OXFORD ECONOMIC RESEARCH ASSOCIATES

FSA

AN ASSESSMENT OF SOFT COMMISSION ARRANGEMENTS AND BUNDLED BROKERAGE SERVICES IN THE UK

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Blue Boar Court
Alfred Street
Oxford OX1 4EH
Tel: +44 (0) 1865 253000
Fax: +44 (0) 1865 251172

Email: Enquiries@oxera.co.uk

Executive Summary

1. OXERA has been commissioned by the Financial Services Authority (FSA) to undertake a study on the bundling of brokerage services and soft commission arrangements in the UK, and on the markets for brokers and fund managers in which these practices take place. The study is intended to support the FSA in its current regulatory review of bundling and soft commissions. This review follows on from the Myners report on institutional investment in the UK (which was commissioned by the Chancellor of the Exchequer and published in March 2001).

2. Brokers typically provide a number of services, such as access to analysts, research, and access to initial public offerings (IPOs), in a bundle with trade execution. In addition, brokers often provide soft commission arrangements. Under these arrangements, a fund manager sends trades to a broker and receives, in addition to trade execution, credits ('soft dollars' or 'soft money'), which can then be used to purchase services such as research and market information services, usually from third-party providers.

3. Bundling and soft commission arrangements raise a number of potential concerns (most of which have been identified in the Myners report).

   - Fund managers have an incentive to receive services additional to trade execution from brokers in a bundle or through soft commission arrangements rather than incurring the costs of these services themselves. This is because fund managers pass on the cost of broker commissions to their clients (eg, pension funds), who do not scrutinise commission costs as closely as management fees. This could reduce fund managers' incentives to exert pressure on broker commission rates, and result in over-consumption of the additional services. Further, fund managers' choice of broker might be influenced by soft commission benefits rather than by quality of execution, thus potentially resulting in an overall reduction in the quality of execution (this latter concern has been raised in the USA).

   - Bundling of research and access to analysts could have an effect on competition in the market for research since it makes it more difficult for independent providers to sell their research when fund managers already receive research 'for free' from brokers. Likewise, bundling may make competing more difficult for brokers who cannot provide the full range of services ('execution-only' brokers).

4. This report takes these concerns as a starting point. It provides the FSA with a detailed understanding of competition in the fund management and broker markets in the UK. It also provides an analysis of the order of magnitude and the economic effects of bundled brokerage and soft commission arrangements in the UK. Based on the analysis, the report also identifies options for regulatory policy towards bundling and soft commissions. The analysis has been supported by different sources of information, including in-depth interviews with market participants and regulators, and detailed questionnaires undertaken by OXERA among pension funds, fund managers and brokers.

Competition analysis

5. Section 2 of the report contains an analysis of the market structure and the nature of competition in the markets in which fund managers and brokerage firms operate. Such a market analysis forms the basis for understanding why soft commissions and bundled brokerage services have emerged, and what economic effects these practices have on competition and efficiency.

6. Fund managers and brokers in the UK are part of a larger vertical chain of relationships for institutional investment and trading, which has international dimensions at each layer. While the report considers this broader context, the analysis is to a large extent focused on:

- UK institutional investors, with particular emphasis on pension funds;
- external (as opposed to in-house) fund managers;
- equity trades executed on a commission basis;
- relationships between UK pension funds and UK fund managers;
- relationships between UK fund managers and UK brokers.

7. The competition analysis in this section is based on limited available information. It does not address profitability of fund managers or brokers—which is a commonly used indicator of competition in a market, but would require access to detailed internal accounts of the companies involved (this is beyond the scope of the current report). Nevertheless, all the competition indicators identified in the analysis—which are based on the questionnaires, an FSA database and other sources—develop the impression that, overall, both fund managers and brokers operate in reasonably competitive markets. The exception is perhaps the broker market for very large, ‘difficult’ trades.

8. For fund managers, this can be concluded from the following indicators:

- a large number of players and low degree of concentration;
- competitive pressure from fund managers overseas;
- low regulatory barriers to entry;
- recent entry by US firms;
- relatively low switching costs for pension funds;
- the possibility for larger pension funds to employ in-house fund managers;
- active (though imperfect) monitoring by pension funds of fund managers’ performance;
- management fees do not appear to be especially high relative to those in other countries.

9. For brokers, the following factors point to a reasonably competitive market:

- a large number of players and low degree of concentration (except in the market for large, ‘difficult’ equity trades, for which there are fewer providers in the market);
- growing market overall;
- buyer power of, and vertical integration with, fund managers;
- low regulatory barriers to entry;
- low switching costs for fund managers;

- active monitoring by fund managers of broker performance;
- falling commission rates over time (although no information is available on brokers' income from spreads on trades).

10. The conclusion that fund managers and brokers appear to operate in competitive markets has important implications for the assessment of bundled brokerage services and soft commission arrangements. It means that bundling and soft commission practices are less likely to have significant anti-competitive effects or to result in excessive profits to fund managers or brokers.

11. This is not to say that concerns about bundling and soft commission arrangements should be discarded on the basis of this competition analysis alone. Inefficient market outcomes may prevail even if those markets are competitive. In the fund-management market, the principal–agent nature of the relationship between pension funds and fund managers may result in a misalignment of incentives, and monitoring by the principal (the pension fund) may be imperfect. Furthermore, in the broker market, competition tends to focus on the provision of services additional to trade execution, rather than on price (commissions). This is partly driven by demands from fund managers, who can pass commission costs on to their clients and therefore may have a preference for receiving more services for a higher price—which is again closely related to the principal–agent problem between fund managers and pension funds.

Bundled brokerage services

12. Section 3 of the report deals with bundling. First, within trade execution, a distinction should be made between execution-only and 'active' trade execution (where the broker actively 'works' on a trade). The services most frequently bundled with trade execution are access to analysts (which includes advice on trade execution and more general analyst advice) and research, followed by access to IPOs and conferences. Typically, for institutional fund managers, a commission rate for transactions is negotiated for a period of 12 months, but there is no explicit agreement on the volume of transactions, nor on the level of additional services provided 'for free'.

13. There is usually an implicit understanding that the fund manager will generate a certain amount of business for the broker in order to receive the extra services. Both sides can, in effect, 'cheat' on the contract. However, because the interactions between broker and client are repeated, cheating is likely to be a strategy that can only work once. In practice, the market outcome appears to be one where the explicit parts of the contract between broker and fund manager—in particular, the commission rate—are not the areas where competition is most acute. Competition focuses to a large extent on the bundled ancillary services and other dimensions of quality, as also identified in section 2. This may exacerbate the incentive misalignment problem between pension fund and fund manager.

14. However, there are a number of economic justifications for bundling certain services; in particular, access to analysts and, to a lesser extent, research (written research reports). With regard to access to analysts, bundling this service with trade execution has the benefit of economies of scope in production and reduced transaction costs for customers. From a principal–agent perspective, it may be justifiable to treat certain types of broker advice, in particular, advice on trade

execution, in the same way as trade execution (ie, to pass the costs on to pension funds). The amount of advice on trade execution needed is closely related to the number of trades needed, and both are difficult to predict. With regard to research and general access to analysts, a possible justification is that there are economies of scope and that bundling may be an efficient way of pricing the service. Furthermore, it may be difficult in practice to unbundle access to both analysts and research.

15. No exact information is available on the actual impact of bundling on the level of broker commissions. The study has found an average commission rate of 14bp (of which 1bp is attributable to soft commissions; see below). Several brokers offer a commission rate for execution-only services of around 10bp, which includes ‘active working on trades’. A number of electronic trading platforms charge a commission rate in the region of 5–8bp. This does not include active working on trade. A tentative conclusion might therefore be that the difference in rates between execution-only and full-service brokerage is the difference between 5–8bp and 14bp (ie, 6–9bp). The difference in rates between trade execution (including actively working on trades) and full-service brokerage is the difference between 10bp and 14bp (ie, 4bp).

16. It is likely that a large part of this last difference can be explained by the cost of access to analysts and to research. These are bundled services, but have certain economic justifications. Thus, the effect on commission rates of bundled services for which there is no economic justification (conferences, equipment, access to IPOs) may be relatively low. Nevertheless, the pass-through of cost of bundled services via commission costs exacerbates the incentive misalignment between fund and fund manager, potentially leading to over-consumption of these services.

Soft commission arrangements

17. Section 4 of the report deals with soft commission arrangements. While more explicit than bundling arrangements, soft commission arrangements also involve a degree of informal understanding between broker and fund manager. Typically, the fund manager first estimates what level of third-party services, such as research and information services, is required, and subsequently calculates how much soft money is needed to buy those services.

18. The fund manager enters into a soft commission arrangement with, typically, a limited number of brokers, and agrees with them the commission rates and the multiple (this multiple is applied to the commissions that are softed—for example, a multiple of 1.2 means that, for every £1.20 in commission a broker receives, the fund manager will receive £1 in credits (soft dollars)). There is usually no explicit agreement on the percentage of trade that the fund manager will soft. However, there is often a mutual implicit understanding on the proportion of trade that can be softed. Brokers regularly review their clients’ profitability. An excessive degree of softing is likely to result in the broker adjusting the terms of the arrangement (ie, commission rates and multiple).

19. From the questionnaires it follows that 50–60% of soft commission credits are used to buy market information services (mostly Reuters and Bloomberg screens). Around 30% of the credits are spent on research and access to analysts.

20. Soft commission arrangements have the same effect as bundling, in that they may exacerbate the incentive misalignment problem between pension fund and fund manager. On the other hand, in theory, soft commission arrangements may offset some of the competition effects of bundled brokerage services. Specifically, they make it easier for independent research providers and execution-only brokers to compete with full-service brokers. Nevertheless, in practice, these effects appear to be of limited importance.

21. The effects of soft commissions on execution quality are difficult to ascertain. The study has identified a number of reasons why such effects may be limited (in contrast with the USA). First, when choosing a broker, fund managers mainly focus on quality of execution, expertise and liquidity (rather than on soft commission arrangements), in particular, when they send 'difficult' trades. Second, in the UK the distinction between full-service and soft-dollar broker is not as clear-cut as in the USA, since most full-service brokers in the UK also have soft commission arrangements. Third, as discussed below, the order of magnitude of soft money is actually quite low in the UK.

22. The fund manager questionnaire indicates that the total soft commission rebate amounts to around 6.8% of the total commission costs paid by fund managers. Hence, at most, soft commissions lead to an increase in overall commission rates of 1bp (6.8% of the average commission rate of 14bp). An indicative (but not conclusive) finding from the broker questionnaire is that fund managers actually seem to pay higher commission rates for contracts with soft commission arrangements. This would imply that soft commissions do not lead to higher commission rates overall (ie, across all fund managers), but rather that each fund manager pays for its own credits.

23. The relatively low order of magnitude of soft commission arrangements might be explained by a number of 'checks' in the system. First, FSA regulations limit what services can be bought under soft commission arrangements. Second, the demand itself for such services has a limit at some point (eg, Bloomberg and Reuters information services). Third, although pension funds' monitoring of commission costs is weaker than that of management fees, more soft commissions will result in higher commission costs, which will ultimately affect the performance of the fund. The competitiveness of the market gives fund managers an incentive to perform, and thus places some limit on commission costs.

Policy issues and implications

24. Section 5 of the report discusses policy issues and implications. A comparison of UK and US regulations shows that both jurisdictions identify the kind of services that can be provided in a bundled way or under soft commission arrangements—ie, where the line is drawn between what is and what is not acceptable. The US regulations draw the line more strictly, and also treat bundling and soft commissions more symmetrically.

25. Given the finding that the order of magnitude of both soft commission arrangements and bundled services for which there is no economic justification is relatively small, the potential detrimental effects identified in this report may also be relatively limited. Therefore, from an economic perspective, 'to do nothing'—ie, not changing the regulation—is a policy option. Yet, while there appear to be

market-driven checks on the system, which keep the order of magnitude low (such as the reasonably high degree of competition in both fund management and brokerage markets), strict regulation does provide an additional check.

26. The analysis in this report suggests that, if a line is drawn, it could be in accordance with the criterion of whether bundling of the service in question has economic justification. From section 3, it follows that there is justification for bundling trade execution with access to analysts, and, possibly, research (thus excluding conferences, equipment and access to IPOs).

27. Because soft commission arrangements and bundled brokerage services are similar in nature, a logical conclusion from an economics point of view would be to treat them similarly, and thus to draw the line also at access to analysts and, perhaps, research (but excluding market information services, on which most soft credits are currently spent).

28. Finally, during the study, OXERA has come across a number of issues related to bundled brokerage and soft commissions which would merit further investigation but fall outside the scope of this report. These include directed brokerage arrangements; best execution; independence and quality of research; optimality of the level of trading; and access to IPOs and other services offered by investment banks.

29. The tables below give an overview of the costs and benefits (in qualitative terms) of bundling and soft commission arrangements. It should be noted that these provide only a brief summary of the analysis and should be read in conjunction with the sections in this report where the different costs and benefits are analysed in more detail.

Costs and benefits of bundling

Benefits	Costs
Bundling of trade execution, access to analysts and research maybe justified because: - there are economies of scope in production (trade execution and access to analysts, and trade execution and research, see sections 3.4.1 and 3.4.2) - it reduces transaction costs (trade execution and access to analysts, see section 3.4.1) - it may allow for efficient pricing method for research (see section 3.4.2) - unbundling would be difficult (trade execution and access to analysts, see section 3.4.1) From a principal–agent perspective, it is justifiable to treat advice on trade execution in the same way as trade execution (ie, to pass the costs on to funds), since the level of service needed is probably closely related to the number of trades needed, and both are difficult to predict (see section 3.4.1).	*No economies of scope*—the inclusion of some services provided in the execution bundle (in particular, access to IPOs, conferences and communications equipment) appears to have few economic justifications (see section 3.4.3). *Impact on commission rates*—no exact information is available on the actual impact of bundling on the level of broker commissions. However, the effect on commission rates of bundled services for which there is no economic justification is probably relatively low (see section 3.3). *Incentive misalignment between fund and fund manager*—pass-through of cost of bundled services via commission costs exacerbates the incentive misalignment, potentially leading to over-consumption of these services (see section 3.6). *Impact on market for research*—from a competition policy perspective, bundling of brokerage services is unlikely to lead to anti-competitive effects—ie, monopolisation of the market for research through leveraging. However, from a regulatory perspective there may be concerns about the independence and quality of research (see section 3.5). *Leveraging of market power*—in theory, investment banks might attempt to leverage their market power in the market for IPOs into the market for trade execution. However, such 'reverse' leveraging is unlikely to occur in the UK (see section 3.5).

Source: OXERA.

Costs and benefits of soft commission arrangements

Benefits	Costs
In theory, soft commission arrangements may offset some of the competition effects of bundled brokerage services. Specifically, they make it easier for independent research providers and execution-only brokers to compete with full-service brokers. This may also promote independent research. However, only limited anecdotal evidence has been obtained on whether these effects are significant in practice (see section 4.5). It has been argued that soft commission arrangements may benefit small fund managers in particular. However, from an economics point of view, if soft commission arrangements are needed to maintain the viability of smaller fund managers, these firms must necessarily be less efficient than their competitors (see section 4.5.2). It has been argued that soft commission arrangements lead to an efficient allocation of resources since fund managers are better placed than funds to determine the optimal level of services acquired under soft commission arrangements. However, soft commission arrangements may also have negative effects on resource allocation (inefficient 'make-or-buy' decisions and excessive consumption of services, see section 4.6.1 and 'costs' of soft commission arrangements in this table).	*Effect on consumption of services*—the evidence obtained is not conclusive, but suggests that there could be some degree of excessive consumption of soft commission services and/or inefficient make-or-buy decisions, thus exacerbating the incentive misalignment between fund and fund manager (see section 4.6.1). Furthermore, most of the credits ('soft dollars') are used for price-information services—ie, services that fund managers would need anyway. There is no economic justification for using soft commission arrangements for price information services (see section 4.3 and 4.8). However, it should be noted that the order of magnitude of soft commission arrangements is relatively small. There are some factors that may implicitly place limits on the use of soft commission arrangements (see section 4.4.). *Effects on trade execution quality*—brokers are unable to discriminate between softed and non-softed trades at the time of the execution, and are therefore unable to give less-beneficial deals for softed trades. However, it is possible that soft commission arrangements affect the way brokers are selected by fund managers. The effects on execution quality are difficult to ascertain. However, the study has identified a number of reasons why such effects may be limited (see section 4.7). *Cross-subsidy between institutional investors*—the cost of services provided under soft commission arrangements appear to be largely recovered through the commission rates charged to fund managers who receive the services, rather than through overall increases in commission rates (ie, across all fund managers). This means that cross-subsidisation between fund managers is probably limited. However, commission rates are set for each fund manager, with the same rate applicable to soft and hard trades. Therefore, there is a cross-subsidy between pension funds who are clients of the same fund managers, some of whom allow the manager to soft and some of whom do not (see section 4.4.2).

Source: OXERA.

Contents

1. Introduction

1.1 Objective of the report

30. OXERA has been commissioned by the Financial Services Authority (FSA) to undertake a study on the practices in the UK of bundling of brokerage services and soft commission arrangements, and on the markets for brokers and fund managers in which these practices take place. This study is intended to support the FSA in its current regulatory review of bundling and soft commissions.

31. This review follows on from the Myners report on institutional investment in the UK, which was commissioned by the Chancellor of the Exchequer in the 2000 Budget and published in March 2001.[1] The report identified the problem that, while fund managers are better placed than pension fund trustees to exercise control over dealing costs (in particular, broker commissions), they have few incentives to do so because these costs are passed on to the pension funds. The report recommended, among other things, the creation of the following principle of best practice for pension fund trustees:

> It is good practice for institutional investment management mandates to incorporate a management fee inclusive of any external research, information or transaction services acquired or used by the fund manager rather than these costs being passed on to the client.

32. The Myners report suggests that there would be an ‘unbundling’ of the services currently paid for through broker commissions, and practices such as soft commissions would be likely to cease as fund managers sought to achieve the best value for each service received. This would ultimately lead to a reduction in the total costs to the pension fund.[2]

33. In July 2001 the FSA agreed with the Treasury to review, from its regulatory perspective, two issues related to this recommendation:

- the FSA’s regulatory requirements relating to soft commission arrangements;
- the possibility of regulatory change regarding the unbundling of services provided by brokers.

34. The ultimate objective of the FSA’s review is to examine the regulatory risks that may arise from the provision of bundled brokerage and soft commissions, and to construct the most appropriate regulatory regime to mitigate these risks.

[1] Myners, P. (2001), ‘Institutional Investment in the United Kingdom; A Review’, March, commissioned by the Treasury.
[2] Throughout this report, ‘pension fund’ refers to either pension fund trustees, or to the fund itself.

35. This report provides the FSA with:

- a comprehensive understanding of competition in the UK fund management and broker markets, and of the factors that give rise to the practices of providing additional services with trade execution service and rebating broker commissions to fund managers through soft commission arrangements;
- a detailed analysis of the effects of bundled brokerage services and soft commission arrangements on institutional investors;[3]
- an analysis of the order of magnitude of soft commission arrangements and bundled services in the UK;[4]
- an overview of soft commission practices in the USA, and the manner in which these practices are regulated in the USA, and also in Germany and France and the European Union;
- a discussion of policy issues and implications that follow from the economic analysis in the report.

1.2 Why have concerns about bundling and soft commissions been raised?

36. Brokers typically provide a number of services, such as access to analysts, research and IPOs, in a bundle with trade execution. In addition, brokers often provide soft commission arrangements. Under these arrangements, a fund manager sends trades to a broker and receives, in addition to trade execution, credits (soft dollars or soft money) which can then be used to purchase services such as research and price information services, usually from third-party service providers.

37. Bundling and soft commission practices may raise a number of concerns. Fund managers do not buy brokerage services for themselves, but act on behalf on their clients—eg, institutional investors such as pension funds. The costs of brokerage services are deducted from the value of the fund and therefore directly passed on to the fund managers' clients. Fund managers have an incentive to pay for services (such as research and access to analysts) through the use of soft commission arrangements rather than incurring these costs themselves—commission costs are borne by their clients and are not so closely scrutinised. This could result in

[3] Although the focus of this report is on all institutional investors, particular attention is paid to pension funds, in line with the FSA's terms of reference for this study. The effects of bundling and soft commission arrangements are therefore mainly described in terms of effects on pension funds. However, it should be noted that the effects on other institutional clients (in terms of commission rates etc) are generally similar to those on pension funds.

[4] The order of magnitude of soft commission arrangements estimated in this report concerns arrangements regarding trade for all institutional clients, including unit and investment trusts. The OXERA fund manager questionnaire asked for data on all institutional clients. Unit and investment trusts are sometimes not considered institutional clients but private clients, because their underlying clients are private investors. However, the fund managers who provided data on soft commission arrangements have indicated that they included data on unit and investment trusts.

excessive consumption of services from an economic welfare point of view and insufficient pressure to reduce trading costs. Furthermore, instead of directing the trade to the broker providing the best execution, the fund manager may direct trade to the broker providing the most generous soft commission benefits.

38. Bundling of brokerage services raises similar issues. The fact that the costs of access to analysts and research are included in the broker commission costs and therefore borne by the pension funds, could reduce the fund managers' incentives to monitor the quality of the services obtained and to exert sufficient pressure on price.

39. Bundling of research and access to analysts could also have an effect on the market for research. It may make it more difficult for independent research providers to sell their research when fund managers already receive research for free from brokers.

1.3 Information and data sources

40. This study and the economic analysis are supported by different sources of information:

- a review of the literature on soft commission arrangements (which is mainly the literature on soft dollars in the USA);
- a review of the regulatory frameworks for bundled brokerage services and soft commission arrangements in the UK, the USA, Germany and France;
- analysis of broker and fund manager data from FSA databases, and from other public sources, such as the London Stock Exchange, the National Association of Pension Funds (NAPF), industry journals and web sites;[5]
- in-depth interviews with regulators and industry participants. These were conducted largely during the early stages of the study, with the main objective being to obtain insight into competitive conditions in the markets concerned, and into the various horizontal and vertical relationships and contractual arrangements between market players. Apart from meetings with FSA and Treasury experts, interviews were conducted with regulators in the USA and Germany, pension funds, fund managers, brokers, research companies and other industry experts. A breakdown is given in Table 1.1.

[5] Some of these data have been kindly provided directly by the London Stock Exchange and the NAPF.

Table 1.1: Breakdown of in-depth interviews[1]

Type of interviewee	Number interviewed
Foreign regulator	3
Pension fund	2
Fund manager	4
Broker	4
Research company	2
Consultants and other industry experts	4

Note: [1] In addition, interviews were conducted with staff of the FSA and the Treasury.
Source: OXERA.

- OXERA designed three separate questionnaires for pension funds, fund managers and brokers. The main objectives were to obtain quantitative evidence to underpin the economic analyses of competition, bundling and soft commissions; to estimate the order of magnitude of bundling and soft commissions; and to test the various hypotheses and statements that have been made about these practices.

41. In total, the questionnaires were sent to 30 pension funds, 60 fund managers and 37 brokers. The response rate and representativeness of responses are shown in Table 1.2. The most important results in this report come from the fund manager questionnaire. Table 1.2 shows that the sample of fund managers who responded covers a large part of the market (in terms of value)—34%. The samples of brokers and pension funds who responded are smaller, but still cover 18% and 6%, respectively, of their markets. Overall, the high market coverage means that the questionnaire results give a reasonably reliable picture of the fund manager and broker markets.

42. Appendix 3 describes the characteristics of the pension funds, fund managers and brokers who responded, and how they were selected; it also reproduces the three questionnaires. In the report, the questionnaires are referred to as OXERA broker questionnaire, fund manager questionnaire and pension fund questionnaire.

Table 1.2: OXERA questionnaires: response rates and market coverage

	Number of questionnaires sent	Number of questionnaires completed	Market coverage of respondents (%)[1]
Pension funds	30	9	6
Fund managers	60	25	34
Brokers	37	10 (11 replies)	28

Notes: [1] Market coverage of respondents is defined as the respondents' share of the total market. For pension funds, this is the sum of the value of respondents' funds as a proportion of the estimated total value of UK pension funds (£985 billion, see Table 2.1). For fund managers, this is the sum of the respondents' funds under management as a proportion of the estimated total value of funds under management in the UK (£2,857 billion, see Table 2.1). The market coverage of brokers is the respondents' total brokerage revenues as a proportion of the estimated total brokerage revenue in the UK (£5.7 billion, see section 2.5).
Source: OXERA.

1.4 Structure of the report

43. The report begins in section 2 with a competition analysis of the fund management and broker markets. Following a description of the roles and activities in the investment chain of institutional investors, fund managers and brokers, the markets for fund managers and for brokers are defined in terms of the geographic scope and the products and services offered. The nature of competition is assessed by analysing the characteristics of the market (in particular concentration, switching costs and buyer power), and the conduct and performance of the players is assessed by looking at factors such as buying and monitoring processes, the level and structure of prices over time, and the way in which the players compete.

44. Section 3 focuses on the economics of bundling brokerage services. Following a description of how bundling by brokers works in practice and the arrangements between fund managers and brokers, the order of magnitude is estimated, potential economic justifications for bundling are analysed, and the effects of bundling on competition in the markets for brokers and for research are explored. Finally, the effects of bundling on the fund managers' clients are examined.

45. Section 4 focuses on soft commission arrangements and follows a structure similar to that of section 3. It explains how soft commission arrangements work in practice and gives estimates of the order of magnitude of soft commissions and a breakdown of the services provided under these arrangements. It then analyses the effects on competition in the market for brokers, fund managers and research. Finally, the positive and negative effects of soft commissions on the fund managers' clients are examined.

46. Following a brief overview of the regulation of soft commission arrangements in the UK and the USA, section 5 concludes by drawing the main lessons from the analysis in sections 3 and 4. It explains from an economics point of view how soft commission arrangements and the bundling of brokerage services could be regulated, and identifies some related policy issues that may need further investigation.

47. The report includes appendices which provide an overview of the regulation of soft commission arrangements in the UK, the USA, Germany, France and the EU; explore relevant concepts from the economics of competition policy; describe the sample to whom the OXERA questionnaires were sent; and reproduce the pension fund, broker and fund manager questionnaires.

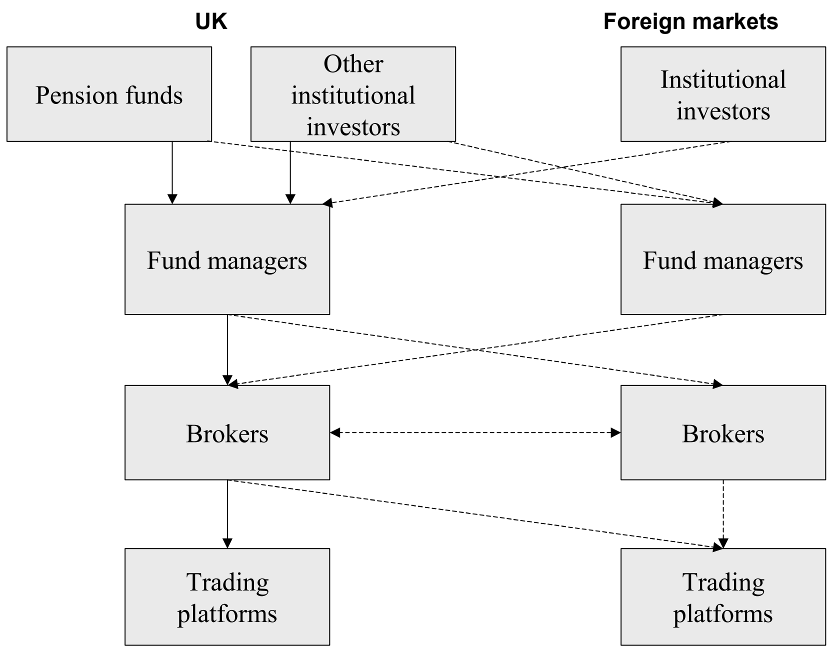
2. Competition in the Markets for Brokers and Fund Managers

2.1 The institutional investment chain

48. This section contains an analysis of the market structure and nature of competition in the markets in which fund managers and brokerage firms operate. Such a market analysis forms the basis for understanding why soft commissions and bundled brokerage services have emerged, and what economic effects these practices have on competition and efficiency.

49. Before assessing the fund manager and the broker markets, however, it is important to understand the vertical chain of which they are both part. Figure 2.1 illustrates this chain. It should be noted that this illustration is highly stylised—in reality, not all transactions follow the whole of the vertical chain, and a myriad of arrangements exists both between and within each layer (eg, fund managers may also deal directly with trading platforms rather than via a broker).

Figure 2.1: Illustration of the institutional investment chain



50. Figure 2.1 can be used to identify where in the chain the issues of soft commission arrangements and bundled brokerage services are of relevance, and hence to delineate the scope of this report.

51. First, Figure 2.1 is limited to institutional investments, and does not cover retail (private client) investments. This is because soft commissions and bundled brokerage usually only occur between institutional brokers and institutional fund managers. To give an indication of their relative importance, approximately 85% of assets under management in the UK are held by institutional (as opposed to private) investors, as shown in Table 2.1.

Table 2.1: Funds under management in the UK, December 1999 (£ billion)

Holders of funds	Total value of assets (£ billion)	Proportion held by UK clients (%)[1]	Proportion held by overseas clients (%)[1]
Pension funds	985	78.9	21.1
Insurance companies	1,094	94.5	5.5
Unit and investment trusts (net)	177	66.1	33.9
Money market mutual funds	28	25.0	75.0
Other	193	0.0	100.0
Institutional funds total	*2,477*	*78.1*	*21.9*
Private client funds total	380	86.8	13.2
All funds	**2,857**	**79.3**	**20.7**

Note: [1] Proportions based on June 1999 figures.
Source: International Financial Services (2001), 'Fund Management Brief', September.

52. Although the focus of this report is on all institutional investors, particular attention is paid to pension funds, in line with the FSA's terms of reference for this study.[6] Pension funds represent around 40% of all institutional assets (as can be seen from Table 2.1). Starting from the top of the chain in Figure 2.1, pension funds (or their trustees) and other institutional investors usually engage fund managers to manage their asset portfolios. Most UK pension funds engage external fund-management companies. However, data provided by the NAPF indicate that 6% of UK pension funds employ in-house fund managers (or use both external and in-house managers). With in-house fund managers, the potential problems of soft commissions and bundled brokerage are likely to be mitigated, given that the interests of the pension fund and the fund manager can be expected to be more aligned.[7] This report therefore concentrates on instances where pension funds hire external fund managers.

53. Moving further down the chain, a central task of fund managers is to make investment decisions, and, based on these, to pass buy or sell orders on to brokers. Brokers may execute these buy and sell orders on a variety of trading platforms. In the 'London market', these platforms include in-house matching of trades by the brokerage firm itself, broker-to-broker trades, SETS (the London Stock Exchange order book), or alternative trading platforms such as Instinet and virt-x (as discussed further in section 2.5).

[6] The commission rates and order of magnitude of soft commission arrangements estimated in this report are not limited to pension funds. The estimates are based on data on trade for all institutional clients, including unit and investment trusts. See footnote 4.
[7] Usage of soft commission arrangements does not result in a conflict of interest if the pension fund has in-house fund managers. Benefits of these arrangements will normally directly accrue to the pension fund.

54. When executing a trade, brokers may either act as agent (where the broker executes the trade on behalf of its client) or as principal (where the broker takes a position). Broker commissions are usually only paid if the broker acts as agent. Principal trades are usually undertaken on a 'net' basis—ie, without commission (here, the broker aims to recover its costs from gains made on spreads). This report focuses on trades executed on a commission basis, which in the UK represent around 60% of all equity trades (by value).[8] This is because if the costs of non-execution services provided by brokers—either in bundled form or via soft commissions—turn out to have an impact (which is the subject of sections 3 and 4 of this report), this will feed through in those broker commissions. It should be noted that because of this focus on commission-based trades, the report does not go into detail on any possible interrelations between commission rates, on the one hand, and spreads made on net trades, on the other.[9]

55. The specific broker used may vary according to type of security—eg, equity, fixed-income securities, derivatives, etc. Trades in fixed-income securities and derivatives are most frequently undertaken on a principal basis, and thus do not involve broker commissions. This report therefore focuses mainly on equity trades.

56. Figure 2.1 also makes clear that the UK market cannot be viewed in isolation in any of the layers in the chain—ie, links with foreign markets need to be taken into account at every layer. The following links with foreign markets can be distinguished.

- UK pension funds and other institutional investors may engage fund managers located abroad, in particular for mandates whose underlying assets are also traded abroad (the geographic scope of the market for fund managers is further discussed in section 2.3).
- Likewise, fund managers based in the UK attract the business of institutional investors outside the UK.
- UK fund managers may use brokers inside and outside the UK. This is partly driven by their investment decisions. For securities that are traded in the UK, the fund manager must normally use a UK-based (UK-regulated)

[8] In 2000, 58.4% (by value) of all trades undertaken on behalf of UK institutional clients were on a commission basis. For foreign institutional clients this was 60.3%, and for UK private clients 58.8%. *Source*: London Stock Exchange (2000), 'Survey of London Stock Exchange Transactions 2000'. This is the most recent transaction survey by the London Stock Exchange of which the results have been published.

[9] One possible interrelation could be that brokers may trade off commission and spread income when determining terms and charges to fund managers. It may also be possible that the extra services offered by brokers are financed through gains obtained on spreads, in which case these services may not have an impact on commission rates. No evidence on whether these interrelations are prevalent has been obtained. It should also be noted that fund managers usually have a choice as to whether they want a trade to be undertaken on a net or a commission basis.

broker. However, for securities that are traded in foreign markets, fund managers can either instruct a broker in the relevant foreign market directly, or instruct a UK broker with direct (trading screen) or indirect (affiliate or subsidiary) access to the foreign market in question.

- Likewise, UK brokers may receive trade orders from fund managers outside the UK, and hence any effects of bundled or softed services would be felt by these foreign fund managers and their clients, rather than in the UK.

- In addition, the larger fund managers in particular often have global agreements with the larger brokerage firms, which operate in multiple markets. In this case, any 'intra-London' transaction between a UK fund manager and a UK broker is made in the context of this global agreement.

57. These interactions with foreign markets complicate the analysis of soft commissions and bundled brokerage services in the UK alone. Looking at it from the top of the chain, the regulatory concerns are likely to focus on UK institutional investors, but these can also be affected by soft commissions and bundled brokerage arrangements that take place outside the UK. Looking at it from the bottom of the chain, the regulatory concerns are likely to focus on soft commissions and bundled brokerage arising from trades executed in the UK. However, some of these may have an impact on fund managers or institutional investors outside the UK as well. In order to focus the analysis, some parts of this report concentrate on relationships between UK pension funds and UK fund managers, while other parts look at the relationships between UK brokers and UK fund managers.

58. To summarise, while the report considers the broader context in which soft commission and bundled brokerage arrangements take place in the UK, the analysis will to a large extent be focused on:

- institutional investors, with particular emphasis on pension funds;
- external (as opposed to in-house) fund managers;
- equity trades executed on a commission basis;
- relationships between UK pension funds and UK fund managers;
- relationships between UK fund managers and UK brokers.

2.2 Pension funds as customers of fund managers' services

2.2.1 Types of pension fund

59. Pension schemes are generally administered by trustees. The trustees must decide how the funds are managed and are responsible for selecting fund managers. There are basically three types of arrangement between institutional funds and fund managers, as follows.

- *A co-mingled fund*—ie, the trustees may decide to participate in a fund run by an insurance company or other financial institution. The fund is managed independently of the trustees, through a 'pooled fund' operated by the financial institution. Pooled investment management is usually used by small funds, with the resources of a group of funds being placed in the same investment fund. The pension fund owns a number of units of the investment fund.

- *Segregated fund management*—the trustees may manage the fund themselves indirectly by delegating the task to one or more fund managers, who would typically design a tailor-made investment mandate agreed between the trustees and the fund manager. Segregated management is usually adopted by medium-sized and large funds where there is some attempt to match the assets in which the fund is invested to the fund's liabilities. Trustees may employ multiple fund managers—for example, one to manage a bond portfolio and another to manage an equity portfolio.

- *In-house fund manager*—the trustees may manage the funds (or part thereof) themselves directly by appointing one or more investment managers who are employed by the fund; this is often the approach taken by the larger pension funds.

60. Segregated pension funds account for nearly 90% of all funds (by value).[10] As mentioned above, 6% of UK pension funds (in terms of fund value) have in-house fund managers (either solely or in addition to external managers). As explained above, usage of soft commission arrangements is less likely to result in a conflict of interest if the pension fund has in-house fund managers. This report therefore focuses on the relationship between pension funds and external fund managers.

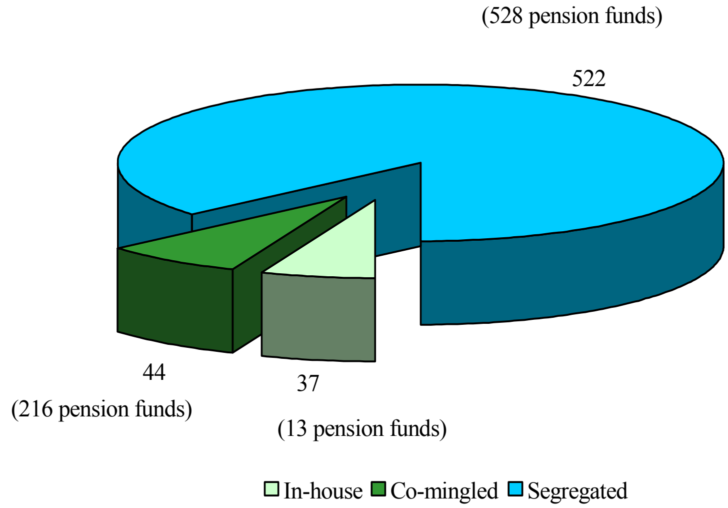
61. However, it is important to note that the possibility of hiring in-house fund managers is likely to put competitive pressure on fund managers, at least in as far as competition for the business of larger pension funds is concerned. If these larger pension funds are not satisfied with fund managers' performance, they can decide to appoint in-house fund managers. Furthermore, funds that employ both types can benchmark the performance of the external fund managers against that of the in-house managers.

