investment companies, 1999

	Civil actions		Administrative proceedings		Total	
	Number	**% of total**	**Number**	**% of total**	**Number**	**% of total**
Investment advisers	7	3.1	34	11.4	41	7.8
Investment companies	0	0.0	3	1.0	3	0.6
Sub-total	*7*	*3.1*	*37*	*12.4*	*44*	*8.4*
Total enforcement cases	**227**	**100.0**	**298**	**100.0**	**525**	**100.0**

Source: SEC, 'Annual Report, 1999'.

According to Table A9.2, of the 525 enforcement cases initiated by the SEC during the fiscal year 1999, only 8.4% were against investment advisers and investment companies. In fact, 7.8% of enforcement cases were initiated against investment advisers, while only 0.6% of the total number of enforcement cases were brought against investment companies. Administrative proceedings involving investment advisers account for 11.4% of the total number of administrative proceedings. This is the common type of enforcement action brought against investment advisers.

A9.6 Audit

The Office of Compliance and Examinations is responsible for the examination programme at the SEC. Inspections and examinations are authorised under the Securities Exchange Act 1934, the Investment Company Act 1940, and the Investment Advisers Act 1940. Investment advisers are subject to such inspections.

During 1998, the Office completed 1,280 inspections of investment advisers. This implies an average inspection frequency of once every five years. The non-investment company assets managed by the advisers inspected totalled $1.7 trillion. Seventy-eight investment advisers were inspected for cause.

Serious violations were uncovered in 52 of the examinations, and these cases were referred to the Division of Enforcement. The most common violations resulting in referrals involved fraud, failure to comply with the 'Brochure Rule' on disclosure, and conflicts of interest.

A9.7 Authorisation

To register with the SEC as an investment adviser, a firm must file a registration form, Form ADV, and keep it updated by filing periodic amendments, including an annual amendment on Schedule I to Form ADV. Part I includes information about the adviser and persons associated with the adviser. Part II requires disclosure of the background and business practices of the investment adviser. A decision regarding the application is

considered within 45 days. The SEC may grant the registration or begin proceedings to deny it if the applicant is not eligible or has committed prohibited acts.

In addition, registration requires firms to comply with the 'Brochure Rule'; maintain accurate and current books and records; and be subject to inspection and examination by the SEC staff.

A9.8 Best execution

As a fiduciary, an investment adviser has a duty to seek to obtain 'best execution' of clients' transactions. This implies that an adviser must execute transactions in a manner to ensure that the clients' total proceeds or cost in each transaction are the most favourable under the circumstances. In assessing whether this standard is met, an adviser should consider the full range and quality of a broker's services when placing brokerage, including, among others, execution capability, commission rate, financial responsibility, responsiveness to the adviser, and the value of any research services provided.

Appendix 10: Questionnaire on Regulatory Capital and Operational Risks of Asset Managers

QUESTION 1: CHARACTERISTICS OF FIRMS

A: Background Information

1) Name of company _____

2) Your name and telephone number _____

3) Position _____

4) Types of activity performed by your investment management firm

_____

_____

5) How many people are employed in your investment management business? (Please state the most recent figures as number of full-time equivalents.)

_____

6) Please categorise your assets under management, giving the date at which they are measured. (Please note that if the information is not readily available, an indication of ranges would also be suitable.)

Total assets under management

By type of vehicle		
Unit trusts		
Open-ended investment companies		
Closed-ended funds		
Segregated		
Others (Please specify)		
	Percentage actively managed	**Percentage passively managed**
By client		
Institutional		
Pension funds		
Insurance companies		
Charities		
Government		
Other institutional (please specify)		
Private clients		

B: Structure of Ownership

7) Is your company part of a larger group? YES/NO

If so, please give the name and main activity of your ultimate parent company

_____

_____

Please give brief details where there are more complex ownership arrangements

_____

_____

8) Do you have any guarantees from your parent company? YES/NO

If so, what are they?

_____

_____

9) What is your main regulatory body? _____

10) What is the main regulatory body (if any) of the parent firm of your group?

_____

C: Organisation of Business

11) Please analyse the total transactions that you have executed in terms of value over the past 12 months under the following headings. (Please note that if the information is not readily available, an indication of ranges would also be suitable.) 12 months to: _____ (please give date)

	Value of transactions (Euro million)
Equities	
Domestic	
Other Euro	
Emerging markets	
Other (please specify)	
Corporate bonds	
Domestic	
Other Euro	
Emerging markets	
Other (please specify)	
Government bonds	
Domestic	
Other Euro	
Emerging markets	
Other (please specify)	
Money market instruments	
Options and futures	
Commodities	
Other (please specify)	

12) What proportion of the value of transactions do you conduct within your parent group or outside the group?

