Financial Services Authority

The overall impact of MiFID

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Annex 1: Detailed cost table – from MiFID-related CPs

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1 Overview

1.1 The Markets in Financial Instruments Directive[1] (MiFID) is a major part of the European Union's Financial Services Action Plan (FSAP). It makes significant changes to the European regulatory framework and is intended to take account of developments in financial services and markets since the Investment Services Directive (ISD),[2] which it replaces, was implemented in 1995.

1.2 We set out our programme for consulting on the necessary changes to our rules and guidance in the Joint Implementation Plan for MiFID, issued with the Treasury in May 2006.[3] There, we outlined our plan to make some comment on the costs and benefits of MiFID as a whole. This document seeks to meet that commitment. It is designed to complement the detailed cost-benefit analysis (CBA) that we are obliged to undertake under the Financial Services and Markets Act (FSMA), and which we have included in each of the Consultation Papers published this year.

1.3 Our requirement under FSMA relates to CBA of proposed rules, which we typically undertake for discrete policy decisions – on the general principle that a regulation should stand or fall on its own merits. A CBA of individual policy changes ensures that the links between a particular policy and their intended benefits can be examined thoroughly. We do, however, recognise that sometimes regulation is only effective when a series of regulatory initiatives is undertaken. For example, where market failures and the measures taken to address them depend on each other, then implementing such measures one by one may not be effective compared to them acting together. But for the most part our CBA considers policy proposals separately.

1.4 In the case of a wide-ranging directive like MiFID, it is useful to step back and consider the bigger picture, which is the aim of this paper. In broad terms, we attempt to identify the overall costs of MiFID implementation for firms, and set them alongside an attempt to quantify the benefits of MiFID for the UK. This is understandably a challenging task (and more challenging than a typical CBA), and there are certain important caveats attached to this exercise. These are discussed in section 2 of this paper.

1 Directive 2004/39/EC of 21 April 2004 amended by Directive 2006/31/EC of 5 April 2006.

2 Directive 93/22/EEC.

3 See www.fsa.gov.uk/pubs/international/joint_MiFID.pdf. We published an update to this in October – see http://www.fsa.gov.uk/pubs/international/mifidplan_update.pdf.

1.5 The details of our benefits and costs estimates are set out in sections 4 and 5, but broadly, under particular assumptions, MiFID could plausibly be estimated to generate *quantifiable* benefits of up to £200 million per year in direct benefits, accruing principally to firms in the form of reductions in compliance and transaction costs. However, the distribution of these benefits may be unevenly spread among firms (e.g. the reductions in compliance costs may accrue mostly to firms operating in multiple jurisdictions).[4]

1.6 Under these assumptions, MiFID could also generate another £240 million benefit in 'second round' effects.[5] These benefits, which are contingent on the direct benefits arising and thus subject to some additional uncertainty, would accrue to the economy more generally rather than to individual firms (in the presence of significant market competition, reductions in transactions costs are likely to be passed on to end-users).

1.7 These figures could be higher under certain, stronger, assumptions. However, they could also be lower. We note that in surveys conducted relating to MiFID, more than half of respondent firms did not identify any obvious benefits, suggesting that the realised benefits may prove lower. This implies that in order to realise the benefits which are quantified above, firms may well have to increase their focus on exploiting opportunities that MiFID may create.

1.8 Alongside these quantifiable ongoing benefits of MiFID, this paper identifies reported quantifiable one-off cost estimates of some £877 million to £1.17 billion for firms, and estimated additional ongoing costs of £88 million to £117 million per year. As a general point, we do not seek to compare directly (i.e. to arrive at a 'net benefit/net cost' figure) the costs of implementation and the potential ongoing benefits.

1.9 We expect the main benefits to arise through reduced costs of compliance and reductions in transactions costs, accruing principally to firms. The 'second round' effects flow from deeper and more liquid capital markets, benefiting the economy as a whole. We calculate our overall cost figure on an industry-wide basis, rather than focusing on specific policies. But the detailed CBA we have conducted indicates that some of the most sizeable MiFID-related compliance costs will arise from client categorisation, best execution, introducing the appropriateness test and the systems changes required by markets transparency provisions.

1.10 Attached to this paper are two Annexes: the first sets out the individual cost estimates contained in the three relevant Consultation Papers we have released over the course of 2006.[6] The second is a study by consultants Europe Economics on the benefits of MiFID. The study was a major input into this paper, and we describe it in detail from paragraph 4.1 onwards.[7]

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4 See, for example, JP Morgan, *MiFID Report II: Earnings at risk analysis: The threat to the integrated business model*, September 2006, which identifies potential 'winners' and 'losers' from MiFID.

5 This £240 million is an estimate of benefits from a reduction in the cost of equity and consequent effect on GDP. It comprises a smaller ongoing figure which is presented here as a (one-off) net present value (to take into account our view on the time profile of how these benefits may arise – see paragraphs 4.13-4.14 and footnote 19).

6 CP06/9 *Organisational systems and controls – Common platform for firms; CP06/14 Implementing MiFID for firms and markets*, July 2006; and CP06/19 *Reforming conduct of business regulation*, October 2006. See http://www.fsa.gov.uk/Pages/Library/Policy/CP/2006/index.shtml.

7 Europe Economics, *The Benefits of MiFID: a report for the Financial Services Authority*, April 2006 (hereafter 'EE Report').

2 Methodology

2.1 Our analysis of the overall impact of MiFID rests on three broad pieces of work:

- a description, based on our database of firms and their permissions, of the likely population of firms potentially directly affected by MiFID, and some assumptions about how that population is distributed in terms of firm size;
- a report, prepared by consultants Europe Economics seeking to quantify, where possible, the benefits of MiFID; and
- a web survey of a sample of firms potentially directly affected by MiFID, seeking estimates of the overall cost impact of MiFID. In Annex 1 we also set out an item-by-item table of MiFID costs, for comparison purposes. It should be noted, however, that the 'top-down' and 'bottom-up' approaches to costing do not (and would not be expected to) provide the same answer.

2.2 We describe each of these and the findings which emerge below. However, there are certain important caveats to be noted:

Static vs dynamic analysis

2.3 Our measurement of costs and benefits tends to reflect a static analysis, which may not capture effectively the dynamic changes which occur in reality, depending on how market participants react to MiFID's challenges and opportunities. For example, we may hypothesise that MiFID's transparency requirements could lead to a shift in the balance of trading that is undertaken on-exchange as opposed to over-the-counter (OTC). However, before such an event we are unable to state the magnitude of such a shift. Also, firms are likely to be innovative in their responses (and, for commercial reasons, they will necessarily be reluctant to reveal innovative responses ahead of time), which adds extra uncertainty to our analysis.

The challenge of quantification

2.4 We have restricted our work here to elements that we have been able to quantify. MiFID may well bring benefits wider than those quantified in the Europe Economics report, and may also impose costs in areas where we have been unable to provide

quantitative estimates. Indeed, the Europe Economics report notes that 'it is in the nature of regulation that the costs are often relatively well-defined and focused on a fairly easily identifiable group of stakeholders, whilst benefits are more difficult to identify precisely and considerably more difficult to quantify, as well as often being spread over a more diffuse (and less easy to define) group of stakeholders.'[8]

2.5 The Europe Economics report also noted that:

> … an important part of [our report] is qualitative in nature. Where we have attempted quantification we stand behind our estimates and consider them both useful and informative, and the best that should have been provided given the time and resources involved. However, we wish to emphasize that these are estimates, rather than precise measures or forecasts, and inevitably rest on assumptions (in some cases strong assumptions) about how the market and regulation will develop following MiFID and how it would have developed in the absence of MiFID.[9]

2.6 Not every cost can be estimated, nor every benefit expressed in numerical terms. We can estimate some benefits and costs by proxy. For example, Europe Economics attempted to quantify aggregation benefits via a series of assumptions regarding liquidity and transaction costs. Similarly, in our web survey, we used 'number of employees' as an approximation for 'size of firm'.

Consistency and timing of information

2.7 We are reliant on information from firms, and collected information at a time when the final shape of the MiFID legislation – defining the compliance burden for firms as well as the scope of opportunities for advantage – remained uncertain. So our assumptions of what MiFID would actually require of firms tended to be a 'moving target'. This was an unavoidable implication of the transposition and implementation timetable in the light of the length of time taken to finalise the Level 2 implementing measures. Also, even after Level 2 was finalised, it was clear from our additional enquiries that some firms had not made much progress on assessing the implications. The results of the web survey were notable in this regard. We found that of the within-scope firms responding to our questionnaire, only 25% had budgeted for MiFID; while 52% had not. The remainder did not know or declined to answer – we expect that the majority of these had not formally budgeted for MiFID.

2.8 In addition, the data we did collect was in some cases gathered at different times and under different information sets of what MiFID would entail. We do not believe that this makes such a significant difference when considering MiFID as a whole, given the existing levels of uncertainty attached to our estimates. The Europe Economics report further notes that as data on costs and benefits were collected separately, there was a risk of a different 'evidential bar' applying to each – but also notes that the close guidance we provided in compiling the report should mitigate this risk.[10]

8 *EE Report,* page 3.

9 *EE Report*, page 3.

10 *EE Report*, page 4.

Scope of the analysis

2.9 Although the Europe Economics report discusses some of the benefits for the wider EU economy, our analysis is UK-centric. Given the size and importance of the UK's financial sector in the context of the European economy, a CBA on MiFID's effect on the UK is a substantial task.