2.2.2 Size and concentration

62. Figure 2.2 shows the value of the types of pension fund in the UK, based on data from NAPF, covering 528 segregated pension funds with identified market value totalling over £520 billion. The NAPF data refer only to those members who have provided details on the value of their fund. Data from International Financial Services (see Table 2.1) indicates that the total value of pension funds in the UK was £985 billion in 1999. As such, the coverage of Figure 2.2 represents roughly half of the UK's total pension fund assets.

[10] OXERA calculation based on NAPF data.

Figure 2.2: Market value of pension funds by type, 2001 (£ billion)

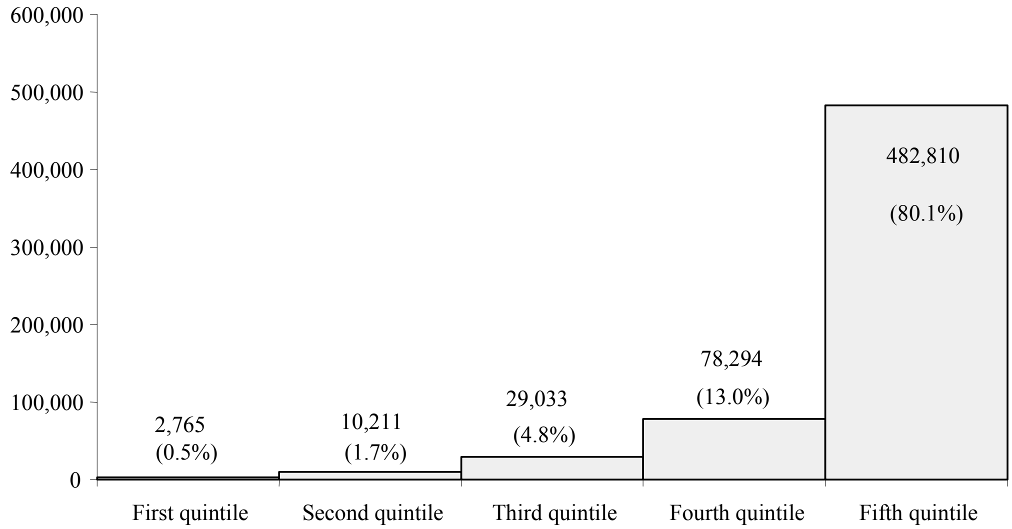


Source: OXERA calculations based on data from the NAPF.

63. Figure 2.3 shows the distribution of UK segregated, co-mingled and in-house pension funds by value. Pension funds were sorted by the market value of their assets. These were then divided into five equally sized groups. The figure shows that at least 80% of pension fund assets are held by the largest 20% of pension funds. However, each quintile in Figure 2.3 represents 151 pension funds. Thus, even in the highest quintile, individual pension funds account for only a small part of the market. The analysis gives a Herfindahl–Hirschman Index (HHI), a measure of concentration, of 128.2.[11]

[11] For an explanation of the HHI, see appendix 2.

Figure 2.3: Market value and market share of UK pension funds, divided into quintiles on the basis of market value (£m)



Source: NAPF, OXERA calculations.

64. An implication of this data is that there are a significant number of large and medium-sized pension funds who can be expected to have certain buyer power over fund managers. Furthermore, these pension funds often have the resources available to select and monitor fund managers carefully. This puts competitive pressure on fund managers, as further discussed in section 2.4.

2.3 Market for fund managers: market structure

2.3.1 Main activities and product markets

65. Fund managers invest funds on behalf of institutions or private clients. Their primary task is to invest pension contributions, insurance premiums and savings in a portfolio of financial assets that will best meet clients' needs.

66. Fund management covers a broad range of activities, which can be roughly divided into two groups: front office and back office. Front-office functions include those directly related to the management of funds, such as making decisions on asset allocation and risk management, investment analysis, dealing and cash management. Back-office functions are mainly support activities and

include transaction processing, systems support, accounting and administration. These back-office functions are increasingly being outsourced to custodians.[12]

67. With regard to fund managers' services, distinctions can be drawn along the following dimensions.

- *Type of customer*—a distinction can be made between private and institutional clients. As shown in Table 2.1, private clients account for around 15% of assets managed by UK fund managers and institutional clients for 85%. These two types of client are usually served by different fund managers, although several fund managers offer services to both types. The institutional clients include pension funds, insurance companies, mutual funds and organisations operating unit trusts and investment trusts.

- *Type of service*—as explained in section 2.2, fund managers provide two methods of managing pension schemes: co-mingled and segregated. Furthermore, there are two types of management offered: active and passive. Passive management means that the fund manager tracks an index, such as the FTSE 100—ie, assets are held in exactly the same weighting as they appear in the chosen index. Passive management can normally be carried out at a lower cost than active management. Approximately 20–25% of UK institutional funds are passively managed.[13]

- *Type of asset class*—in the late 1980s/early 1990s, most funds were run on a balanced basis whereby a single fund manager is given responsibility for the entire portfolio of a pension fund and decides how to allocate it between asset classes. Now, pension funds often use specialist mandates per asset class and may have a different fund manager for each mandate. Although most fund managers are able to offer management of different asset classes, there is some degree of specialisation, eg, some fund managers are specialists in managing bond funds.

- *Geographic specialisation*—fund management is an international business. Several fund managers are part of an international group and offer management of assets listed on exchanges in different parts of the world. However, there is some degree of geographic specialisation. For example, a UK pension fund may choose a Japanese fund manager to manage its Japanese equities—ie, equities listed on the Nikkei (see further below).

[12] Custodians are in charge of the safekeeping and administration of assets, including asset servicing and handling of corporate actions. Pension funds usually appoint their custodians directly, but the fund managers deal with the custodians on a day-to-day basis.
[13] Myners, P. (2001) op. cit.

68. Ownership of fund managers is diverse; 44% of the fund managers who are members of the Investment Management Association (IMA) are part of a larger banking group; 32% of the IMA members are part of an insurance group, while the remaining members are 'independent' fund management firms or groups.[14]

69. This report focuses on institutional fund managers providing active and passive fund management in different asset classes and in assets in different regions. Although there is some degree of specialisation in different areas, fund managers' clients are likely to switch between the different services depending on what value for money they receive. For example, passive fund management is considered a low-cost alternative to active management, putting competitive pressure on fees (in terms of value for money) for active management.

2.3.2 Geographic scope of the fund manager market

70. Many fund managers in the UK are part of an international group. The IMA survey shows that just over half of UK fund managers have investment management operations in other countries as well as in the UK.[15] These firms account for two-thirds of the assets managed by IMA members. Furthermore, non-UK ownership of fund managers is extensive. The IMA survey shows that foreign-owned fund managers account for 40% of the assets managed by IMA members in the UK. Therefore, any distinction between UK-based (or UK-regulated) and non-UK-based fund managers may not be accurate.

71. Furthermore, fund managers based (and regulated) in the UK compete with fund managers overseas. As shown in Table 2.1, more than 20% of the total assets managed in the UK are owned by overseas clients—this is typically the result of mandates awarded by overseas pension funds and insurance companies for the management of part or all of their own portfolio of non-domestic securities. Likewise, the OXERA fund manager questionnaire indicates that 25% of the assets managed by UK fund managers are not of UK origin.

72. Competition between UK-regulated and non-UK-regulated fund managers is not only for the business of foreign investors. The pension fund questionnaire shows that UK pension funds tend to use UK-based fund managers, but some of them also use overseas fund managers. The pension funds in the sample use a total of 38 fund managers, of which three are based overseas. Furthermore, the questionnaire indicates that whether the fund manager is based in the UK is not an important factor when selecting a fund manager for a particular fund.[16]

73. To summarise, it could be argued that the geographic scope of the market for fund managers is international. Fund managers compete with foreign fund managers in

[14] IMA (2001), 'Fund Management Survey 2000', October.
[15] Ibid.
[16] More details on factors influencing pension funds' choice of fund manager are given in section 2.4.

offering their services overseas and, although to a lesser extent, in offering services to UK pension funds. However, because the objective of this report is to analyse the effects of bundled brokerage and soft commission arrangements under UK regulation, and because more data are available on the UK market, the analysis below focuses on UK-based (and UK-regulated) fund managers only. It is important to bear in mind that such analysis is likely to underestimate the degree of competitive pressure on UK fund managers.

2.3.3 Market concentration

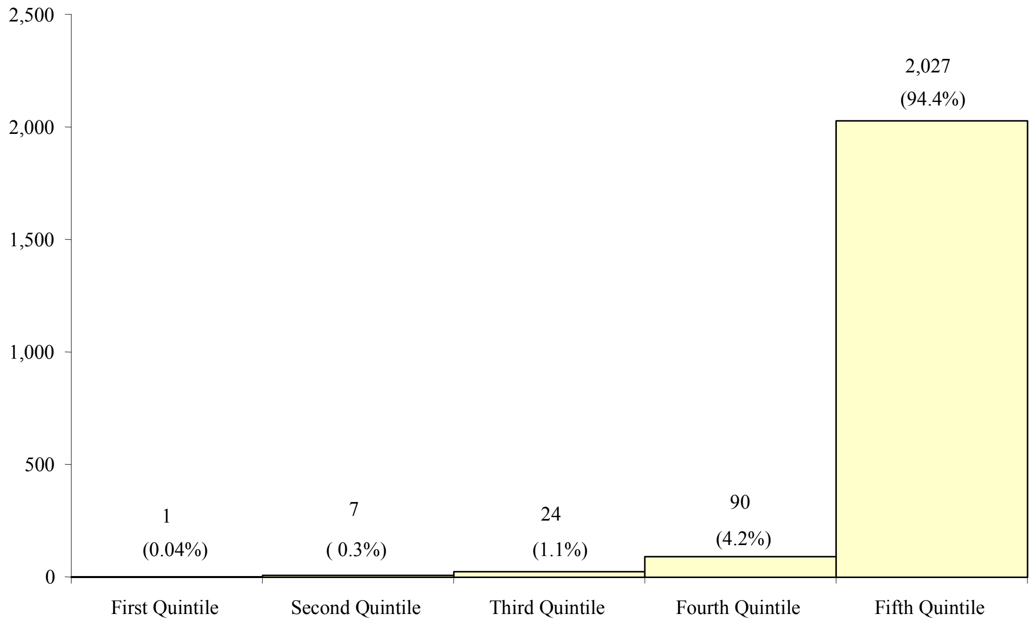
74. The analysis of market concentration below is based on an FSA database of fund managers. The FSA database has data on the amount of funds under management for 811 fund managers. OXERA reduced this to 687 fund managers by counting as one different fund managers that were part of the same group. Together, these 687 fund managers accounted for a total of £2,149 billion in funds under management in 2001 (counting all asset classes and customer types).[17]

75. Figure 2.4 shows the distribution of UK fund managers by size and market share. The highest quintile of fund managers accounts for 94.4% of total funds under management. However, each quintile represents 137 fund managers, so, even in the highest quintile, individual fund managers account for only a small part of the market. On the basis of these data, the HHI was calculated to be 232.5, which means that the overall market is highly unconcentrated and hence likely to be competitive.[18]

[17] This figure differs from the figure given in Table 2.1. This may be explained by differences in measurement and/or coverage of the FSA database.

[18] The analysis covers both actively managed and passive funds. Concentration in passive management in the UK is significantly higher, but, as Myners (2001) points out, this is to be expected, since passive fund management involves significant economies of scale.

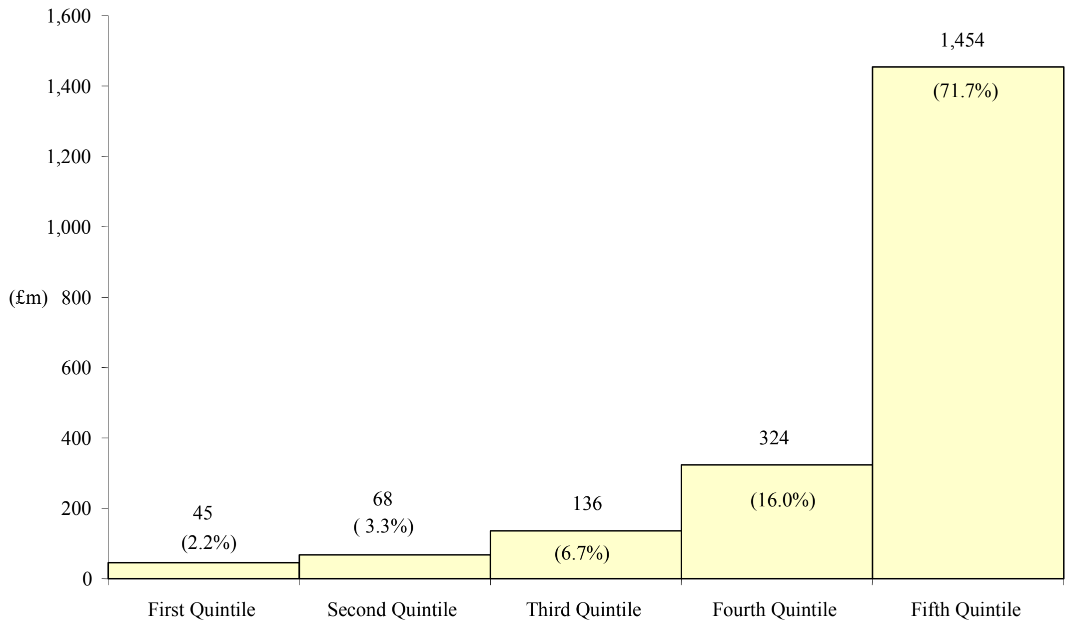
Figure 2.4: Funds under management in the UK, distribution by quintile, 2001 (£ billion)



Note: The first and second quintiles include 138 fund managers; the other quintiles include 137 fund managers.
Source: OXERA calculations based on FSA data.

76. Analysis of the 137 largest fund managers, which together account for 94.4% of the total funds under management, shows a similar low level of concentration, with an HHI of 261.2. Figure 2.5 shows the size distribution of these fund managers, divided into quintiles. While the top quintile of this group (largest 4% of the whole sample) accounts for 57% of the market by value, this represents 27 fund managers (ie a reasonably large number of competitors). In this relatively concentrated group, individual fund managers are still small compared with the size of the market as a whole.

Figure 2.5: Top 137 fund managers, distribution by quintiles, 2001 (£ billion)



Note: The first and second quintiles include 28 fund managers; the other quintiles include 27 fund managers.
Source: OXERA calculations based on FSA data.

2.3.4 Regulatory barriers to entry

77. Fund managers conducting investment business in the UK are regulated by the FSA. To conduct investment business, a firm or individual must receive authorisation from the FSA. The process of authorisation requires firms to meet the threshold conditions,[19] which include satisfying the FSA that they are, and will remain, fit and proper persons to undertake investment business. Internal systems and controls appropriate to the firm's business must be installed to ensure compliance with FSA rules. Furthermore, fund management companies are subject to capital requirements to comply with both FSA rules and relevant EC Directives. Although regulatory requirements may have an effect on the ease and speed with which companies can obtain authorisation, on the whole it appears that these regulatory requirements do not constitute a significant barrier to entry. This is borne out by the high number of companies that have been granted regulatory approval to operate as fund managers.

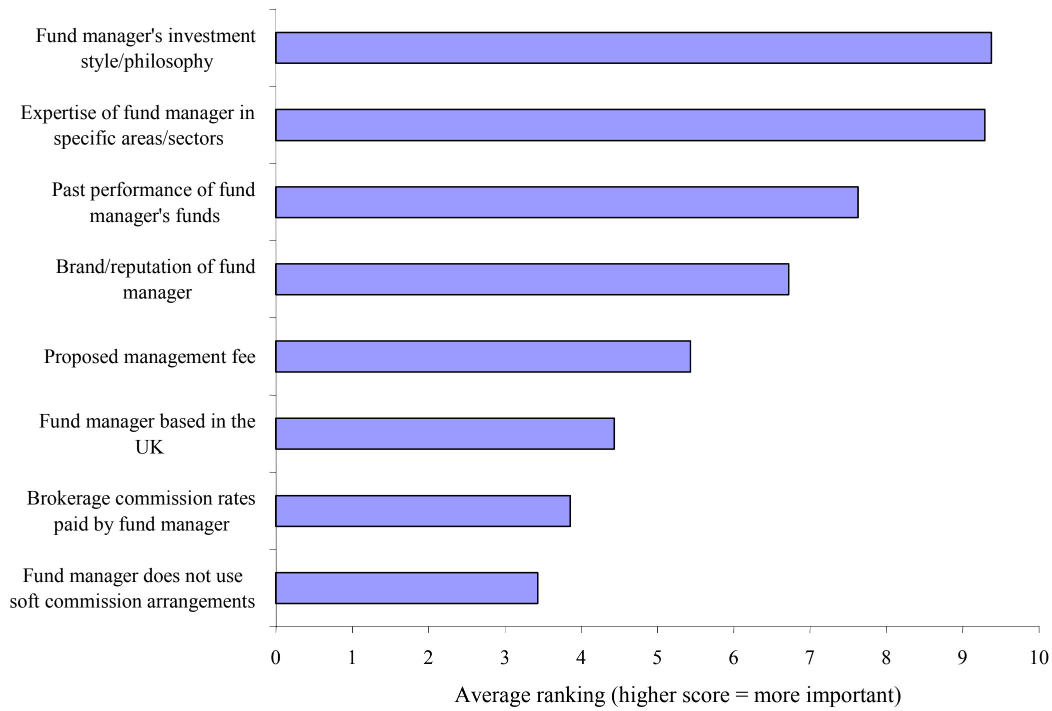
2.3.5 Other barriers to entry

78. Figure 2.6 shows the ranking of factors taken into account by pension funds in selecting a fund manager for a particular fund (based on the OXERA pension fund

[19] Financial Services and Markets Act 2000 Schedule 6.

questionnaire). It shows that fund managers need to have expertise in specific areas and a sound investment style and philosophy. Past performance and reputation are also important factors.[20] In practice, these factors could form an entry barrier for new companies wanting to offer fund-management services. Recent larger entrants into the UK market have typically been firms that are already well established in the USA and elsewhere, such as Capital International, Fidelity and JP Morgan.[21]

Figure 2.6: Ranking of factors taken into account by pension funds when choosing a fund manager for a particular fund (10 = most important; 1 = least important)



Base: 'Past performance' and 'Investment style/philosophy': eight pension funds. All others: seven pension funds.
Source: OXERA pension fund questionnaire, 2002.

2.3.6 Ease of switching

79. Ease of switching is an important measure in any competition analysis. The easier it is to switch supplier, the more competitive pressure is placed on such companies. OXERA's pension fund questionnaire shows that, in general, pension

[20] Figure 2.6 is further discussed in section 2.4.
[21] Myners, P. (2001) op. cit.

funds do not find it difficult to switch fund managers. Of seven respondents, only two cited difficulties. These related to the effort required of trustees to select new fund managers and the risk of attrition in value during the switching process. Indeed, despite the fact that most pension funds find switching easy, it should be noted that switching fund manager is usually a time-consuming process, which mainly consists of selecting a new fund manager. Pension fund trustees who were interviewed indicated that the whole switching process usually takes at least six months. On the other hand, transferring the assets from one fund manager to another seems to be relatively straightforward—it often involves some cost, but in general this is relatively low.

80. The pension fund questionnaire indicates that, in the past five years, four of the seven respondents, had switched (non-property) fund managers once, and two other pension funds had switched twice or three times each. One pension fund (the smallest of the sample) had not switched at all in the past five years. Together, the seven respondents employed 35 external fund managers in 2001. In total, there were nine instances of switching in the past five years, thus implying an annual turnover rate of about 5%.

81. The main reason for switching given by the pension funds that had switched at least once over this period was poor fund performance in the medium to long term. Other reasons given were poor performance in the short run and strategic reorganisation of portfolio assets.

82. The survey undertaken by Myners (2001) shows a higher degree of switching. One-third of schemes had changed at least one of their investment managers in the past 12 months. Furthermore, there seemed to be a size effect: 64% of trustees from smaller funds said they had not changed their manager for more than three years. This probably reflects the fact that the generally lower level of resources available to smaller funds limits the amount of resources they can bring to the manager-selection decision.

83. To summarise, it can be concluded that there are no specific barriers that make switching particularly difficult. Switching is relatively straightforward and frequent.

2.4 Market for fund managers: conduct and performance

2.4.1 Competition on service and price

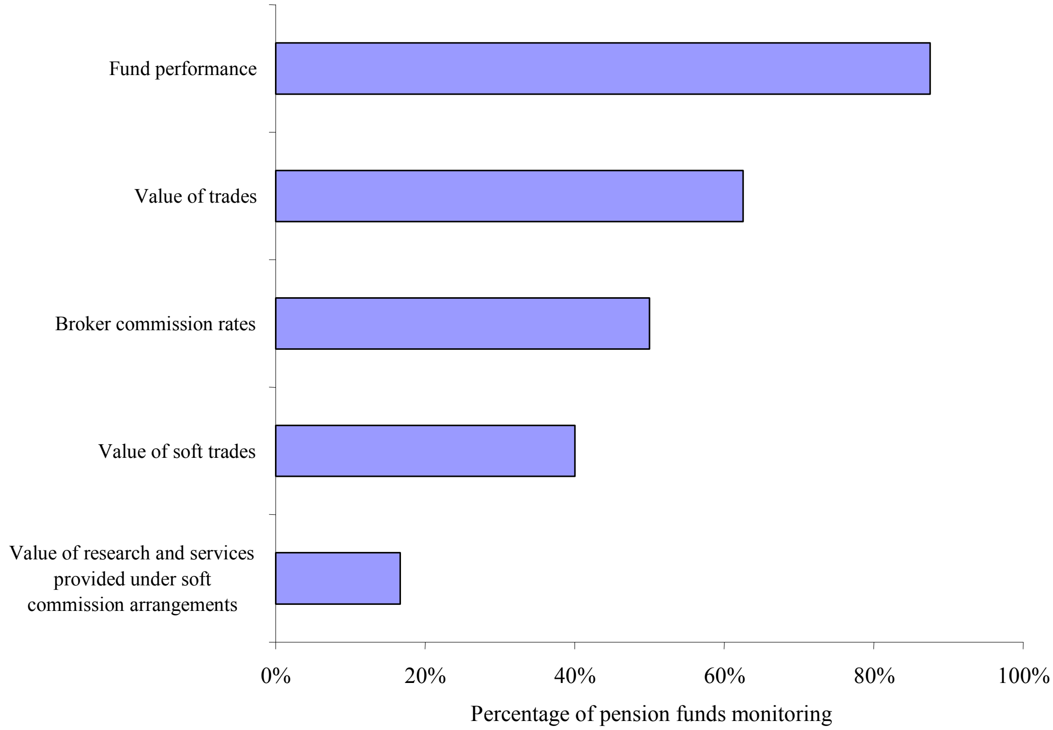
84. In selecting fund managers, pension funds take into account several factors. Figure 2.6 above shows that pension fund trustees choose fund managers primarily according to their perception of the fund manager's expertise in the markets and sectors to be invested in, combined with the suitability of that fund-management firm's style and its past performance. The fund manager's reputation is also an important factor. The proposed management fee has a ranking in the middle range. This seems to suggest that competition between fund managers is focused more on quality of service than on price (management fee). Brokerage commission rates and whether the fund manager uses soft commission arrangements are the least important factors.

85. Pension funds often appoint consultants to assist them in selecting fund managers. Six of the pension funds in the sample of respondents to the pension fund questionnaire selected their fund managers upon advice of third parties. Only two pension funds independently decided which fund manager to use. Pension fund consultants usually assess the past performance of different fund managers and give a qualitative assessment of their capabilities. On the basis of such an analysis, the consultant typically draws up a 'long list' of recommended candidates, from which the trustee and consultant select a short list for a 'beauty parade'. Hiring consultants is likely to result in more scrutiny of fund managers and therefore in more competitive pressure.

86. Thus, the process by which fund managers are selected can be regarded as a competitive tender that results in some sort of 'competition for the market'. Although the contracts can usually be easily terminated by pension funds, fund managers are typically selected for a relatively long period. This may put extra competitive pressure on the management fee and services offered (since winning a contract for a long period is attractive).

87. Once fund managers have been selected, pension fund trustees generally monitor their performance on a regular basis. Figure 2.7 shows that most trustees monitor the performance of their funds and the associated commission costs/turnover. However, relatively few are concerned with the details of any soft commission arrangements between their fund managers, the brokers they use and the commission costs (the implications of this finding are discussed in sections 3 and 4). The pension fund questionnaire indicates that the majority of monitoring effort is focused on fund performance, with four out of the seven pension funds who monitor this doing so not only themselves, but also with the assistance of both fund managers and third-party service providers. The performance of pension fund trustees' portfolios is typically benchmarked against that of comparative portfolios.

Figure 2.7: Monitoring activities of pension funds



Base: Fund performance, value of trades and broker commission rates: eight pension funds; value of soft trades: five pension funds; value of research, etc: six pension funds.
Source: OXERA pension fund questionnaire, 2002.

88. Again, this monitoring of performance provides competitive pressure on fund managers. However, such monitoring may be imperfect, and this has important implications for the assessment of bundled brokerage and soft commissions, as further discussed in sections 3 and 4.

2.4.2 Fee structure and levels

89. Fund managers charge their clients a management fee. Management fees are commonly expressed as a proportion of fund value. The level of fee generally depends on a number of factors, such as whether the fund is actively or passively managed and the size of the fund. Table 2.2 shows 'typical' fees for active and passive equity management in the UK, as obtained from the fund manager questionnaire. Fund-management fees are found to be substantially lower for passive funds than for active funds, reflecting the levels of input required in the respective investment allocation processes. For both types of management, there is usually a negative relationship between fees and the value of the fund (this relationship is not necessarily linear). It should be noted that actual fees could be lower than the fees shown in Table 2.2, since some of the respondents to the fund manager questionnaire have provided standard fees, while in practice fees are often subject to individual negotiation.

Table 2.2: 'Typical' annual fund management fees (proportion of fund value, bp)

Value of fund (£m)	50	100	200	500
Active equity (bp)	47	36	30	24
Passive equity (bp)	9	7	7	6

Base: Active management—£500m: 17 fund managers; £200m: 18 fund managers; £100m: 19 fund managers; £50m: 20 fund managers. Passive management—£500m and £200m: four fund managers; £100m and £50m: five fund managers.
Source: OXERA fund manager questionnaire, 2002.

90. The management fee rate of 30bp for a £200m active equity mandate is consistent with the findings of the Brealey and Neuberger survey,[22] which showed that a UK active equity mandate of the same value costs on average 30.5bp.

91. Results from the pension fund questionnaire indicate that, for very large funds, management fees tend to be lower than those shown above. The average management fee for actively managed equity portfolios in 2001 was 7bp. This figure was derived from a sample of ten funds, with an average value of £1.6 billion. Similarly, in a sample of five passively managed funds with an average value of £2.6 billion, the average management fee in 2001 was 3bp.

92. Table 2.3 shows management fees in Canada, the UK, Australia and the USA for a £100m mandate. It can be seen that the median fee for the UK (40bp) is similar to the typical fee for a mandate of this size shown in Table 2.2 (36bp). Fees in the UK tend to be higher than in Canada, but similar to, or lower than, those in the USA and Australia.

Table 2.3: Fees for equity management in different countries for a £100m mandate (proportion of fund value in bp)

	Canada	UK	Australia	USA
Upper-quartile fee	28	48	47	50
Median fee	24	40	44	42
Lower-quartile fee	21	30	40	33

Notes: These figures may be calculated on a different basis in different countries, and may therefore not be comparable.
Source: Frank Russell Company (cited in the Myners report, 2001).

[22] Brealey and Neuberger (2001), 'The Treatment of Investment Management Fees and Commission Payments: An Examination of the Recommendations contained in the Myners Report', October; commissioned by the Fund Managers' Association.

93. Fee arrangements for some funds (in particular those with more 'aggressive' mandates) incorporate a performance-related element, whereby an extra fee is charged if the manager outperforms a benchmark portfolio by more than an agreed amount. The fee is generally expressed as a percentage of the value of the fund surpassing a given benchmark, and is usually capped at a certain amount. Of the total sample of responses to the OXERA fund manager questionnaire (20 fund managers), on average 50% of the assets under management on behalf of pension funds provide for a bonus element for fund performance. There was significant variation between fund managers, with seven reporting no use of performance-related fees, while one reported that 100% of the funds under management incorporated a performance element in the fee structure.[23]

94. A sample of seven pension funds, which provided responses to the relevant questions in the pension fund questionnaire, indicated that 36% of their assets provided for a bonus element for fund performance. The proportion of total assets providing for a performance-related element in the fee structure varied between 0% and 62%. Of those assets against which a performance-related bonus could be paid, the average performance payment (expressed as a percentage of the value of the fund surpassing a given benchmark) was 5%. Results from the fund manager questionnaire indicate that, on average, 12% of fund managers' income in 2001 was achieved through bonus payments.

2.5 Market for brokers: market structure

2.5.1 Main activities and product markets

95. Trade execution is the principal service offered by brokers. A competition analysis of brokers should therefore focus on these trade execution services. Nevertheless, brokers also offer services in addition to trade execution, for example, access to analysts, research, and access to IPOs. The relationship between trade execution and these other services, to the extent that they are offered in a bundle or under a soft commission arrangement, is the subject of sections 3 and 4.

96. With regard to trade execution itself, this is a highly differentiated service. Distinctions can be drawn along the following dimensions.

- *Type of customer*—there are different relevant markets for execution of institutional trades and of private client (retail) trades. In 2000, private client trades represented around 65% of all UK equity trades by number of bargains, but only 8% by value of trades (the difference in the two proportions reflects the fact that private client trades are much smaller on

[23] The average proportion of funds in the Brealey and Neuberger survey (2001) that had performance-related fees was 20%. In their survey, there was also significant variation between fund managers, with one firm reporting no use of performance-related fees, while another reported that 95% of the funds under management incorporated a performance element.

average than institutional trades).[24] These two types of trade are usually performed by different brokers: institutional and private client brokers (although some may offer services to both types of customer). In addition, mainly because of their difference in size and value, institutional and private client trades usually follow different trading routes. For example, many retail trades in the UK go via the trading platforms operated by 'retail service providers', such as Winterflood Securities.

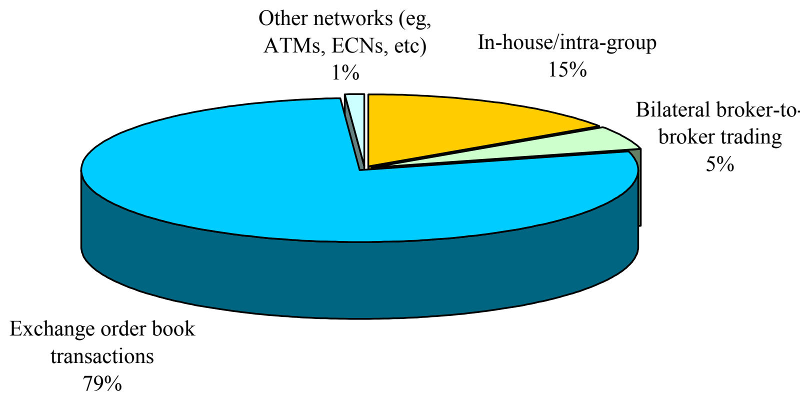
- *Execution-only versus 'active' trade execution*—as noted in section 2.1, brokers can act as either principal or agent, and trades by the latter are usually on a commission basis and hence relevant for this study. Trade execution services offered by a broker acting as agent can be further divided into execution-only and 'active' trade execution. Execution-only means that a broker places the order directly on a trading platform and takes the prevailing price. Active trade execution means that the broker actively 'works on a trade'—for example, by splitting the order into separate trades so as minimise market-impact costs, by contacting other brokers and potential counterparties, etc.

  More 'difficult' trades—ie, large size or low liquidity—usually require active trade execution. Only the larger brokers, with access to multiple trading platforms (see below) and to large internal order books are able to provide more active trade execution. Thus, there may be different markets for 'difficult' trades and less difficult trades, and competition in the former is restricted to the larger brokers.

- *Trading platforms*—brokers may use a variety of trading platforms or routes when executing trades. Figure 2.8 illustrates the distribution across platforms as used by the brokers who responded to the OXERA broker questionnaire.

[24] *Source*: London Stock Exchange (2000), 'Survey of London Stock Exchange Transactions 2000'.

Figure 2.8: Trading platforms/routes used by brokers (% of trades by value)



Base: Eight respondents.
Source: OXERA broker questionnaire, 2002.

From the investors' viewpoint, what matters is high-quality execution, regardless of the specific route a certain trade follows. However, the quality of execution that a broker can offer will be influenced by that broker's access to platforms or routes (eg, a large broker will be in a better position to match trades in-house than a smaller broker—see above). Thus, different trading platforms have an indirect impact on investors' choice of broker,[25] but do not require separate product markets to be defined.

- *Type of security*—brokers often specialise in a particular type of securities (ie, equity,[26] fixed-income securities, or derivatives), which means that investors wishing to trade in a certain type are limited to those specialised brokers. Thus, from a demand-side perspective, the relevant product market is limited to brokers offering trade execution in equity.

  Nevertheless, from a supply-side perspective, it seems relatively straightforward for established brokers to add a new type of security to their service portfolio and obtain the relevant regulatory approval. Brokers will already have the required infrastructure in place. The only major barrier may be the lack of specific market knowledge. Table 2.4 confirms that the majority of brokers are indeed active (or at least have regulatory

[25] Factors that determine the choice of broker are discussed in greater detail in section 2.6.
[26] Brokers often call this 'cash equity' in order to distinguish it, for instance, from equity derivatives.

permission) across multiple types of security—68% of brokers deal in equity, bonds and derivatives, and another 9% deal in at least two types.[27] Thus, there is likely to be some competitive pressure from the supply side between the different types of securities.

Table 2.4: Types of security for which UK brokers have regulatory permission

Type of security[1]	Number of brokers	Share of total (%)
Equity, derivatives and bonds	477	68.2
Equity and bonds only	24	3.4
Equity and derivatives only	20	2.9
Bonds and derivatives only	19	2.7
Equity only	5	0.7
Bonds only	5	0.7
Derivatives only	149	21.3
Total	**699**	**100.0**

Note: [1] Brokers classified as dealing in bonds trade at least one of the following investment types: debentures, deposits, and government and public securities. Brokers classified as dealing in derivatives trade in at least one of the following types of investment: commodity futures, commodity options and options on commodity futures, contracts for differences, futures, options, rolling spot foreign exchange contracts and spread bets.
Source: OXERA calculations based on FSA data.

- *Individual or groups of shares*—within equity, brokers may specialise in certain individual shares or in groups of shares (eg, by industry). Most institutional brokers will offer trade execution in the most frequently traded shares (eg, the FTSE 100 or FTSE 250), but investors wishing to trade in other shares may be limited to only a few specialised brokers. Thus, from the demand-side perspective, there may be separate relevant markets for less-frequently traded shares, and concentration in these markets is higher than for equity as a whole. However, from the supply-side perspective, it may be relatively easy for equity brokers to add specific shares to their service portfolio—again the lack of specific market knowledge is the only potential barrier.

2.5.2 Geographic scope of the broker market

97. Geographically, equity trading markets can be divided into regional 'networks' of brokers, with each network centred around a main stock exchange and operating under a common set of regulations. Thus, there is a network of 'London brokers'

[27] The only clear case of broker specialisation is in derivatives (21% of brokers deal in derivatives only), which can be explained by the different nature of derivatives trading compared with equity and bond trading.

centred around the London Stock Exchange and operating under UK regulations. There are similar networks around Deutsche Börse, Euronext and all the other major stock exchanges. These networks are normally held together by the following three factors.

- *Regulatory framework*—brokers in the same network operate under a common set of rules, usually national regulations. However, some networks, such as that of Euronext brokers, span multiple jurisdictions. At the same time, at EU level there is a movement towards certain harmonisation of regulations, which means that, at some point in the future, the European broker networks may come to operate under the same rules.

- *Exchange membership*—in order to make use of the main exchange's trading infrastructure, brokers must normally be members of that exchange. Thus, most large and medium-sized London equity brokers are members of the London Stock Exchange. This does not mean that all trades between London brokers run through the Exchange's trading platforms—indeed, as shown above, many London trades take place outside those platforms.

- *Price formation*—even if trades take place outside the main exchange's infrastructure, the trading price is usually set with some kind of reference to the price on the main exchange. In part this is due to regulatory requirements. Thus, under the FSA's best-execution rules, brokers must take reasonable steps to obtain the best available price for their customers. In relation to equity transactions in the UK, this means that if a share is traded on SETS then dealing in it through SETS will satisfy the duty of best execution unless the firm has access to a better alternative. If the firm deals in SETS-traded securities through another means, the rules require it to at least match the SETS price for comparable orders to demonstrate best execution.

98. From a competition point of view, each of these regional broker networks forms a separate geographic market. A UK fund manager who wishes to buy or sell securities that are primarily traded in London (eg, because the issuing company has its primary listing on the London Stock Exchange) ultimately needs to use the London broker network.

99. There are some exceptions where one broker network competes with another network in trading the same security (eg, shares that are listed on more than one stock exchange). In addition, many larger brokers operate in multiple networks and may cross the bridge between networks internally. However, because of

network effects in securities trading,[28] trading in a specific security usually converges to one network, and cross-regional competition between broker networks is (still) limited.[29] Thus, the relevant geographic market to consider here is the market for London brokers.

100. UK fund managers also buy or sell shares traded outside London, and for these they need access to the relevant foreign broker networks. For this access they have several options (as explained in section 2.1); they can instruct either a broker in the relevant foreign market directly, or a London broker with direct (trading screen) or indirect (affiliate or subsidiary) access to the foreign market in question. From the UK fund managers' perspective, these are also relevant geographic markets. However, this report only analyses competition in the London broker market.