	% of the value of transactions
Within parent group	
Outside group: (broken down into the following categories if possible)	
Major international institutions	
Regional institutions	
Other	

13) Do any of the funds you manage include an implicit or explicit guarantee of return (eg, principal protection or equity participation)? YES/NO

If so, please indicate types and sizes (Euro million)

_____

14) Have you hedged the risk of these guarantees? YES/NO

If so, what was the cost of this hedging over the last 12 months (Euro million)?

(Please state the dates to which this refers.) _____

15) Do you lend stock? YES/NO

If yes, what value of stock is available for lending (Euro million)? _____

What are the key internal controls in place for lending stock?

_____

_____

16) What is the percentage by value of your clients that receive

a) advice only from your firm? _____

b) execution only from your firm? _____

c) full discretionary services from your firm? _____

17) What proportion of clients' assets are held by custodians outside your group? _____

18) Has your firm delegated any function (eg, settlement) to third parties

a) inside your group? YES/NO b) outside your group? YES/NO

If so, what are these functions?

_____

_____

What are the key controls in place for these functions?

_____

_____

D: Risk Control Functions

19) How many people do you employ to ensure formal compliance with regulatory requirements? (Please state as the number of full-time equivalents.) _____

20) What were the expenditures that you incurred on formal compliance activities over the last 12 months? (Please state the dates to which this refers.) Note: Compliance costs include fees paid to (internal and external) professionals, such as lawyers and accountants.

_____

_____

21) How much do you anticipate spending on formal compliance activities over the next 12 months?

_____

22) Does your firm (or group) have the following as part of its organisational structure? Please state the number of employees involved in each activity, distinguishing between internal and external (ie, outside the group) employees.

	YES	NO	Number of employees	
			Internal	External
Compliance department				
Internal audit				
Operational risk management				
Credit risk management				
Market risk team				
Legal support				
Portfolio risk and performance management				
Product approval team				
Derivatives control team				
Control self-assessment processes				
Staff training development on risk-management issues				
FRAG21 (or equivalent)[1]				
Other (please specify)				

Note: [1] FRAG21 refers to the internal document produced by a company, which details the internal control mechanisms for risk management subject to external audit.

E: Capital

23) Please state your capital (Euro million), and the date to which this refers. _____

24) What is the value of your own capital at risk (ie, position risk) (Euro million)? _____

25) What are your capital requirements under regulatory rules (Euro million)? _____

26) Do you think that the current regulatory rules for capital are appropriate? YES/NO

It not, please state why

_____

_____

27) What is the internal target rate of return/cost of capital for obtaining additional capital? _____

28) If your capital requirements were to increase by, say, 25%, would it restrict the amount of business you could do? YES/NO

29) What were your operating expenditures (gross of depreciation) over the last 12 months (Euro million)? (Please state the most recent figure.)_____

30) How much working capital (the cash plus net debtors required to run the business) did you require to finance your business over the last 12 months (Euro million)? (Please state the date to which this refers.) _____

31) What are your fixed costs (Euro million)? (Please state the most recent figures available.) Note: Fixed costs refer to costs that do not vary with output, for example rent. _____

32) What is the value, excess and premium of your insurance as categorised below (Euro million). If not available, please state whether you have insurance for these categories. Please give the dates at which these figures are measured.

	Value	**Excess**	**Premium**
Indemnity insurance			
Employee fidelity and fraud insurance			
Other insurance (Please specify)			

33) Please state the company/companies with which you are insured.

_____

34) Have you ever made a claim against your insurance? YES/NO

If so, what was the proportion of the claim that was paid out by the insurance company? ____

Was this compensation paid out promptly? YES/NO

QUESTION 2: OPERATIONAL RISKS BORNE BY FIRM[1]

	A	B	C		D	E	F
	Please rank the risks starting with 1—most likely to occur	**Please rank the risks starting with 1—largest possible loss**	**Largest loss incurred by the following parties over the last year for each risk (Euro million)**		**Please list the total losses resulting from the risks listed below over the last year**	**Number of complaints over the last year**	**Claims on insurance over the last year (Euro million)**
Type of risk			**Asset management firm**	**Investor**			
Misdealing[2]							
Failure to best execute[3]							
Settlement problems							
Counterparty failure							
Breach of client guidelines							
Fraud							
IT systems failure							
Failure to meet guarantees							
Unit trust mispricing[4]							
Failure to reconcile assets under custodianship and internal records							
Failure to collect all income (including corporate action failures)							
Stock lending failures							
Financial insolvency							
Risks arising in the process of taking over new business							
Other risks (please specify)							

Notes: [1] Direct financial risks refer to operational risks borne by the firm. [2] Misdealing refers to errors in buying or selling. [3] Failure to best execute refers to a failure to obtain the best price. [4] Unit trust mispricing refers to an incorrect valuation of client or fund assets.