2.10 But a full analysis of MiFID would recognise that it is a European Directive and so would need to be judged on its EU-wide impact. We note the commitment made by the Commission for retrospective analysis of parts of the FSAP in its white paper:

> The Commission will monitor annually the overall state of financial integration in its Financial Integration Monitor (FIM) report. The Inter-institutional Monitoring Group will contribute by evaluating the Lamfalussy process in all financial services sectors.
>
> Ex-post evaluation of the FSAP and of all new legislative measures is a top priority for the Commission in the coming 5 years. By 2009, the Commission will endeavor to have completed a full economic and legal assessment of all FSAP measures [apart from where the implementation deadline is later than 2005]. A study will be launched in the course of 2007-2008. Evaluations of the key measures will take place around 4 years after the implementation deadline of each measure.[11]

2.11 As a broader point, the directive to which this study relates is not being implemented in a regulatory vacuum. So any analysis which 'holds other factors constant' is necessarily artificial. MiFID is only one of the 42 measures contained in the FSAP (although it is a substantial plank), and the costs and benefits of MiFID are difficult to separate from other domestic initiatives. This includes in particular our intended move towards more principles-based regulation as set out, for example, in our proposed radical revision of conduct of business regulation (NEWCOB). Indeed, it must be stressed that what we are attempting here is strictly an analysis of MiFID, and does not seek to deal with impacts on non-MiFID firms and business. Equally, we are not presenting the overall impact of NEWCOB – although this is the vehicle for implementing the MiFID conduct of business requirements. This means that, for example, we do not consider here the benefits of any deregulatory changes where our current conduct of business rules have been pared back to the minimum requirements of MIFID. Where there are specific new obligations being imposed on non-MiFID firms, these are costed, on an individual basis, in the *Reforming conduct of business regulation* CP.

General statistical issues

2.12 From a statistical point of view we ought to expect wide variations in estimates of this kind. There is an unknown amount of variability in the population, most of our samples are fairly small and some reporting institutions may provide figures influenced by specific biases.

11 EU Commission, Financial Services Policy White Paper 2005-2010, EN, page 6. See http://ec.europa.eu/internal_market/finances/docs/white_paper/white_paper_en.pdf.

3 The MiFID population

3.1 Our method is based on identifying the approximate number of firms directly affected by MiFID. We estimate a range for the number of MiFID firms and then assume that these firms will face roughly similar costs on average, according to the size of the firm. We then generate figures for the total compliance cost of MiFID implementation.

3.2 Broadly, those firms who are covered by the ISD will also be MiFID firms, but the scope of MiFID is wider than the ISD. Most notably, MiFID introduces a new activity of operating a multilateral trading facility (MTF) and new instruments of commodity derivatives, credit derivatives and financial contracts for differences.[12]

3.3 In 2005 the Treasury sought our advice on the potential number of firms affected by MiFID, for the publication of the Regulatory Impact Assessment that accompanied their Consultation Document on the UK implementation of MiFID. We indicated that, based on a quick analysis of our records of firms' activities and permissions, the number of firms within the scope of MiFID was between 2400 and 4000 (footnoted, with the body of the text suggesting a narrower range of 3000 to 3500).[13] These estimates were heavily caveated, most notably because existing permissions do not always map across directly to MiFID services and activities. With further refinement of our estimate, we think it likely that there will be around 2100-2800 firms directly affected by MiFID.

3.4 Table 1 sets out the estimated population of firms within MiFID scope or directly affected by some of the Directive's requirements.[14] We based it on a detailed examination of our permissions database.

12 A more detailed description of the scope of MiFID can be found in Chapter 10 of CP06/9, in which we set out our draft perimeter guidance on MiFID.

13 See http://www.hm-treasury.gov.uk/media/2E0/CA/ukimplementationeumarkets151205.pdf, page 69.

14 There is not a clear line dividing the population of firms directly affected by MiFID from those outside its impact. For example, the branches of non-EEA firms are strictly non-MiFID-scope firms, but our implementation means that the overall cost-benefit analysis is more realistic with their inclusion.

Table 1 : Firms affected by MiFID – population assumptions

Firm type/permission	Estimated number of firms
Dealing and Managing firms	1600-1750[1]
ATSs[2]	35
Venture capital firms	50-65
EMPs/OMPs/Commodities firms[3]	45-90
Corporate finance firms	150-300
Advisers falling under MiFID[4]	100-200
Credit institutions carrying on MiFID business[5]	100-150
Any other firms affected by MiFID[6]	20-100
Non-EEA (third country) branches[7]	70-140
Total	**2085-2830[8]**

1. A maximum estimate of 1754 firms with dealing and managing permissions forms the core of the likely population affected by MiFID. The lower end figure reflects an assumption that not all firms with relevant permissions will necessarily use them, and that some individual firms will be part of larger groups for compliance cost purposes.
2. ATSs – Alternative Trading Systems.
3. EMPs – Energy Market Participants; OMPs – Oil Market Participants.
4. Range reflects some uncertainty over how many firms will fall under the Article 3 exemption.
5. Some credit institutions will fall under MiFID. We have assumed that the majority of building societies and credit unions will fall outside scope.
6. Includes exchanges, and UCITS investment firms and Approved Professional Firms potentially affected by MiFID.
7. We intend to continue the approach of applying to branches of third country firms operating in the UK requirements that are at least equivalent to those we apply to branches of EEA firms, based on the principle that Member States should not provide more favourable treatment to non-EEA firms than to EEA firms.
8. It should also be noted that in the detailed CBA we tended to use a range of 2000-2500 firms for aggregation of estimates. For detailed cost estimates this does not present a problem in our view since the actual number of firms affected by individual policy measures will in almost all cases be less than the maximum MiFID population.

4 The benefits of MiFID

4.1 Given the significance of MiFID, and our commitment to make some statement about its overall impact, we commissioned some work from economic consultants Europe Economics, to quantify the benefits, where possible. Consultants from Europe Economics met with relevant trade associations, industry experts, and senior FSA staff, and circulated a questionnaire to a sample of affected firms. They also drew on existing data on transaction costs and spreads and devised a theoretical framework for assessing potential benefits. The report was produced in April 2006, and is published as Annex 2 to this paper.

4.2 The Europe Economics report relies on a number of assumptions (in some cases strong assumptions), and makes a 'stylised' argument that MiFID and the FSAP contribute (exactly how much varies according to four scenarios) to the integration of EU wholesale financial markets.

4.3 The report then attempts, where possible, to quantify the benefits arising in terms of 'first round' (occurring directly from MiFID and the FSAP) and 'second round' effects (arising indirectly from MiFID and the FSAP creating a more integrated European market for capital). The first round effects are assumed to be available immediately and on an annual basis; the second round effects are more likely to emerge over time. Europe Economics presented three options for these second-round benefits – we note two of them below, assuming a ten-year time horizon for benefits.[15]

4.4 The report sets out the following four scenarios:

- **Limited effect:** in this scenario, MiFID has limited effect and so limited benefits. This may happen because it proves ineffective in achieving its aims, or is frustrated by actions from national authorities, or because the integration it aims to produce already exists.
- **Non-regulatory factors dominate:** natural economic factors represent material barriers to economic integration. This means that the effects of removing regulatory barriers, in terms of promoting innovation, are relatively small.

15 The third, in which the second round benefits emerge over the first three years, is interesting for comparison purposes but we feel its presentation here would be a substantial over-estimate, in light of the fact that integration of financial markets is much more a long-term than a short-term process.

It is the non-regulatory factors that dominate. In this scenario, only a small proportion of the benefits from integration are attributed to MiFID.

- **Contributor to FSAP:** in contrast to the two scenarios above, it is assumed that changes to regulation contribute substantially to achieving a single market in wholesale financial services. It also assumes that MiFID, as a major plank of the Financial Services Action Plan (FSAP) contributes to the process in a substantial way, so a large share of the benefits from integration are attributed to it.
- **Key measure:** this scenario, which attributes the highest benefits to MiFID, is based on MiFID achieving its desired effect – wholesale financial market integration – and as being the key measure (for the particular mechanism of benefit under consideration). Accordingly, the full value of estimated potential benefits can be attributed to MiFID under this scenario.

Our comments on the four scenarios

4.5 In addition to asking about specific benefits arising from MiFID, Europe Economics also asked more generally about benefits, and noted that respondents 'seemed quite sceptical of the benefits MiFID would bring.'[16] We can draw the implication here that the 'key measure' scenario is probably over-optimistic. (It does, however, provide a useful benchmark for generating estimates for the less bullish scenarios). However, while a number of firm responses on the benefits of MiFID were 'not material', there were firms within the sample which thought there would be improved opportunities available. If we use this result to suggest that the 'limited effect' scenario is probably over-pessimistic, the two in the middle emerge as plausible.

4.6 In this context, LECG's cost survey[17] also included some analysis of firm views regarding benefits, although this was not the main focus of their work. Even so, the responses received (albeit at a stage when the precise requirements of MiFID were either not yet defined or imperfectly understood) also tended to suggest few benefits being perceived to arise from MiFID.

4.7 It is also worth noting that the benefits depend on assumptions about the level of integration of European capital markets. In this context, we would note that there is already a substantial degree of integration, and – as noted in the Europe Economics report – many firms have already found a way to operate where they wish in Europe. So additional benefits in terms of increased access might be expected to be marginal.[18]

4.8 In particular, we think the aggregation benefits, which rest on assumptions about the pooling of liquidity, would appear likely to arise only at the margin. The majority of shares in the EU already trade as if there were a single pool of liquidity, and the scope for greater substitutability between individual shares may not prove that substantial. Further, material barriers to cross-border trading, outside of variations in clearing and settlement costs, appear to us to be very small.

16 *EE Report*, p75.

17 Law and Economics Consulting Group, *MiFID Implementation Cost Survey of the UK Investment Industry*, October 2005. See www.fsa.gov.uk/pubs/international/mifid_cost_survey.pdf.

18 *EE Report*, page 25, and also p75.

4.9 The benefits are also partly dependent on other member states implementing the Directive (in contrast to the costs which arise directly from UK implementation).

4.10 From these observations (the high level of existing integration, especially in the UK, and the considerable scepticism of survey respondents regarding benefits), it might be reasonable to take Scenario 2 ('non-regulatory factors dominate') as the most likely of the scenarios where benefits might arise.

4.11 The 'first-round' benefits are summarised in Section 4 of the Europe Economics report, but in brief they are as follows:

- reduced costs of obtaining and maintaining authorisation;
- reduced costs of compliance;
- reduced costs of establishing and maintaining 'market reputation';
- reduced operating costs;
- improved access to new markets;
- improved prices resulting from best execution and transparency requirements;
- improved functioning of markets;
- reductions in transactions costs due to aggregation effects; and
- increased competition in the publication of firms' data.