2.5.3 Size and concentration

101. The market for equity trade execution has increased significantly over the past decade. Part of this growth can be explained by cyclical factors—in particular, the stock-market boom during the second half of the 1990s—but another part reflects structural growth. For example, restrictions on pension funds from diversifying into equity or foreign markets have been relaxed in many jurisdictions.

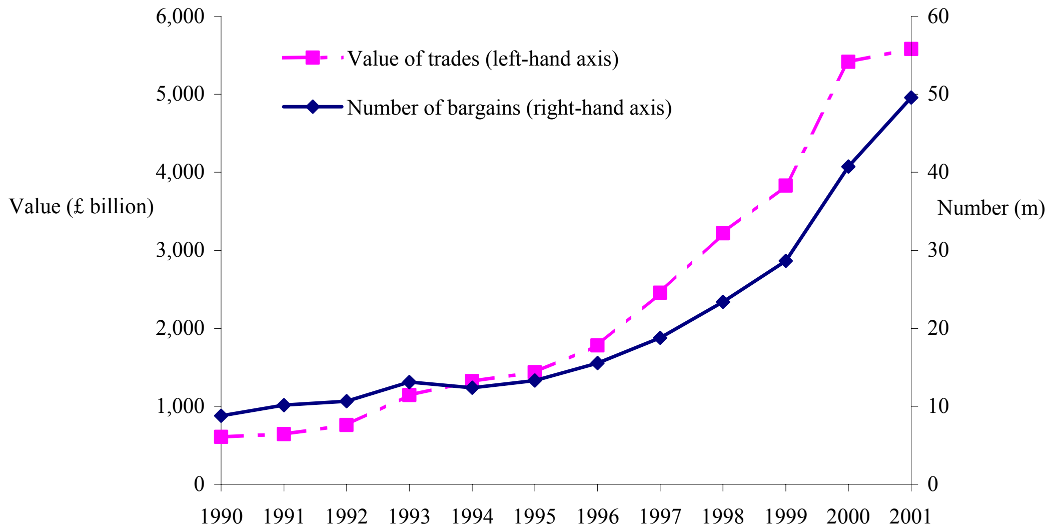
102. Figure 2.9 illustrates the growth in equity turnover on the London Stock Exchange from 1990 to 2001. In value terms, turnover on both UK and international equity increased from £610 billion in 1990 to £5,581 billion in 2001, an average annual growth rate of 22%.[30] In volume terms, the number of bargains increased from 9m to 50m, or 17% annually, over the same period. However, more recently these growth rates are likely to have decreased substantially.

[28] Network effects arise if the value of using a network increases with the number of other users. Thus, the more a certain security is traded on a certain trading platform, the more attractive it becomes for other brokers to use that same platform for trades in that security.

[29] Many multinational firms have listed their shares on two or more stock exchanges, but trading still tends to take place mainly on one exchange (and this is normally the exchange where the firm had its primary listing). See, for example, Karolyi, G.A. (1996), 'What Happens to Stocks that List Shares Abroad? A Survey of the Evidence and its Managerial Implications', University of Western Ontario working paper, September; and Pagano, M., Röell, A. and Zechner, J. (2000), 'The Geography of Equity Listing: Why Do Firms List Abroad?', Centre for Economic Policy Research discussion paper, no. 2681. Most trading in foreign equity that does take place outside the primary (domestic) exchange of that equity is on behalf of retail investors, who often do not have direct access to foreign broker networks.

[30] These data are available at www.londonstockexchange.com.

Figure 2.9: Total equity turnover on the London Stock Exchange (1990–2001)

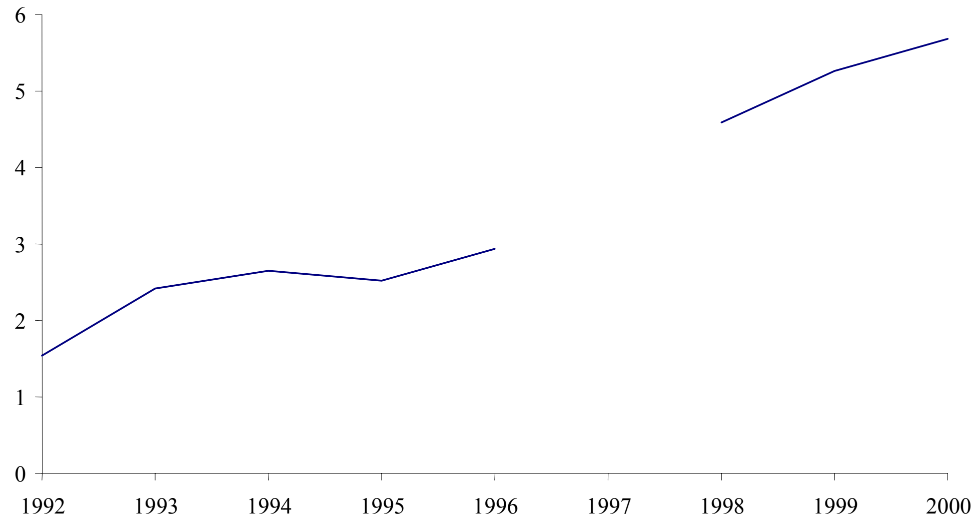


Note: Includes both UK and international equity on the London Stock Exchange.
Source: London Stock Exchange; OXERA calculations.

103. Growth in equity trading has also led to an increase in total broker commission revenue (although by less than the growth in trade value because average commission rates have actually fallen over this period—as discussed below). Figure 2.10 illustrates that total commission revenue increased by 18% annually, from £1.5 billion in 1992 to £5.7 billion in 2000.[31]

[31] It should be noted that the average commission rates, as reported by the London Stock Exchange, are calculated with respect to the total value of trades, including those trades that are not carried out on a commission basis. Sufficient information to adjust for commission-based trades only is not available.

Figure 2.10: Total broker commission revenue, 1992–2000 (£ billion)



Note: Figures obtained by multiplying total value of trades in UK and international equity on the London Stock Exchange by total average broker commission rate. Figures for 1997 are not available.
Source: London Stock Exchange; OXERA calculations.

104. The fact that there is a growing market is relevant from a competition point of view. It is generally accepted that, in these circumstances, the scope for exercising any market power—ie, increasing price by reducing output—is limited as compared with stagnant or declining markets. However, this positive effect of a growing market on competition may be less relevant at present as the level of trading overall is no longer growing as rapidly as in the past decade.

105. With regard to market concentration, OXERA has used the FSA database, which has information on gross commission revenues for 2001 for 216 equity brokers. An adjustment is made for brokers who are part of the same group or financial institution. This reduces the number of brokers for which information is available to 204. Based on these data, it is clear that the market for brokers is unconcentrated. The HHI is equal to 440. Table 2.5 shows the distribution of gross commission revenues (and market shares) by quintiles.[32] The highest quintile (ie, the 41 largest brokers) accounts for 88.4% of total gross commission revenues. However, none of these has a high individual market share—the largest broker has 11.4%, and the top four account for 34.2%.

[32] The total commission figure in Table 2.5 is £4.8 billion. This is not directly comparable to the commission figures in Figure 2.10, which are taken from the London Stock Exchange data (and are only presented up to 2000).

Table 2.5: Concentration in the UK broker market, 2001

Brokers	Commission revenue (£m)	Market share (%)
First quintile	11	0.2
Second quintile	54	1.1
Third quintile	128	2.6
Fourth quintile	371	7.7
Fifth quintile	4,283	88.4
Total gross commission revenue	4,847	100.0
Herfindahl index		440

Base: 204 brokers.
Source: OXERA calculations based on FSA data.

2.5.4 Vertical integration with fund managers

106. Many brokers are part of a larger financial institution, and many are also vertically integrated into fund management. One indication of this comes from the FSA database, which shows that 45% of brokers (and 60% of London Stock Exchange members) have regulatory permission to manage investments (ie, to act as fund manager). These brokers account for 72% of total broker commission revenue, which suggests that it is the larger brokers who are vertically integrated.

107. It should be noted that the fact that a broker has regulatory permission for investment management does not mean it is active as a fund manager. To adjust for this, OXERA considered the number of brokers who reported both positive broker commission and investment management fee revenues. Using this measure, 23% of brokers would be considered vertically integrated.

108. In many companies that are vertically integrated into brokerage and fund management, these two activities may be carried out by relatively independent business units. Moreover, the relationship between the integrated activities will normally not be exclusive; fund managers use third-party brokers as well as the integrated broker, and *vice versa*.

109. Nevertheless, the high degree of vertical integration may have an impact on competition in the market for brokers. Fund managers who are integrated into brokerage are likely to be better informed about terms and conditions offered in the brokerage market, and are thus in a potentially stronger negotiating position when dealing with independent brokers. Likewise, the possibility (or threat) of using the tied broker also gives integrated fund managers a degree of bargaining power over independent brokers.

2.5.5 Regulatory barriers to entry

110. Brokers conducting investment business in the UK are regulated by the FSA. To conduct brokerage activities, a firm or individual must receive authorisation from the FSA, following the same process as described for fund managers in section 2.3.4. To meet the threshold conditions, the firm will be required to hold a minimum level of financial resources. The broker may be inspected by the FSA to determine whether the conditions have indeed been fulfilled.

111. The requirement for a broker to hold a certain level of funds limits the amount of business a broker can take on. Even if a relatively small broker wished to expand quickly to cover a larger part of the market, it would be limited by the speed at which it could acquire sufficient levels of funds in order to fulfil the financial requirements. The speed at which a (potential) broker can enter or grow in the market will be affected by the time needed to complete the regulatory processes of gaining initial authorisation or approval of additional permitted activities. However, over the longer term, the regulatory barriers do not prevent entry into the market as brokers can gain the necessary regulatory approvals and raise funds as required. Thus, overall, regulatory requirements do not seem to constitute important barriers to entry.

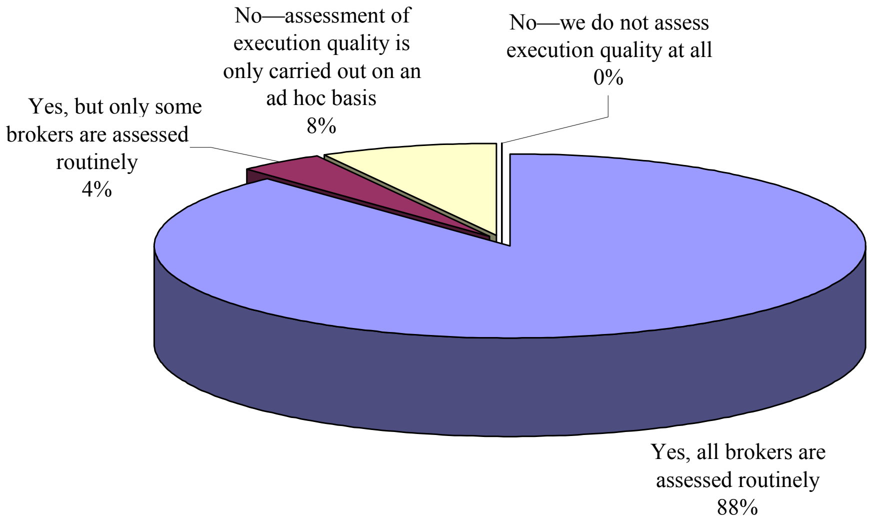
2.5.6 Buyer power

112. Fund managers (or, specifically, the in-house trading desks within fund-management companies) usually select brokers in a two-stage process. The first stage involves placing brokers on an 'approved list'—ie, a pre-selection of brokers who can, in principle, be used. Then, for specific trades, fund managers would select one broker to carry out the trade. The approved list will often contain a large number of brokers—for some of the fund managers interviewed, this was more than 100. The number of brokers actually used for trades may also be large—in some cases close to 100. Thus, fund managers seem to have ample choice among brokers (even though there may be a degree of specialisation between brokers according to type of security, market or industry, as explained earlier).

113. Of the respondents to the fund manager questionnaire, 86% consider that there are no specific factors that make it difficult to switch broker—ie, to take brokers on or off the approved list, or to use one broker instead of another for specific trades. Furthermore, 19 fund managers who responded had de-listed brokers on average 11 times in the past three years. One respondent indicated that he de-lists brokers 'at least 20 times per year'.

114. Figure 2.11 demonstrates that fund managers also scrutinise the performance of brokers as regards execution quality; 88% of the respondents to the questionnaire routinely assess the quality of execution of their brokers, while only 8% assess execution on an ad hoc basis. In 38% of cases, the assessment of execution quality is carried out completely in-house (ie, by the fund manager), in 10% of cases by third parties, and, for the other 52%, through a combination of in-house and third-party monitoring.

Figure 2.11: Do fund managers routinely assess their brokers' execution quality?



Base: 24 fund managers.
Source: OXERA fund manager questionnaire, 2002.

115. In particular, large fund managers sometimes have sophisticated systems to monitor the quality and quantity of services provided by their brokers. Their staff give ratings to brokers about quality of the research provided, the brokers' analysts and the quality of trade execution. All these ratings are recorded on a database. The database shows the strengths and weaknesses of each broker in each area of assessment (eg, quality of execution of equities, quality of analysts per specialisation and region, etc). The results from the database are used in negotiations with brokers and as feedback to encourage them to improve their quality of service. This is likely to increase pressure on brokers to provide a competitive product.

2.6 Market for brokers: conduct and performance

2.6.1 How brokers compete for the business of fund managers

116. In the questionnaires, brokers were asked how they compete for the business of fund managers, and fund managers were asked how they select brokers. The answers, illustrated in Figures 2.12 and 2.13, provide a consistent picture, which can be summarised as follows.

- Fund managers primarily consider quality of execution when choosing a broker (both for the approved list and to send difficult trades to), and this is also the main feature on which brokers compete with each other.

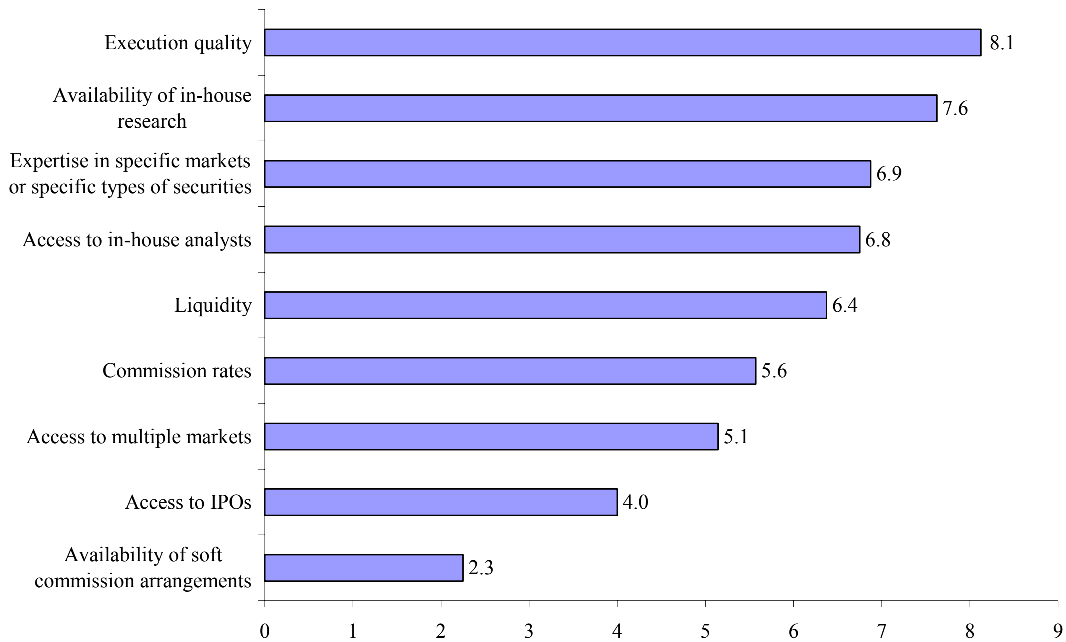
- The second most important factor is whether a broker provides in-house research or access to in-house analysts. For fund managers, this is an important factor when selecting a broker for the approved list, but less so when selecting a broker for a difficult trade, as might be expected.

- The third most important factor is broker expertise in specific markets. This confirms that there is a degree of specialisation among brokers (even though, in section 2.4 it was concluded that this probably does not justify the definition of separate markets because of possibilities of supply-side substitution). As might be expected, this factor is more important for fund managers when sending a difficult trade than when selecting brokers for the approved list.

- The fourth most important factor is broker liquidity. This is closely related to execution quality. Liquidity can be interpreted as the ability to work effectively on difficult trades, for example, by in-house matching. Again, this factor is more important when fund managers send specific difficult trades than when they select brokers for their approved list.

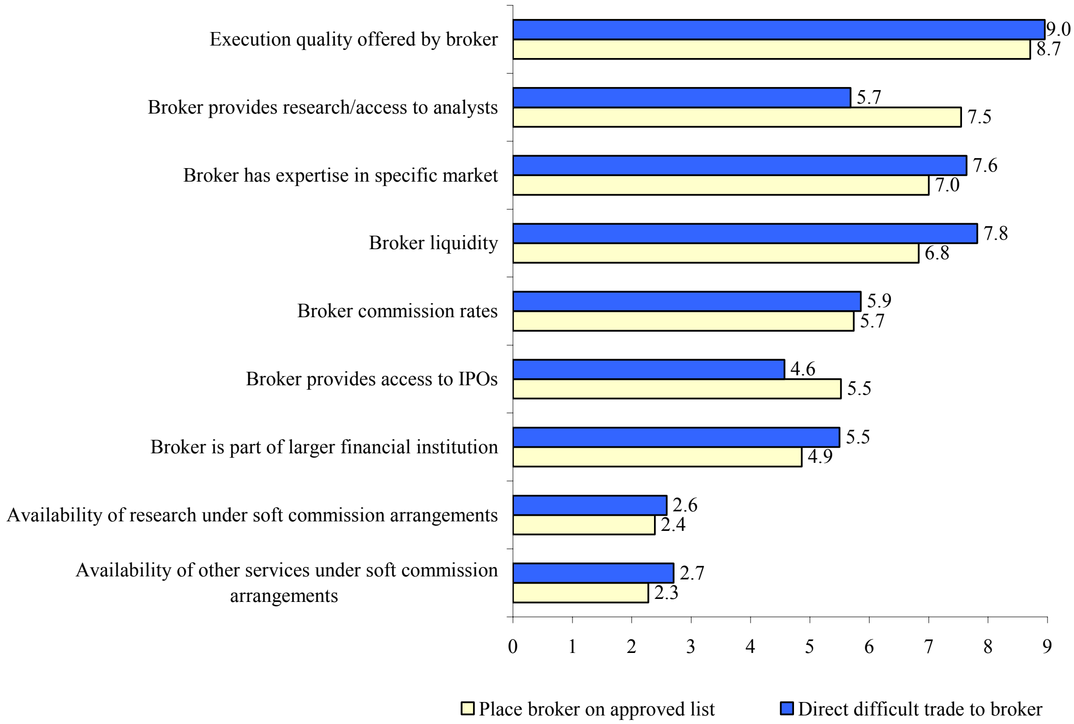
- Commission rates come only after the above factors. This suggests that competition in the broker market focuses to a greater extent on service—including quality of execution and additional services offered—than on price (commission).

Figure 2.12: Ranking of factors on which brokers compete for business from fund managers (10 = most important 1 = least important)



Base: Nine brokers.
Source: OXERA broker questionnaire, 2002.

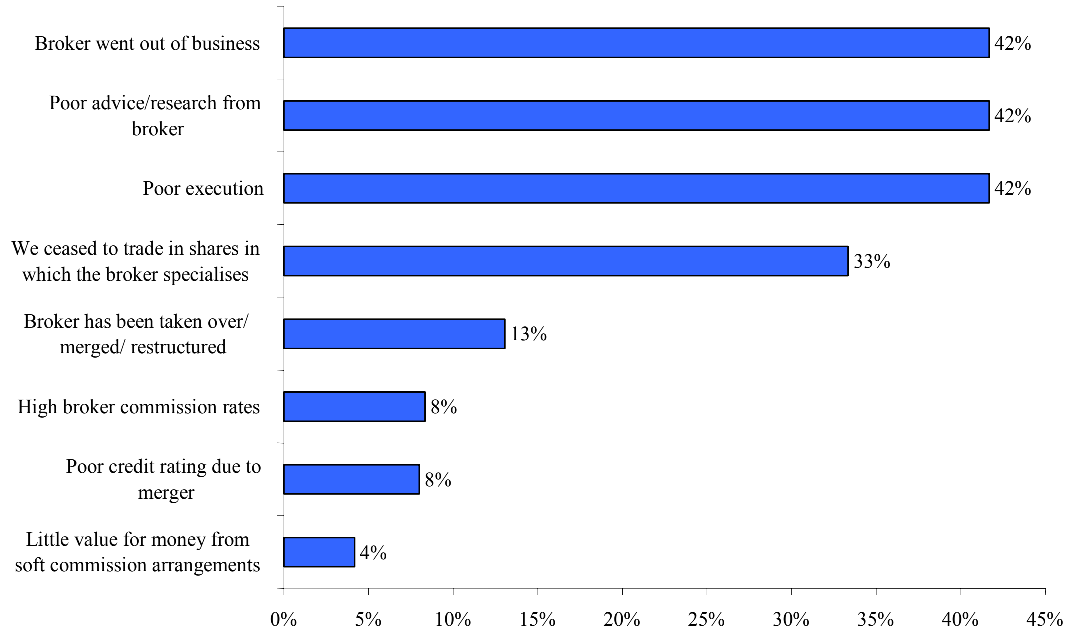
Figure 2.13: Ranking of factors determining fund managers' decisions to use a certain broker (10 = most important; 1 = least important)



Base: Between 19 and 24 fund managers.
Source: OXERA fund manager questionnaire, 2002.

117. The above conclusions are also confirmed when looking at the reasons why fund managers have taken brokers off their approved list (see Figure 2.14). Apart from factors such as the broker going out of business or the fund manager ceasing to trade in the securities in which the broker specialised, the most important reasons were poor advice and poor execution quality. High commission rates were a relatively less important factor.

Figure 2.14: Main reasons why brokers are de-listed by fund managers



Base: 24 fund managers.
Source: OXERA fund manager questionnaire, 2002.

118. There are three main reasons why competition in the broker market seems to focus more on quality of service and execution than on price (commission).

- *Historical explanation*—before 1986, broker commission rates in the UK were subject to a fixed minimum, and, to the extent that brokers competed in the market, this was mainly on the quality of services and execution. Current behaviour may still be influenced by the previous situation. Indeed, in the USA, the practices of bundling and soft commissions arose in the 1960s when broker commission rates were still fixed (see appendix 1).

- *Brokers are part of larger financial institutions*—a supply-side reason why competition focuses on services is that many brokers are part of larger financial institutions. These institutions may wish to offer fund managers good deals on trade execution in order to attract them to their other products (such as access to IPOs, or investment banking generally).

- *Principal–agent problem in fund management*—a demand-side reason why competition in brokerage focuses on services rather than price is that fund managers may have only limited incentives to keep commission costs low because they pass these costs on to pension funds. They would rather receive more services at a (possibly) higher price. This principal–agent problem in fund management is addressed in sections 3 and 4.

2.6.2 Broker commission structure and levels

119. Despite the above conclusion that competition between brokers focuses more on quality of service and execution than on price, broker commission rates have

actually fallen in recent years. Table 2.6, which is based on information from the fund manager questionnaire, shows the trend in commission rates from 1997 to 2001. On average, rates have come down from 21bp in 1997 to 14bp in 2001.

Table 2.6: Trend in broker commission rates from questionnaire data

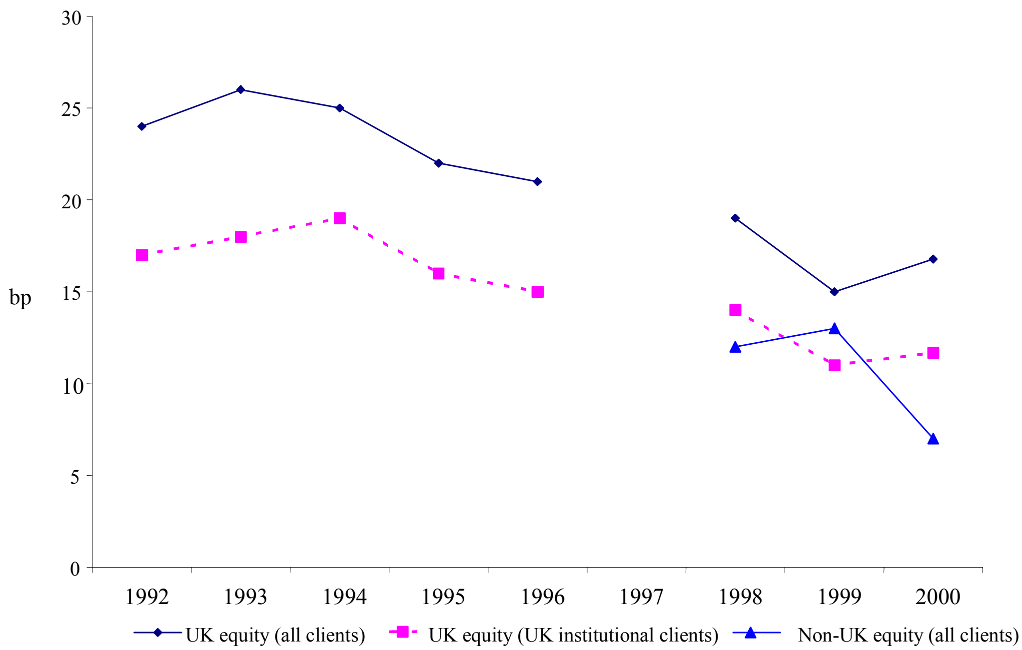
Year	Average commission rate (bp)
1997	21
1998	17
1999	15
2000	14
2001	14

Base: 2001, 18 fund managers; 2000, 16 fund managers; 1999, ten fund managers; 1998, eight fund managers; 1997, six fund managers.
Source: OXERA fund manager questionnaire, 2002.

120. This downward trend is consistent with data on commission rates from the London Stock Exchange, illustrated in Figure 2.15. This figure shows average commission rates on London Stock Exchange trades in UK equity for all clients and for UK institutional clients only, as well as average commission rates on London Stock Exchange trades in non-UK equity for all clients for the period 1992–2000.[33] The downward trend in commission rates is consistent with the finding that the market appears reasonably competitive (although other factors, such as overall market growth, may have influenced the trend as well—no further information is available on this).

[33] It should be noted that the average commission rates, as reported by the London Stock Exchange, are calculated with respect to the total value of trades, including those trades that are not carried out on a commission basis. Sufficient information to account for commission-based trades only is not available.

Figure 2.15: Trend in broker commission rates from London Stock Exchange data



Note: No data available for 1997.
Source: London Stock Exchange.

121. The London Stock Exchange data also contain information on the structure of commission rates by type of client (see Table 2.7, which shows rates for UK equity trades only). UK institutional clients pay much lower commission rates overall than private clients, and somewhat lower rates than foreign clients who trade in London. However, commission rates have fallen over the past eight years for all categories, and most markedly so for private clients.

Table 2.7: Broker commission rates in London by type of client—UK equities only (%)

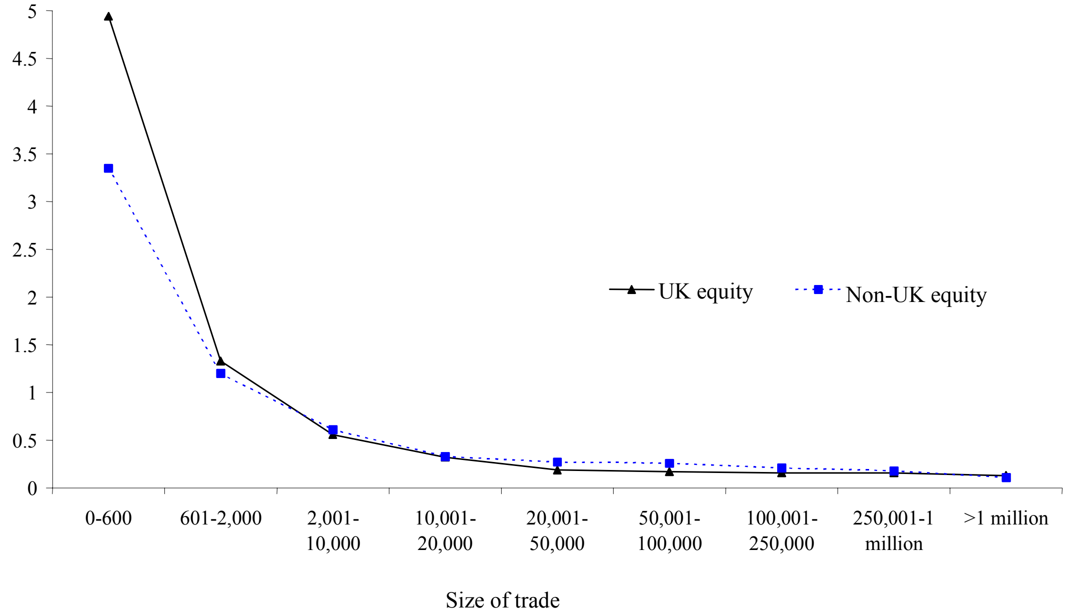
	Overall	UK private clients	UK institutional	Foreign clients
1992	0.24	1.12	0.17	0.18
1993	0.26	0.88	0.18	0.17
1994	0.25	1.01	0.19	0.13
1995	0.22	0.83	0.16	0.17
1996	0.21	0.80	0.15	0.14
1998	0.19	0.66	0.14	0.16
1999	0.15	0.46	0.11	0.12
2000	0.17	0.59	0.12	0.16

Note: No data available for 1997.
Source: London Stock Exchange.

122. The London Stock Exchange data also reveal that the commission rate decreases as the size of the trade increases. This is shown in Figure 2.16. The decrease

occurs throughout—ie, there is no indication that commission rates for 'difficult trades' are higher.

Figure 2.16: Commission rates (%) by size of trade, 2000 (UK institutional clients)

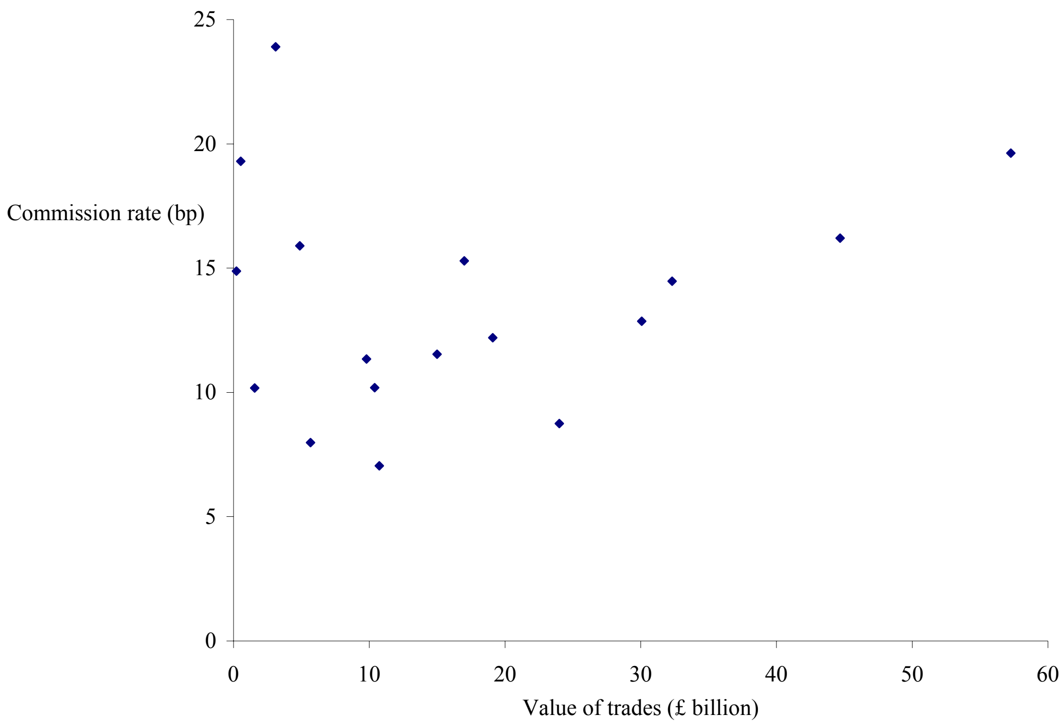


Source: London Stock Exchange.

123. However, it is OXERA's understanding that commission rates are usually not agreed on a trade-by-trade basis but rather through negotiation between the broker and the fund manager for (almost) all the fund manager's trades. The commission rate agreed depends on the value of total trades sent by that fund manager in a certain period (often a year).

124. Figure 2.17 shows the average commission rate paid by fund managers against the total value of trades sent annually by fund managers (based on data from the OXERA fund manager questionnaire). It should be noted that the trade volumes are large and commission rates low compared with the data presented in Figure 2.16. The points shown in Figure 2.17 should be compared with the line in Figure 2.16, where it has levelled off at a commission rate of around 15–20 basis points. Figure 2.17 seems to show that commission rates are unrelated to fund manager size. This may be explained by the fact that competition between brokers focuses on service rather than price, as concluded above. Thus, the larger fund managers can be expected to receive a greater amount of 'free' services in addition to trade execution, while paying similar commission rates. Indeed, evidence presented in section 4 demonstrates that the larger fund managers do receive higher commission rebates (ie, soft money, which can be spent on services) through soft commission arrangements.

Figure 2.17: Average commission rate paid by fund manager against total value of annual trades sent by fund manager



Base: 17 fund managers.
Source: OXERA fund manager questionnaire, 2002.

2.7 Conclusion

125. The competition analysis in this section is based on limited information. Few, if any, analyses of competition in the UK fund management and broker markets have been undertaken in the past, so OXERA could not build on previous studies. Also, this section does not address profitability of fund managers and brokers. Profitability is a commonly used indicator of the degree of competition in a market, but requires access to detailed internal accounts of the companies involved (and probably a complex exercise of cost and revenue allocation for those companies that are part of larger financial institutions). This is beyond the scope of the current report.

126. Nevertheless, all the competition indicators identified in this section—which are based on the questionnaires, the FSA database and a few other sources—develop the picture that both fund managers and brokers operate in reasonably competitive markets.

127. For fund managers, this can be concluded from the following indicators:

- a large number of players and low degree of concentration;
- competitive pressure from fund managers overseas;
- low regulatory barriers to entry;
- recent entry by US firms;

- relatively low switching costs for pension funds;
- the possibility for larger pension funds to employ in-house fund managers;
- active (although imperfect) monitoring by pension funds of fund managers' performance;
- management fees do not appear to be especially high relative to those in other countries.

128. For brokers, the following factors point to a reasonably competitive market:

- a large number of players and low degree of concentration (except in the market for 'difficult' equity trades, for which there are fewer providers in the market);
- buyer power of, and vertical integration with, fund managers;
- low regulatory barriers to entry;
- low switching costs for fund managers;
- active monitoring by fund managers of broker performance;
- falling commission rates over time (although no information is available on brokers' income from spreads on trades).

129. The conclusion that fund managers and brokers appear to operate in competitive markets has important implications for the assessment of bundled brokerage services and soft commission arrangements. First, it means that bundling and soft commission practices are unlikely to have significant anti-competitive effects. This is explained in section 3. Bundling and soft commission practices are unlikely to lead to the monopolisation of markets or the leveraging of market power into other markets. Second, it implies that bundling and soft commissions are less likely to result in excessive profits to fund managers or brokers, since any such profits would be expected to be lost through competition over time.

130. The only market where there may be competitive concerns is the broker market for 'difficult trades'—concentration is higher, and spreads on trades may be high. No further evidence has been obtained on this. However, it should be noted that there are still several factors that indicate that the market for difficult trades may be competitive. First of all, there are several brokers that are generally able to execute difficult trades, making it unlikely that the market can be described as highly concentrated. Second, as shown in Figure 2.16, commission rates decrease as the size of the trade increases. The decrease occurs throughout—ie, there is no indication that commission rates for difficult trades are higher. Finally, large fund managers are likely to have a degree of bargaining power over brokers. Brokers need the large fund managers as clients in order to obtain a certain flow of trade. This means that large fund managers (ie, those that are most likely to have difficult trades) may be able to put pressure on brokers.

131. This is not to say that concerns about bundling and soft commission arrangements should be discarded on the basis of this competition analysis alone. Indeed, because of certain features of both the fund manager and broker markets, inefficient market outcomes may prevail, even if those markets are competitive and no excessive profits are made. Specifically:

- in the fund management market, the principal–agent nature of the relationship between pension funds and fund manager may result in a misalignment of incentives, and monitoring by the principal (the fund) may be imperfect;
- in the broker market, competition tends to focus on the provision of services additional to trade execution, rather than on price (commissions) alone. As explained above, this is partly driven by demands from fund managers who can pass commission costs on to their clients and therefore may have a preference for receiving more services for a higher price. This is again closely related to the principal–agent problem between fund managers and pension funds.

132. The possible inefficiencies due to the principal–agent problem and other effects are analysed in sections 3 and 4, which deal with bundled brokerage services and soft commission arrangements respectively.

3. Bundled Brokerage Services

3.1 Introduction

133. This section addresses the issue of bundled brokerage services—ie, services provided by brokers in addition to trade execution, for which no explicit charge is made. Section 3.2 describes which services are commonly bundled and how arrangements between brokers and their clients are made. Section 3.3 presents the (limited) evidence on the order of magnitude of bundling, and its effect on commission rates. In section 3.4, an economic analysis of bundling is undertaken, which identifies potential economic justifications for bundling. Section 3.5 addresses the effects of bundling on competition in the market for brokers and in related markets, such as the market for research. Section 3.6 examines the relationship between bundling and the principal–agent problem in fund management. Section 3.7 concludes.