If the information on value of losses required to complete Question 2 is not readily available, please answer either Question 2a and/or 2b.

2a) Were there any losses over the last 12 months? YES/NO

If so, what is the total of these losses? Please tick the appropriate box.

- ❑ Less than Euro 100,000
- ❑ Between Euro 100,000 and Euro 500,000
- ❑ Between Euro 500,000 and Euro 1m
- ❑ Greater than Euro 1m

2b) What is the provision for losses in your company accounts?

_____

QUESTION 3: MECHANISMS FOR MITIGATING RISKS[1]

Please list the internal control for each of these risks and rank the means of financing any resulting losses from these risks, **starting with 1 for the most used.**

	A	**B**			
	Please list the KEY internal control for each of these risks	**Means of financing losses**			
Type of risk		**Capital**	**Insurance**	**Parent firm guarantees**	**Internal profits**
Misdealing					
Failure to best execute					
Settlement problems					
Counterparty failure					
Breach of client guidelines					
Fraud					
IT systems failure					
Failure to meet guarantees					
Unit trust mispricing					
Failure to reconcile assets under custodianship and internal records					
Failure to collect all income (including corporate action failures)					
Stock lending failures					
Financial insolvency					
Other risks (please specify)					

Note: [1] Mitigating risk means reducing risk to customers by employing certain measures, such as capital or insurance.

How do you rank the potential success of this questionnaire at achieving the goals set out in the introduction? (Please tick.)

- ❑ Very poor
- ❑ Poor
- ❑ Fair
- ❑ Good
- ❑ Very good

Other comments:

_____

_____

_____

_____

_____

_____

A10.1 Responses to questionnaire

Respondents were asked to state their main regulatory body and that of their group. Table A10.1 reports the results to this question.

Table A10.1: Authorities supervising sample of asset management companies

Regulator	Number of asset management companies	Number of parent firms
Italy		
Bank of Italy	7	5
Consob	5	2
Ufficio Dei Cambi		
La Commissione di vigilanza sui fondi pensione	1	1
Istituto per la vigilanza sulle assicurazioni private e di interesse collettivo		1
France		
COB	7	1
Conseil marchés financiers	1	
Commission Bancaire		3
Commission de Contrôle des Assurances		5
UK		
IMRO	15	
Personal Investment Authority	1	2
FSA		3
Germany		
Bundesaufsichtsamt für das Kreditwesen	3	1
Bundesaufsichtsamt für das Versicherungswesen		1
Bundesaufsichtsamt für das Wertpapierhandel	2	1
Ireland		
Central Bank of Ireland	4	2
The Netherlands		
STE	1	
Dutch Central Bank	1	1
Verzekeringskamer (Dutch insurance regulator)		1
USA		
SEC	2	4
US insurance agencies/regulatory bodies		1
Department of Corporations of the State of California		1
Japan		
Ministry of Finance	1	
Belgium		
Belgian Banking and Finance Commission		1

Thirty-six firms responded to this question. However, the total number of firms regulated by the authorities above is larger because several companies reported that they were regulated by more than one authority.

Appendix 11: Glossary

Bonds: a loan agreement with a company or the government whereby an arranged repayment is made to the investor upon maturity of the loan and the investor receives interest payments throughout the life of the loan.

Capital Adequacy Directive: this EC directive came into effect on January 1st 1996, setting minimum levels of capital for firms offering investment services.

Closed-ended funds: investment companies that have a fixed capitalisation. To buy the shares of a closed-ended fund, there must be someone willing to sell their shares. An investment trust is an example of a closed-ended fund. See 'Investment trusts'.

Collective investment scheme: an investment scheme (company) that offers to invest funds raised from investors in a mix of securities. In Spain, these are referred to as Instituciones de Inversión Colectiva. See 'Investment companies'.

Defined-benefit pension scheme: a pension scheme where the benefits are defined in advance by the sponsor, independently of the contribution rate and asset returns, as where a pension is related to final salary.

Defined-contribution pension scheme: a pension scheme where only contributions are fixed, and benefits depend on the return on the assets of the fund.

Derivatives: financial instruments, such as futures and options. The value of derivatives depends on other commodities, indices or individual shares.

Endowment life assurance: a form of life assurance that is taken out for a term less than the whole life and in which payment is due either on death during the term, or in any case at the end of the term. A variation is endowment assurance with profits, in which the payment is raised in line with the growth in profits through the allocation to the policy of bonuses.

Equity: also known as shareholders' funds.

External management: fund management conducted by a company other than the sponsor.

Fonds communs de placement: open-ended investment funds in France that have a contractual form and represent co-ownerships of transferable securities. They qualify as UCITS.

Funds: an alternative, more general, way of referring to investment funds.

Hedging: protecting an existing position or commitment by using one type of investment to offset adverse market movements.