4.12 The Europe Economics report does not seek to quantify all of these effects, except where it considers this can be done with some confidence. The quantification of these benefits is set out in Table 2.

Table 2 : Benefits: Direct, quantified, first-round effects

	Limited Effect	Non-regulatory factors dominate	Contributor to FSAP	Key Measure
Reduced costs of compliance	Zero	£100 million p.a.	£100 million p.a.	£100 million p.a.
Reductions in transactions costs from aggregation effects	Zero	£100 million p.a.	£500 million p.a.	£1 billion p.a.
Realisation of economic value of data	Zero	£1.8m to £2.5m p.a.	£9m to £12.5m p.a.	£18m to £25m p.a.
Extension to range of passportable activities and simplified passporting regime	Zero	Small but material increase in supply	Small but material increase in supply	Small but material increase in supply
Totals	Zero	~£200 million p.a.	~£610 million p.a.	~£1.1 billion p.a.

4.13 The 'second round' effects arise from creating a more pan-European market for capital: markets may become deeper, more liquid and more sophisticated. There may be greater participation of stocks in market-wide movements; and the range of available risk-return trade-offs may become broader. These effects may lead to reduced diversification costs, better risk hedging, and increased ability of certain market participants to diversify. The Europe Economics report goes on to note: 'if the cost of capital is lower, then investment may increase, and consequently there may be increases in GDP across the EU'. Table 3 summarises their quantitative estimates of these second round effects, of which more detail can be found in Annex 2.

Table 3 : Second round effects – quantified

	Limited Effect	Non-regulatory factors dominate	Contributor to FSAP	Key Measure
Effects on the cost of equity	Zero	~1 basis point	~3 to 5 basis points	~7 to 9 basis points
Effect on GDP	Zero	~0.02%	~0.05%	~0.1% with potential additional material benefits from increase in the available pool of capital and increased flow of funds
Quantified estimates (linear)[1]	Zero	£660 million	£3.3 billion	£6.6 billion
Quantified estimates (emerging over time)[2]	Zero	£240 million	£1.2 billion	£2.4 billion

1. Assumes second-round benefits arise linearly over a ten-year period.
2. Assumes second round benefits arise over the later three years of a ten-year timeframe.

4.14 The values implied for such second-round effects are potentially substantial, as Table 3 demonstrates – and vary widely with assumptions as to the importance of MiFID in driving single market benefits and the time profile over which those benefits might arise. We think it likely here that such benefits will tend to emerge over the longer term and that beneficial effects of MiFID on the cost of equity are likely to be small in comparison to non-MiFID factors such as innovation, competition, consolidation, taxation and clearing and settlement. All of this suggests that if such second-round benefits do arise, they are more likely to accumulate to the lower range suggested in the table of up to £240 million.[19]

4.15 The Europe Economics study also suggests there could be 'third round' effects arising, leading to a potential increase in the long-term sustainable growth rate for the UK and for its trading partners as a result of deeper, broader and more liquid capital markets. However, this effect rests on very strong assumptions and the report notes that it is 'particularly speculative'. We include it in Table 4 below for information but do not seek in this paper to attribute such benefits to MiFID.

19 The figures are presented in Table 3 as net present values to enable comparison, but are actually ongoing benefits driven by reductions in the cost of equity and consequent impact on GDP.

Table 4 : Unquantified third round effects

Third Round Effects	Reductions in cost of capital of trading partners due to convergence of market transaction costs, leading to increased GDP and hence increased demand for UK exports. Increases in sustainable GDP growth rate, for partners, leading to increased demand for UK exports: 0.1 per cent increase in sustainable growth rate in UK trading partners as a result of deeper, broader and more liquid capital markets. The Europe Economics report notes that these effects are 'speculative'.

4.16 While the compliance costs of MiFID tend to fall mostly on industry (although to the extent that rises in ongoing transaction costs occur in a competitive market, they will be passed on to consumers), the distribution of the benefits of MiFID is less easy to identify. The second and third round effects, if they occur, would flow through to the economy generally. The first round effects may flow to particular firms rather than to the sector overall (this is especially so for such benefits as 'the realisation of economic value of data'). And the reduction in compliance costs in the Europe Economics report is based on benefits flowing to firms with operations in multiple jurisdictions.

5 The overall cost of MiFID

5.1 Our cost estimate here rests on three things: the MiFID-affected population, as described above, an assumed distribution of those firms by size, and actual cost estimates of overall MiFID cost from a survey conducted with a range of firms in mid-2006. The survey was conducted online: we sent questionnaires to 263 respondents, and 82 provided us with full or partial data. We are grateful to those firms who took the time to respond.

5.2 Those firms who did respond with data noted in many cases that the cost estimates remained subject to some uncertainty. Somewhat surprisingly, a substantial percentage of firms affected by MiFID indicated that they had not yet budgeted for its implementation (52%), or did not know if they had (23%).

5.3 For the large number of firms who have not yet budgeted for MiFID, it would clearly be an underestimate to assume that the cost for these firms is zero. So there are three scenarios we need to consider:

- firms who have not yet budgeted for MiFID are able to learn from the experiences of first-moving firms and thus incur costs lower than industry averages;
- firms who have not yet budgeted for MiFID face premium rates to catch up to first-moving firms, and end up incurring higher average costs; or
- firms who have not yet budgeted for MiFID incur costs similar to industry averages.

5.4 In the absence of information suggesting that either of the first two scenarios will dominate, we propose to assume the last: in other words, the respondents to the survey are reasonably representative of the wider population. It should be noted that although 82 firms responded to the online survey, the number of firms providing actual cost figures was much lower – around 30 firms.

Summary tables of aggregated MiFID costs

5.5 As a broad simplifying assumption, we have grouped firms into categories on the basis of being ‘small’, ‘medium’ or ‘large’ firms. Firms with 100 employees or fewer are taken as ‘small’; those with 5000 or more taken as large; and we classified the remainder as ‘medium’.

5.6 The use of employee numbers to approximate firm size was a useful way to simplify the stratification of the sample, and we are comfortable with this approach. We judged that seeking detailed financial data from the sample group of firms and attempting to benchmark firm size based on this was overly complicated for the exercise.[20] To aggregate across the population, we have drawn on our previous work on firm impact ratings and on the responses to the survey, which suggest a reasonable distribution between small, medium and large firms is 75%, 20% and 5% of the population respectively.[21]

Table 5 : Estimates of cost per firm, scaled by firm size

Firm	Median[1]	Mean[1]	Number of observations[1]
Small	£10,350	£210,852	17
Medium	£250,000	£8,668,058	7
Large	£7,200,000	£8,041,500	5

1. Figures do not include zero values and blank responses.

5.7 We have used median rather than mean cost estimates for the aggregate estimation, due to the high variability of the data, including the presence of significant outliers (i.e. zero and blank estimates at one end, and estimates considerably larger than the rest of the population at the other).[22] For skewed distributions, the median is generally a better indication of central tendency than the mean. (The use of the mean appears particularly problematic in light of the result for medium compared to large firms). Given limited time and resources, it has not been possible to investigate thoroughly the reasons for the differences. However, in light of the skewed nature of the averages, we do note that some firms may face costs which are substantially higher than the median.

Table 6 : The overall one-off costs of MiFID

Firm	Number	Median cost	Aggregate cost
Small	1575-2100	£10,350	£16.3 million – £21.7 million
Medium	420-560	£250,000	£105 million – £140 million
Large	105-140	£7,200,000	£756 million – £1.008 billion
Total			**£877 million – £1.17 billion**

5.8 It should be noted that the estimates in Table 6 are of the one-off costs of MiFID implementation, while the benefits scenarios estimated by Europe Economics are ongoing benefits. In addition to the one-off costs described above, there will be ongoing costs, which we did not include in our online survey – but which have been estimated for individual areas of cost (described below). If we were to use the estimate of the ratio of one-off to ongoing costs reported in the LECG report[23] – namely, that ongoing costs were around 10% of up-front costs – then a plausible estimate of ongoing MiFID costs would be £88 million to £117 million.

20 In particular, we were keen to keep the online survey as short as possible, to encourage a higher response rate.

21 The web survey figures were 75.3%, 18.2% and 6.5% – we draw some comfort from the similarity between these results and those relying on our firm impact ratings.

22 With a more detailed break-down of cost estimates, using averages produced several anomalies, including the estimate that very large firms faced lower average costs than large-medium firms.

23 See www.fsa.gov.uk/pubs/international/mifid_cost_survey.pdf, page 85.

6 Summary table of individual MiFID costs

6.1 By way of comparison with the results set out above, Table 7 below takes all of our individual MiFID cost estimates contained in the various CPs.[24] When added up, the total one-off costs and the total ongoing costs are as follows:

Table 7 : Individual costs

	One-off		Ongoing	
Cost range estimates for MiFID	Low	High	Low	High
	£355 million	£490 million	£203 million	£268 million

6.2 Annex 1 provides a detailed table summarising the individual estimates. We have attempted to exclude costs arising from discretionary decisions, although this has not always been possible. For example, one of the costs included in the summary above relates to retail non-scope and mixed scope business: due to the 'mixed scope' aspects, we considered that it was more appropriate to include the cost.[25]

6.3 It is important to note that the overall 'top-down' estimate and the 'bottom-up' estimates will not be the same: they are calculated on a different basis.

6.4 In circumstances when a number of separate but potentially overlapping rules are subject to change, and the associated incremental impacts have been estimated, the fallacy of composition problem may arise. Specifically, this problem may lead to a bias when seeking to aggregate individual estimates to arrive at an overall measure of impacts. This applies to both one-off and ongoing costs.

6.5 For one-off costs of regulation such as systems redesign and training, any one rule change may require a change project, but multiple rule changes may still only require a single change project, even though a more complex one. Similarly, firms will revise their business models to reflect the whole set of regulatory changes. This means

24 These are from CP06/9, CP06/14 and CP06/19. CP06/20 is also relevant to MiFID implementation but does not contain quantitative estimates.