3.2 How bundled brokerage works

134. 'Full-service brokers', which are usually the larger brokers who are part of an integrated financial institution or investment bank, offer their institutional clients certain services for 'free' in addition to trade execution—ie, these clients only pay the commission rate for trade execution. To the extent that access to these additional services depends on the amount of trades sent to a broker, this is a form of what economists call 'pure' bundling.[34]

135. Figure 3.1 shows the services typically provided in a bundle with trade execution. These include access to analysts, research, conferences, equipment and IPOs. Figure 3.1 orders them according to how closely related the service is to trade execution. For example, access to analysts is more related to trade execution than conferences or equipment. The degree to which bundled services are related to trade execution has important implications for any policy towards bundling, as further discussed in this section and in section 5. It should be noted that the distinction of different services in Figure 3.1 is for analytical purposes and does not refer to discrete services offered by brokers: the services are offered in a bundle and usually not offered separately.

[34] Appendix 2 gives more detail on the economic theory of bundling.

Figure 3.1: Services provided in addition to trade execution

Trade execution		Access to analysts		Research	Conferences	Equipment	Access to IPOs
Execution-only	Active trade execution	Advice on trade execution	General analyst advice				

Source: OXERA.

136. Evidence on the importance of each of these additional services is presented in section 3.3. Here it is worth explaining in more detail what is meant by each of these services.

- *Trade execution*—it is important to distinguish between execution-only and active trade execution (as explained in section 2.5). Execution-only means that a broker places the order directly on a trading platform and takes the prevailing price, while active trade execution involves the broker actively working on a trade. The distinction often made between 'execution-only' and 'full-service' brokers refers to these definitions—ie, full-service brokers actively work on trades *and* provide other services while execution-only brokers do not normally actively work on trades (and may occasionally, but not normally, offer other services).

- *Access to analysts*—this service mainly involves telephone calls where the analyst gives advice on trade execution or general advice (or both). Such advice is often highly valued by fund managers (as shown in section 2.6), in particular where 'difficult' trades are concerned, or in times of market uncertainty. Access to analysts is quite an informal service; it is often given to valuable or preferred fund manager clients—ie, those who generate large volumes of trades. However, in practice, access is not always strictly related to the volume of trades; sometimes it depends on factors such as personal relationships and mutual favours. It should also be noted that often the telephone calls are actually initiated by the analysts (or sales persons in the research departments) rather than the fund managers, and in this respect it is difficult to distinguish access to analysts from ordinary marketing activities by brokers.

- *Research*—research comes mainly in the form of written reports that are produced by the broker and are often distributed via mailing lists.[35] Fund managers usually receive many research reports from different brokers in this way, and some of these will not even be looked at (although, overall, fund managers value research, as shown in section 2.6). There is also not always a direct relationship between the volume of trades sent and the number of reports received—sometimes fund managers will remain on a broker's mailing list for a long time after ceasing to send trades to that broker. Furthermore, as is the case for access to analysts, it may be difficult to determine whether some of these research reports actually constitute a service or are simply a form of marketing by brokers.

- *Conferences*—here the broker invites the fund manager to relevant conferences, seminars and courses, and covers the costs.

- *Equipment*—this refers mainly to dedicated communications equipment used by the fund manager to communicate with the broker. However, equipment for more general purposes may also be paid for by brokers. It should be noted that, under soft commission arrangements (as opposed to bundled brokerage), a wider range of equipment is usually provided (such as software, hardware, screens, etc). This is discussed further in section 4.

- *Access to IPOs*—here the broker grants allotments in the IPO to fund managers who have generated a certain volume of trades.

137. Typically, for institutional clients, a commission rate for transactions is negotiated for a period of 12 months. The volume of transactions to be carried out is not specified, but the contract is subject to renegotiation at the end of the period. In addition to providing transaction services, the broker agrees to provide, for 'free', investment and transaction advice and a limited number of other services.

138. The terms on which these extra services are provided are often not explicitly agreed upon; nor are they described in much detail. There is usually an understanding that the fund manager will generate a certain amount of business for the brokers in order to receive the extra services. Further, the broker has a considerable degree of leeway in determining the costs that will be incurred in meeting the requirement to provide these 'free' services. On the other hand, the client can vary the amount of 'free' services requested (eg, the number of phone calls to analysts).

[35] The term 'research' used here is narrower than the legal definition of research under the US soft commission and bundling regulatory framework (discussed in appendix 1). The latter interprets 'research' broadly, including market information services and conferences.

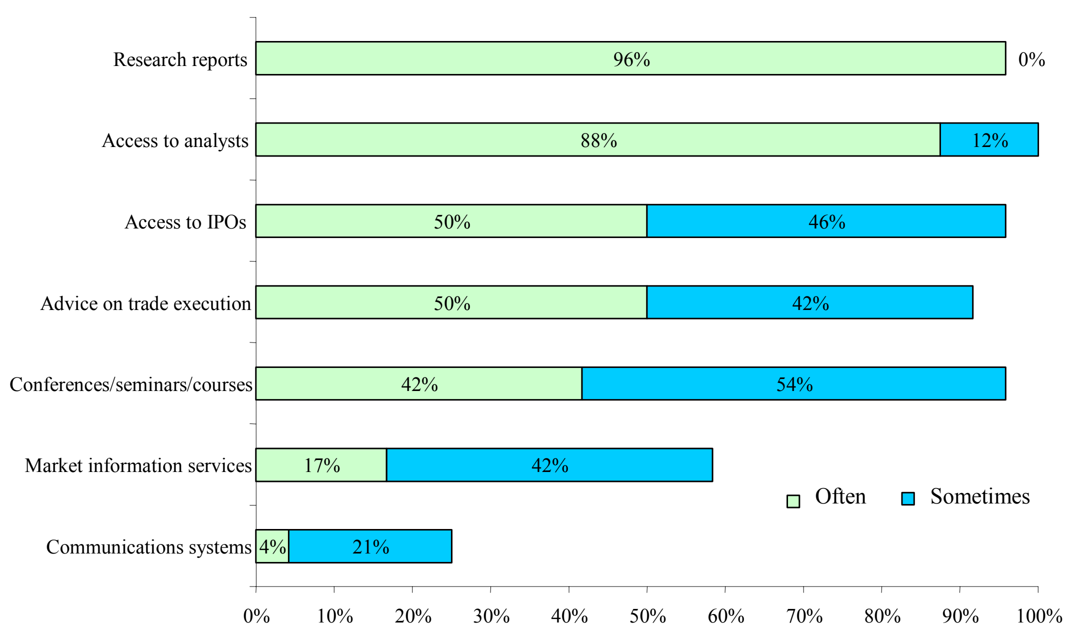
139. As a result, notwithstanding the apparent determination of the contractual relationship between broker and client, both sides have the ability to vary the actual economic value of the contract. Thus both sides can, in effect, 'cheat' on the contract to extract more value from the total transactions for themselves. However, because the interactions between brokers and clients are repeated, cheating is likely to be a strategy that can only work once. When the contract comes up for renegotiation, past cheating by one side or the other informs this process, and the explicit terms of the contract can be altered.

140. In practice, the market outcome appears to be one where the explicit parts of the contract—in particular, the commission rate—are not those where competition is most acute. Competition focuses to a large extent on the bundled ancillary services and other dimensions of quality, as also identified in section 2.

3.3 Order of magnitude of bundled brokerage services

141. Figure 3.2, which is based on results from the fund manager questionnaire, shows that the bundled services most often received with trade execution by fund managers are research reports and access to analysts (often received respectively by 95% and 86% of fund managers), followed by advice on trade execution and access to IPOs (both often received by 45% of fund managers). Conferences, seminars and courses are also services that are often used by fund managers (36%).

Figure 3.2: Bundled services received from brokers by fund managers



Base: 22 fund managers.
Source: OXERA fund manager questionnaire, 2002.

142. Likewise, the broker questionnaire shows that all ten respondents bundle research reports, advice on trade execution and access to analysts. Eight of the ten brokers

also offer bundled access to IPOs, and five of them provide conferences and communication systems.

143. The broker questionnaire suggests that some bundled brokerage services—in particular, research reports—are offered indiscriminately to all fund managers, regardless of the volume of trade sent. Other services—access to IPOs, market information services and conferences—are mainly offered to fund managers who generate large volumes of trade.

144. The costs incurred by brokers in the provision of the bundled services must be recovered from somewhere. There are, in theory, three ways to recover costs:

- from other parts of the business of the financial institution of which the broker forms part—eg, analyst and research costs might be recovered through the investment banking and corporate business activities, while the cost (if any) of providing access to IPOs might be recovered from the companies that undertake the IPO;
- through gains made through spreads on trades; and
- through higher commission rates.

145. Only in the second and third situation is there a potentially detrimental effect on fund managers and, ultimately, pension funds.

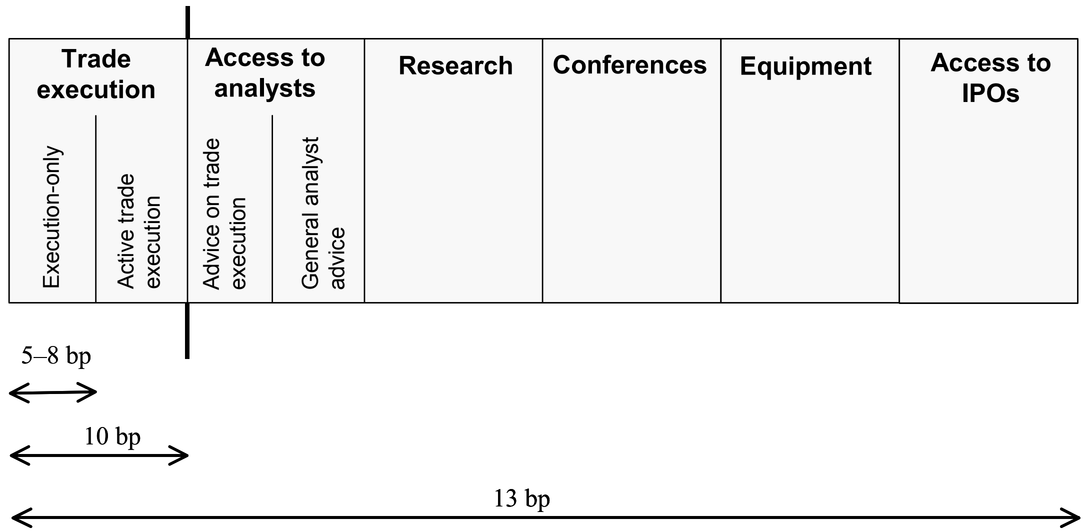
146. To understand fully how costs are recovered would require access to, and detailed analysis of, the accounts of these financial institutions. Because they are multi-product firms, a complex cost-allocation exercise to apportion common costs (such as the cost of analysts and research staff) across business units would also be needed. This is beyond the scope of this report.[36]

147. Nevertheless, an analysis of commission rates may give some indication of the order of magnitude of the costs, assuming that they are indeed recovered through higher commission rates. As shown in section 2.6, the average commission rate for full brokerage service is around 14bp (of which 1bp is attributable to softing).[37] Several brokers offer a commission rate for execution-only services of around 10bp, which does include active working on trades. Data provided to OXERA indicate that some electronic trading platforms charge a commission rate in the region of 5–8bp (see Figure 3.3).[38] This does not include active working on trade. A tentative conclusion might therefore be that the difference in rates between execution-only and full-service brokerage is the difference between 5–8bp and

[36] As part of the broker questionnaire, OXERA requested details about the cost of the bundled services, but none of the respondents provided any information.
[37] The average commission rate net of soft commission credits is therefore—around 13 bp—given that the commission rebate is 6.8% (see section 4.4), and 6.8% of the average of 14bp is approximately 1bp.
[38] This is net of soft commission credits.

14bp (or 13bp if soft commissions are excluded from full service brokerage[39]). Likewise, the difference in rates between trade execution (including actively working on trades) and full-service brokerage seems to be the difference between 10bp and 14bp (or 13bp if soft commissions are excluded).

Figure 3.3: Difference in commission rates between execution-only and full-service brokerage



Source: OXERA.

148. It is likely that a large part of this difference between trade execution and full service can be explained by the cost of access to analysts and research. This is because these are the services most frequently bundled (see Figure 3.2) and because the value of other bundled services such as conferences and equipment is likely to be relatively low.[40]

149. However, to get a clearer picture of the actual cost of trade execution and of each of the bundled services would require access to detailed accounts of the brokerage firms in question, which is beyond the scope of this report.

3.4 Economic justifications for bundling of brokerage services

150. Bundling of products is a commonly accepted business practice. In economic theory, it is well established that bundling may have positive effects on economic

[39] See footnote 37.

[40] The cost of access to IPOs is difficult to measure, and is at any rate likely to be recovered through other means rather than through commission rates, as discussed in section 5.3.

efficiency and welfare, as well as potentially negative effects on competition.[41] Possible economic justifications for bundling generally include:

- economies of scope in production;
- reduced transaction costs for customers;
- efficient pricing method;
- that unbundling is technically unfeasible;
- that demand for service is not predictable (this is not so much a justification for bundling as such, but for treating the service in the same way as trade execution in the principal–agent relationship between pension funds and fund managers).

151. Whether these justifications apply to the bundling of the service with trade execution is assessed below for each broker service in Figure 3.1.

3.4.1 Access to analysts

152. As shown in Figure 3.1, access to analysts can be divided into advice from analysts on trade execution and general analyst advice. Both these services are closely related to the activity of trade execution itself. Fund managers wishing to execute a trade may seek direct advice from the broker's analysts or traders on how best to execute the trade and on whether it is the right time to buy or sell etc—in particular, when 'difficult' trades are involved or in times of market uncertainty. Seeking such advice from the same firm that is used as broker may reduce the fund manager's transaction costs (ie, time and search costs).

153. The brokerage activity itself—in particular the active working of trades—is often what generates the knowledge which is used to provide advice on trade execution to fund managers. Likewise, to the extent that such knowledge is generated elsewhere in the broker business, it will be used both by the brokers who actively work on trades and by the analysts who give advice to fund managers. Therefore, there are important economies of scope in the production of this knowledge for trade execution and for giving advice on trade execution—ie, the costs of these services produced together are lower than if they were produced separately.

154. The transaction cost and economies of scope arguments in favour of bundling advice on trade execution also apply to general analyst advice, though to a lesser extent. The knowledge for such advice is not generated through the trade execution activity itself in the same degree as the advice on trade execution. Further, because this type of advice is more general (about market conditions, etc.), the transaction cost savings to fund managers are also likely to be less significant. However, in practice, the line between advice on trade execution and general advice is difficult to draw—both may be given during the same phone

[41] Appendix 2 gives an overview of the economic theory of bundling.

call. Therefore, any justifications for the bundling of advice on trade execution also apply to general analyst advice from this point of view.

155. The issues of pricing and the feasibility of unbundling access to analysts are closely related. In practice, access to analysts is provided in the form of phone calls. Such practices would be very difficult to unbundle from trade execution. The terms under which access to analysts is provided are not agreed explicitly in the first place. As explained above, there is often an implicit understanding that such access depends on the volume of business generated; however, there are also instances in which access is given even to fund managers who send very few trades. Unbundling would mean charging separately for access to analysts. This might be done on a per-call basis, or through a fixed fee per year in exchange for a certain level of access. However, both methods would seem difficult to implement in practice, especially since these telephone calls are often initiated by the analysts themselves (and hence could be considered marketing rather than a service).

156. Finally, in any one year, the amount of access to analysts—in particular, advice on trade execution—that a fund manager needs is, to some extent, related to the volume of trades undertaken. Thus, like the volume of trades, the demand for advice on trade execution cannot be accurately predicted at the beginning of the year. From a principal–agent perspective, the fund manager should be able to pass the cost of this service on to the pension fund (just as the costs of trade execution are passed on to the pension fund). The bundling of the cost of advice on trade execution into the commission costs is therefore consistent with how execution costs are generally treated in the principal–agent relationship between fund manager and pension fund. The principal–agent relationship and the problems associated with it are discussed further in sections 3.6 and 4.

157. To summarise, there are a number of economic justifications for bundling trade execution and access to analysts.

3.4.2 Research

158. There are certain economies of scope in the joint production of research reports and trade execution, for the same reason as there are economies of scope between access to analysts and trade execution. This is because it is often the same team of analysts who give advice and who produce the written research reports. Likewise, the knowledge generated during the production of the research is often an important input into the activity of active trade execution (and into the promotion of trade execution services).

159. However, from the demand-side perspective, it is unlikely that there are any substantial reductions in transaction costs for customers—indeed, fund managers receive research reports from many different providers, and the amount they receive from a particular broker is not always related to the volume of trades sent to that broker. Hence, this potential justification does not apply to research.

160. A further potential economic justification for bundling research relates to the pricing of the service. Bundling research with trade execution, and hence recovering the research costs through commission revenues, results in a form of price discrimination, which may be efficient from an economic point of view. Research in the form of written reports generally has high fixed costs and low, or

even zero, marginal costs (the cost of distributing a report to an additional fund manager by email is insignificant compared with the fixed costs of producing the report). Pricing at marginal cost, which is generally the most efficient way of pricing, would not allow for the recovery of those high fixed costs.

161. In these cases, according to economic theory, an efficient way of recovering fixed costs is by setting prices according to the willingness to pay of each group of customers.[42] Hence customers with a higher willingness to pay are charged more for the service. This is exactly what happens if trade execution and research are offered as a bundled service. Large fund managers who send more trades pay more commission fees than smaller fund managers. Assuming that all fund managers receive more or less the same amount of research (eg, one copy of each report), large fund managers pay relatively more for this service than smaller fund managers. This may be an efficient way of pricing that makes costs recovery easier and therefore is likely to increase the output.

162. Nevertheless, no further evidence is available to determine to what extent such efficient price discrimination actually occurs in practice. At any rate, even if research were unbundled, certain other charging methods might still allow recovery of fixed cost and some degree of price discrimination (for example, charging for research via subscriptions).

163. It should also be noted that much of the research could simply be considered marketing material that most fund managers would receive anyway, irrespective of whether they send trades to the broker. This means that unbundling research is probably difficult without significantly restricting what brokers could send for free as marketing material.

164. Finally, fund managers can reasonably predict how much research they actually need in any given year—ie, this need does not vary much with the volume of trades undertaken in a year (trade volume is less predictable, as is the need for access to analysts, as discussed above). Therefore, in the principal–agent relationship between fund managers and pension funds, it does not seem justified to treat the cost of research in the same way as the cost of trade execution—ie, on a cost-pass-through basis.

165. To summarise, the economic case for bundling research with trade execution is mixed. On the one hand, there are certain economies of scope in the joint production of trade execution, access to analysts and research. Bundling may also be an efficient way of pricing research and hence recovering the costs, and it may be difficult in practice to unbundle written research. On the other hand, there are no customer transaction cost justifications for bundling research, and fund

[42] Setting prices according to the willingness to pay is an efficient way of recovering fixed costs. This is a well-established principle in economic theory, called 'Ramsey pricing'.

managers could arguably treat research costs differently from trade execution costs because the former are relatively predictable.

3.4.3 Other bundled services

166. All the other services provided in the execution bundle—in particular, conferences and communications equipment—appear to have few economic justifications. There are few economies of scope in producing these services together with trade execution, and transaction cost savings for fund managers seem limited. Broker-specific communications equipment may be needed in order to have access to that broker, but this equipment could be charged for separately. The amount of these services that a fund manager needs is also predictable—eg, one communication link is probably needed per broker.

167. With regard to access to IPOs, there may be some economies of scope with brokerage services. An investment bank organising an IPO needs to build on the same market knowledge as brokers who work on difficult trades. However, access to IPOs could be charged for separately (if at all). Furthermore, access to IPOs could be provided to any potential buyer in the market of which the investment bank is aware—ie, there is no economic reason to limit access to IPOs to those fund managers who send large volumes of trade to their brokerage arm.

168. It should be noted that the fact that there are no apparent economic justifications for bundling these services does not necessarily mean that they ought to be unbundled. The question of whether services should be unbundled also depends on the relative importance (order of magnitude) of bundling (discussed above), and on the economic effects of this bundling on competition and incentive structures (discussed below).

3.5 Competition effects of bundling

169. As explained in more detail in appendix 2, from a competition point of view, bundling may be of particular concern if it used as a form of leveraging of market power from one market into another. That is, a firm with market power in product A (eg, trade execution) could leverage that market power into product B (eg, research) by selling products A and B in a bundle. Because the firm holds a strong position in product A, customers will be attracted to (or forced to buy) the bundle, thereby also strengthening the firm's position in the market for product B.

170. The leveraging concern has been raised in particular with respect to the market for research. Independent research providers (and analysts) reportedly find it difficult to sell their research to fund managers who are used to receiving research at no extra cost as part of a bundled brokerage service. If fund managers had to buy research from independent providers they would have to pay for it with 'hard' money. These costs would have to be borne by the fund managers themselves rather than be included in the commission costs (see also section 3.6).

171. However, it is important to note that anti-competitive leveraging is only one among many possible theoretical outcomes of bundling models. The outcome in practice will depend on factors such as the structure of the two markets and the nature of the products. Nevertheless, one conclusion from the economic theory of bundling on which there is a reasonable degree of consensus is that leveraging

through bundling requires the firm in question to have market power to begin with in at least one of the markets. This is important because, from the competition analysis in section 2, it follows that the broker market seems reasonably competitive and that no individual broker has market power.[43]

172. Thus, from a competition policy perspective, bundling of brokerage services is unlikely to lead to monopolisation of the related markets for the services that are bundled with trade execution. This is because, provided there is a sufficient number of brokers who bundle services to make the broker market competitive, there will also remain a sufficient number offering those bundled services to make the markets for those related services competitive. For example, in the hypothetical situation where there are 20 brokers who bundle research and succeed in excluding all independent providers of research, there would still be 20 providers of research—presumably enough to guarantee a competitive market.

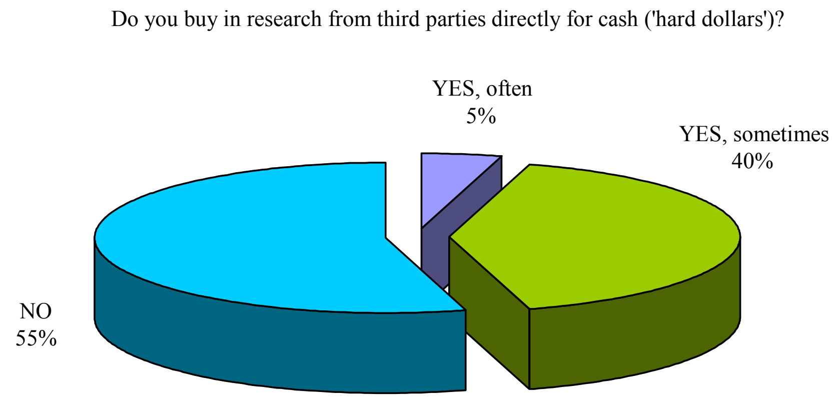
173. Yet, from a regulatory perspective, there may still be concerns about such an outcome. In the above example, the 20 remaining research providers are all brokers rather than independent providers. This raises the issue of the quality and independence of research. Perhaps a more optimal market outcome would be one in which there were 20 independent research providers, or at least a mix of independent providers and brokers. The quality and independence of research is an issue currently being reviewed separately by the FSA.

174. Three further points should be noted when assessing whether the market outcome in research is optimal from a regulatory perspective.

- As discussed in section 4, soft commission arrangements are a potentially effective way around the problem of bundling—independent research providers can sell their services through such arrangements.
- While relatively less important in order of magnitude, fund managers do actually also buy research with 'hard' money. Figure 3.4 shows that 5% of the fund managers 'often' buy research with hard money and 40% 'sometimes' do so.
- The total market for research is in fact much wider than just the type of research and access to analysts provided by brokers—ie, there are many research companies providing services that are not in direct competition with the brokers (eg, macroeconomic analysis, trade data analysis, benchmark analysis). In other words, the practice of bundling could only affect a certain segment of the market for research.

[43] The only exception might be the market for difficult trades in which there are fewer brokers competing. Even here, however, no individual firm appears to have market power, and, at any rate, the set of brokerage firms offering bundled services is not limited to those that are able to provide execution of difficult trades.

Figure 3.4: Use of 'hard money' research by fund managers



Base: 20 fund managers.
Source: OXERA fund manager questionnaire, 2002.

175. In theory, a reverse leveraging concern might be raised with respect to IPOs. The argument would be that investment banks offering IPOs would leverage their market power in the market for IPOs to the market for trade execution. However, this is unlikely to be the case in the UK. First, the fund manager questionnaire indicates that access to IPOs is not among the most important factor for fund managers in selecting brokers. Second, in recent years there have been relatively few IPOs, thereby making leveraging of market power less likely. Finally, the market for brokers does not seem to be concentrated towards brokers who offer access to IPOs. There are many full-service brokers who are only minor players in the market for IPOs. In other words, being able to offer access to IPOs gives brokers a competitive advantage over their rivals, but it seems unlikely to result in the leveraging of market power into the market for trade execution.

3.6 Relationship with the principal–agent problem in fund management

3.6.1 Incentive misalignment and monitoring problems

176. Although bundling of brokerage services is unlikely to result in anti-competitive effects, it may still have adverse economic consequences. This section explains that bundling brokerage services could exacerbate the incentive misalignment between fund managers and their clients.

177. The principal–agent theory indicates that there is an incentive misalignment between the fund manager and its clients. This problem arises because an agent (in this case the fund manager) has only a partial stake in the profitability of the enterprise of a principal (ie, the pension fund), whereas the costs to the principal of perfectly monitoring the agent's activity are prohibitive. As a result, the agent may fail to carry out its duties (referred to as 'shirking') or consume too many of the principal's resources, so that the parties' joint wealth will fall short of its potential.

178. The challenge for the pension fund trustee is to encourage the fund manager to devote the same care and effort to managing the assets as if it were the fund manager's own. Fund-management fees are usually expressed as a percentage of the value of the fund, and are thereby implicitly related to the fund performance. Furthermore, fund-management contracts may include an explicit performance-related fee—the fund manager then receives a bonus when it outperforms a particular benchmark (see section 2.4). These two elements give the fund manager some incentive to perform, but still not as effectively as if it were managing its own assets.[44] In addition, pension funds need to monitor the inputs and the performance of the fund management process.

179. Fund management consists of the optimal combination of three complementary input factors: investment research, the manager's diligent labour, and high-quality brokerage executions. In general terms, the more inputs (of given quality) the manager devotes to the portfolio over the relevant range, the greater the expected portfolio wealth. Monitoring the use of inputs is likely to reduce any shirking by the fund manager. The pension fund questionnaire shows that pension fund trustees attach considerable weight to these three input factors when selecting fund managers (see section 2.4).

180. Monitoring fund managers' performance relative to the price they charge is also likely to reduce shirking. The performance of a fund is typically benchmarked against comparable funds managed by other fund managers (see section 2.4). The threat of losing business in the event of poor performance provides some pressure on the fund manager to perform.[45]

181. When assessing the performance of a fund, the costs of managing it (including both the management fee and the commission costs) need to be taken into account. The way these two elements are monitored is analysed in the next section.

3.6.2 Pass-through of broker commissions

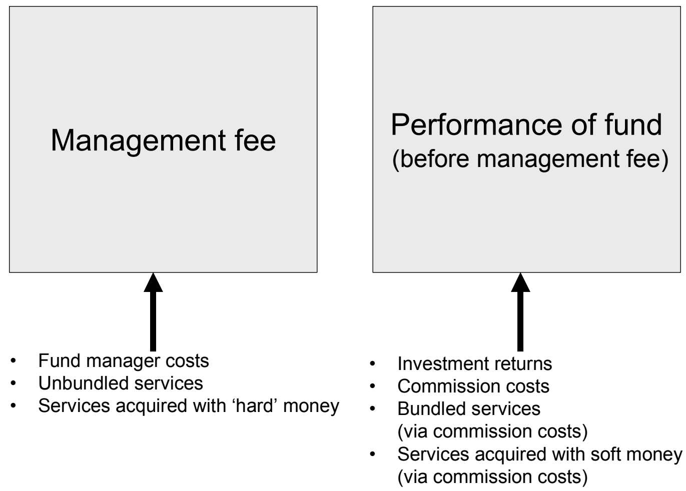
182. The costs of fund management are recovered from pension funds through two elements: a management fee and the pass-through of commission costs. The management fee is expressed as a percentage of the value of the fund and covers the costs of the manager's labour and other elements, such as the costs of office space, in-house investment research and back-office functions. The commission costs are not included in the management fee but directly deducted from the value

[44] As explained by Brealey and Neuberger (2001), fund-management contracts are necessarily low-powered. They cannot become very high-powered because of the difficulty of distinguishing between luck and skill, among other factors. This section focuses on the effects of the principal–agent problem. For a more detailed analysis of the principal–agent relationship between pension funds and fund managers itself, see Brealey and Neuberger op. cit.

[45] The larger pension funds also have the option of vertical integration—ie, appointing in-house fund managers. This puts further competitive pressure on fund managers (see section 2.2).

of the fund when incurred (and therefore affect the performance of the fund, see Figure 3.5).

Figure 3.5: Management fees and fund performance



183. The main difference between these two tariffs is that the management fee is a fixed percentage of the value of the fund, agreed in advance for the duration of the contract between the fund manager and pension fund, while the commission costs are not specified in advance—the commission costs depend on the commission rates negotiated by the fund manager with its brokers and the volume of trades undertaken on behalf of the pension fund. These two factors are not under the direct control of the pension fund but instead are left to the discretion of the fund manager.

184. The management fee forms part of the decision made by pension funds to hire specific fund managers. The commission rates negotiated by fund managers could in theory also play a role in this decision, but the OXERA pension fund questionnaire suggests otherwise. Commission rates are in general not considered an important factor in selecting fund managers (see section 2.4). In other words, in the fund manager selection process, there is direct competitive pressure on the management fee but not on the commission rates.

185. The other element in commission costs, the trade turnover, is uncertain in advance and can only be monitored by the pension fund retrospectively. Pension funds give a sort of 'carte blanche' to the fund manager—ie, pension funds delegate to the fund manager the negotiation of the commission rate with the broker and the determination of the volume of transactions.

186. The reason for not including the commission costs in the (fixed) management fee and instead giving the fund manager discretion is that the optimal level of turnover is difficult to predict in advance. The optimal volume of transactions depends on market circumstances and may change from year to year. In some years more trading is needed to achieve a certain performance target than in others. The fund manager is in a better position to determine the optimal level of

trading than the pension fund. Delegating this task to the fund manager is therefore likely to result in better resource allocation.

187. Including the commission costs in the management fee would require the optimal level of turnover to be predicted in advance.[46] The fund manager would then have fewer incentives to trade, as higher trading costs would erode its profits; it would have no incentive to trade more than estimated, even if this would contribute to a better performance of the fund. This is because the fund manager would have to bear all the costs of the extra trade while only receiving a fraction of the benefits (through the management fee and, where applicable, the performance-related fee), which are likely to be lower than the cost of the extra trade. In other words, including a fixed amount of commission costs in the management fee could result in too few transactions and could affect the performance of the fund.

188. To summarise, as it is impossible to determine the optimal level of trade turnover in advance, an efficient solution is for the pension fund to delegate this to the fund manager and accept the pass-through of commission costs.

189. However, this pass-through of commission costs may also have negative effects. Those costs also contain the costs of bundled services, and where demand for bundled services is predictable (in contrast with demand for trade execution) there may only be a weak argument for passing their costs through (in contrast with the costs of trade execution). Fund managers who are given carte blanche could have fewer incentives to monitor commission costs and to negotiate low commission rates. The monitoring of commission costs by pension funds is not optimal and weaker than that of management fees.

190. As explained above, when selecting fund managers, pension funds take into account the level of the management fee, but commission rates are in general considered a less important factor. Moreover, trade volume is uncertain and can only be monitored retrospectively. In other words, while there is direct competitive pressure on management fees in the selection process, commission costs can only be monitored when the fund manager has already been contracted and only receive competitive pressure insofar as these costs affect the pension fund's decision to change fund managers.

191. Although commission costs could in principle be disclosed by fund managers and monitored by funds, the pension fund questionnaire indicates that the main focus is on fund performance (see section 2.4.1). Moreover, even if commission costs

[46] In his report, Myners (2001) proposes an all-inclusive fee which would include the management fee and commission costs. One fund manager told OXERA that, in practice, an all-inclusive fee could work as follows. The fund manager would estimate the total commission costs and include those in the all-inclusive fee. If trade volume turned out to be lower than estimated, the fund manager would refund the pension fund the difference between estimated and actual commission costs. This means that, in practice, the only difference between the current fee structure and the all-inclusive fee would be that the latter would include a ceiling on commission costs.

were monitored, it is unlikely that this would result in the same pressure as that on management fees in the negotiation between the pension fund and fund manager. Commission costs can only be monitored retrospectively and their order of magnitude is relatively small (compared with fund value and performance). An increase in commission costs is likely to be too small to make pension funds switch fund manager. The pension fund questionnaire shows that broker commission costs are not an important reason for switching fund managers. The most important indicator that is monitored by pension funds is performance.

192. It could be argued that monitoring the fund's performance is an implicit way of monitoring commission costs. Commission costs are deducted from the value of the fund and therefore affect its performance. All things being equal, the higher the commission costs, the worse the fund performance. The pension fund questionnaire indicates that past performance of the fund is an important reason for selecting a specific fund manager, and that poor performance is one of the most important reasons for switching fund manager.

193. However, this monitoring system is far from ideal. Commission costs are relatively small compared with the value of the fund, and therefore do not necessarily affect the fund performance in a way that is visible to pension fund trustees. There is a considerable degree of 'noise' surrounding fund performance which can hide the commission costs—fund performance is subject to random variations and variations related to the performance of the fund manager.

194. The following examples demonstrate that an increase in commission costs has only a small impact on fund performance and is therefore difficult to monitor. In a typical fund under active management, with a turnover (trading) rate of 40%, an increase in commission rates of 40% would result in a reduction in fund performance of around 2bp.[47] An increase in turnover from 40% to 60% would result in a reduction in fund performance of 3bp. Random variations in fund performance caused by differential performance in the individual equities held are likely to make such small changes difficult, if not impossible, to identify.[48]

[47] Assume the value of the fund is £200m, the turnover 40% per year, the commission rate 14bp, the management fee 28bp and the gross return 7.5%. (The 40% turnover figure is taken from Brealey and Neuberger (2001).) The total dealing costs then amount to £112,000 (£200m × 40% × 14bp) and the management costs £560,000, resulting in a net return of 7.164%. This net return drops to 7.14% if the commission rate increases by around 40% from 14bp to 20bp. A scenario for a smaller fund gives similar results. Assume that the value of the fund is £50m, the turnover 40%, the commission rate 14bp, the management fee 47bp and the gross return 7.5%. The net return is then 6.97%, which drops to 6.95% if the commission rate increases by around 40% from 14bp to 20bp. Looking at the example of a typical large fund, the results are similar even for a high rate of turnover and a large increase in the rate of turnover. Assume the value of the fund is £500m, the turnover 100% per year, the commission rate 14bp, the management fee 24bp and the gross return 8.5%. The net return is then 8.12%, which drops to 7.96% if the commission rate increases by about 40% from 14bp to 20bp and the rate of turnover increases by 50% to 150% per year.

[48] This is not to say that the impact of *total* commission costs on overall fund performance is so small that it is not worth placing it under regulatory scrutiny—a view expressed by several market participants—since the total value of

195. Finally, it should be noted that, even if the commission costs were to significantly affect performance, contracts between pension fund and fund manager will generally only be terminated if there is substantial evidence of underperformance over a longer period.

196. To summarise, given that the monitoring of commission costs is not optimal, a cost pass-through could result in commission costs being too high. Including commission costs in the management fee would give the fund manager greater incentive to monitor and negotiate with brokers. However, this potential negative effect should be set against the fact that the optimal volume of trade (and therefore the commission costs) is difficult to predict in advance. Giving the fund manager discretion to determine the optimal level of turnover is therefore an efficient method of aligning the incentives of clients and fund managers (at least in as far as trade execution services are concerned—for the other bundled services this is less clear).

3.7 Conclusion

197. The bundling of brokerage services leads to a situation where the commission rates paid by the fund manager not only include trade execution costs but also the cost of additional services such as access to analysts and research. The fund manager does not need to recover the costs of these additional services through the management fee, but can deduct them directly from the value of the fund as part of commission costs. In this way, the practice of bundling brokerage services might exacerbate the incentive misalignment problem between pension funds and fund managers. Given the fact that the monitoring system on commission costs is weaker than on the management fees, allowing the fund manager to include the costs of the extra services in the cost pass-through could result in over-consumption of those services.

198. On the other hand, this section has also identified a number of economic justifications for bundling certain services. These are, in particular, access to analysts, and to a lesser extent, research (written research reports). With regard to access to analysts, bundling this service with trade execution has the benefit of economies of scope in production and reduced transaction costs for customers. From a principal–agent perspective, it is justified to treat certain forms of access to analysts in the same way as trade execution (ie, to pass the costs on to pension funds), ie, if the amount of the service needed is closely related to the amount of trades needed, and hence difficult to predict. With regard to research, a possible justification is that there are economies of scope and that bundling may be an efficient way of pricing the service. Furthermore, it may in practice be difficult to unbundle access to both analysts and research.

commissions received by UK brokers is far from trivial (£9.2 billion in 2000; see section 2.5). Rather, the above example illustrates that the effect of commissions on the performance of *individual* funds is difficult to monitor.

4. Soft Commission Arrangements

4.1 Introduction

199. This section focuses on the effects of soft commission arrangements. Under these arrangements, a fund manager agrees to send trades to a broker and receives, in addition to 'pure' trade execution, credits (soft dollars or soft money) which can then be used to purchase services such as research and information, usually from third-party service providers.[49]

200. Soft commission arrangements show a degree of similarity to bundled brokerage services. As explained in the previous section, in addition to pure trade execution, full-service brokers provide fund managers with a number of other services, such as access to analysts and research, 'for free'. These services are generally only available through the commission flow to the broker providing the services—ie, included in the commission rate. There is usually an understanding that a certain amount of business will be generated in order to receive these extra services.