Index funds: funds that attempt to match exactly the day-to-day fluctuations of a market index. These are sometimes called 'tracker funds'.

Internal management: fund management conducted under the auspices of the sponsor.

Investment advisers: asset managers in the USA.

Investment companies: companies engaged in the business of investing the pooled funds of investors into various investment outlets, including stocks, bonds, options, commodities, property and money market securities. There are two types of companies: closed-ended and open-ended investment companies (funds).

Investment funds: a general term for collective investment vehicles. See 'Investment companies'.

Investment trusts: closed-ended investment companies that issue shares to investors and invest the proceeds in a portfolio of securities and shares in other companies. Like unit trusts, they are regulated by a trust deed, the trustees being separate from the management. They differ from unit trusts in that, for example, the capitalisation is fixed and shareholders share in the profits of the company managing the trust.

Large exposure: refers to any exposure to a counterparty or group of connected counterparties that exceeds 10% of a firm's own funds.

Unit-linked life assurance: a form of life assurance in which policy-holders receive, in return for their premiums, a unit of a fund invested directly by the insurance company in securities or in property. This enables policy-holders to switch the investment of their premiums.

Managed accounts: accounts set up and managed on behalf of private clients as, for example, in Italy.

Mandated portfolio management: discretionary asset management on behalf of a third party.

Market failure: occurs when the interests of firms and society fail to coincide. Essentially, there are three reasons why markets may fail. These are referred to as problems of asymmetric information, problems of externalities, and problems of monopoly power. Regulation may be justified if any of these market failures exist.

Mutual fund: US terminology for investment funds.

Open-ended investment companies: investment funds that sell their shares directly to investors and are ready to buy back their old shares at their current net asset value. The capitalisation of open-ended funds is not fixed; they expand and contract as investors invest in or leave the funds. Typically, open-ended investment companies are structured as a company rather than as a unit trust. They are common in Continental Europe and the USA, and have been permitted in the UK since 1997. They qualify as UCITS.

Open-ended investment funds: see 'Open-ended investment companies'.

Open-ended investment vehicles: see 'Open-ended investment companies'.

Operational risks: are risks that arise in the process of discretionary management of clients' assets. These risks are described in section 7.6.

Organismes de placement collectif en valeurs mobilière (OPCVMs): the French term for UCITS. In France they comprise fonds communs de placement and SICAVs.

Pension funds: funds that are set up to pay pension benefits to retired employees of a corporation, government entity, or of other organisations.

Pooled investment scheme: see 'Collective investment schemes'.

Portfolio management companies: entities that undertake all types of discretionary asset management. In France they are referred to as sociétés de gestion de portefeuille.

Public funds: German open-ended investment funds that issue their shares to the general public. In addition, there are special (institutional) funds.

Put option: an option providing the holder with the right to sell an investment at a future date at a price agreed now.

Segregated funds: funds that are managed for a single client and therefore not pooled. See 'Mandated portfolio management'.

SICAV: open-ended investment company (see 'Open-ended investment companies'), for example in France and Italy.

Società di intermediazione mobiliare: refers to securities houses in Italy.

Società di gestione del risparmio: a company that engages in individualised portfolio management in Italy. It is also permitted to manage assets on behalf of mutual funds.

Société de gestion de portefeuille: a French portfolio management company that manages individual mandates as well as UCITS.

Société de gestion d'OPCVM: a French portfolio management company that exclusively manages UCITS (OPCVM).

Special funds: German open-ended investment funds that issue their shares to institutional or corporate investors only.

Systemic risk: this refers to a situation where financial difficulties in an institution could spread to other market players.

Tracker funds: see 'Index funds'.

UCITS (undertaking for collective investment in transferable securities): open-ended collective investment vehicles that fall under the 1985 European Community UCITS Directive. By definition, UCITS may extend to all entities that offer to invest the funds raised in a mix of transferable securities and to repurchase or redeem units from the common fund on demand. UCITS encompass UK or Irish unit trusts, as well as the Continental equivalent of contractual common funds (fonds communs de placement) and open-ended investment companies.

UCITS Directive, 1985: the purpose of Council Directive No85/611/EEC of 1985 as amended by Council Directive No 88/220/EEC of 1988 is the coordination of laws,

regulations and administrative provisions relating to UCITS. It is primarily designed to harmonise investor protection in the EU and to ensure that a UCITS established in one member state can be marketed freely in another.

Unit trusts: open-ended collective investment vehicles that invest funds subscribed by the public in securities, and in return issue units that they will repurchase at any time. The trust is regulated by a trust deed, the trustees being separate from the management. Each investor owns a unit, the value of which depends on the value of the funds owned by the fund. Unit trusts in the UK and Ireland are similar to mutual funds in the USA or the open-ended investment companies in Continental Europe. They qualify as UCITS.

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