25 See CP06/19, pages 41-53, and Annex 1, pages 20-22. 'Mixed scope business' refers to business undertaken with a client where the services provided or the transaction in question involve both MiFID and non-MiFID business. 'Non-scope' business refers to services and transactions falling outside of MiFID services, activities and instruments, or where one of the exemptions in the Directive applies.

that the additional ongoing compliance costs from a number of rule changes will normally be substantially less than the sum of the cost of each of those rule changes treated in isolation. In addition, through our detailed CBA we have noted in various places that the cost estimates provided are likely to be overestimated, given that there may be scope for mitigation of costs through innovation or economies of scale.[26]

6.6 Further, where firms have provided cost estimates for our online survey, they may have included in their budget estimates costs of potential discretionary FSA rule changes, and costs arising from non-MiFID aspects of our consultation, on the rationale that these costs would not have been incurred in the absence of MiFID.

6.7 These effects mean that the aggregate costs reported in Table 7 are going to be different from the total one-off and continuing costs of introducing MiFID as presented in Table 6. The issues described in paragraphs 6.4 and 6.5 would tend to push a 'bottom-up' approach towards overestimating the total costs, while that in 6.6 would result in an underestimate. We draw some comfort from the fact that the two approaches are roughly similar in orders of magnitude, and re-emphasise that the divergence between them is to be expected.[27]

6.8 The 'bottom-up' cost measures also imply a ratio of one-off to ongoing costs narrower than was reported by firms to LECG. At least part of this result arises from the cost calculations in CP06/9. There, the bulk of incremental costs identified arise in three areas: compliance, internal audit, and risk control. The incremental on-going costs arising from each of these areas are reported to be larger than one-off costs by smaller firms. This is what we expected since we think a significant additional burden will arise from staffing costs for the requirements for separate and independent compliance and internal audit functions.

6.9 It is the cost figures reported by larger firms that lead to overall cost estimates, on-going and one-off, to converge to similar numbers. Our explanation for this, which we stated in CP06/9, is that larger firms are more likely already to have independent functions in these areas, and so are less likely to incur staffing costs. It is the short-term implementation costs, for example investment in technology to ensure compliance with the requirement to have a comprehensive risk management system (meeting MiFID's standards), which lead to considerable one-off costs for larger firms. This causes overall estimates of one-off and on-going costs to be similar when calculated for all firms (large and small).

26 See, for example, CP06/19, Annex 1, paragraphs 3.27-3.29, and paragraph 9.17.

27 Indeed, although it might seem to the casual observer that the figures are substantially different, the uncertainty and variability surrounding firm estimates and small sample sizes involved mean such divergences are to be expected – and it is the relative closeness of the estimates which is impressive.

7 Qualitative responses to MiFID

7.1 In our online survey, we also asked firms to indicate the areas where they saw particular challenges or opportunities, and to rank them in qualitative terms. We have presented the results in the figures below, and consider that these give a useful indication of firm perceptions of where the particular cost impacts and potential benefits lie.

Figure 1: Firm Perceptions of MiFID Cost Impacts

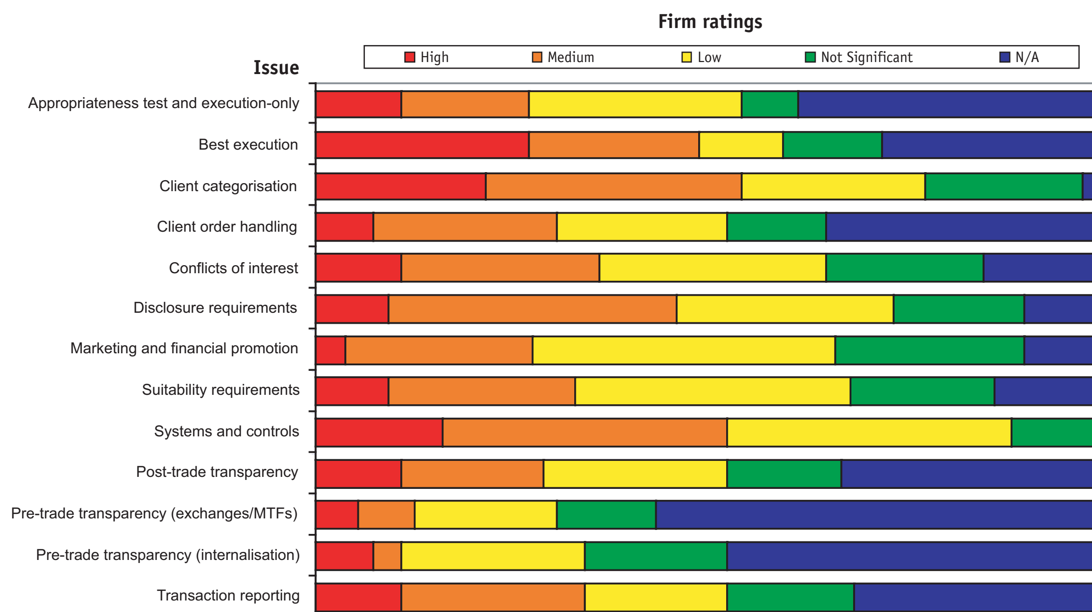
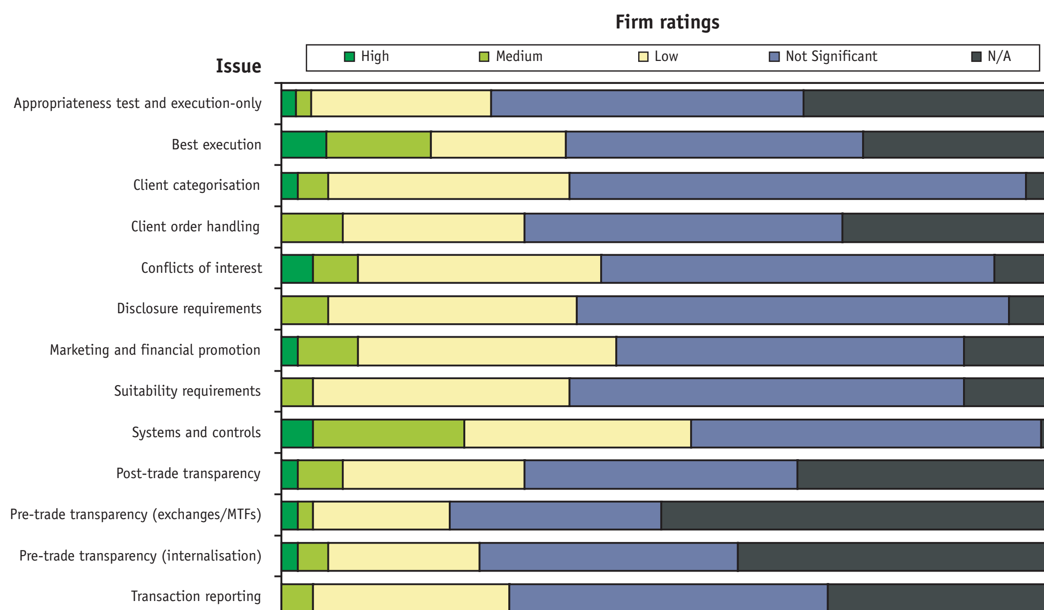


Figure 2: Firm Perceptions of MiFID Opportunities



7.2 In general, it can be seen from the above figures that there is a reasonable level of pessimism in firms' perceptions regarding MiFID – and that the highest cost impacts are expected in areas of best execution, client categorisation and systems and controls. Interestingly, it is systems and controls and best execution which firms feel will allow for the most substantial opportunities following implementation.

8 Conclusions

8.1 For us, this has been a valuable exercise in terms of stepping back to assess the bigger picture. It does not replace our detailed CBA done for individual policy decisions under FSMA, and is probably most useful only for regulatory changes that are large enough in the scope and scale of their ambition to warrant such an exercise. As for drawing conclusions, we think the following points can be made:

- The overall costs and benefits of MiFID are difficult to estimate with precision. In particular, the quantification of benefits is a challenging exercise.
- However, the approach used by Europe Economics to come up with scenarios under which benefits might be quantified provided some interesting results. The scenarios varied over a wide range, and those at the upper end strike us as being unlikely to be valid in practice, given the existing levels of integration of European capital markets and the presence of certain non-regulatory factors.
- Further, firms are particularly sceptical about the likelihood of benefits arising from MiFID, and generally take the view that the costs of MiFID pose greater challenges than the benefits provide opportunities.
- In reality, our implementation of MiFID is not taking place in a vacuum and so an assessment of the costs and benefits of MiFID needs to be tempered by the recognition that other regulatory and non-regulatory factors are at play. For instance, our reform of conduct of business rules in parallel with MiFID implementation may mean that the overall balance of costs and benefits is positive, even though an assessment would indicate that in the short-term at least, one-off costs may predominate. It is also important to reiterate that MiFID needs to be judged in an EU-wide context, and benefits for emerging markets are likely to be more significant in relative terms than for fully developed markets like the UK.