201. The main difference between soft commission arrangements and bundled brokerage services is that, under the latter, the services provided are produced in-house (ie, within the brokerage group) and not priced separately. Under soft commission arrangements, services are generally provided by third-party providers and separately priced and accounted for. In other words, soft commission arrangements make explicit what is implicit in bundled brokerage services: the prices and quantity of the extra services.

202. Under both sets of arrangements, the costs of the services are included in the commission rate (ie, not in the management fee) and therefore directly borne by the fund manager's client.

203. As concluded in section 3, there are justifications for bundling trade execution, access to analysts and, to a lesser extent, research. Sections 4.5 to 4.7 analyse the economic effects of soft commission arrangements in a world where bundling of brokerage services is common practice (ie, they are not analysed in isolation). Before turning to these effects, sections 4.2 to 4.4 explain how soft commission arrangements work in practice and which services are provided under these arrangements, and also give an indication of the order of magnitude of soft commissions.

[49] Services obtained under soft commission arrangements could also be obtained directly from brokers rather than from third-party service providers. OXERA is not aware of any evidence that this is common practice.

4.2 How soft commission arrangements work

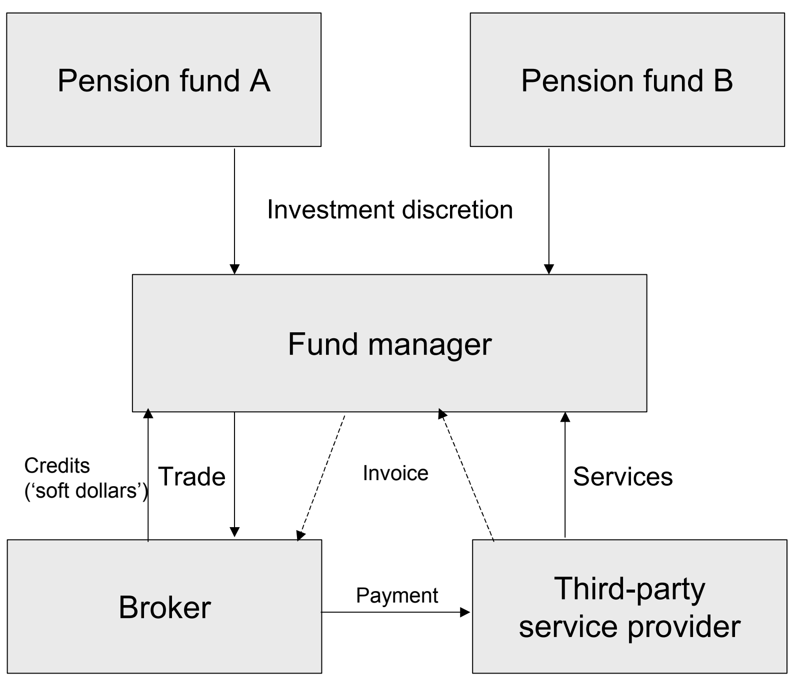
204. Soft commission arrangements generate credits after applying an agreed 'multiple' to the commissions that are softed. A multiple of, for example, 1.5 means that for every £1.50 in commission a broker receives, the fund manager will receive £1 in credits (soft dollars). In other words, a multiple of 1.5 implies that the broker retains one-third of the commission revenue and pays the fund manager two-thirds in the form of credits.

205. There are two types of soft commission arrangement (although in practice both have similar economic effects):

- *segregated*—under a segregated arrangement, the fund manager will distinguish between soft and regular orders, and will generally only 'soft' a certain percentage of its total commission business in any one year;
- *non-segregated*—under a non-segregated arrangement, an implicitly agreed percentage of all commission is made available for credits. In this case, there is no need for the fund manager to distinguish between hard and soft orders. All orders are booked as regular. The more commission is paid to the broker, the greater the absolute amount of credits.

206. Figure 4.1 shows how soft commission arrangements work in practice. The fund manager sends trades to a broker with which it has a soft commission arrangement. In return for the commissions, the fund manager receives credits that can be used to buy services, such as price-information services and research. When the fund manager receives an invoice from the third-party service provider, it forwards this to the broker, who subsequently pays it with credits from the fund managers' credit account.

Figure 4.1: Soft commission arrangement



Source: OXERA.

207. In contrast, the contractual arrangements are different in the USA owing to differences in regulation.[50] The third-party service provider does not have an arrangement with the fund manager, but with the broker. This means that invoices are sent by the third-party service provider directly to the broker—ie, the fund manager receives the services but not the invoice.

208. In practice, soft commission arrangements may be agreed in a number of ways. Typically, the fund manager first estimates what amount of third-party services, such as research and information services, it needs for its business, and subsequently calculates how much money (ie, how many credits) is needed to buy these services. The fund manager enters into a soft commission arrangement with, typically, a limited number of brokers, and agrees with them the commission rates and the multiple. There is usually no explicit agreement on what proportion of trades the fund manager will soft. Theoretically, the fund manager could soft all its trades.

209. However, similar to the implicit bundling arrangements discussed in section 3.2, there is often some sort of mutual implicit understanding on the proportion of trades that can be softed. Furthermore, fund managers usually have a long-term relationship with the brokers, which means that the negotiation on commission rates and the soft commission multiple is repeated on a yearly basis. Brokers review their clients' profitability and would normally indicate to their clients whether too much trade is softed. Softing too much is likely to result in an adjustment of conditions (ie, commission rates and multiple), which would offset the effects of the increase in softed trade. This gives fund managers an incentive to stick to their implicit agreement.

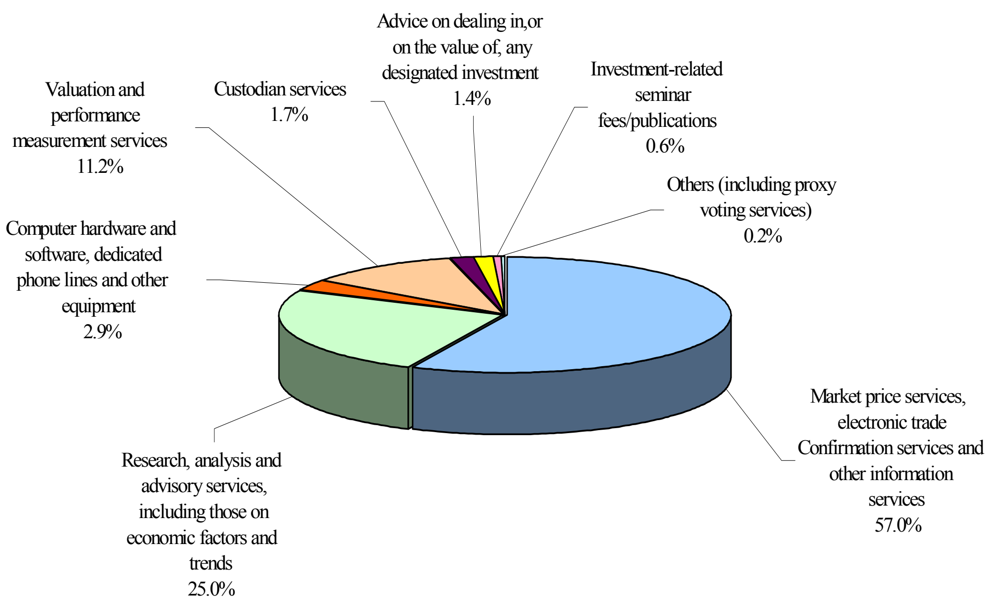
210. It is also possible that the fund manager and broker (implicitly) agree on a fixed amount of credits based on an understanding of the amount of trade that the fund manager will send to that broker (eg, the fund manager sends a certain percentage of its total trade to that broker). Such an arrangement is convenient for the fund manager, but less so for the broker. An agreement on a fixed amount of credits means that, in times of economic downturn, when trade turnover is likely to be lower, the fund manager will still receive its agreed amount of credits. The percentage of softed trade will be increased in order to produce the agreed amount of credits. Brokers will then incur higher costs. If the percentage of trade softed rises, they will retain a lower proportion of the commission they receive, with a larger proportion being paid back to the fund managers in the form of credits.

[50] This is explained in appendix 1.

4.3 Services obtained under soft commission arrangements

211. Figures 4.2 and 4.3 show the services obtained under soft commission arrangements. The data in Figure 4.2 are taken from the OXERA broker questionnaire. Almost 60% of the credits are used to buy market price services, electronic trade confirmation systems and other information services (these are mostly Reuters and Bloomberg information services). Around 25% of the credits are spent on research, analysis and advisory services. Other categories of services include valuation and performance measurement services, computer hardware and software, and custodian services.

Figure 4.2: Breakdown of services obtained under soft commission arrangements



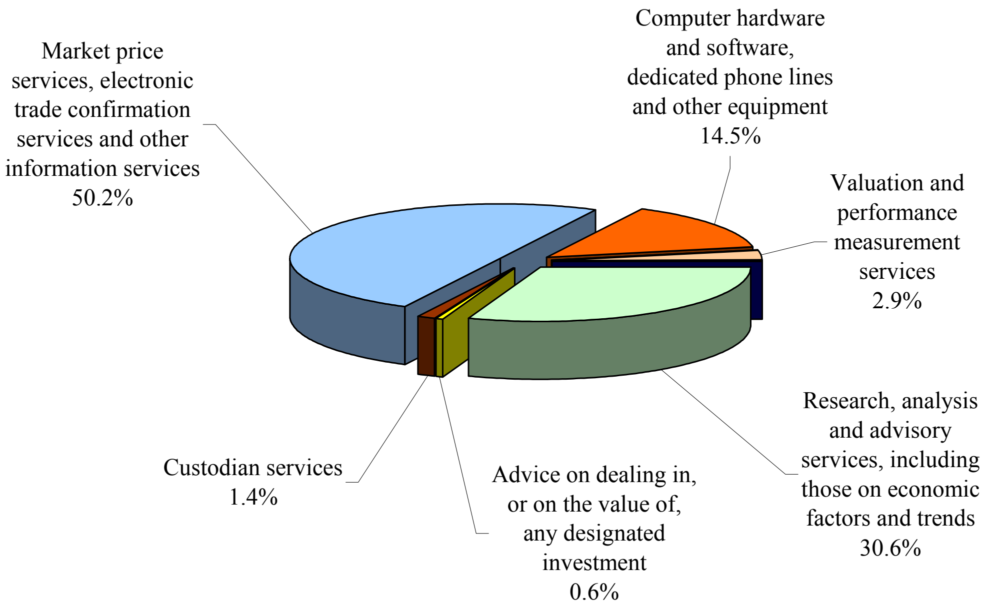
Base: Ten brokers.
Source: OXERA broker questionnaire, 2002.

212. The results of the fund manager questionnaire show a great degree of similarity (Figure 4.3). Around 50% of soft commission credits are spent on market prices services, electronic trade confirmation services and other information services, while around 30% is used to buy research, analysis and advisory services. Credits used for computer hardware and software are higher in the fund manager questionnaire (15% compared with 2.9% in the broker questionnaire).

213. By comparison, in the USA, a survey of fund managers by the Securities and Exchange Commission (SEC) found that 80% of credits (soft dollars) were spent

on research services.[51] Of this amount, 55% was spent on reports and 10% each on news and pricing services.

Figure 4.3: Services bought by fund managers under soft commission arrangements

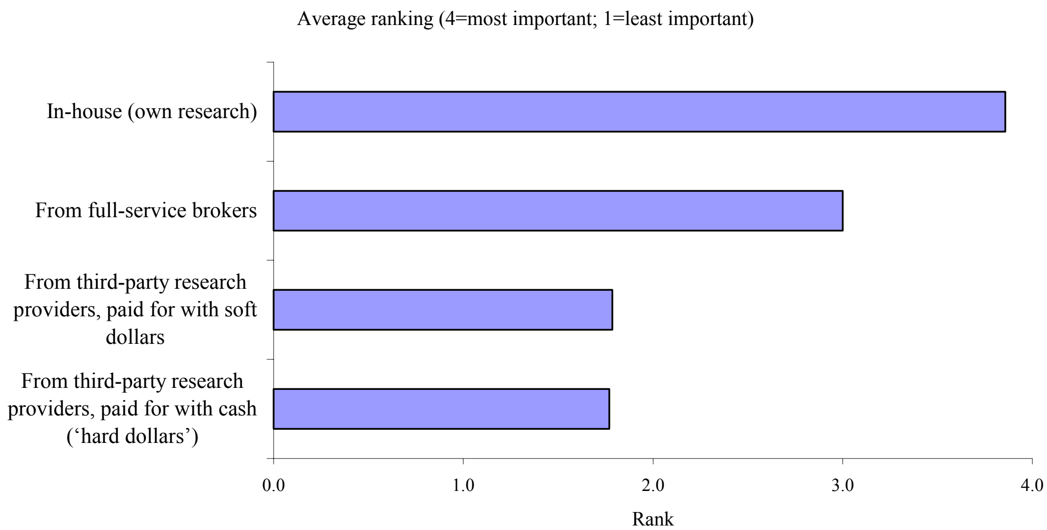


Base: 16 fund managers.
Source: OXERA fund manager questionnaire, 2002

214. Figure 4.4 indicates the relative importance that fund managers attach to the research from different sources. Research produced in-house and from full-service brokers is more important to the fund managers than that bought from third-party research providers. This suggests that the importance of soft commission arrangements to obtain research is relatively small. As indicated above, such arrangements are mainly used to obtain price information services.

[51] Securities Exchange Commission (1998), 'Inspection Report on Soft Dollar Practices of Broker-Dealers, Investment Advisers and Mutual Funds', September.

Figure 4.4: Relative importance placed by fund managers on research from different sources



Base: In-house, 25 fund managers; from full-service brokers, 25 fund managers; from third-party research providers (hard dollars), 19 fund managers; from third-party research providers (soft dollars), 19 fund managers.
Source: OXERA fund manager questionnaire, 2002.

4.4 Order of magnitude of soft commission arrangements

4.4.1 Overall soft commission rebate

215. The questionnaires show that, on average, 10% of trades are softed (see Table 4.1).[52] It should be noted that the percentage of trade softed in itself does not say that much about the order of magnitude of soft commissions. The order of magnitude becomes clear when the multiple is taken into account. The multiple indicates how much the fund manager needs to pay in commission in order to receive £1 in credits. Table 4.1 shows that, in 2001, the multiple was 1.17 on average.

[52] In contrast, the survey conducted by Brealey and Neuberger (2001) found that 3.3% of trades are softed, with an average multiple of 1.25. This implies an average level of rebate of 2.6% overall.

Table 4.1: Percentage of trades softed and estimated multiple, 2000 and 2001

Year	Percentage of trades softed	Estimated multiple
2000	9	1.15
2001	10	1.17

Base: 2001, 11 fund managers; 2000, ten fund managers.
Source: OXERA fund manager questionnaire, 2002.

216. The actual amount of credits received—which is the result of applying the percentage of trade softed and the multiple to the total commission costs—indicates the order of magnitude of soft commission arrangement. In economic terms, the total credits paid by the broker to the fund manager can be seen as a rebate (though one paid in services, not in money). The 'soft commission rebate' for a fund manager can be calculated as total credits received divided by the total commission paid.

217. The fund manager questionnaire indicates that the average commission rebate is around 8.6% for fund managers who have soft commission arrangements (see Table 4.2). Taking into account all fund managers—ie, those with and without soft commission arrangements—the commission rebate is 6.8%. This means that around 7% of commission costs incurred by all fund managers are used to pay for services under soft commission arrangements. Taking 6.8% of the average commission rate of 14bp equals roughly 1bp. Thus it may be concluded that, if the costs of the services provided under soft commission arrangements are passed on in full to commission rates, they have the effect of raising the average commission rate from 13bp to 14bp.[53]

218. The commission rebate of 6.8% can also be expressed in absolute numbers. In the year 2000, total commissions paid to UK brokers amounted to £5.7 billion (see Figure 2.10). Of these, £4.5 billion are paid by institutional clients (as opposed to private clients). This means that the total soft commission credits generated by UK brokers amounted to around £300m (these are credits provided to both UK and foreign fund managers). This number is indicative only and should not be regarded as an exact estimate.[54]

[53] The effect of soft commission arrangements on fund performance can be shown by using an example (see also the calculations in footnote 48): Assume the value of the fund is £200m, the turnover 40%, the commission rate 14bp, the management fee 28bp and the gross return 7.5%. The total dealing costs then amount to £112,000 (£200m × 40% × 14bp) and the management costs to £560,000, resulting in a net return of 7.164%. This net return only increases to 7.168% if the commission rate decreases by 7% from 14bp to 13bp. In other words, the effect is very small.

[54] Ideally, the rebate of 6.8% should be applied to total commissions paid in the year 2001. This figure is, however, not available.

Table 4.2. Average rebates under soft commission arrangements

Year	Commission rebate (%)
1997	6.3
1998	8.7
1999	6.2
2000	7.8
2001	8.6
2001	*6.8 (all fund managers)*[1]

Note: [1] This figure relates to the level of rebate received as a proportion of all commission payments, not just those made by fund managers with soft commission arrangements in place. Data are not available for previous years as the declining sample size causes the proportions of fund managers with and without soft commission arrangements to vary greatly. This distorts the data, which means that the results from one year to the next are not fully comparable.
Base: 2001, 12 fund managers; 2000, ten; 1999, four; 1998 and 1997, three.

Source: OXERA fund manager questionnaire, 2002.

219. Table 4.2 shows the commission rebate over the past five years. The table could suggest that the commission rebate has increased over the past five years, but it is difficult to draw any firm conclusions given the fact that the sample of data for the years 1997 to 1999 are small. Furthermore, even if there were an increase, it would not be clear whether this was due to a genuine increase in soft commissions[55] or to factors such as a decrease in trade turnover or falling commission rates. As explained, fund managers often implicitly agree on a fixed amount of credits irrespective of the volume of trade. In times of economic downturn, turnover is likely to be lower, which means that fund managers have to soft more in order to obtain the agreed amount of credits. As a result, the commission rebate will increase.[56] Likewise, when commission rates fall (which is the case as shown in Table 2.6), fund managers have to soft more in order to obtain the agreed amount of credits.

220. The total amount of credits received can also be expressed as a percentage of the management fee—in 2001, it was, on average, approximately 1.3% of the management fee.[57] Brealey and Neuberger (2001) estimate that the total value of credits is 1% of the level of management fee income.

[55] This means an increase in the percentage of trade softed or a decrease in the multiple (the fund manager receives more credits for the same amount of trade).
[56] The turnover of the fund managers in the sample rose in the period from 1997 to 2000 (and fell slightly in 2001). This indicates that the increase in commission rebates during the period 1997–2000 cannot be explained by decreases in turnover.
[57] Based on a turnover of 40%, an average commission rate of 14bp and a fund management fee of 30bp. (The turnover figure of 40% is taken from Brealey and Neuberger (2001).)

221. In the USA, the SEC reported that the estimated size of the third-party research purchased with credits in 1998 was in excess of $1 billion.[58] In a survey of 280 fund managers, the SEC found that the average multiple was 1.6, while a parallel survey of 280 broker-dealers found an average ratio of 1.7 and an average level of rebate of 12% of the total commissions.[59] In 1989, Greenwich Associates reported that approximately 40% of commissions in the USA were paid to generate credits (soft dollars).[60] Other estimates of the proportion of soft commissions are even higher. Conrad, Johnson and Wahal (2001) cite evidence from the Plexus Group that between 50% and 60% of commissions are softed.[61]

222. Thus, the level of commission rebate in the USA is slightly higher than in the UK based on the figures from the questionnaires. This is achieved through a much higher percentage of softed trades than in the UK, even though the multiple is higher in the USA.

4.4.2 Effects on commission rates

223. Credits obtained under soft commission arrangements are not free but result in costs to brokers; the question is how they recover these costs. Brokers—in particular, full-service ones—typically have soft commission arrangements with a limited number of fund managers. The costs of these arrangements could be recovered through the commission rates agreed with these clients or through the commission rates with all clients. The latter would result in cross-subsidisation—ie, the clients of fund managers that do not have soft commission arrangements would pay for the credits obtained by other fund managers.

224. The broker questionnaire gives data on the largest broker-fund manager contracts with and without soft commission arrangements. Data provided by electronic trading platforms and execution-only brokers indicate that commission rates for contracts with soft commission arrangements are higher than those without such arrangements. For these specific platforms and brokers, the difference appears to be equal to the costs of the soft commission arrangements—ie, the amount of soft commission credits provided.

225. The analysis of the data of all broker questionnaires also suggests that rates for contracts with soft commission arrangements are generally higher than for those without such arrangements. The difference between commission rates for contracts with and without soft commission arrangements is around 3bp (19bp

[58] Securities Exchange Commission (1998), 'Inspection Report on Soft Dollar Practices of Broker-Dealers, Investment Advisers and Mutual Funds', September.
[59] Ibid.
[60] Cited in Blume, M.E. (1993), 'Soft Dollars and the Brokerage Industry', *Financial Analysts Journal*, **49**, 36–44.
[61] Conrad J.S., Johnson, K.M. and Wahal, S. (2001), 'Institutional Trading and Soft Dollars', *Journal of Finance*, **51**:1, 397–416.

versus 16bp for the year 2001).[62] However, these latter results from the broker questionnaire need to be carefully interpreted because the commission rates reported for individual contracts may be influenced by other factors, such as profile of the trades, as well as by the existence of a soft commission arrangement.

226. The fact that higher commission rates are paid for contracts with soft commission arrangements—at least in the case of contracts with electronic trading platforms and execution-only brokers—suggests that the fund managers' clients pay for their fund manager's own soft commission credits. This has two implications.

- The costs of services provided under soft commission arrangements appear to be largely recovered through the commission rates charged to the fund managers who receive the services, rather than through overall increases in commission rates (ie, across all fund managers). This means that cross-subsidisation between fund managers is probably limited.

- This also means that pension funds have a choice between fund managers who do have soft commission arrangements—and thus incur lower commission costs—and those who do not. If there were cross-subsidisation between fund managers—ie, services provided under soft commission arrangements are passed on through higher overall commission rates—pension funds would not have a real choice.

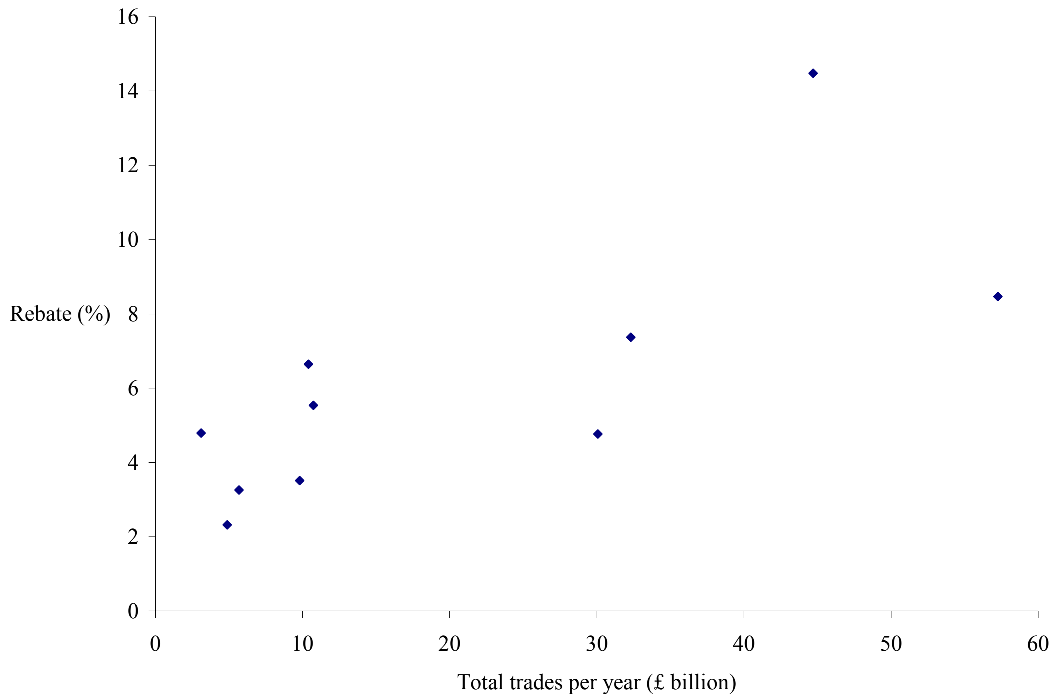
227. However, it should be noted that commission rates are set for each fund manager, with the same rate applicable to soft and hard trades. This means that there is still a cross-subsidy between pension funds who are clients of the same fund manager, some of whom allow the manager to soft and some of whom do not. In other words, even if a pension fund prohibits its fund managers from softing its trades, that pension fund will still pay for soft commission credits if its fund managers have soft commission arrangements, given that the same commission rate applies to soft and non-softed trades. The implication is that pension funds who do not want to pay for soft commission arrangements should use fund managers who do not use soft commission arrangements at all, rather than telling fund managers who do have soft commission arrangements not to soft trade for that particular fund.

4.4.3 Impact of size of fund manager

228. Data from the fund manager questionnaire indicate that large fund managers (that is, according to the annual value of trades) are able to negotiate higher rates of rebate than small fund managers (see Figure 4.5). This indicates that they are able to use their size to negotiate favourable rates of rebate from brokers.

[62] *Base*: With soft commissions—ten contracts held by six brokers; without soft commissions—24 contracts held by eight brokers. *Source*: OXERA broker questionnaire, 2002.

Figure 4.5: Trend between soft commission rebate and annual value of trades



Base: Ten fund managers.
Note: The figures here should be treated as indicative of the trend only.
Source: OXERA fund manager questionnaire, 2002.

4.4.4 Conclusion on the order of magnitude

229. The results of the fund manager questionnaire indicate that the order of magnitude of soft commission arrangements is relatively small. The potential for soft commission arrangements has not (yet) been fully exploited. Theoretically, fund managers and brokers could soft more and agree on a higher commission rebate. There are at least three factors that may implicitly place limits on the use of soft commission arrangements.

- First, soft commission arrangements are regulated by the FSA, which allows fund managers to use their credits for certain categories of services only. For example, soft credits cannot be used to cover the costs of office space or expenses related to back-office support. Demand for those services that are permitted tends to have upper limits (ie, there is only a certain number of research reports or information services that a fund manager needs). In this way, the FSA regulation implicitly limits the use of soft commission arrangements.

- Second, although the monitoring of commission costs is weaker than that of management fees, more credits will result in higher commission costs, which (although to a limited extent) may ultimately affect the performance of the fund. Competition gives fund managers an incentive to perform, and thus provides some incentives to limit the impact of commission costs on the performance of the fund.

- Third, fund managers are obliged to disclose their policy on soft commission arrangements. Soft commission arrangements that are too generous and are significantly out of line with common practice would not look credible, and peer pressure among fund managers is likely to put constraints on their order of magnitude. However, over time this would not prevent a gradual increase in the overall use of soft commissions.

4.5 Competition effects of soft commission arrangements

4.5.1 Effects on competition in the market for research

230. An argument favouring soft commission arrangements is that they may facilitate the entry of independent research providers to the market. This could result in greater choice and enhanced competition in the market for research. Soft commission arrangements may thus offset some of the negative effects of bundled brokerage services identified in section 3.5. They could enable third-party independent research providers to offer their products in a similar way as full-service brokers do—ie, as part of a bundled product. In return for commissions, the fund manager receives credits that they can use to buy third-party research.

231. By facilitating entry of independent research providers, soft commission arrangements may help make it possible for smaller institutions to produce research, and otherwise ignored niches in the market could be explored. By facilitating more, and smaller, participants in the production of research, soft commission arrangements could ensure a greater diversity of informed ideas and opinions.

232. Another related effect is the promotion of unbiased research. Research provided by full-service brokers may be biased by factors such as their underwriting activities for companies or other relationships with companies (eg, advising on mergers). Soft commission arrangements allow fund managers to obtain research from independent sources that do not face these conflicts of interest.

233. However, the argument that soft commission arrangements facilitate entry of independent research providers is only relevant insofar as the services obtained under these arrangements actually compete with services that fund managers receive bundled from full-service brokers.

234. As shown in section 4.3, the questionnaires indicate that a substantial proportion of the credits obtained are spent on price-information services and hardware and software. These services do not compete with services offered by full-service brokers. The proportion of soft commission credits spent on research is around 30%, including macroeconomic analysis and analysis at market and company level. The macroeconomic analysis is usually very specific and not offered by brokers. Therefore, only part of the research obtained under soft commission arrangements competes with the research offered by full-service brokers.

235. It should therefore be noted that, although, in theory, soft commission arrangements may make it easier for independent research providers to enter the market and compete with full-service brokers, it is not clear whether, in practice, soft commission arrangements have a significant impact on the market for research. Only limited anecdotal evidence on research providers that make use of

soft commission arrangements and compete with research provided by brokers has been obtained.

4.5.2 Effects on competition in the market for fund managers

236. It has been argued by some market participants that soft commission arrangements are of particular relevance to small fund managers who, because of their size, may not have extensive in-house research capabilities and may not be able to benefit from economies of scale—ie, their overhead costs (including price-information services and research) may be relatively high compared with large fund managers. For these smaller fund managers, access to external research sources through soft commission arrangements provides a way to obtain sophisticated and specialised research, leading to better investment decision-making. In other words, soft commission arrangements facilitate the entry of small fund managers.

237. It is questionable whether this argument should be considered a positive effect. In a world without soft commission arrangements, small fund managers could buy third-party research with hard money or undertake research in-house and recover the costs through their management fees. This might make it more visible that smaller fund managers are less competitive than the medium-sized and large fund managers who are likely to benefit from economies of scale in research and other general overhead costs. Smaller fund managers might then be driven out of the market, given that the monitoring of management fees is more prevalent than that of commission costs. However, from an economics point of view, if soft commission arrangements are needed to maintain the viability of smaller fund managers, these firms must necessarily be less efficient than their competitors.

4.5.3 Effects on competition in the market for brokers

238. Another positive effect of soft commission arrangements is that they may facilitate the entry of smaller—in particular, execution-only—brokers. This increases competition and results in greater variety of choice in the market for brokerage services.

239. In a world without soft commission arrangements, smaller, execution-only brokers would find it difficult to compete with full-service brokers. Full-service brokers provide fund managers with a bundle of services consisting of trade execution, access to analysts and research. Smaller, execution-only brokers are unable to provide a similar level of service and would therefore be at a disadvantage when competing with full-service brokers.

240. Soft commission arrangements may offset this negative effect. They make it possible for smaller, execution-only brokers to offer a range of products similar to that offered by full-service brokers—ie, it allows them to offer credits which can be used by fund managers to buy research and other services that they would otherwise receive from full-service brokers (and additional services that full-service brokers do not offer).

241. It should be noted that, although in theory soft commission arrangements may make it easier for execution-only brokers to enter the market, it is not clear whether in practice this specific impact of soft commission arrangements is significant. Only some anecdotal evidence on execution-only brokers who claimed that soft commission arrangements offset their competitive disadvantage relative

to full-service brokers has been obtained. The actual impact on competition in the broker market is likely to be limited. There are many full-service brokers—ie, brokers offering the full bundle of services. This means that, even in a world without soft commission arrangements, there would probably still be a reasonable degree of competition between brokers.

4.6 Relationship with the principal–agent problem in fund management

4.6.1 Incentive misalignment and monitoring problems between fund managers and pension funds

242. The effects of soft commission arrangements on the incentive misalignment between pension fund and fund manager are the same as for bundled brokerage services. Soft commission arrangements mean that the costs of the services obtained under these arrangements are included in the commission costs and therefore in the cost pass-through. Allowing fund managers to enter into soft commission arrangements means that they do not need to recover the costs of the services obtained under these arrangements through the management fee.

243. As explained, the difference between the management fee and the cost pass-through is that the former is fixed in advance, while the fund manager has carte blanche on the cost pass-through, which can only be monitored retrospectively. Including the costs of soft commission services in the cost pass-through hands discretion to the fund manager.

244. The question is why the pension fund should give the fund manager carte blanche for soft commission services, such as research and price-information services. It could be argued that the fund manager is better able to determine the optimal volume of soft commission services than the pension fund, and that the optimal level of services is difficult to determine in advance. If this is the case then soft commission arrangements might result in a better allocation of resources.

245. This argument is similar to that put forward in the literature.[63] In a world without soft commission arrangements (or indeed a world with an all-inclusive fee as proposed by Myners (2001)), the fund manager would bear the cost of external research and access to analysts, and would therefore tend to under-invest in research. According to this argument, if a fund manager were required to pay all research expenses, it would have too little incentive to identify profitable portfolio trades because it would be receiving a fraction of the benefits associated with the research, while bearing the full costs of it. By bundling the cost of research into the trading commission paid by clients, soft commission arrangements 'subsidise' the manager's search for profitable trades. Subsidising commission costs and research is assumed to result in a better overall performance.

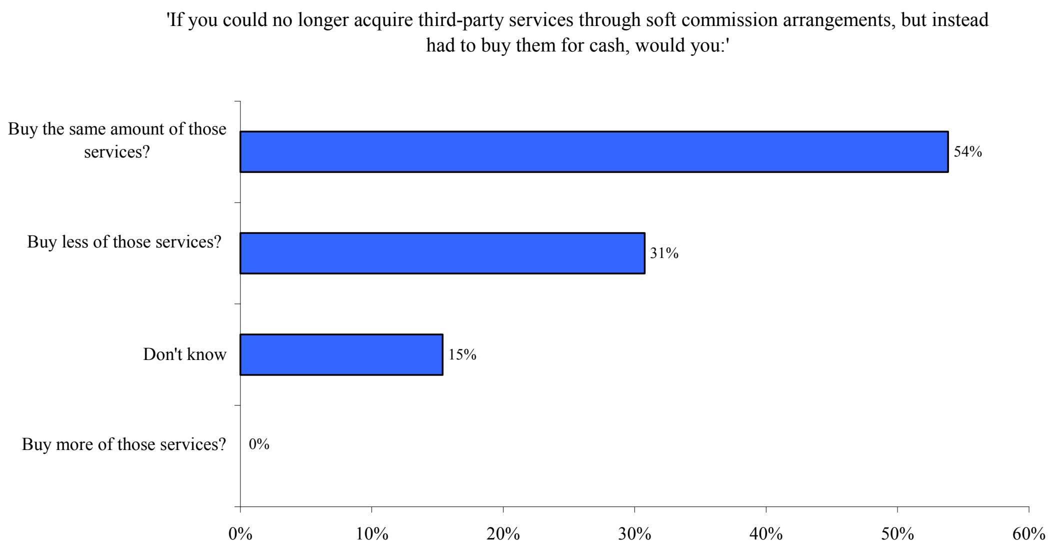
[63] See Horan, S.M. and Johnson, D.B. (2000), *The Welfare Effect of Soft Dollar Brokerage: Law and Economics*, The Research Foundation of the Association for Investment Management and Research.

246. However, including the cost of soft commission arrangements in the cost pass-through may also have potential negative effects. Bearing in mind that the control of commission costs is weaker than the control of the management fee, two potential negative effects are that soft commission arrangements may:

- give fund managers an incentive to buy more research from third parties rather than undertaking the research themselves—ie, it could result in inefficient 'make-or-buy' decisions;
- result in an over-consumption of 'soft commission' services.

247. It is difficult to ascertain whether, in practice, soft commission arrangements result in these two effects. However, the fund manager questionnaire gives some indication. Fund managers were asked whether they would buy the same amount of soft commission services if they could no longer acquire these services through soft commission arrangements, but instead had to buy them for cash (hard money) themselves. Figure 4.6 shows the results: 54% of the fund managers would buy the same amount of soft commission services, while 31% would buy less. These results should not be considered conclusive evidence, but they do suggest that there could be some degree of over-consumption of soft commission services and/or inefficient make-or-buy decisions. How these inefficiencies can be avoided is discussed in section 5.2.

Figure 4.6: How essential are soft commission services?



Base: 13 fund managers.
Source: OXERA fund manager questionnaire, 2002.

4.6.2 Incentive misalignment between fund manager and broker

248. One argument made in favour of soft commission arrangements is that they reduce agency and transaction costs by aligning fund managers' and brokers' interests with those of the pension funds.[64]

249. Profitable trading requires the fund manager to monitor brokers to ensure that they provide the best execution possible by minimising the market impact. A broker might shirk its obligations, eg, by searching carelessly for better prices or inadvertently leaking the news of impending trades. Because of the inherent 'noisiness' of security prices, however, execution quality is difficult to assess in the short run. The challenge for the fund manager is to encourage the broker to devote the same effort and attention to executing the trade as though it were the broker's own.

250. The argument is that soft commission arrangements could contribute to aligning the incentives of fund managers and brokers. This argument is based on the assumption that the broker provides credits to a fund manager in advance of trading, which results in an effective performance bond for the quality of brokerage execution. If the broker cheats—eg, by providing low-quality

[64] See Horan, S.M. and Johnson, D.B. (2000), op. cit.

executions—they risk being discovered and having the contract terminated with the account balance unpaid.

251. However, while this argument could apply to the US market, it is unlikely to do so for the UK market, owing to differences in the way soft commission arrangements work. As explained above, in the UK the broker does not pay out credits in advance of trading. Credits are only paid out if the fund manager sends sufficient trade to the broker. The fund manager has a direct relationship with the third-party service provider. When a fund manager receives the invoice from the third-party service provider, it forwards the invoice to the broker. The broker then pays it out of the fund manager's credit account.

252. In the USA, it is always the broker who has a contractual arrangement with the third-party service provider. The third-party service provider sends the invoice to the broker while services are provided to the fund manager. This could result in some form of commitment for the broker. The broker might, for example, pay the invoice of the third-party service provider at the beginning of the year (or sign a contract for a year) while the services are provided throughout the whole year. If a fund manager decides to switch to another broker during the year, the broker would be stuck with the contract with the third-party service provider. The broker therefore has an incentive to perform in order to avoid the loss of its investment in soft commission services.

253. Whether this argument has empirical relevance even in the USA is not clear. It depends on the specific characteristics of the contractual relationships between fund manager, broker and third-party service provider. If, for example, the contract between broker and third-party service provider is only for a very short period, or if it could be cancelled easily, the relevance of this argument is likely to be insignificant.

4.6.3 Directed brokerage

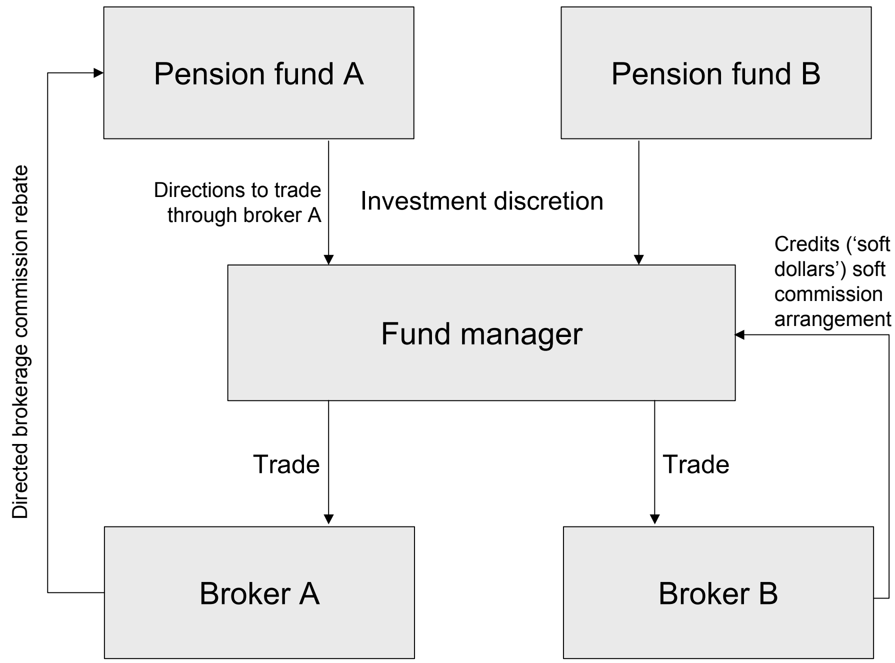
254. In addition to soft commission arrangements, trades sent to brokers may fall under 'directed brokerage' arrangements between pension funds and brokers. Directed brokerage arrangements might offset some of the effects of soft commission arrangements, as explained below.

255. Under a directed brokerage arrangement, the pension fund instructs its fund manager to direct a certain volume of trade to a broker of the pension fund's choice. In return, the pension fund receives a rebate (usually in the form of money, but sometimes also in the form of services) on the commissions paid to the broker (see Figure 4.8).[65] The fund manager does not receive any rebates on

[65] In practice, it appears that the pension fund's fund manager pays the standard commission rate and the fund receives part of it in the form of a rebate directly from the broker, or indirectly through an intermediary.

the commission paid, and trades sent under a directed brokerage arrangement do not qualify for the fund manager's soft commission arrangement (if in place).

Figure 4.8: Directed brokerage compared with soft commission arrangements



Source: OXERA

256. A distinction exists between two forms of directed brokerage arrangement (although in practice the terminology used to refer to these two forms is often confused).

- *Directed commissions*—the pension fund uses an intermediary (such as a directed brokerage agent or a custodian) to set up the directed brokerage arrangement. The pension fund instructs the fund manager to direct a proportion of trades (typically around 25%) via the intermediary to the broker who is party to the arrangement. The broker then rebates a proportion of the revenues from those directed commissions to the intermediary. The intermediary passes on this rebate to the pension fund after deduction of its share.

- *Commission recapture*—the pension fund sets up the arrangement with a broker directly—ie, without an intermediary. The pension fund instructs the fund manager to direct trade to that broker. In return, the pension fund receives a rebate on its commission costs.

257. The use of directed brokerage arrangements in the UK is already substantial, and seems to be increasing. The OXERA pension fund questionnaire indicates that currently 6% of trades on a commission basis fall under directed brokerage arrangements (compared to 10% under soft commission arrangements, see section 4.4). The experience in the USA shows that directed brokerage has indeed

potential to grow. A recent survey found that 10% of commissions in the USA are client-directed.[66]

258. In contrast to a soft commission arrangement, a directed brokerage arrangement does not involve a potential conflict between the interest of the fund manager and the client because the client, not the fund manager, is receiving the rebates directly.

259. The logic behind directed brokerage arrangements can be explained as follows. As discussed in section 3, pension funds give the fund manager the discretion to determine the optimal volume of trade and to negotiate commission rates. This is because the optimal level of turnover is difficult to predict in advance and fund managers are generally better able to negotiate commission rates with brokers than pension funds (fund managers have more knowledge about, and expertise in, commission rates than pension funds). Furthermore, fund managers usually trade on behalf of a large number of clients, and therefore normally have more buyer power than pension funds.

260. However, large pension funds may find it attractive to set up directed brokerage arrangements. This enables them to use their own buyer power and negotiate better deals with brokers. Large pension funds usually hire a certain number of fund managers, which subsequently use a number of brokers to execute their clients' trade. Having a large pension fund as a client increases the fund manager's buyer power and is likely to result in a better deal with brokers. However, the lower commission rates will not only benefit the fund to which the buyer power can be attributed but also other clients, including medium-sized and smaller pension funds. Rather than handing over the discretion to fund managers to negotiate commission rates, large pension funds might individually be better off if they negotiate the rates with brokers themselves.

261. Thus, from the point of view of analysing bundling and soft commissions, directed brokerage in fact has some beneficial effects, in that it allows large pension funds to exercise their buyer power and reduce commission costs. In other words, pension funds are able to obtain their own part of the pie (commission rebates) which otherwise would flow to fund managers through soft commission arrangements.

262. However, directed brokerage arrangements may also raise problems. For example, they may have distributional effects, as typically only large pension funds are able to receive rebates, or at least receive larger rebates than smaller funds. It is beyond the scope of this study to assess these distributional effects.

[66] Schwartz, R.A. and Steil, B. (2002), 'Controlling Institutional Trading Costs', *Journal of Portfolio Management*, volume 28, issue 3, 39–49.

4.7 Effects of soft commissions on trade execution quality

263. Soft commission arrangements may have negative effects on trade execution quality in two ways. First, through the level of trade, and second, through the way trades are executed and by which type of broker. As to the level of trade, to the extent that a fund manager has made implicit commitments to a broker to provide a certain level of commission in return for credit, or simply wants to accrue credits, the fund manager may have an incentive to overtrade clients' accounts simply to generate more commissions (a practice sometimes referred to as 'churning').

264. There is some evidence to suggest that an such effect may be unlikely to occur in the UK. The questionnaire shows that fund managers soft on average about 10% of their trades. In principle, they could therefore obtain more credits by softing more trades without increasing the total amount of trade. In other words, there appears to be little need to overtrade.

265. Concerns have also been raised that soft commission arrangements may impede the fund manager's obligation to obtain best execution for client accounts, for a number of reasons.

- First, there is a concern that the execution quality of softed trades is worse than that of non-softed trades—ie, brokers would give worse deals for softed trades. However, this is unlikely to occur in practice. Brokers generally are informed only after the trade has been executed whether the trade was softed. In other words, brokers are unable to discriminate between softed and non-softed trades at the time of the execution, and are therefore unable to give less-beneficial deals for softed trades. In addition, within fund management companies, staff from the dealing desk may not always be aware of the precise soft commission arrangement in place with the specific broker for each individual trade, since these arrangements are usually administered by other parts of the fund management business.

- Second, fund managers may select the brokers offering the most generous soft commission arrangements rather than the best quality of execution. However, the fund manager questionnaire shows that the availability of soft commission arrangements is not an important factor in fund managers' decision to use a certain broker (see Figure 2.13). It is likely that fund managers perceive the most important factors of 'execution quality' and 'broker expertise' as having more effect upon the performance of trades (and hence the amount deducted from the funds they manage) than the availability of soft commission arrangements.

- Third, if fund managers enter into soft commission arrangements with smaller, execution-only brokers, electronic trading networks or crossing networks, and send them relatively difficult trades, there is a possibility that other brokers could have handled the trade more effectively and at a better price. A fund manager could have an incentive to send both easy and relatively difficult trades to their soft commission brokers in order to achieve their agreed amount of trades necessary to obtain the credits required to buy third-party services. It is also possible that the execution quality of execution-only brokers is poorer for both easy and difficult trades. Sending more trades to these brokers (in a world with soft commission arrangements) would then result in a poorer execution quality overall.

266. A study on soft commission arrangements in the USA is relevant to this second argument.[67] It shows that the execution costs of soft dollar brokers are generally higher than those of full-service brokers. Soft dollar brokers refer to brokers that provide soft dollar payments in return for trade execution. In the USA, there are many execution-only brokers specialising in offering soft dollar arrangements. Full-service brokers offer a bundle of services but often do not offer soft dollar arrangements, or only to a limited extent.

267. The study distinguishes between institutional investors' orders directed to soft dollar brokers and those directed to other types of brokers. They find that soft dollar brokers execute smaller orders in larger market-value stocks, which are therefore arguably easier to execute than orders sent to other brokers (ie, easy trade). Orders sent to other brokers, such as full-service brokers, are typically larger (in both dollar and relative terms) than those sent to soft dollar brokers.

268. The study finds that the explicit execution costs (ie, the commission rate) for soft dollar brokers is 0.8bp higher than for full-service brokers. Furthermore, the difference in the implicit execution costs (ie, market impact and the costs of missed trades) between soft dollar and full-service brokers amounts to 16bp.

269. A more refined estimate of implicit execution costs is obtained by controlling for order difficulty, trading styles and other determinants of total execution costs. This means, for example, that the costs of executing an 'easy' trade by a soft dollar broker are compared with a benchmark of the execution costs of an easy trade. This approach results in an implicit cost differential between full-service brokers and soft dollar brokers of 29bp for buyer-initiated orders and 24bp for seller-initiated orders. To obtain an all-in estimate of total costs differentials, the differences in explicit costs (0.8bp) need to be added. This results in a total-costs differential of 30bp for buys and 25bp for sells.

270. To summarise, the US study shows that soft dollar brokers have higher implicit execution costs for both easy and difficult trades compared with other brokers. This means that, despite the fact that fund managers generally send more 'easy' trades to soft dollar brokers than to full-service brokers, the execution costs of the trades sent to soft dollar brokers will be higher. Insofar as fund managers use these brokers to obtain soft dollars, soft dollar arrangements contribute to higher execution costs.

[67] Conrad J.S., Johnson, K.M. and Wahal, S. (2001) op. cit.

271. The question is whether a similar result could be expected in the UK. This depends on two related issues:

- whether there is a difference in execution quality between brokers that offer more generous soft commission arrangements and those that offer limited arrangements or none at all;
- if such a difference exists, what kind of trade do fund managers send to soft commission brokers? If fund managers send them a greater number of difficult trades than they would do in a world without soft commission arrangements, there is a possibility that other brokers could have handled the trade more effectively and at a better price.

272. It should be noted that there are more specialised soft dollar brokers in the USA than in the UK. In the UK, soft commission arrangements are offered by full-service brokers as well as by smaller execution-only brokers. Medium-sized and large fund managers are therefore likely to have soft commission arrangements with a number of large brokers. It is questionable whether, in this context, soft commission arrangements will have an impact on trade execution quality.

273. The argument that soft commission arrangements have an effect on trade execution quality may be more relevant to small fund managers. These are likely to have more difficulty in obtaining a soft commission arrangement with a large full-service broker, and may have too few trades to be rewarded a commission rebate by a large broker. They are therefore likely to have soft commission arrangements with smaller brokers who may be less well equipped to handle difficult trades. If this results in more difficult trades being placed with these smaller brokers than in a world without soft commission arrangements, it could lead to higher overall trade execution costs.

274. Ascertaining whether this happens in practice would require an extensive analysis of trades sent to full-service and smaller brokers. It should be noted that the questionnaires indicate that the effect on execution quality may be small. As explained in section 2, quality of execution, the broker's expertise and liquidity are the most important factors when choosing a broker. When determining which broker to use for difficult trades, these factors receive even more weight, which suggests that difficult trades are generally sent to brokers who have more expertise and liquidity.

4.8 Conclusion

275. Soft commission arrangements may exacerbate the incentive misalignment problem between pension funds and fund managers. Given the fact that the monitoring of commission costs is weaker than that of the management fee, from an economics point of view, the costs of services other than trade execution could be included in the management fee rather than passed on in the commission rate, to the extent that their demand is relatively predictable (see section 3.4). Furthermore, soft commission arrangements may have an effect on trade execution quality. Whether this is the case in the UK is not clear.

276. Soft commission arrangements may offset some of the negative effects of bundled brokerage services. They may make it easier for independent research providers

and smaller execution-only brokers to compete with full-service brokers, and may thus facilitate their entry to the market. However, it should be noted that only limited anecdotal evidence on this has been obtained. It is therefore not clear whether in practice soft commission arrangements have a significant impact on the market for research and the market for brokers. The actual impact on competition in the broker market is likely to be limited. There are many full-service brokers, which means that, even in a world without soft commission arrangements, there would probably still be a reasonable degree of competition between brokers.

277. The major part of credits (around 50–60%) is used for price-information services—ie, services that fund managers would need anyway. There is no economic justification for using soft commission arrangements for price-information services. Such services do not compete with services provided by brokers and therefore do not have an impact on any of the negative effects of the practice of bundling brokerage services.

278. The fund manager questionnaire indicates that the order of magnitude of soft commission arrangements is relatively small. The soft commission rebate amounts to around 6.8% of the commission costs. The proportion of the soft commission credits used for research is relatively small (around 20–30%).

279. Data from the broker questionnaire indicate that higher commission rates are paid for contracts with soft commission arrangements. This suggests that cross-subsidisation between fund managers who have soft commission arrangements and those who do not is limited (although cross-subsidisation between pension funds who use the same fund manager still exists).

5. Policy Issues and Implications

5.1 Regulation of bundled brokerage and soft commissions

280. In the UK, soft commission arrangements and bundled brokerage services are regulated by the FSA. The general rule is that a fund manager is not allowed to solicit or accept an inducement if it is likely to conflict to a material extent with any duty that the fund manager owes to its customers in connection with designated investment business.[68]

281. In practice, fund managers receive a number of services in addition to trade execution, such as access to analysts and IPOs, and research. It is for the fund managers to satisfy themselves that they are complying with the rule on inducements when receiving these services.

282. The FSA rules provide an exemption from the prohibition on inducements for soft commission arrangements that comply with certain requirements. For instance, the arrangement must be subject to written agreements, and only certain categories of services can be provided, such as electronic trade confirmation systems, market price services, research and computer hardware associated with specialised software or research services. Examples of costs that cannot be paid for under soft commission arrangements are employees' salaries, travel accommodation or entertainment costs, and seminar fees not relevant to the conduct of designated investment business.

283. In the USA, the fiduciary duty requires the fund manager to obtain best execution of client transactions and precludes it from using client assets for its own benefit, at least without the client's consent.[69] In other words, the general rule is that fund managers are only allowed to receive trade execution in return for commissions. However, Section 28(e) of the Securities Exchange Act 1934 gives an exception to the general rule and provides fund managers with a 'safe harbour' for certain research services. It allows them to receive research services in return for commissions. Research can be provided by a broker or by third-party research providers. A product or service is identified as falling within the safe harbour if it helps the fund manager's investment decision-making, rather than the manager's marketing or general administrative activities. Research is broadly defined, and includes hardware and software dedicated to research, news services, stock-price quotation services and credit-rating services. Examples of services that do not qualify as research are computer software for financial and tax accounting or record keeping, and overhead and administration expenses.

[68] For a more detailed description of the regulations in the UK, the USA, Germany and France, see appendix 1.
[69] As stated in the Employee Retirement Income Security Act (ERISA) of 1974 and in a variety of regulatory schemes.

284. The main difference between the UK and US regulation is that, in the USA, the safe-harbour clause applies to both soft commission arrangements and bundled brokerage services; in the UK, in practice, bundled brokerage services and soft commission arrangements are not treated symmetrically. The former are assumed to be in line with the general rule on inducements, while there is separate regulation on soft commission arrangements. Furthermore, in the USA, there have been several court cases about whether certain products or services would fall within the safe harbour. It seems that this has contributed to more strict regulation of soft dollar arrangements.

285. To summarise, in both the USA and the UK, the regulation indicates which kind of services can be provided under soft commission arrangements—ie, where the line is drawn between what is and what is not acceptable. The next section explains where this line could be redrawn on the basis of the analysis in this report.

5.2 Drawing the line for bundled and 'softed' services

286. The costs of fund management are recovered from pension funds through two elements: a management fee and commission costs. The commission costs are not included in the management fee but directly deducted from the value of the fund when they are incurred—ie, passed on to the pension fund (a cost pass-through).

287. As explained in section 3, the main reason for not including the commission costs in the (fixed) management fee, and instead giving the fund manager discretion, is that the optimal level of trades is difficult to predict in advance. This level depends on market circumstances and may change from year to year. In some years more trading is needed than in others in order to achieve a certain performance target. The fund manager is in a better position than the pension fund to determine the optimal level of trading. Delegating this task to the fund manager is therefore likely to result in better resource allocation.

288. The question is whether the costs of other services, such as access to analysts and research, should also be included in the cost pass-through. Given that the system for monitoring commission costs is weaker than that for management fees, allowing the fund manager to include the costs of the extra services in the cost pass-through could result in over-consumption of those services. Where possible, costs should therefore be recovered through the management fee.

289. The question is then where to draw the line: which services could be included in the commission costs and which should be recovered through the management fee. The analysis in section 3 indicates where, from an economics point of view, the line could be drawn for bundling brokerage services. It concludes that there are justifications for bundling trade execution, access to analysts and, to a lesser extent, research.

290. With regard to access to analysts, bundling this service with trade execution has the benefit of economies of scope in production and reduced transaction costs for customers. From a principal–agent perspective, it seems justified to treat access to analysts in the same way as trade execution (ie, to pass the costs on to pension funds). This is because the amount of the service needed is probably closely

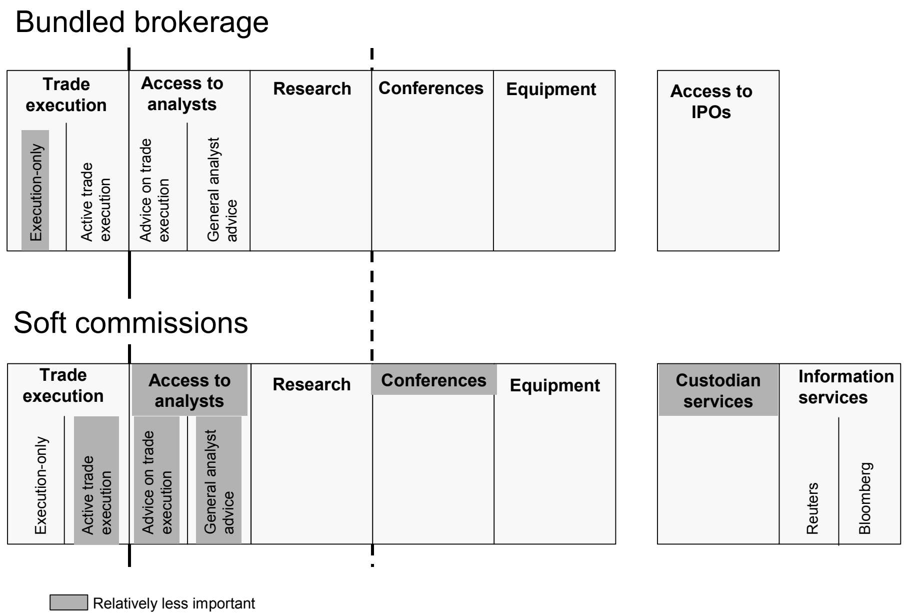
related to the number of trades needed, and both are difficult to predict. With regard to research, possible justifications are that there are also economies of scope with trade execution, and that bundling may be an efficient way of pricing the service. Furthermore, it may be difficult in practice to unbundle access to both analysts and research. Based on this analysis, there may be a case for allowing brokers to bundle access to analysts and perhaps research, and to recover the costs through the commission rate.

291. The next question is where the line might be drawn for soft commission arrangements. From the analysis in section 4, it follows that soft commission arrangements and bundled brokerage services are similar in nature—the main difference being that, under the latter, the services provided are produced in-house (ie, within the brokerage group), and not priced separately. Under the soft commission arrangements, services are generally provided by third-party service providers and separately priced and accounted for. Soft commission arrangements make explicit what is implicit in bundled brokerage services: the prices and quantity of the extra services provided.

292. From the economic analysis of bundling, it follows that there is little difference in the economic effects of soft commission arrangements and bundled brokerage services (even though the economic justifications for the two practices differ in some respects). Whether the service is produced in-house (by the broker) or sourced from a third party, in both cases the costs are not borne by the fund manager but directly passed on to the fund manager's clients—ie, included in the cost pass-through. Given the similarity in economic effects, it would make sense to treat bundled brokerage services and soft commission arrangements symmetrically. In other words, there is no apparent reason for allowing the costs of, for example, research to be included in the cost pass-through only if it is produced by a broker in-house and not if it is produced by a third party.

293. To summarise, wherever the line is drawn for bundled brokerage services, it could also be drawn for services under soft commission arrangements (see Figure 5.1). In practice, this means that services such as research and access to analysts would be allowed under soft commission arrangements. However, given that there appear to be no economic justifications for bundling services such as price-information services, it is similarly unjustifiable to offer this kind of service under soft commission arrangements.

Figure 5.1: Drawing the line for bundled and soft commission services



Source: OXERA.

294. Although the analysis in this report indicates that the way in which bundled brokerage services and soft commission arrangements are regulated could be changed, it also shows that the order of magnitude of soft commission arrangements is relatively small. The negative economic effects of the current practices are therefore likely to be small.

295. The potential for soft commission arrangements has not been fully exploited by fund managers. It could be argued that this indicates that further growth in such arrangements could be expected. However, it also shows that there may be some checks and balances. First, by only allowing certain categories of services under soft commission arrangements, the FSA regulation implicitly limits the use of soft commissions. Second, although the monitoring of commission costs is weaker than that of management fees, more credits will result in higher commission costs, which may ultimately affect the performance of the fund. Competition gives fund managers an incentive to perform and to limit the impact of commission costs on the performance of the fund. Finally, fund managers are obliged to disclose their policy on soft commission arrangements. Soft commission arrangements that are too generous would not look credible, and peer pressure among fund managers is likely to constrain the order of magnitude of such arrangements.

296. The order of magnitude of bundling is larger than that of soft commission arrangements, although exact information is not available. The study has found that execution-only services have a cost in the range of 5–10bp, compared with average commission rates for full-service brokerage of 14bp. As explained in section 3.3, it is likely that a large part of this difference is explained by the cost of active trade execution (which falls under trade execution and hence is not a bundled service), and the cost of access to analysts and research. These last two are bundled services but, as explained in section 3, bundling these services has

certain economic justifications. Thus, the order of magnitude—or effect on commission rates—of bundled services for which there is no such economic justification (conferences, equipment, access to IPOs) is probably relatively low.

297. Thus, the conclusion of this report is that the order of magnitude of both soft commission arrangements and bundled services for which there is no economic justification is relatively small. This implies that the potential detrimental effects identified in this report may also be relatively limited, and therefore that, from an economic point of view, 'to do nothing'—ie, not changing the regulation—is a policy option.

298. Yet, while there appear to be market-driven checks on the system that keep the order of magnitude low (such as the reasonably high degree of competition in both fund management and brokerage markets), regulation provides an additional check. Regulation could focus on drawing the line such that those services for which there is an economic justification (ie, access to analysts and, to a lesser extent, research) can be bundled with trade execution.

299. The analysis in this report also shows that there is an economic case for treating bundled brokerage and soft commissions symmetrically. Thus, wherever the line is drawn for bundled brokerage services, it could also be drawn for services under soft commission arrangements. There is no apparent reason for allowing fewer or more categories of services under soft commission arrangement than in bundled brokerage services.

300. Tables 5.1 and 5.2 give an overview of the costs and benefits (in qualitative terms) of bundling and soft commission arrangements. It should be noted that these give only a brief summary of the analysis and should be read in conjunction with the sections in this report where the different costs and benefits are analysed in more detail.

Table 5.1: Costs and benefits of bundling

Benefits	Costs
Bundling of trade execution, access to analysts and research maybe justified because: - there are economies of scope in production (trade execution and access to analysts, and trade execution and research, see sections 3.4.1 and 3.4.2) - it reduces transaction costs (trade execution and access to analysts, see section 3.4.1) - it may allow for efficient pricing method for research (see section 3.4.2) - unbundling would be difficult (trade execution and access to analysts, see section 3.4.1) From a principal–agent perspective, it is justifiable to treat advice on trade execution in the same way as trade execution (ie, to pass the costs on to funds), since the level of service needed is probably closely related to the number of trades needed, and both are difficult to predict (see section 3.4.1).	*No economies of scope*—the inclusion of some services provided in the execution bundle (in particular, access to IPOs, conferences and communications equipment) appears to have few economic justifications (see section 3.4.3). *Impact on commission rates*—no exact information is available on the actual impact of bundling on the level of broker commissions. However, the effect on commission rates of bundled services for which there is no economic justification is probably relatively low (see section 3.3). *Incentive misalignment between fund and fund manager*—pass-through of cost of bundled services via commission costs exacerbates the incentive misalignment, potentially leading to over-consumption of these services (see section 3.6). *Impact on market for research*—from a competition policy perspective, bundling of brokerage services is unlikely to lead to anti-competitive effects—ie, monopolisation of the market for research through leveraging. However, from a regulatory perspective there may be concerns about the independence and quality of research (see section 3.5). *Leveraging of market power*—in theory, investment banks might attempt to leverage their market power in the market for IPOs into the market for trade execution. However, such 'reverse' leveraging is unlikely to occur in the UK (see section 3.5).

Source: OXERA.

Table 5.2 Costs and benefits of soft commission arrangements

Benefits	Costs
In theory, soft commission arrangements may offset some of the competition effects of bundled brokerage services. Specifically, they make it easier for independent research providers and execution-only brokers to compete with full-service brokers. This may also promote independent research. However, only limited anecdotal evidence has been obtained on whether these effects are significant in practice (see section 4.5). It has been argued that soft commission arrangements may benefit small fund managers in particular. However, from an economics point of view, if soft commission arrangements are needed to maintain the viability of smaller fund managers, these firms must necessarily be less efficient than their competitors (see section 4.5.2). It has been argued that soft commission arrangements lead to an efficient allocation of resources since fund managers are better placed than funds to determine the optimal level of services acquired under soft commission arrangements. However, soft commission arrangements may also have negative effects on resource allocation (inefficient 'make-or-buy' decisions and excessive consumption of services, see section 4.6.1 and 'costs' of soft commission arrangements in this table).	*Effect on consumption of services*—the evidence obtained is not conclusive, but suggests that there could be some degree of excessive consumption of soft commission services and/or inefficient make-or-buy decisions, thus exacerbating the incentive misalignment between fund and fund manager (see section 4.6.1). Furthermore, most of the credits ('soft dollars') are used for price-information services—ie, services that fund managers would need anyway. There is no economic justification for using soft commission arrangements for price information services (see section 4.3 and 4.8). However, it should be noted that the order of magnitude of soft commission arrangements is relatively small. There are some factors that may implicitly place limits on the use of soft commission arrangements (see section 4.4.). *Effects on trade execution quality*—brokers are unable to discriminate between softed and non-softed trades at the time of the execution, and are therefore unable to give less-beneficial deals for softed trades. However, it is possible that soft commission arrangements affect the way brokers are selected by fund managers. The effects on execution quality are difficult to ascertain. However, the study has identified a number of reasons why such effects may be limited (see section 4.7). *Cross-subsidy between institutional investors*—the cost of services provided under soft commission arrangements appear to be largely recovered through the commission rates charged to fund managers who receive the services, rather than through overall increases in commission rates (ie, across all fund managers). This means that cross-subsidisation between fund managers is probably limited. However, commission rates are set for each fund manager, with the same rate applicable to soft and hard trades. Therefore, there is a cross-subsidy between pension funds who are clients of the same fund managers, some of whom allow the manager to soft and some of whom do not (see section 4.4.2).

Source: OXERA.

5.3 Related areas for further investigation

301. During the study, and as identified in this report, OXERA has encountered a number of issues related to bundled brokerage and soft commissions, which would merit further investigation but fall outside the scope of this report. These include directed brokerage arrangements; best execution; independence and quality of research; optimality of the level of trading; and access to IPOs and other services offered by investment banks.

5.3.1 Directed brokerage arrangements

302. Directed brokerage is increasingly being used by UK pension funds—the OXERA pension fund questionnaire indicates that 6% of trades currently fall under directed brokerage arrangements.

303. As explained in section 4.6, in contrast to soft commission arrangements, directed brokerage arrangements do not involve a conflict of interest between the fund manager and the pension fund, because it is the latter who receives the rebates (or services) directly from the broker.

304. Nevertheless, as also signalled in section 4.6, directed brokerage arrangements may raise potential problems. For example, they may have distributional effects, as, typically, only large pension funds are able to receive rebates, or at least receive larger rebates than smaller funds (although smaller pension funds can also set these arrangements up with the assistance of intermediaries). If the effect of directed brokerage is that overall broker commission rates increase, but only the larger pension funds benefit, then there is a possible cross-subsidy from smaller to larger pension funds.

305. A more detailed investigation might focus on topics such as the growth in the usage of directed brokerage arrangements; which pension funds have access to such arrangements; how large a share of the rebate the intermediaries (as opposed to the funds themselves) receive; and what the effects are on overall commission rates.

5.3.2 Best execution

306. The FSA is currently separately consulting on the rules on best execution.[70] During the in-depth interviews held for the present study, several fund managers indeed indicated that they view the current rules as too rigid and not leading to the best execution in practice. In addition, this report has drawn some tentative conclusions which are related to the issue of best execution, but which can only be assessed thoroughly as part of a wider investigation into execution quality.

- First, as discussed in sections 2 and 3, there may be a separate market for executing ‘difficult’ (large) trades, which require the broker to work actively on them. Given that the number of brokers who are able to offer such a service is relatively small, and that actively working on a trade involves communication among those brokers, there may be incentives for brokers to keep the spreads on these trades high. The gains from these high spreads could in turn be used to recover the brokers’ costs of the bundled services. However, to draw firm conclusions on whether spreads on

[70] FSA (2002), ‘Best Execution: Consultation Paper 154’, October.

difficult trades are too high requires an in-depth investigation into execution quality.

- Second, as explained in section 4, fund managers may have incentives to select brokers who offer the most generous soft commission arrangements rather than the best quality of execution. A study on the USA has shown that soft commission arrangements lead to poorer execution—fund managers tend to send more trades to smaller, execution-only brokers with whom they have a soft commission arrangement, and these brokers are often less able to handle difficult trades.

307. The evidence obtained for the present study, discussed in section 4, suggests that the negative effect of soft commissions on execution quality is likely to be limited—execution quality is the principal dimension on which fund managers choose brokers, difficult trades are normally sent to the larger brokers (who are capable of dealing with them), and the larger brokers themselves also commonly offer soft commission arrangements. However, to obtain quantitative and conclusive evidence is difficult. This would require a detailed and complex study of execution of a large number of trades, and even then it would be difficult to distinguish the effects on execution of soft commissions from those of other factors.

5.3.3 Independence and quality of research

308. The FSA is also currently consulting on the issue of the quality and independence of research.[71] As discussed in section 3, while, from a competition point of view, bundling may not be a major issue because the broker market itself is reasonably competitive, from a regulatory perspective there may still be concerns about the difficulties faced by independent research providers when competing with brokers.

309. It should also be noted that, in addition to the conflict that arises between an analyst's role with respect to investment banking and trading, there may be a conflict of interest between brokers and the research produced by their analysts. Brokers have an interest in high trading volumes. The research they produce is for fund managers (and, through them, pension funds), who have an interest in minimising unnecessary transactions. Bundling research with trading could exacerbate this conflict by linking the recovery of the high fixed cost of producing research with an income based on the volume of trading.

5.3.4 Optimal level of trading volumes

310. During the in-depth interviews, an issue was raised that is of importance in interpreting the results of this report, but which is also beyond the scope of this

[71] FSA (2002), 'Investment Research: Conflicts & Other Issues', Discussion Paper, July.

study. This issue is that the current level of trading may be sub-optimal from a societal perspective—ie, there may be ‘too much’ trading going on. The analysis in this report has been undertaken on an implicit assumption that the current level of trading—the velocity of equity trading—is close to its optimal economic level. OXERA has not attempted to verify this assumption, as this would have required a different research programme.

311. However, the analysis in this report indicates that there may indeed be some players who have an interest in increasing trading above the optimum levels for pension funds. Brokers working on a commission basis fall into this category. As shown in this report, the control function exercised by funds in relation to transaction costs is necessarily imperfect, and this applies to the expense brought about by trading volumes as well the commission rates for individual transactions.

312. Without coming to a conclusion as to whether these pressures are leading to an excessive level of trading, it is possible to outline some high-level implications for this study if the current level of trading were indeed found to be too high. In general, while unbundling of pure active trade execution would impose costs on the industry, these costs could be offset by the benefits gained from the lower total transaction costs that would be incurred by funds as a result of less trading. Specifically:

- there could be little or no detriment to end-customers (eg, funds) if incentives were altered so fund managers changed from being largely neutral to trading to having an incentive not to trade;
- the additional costs that would arise by breaking the bundling on the supply side between active trade execution and access to analysts and research could be offset by the reduction in trading costs incurred by funds; and
- if the only downside for the research/analysis function as a result of breaking this bundle on the supply side were to be an increase in unit research cost, this additional cost might be offset by the benefits that could arise from research/analysis being produced by parties not benefiting from the level of trading achieved.

5.3.5 Access to IPOs and other services offered by investment banks

313. As discussed in section 3, some of the bundled services provided by brokers may be financed through profits made in other divisions of the investment banks, of which the brokers form a part. For example, analyst and research costs might be recovered through the investment banking and corporate business activities, while the cost (if any) of providing access to IPOs might be recovered from the companies that undertake the IPO.

314. This report has focused only on the possible detrimental effects of bundling and soft commissions on fund managers and, ultimately, pension funds. If some of the costs are recovered through other business divisions, there may be detrimental effects on those investment banks’ other customers (for example, companies that undertake IPOs).

315. Furthermore, section 2 has signalled that, while the broker market seems competitive, one missing indicator of the degree of competition is profitability.

Assessing profitability and analysing how the costs of bundled services are recovered both require access to detailed internal accounts of the companies involved, and probably a complex exercise of cost and revenue allocation for the brokers who are part of larger investment banks. This is beyond the scope of the current report, but is one policy area that could be worth pursuing.

APPENDICES

Appendix 1: Regulatory Framework in the UK and Overseas

A1.1 Regulation in the UK

A1.1.1 General rule on inducements

316. The regulation of soft commissions and bundled brokerage services in the UK is now the responsibility of the FSA alone. It was previously undertaken by the Securities and Futures Authority (SFA) and the Investment Management Regulatory Organisation (IMRO), until the new regulatory regime was implemented on December 1st 2001. The regulatory guidelines relevant to soft commissions are published in the FSA *Conduct of Business Handbook (2002)* (COB) under the heading 'Inducements and Soft Commission'.

317. UK regulations on soft commission arrangements and bundled brokerage consist of sections specifically marked out as rules, supported by explanatory guidance and statements of purpose and principle. In general, any money (direct or indirect) or service (ie, inducements) offered by a broker in addition to brokerage services for the purpose of securing custom is proscribed under Rule 2.2.3, which states that firms should take reasonable steps to ensure that they do not:

> (1) Offer, give, solicit or accept an inducement; or
>
> (2) Direct or refer any actual or potential item of designated investment business to another person on its own initiative or on the instructions of an associate;
>
> if it is likely to conflict to a material extent with any duty that the firm owes to its customers in connection with designated investment business or any duty which such a recipient firm owes to its customers.

Exceptions to this rule are soft commission arrangements and bundled brokerage services.

A1.1.2 Bundled brokerage services

318. The FSA rules governing bundled brokerage services are not as prescriptive and detailed as those governing soft commission arrangements. The main section of the regulations governing the provision of bundled services is Rule 2.2.3 on the prohibition of inducements (as described above).

In practice, the following types of service can be bundled with brokerage services, yet are not explicitly permitted in the regulations:

- access to analysts;
- research publications produced 'in-house';
- marketing literature.

319. However, there is no stipulation in the regulations (as there is for services provided under soft commission arrangements) that the provision of bundled brokerage services should be transparent and subject to the written consent of the client, nor that the services and products being bundled should be relevant to the provision of (fund management) services.

320. Other services (ie, those from third-party service providers) are covered under the provisions of the rules on soft commissions.

A1.1.3 Soft commission arrangements

321. Soft commissions are exempted from the prohibition on inducements in Rule 2.2.3 upon fulfilment of the following conditions, which amount to a safe harbour for such arrangements. Rule 2.2.8 states that '[a] firm must not deal in investments as an agent for a customer, either directly or indirectly, through any broker, under soft commission agreement, unless':

(1) the agreement is a written agreement for the supply of goods or services described in *COB* 2.2.12R which do not take the form of, or include, cash or any other direct financial benefit;

(2) the broker has agreed to provide best execution to the firm;

(3) the firm has taken reasonable steps to ensure that the terms of business and methods by which services will be supplied by the broker do not involve any potential for comparative price disadvantage to the customer;

(4) for transactions in which the broker acts as a principal, the firm has taken reasonable steps to ensure that commission paid under the agreement will be sufficient to cover the value of the goods or services to be received and the costs of execution; and

(5) the firm makes adequate prior and periodic disclosure to the customer in accordance with *COB* 2.2.16R and *COB* 2.2.18R.