Detailed cost table – from MiFID-related CPs

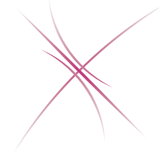
CP	Topic	Item of Cost	One-off		Ongoing	
			Low	High	Low	High
October	Conduct of Business	Changes to Inducements provisions	£ 700,000	£ 700,000	£ -	£ -
October	Client categorisation	Set-up costs	£ 16,000,000	£ 20,000,000	£ -	£ -
October	Client categorisation	Systems and controls costs	£ 6,000,000	£ 10,000,000	£ -	£ -
October	Client categorisation	Classification of 'simple clients'	£ 14,000,000	£ 15,000,000	£ -	£ -
October	Client categorisation	Classification of 'ambiguous clients'	£ 40,000,000	£ 50,000,000	£ -	£ -
October	Client categorisation	Costs of higher level of protection	£ -	£ -	£ 15,000,000	£ 18,000,000
October	Client categorisation	Costs from change in composition of clients	£ -	£ -	£ 30,000,000	£ 50,000,000
October	Client categorisation	Retail non-scope and mixed business	£ 700,000	£ 3,000,000	£ -	£ -
October	Client categorisation	IPC - cost of applying COB protections	£ 2,000,000	£ 2,000,000	£ 1,300,000	£ 1,300,000
October	Client categorisation	IPC - costs from conflicts of interests changes	£ 3,300,000	£ 3,300,000	£ 300,000	£ 300,000
October	Client categorisation	IPC - record-keeping costs	£ 1,700,000	£ 1,700,000	£ 200,000	£ 200,000
October	Identifying client needs and advising	One-off costs - larger firms	£ 2,000,000	£ 4,000,000	£ -	£ -
October	Identifying client needs and advising	KYC/Suitability for Professional clients - portfolio management	£ 400,000	£ 400,000	£ 1,000,000	£ 1,000,000
October	Identifying client needs and advising	KYC/Suitability for Professional clients - investment advice	£ 9,000,000	£ 9,000,000	£ 6,000,000	£ 6,000,000
October	Non-advised services	Appropriateness	£ 32,000,000	£ 32,000,000	£ 37,000,000	£ 37,000,000
October	Non-advised services	Direct offer	£ 15,000,000	£ 15,000,000	£ 25,000,000	£ 25,000,000
October	Dealing and Managing	Best execution - formulating an execution policy	£ 50,000,000	£ 60,000,000	£ -	£ -
October	Dealing and Managing	Best execution - having execution arrangements in place	£ 25,000,000	£ 70,000,000	£ 15,000,000	£ 30,000,000
October	Dealing and Managing	Client limit orders	£ 19,500,000	£ 26,000,000	£ 1,500,000	£ 2,000,000
October	Dealing and Managing	Investment research	£ 150,000	£ 150,000	£ -	£ -
October	Preparing Product Information	Simplified prospectus printing costs	£ -	£ -	£ -	£ -
October	Specialist regimes	Costs to EMPs/OMPs	£ 6,500,000	£ 13,000,000	£ 650,000	£ 1,300,000
October	Specialist regimes	Costs for broader scope commodities firms	£ 2,000,000	£ 2,000,000	£ 500,000	£ 500,000
October	Specialist regimes	Costs to corporate finance firms	£ -	£ -	£ 1,500,000	£ 1,500,000
October	Record-keeping	Electronic storage	£ -	£ -	£ 3,000,000	£ 4,000,000
October	Record-keeping	Paper storage	£ -	£ -	£ 700,000	£ 1,000,000
October	Outsourcing	Compliance costs	£ 50,000	£ 50,000	£ -	£ -
October	Training & Competence	MiFID related complaints	£ -	£ -	£ 100,000	£ 100,000
October	Training	General training costs	£ 23,500,000	£ 29,500,000	£ -	£ -
October	Training	Specific training costs	£ 9,200,000	£ 11,400,000	£ -	£ -
July	Passporting	Costs of familiarisation with passporting regime	£ 480,000	£ 1,110,000	£ -	£ -
July	Passporting	Regulatory costs to FSA of changes to regime	£ 25,000	£ 55,000	£ -	£ -
July	Tied Agents	Potential variation of permission costs	£ 600	£ 4,000	£ -	£ -

CP	Topic	Item of Cost	One-off		Ongoing	
			Low	High	Low	High
July	Enforcement and Regulatory Co-operation	Training costs to FSA - enforcement and cooperation	£ 15,000	£ 15,000	£ -	£ -
July	Enforcement and Regulatory Co-operation	Increase in international requests	£ -	£ -	£ 7,500	£ 7,500
July	Client Assets	Legal costs to firms	£ 125,000	£ 250,000	£ -	£ -
July	Client Assets	Repapering costs	£ 50,000	£ 50,000	£ -	£ -
July	Client Assets	Costs to clients - legal advice	£ 3,500,000	£ 6,000,000	£ -	£ -
July	Capital and PII	costs to firms - capital requirements	£ -	£ -	£ 540,000	£ 860,000
July	All - included in Markets	SABRE redevelopment costs to FSA	£ 500,000	£ 500,000	£ -	£ -
July	All - included in Markets	Training costs to FSA	£ 140,000	£ 150,000	£ -	£ -
July	Markets	Calculation costs to FSA	£ -	£ -	£ 8,600	£ 8,600
July	Markets	Pre-trade transparency - costs to firms	£ -	£ -	£ 7,000,000	£ 7,000,000
July	Markets	Systems costs from new transparency requirements	£ 20,000,000	£ 40,000,000	£ 8,000,000	£ 20,000,000
July	Markets	Exchange implementation costs	£ 3,500,000	£ 3,500,000	£ -	£ -
July	Markets	Review of publication arrangements - costs to FSA	£ 6,450	£ 25,800	£ -	£ -
July	Markets	Monitoring of TDM compliance - costs to FSA	£ -	£ -	£ 23,650	£ 103,200
July	Markets	Ongoing costs of publication for new trade reports	£ -	£ -	£ 26,000	£ 52,000
July	Markets	Verification of compliance - costs to firms	£ -	£ -	£ 20,000	£ 500,000
July	Markets	Compliance costs from MTF changes	£ 960,000	£ 960,000	£ 960,000	£ 960,000
July	Markets	Capital requirements for MTFs	£ -	£ -	£ 86,000	£ 137,000
July	Transaction Reporting	Set-up costs for firms	£ 2,600,000	£ 2,600,000	£ -	£ -
July	Transaction Reporting	Ongoing costs of reporting	£ -	£ -	£ 2,700,000	£ 2,700,000
July	Transaction reporting	Addition of new fields	£ 580,000	£ 580,000	£ -	£ -
May	General organisation	Governance, internal controls	£ 3,700,000	£ 4,800,000	£ 3,700,000	£ 4,800,000
May	General organisation	Accounting	£ 1,500,000	£ 1,900,000	£ 1,300,000	£ 1,600,000
May	General organisation	Business continuity	£ 4,000,000	£ 5,000,000	£ 100,000	£ 200,000
May	General organisation	Persons controlling	£ 800,000	£ 1,100,000	£ 1,000,000	£ 1,400,000
May	General organisation	Verification of compliance	£ 3,000,000	£ 3,000,000	£ 3,000,000	£ 3,000,000
May	Employees and agents	Awareness and segregation of duties	£ 800,000	£ 1,100,000	£ 2,100,000	£ 3,100,000
May	Employees and agents	Employees competence	£ 100,000	£ 100,000	£ -	£ -
May	Employees and agents	'Relevant persons'	£ 100,000	£ 100,000	£ -	£ -
May	Compliance	Compliance	£ 4,500,000	£ 5,500,000	£ 6,500,000	£ 8,500,000
May	Compliance	Internal audit	£ 13,600,000	£ 17,800,000	£ 18,600,000	£ 22,800,000
May	Risk Control	Risk control	£ 10,500,000	£ 14,000,000	£ 7,000,000	£ 9,200,000
May	Outsourcing	Outsourcing	£ 500,000	£ 600,000	£ 1,500,000	£ 1,800,000
May	Conflicts of Interest	Conflicts of Interest	£ 800,000	£ 1,000,000	£ 400,000	£ 500,000
			£ 355,082,050	£ 489,999,800	£ 203,321,750	£ 268,428,300

Notes to Annex 1:

1. Estimates are drawn from the relevant CPs, and in turn drawn from detailed data-gathering undertaken over a period of nearly two years. Accordingly, various estimates were collected at different times and under different levels of understanding of likely MiFID requirements. The LECG report, for example, which was an input into several of these estimates, was completed in October 2005.
2. Mixed scope and non-scope firm costs are included in a small number of these estimates, as not all costs were able to be estimated with such granularity. See footnote 25 in the paper. In addition, the 'common platform' for firms will affect some non-MiFID firms, and we have not adjusted for this in the Table (we estimate the overall impact of this would be quite small).
3. Occasionally, the estimates presented here are aggregates extrapolated from 'per firm' cost estimates presented in the CPs, but which were not aggregated in the CP – we have relied on some additional assumptions to generate aggregates.

Europe Economics study



The Benefits of MiFID

A Report for the Financial Services Authority by Europe Economics

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1 INTRODUCTION

1.1 The Markets in Financial Instruments Directive (MiFID)[1] was published in the Official Journal on 30 April 2004 and was scheduled to be implemented by 30 April 2006. However, at the time of writing it now seems likely to apply from 1 November 2007.[2]

1.2 MiFID repeals and replaces the Investment Services Directive (ISD).[3] It is a major element in the EU's Financial Services Action Plan (FSAP) and is intended to promote a single market for wholesale and retail transactions in financial instruments (which in this context include securities, derivatives and investment funds, but not life insurance). For the first time, there will be EU-wide requirements covering investment advice, operation of multilateral trading facilities (MTFs) and services related to commodity derivatives (all being areas already regulated in the UK).

1.3 The ISD "sought to establish the conditions under which authorised investment firms and banks could provide specified services or establish branches in other Member States on the basis of home country authorisation and supervision. To this end, that Directive aimed to harmonise the initial authorisation and operating requirements for investment firms including conduct of business rules. It also provided for the harmonisation of some conditions governing the operation of regulated markets."[4]

1.4 The main reasons for updating the ISD included:

(a) the emergence of alternative trading systems and the activities of large investment firms in internalising client orders, meaning that a regulatory focus on traditional exchange operators was inconsistent and incomplete. MiFID seeks to promote a more level playing field between established stock exchanges, newer forms of equity trading venues and investment firms. To this end it sets out transparency requirements for regulated markets and multilateral trading facilities, and also for certain firms that internalise client orders ("systematic internalisers").

(b) a recognition that the development of a single market for transactions in financial instruments was being hindered by individual member state regulations on firms, including in relation to conduct of business and organisational requirements. MiFID sets out a series of rules for firms in this area, but also provides that once the relevant requirements are met, a firm may passport into other member states and provide services and activities without further restrictions.

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[1] Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC. Hereafter references to "Article" or to "Preamble" should be taken as referring to the text of Directive 2004/39/EC, as it appears in the Official Journal of the European Union, 30.04.2004 (English version).

[2] "Planning for MiFID", FSA, November 2005.

[3] Council Directive 93/22/EEC of 10 May 1993 on investment services in the securities field, as last amended by Directive 2002/87/EC of the European Parliament and of the Council.

[4] Preamble, paragraph 1.

The FSA, FSA Cost-Benefit Analysis, and this Study

The FSA

1.5 The Financial Services Authority (FSA) is an independent body, which exercises statutory powers under the Financial Services and Markets Act 2000. It is a company limited by guarantee, financed by levies on the financial services industry.

1.6 The FSA's objectives are to:

(a) maintain confidence in the UK financial system;

(b) promote public understanding of the financial system;

(c) secure an appropriate degree of protection for consumers; and

(d) contribute to reducing financial crime.

1.7 In pursuing these objectives, the FSA has regard to:

(a) the need to be efficient and economic in its use of resources;

(b) the responsibilities of regulated firms' own managements;

(c) the need to balance the burdens and restrictions placed on firms with the benefits of regulation for consumers and the industry;

(d) the desirability of facilitating innovation in the financial sector; and

(e) the international character of financial services and markets and the desirability of maintaining the competitive position of the UK the value of competition between financial firms.

This Study's Role in the FSA Cost-Benefit Analysis (CBA) of MiFID

1.8 Under the Financial Services and Markets Act (FSMA), the FSA is required to undertake CBA of proposed rules or proposed general guidance on rules and to publish the results. The purpose of a CBA is to assess, in quantitative terms where possible, and in qualitative terms where not, the economic costs and benefits of a proposed policy. Specifically, the requirement is that the FSA should publish "an estimate of the costs together with an analysis of the benefits to accompany the proposed draft rules."

1.9 In a CBA the FSA assesses the incremental changes in costs and benefits that result from the provisions of a regulation, having its current rules as the counterfactual. MiFID will entail extensive recasting of FSA Handbook requirements, particularly for conduct of business, in a way which tends to reduce national discretion by substituting specific requirements/new wording, and most FSA-regulated firms carrying on investment business are likely to be affected, whether or not that business falls within MiFID's scope.

1.10 A separate study from this one has gathered data on the potential costs of MiFID provisions. The present study, in contrast, focuses on the potential benefits of MiFID.

1.11 Our approach has been to consider benefits gross of costs and gross of disbenefits (each of which we take to be encompassed by the parallel costs study (whose text we have not seen)). We do not consider negative aspects of the regulation at all. However, that does not mean that we take the most optimistic view of benefits — our objective is to present a well balanced view of a number of possible scenarios. Indeed in some cases where benefits might, in principle, be material, we do not suggest that material benefits will, in practice, be realised, even in our more bullish scenarios.

1.12 The sources of data for this study have included a review of other literature, a survey of firms (discussed in detail in Appendix 2 and in Annexes 1 and 2), and detailed statistical data provided to us by the FSA.

1.13 This study will not draw any conclusions as to the overall value of MiFID. Most regulations will have some potential benefits.[5] Certain of our scenarios suggest very limited benefits from MiFID, whilst in others benefits are greater, but in both cases the costs — either those integrally part of the regulation, or those arising from poor drafting of particular elements — fall outside the scope of this study.

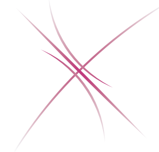
The complexity of assessing benefits, and comparing them with costs

1.14 It is in the nature of regulation that the costs are often relatively well-defined and focused on a fairly easily identifiable group of stakeholders, whilst benefits are more difficult to identify precisely and considerably more difficult to quantify, as well as often being spread over a more diffuse (and less easy to define) group of stakeholders. And even if one succeeds in identifying correctly a stakeholder that will benefit, that stakeholder may not be aware that it will benefit and may be much more poorly placed to provide estimates of benefits than it is in responding to cost estimation surveys.

1.15 For these reasons an important part of what follows is qualitative in nature. Where we have attempted quantification we stand behind our estimates and consider them both useful and informative, and the best that could have been provided given the time and resources involved. However, we wish to emphasize that these are estimates, rather than precise measures or forecasts, and inevitably rest on assumptions (in some cases strong assumptions) about how the market and regulation will develop following MiFID and how it would have developed in the absence of MiFID.

1.16 Another issue to raise concerns the evidential bar required before a quantitative estimate is reported here. This study is part of an input into an FSA cost-benefit analysis, but only one piece. In order for the results of this study to be useful in guiding policy, in combination with the output of other studies (to which Europe Economics has not had access), it is important that like is compared with like. In particular, for the FSA to be able to assess how the costs and benefits of MiFID balance, it is necessary that quantitative

[5] And this will be true even in cases where the regulations concerned are misconceived and potentially damaging.



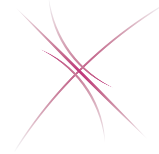
estimates of costs and benefits are produced according to appropriately comparable evidential principles. For example, it would be problematic if numerical estimates of costs were based on a high evidential bar, with figures only being produced for that narrow subset of costs for which numerical estimates could be produced easily, whilst benefits were based on a lower evidential bar, with numerical estimates across a much broader range of potential sources of benefits. That would undermine the function of producing and comparing numerical estimates of costs and benefits, since it would amplify the benefits artificially, compared with costs, simply for methodological reasons.

1.17 However, as has been emphasized, Europe Economics did not conduct other studies (and indeed have not seen them at the time of writing this report), and thus are not in a position to adopt an independent assessment of the evidential bar used in those studies. Consequently, we have been very grateful to receive close guidance from the FSA on how robust the evidential base needs to be before numbers are quoted here. But we note that, because of this, our purpose in the quantitative parts of this study has not been to produce our "best guess prediction" of the benefits of MiFID. Rather, it has been to offer an input into a policy process, in a format compatible with that employed in other work-streams so as to be useful for guiding decision-making.

Structure of the Report

1.18 Section 2 sets out the four scenarios we employ for the purposes of quantification. Section 3 briefly summarises the main relevant features of MiFID, for the purposes of this study (a more detailed consideration appears in Appendix 1). Section 4 sketches various theoretical channels whereby MiFID could give rise to benefits. Section 5 offers some quantitative analysis of the potential benefits of MiFID for equities markets. Section 6 quantifies wider benefits. Section 7 concludes.

1.19 Appendix 1 offers closer analysis of the main features of MiFID, including extracts of relevant Level 1 text. Appendix 2 summarises the key findings of a survey of firms conducted as part of this study. Annexes 1 and 2 present the questionnaires responded to by firms and summarize the answers provided.



2 FOUR SCENARIOS

2.1 This section sets out four scenarios this study employs to develop the range of quantified impacts. These four scenarios are:

(a) “Limited Effect”;

(b) “Non-Regulatory Factors Dominate”;

(c) “Contributor to FSAP”; and

(d) “Key Measure”.

2.2 We shall now explain each of the scenarios in turn.

Limited Effect

2.3 In this scenario it is assumed that MiFID has limited effect, and hence limited benefits. There could be a number of reasons for this, including:

(a) Regardless of the stated ambitions of MiFID to aid the development of a single market in wholesale financial services, one possibility is that the particular measures imposed are not capable of achieving the effects desired. Obviously the intention of the drafters of MiFID was that this should not be the case, but in this version of this scenario they (like a number of other drafters of legislation in the past) fail in their ambition.

(b) Another possibility is that, even if the requirements MiFID imposes on the market would significantly advance integration, such measures might be negated by the response of national regulatory authorities. Again, obviously the intention of the drafters of MiFID is to avoid this possibility, but again this version of this scenario assumes that they fail.

(c) In a third variant of this scenario, the relevant wholesale financial markets are already integrated (at least as far as is relevant for the UK), so that there is nothing for MiFID to add.

2.4 Obviously, overall, in this scenario the benefits of MiFID will be close to zero.

Non-Regulatory Factors Dominate

2.5 In this scenario MiFID has something more than merely a limited or zero effect, but in terms of achieving particular benefits, its contribution is only a part of a larger picture.

2.6 Many factors are important in maintaining differences between (or within) markets. Oxelheim (2000) quotes the following list[6]:

1) "asymmetric information available to investors resident in different countries. This includes not only financial data on corporations but also the analytical methods used to evaluate the validity of a security
2) different tax regulations, especially with regard to the treatment of capital gains and the double taxation of dividends;
3) regulations on security markets;
4) alternative sets of optimal portfolios from the perspective of investors resident in one equity market compared to investors resident in other equity markets;
5) different agency costs for firms in bank-dominated markets compared to firms in the Anglo-American markets;
6) different levels of risk tolerance, such as debt ratios, in different countries;
7) differences in perceived foreign exchange risk, especially with respect to operating and transaction exposure;
8) political risk such as unpredictable government interference in capital markets and arbitrary changes in rules;
9) take-over defenses that differ widely between the Anglo-American market, characterized by one-share-one-vote, and other markets featuring dual classes of stock and other take-over barriers; and
10) the level of transaction costs involved in purchasing, selling and trading securities."

2.7 Many of these ten represent differences in natural economic factors such as costs, preferences or endowments, rather than differences explicitly intended to protect markets. For example, this will be the case for (1) (information differences — a cost difference); (2) (tax differences — insofar as these arise from differences in public expenditure preferences they are simply differences in political preferences); (4) (investment preferences differences); (5) (market structure differences — bald facts, unrelated to barriers); (6) (differing risk preferences); (8) (political risk — insofar as this simply represents more volatile political preferences).

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6 See Oxelheim, L., (2000) "Routes To Equity Market Integration — The Interplay Between Politicians, Investors And Managers", Forthcoming, Journal of Multinational Financial Management, footnote 2, referring to Oxelheim, L., Stonehill, A., Randöy, T., Vikkula, K., Dullum, K.B. and K-M. Modén, (1998) Corporate Strategies to Internationalise the Cost of Capital (Copenhagen Business School Press, Copenhagen).

2.8 This leaves a list of four potential barriers; (3) and (10), fairly clearly associated with MiFID (though there are other sources of costs in (10), especially clearing and settlement costs, which could be very important[7]), and (7) and (9), unrelated to MiFID.

2.9 In this scenario it is assumed that the natural economic factors represent such material barriers to economic integration that the effects of removing regulatory barriers, in terms of promoting innovation, relatively small. It is the non-regulatory factors that dominate.

2.10 In quantifications under this scenario, we calculate the scope for benefits from integration, but attribute to MiFID only a small proportion of those benefits.