322. In general, a fund manager may accept the following services, provided that they are directly relevant to and used to assist in the provision of services to their customers:[72]

(1) Investment management services;

(2) Advice on dealing in, or on the value of, any designated investment;

(3) Custody services relating to designated investments belonging to, or managed for, customers;

(4) Services relating to the valuation or performance measurement of portfolios.

323. Examples of goods and services which the FSA considers to be relevant or not relevant under soft commission arrangements in the UK are shown in Table A1.1.

[72] COB, Section 2.2.12R.

Table A1.1: Examples of services which are relevant and not relevant to soft commission arrangements in the UK (guidance only)

Examples of services that could be provided under a soft commission agreement	Examples of services that the FSA does not regard as relevant to soft commission agreements
Research, analysis and advisory services, including those on economic factors and trends	Travel, accommodation or entertainment costs, whether or not related to the conduct of designated investment business
Market price services	Seminar fees not relevant to the provision of services
Electronic trade confirmation systems	Subscriptions not relevant to the provision of services
Third-party electronic dealing/quotation systems	Office administrative computer software, for example word processing or accounting programs
Computer hardware associated with specialised computer software or research services	Computer hardware not associated with specialist computer software
Dedicated phone lines	Membership fees to professional associations
Seminar fees (if relevant to the provision of services)	Purchase or rental of standard office equipment or ancillary facilities
Publications (if relevant to the provision of services)	Employees' salaries
	Direct money payments

Source: FSA COB Sourcebook, Sections 2.2.13G and 2.2.14G.

324. Because of the prohibition of brokers making direct cash payments to fund managers under soft commission arrangements (this is also forbidden under the rules on inducements), fund managers in the UK pass on the invoices, received with respect to third-party services (received under soft commission arrangements), to the brokers with whom they have soft commission arrangements. The brokers then pay the invoices directly to the third-party service providers.

325. In permitting soft commission arrangements, the FSA regulations concentrate primarily on ensuring that such arrangements are transparent to both fund managers and their clients, and that the services provided under soft commission arrangements ultimately benefit the client. While FSA regulations on soft commissions apply to all fund managers and brokers operating in the UK, some of these have chosen to apply US Securities and Exchange Commission (SEC) regulations, as these are at least as stringent as those in the UK. This is often simpler for these companies, as the same management and information systems in use in the USA can be rolled out for use in the UK.

326. In addition to FSA rules on soft commissions, the IMA, in response to the Myners report, has recently published a (non-legally binding) disclosure code for fund

managers, detailing the recommended information they should make available to their pension fund clients about charges and costs affecting pension fund assets.[73] Fund managers should report, among other things:

- their policy towards soft commissions, the justification for using them and control processes to ensure compliance with FSA regulations;
- the value of trades subject to commission, the value of commission fees paid in total under soft commission arrangements and commission recapture arrangements;
- the approximate number, type and value of inducements paid; and
- their policy on the use of external research, how the benefit of the research is assessed, and how it is funded.

327. In setting out the code and allowing members to comply with it, upon satisfactory fulfilment of its provisions, the IMA aims to improve the transparency of commission arrangements.

A1.2 Regulation in the USA

A1.2.1 Historical background

328. The practice of bundling non-execution and execution services began in the USA in the 1960s, when there were still fixed minimum commissions. As brokers were not allowed to compete on price, they offered non-price concessions instead in an effort to attract the trading of large institutions.

329. When the SEC abolished fixed rates in 1975, concerns were raised as to whether the soft dollar practices that had developed in the context of fixed rates would continue to be consistent with state and federal laws. Underlying these concerns is the fund manager's fiduciary duty to act in the best interest of its client. This duty arises in the Advisers Act, as well as under a variety of regulatory schemes. Specifically, the 'best execution' duty for managers of pension fund assets is enshrined in Section 403(c)(1) and 404(a)(1)(A) of the Employee Retirement Income Security Act (ERISA), enacted by Congress in 1974 and administered by the Department of Labour. The fiduciary duty requires the fund manager to obtain best execution of client transactions, and precludes it from using client assets for its own benefit, at least without the client's consent.

330. Upon the SEC's elimination of fixed commission rates, a fund manager could have been deemed to have violated this duty if the fund manager caused a client's account to pay anything but the lowest commission rates. On this basis, soft dollar arrangements could have been effectively precluded by the decision to eliminate fixed commission rates. Congress addressed these concerns by amending the

[73] IMA (2002), 'Pension Fund Disclosure Code', May.

Securities Exchange Act (1934) by including a new section, 28(e), which provides fund managers with a safe harbour for certain soft dollar arrangements. Section 28(e) of the Act pre-empts the application of ERISA to certain arrangements between pension funds and fund managers. The ERISA regulations are discussed below.

331. The SEC issued two interpretative releases that formed the primary source of guidance on the nature and scope of the safe harbour. In the 1976 Release, it stated that the safe harbour did not protect fund managers who received 'products and services which are readily and customarily available and offered to the general public on a commercial basis'.[74] Hence, this interpretation of the safe harbour implied that third-party research services were falling outside the safe harbour.

332. Industry difficulty in applying the restrictive standards of the 1976 Release caused the SEC to review the regulation of soft dollar arrangements again in the mid-1980s. The review led to the 1986 Release, which, to a significant extent, superseded the positions set forth in the 1976 Release.[75] Indeed, in the 1986 Release, the SEC withdrew the standard set in the 1976 Release and announced a revised standard for the determination of what should be considered research under Section 28(e). It also clarified that, under certain circumstances, it is permissible to obtain third-party research under soft dollar arrangements. On this issue, the SEC emphasised that the research may be delivered directly to the fund manager by a third party, but it must be 'provided' by the broker—ie, the broker is obliged to pay for the research service.[76]

333. The SEC issued another interpretative release in December 2001, specifically on the definition of 'commission', broadening the application of the safe harbour to principal transactions—previously, only agency transactions fell within the safe harbour.[77]

A1.2.2 Regulatory definition of soft dollar arrangements

334. The SEC defines soft dollar practices as:

> arrangements under which products or services other than execution of securities transactions are obtained by an adviser[78] from or through a broker-dealer in

[74] SEC (1976), Security Exchange Act Release No. 12251, March 24th, p. 1.
[75] SEC (1986), Security Exchange Act Release No. 23170, March 23rd.
[76] As discussed in section 4.2, this requirement is different from the UK, where fund managers buy the services from third parties themselves and then pass on the invoice to brokers.
[77] SEC (2002), Security Exchange Act Release No. 34-45194, December 27th.
[78] The SEC interchangeably uses the terms 'advisers' and 'money managers' as synonyms for 'fund managers'.

exchange for the direction by the adviser of client brokerage transactions to the broker-dealer.[79]

335. The definition implies that the products and services provided can be either proprietary (ie, created and provided by the broker, including tangible research products as well as access to analysts and traders) or third-party (produced by a third party but provided by the broker). Acquisition of third-party services with soft dollars involves a negotiated ‘exchange rate’ from hard to soft dollars (the equivalent of the multiple). Soft dollar users typically pay commissions in the range of $1.2–$5.1 for every soft dollar of research provided, with the average rate being 1.7:1 (ie, a fund manager receives a soft dollar credit of $1 for each $1.70 in commission it pays to a broker).[80]

336. On the basis of the SEC’s definition, two categories of participants in soft dollar arrangements can be identified.

- Full-service brokers providing a variety of execution, research and related services to clients. The research and other services offered are generally in-house (proprietary soft dollar services), and in some cases are provided without being directly requested by the fund manager. The cost of such services is generally bundled into the overall commission charged by the full service broker.

- Soft dollar brokers providing fund managers with services prepared or produced by parties other than the broker (third-party soft dollar services) in exchange for the allocation of specified amounts of commission dollars. In third-party soft dollar services, an explicit price denominated in commission dollars, instead of hard dollars, is specified for the research services.

A1.2.3 The safe harbour

337. Section 28(e) of the Securities Exchange Act 1934 was adopted primarily in response to the concern that, with the abolition of the fixed commission rates in 1975, fund managers could be accused of violating fiduciary duties if they failed to obtain the lowest possible commission on any brokerage transaction.

338. Under Section 28(e) of the 1934 Act, no person who exercises investment discretion with respect to securities transaction can be deemed to have acted unlawfully or to breach a fiduciary duty solely by reason of paying brokerage commissions for effecting a securities transaction in excess of the amount of

[79] SEC (1995), ‘Disclosure by Investment Advisers Regarding Soft Dollar Practices’, Advisers Act Release No. 1469, February 14th, p. 2.
[80] Office of Compliance, Inspections and Examinations and Security Exchange Commission (1998), ‘Inspection Report on the Soft Dollar Practices of Broker-Dealers, Investment Advisers and Mutual Funds’, IV(A).

commission another broker would have charged, if that person determined in good faith that the commission was reasonable in relation to the value of brokerage and research services provided by the broker.

339. Section 28(e) states that a person provides 'research services' within the safe harbour if the individual:

> furnishes advice, either directly or through publications or writings, as to the value of securities, the advisability of investing in, purchasing, or selling securities, and the availability of securities or purchasers or sellers of securities;
>
> furnishes analyses and reports concerning issuers, industries, securities, economic factors and trend, portfolio strategy, and the performance of accounts;
>
> effects securities transactions and performs functions incidental thereto (such as clearance, settlement, and custody) or required therewith by rules of the Commission or a self-regulatory organization of which such person is a member or person associated with a member or in which such person is a participant.[81]

340. The definition of research in Section 28(e) includes research delivered electronically, orally or in the form of hard copy.

A1.2.4 Interpretation of the safe harbour

341. The 1986 Release and the new Release published in December 2001 are the two most recent documents containing SEC guidance on the application of the safe harbour. While the 1986 Release describes the necessary conditions for soft dollar arrangements to fall within the safe harbour, the 2001 Release focuses exclusively on the definition of the term 'commission' for purposes of Section 28(e).

342. According to the 1986 Release, soft dollar arrangements fall within the safe harbour if commissions are used to obtain 'brokerage or research services', where

> The controlling principle to be used in determining whether something is research is whether it provides lawful and appropriate assistance to the money manager in the performance of its investment decision-making responsibilities.[82]

343. Contrary to the previous 1976 standard, this definition of research unambiguously includes research delivered by third parties. Indeed, the SEC has recognised that if Section 28(e) applied only to in-house research then smaller or specialised brokers who do not have their own research departments would be placed at a significant competitive disadvantage.

344. Further conditions include the following:

[81] Section 28(e)(3)(A)–(B);
[82] SEC (1986). op. cit., par. II (B).

- Brokerage and research services must be 'provided by' the particular broker to whom the commission business is directed. A broker 'is providing' research if it undertakes the unconditional obligation to pay the third party for the research delivered to the fund manager, even if the third party forwards the research directly to the fund manager rather than delivering it through the broker-dealer. This implies that the fund manager does not have any obligation to pay the third-party research provider if the broker fails to pay it.[83]

- The fund manager must determine 'in good faith' that any commission paid to a broker under soft dollar arrangements is reasonable in relation to the value of the brokerage and research service received by all of the fund manager's eligible accounts.[84]

- The transactions must be placed by the fund manager with 'investment discretion' over the account.[85]

345. The Release also addresses the issue of 'mixed-use' products and services—ie, products and services that have both a research and a non-research function.[86] When mixed products are received under soft dollar arrangements, the fund manager should make a reasonable allocation of the cost of the products and services where only the portion of products and services that provide assistance to the fund manager's decision-making can be paid for with soft dollars.

346. The guidance published in December 2001 clarifies the term 'commission' for the purposes of the safe harbour. Before this Release, the SEC interpreted Section 28(e) to be applicable only to research and brokerage services obtained in relation to commissions paid to brokers acting as agents. This interpretation prevented fund managers from relying on the safe harbour for research and brokerage services obtained in 'principal transactions'. In recognition of the transparency achieved in the Nasdaq market for certain principal transactions, which allows a fund manager to make the necessary good faith determination under Section 28(e), the December 2001 Release modified the SEC's previous interpretation of Section 28(e) on this issue. Specifically, the term 'commission' in Section 28(e) of the Exchange Act is interpreted in the 2001 Release to include a mark-up/-down

[83] This explains why in the USA, the broker, and not the fund manager, has a contractual arrangement with the third-party service provider. This issue is also discussed in section 4.6.2.

[84] The good faith determination need not be made on account-by-account basis (ie, for each individual client). Indeed, if account-by-account allocations were required, the safe harbour would be of limited practical use for a fund manager with a large number of client accounts.

[85] This rule implies that directed brokerage agreements do not fall within the safe harbour of Section 28(e), as they do not involve a potential conflict of interests of the fund manager and the client. This is because, under this arrangement, the client receives the services directly.

[86] For example, a management information system may integrate diverse functions, such as trading, execution, accounting, record keeping and other administrative functions.

commission equivalent, or other fee paid by a managed account to a dealer for executing a principal transaction.

347. In July 1990, the SEC also clarified in a letter that the safe harbour applies only to security transactions and does not cover commodities, including financial futures.[87]

A1.2.5 Specific products or services that qualify as 'research'

348. As a general policy, the SEC does not express definite views on whether the receipt of any particular product or service under soft dollar arrangements falls within Section 28(e). However, Congress and the SEC have, in specific instances, identified products and services that fall within and outside the safe harbour (see Table A1.2).

Table A1.2: Products and services falling within and outside the safe harbour

Within safe harbour	Outside safe harbour
Computer analyses of securities portfolios	Information designed to improve a fund manager's marketing and sales services
Performance measurement services (ie, evaluation of fund managers' performance results) that are used in making investment decision	Performance measurement services that are used to market the fund manager's services to potential clients
Stock-price quotation services	Computer software for financial and tax accounting or record keeping
Tuition or admission costs for research seminars (but not airfare and accommodation expenses of attendees)	Research acquired for the purpose of resale
Subscriptions to magazines, newspapers, periodicals or academic journals involving economic, political, or other issues directly related to industry, research, or a specific security	Overhead and administrative expenses such as rent, furniture and telephone bills
Credit-rating services	Business entertainment
Hardware and software dedicated to research	Travel costs, hotel, meals, and entertainment in connection with research seminars
News services	Trading desks and associated hardware
Portfolio modelling	
Political analyses	

Source: Lemke T. and Lins, G. (2002), 'Soft Dollars and Other Brokerage Arrangements', Glasser LegalWorks.

349. A product or service is identified as falling within the safe harbour if it helps the fund manager's investment decision-making, rather than the manager's marketing or general administrative activities. Indeed, products and services outside the safe harbour fall broadly into two categories: those that the manager uses in marketing its investment management services, and those that it uses in day-to-day administrative activities.

[87] SEC (1990), 'No-Action Letter', July 25th.

A1.2.6 Disclosure obligations for soft dollar arrangements

350. Section 28(e) provides regulators with a broad mandate to require disclosure of soft dollar arrangements 'in the public interest or for protection of investors'. The SEC has never adopted specific disclosure rules under Section 28(e). However, the safe harbour does not relieve a fund manager from its disclosure obligations under the federal securities law. The primary disclosure document for fund managers is the Form ADV, the uniform registration form adopted by the SEC and by the majority of the states. The form consists of two main parts: Part I provides information about the fund manager primarily designed to be used by regulators for administrative purposes; Part II is the basic disclosure document ('brochure') that a fund manager is required to provide to clients before entering into advisory relationships, and annually thereafter.

351. Item 12 of Part II requires fund managers to disclose the criteria they use when selecting brokers and in determining the reasonableness of their commissions. If the value of products, research and services received by fund managers is a criterion determining the choice of the broker then fund managers must specify the following in the Form ADV:

- a description of those products, research and services;
- whether clients may pay commissions higher than those obtainable from other brokers in return for the research, products and services;
- whether research is used to service all accounts or just those accounts paying for it;
- any procedures that fund managers used during the last fiscal year to direct client transactions to a particular broker in return for products, research and services received.

352. However, when describing the products and services received under soft dollar arrangements, fund managers are not obliged to list each specific item, but only to describe the types of product and service received in 'sufficient' detail to enable clients to understand what has been obtained.[88]

A1.2.7 The Employee Retirement Income Security Act—regulatory framework for soft commissions falling outside the safe harbour

353. Arrangements between pension funds and fund managers fall within the scope of the ERISA enacted by Congress in 1974. The Department of Labor has overall responsibility for ERISA, which deals with the establishment, operation and administration of employee welfare and pension plans. In the specific case of pension fund management, any soft dollar arrangements falling outside the 'safe harbour' provision must comply with ERISA requirements.

[88] See Admin. Proc. Files No. 3-9317 [September 3rd. 1998], 'In re Parnassus Investments'.

354. Soft-dollar arrangements outside the safe harbour (and directed brokerage arrangements) are permitted under ERISA if they comply with the following requirements (listed in Sections 404 and 406 of ERISA).

- *Exclusive benefit*—fund managers must act solely in the interest of the fund participants and beneficiaries, and for the exclusive purpose of providing benefits to fund participants and their beneficiaries, and defraying the fund's reasonable administrative expenses (S403(c)(1) and S404(1)(A)).

- *Prudence*—fund fiduciaries must act prudently in discharging their duties (S404(a)(1)(B)).

- *Diversification*—fund managers must diversify the plan's investment so as to minimise the risk of large losses, unless clearly imprudent to do so (S404(a)(1)(C)).

- *Adherence to plan documents*—fund managers must discharge their duties in accordance with the 'documents and instruments governing the fund' (S404(a)(1)(D)).

- *Prohibited transactions*—a fund manager is prohibited from causing the fund to engage in a transaction that it knows is a direct or indirect transfer to a 'party of interest' of plan assets. The fund manager may not cause the sale or exchange of property between the fund and a 'party of interest'; give loans or extension of credit between the fund and a 'party of interest'; or supply goods, services or facilities to be furnished between the fund and a 'party of interest'. Moreover, the fund manager is prohibited from engaging in a transaction that would benefit itself (S406(a)(1)).

- *Self-dealing*—a fund manager is prohibited from dealing with plan assets in its interest or for its own account (S406(b)(1)).

- *Acting adversely to plan interests*—a fund manager cannot act in a transaction involving the plan on behalf of a party whose interests are adverse to the plan (S406(b)(2)).

- *Personal consideration*—a fund manager is prohibited from receiving consideration for its personal account from any party dealing with the plan in any transaction involving plan assets (S406(b)(3)).

- *Co-fiduciary liability*—a fund manager may be liable in certain cases for breaches of duty by co-fiduciaries of the fund (S405(a)).

355. Release 86-1 is the primary source of the Department of Labor's guidance on soft dollar arrangements under ERISA.[89] Release 86-1 states that soft dollar arrangements are considered to be outside the safe harbour when 'money managers direct a portion of a plan's brokerage commissions to a specific broker-dealer who then applies a percentage of the commissions to pay for the non-research items for the money managers, such as travel, hotel rooms, and other non-research goods and services'.[90] The Release states that ERISA provisions also apply to directed brokerage arrangements, which, by definition, fall outside the safe harbour.

356. The Release also includes two examples of soft dollar arrangements involving pension funds that fall outside the safe harbour and therefore need to comply with ERISA. The second example reported in the Release is the following:

> Money Manager A enters into an arrangement with Broker-Dealer B whereby Money Manager A would direct brokerage on behalf of its managed plan accounts, thereby generating fees of $500,000 per year to Broker-Dealer B. In return, Broker-Dealer B would provide bookkeeping services that do not constitute research under Section 28(e) for the general corporate purposes of Money Manager A. Money Manager A has engaged in a act prohibited by Sections 406(a)(1)(D), 406(b)(1) and 406(b)(3) of ERISA, since Money Manager A has exercised its fiduciary authority over plan assets to benefit itself. Such a transaction would also violate the exclusive purpose provisions of Sections 403(c)(1) and 404(a)(1) of ERISA.

A1.2.8 The inspection report on soft dollar practices

357. In September 1998, the Office of Compliance Inspections and Examinations of the SEC issued a report called 'Inspection Report on Soft Dollar Practises of Broker-Dealers, Investment Advisers and Mutual Funds'. This was based on a number of on-site inspections of the soft dollar practices of 75 brokers and 280 pension funds and investment companies between November 1996 and April 1997. The review covered $274m in soft dollar payments for third-party research, which is estimated to represent between 32% and 41% of all soft dollar commissions paid for third-party research from January to October 1996. The main findings of the report are as follows.

- Virtually all investment advisers obtained proprietary and third-party products and services from brokers and used client commissions to pay for them. Most products and services obtained with soft dollars constituted 'research' for the purposes of the Exchange Act, thereby falling within the safe harbour.

[89] Department of Labour, Technical Release 86-1, May 22nd 1986.
[90] Technical Release 86-1, May 22nd 1986, p. 2.

- 35% of brokers and 28% of investment advisers provided and received non-research products and services under soft dollar arrangements.

- Nearly all investment advisers who obtained non-research products and services failed to disclose these practices adequately to their clients.

- Many advisers did not allocate the purchase price of mixed-use items between hard and soft dollars, or could not justify how the allocation was determined, and few advisers disclosed the basis for their allocation decisions.

358. As a result of the inspection and analysis of the data, the report recommended that the SEC:

- reiterate and provide further guidance with respect to the scope of the safe harbour, particularly concerning the use of electronically provided research and equipment to send, receive and process research electronically;
- adopt a rule requiring all brokers to provide to each investment adviser a statement, at least annually, of all products and services and research provided to the adviser in exchange for commissions;
- adopt record keeping requirements that would provide greater accountability for soft dollar transactions and allocations, including rules: (a) requiring advisers to keep the statements required by the preceding recommendation, and where there are multiple broker-dealers, a detailed list of all products and services received for soft dollars and (b) requiring advisers to maintain a record of the basis of mixed-use products and services between their hard and soft dollar components;
- modify Form ADV to require more complete disclosure by advisers, including: (a) details sufficient for clients to understand the types of products being purchased; (b) disclosure about any products or services received that are not used in carrying out the adviser's investment decision-making process; (c) a statement that the adviser will provide more detailed information upon request; and (d) disclosure of the availability to clients of direct commission recapture, in the form of cash, products and services and expense payments or reimbursements, for trades placed by the adviser.[91]

A1.3 Regulation in Germany

359. The German regulatory approach to soft commissions is based on the general rule that fund managers must act in the best interest of their clients, while case-by-case

[91] SEC (1998), Inspection Report on Soft Dollar Practises of Broker-Dealers, Investment Advisers and Mutual Funds, September.

infringements of the rules are dealt with by specific decisions. In line with this approach, no list of those services or goods that are allowed under soft commission arrangements is provided under the German regulations.

360. Regulation of soft commission arrangements is achieved through two main sets of rules, which are enforced by the German financial security authority, the Bundesanstalt für Finanzdienstleistungsaufsicht (BAFin):

- the Security Trading Act (Gesetz über den Wertpapierhandel—WpHG), which applies to investment services enterprises;[92]
- the Investment Company Act (Kapitalanlagegesellschaftsgesetz, KAGG), which applies to collective investment schemes (CIS).

361. The legislation for CIS is pertinent to pension fund management, given that pension funds are able to set up a special fund (Spezialfond) managed on a collective basis by an investment company, Kapitalanlagegesellschaft (KAG).[93] The WpHG rules do not apply directly to CIS. The only rules applying directly to CIS are those in the KAGG, which is applied to both the Spezialfond and the KAG, and provides only a general 'best interest' rule. As such, it does not deal specifically with soft commissions. Furthermore, it does not impose any stringent additional obligations on the management of investment companies as compared with the management on a segregated basis.

362. However, through interpretation of the general 'best interest' rule, the German regulatory authorities are able to enforce the rule that soft commission arrangements are undertaken for the ultimate benefit of clients.

363. The WpHG sets the general normative framework for investment services enterprises in Germany. For the purpose of the Act, investment services enterprises are defined as:

> Credit institutions, financial services institutions and enterprises operating under Section 53 paragraph (1) sentence 1 of the German Banking Act which provide investment services alone or in connection with non-core investment services on a commercial basis or to an extent that requires their provision on a commercial basis.[94]

364. As fund managers fall within this definition, they have to comply with the Act's regulatory framework.

[92] BAWe (1998), 'Gesetz über den Wertpapierhandel', *Federal Law Gazette I*, p. 2708.
[93] These special funds can be distinguished from retail funds ('Publikumsfunds'). While retail funds issue shares that are marketed to the general public, special funds are set up for at least one, but not more than ten, institutional investors, with the main investors being pension funds and insurance companies, but also large industrial companies and banks. Both special and retail funds are subject to the KAGG.
[94] Ibid., p.6.

365. On July 15th 2000, the then German financial security authority, Bundesaufsichtsamt für den Wertpapierhandel (BAWe),[95] published its Guideline on Sections 31 and 32 of the WpHG.[96] The new Guideline, which replaces the Guideline of May 26th 1997, defines the rules of conduct for securities services enterprises arising under the WpHG. Specific rules of conduct for disclosure of soft commissions are provided in the Guideline (2000) to the WpHG.

366. Section 31 of the WpHG sets out the general rules of conduct for investment services enterprises in Germany, stating that they must act in the general best interest of their clients:

> Investment services enterprises shall be required to provide investment services and non-core investment services with the requisite degree of expertise, care and conscientiousness in the interests of their customers; to endeavour to avoid conflicts of interest and to ensure that, in the event of unavoidable conflicts of interest customers' orders are executed with due regard to customers' interests.

367. Section 32 of the WpHG sets specific rules of conduct for investment services enterprises for the purpose of avoiding conflicts of interest, for example:

> Investment services enterprises or related enterprises may not advise customers of the investment services enterprise to purchase or sell securities, money-market instruments or derivatives if, and to the extent that, such advice is not in conformity with the customers' interests.[97]

368. The Guideline places particular emphasis on the disclosure of the various interests of the parties involved, in particular in relation to kick-back payments,[98] other monetary payments and soft commissions.

369. Under German civil law, there is a general obligation upon the commissioner of a good or service (in this case, the investment services enterprise) to inform its customers of any kick-back agreements that it has in place and to pass on any kick-back payments it receives to its customers.

370. In a similar vein, the regulations state that all other monetary payments and other soft commissions, which:

[95] Following the Gesetz über die Bundesanstalt für Finanzdienstleistungsaufsicht, the new BAFin has taken the function over from the earlier BAWe, beginning May 1st 2002.

[96] BAWe (2000), 'Guideline on the details concerning Sections 31 and 32 of the WpHG relating to the commission business, proprietary trading on behalf of a third party, and agency business of investment services institutions of 9 May 2000', *Federal Law Gazette No. 131*, July 15th, p. 13792.

[97] The BAWe's English translation is furnished for information purposes only and it is not binding.

[98] The definition of 'kick-back' applies to all monetary payments, including 'loyalty bonuses', which investment services enterprises may pay to their brokers if their customers hold funds with them for a certain (defined) length of time.

> the investment services company receives directly or indirectly, for example within the scope of its agency activities, and which have an economic connection with customer transactions, must be brought to the customer's attention, at least in a general way, and must be explained upon request.[99]

371. Where, in the case of soft commission arrangements, it is not possible to pass on to the client the monetary value of the services received, fund managers are required to ensure that any services received under soft commission arrangements are used for the benefit of the client.

372. In practice, checks are carried out by the BAFin on a case-by-case basis. The most common offence found by the regulator is that monetary rebates are not passed on to clients. Note that the guidelines and rules put in place by the BAFin are applied under public law. As such, the BAFin cannot enforce the civil law obligation to pass kick-back on payments to customers—this is the responsibility of the customers themselves.

373. Following a conference call with the BAFin on June 14th, OXERA's understanding is that no surveys on the practice of soft commissions in Germany are available in Germany within the public domain.

374. In addition to the rules set out in this appendix, BAFin, after consultation with other relevant parties, is planning to issue specific 'rules of conduct' (ie, non-statutory) for the industry on a self-regulation basis, including provisions on soft commissions. The rules are not available in the public domain at the time of writing.

A1.4 Regulation in France

375. Regulation of soft commission arrangements in France is achieved through rules laid down by the Commission des Opérations de Bourse (COB)[100] and the Association Française de la Gestion Financière (AFG-ASFFI).[101] Soft commissions are allowed under the French regulation as long as they:

- comply with the best execution practice (ie, the quality of execution is not compromised);
- improve the quality of the fund managers' services;
- do not entail an increase in the execution costs passed through to the fund.

[99] BAWe (1998), 'Gesetz über den Wertpapierhandel', *Federal Law Gazette I.*

[100] Règlement 96-03 Relatif aux règles de bonne conduite applicables au service de gestion de portefeuille pour le compte de tiers homologue par arrêté du 6 janvier 1997 paru au journal official du 22 Janvier 1997 (Regulation on good conduct rules applicable to fund management services on behalf of third parties).

[101] Règlement de déontologie de la gestion de portefeuille individualisée mandat (Ethical rules for individualised fund management under mandate). The rules are compulsory for their members.

376. Soft commissions in the form of cash rebates are prohibited. Furthermore, the choice of the broker must be dictated by the quality of the broker's execution and unrelated to the provision of 'soft services'. Transparency is also guaranteed as the fund manager has the duty to inform the pension fund about the volume and the beneficiaries of 'soft services' received.

A1.5 EU regulations on soft commission arrangements

377. The EU Investment Services Directive (ISD, 1993)[102] contains certain rules relevant to soft commission arrangements. Furthermore, the Committee of European Securities Regulators (CESR) has published draft proposals for harmonisation of the conduct of business rules.[103]

378. Article 11 of the ISD provides that EU Member States 'shall draw up rules of conduct which investment firms shall observe at all times.'[104] The national rules must implement at least the principles set out in Article 11 of the ISD. Article 11 states that the Member States' rules of conduct for investment firms must comply with a general 'best interest' rule. Indeed, national principles:

> must ensure that an investment firm:
>
> 1. acts honestly and fairly in conducting its business activities in the best interests of its clients and the integrity of the market,
> 2. acts with due skill, care and diligence, in the best interests of its clients and the integrity of the market,
> 3. has and employs effectively the resources and procedures that are necessary for the proper performance of its business activities,
> 4. seeks from its clients information regarding their financial situations, investment experience and objectives as regards the services requested,
> 5. makes adequate disclosure of relevant material information in its dealings with its clients,
> 6. tries to avoid conflicts of interests and, when they cannot be avoided, ensures that its clients are fairly treated, and
> 7. complies with all regulatory requirements applicable to the conduct of its business activities so as to promote the best interests of its clients and the integrity of the market.[105]

[102] Council of the European Communities (1993), 'Directive 93/22 on investment services in the securities field', May 10th.

[103] Committee of European Securities Regulators (2002), 'A European Regime of Investor Protection: The Harmonization of Conduct of Business Rules', Paris.

[104] For the purposes of the directive, investment firms ('ISD investment firms') are defined in Point 2 of Article 1 of the ISD: 'investment firm shall mean any legal person the regular occupation or business of which is the provision of investment services for third parties on a professional basis'.

[105] Council of the European Communities (1993), 'Directive 93/22 on investment services in the securities field', May 10th, Article 11.

379. While the ISD rules are framed at a high level of generality, the CESR is taking steps to establish a deeper process of convergence in the national business regimes in order to ensure adequate protection for European investors.

380. In April 2002 the CESR published a proposal for harmonisation of conduct of business rules under Article 11 of the ISD.

381. Once approved by Member States the CESR proposal will set the general standards and rules of business conduct for investment firms in all EU Member States. The CESR proposes a general normative framework, based on the principle that the fund must be managed in the best interest of the customers and that:

> An investment fund must pay due regard to the information needs of its customers and communicate information to them that it is fair, clear, and not misleading.

382. Sections 6 and 8 of the CESR's proposal also set out specific standards and rules for inducements. Inducements are defined as:

> Any monies, goods or services (other than normal commissions and fees for the service) received by an investment firm or any of its members of the board, directors, partners, employees and tied-agents in relation to business for a customer with or through another person, whether on a prepaid, continuous or retrospective basis.[106]

383. The proposed standard and rules for inducements apply to soft commission arrangements, as soft commissions comply with the CESR's definition of inducements.

384. Section 1.2, paragraph 6 of the CESR's proposal sets the standard for inducements, stating that:

> An investment firm, its members of the board, directors, partners, employees and tied-agents may offer or receive inducements only if they can assist the firm in the provision of services to its customers. Where inducements are received, disclosure of such inducements must be made to the customer.

385. Section 1.2, paragraph 8 also states that:

> where inducements are permitted, an investment firm must act in the best interest of the customer and inform the customer at the beginning of the relationship, which may give rise to conflicts of interest between itself and its customers, about the investment firm's policy on inducements, and at least once a year in writing of the relevant details of such inducements.

[106] Committee of European Securities Regulators (2002), op. cit. p. 6.

386. To summarise, it can be concluded that the EU rules provide minimum standards on soft commission arrangements and practices. Given the fact that the ‘best interest rule’ is already incorporated in the legislation in the UK, Germany and France, apart from stricter rules on disclosure, the EU legislation is unlikely to impose any further requirement on fund managers in these countries.

Appendix 2: Relevant Concepts from the Economics of Competition Policy

A2.1 Market definition

387. Competition analyses normally consist of three stages. Using a conventional competition law framework, it is necessary first to define the 'relevant markets' in which the brokers, fund managers and institutional investors operate. From the market definition will follow an assessment of market concentration (ie, market shares, concentration indices), barriers to entry, bargaining power, and, hence, of market power. The last step is the assessment of the conduct of the companies, the nature of competition and an overall assessment of the performance of the market. The assessment of concentration in the defined relevant market is crucial to identify possible anti-competitive effects of specific companies' conduct, such as bundling and soft commissions. This appendix first describes the principles of the definition of the relevant market and the assessment of market concentration, followed by an overview of the economic theory of bundling.

388. When assessing a merger, a restrictive agreement or possibly abusive conduct under competition law, competition authorities have to define the 'relevant market' in which the merger, agreement or conduct takes place. Market definition is often the decisive—and therefore most disputed—issue in competition inquiries. The relevant market is characterised in terms of product and geographic area. Usually, the more broadly the relevant market is defined, the less likely it is that the company or companies under investigation are found to be dominant.

389. Defining the relevant market is not an end in itself, but rather an important intermediate step in evaluating the competitive constraints faced by the company or companies subject to the investigation. Companies selling a product normally face three types of competitive pressures that may prevent them from raising the price of that product.

- *Demand-side substitution*—clients may switch to other available suppliers that provide them with the same or equivalent services (eg, pension funds may switch between fund managers, and fund managers may switch between brokers).

- *Supply-side substitution*—existing financial service firms already supplying similar products (or neighbouring geographic areas) may readily switch to supplying the product (or area) of the company in question (eg, a fund manager may decide to start its own trade execution business or to rely on its own research instead of buying it from brokers or third parties).

- *New entry*—new competitors may enter the market (eg, full-service brokers selling bundled services may face new competition upon market entry from specialist soft dollar brokers).

390. A competition analysis should take account of all these factors. Demand-side substitution is the most immediate type of substitution, and it is also the most measurable. By contrast, supply-side substitution and new entry are hard to measure or predict. This is one of the reasons why the US authorities only consider demand-side substitution in market definition. They consider the other

two types of substitution at a later stage when market power in the relevant market is assessed. The UK and EU authorities, however, also include supply-side substitution in the relevant market in those situations where it is (almost) as effective and immediate as demand substitution.[107] In practice, the two approaches often lead to similar conclusions with respect to dominance, since, ultimately, all three types of competitive pressure must be considered.

A2.2 Assessment of concentration and market power

391. Having defined the relevant market, the second step in the analysis is the assessment of market power or dominance (or joint dominance, when a dominant position is held by two or more undertakings). The European Court of Justice (ECJ) has defined the concept of dominance as follows:

> Dominant position … relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of its consumers.[108]

392. Thus, the essence of dominance is the power to behave independently of economic pressures in the market. This market power allows the firm to maintain prices above the competitive level or to engage in anti-competitive conduct to exclude competitors from the market.

393. To assess market concentration, the analysis will consider the following factors.[109]

- *Market shares*—these give an indication of the degree of market power of the single parties. Market shares over time could be assessed, as volatile market shares indicate a high degree of competition.
- *The Herfindahl–Hirschman Index (HHI)*—this gives an indication of the level of concentration in the whole market.
- *Barriers to entry*—which might include:
  - the absolute cost advantages of the incumbent fund managers/brokers;
  - strategic behaviour by the incumbent fund managers/brokers;
  - intellectual property rights;

[107] An example used by both the European Commission and the Office of Fair Trading (OFT) is the production of paper. Standard writing paper and high-quality paper used for art books are not substitutable from the customer's point of view. However, paper plants can easily switch production capacity from one paper type to the other, so that, from a supply-side perspective, they are in the same relevant market.
[108] Case 27/76 *United Brands v. Commission* [1978] E.C.R. 207; [1978] 1 C.M.L.R. 429, paragraphs 65–66.
[109] See also OFT (1999), 'Assessment of Market Power', OFT 415, September.

- the incumbent’s brand reputation;
- sunk costs and economies of scale and scope in production;
- control over essential facilities by the incumbent;
- regulatory restrictions.

- *Buyer power*—fund managers may be in a position to be able to exert pressure on brokers to provide competitive services, and pension funds over fund managers.

394. Market shares are commonly used by competition authorities as an indication of market power. If the market share is greater than the threshold defined by the competition authorities, the likely impact of the agreement on the market must be assessed in further detail. Depending on the market position of the parties and the concentration in the market, other factors may have to be considered, such as the stability of market shares over time, entry barriers and the likelihood of market entry, the countervailing power of buyers/suppliers or the nature of the products (eg, homogeneity, maturity). Under EU law, a market share above 50% implies a strong presumption of dominance, although the relative size of other competitors is also relevant.[110]

395. The HHI does not measure the market power of one particular firm, but gives an indication of concentration in the whole market. The HHI is obtained by calculating the sum of the squares of the market shares of each company. For example, a market with four firms with market shares of 50%, 20%, 20% and 10% will have an HHI of 3,400.[111] The HHI can take on values between close to zero (perfect competition) and 10,000 (a monopoly has a share of 100%, so the square is 10,000).

396. The US Department of Justice and the Federal Trade Commission use the HHI for the evaluation of mergers.[112] They divide the spectrum of market concentration as measured by the HHI into three regions that can be broadly characterised as unconcentrated (HHI below 1,000), moderately concentrated (HHI between 1,000 and 1,800), and highly concentrated (HHI above 1,800). The general standards for horizontal mergers are as follows.

- *Post-merger HHI below 1,000*—the US authorities regard markets in this region to be unconcentrated. Mergers resulting in unconcentrated markets are unlikely to have adverse competitive effects, and normally require no further analysis. The HHI would equal 1,000, for example, for a market

[110] Case 62/86R *Akzo v. Commission* [1986] E.C.R. 1503 [1987] 1 C.M.L.R. 255.
[111] HHI = $(50^2 + 20^2 + 20^2 + 10^2) = (2{,}500 + 400 + 400 + 100) = 3{,}400$.
[112] Department of Justice and Federal Trade Commission (1992), ‘Horizontal Merger Guidelines’, April.

with ten equally sized firms, or if the incumbent has just over 30% of the market and an infinite number of fringe competitors have the rest.

- *Post-merger HHI between 1,000 and 1,800*—the US authorities regard markets in this region to be moderately concentrated. The HHI is 1,800 in a market with between five and six equally sized firms.

- *Post-merger HHI above 1,800*—the US authorities regard markets in this region to be highly concentrated.

397. The OFT has also used the HHI in its assessment of merger cases. For example, in the proposed acquisition of Abbey National plc by Lloyds TSB Bank plc,[113] the Director General of Fair Trading refers to the US merger guidelines and the HHI thresholds. In the OFT's analysis, the HHI is just one measure of market concentration; other indicators, such as market shares and concentration ratios, are also used.

398. The EU authorities have not adopted the HHI for evaluating merger cases but use it to assess the impact of horizontal cooperation agreements between competitors (such as agreements on R&D). The HHI is used in addition to the calculation of the market shares of the different parties.[114] The European Commission uses the same spectrum as the US authorities for mergers: with an HHI below 1,000, the market concentration is regarded as low, between 1,000 and 1,800 as moderate, and above 1,800 as high. Thresholds for a possible exemption are given in the form of market shares (not in HHIs).

A2.3 The economics of bundling

399. In economic terms, bundling is a special case of tying—the general term applied when the purchase of one good is made conditional on the purchase of another good. The key element distinguishing bundling from tying is that, in the former, the tying and the tied goods are only offered in fixed proportion. Bundling is generally observed when products are complements.[115] However, bundling can

[113] OFT (2001), 'Report under Section 125(4) of the Fair Trading Act 1973 of the Director General's advice, given on February 13th 2001 and February 20th 2001 to the Secretary of State for Trade and Industry under Section 76 of the Act'.
[114] European Commission (2001), 'Guidelines on the Applicability of Article 81 of the EC Treaty to Horizontal Cooperation Agreements' (2001/C 3/02). Horizontal agreements fall under Article 81 of the EC Treaty and are only granted an exemption if certain criteria are met.
[115] Two products are complements if their cross-price elasticity is negative—ie, a decrease in price for one product would not only increase the demand for the product itself, but also for the complement product.

also be profitable when the two products are independent, or even substitutes. [116] Two forms of bundling are distinguished in economic theory.

- *Pure bundling*—products are only offered as a bundle and not on a stand-alone basis. Pure bundling can be implemented via technological integration (ie, products are designed to be incompatible with rival manufacturers' products).

- *Mixed bundling*—products remain available on a stand-alone basis, but are also offered as a package on discounted terms (ie, the price of the bundle is less than the sum of the prices of the stand-alone components).

A2.3.1 Incentives for bundling

400. The economic literature identifies three main incentives for bundling: price discrimination, economies of scope and market foreclosure. Each of these is discussed below, together with their welfare implications for consumers and overall efficiency.

Price discrimination

401. Bundling has traditionally been explained in the economic literature as a means of price discrimination. This literature generally assumes that either two (or more) monopolised products are bundled together or a competitively supplied product is bundled with a monopolised product. [117]

402. Price discrimination requires the monopolist to observe consumers' product valuations so that it can segment the market on the basis of consumers' reservation prices and set different prices for each segment of the market.[118] By price-discriminating, the monopolist is able to extract more consumer surplus than by setting a single price for all customers.[119]

403. When consumer valuations are unknown, bundling can serve as a surrogate for price-discrimination. Indeed, consumers' valuation for any bundle of products generally has a probability distribution, with a lower standard deviation compared with the valuations for the individual goods. This is due to the fact that exceptionally low and high valuations for the stand-alone components are averaged out in the valuation of the bundle. As a result of the reduction in price-reservation dispersion, the monopolist might be able to extract more consumer surplus through bundling than by pricing the stand-alone components separately.

[116] Two products are independent when the price of one does not affect the demand for the other; they are substitutes when the price of one adversely affects the demand for the other. See, for example, Mathewson and Winter (1997), 'Tying as a Response to Demand Uncertainty', *Rand Journal of Economics*, 28:3.

[117] See, for example, Burstein (1960), 'The Economics of Tie-in Sales', *Review of Economics and Statistics*, **42**, 68–73.

[118] A customer' reservation price is defined as the maximum price that the customer would be willing to pay to purchase the good. The reservation price reflects the customer's valuation of the product.

[119] Consumer surplus is given by the difference between consumers' valuation for a product and the actual price paid.

404. The relative profitability for the monopolist of the different pricing strategies (unbundled sales, pure bundling and mixed bundling) depends on the marginal costs and the distribution of customers' reservation.

405. The welfare consequences for consumers of bundling as a form of price discrimination are ambiguous. For example, in the case of mixed bundling (the bundle is sold at a discount compared with the stand-alone components), the effect on consumer welfare is unclear, as consumers buying the bundle unambiguously benefit from bundling, while consumers buying the stand-alone components might be asked to pay a higher price.

406. The efficiency benefits of bundling are also ambiguous and crucially depend on the distribution of consumers' valuation and on the level of marginal costs.[120] For example, the higher the marginal costs, the more likely it is that bundling leads to oversupply, as consumers may buy the bundle even if their valuation for one good is below its marginal production cost.

Economies of scope

407. The achievement of economies of scope can be another rationale for adopting a bundling strategy. This is the case when the value of the bundle is more than the sum of the values of the component goods (or if the production cost is less than the sum of the goods' component values). For example, bundling can bring about economies of scope in distribution, in administering prices, in advertising or in the reduction of consumers' shopping costs.[121]

408. In some cases, the economies of scope deriving from bundling are so large that it is not profitable to sell the single components on a stand-alone basis. This might happen when the single components are valuable only as a part of the bundle or when the cost of technically unbundling each component of the bundle is prohibitive. For example, product integration has been a major force in the PC software industry over the past 20 years: for instance, word processing software in the early 1980s included neither spell checkers nor grammar checkers, while stand-alone products to perform each task were developed and sold on a stand-alone basis. By the early 1990s, all the leading word-processing programs included spelling and grammar checkers, and the market for the stand-alone products has now almost entirely disappeared.[122]

[120] See, for example, Adams, W.J. and Yellen, J.L. (1976), 'Commodity Bundling and the Burden of Monopoly', *Quarterly Journal of Economics*, **90**, 475–98.

[121] Shopping costs arise when there are economies of scope in buying related products from the same supplier *at a certain point in time.* For example, one-stop shopping of grocery products in a single supermarket is more convenient than shopping around in different supermarkets. See Klemperer (1995), 'Equilibrium Product Lines: Competing Head-to-Head may be Less Competitive', *American Economic Review*, **82**:4, 740–55.

[122] See Evans D. and Schmalensee, R. (2001), 'Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries', NBER Working Paper 8268.

409. When bundling is adopted exclusively to achieve economies of scope (in value or production costs), consumer welfare will be enhanced to the extent that the market is competitive enough for these cost savings to be passed on to consumers.

Leverage of market power

410. According to the traditional leverage theory of bundling, bundling is a device that allows a firm with monopoly power in the tying market to leverage its power to foreclose rivals in the tied market.

411. The leverage hypothesis has been widely criticised by the Chicago school on the basis that in any value chain there is only 'one monopoly rent' and this can be extracted from the monopolised market.[123] According to the Chicago school, if bundling is observed, it has to serve purposes other than market foreclosure, for example, price discrimination, achieving scope economies or risk sharing. The Chicago school's argument also implies that bundling cannot be detrimental to consumer welfare.

412. In 1990, Whinston re-examined the role of bundling as a foreclosure strategy and showed that the Chicago school's criticism depends on the tied market being characterised by perfect competition and constant return to scale.[124] Given the competitive and constant-return-to-scale structure of the tied market, leveraging market power to monopolise the tied good market is impossible since there is only one monopoly profit that can be extracted. However, the incentives to adopt a foreclosure-based bundling strategy change when the tied good market is oligopolistic as a result of scale economies in the production process. Indeed, Whinston showed that when a monopolist in the tying market faces a competitor in the tied market offering a differentiated product, bundling can be used to affect the market structure of the tied market—ie, to monopolise it. Indeed, through bundling, the monopolist reduces the sales of the rival's tied product and can force the rival to exit the market.

413. After Whinston's contribution, the theoretical literature has started exploring the effects of bundling practices in alternative environments, the most relevant contribution being the modelling of bundling in oligopolistic markets and the development of dynamic versions of the leverage theory.[125] These theoretical developments have recently been given further impetus by competition policy cases—eg, concerns raised by the European Commission in relation to conglomerate mergers in oligopolistic markets (such as in the Guinness/GrandMet

[123] See, for example, Posner, R.A. (1976), *Antitrust Law: An Economic Perspective*, University of Chicago Press and Bork, R.H. (1978), *The Antitrust Paradox: A Policy at War with Itself*, Basic Books.
[124] Whinston, M. (1990), 'Tying, Foreclosure and Exclusion', *American Economic Review*, **80**, 837–59.
[125] Another important extension is Choi and Yi's analysis of the effect of *technological* bundling in the context of vertical integration, in Choi, J.P. and Yi, S.S. (2000)'Vertical Foreclosure with the Choice of Input Specifications', *Rand Journal of Economics*, **31**:4, 717–43.

merger case) and the relevance of the bundling practice in the Microsoft case in the USA.[126]

A2.3.2 Effect on competition and consumer welfare

414. To assess the impact of foreclosure-based bundling on consumer welfare, the likelihood of long-term foreclosing effects should be weighted against short-term pro-competitive price cuts. Indeed, consumers benefit from the fact that the bundle is offered at a discount compared with the rivals' stand-alone components.

415. However, if rivals are unable to match the offered bundle and are therefore forced to exit the market at a certain point in time, the firm offering the bundle will be able to increase the price above the pre-bundling level. Therefore, to assess the full impact of bundling on consumer welfare, the following four criteria need to be carefully assessed.

- *Whether the bundling firm has market power*—bundling can only have anti-competitive leveraging effects if the firm in question has market power in one (or more) of the bundled products.
- *The ability of rivals to match the bundle offer with competing bundles*—eg, a bundle competing against stand-alone components might not be a stable outcome if consumers could use their buyer power to induce the rivals to match the offer.
- *The probability that rivals exit the market and the timing of the exit*—the incentives to adopt a foreclosure-based bundling practice depend crucially on the likelihood of rivals' exit. Only a detailed empirical analysis would correctly assess whether a bundling practice in the markets under investigation would seriously threaten the rivals' viability and drive them out of the market.
- *The probability that the rivals re-enter the market or new entry occurs if prices rise above the competitive level*—the profitability of any foreclosing bundling strategy relies also on the fact that, once exit occurs, firms will be unable to re-enter the market and no new entry will occur if prices increase to the pre-bundling level (or beyond). If this were not the case, the firm that offered the bundle would not be able to increase prices and consumers would unambiguously benefit from the bundling practice.

A2.3.3 Conclusion

416. The economic theory of bundling shows that the rationale for bundling depends crucially on the market structure of the tied product. Under the extreme cases of a

[126] European Commission (1997), *Guinness v Grand Metropolitan*, case No IV/M.938, October 15th; United States Court of Appeals (2001), *United States of America v Microsoft Corporation*, No. 00-5212, June 28th.

competitive or monopolised tied-product market, bundling can serve only as a price-discrimination device or to achieve economies of scope. If the tied-product market is imperfectly competitive, bundling can also be used as a foreclosure-based strategy to leverage market power to the tied product market.

417. Economic theory also establishes that bundling practices should not be condemned per se. When bundling serves exclusively as a price-discrimination device, the overall effect on consumer welfare is ambiguous. In this setting, bundling can lead to efficiency losses in terms of oversupply of goods (ie, consumers buying the bundle might have a reservation price for one good below its marginal production cost). When bundling brings about economies of scope, consumers would unambiguously benefit from the practice, as bundling would induce rivals to compete more aggressively. However, when bundling is used to leverage market power, harmful exclusionary effects cannot be ruled out, and efficiency gains must be carefully weighted against the likelihood of rivals' exit. Only an accurate empirical investigation of the specific market setting can reveal which effect predominates.

Appendix 3: The Pension Fund, Fund Manager and Broker Questionnaires

418. This appendix describes the process of selecting pension funds, fund managers and brokers for the questionnaires, the response rate and the characteristics of the respondents.

A3.1 Pension funds

419. Data about UK pension funds were provided by the NAPF. Pension funds were screened to ensure that they were segregated or co-mingled and employed external fund managers, and then ranked according to the current market value of the funds. Given the concentration of a large proportion of pension fund assets among a relatively small number of firms, it was decided to split the pension funds into three groups, according to the value of the funds. This ensured that the questionnaire would be sent to several of the relatively few large pension funds (thereby covering a large proportion of pension funds by value) and to many of the smaller pension funds at the same time.

420. Pension funds were selected as follows:

- Group 1: up to £200m (five pension funds);
- Group 2: £200m–£6.5 billion (20 pension funds);
- Group 3: £6.5 billion and above (five pension funds).

421. From the 30 pension funds to which the pension fund questionnaire was sent, nine responded, a response rate of around 30%. Three of the responses came from Group 3, five from Group 2 and one from Group 1. The average value of the respondents' pension funds was £6.6 billion, and the total value of the funds held by the respondents covered approximately 6% of the total assets held by UK pension funds.

A3.2 Fund managers

422. Data on UK fund managers were provided by the FSA. The fund managers (ie, fund management companies) were ranked by the value of funds under management. In order to ensure that the questionnaire was sent to a cross-section of all fund managers (ie, large and small), as well as covering the relatively small group managing the majority of funds, the fund managers were divided into three groups, according to the value of funds under management:

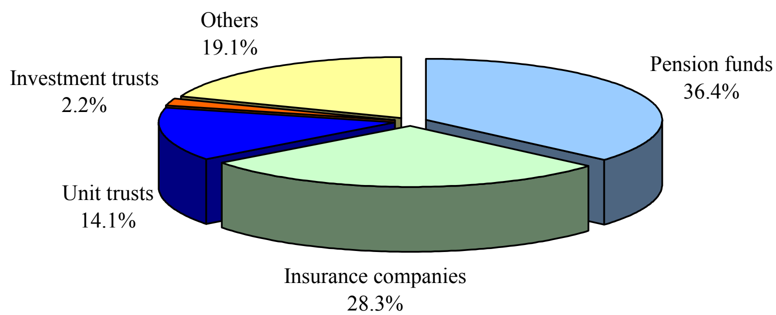
- Group 1: those with less than £1 billion of funds under management;
- Group 2: those with funds under management of between £1 billion and £20 billion;
- Group 3: those with funds under management in excess of £20 billion.

423. As the questionnaire was to be sent to 60 fund managers in total, 20 firms were randomly selected in the third group, 32 in the second group and eight in the first group.

424. In total, 25 fund managers returned the questionnaire (33% response rate): 14 fund managers from Group 3; ten from Group 2 and one from Group 1. The fund

managers who completed the questionnaire accounted for a total of £960 billion of funds under management in the UK, with 5,549 UK-based institutional client mandates. These fund managers accounted for approximately 34% of the funds under management in the UK. The division of funds under management of the respondents is shown by client type in Figure A3.1.

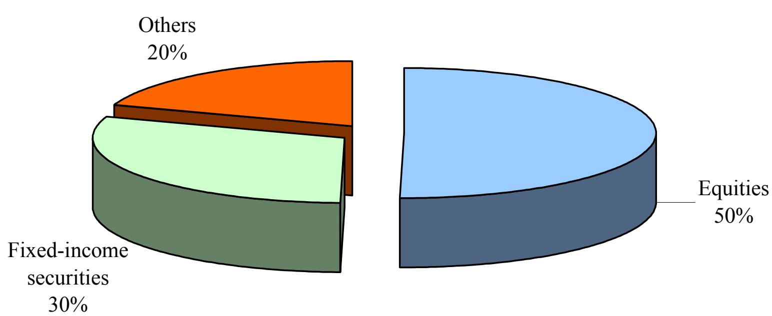
Figure A3.1: Breakdown of funds under management among respondents, by type of client



Base: 24 fund managers.
Source: OXERA fund manager questionnaire, 2002.

422. The breakdown of the assets under management by those respondents is shown in Figure A3.2.

Figure A3.2: Breakdown of assets under management among respondents (by major asset types)



Base: 25 fund managers.
Source: OXERA fund manager questionnaire, 2002.

423. Among the fund managers who responded, the average holding of assets under management was £37 billion. The largest holding was £113 billion and the smallest £254m.

A3.3 Brokers

425. Data on brokers in the UK were provided by the FSA. The brokers in the FSA database were ranked according to the level of 'gross commission revenue' and divided into three groups so that both a high percentage of the market could be covered by the questionnaire, and that brokers of all sizes could be represented.

- Group 1: those with gross commission revenues less than £10m (189 brokers).
- Group 2: those with gross commission revenues of between £10m and £30m (32 brokers).
- Group 3: those with gross commission revenues greater than £30m (35 brokers).

425. The third group, which consisted of approximately 35 brokers out of a total of 256 brokers, accounted for about 79% of the total value of commission revenues. As such, all of these brokers were pre-selected. The FSA was asked to select 15 brokers from each of the first and second groups.

426. The questionnaire was sent to a group of 37 brokers, representing approximately 80% of the market by gross commission revenue. Of these 37, 28 were in the third group and nine in the first two groups.

427. The effective response rate from the brokers was 29.7%—11 brokers responded (eight from Group 3; three from Group 2; and none from Group 1). However, one of the respondents completed only one question, providing only comments on all the others. Unless indicated otherwise, results are based upon the responses of ten brokers.

428. The total value of broker commission revenues (excluding stamp duty) from the equity trades of the brokers, who completed the questionnaire, was £1.6 billion, or 22.7% of total gross commission revenues in 2001. Of these revenues, 46% originated from UK-based clients.

A3.4 Full text of the OXERA questionnaires

Pension Fund Questionnaire

SOFT COMMISSION QUESTIONNAIRE

Throughout this survey, two types of commission arrangements are referred to:

- **Soft commission** arrangements are those in which a fund manager, by agreeing to send trades to a broker, receives, in addition to 'pure' trade execution, credits ('soft dollars') which can then be used to purchase services such as research and information services.

- Under **directed brokerage arrangements/commission recapture programmes**, the pension fund instructs its fund manager to direct a certain volume of trade to a broker of the pension fund's choice. In return, the pension fund receives a rebate (in the form of money or services) on the commissions paid to the broker.

Part 1: Background information

i) Name of firm: ....

ii) Your name: ....

iii) Your position: ....

A number of questions in this questionnaire ask for information relating to a specific year (eg, 2001). Your answers can refer to either the calendar year or the financial year (eg, April 2001–April 2002). Please indicate which you will use.

Calendar year ☐

Financial year ☐

Please give all financial information required in this questionnaire in pounds sterling.

Part 2: General questions

1) What is the total market value of your fund at present?

....

2) a) How many different external fund managers do you use? ....

b) How many of these are based in the UK?...

3) How many mandates (funds/portfolios) have you divided your fund/assets between?

4) a) How many mandates provide for a performance-related fee of some sort? ....

b) What proportion of the total value of your pension fund do these represent? ....

5) Please give the **average** management fee you paid to external fund managers (excluding performance-related fees) for each of the previous five years:

Year	**Average management fee (excluding performance-related fees) (basis points)**
2001	................bp
2000	................bp
1999	................bp
1998	................bp
1997	................bp

6) Please give the **average** performance-related fees (expressed as a percentage of the value of outperformance against a relevant benchmark) for each of the previous five years:

Year	**Average performance-related fees (%)**
2001	.... %
2000	.... %
1999	.... %
1998	.... %
1997	.... %

7) Do you make use of directed brokerage/commission recapture arrangements?

YES/NO

8) If YES, what was the total value of the rebate you received through such arrangements in each of the previous five years?

Year	Value of rebate received under directed brokerage/commission recapture arrangements (£)
2001	
2000	
1999	
1998	
1997	

Part 3: Mandate-specific questions

9) What are your five largest single mandates (funds)? Please give the name of both the mandate (fund) and the fund manager, and the value of the fund at the end of 2001.

	Name of mandate (fund)	Name of fund manager	Value of fund at the end of 2001 (£)
1			
2			
3			
4			
5			

Please enter the answers for questions 10–16 in the table below. The columns 1–5 correspond with the five mandates (funds) you listed in question 8.

	1	2	3	4	5
Please indicate whether the fund is segregated (S) or co-mingled (C)					
Please indicate whether the fund is actively managed (A) or passive (P)					
Do you prohibit your fund manager from engaging in soft commission arrangements? (Y/N)					
What is the management fee rate (excluding performance-related fees)? (basis points)	.... bp	.... bp	.... bp	.... bp	.... bp
What is the equivalent performance-related fee, expressed as a percentage of the value of outperformance against a relevant benchmark (if applicable)	.... %	.... %	.... %	.... %	.... %

	1	2	3	4	5
For each mandate, what was the value of trades undertaken in each of the previous five years					
2001					
2000					
1999					
1998					
1997					
What proportion of these trades took place under soft commission arrangements in each of the previous five years?					
2001					
2000					
1999					
1998					
1997					

	1	2	3	4	5
For each mandate, how much was deducted from the fund as broker commission in each of the previous five years?					
001					
:000					
999					
998					
997					

Part 4: Monitoring and investment decisions

10) How do you decide which fund managers to use?

a. Decision made in-house, independently ☐

b. Decision made in-house, upon the advice of third parties ☐

c. Decision made by third parties entirely ☐

11) Please rank from 1 to 9, in order of importance, the following factors that you take into account when choosing a particular fund manager for a particular fund.

1 = most important

9 = least important

Factor	**Ranking**
a. Past performance of fund manager's funds	
b. Proposed management fee	
c. Brokerage commission rates paid by fund manager	
d. Fund manager's investment style/philosophy	
e. Brand/reputation of fund manager	
f. Expertise of fund manager in specific areas/sectors	
g. Fund manager does not use soft commission arrangements	
h. Fund manager based in the UK	
i. Other: please specify	

12) Do you monitor any of the following data from your fund managers? If you do, please indicate whether this monitoring is done in-house, by the fund manager itself, or by third parties.

	Monitor this? (Y/N)	**If yes, who monitors?**		
		In-house	**Fund manager**	**Third party**
Fund performance (after deduction of commission/trading costs)				
Value of trading annually				
Broker commission rates paid by the fund manager				
Value of trades dealt through soft commission arrangements				
Value of research and services received by fund managers as a result of soft commissions relating to trades in your investments				

13) What is the approximate average length of contracts between yourselves and fund managers for particular mandates?

a. Less than one year ☐

b. Between one and two years ☐

c. Between two and five years ☐

d. More than five years ☐

14) Do you find it easy to switch fund managers? If the answer is **NO**, please explain briefly what problems you face when changing fund managers. YES/NO

....

....

....

....

15) In the past five years, how many times have you switched fund managers for particular funds?

....

Please indicate the main reasons you have had for switching fund managers (tick as many boxes as applicable)

a. Poor performance—short term (<1 year) ☐

b. Poor performance—medium to long term (>1 year) ☐

c. High fund management fees ☐

d. High broker commission rates ☐

e. Excessive fund turnover (churn) ☐

f. Use of soft commission arrangements by the fund manager ☐

g. Other: please specify ☐

....

Fund Manager Questionnaire

SOFT COMMISSION QUESTIONNAIRE

Throughout this survey, the following types of arrangements are referred to:

> **Soft commission** arrangements are those in which a fund manager, by agreeing to send trades to a broker, receives, in addition to 'pure' trade execution, credits ('soft dollars') which can then be used to purchase services such as research and information services.
> Under **directed brokerage arrangements/commission recapture programmes**, the pension fund instructs its fund manager to direct a certain volume of trade to a broker of the pension fund's choice. In return, the pension fund receives a rebate (in the form of money or services) on the commissions paid to the broker.

Part 1: Background information

i) Name of firm: ....

ii) Your name: ....

iii) Your position: ....

A number of questions in this questionnaire ask for information relating to a specific year (eg, 2001). Your answers can refer to either the calendar year or the financial year (eg, April 2001–April 2002). Please indicate which you will use.

Calendar year ☐

Financial year ☐

Please indicate here which currency you will be using to report financial information in this questionnaire.

Sterling ☐

US dollar ☐

Euro ☐

Part 2: General questions

1) What is the total value of funds that you manage as a company in the UK?

   ....

2) How many institutional clients do you serve as a company in the UK?

....

3) What proportion of the total value of the funds you manage in the UK is of UK origin (ie, the client investing in the fund is based in the UK or acts explicitly on behalf of UK clients)?

4) Of the funds managed in the UK at present, please give the proportion (by value) managed on behalf of:

	Proportion
Pension funds	
Insurance companies	
Unit trusts	
Investment trusts	
Others	
TOTAL	**100%**

5) What proportions of assets (which you manage in the UK) are held in the following classes of assets?

Assets	**Proportion**
Equities	
Fixed-income securities	
Others	
TOTAL	**100%**

Part 3: Relations between fund managers and pension funds

The questions in this section relate to the arrangements in place between yourselves and your (UK and non-UK) **pension fund** clients.

6) What is your total management fee income (flat fees plus performance-related fees), excluding VAT, earned from funds managed in the UK on behalf of pension fund clients? Please give this figure as an amount of money, not a percentage rate.

....

Consider the four 'typical' equity mandates of different sizes (expressed in £ million) in the table below. What would be the average percentage management fee (ie, excluding any performance-related elements of the fee) you charge for these mandates, distinguishing between active and passive mandates?

Size of equity mandate (£ million)	**Active equity fund average fee (% per annum)**	**Passive equity fund average fee (% per annum)**
500		
200		
100		
50		

7) What proportion (by value) of the pension fund assets you currently manage in the UK provides for a bonus element for fund performance? ....

8) What proportion of your total UK fee income from pension fund clients in 2001 was achieved through bonus payments?..

9) Do you provide your pension fund clients with details of the broker commission payments you make?

YES/NO (delete as applicable)

Part 4: Directed brokerage arrangements

10) How many of your institutional clients use directed brokerage arrangements at present?

----

11) What percentage of all your trades is on behalf of these clients?

-----------------------------%

Part 5: Relations between fund managers and brokers

The questions in this section relate to the arrangements in place between yourselves as UK-based fund managers and **brokerage firms**.

12) For equity trades in the UK, how many different brokerage firms do you use:

    a. on a regular basis .... ?

    b. occasionally .... ?

13) What proportion of all your equity trades takes place on a commission basis (as opposed to a ‘net’ basis) at present? ....

14) Thinking of your total UK trading activity for all your institutional clients over the past five years, please give details on the total value of trades done on a commission basis (as opposed to net trades), the total amount of broker commission paid for these trades, the percentage of these trades that were softed (ie, under a soft commission arrangement) and the value of credits (soft dollars) you received as a result of these trades.

Year	**Total value of trades on commission basis**	**Total value of broker commission paid**	**Percentage of trades softed (%)**	**Total value of credits (soft dollars) received (please express in currency which you have used throughout)**
2001				
2000				
1999				
1998				
1997				

15) Which of the following services do you obtain from brokers in addition to pure trade execution ('bundled') and outside any soft commission arrangement? Tick as many boxes as appropriate.

	Often	**Sometimes**	**Never**
Advice on trade execution			
Access to analysts			
Research reports			
Market information services			
Conferences/seminars/courses			
Access to IPOs			
Communications systems			
Others: please specify			

16) Thinking about the reasons why you decide to use a certain broker, please rank from 1 to 10 in the table below the importance of the following factors in your decisions to:

a) place a broker on your approved list (ie, the decision to use a broker in principle)

b) direct to a broker a specific 'simple' trade (ie, small trade size, high liquidity stock)

c) direct to a broker a specific 'average/typical' trade

d) direct to a broker a specific 'difficult' trade (ie, large trade size, low liquidity stock)

1 = most important

10 = least important

Decision factor	**a. Place broker on approved list**	**b. Direct 'simple' trade to broker**	**c. Direct 'average' or 'typical' trade to broker**	**d. Direct 'difficult' trade to broker**
Execution quality offered by broker				
Broker commission rates				
Broker liquidity				
Broker provides research/access to analysts				
Availability of research under soft commission arrangements				
Availability of other services under soft commission arrangements				
Broker provides access to IPOs				
Broker is part of larger financial institution				
Broker has expertise in specific market				
Other (please specify)				

17) How many times in the past three years have you ceased to use, or de-listed, a broker?

....

Please indicate the **main** reasons why this happened. Tick as many boxes as applicable.

a) Poor execution ☐

b) High broker commission rates ☐

c) Poor advice/research from broker ☐

d) Little value for money from soft commission arrangements ☐

e) We ceased to trade in shares in which the broker specialises ☐

f) Broker went out of business ☐

g) Other: please specify ☐

....

18) Are there any factors which make it difficult to switch brokers? YES/NO

If YES, please describe briefly the most important factors: ....

....
....
....

19) Do you routinely assess the quality of the execution of trades from the brokers with whom you transact?

a) Yes, all brokers are assessed routinely ☐

b) Yes, only some brokers are assessed routinely ☐

c) No—assessment of execution quality is only carried out on an ad hoc basis ☐

d) No—we do not assess execution quality at all ☐

20) If you answered YES to question 19, is the assessment carried out:

a) in-house? ☐

b) by a third party? ☐

c) both? ☐

21) If you have soft commission arrangements in place, please provide the approximate breakdown of how you spend your credits (soft dollars) on the services shown below.

Services	**Proportion of total credits (soft dollars) spent on each service**
Research, analysis and advisory services, including those on economic factors and trends	
Advice on dealing in, or on the value of, any designated investment	
Custodian services	
Market price services, electronic trade confirmation services and other information services	
Computer hardware and software, dedicated phone lines and other equipment	
Investment-related seminar fees/publications	
Property rental	
Others: please specify	
TOTAL	**100%**

22) How large was the total in-house research budget of your UK fund management business in 2001 (excluding research purchased under soft commission arrangements or purchased from third parties)?

----

23) Do you buy in research from third parties directly for cash ('hard dollars')?

YES, often ☐

YES, sometimes ☐

NO ☐

If YES, what was the approximate value of these services bought in 2001? ....

24) Please rank from 1 to 4 the importance you attach to the research you receive from the following sources:

1 = most important

4 = least important

Source of research	**Rank**
In-house (own research)	
From full-service brokers	
From third-party research providers, paid for with soft dollars	
From third-party research providers, paid for with cash (‘hard dollars’)	

25) If you could no longer acquire third-party services through soft commission arrangements, but instead had to buy them for cash, would you:

a) Buy less of those services? ☐

b) Buy more of those services? ☐

c) Buy the same amount of those services? ☐

d) Don’t know ☐

Broker Questionnaire

SOFT COMMISSION QUESTIONNAIRE

Throughout this survey, the following types of arrangements are referred to:

- **Soft commission** arrangements are those in which a fund manager, by agreeing to send trades to a broker, receives, in addition to 'pure' trade execution, credits ('soft dollars') which can then be used to purchase services such as research and information services.

- Under **directed brokerage arrangements/commission recapture programmes**, a pension fund (either directly or via an intermediary) instructs its fund manager to direct a certain volume of trade to a broker of the fund's choice. In return, the fund receives (either directly or via an intermediary) a rebate (in the form of money or services) on the commissions paid to the broker.

Part 1: Background information

iv) Name of firm: ....

v) Your name: ....

vi) Your position: ....

A number of questions in this questionnaire ask for information relating to a specific year (eg, 2001). Your answers can refer to either the calendar year or the financial year (eg, April 2001–April 2002). Please indicate which you will use.

Calendar year ☐

Financial year ☐

Please indicate here which currency you will be using to report financial information in this questionnaire.

Sterling ☐

US dollar ☐

Euro ☐

Part 2: General questions

1) What was the approximate value of the broker commission revenues (excluding stamp duty) from cash equity trades for your company's/group's brokerage activities, in 2001 (if your company/group is multinational, please give information on your business executed by your UK-regulated entity only)?

   ....

2) What proportion of these revenues came from UK-based clients?

....

3) Please provide approximate information on the number and value of all trades you have undertaken in 2001, for the following types of securities (please count as a single trade when, for example a fund manager sends you a trade order which is on behalf of more than one pension fund):

	Number of trades in 2001	**Value of trades in 2001**
Cash equities		
Fixed-income securities		
Other securities		

4) What proportion (by value) of your total cash equity trades are on behalf of UK-based clients? ………… ......

5) In the table below, please give an approximate breakdown of your total cash equity trades by type of client that sends the trade order directly to you (ie, the immediate order passer):

	Proportion of your total cash equity trade orders sent by:
Fund managers (who act on behalf of institutional funds, either independently or in-house)	
Private investors	
Other brokers/market counter-parties	
Others (eg. hedge funds)	
TOTAL	**100%**

6) How many UK-based fund managers do you have as active clients? ………..

7) What proportion (by value) of your cash equity trades is undertaken on a commission basis? ………….

8) What approximate proportions (by value) of all your cash equity trades do you currently execute via each of the following trading platforms/mechanism?

Trading platform/mechanism	**Proportion of all cash equity trades**
In-house/intra-group	
Bilateral broker-to-broker trading	
Exchange order book transactions	
Other networks (eg, ATMs, ECNs, etc)	
TOTAL	**100%**

9) Please rank from 1 to 10 in order of importance the following factors in how your company's brokerage arm competes with other brokers for business from fund managers.

1 = most important

10 = least important

	Rank
Execution quality	
Commission rates	
Liquidity	
Access to multiple markets	
Availability of soft commission arrangements	
Availability of in-house research	
Access to in-house analysts	
Access to IPOs	
Expertise in specific markets or specific types of securities	
Other: please specify	

Part 3: Arrangements with fund managers

10) For each of your top 3 UK-based fund manager clients (by annual value of trades), with whom you have **a soft commission arrangement**, please indicate the following for 2001:

	Client 1	**Client 2**	**Client 3**
a. Name of fund manager client *(please note that we will treat this and other information provided by you in this questionnaire as strictly confidential)*			
b. Total value of trades executed on a commission basis			
c. Total commission revenue (excluding stamp duty)			
d. Percentage of trade value softed			
e. Total value of credits (soft dollars) made available for spending on services			

11) For each of your top 3 UK-based fund manager clients (by annual value of trades), with whom you **do not have a soft commission arrangement**, please indicate the following for 2001:

	Client 1	**Client 2**	**Client 3**
a. Name of fund manager client *(please note that we will treat this and other information provided by you in this questionnaire as strictly confidential)*			
b. Total value of trades executed on a commission basis			
c. Total commission revenue (excluding stamp duty)			

12) Please indicate in the table below which services you provide to your fund manager clients in addition to pure trade execution and **outside** of any soft commission arrangements (ie, exclude those services provided under soft commission arrangements), and whether you price these services separately (unbundled). Please also give an estimate of the total cost you incurred to provide these services (in 2001).

Service	**Provide this service? (Y/N)**	**Price service separately? (Y/N/sometimes)**	**Estimated cost of provision (2001)**
Advice on trade execution			
Access to analysts			
Research reports			
Services relating to the valuation or performance measurement of portfolios			
Conferences/seminars/courses			
Access to IPOs			
Communications systems			
Others: please specify			

13) Consider a UK fund manager which sends you cash equity trades worth £50m a year. What would be the typical commission rate (in basis points and excluding stamp duty) you would charge that fund manager?

....

14) Now consider a UK fund manager which also sends you trades worth £50m a year, but of which 10% is under a directed brokerage/commission recapture arrangement. What would be the typical commission rate (in basis points and excluding stamp duty) you would charge that fund manager? ………….

15) Do you have any arrangements with fund managers in which you provide trade execution only—ie, you do not provide any of the other services listed in the table under Question 12 above? YES/NO

If YES, what is the typical commission rate (in basis points and excluding stamp duty) you charge such a fund manager for execution only (say, if that fund manager sends you cash equity trades worth £50m a year) ? ……….

16) If you have soft commission arrangements in place with fund managers, please indicate approximately how much those fund managers spent in 2001 on each of the following services, with the credits (soft dollars) that you made available to them under those soft commission arrangements.

Services bought by your fund manager clients with credits (soft dollars) provided by you under soft commission arrangements	**Value of services bought with credits (soft dollars) provided by you in 2001** **(please express in currency you have used throughout)**
Market research and analysis	
Advice on dealing in, or on the value of, any designated investment	
Bloomberg and Reuters information services	
Other market price services, electronic trade confirmation services and information services	
Other services relating to the valuation or performance measurement of portfolios	
Computer hardware and software, dedicated telephone lines and other equipment	
Investment-related seminar fees/publications	
Custodian services	
Others: please specify	
Total value of credits (soft dollars) provided by you under soft commission arrangements in 2001	

Part 4: Directed brokerage/commission recapture arrangements

17) How many UK pension funds do you have any type of directed brokerage/commission recapture arrangements with? ..

18) What proportion (by value) of all your trades in the UK is undertaken under any type of directed brokerage/commission recapture arrangements?