Contributor to FSAP

2.11 The Financial Services Action Plan consists of 42 measures, of which MiFID is only one. In this scenario it is assumed that, although FSAP as a whole does indeed (contra the scenario above) materially contribute to achieving a single market in wholesale financial services, MiFID is seen as a partial contributor to this process.

2.12 The approach we take under this scenario is to estimate a figure for the contribution of FSAP as a whole, and comment qualitatively on whether MiFID should be seen as making a significant contribution.

Key Measure

2.13 This scenario, which attributes the highest benefits to MiFID, is based on MiFID achieving its desired effect — wholesale financial market integration — and as being the key measure (for the particular mechanism of benefit under consideration). Accordingly, the full value of estimated potential benefits can be attributed to MiFID under this scenario.

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[7] Of course, even clearing and settlement costs are not non-tariff barriers in the strict sense. However, they may serve as practical barriers of an essentially historical nature, susceptible of being addressed by policy.

3 SUMMARY OF ASPECTS OF MIFID RELEVANT TO THIS STUDY

3.1 In this section we summarise the changes introduced by MiFID that are most important for the purposes of this study. Appendix 1 presents additional detail.

3.2 A central purpose of the ISD was to create a “passport” for investment firms, enabling them, on the basis of “Home State” authorisation, to provide cross-border investment services or to establish a branch in another Member State. The ISD included certain basic high-level provisions concerning the organisational required to be applied to firms along with some conduct of business requirements. It also sought to harmonise certain conditions governing the operation of regulated markets.

3.3 The basic purpose of MiFID is the same. However, because of significant developments in financial services and markets since the ISD, because of the ways that national regulators have responded to the ISD, and because of the evolving nature of regulation and development of the Single Market, MiFID makes significant changes to the regulatory framework. In particular:

(a) **The scope of MiFID is wider**. MiFID covers (in broad terms — there are particular nuances within the definitions and a number of exemptions) all financial instruments bar foreign exchange spot transactions.[8] Specifically, in addition to those services already covered by the ISD, MiFID:

- upgrades advice that involves a personal recommendation to a core investment service that can be passported on a stand-alone basis;
- clarifies that operating a multilateral trading facility (MTF) is covered by the passport; and
- extends the scope of the passport to cover commodity derivatives, credit derivatives and financial contracts for differences for the first time.[9]

(b) **MiFID involves a greater degree of harmonisation**. MiFID sets more detailed requirements governing the organisation and conduct of business of investment firms, and how regulated markets and MTFs operate. The aim is to promote the development of a single European market in financial services governed by a harmonised set of rules that cover the whole spectrum of investor-orientated activities

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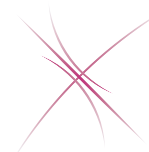
[8] However, “insurance or assurance undertakings the activities of which are subject to appropriate monitoring by the competent prudential-supervision authorities”, and which are subject other relevant directives, are excluded (Preamble, paragraph 10), as are “central banks central banks and other bodies performing similar functions as well as public bodies charged with or intervening in the management of the public debt, which concept covers the investment thereof, with the exception of bodies that are partly or wholly State-owned the role of which is commercial or linked to the acquisition of holdings” and “collective investment undertakings and pension funds whether or not coordinated at Community level, and the depositaries or managers of such undertakings” (Preamble 14 and 15).

[9] Insofar as CFDs cover swaps, cash-settled options or futures with a financial instrument as an underlying, these are currently within ISD scope.



irrespective of trading methods used, at the same time as providing the necessary protection to the retail customer.

(c) **Particular impacts on equity markets**. Although, as mentioned above, MiFID covers all financial instruments bar foreign exchange spot transactions, the most substantial effect of the directive is likely to be on the equities market. Increased use of alternative trading systems has changed the infrastructure of the capital markets in a number of ways, partly by bringing exchange-like functionality to over the counter (OTC) markets, and partly by challenging existing exchanges. In combination with an increased tendency for large investment firms to internalise client orders, the previous regulatory focus on traditional exchanges has become less relevant to current market circumstances. MiFID aspires to promote a more level playing field between traditional exchanges and the newer trading venues (including investment firms). It includes new pre-and post-trade transparency requirements for equity markets; the creation of a new regime for "systematic internalisers" of retail order flow in liquid equities; and more extensive transaction reporting requirements.[10] It will bring in Best Execution requirements, reduce Member State-specific market power by eliminating various "concentration rules" (explained below) and facilitate the development of alternative trading venues.

(d) **Other improvements to passporting**. Although passporting was included in the ISD, it has come to be perceived that the development of a Single Market has been impeded by Member State regulations — including in particular those on conduct of business and organisation. MiFID improves the operation of the 'passport' for investment firms by more clearly delineating the allocation of responsibility between home state and host state for passported branches and generally clarifying some of the jurisdictional uncertainties that arose under the ISD. For example, going forward, it is clear that a firm will be subject only to home state requirements under MiFID where it provides cross-border services from that state into another Member State. MiFID also more clearly recognises the concept of tied agents, who will be able to carry on some cross-border business under the passport of their principal.[11]

(e) **Interaction between MiFID and the Capital Requirements Directive (CRD).**[12] Most firms covered by MiFID will be required to comply with the new CRD, concerning the quantity of regulatory capital that a firm is required to hold. Firms newly regulated because of MiFID will now be subject to directive-based capital requirements.

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[10] The regime also covers systematic internalisation of orders from professional clients if those orders are below SMS.

[11] Home state regulators will be responsible for supervision of the organisational requirements relating to branches. Host state responsibility is limited to ensuring compliance with the obligations under articles 19 (conduct of business), 21 (best execution), 22 (client order handling), 25 (transaction reporting etc.), 27 (obligation to make public firm quotes) and 28 (post-trade disclosure) with respect to the services provided by the branch within its territory.

[12] The CRD will commence on 1 January 2007 (i.e. before MiFID comes into effect). CRD amends the Banking Consolidation Directive and the Capital Adequacy Directive.

4 CHANNELS OF POTENTIAL BENEFITS FROM MIFID

4.1 As explained above, the focus of this study is the potential benefits arising from MiFID for:

(a) UK firms;

(b) UK investors; and

(c) the wider UK economy.

4.2 In this section we shall set out, in qualitative terms, the main ways in which MiFID might theoretically lead to benefits for these groups, assuming:

(a) that there is scope for benefits (e.g. that markets are not already fully integrated);

(b) that the regulations introduced by MiFID are well-directed at achieving the benefits desired; and

(c) that the benefits of such regulation are not negated by the response of national regulatory authorities.

4.3 Although the focus is on the UK, in what follows we shall distinguish, where relevant, between cases in which the benefits that might arise for the UK are benefits for the European Union as a whole, and cases in which benefits to the UK might be more closely associated with *transfers* from firms in other EU Member States. To put it in more colloquial terms, MiFID will not be a “zero-sum game” in which all gains to one country are losses to another — as is usual with Single Market measures, there will be growth in the total pie — but, nonetheless, there will be some elements of competitive gains. However, it should be noted that even gains to UK firms at the expense of firms in other Member States will typically be because consumers in other Member States will be better off by using the UK firms. (Similarly, gains to firms in other Member States at the expense of UK firms will typically benefit UK consumers.) Consequently, as standard trade theory suggests, even such transfers between firms will sometimes lead to gains for the economies of the other Member States as a whole — their consumers will be gaining more than their producers lose.

4.4 We emphasize that in this section the focus is on possible mechanisms, and intuitive comment on their likely materiality. In Section 4 we attempt to quantify benefits arising through certain of these mechanisms.

Three “Rounds” of Benefits

4.5 We shall distinguish between three “rounds” of benefits:

(a) **First-round benefits** (which we may also term “**direct benefits**”): These are benefits that accrue to those firms and consumers directly affected by MiFID (and related regulation, as explained below);

(b) **Second-round benefits** (which we may also term "**indirect benefits**"): These are benefits that arise because MiFID may lead to a fall in the cost of capital and more efficiently-directed investment, and hence to a rise in investment, more productive investment, and consequently higher GDP.

(c) **Third-round benefits**: Third-round benefits arise because of the indirect benefits MiFID brings to the economies of the UK's trading partners. Higher GDP and higher growth rates in our trading partners may lead to greater export opportunities for UK businesses as a whole (across the economy, not just in finance and financial services).

4.6 Later sections of this report will attempt to quantify some first- and second-round benefits. No attempt will be made to quantify third-round benefits.

4.7 We shall now set out, at a qualitative level, how benefits in each of these rounds might arise.

First-Round Benefits

4.8 First-round benefits are those that arise for stakeholders affected directly by the provisions of MiFID. We shall analyse such potential benefits into four categories:

(a) Benefits issuing directly out of the regulation ("Direct Direct benefits");

(b) Competition and industrial structure effects;

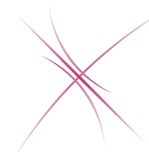
(c) Innovation effects; and

(d) Effects on related regulation.

Benefits issuing directly out of the regulation

4.9 First we consider benefits that arise, for those directly affected by the provisions of MiFID, out of the direct workings of the regulation (which we might term "Direct Direct" benefits, as opposed to the more subtle forms of direct benefit discussed below). We have identified the following mechanisms by which, in theory, such benefits might arise:

(a) **Reduced costs of obtaining and maintaining authorisation**: The extension of the activities covered by passporting and the greater ease of obtaining a passport may lead some firms to bear the costs of obtaining and maintaining authorisation in only one Member State, when in the past such costs would be borne in multiple Member States — potentially separately in every Member State in which the firm did business.



This effect may be relatively small, but material in some Member States and in some markets.[13]

(b) **Reduced costs of complying with regulation**: Greater harmonisation of regulatory requirements across the EU may reduce the need for duplicate and variant systems for complying and systems for training staff in compliance.[14]

(c) **Reduced market reputation costs**: FSA-regulated UK firms are already subject to Best Execution requirements. However, when operating in EU Member States that are currently subject to less exacting Best Execution requirements than in the UK, UK firms may need currently to spend on marketing or branding effort that, in the market and regulatory environment of those Member States, takes the place of a strict regulatory Best Execution requirement.[15] Insofar as this happens at present, FSA-regulated UK firms would "pay twice" — once in complying with FSA regulation and once in delivering non-UK market confidence. A general EU-wide obligation to deliver Best Execution could possibly mean that, in the future, UK firms might require less branding effort or other marketing, and less time spent convincing customers that Best Execution was being delivered, in order to establish confidence among customers in certain Member States[16].

(d) **Reduced other operating costs**: Greater ease of passporting may lead to some business activities becoming more concentrated in a small number of Member States, reducing the need for duplicate administrative, management, and sales staff and systems (for example).

(e) **Improved access**: MiFID may improve access for UK firms to markets in other EU Member States in at least two ways. First, a number of Member State national regulatory authorities have explicit rules limiting access to certain markets. The best examples of this are the so-called "concentration rules", operating in, for example, France, Italy and Spain, which require certain sorts of trade to pass through "regulated markets". Such rules will be eliminated by MiFID.[17] Furthermore, it may have been that some regulators, in some markets, imposed requirements on firms that had the

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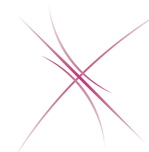
[13] Of course, it is important to note that the passport already operates. The rationale for multiple authorisations would arise in the subset of cases where the use of the passport was not available, not feasible or frustrated by particular barriers.

[14] In addition to the mechanism described here, there may also be increased costs of compliance, both one-off costs of adapting to the new regulatory requirements of MiFID and ongoing costs where MiFID provisions increase the ongoing incremental costs of complying with financial regulation. Although these additional costs are clearly potentially material and important, we emphasize once again that the focus of this study is on the benefits of MiFID — our assumption is that such costs are being addressed in another FSA workstream.

[15] In some respects concentration rules may be seen as the mechanism by which best execution is sought to be achieved.

[16] It should be noted that this is the sort of mechanism about which firms are likely to be particularly sceptical as to its materiality. Nonetheless, a key presumption underlying market-improving financial regulation is that regulation does increase consumer confidence more efficiently than branding effort by firms, and that this effect is sufficiently material to provide a rationale for intervention in markets. An alternative approach to undertaking such branding efforts would involve the establishment of a subsidiary, which is itself costly.

[17] Since MiFID replaces the ISD, the provisions under the ISD allowing national regulators to require certain trades to pass through "regulated markets", as defined under Article 16 of the ISD, fall.



effect, in practice, of making it infeasible to enter such markets from the UK. MiFID may significantly reduce, or eliminate entirely, such barriers.[18]

(f) **Improved prices directly because of Best Execution requirements**: In some Member States in which current regulation does not include as effective a Best Execution requirement as that within MiFID, MiFID may directly lead to reduced prices for some consumers as firms will have to enact Best Execution.[19]

(g) **Improved functioning of markets because of improved regulation**: MiFID will bring under regulation some markets not currently regulated in some Member States — for example Investment Advice. Insofar as more extensive regulation will improve the functioning of such markets (e.g. by helping to overcome asymmetric information problems or by increasing consumer confidence), the volume of trade in such markets may expand and UK firms will have increased opportunities.[20]

(h) **Reductions in transactions costs because of aggregation effects**: A key objective of MiFID is to achieve a deeper, more liquid and more pan-European capital market. Within capital markets, the ability to trade involves some agents making securities available immediately. Immediacy providers will bear costs to the extent that they hold securities idle. The more demand for trades, the less time any given security will spend idle, and hence the lower will be the costs of idleness. A more pan-EU market will tend to aggregate, across Member States, demand for certain types of securities, thereby increasing liquidity and market depth and reducing security idleness (this can be thought of as a form of economy of scale). As a consequence, transactions costs may fall.[21]

(i) **Realisation of economic value of data**: As explained in paragraph A1.27 in Appendix 1, under MiFID companies are allowed to sell their data on reasonable commercial terms, which could lead to a direct gain to some larger investment firms.

Competition and industry structure effects

4.10 Perhaps the most significant potential benefits of MiFID are associated with those ways in which it may increase, intensify, or facilitate competition. Such greater competition might benefit UK investors and investment firms, as well as non-UK investors. We have identified the following mechanisms by which this may occur:

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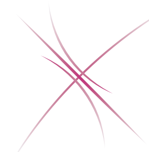
[18] Note that Articles 31 to 35, in Chapter III of Title II of MiFID, set out Rights of Investment Firms. These include Freedom to provide investment services and activities, Establishment of a branch, Access to regulated markets, and Access to central counterparty, clearing and settlement facilities and right to designate settlement system.

[19] There may, in addition, be competition effects associated with Best Execution, as set out below, because the increased importance of price arising from stronger Best Execution requirements may lead to more effective price competition. In this section, however, we focus on the direct effect of lower prices for those customers not currently receiving Best Execution.

[20] Of course, misguided or poorly drafted regulation can also damage the functioning of markets.

[21] The focus here is on reduced transactions costs because of reduced costs for immediacy providers. Increased competition between immediacy providers may, of course, be another source of benefits, and is addressed below.



(a) **MiFID extends the range of passportable activities**. In some markets this may mean that cross-border business or the use of branches will now occur where it was previously impossible or infeasible. This could lead to increased competition because there would potentially be additional choices available to investors (the UK firms newly operating).

(b) **MiFID simplifies the passporting regime**. Simplifying the passporting regime for firms doing cross-border business may increase the number of potential competitors, leading to increased competition and enabling greater EU financial integration. As a consequence, firms may more easily be able to locate in the most efficient locations, thus reducing costs for consumers. In addition, this process could lead to increased competition through the de-segmenting of some markets. This greater competition could lead to a reduction in the "deadweight losses" associated with monopoly pricing. Furthermore, new players passporting-in may have lower cost bases, thereby increasing efficiency still further.

(c) Closely related to the above are gains from better exploitation of **economies of scale and scope**. De-segmenting of markets may, in some markets, allow a smaller number of more-fiercely-competing firms to operate. This smaller number of firms operating across a greater geographical scope (and perhaps in some cases in more markets than today) may be larger in scale and more efficient.

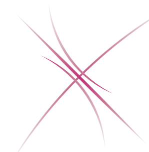
(d) The obligation to deliver **Best Execution may make price a more visible and thence more important dimension of purchaser choice**. If prices are more important in guiding purchasing decisions, it is reasonable to suppose that price competition might become more intense.[22]

(e) A related possibility is that the **requirements for firms to disclose their execution policies might impose some additional discipline on costs**, since consumers may be less willing to pay for receiving inefficient execution. This might mean that Best Execution leads to more intense competition in execution quality, as well as price.

(f) More consistency in regulatory regimes for regulated markets, MTFs and systematic internalisers may make the services provided through different infrastructures more straightforwardly comparable. **Greater ease of comparison might force more competition in those dimensions consumers consider important**.

(g) The **abolition of concentration rules might enhance competition between regulated markets and internalisers and/or MTFs in non-UK stocks. It may also provide an indirect route of competition between exchanges**, if internalising business becomes concentrated in a relatively small number of companies that provide internalising across the EU — although each regulated exchange may face

[22] It is important to note, however, that price is not the only criteria contained within the best execution obligation.



only limited competition from other regulated exchanges, there may, at the margin, be competition between exchanges and internalisers, and thus indirect competition between the exchanges mediated by the internalisers. Such competition may benefit UK investors (as opposed to UK firms — non-UK investors may also be beneficiaries), especially to the extent that they invest in non-UK EU equities.

(h) **The provisions of MiFID enabling firms to realise the economic value of their data may create competition in data publication**, putting downward pressure on regulated market charging, and prices may fall. This would be of benefit to UK firms (though perhaps not current UK exchanges).

(i) Another possible effect is that improved regulation and superior consumer protection may help to **overcome asymmetric information problems** facing buyers and increase consumer confidence, thereby at the same time increasing volumes of trade and also making competition on prices more effective.[23]

(j) **Increased entry into the UK market from the EU**: If the UK has regulation that is more costly to comply with, increasing regulation right across Europe might reduce the incremental costs of entering the UK market, thereby leading to some losses for UK firms but gains for UK consumers and investors.

(k) **Increased entry into the EU markets from outside the EU**: The effects above may make the EU as a whole a more attractive place to operate for firms outside the EU — for example, US, Chinese or Japanese firms.

Innovation effects

4.11 It is possible that MiFID will lead to innovations creating benefits both for innovating firms and for users of these services. We shall not speculate about what form such innovations might take here, but it is not unusual for innovations to develop under new regimes.

4.12 It may also be that MiFID allows firms more fully and more rapidly to exploit the scope for gains from recent innovations. For example, the recent development of off-exchange trading systems that reduce the market impact of large-scale trades may, post-MiFID, allow large UK firms that take advantage of such innovations to gain a competitive advantage over firms operating mainly in jurisdictions in which such large off-exchange deals are not currently permitted.

Effects on related regulation

4.13 This is potentially another important source of benefits. We identify two main classes.

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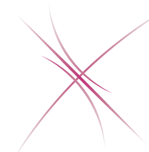
[23] As above, this depends on the quality and usefulness of the regulation. We offer no comment as to whether MiFID does actually represent a sheer improvement on existing regulation, and the quantitative estimates in later sections do not assume benefits from this source.



4.14 Firstly, MiFID may allow fuller realisation of benefits from other directives already in place. For example, the Prospectuses Directive of 2004 established regulations on unified standards for prospectuses published by companies and institutions across EU. MiFID enables fuller and enhanced use of these harmonised standards by the abolition of concentration rules and the extension of passporting within EU.

4.15 Secondly, MiFID may constitute a "watershed" in EU financial regulation. This point is perhaps subtle, and worth considering in some detail, as follows. We begin by raising, by way of consideration of an analogy with the process of tariff reduction within the Single Market for goods, the question of whether MiFID is best considered

(a) as an important and necessary early step towards the creation of a Single Market in capital, but one that is likely, in the short term, to lead to subtle alternative barriers being raised by national regulators, effectively negating the direct benefits of MiFID in the short term (the "pessimistic view"); or

(b) as the "watershed" regulatory development, after which it will no longer be sustainable for national regulators to raise any (regulatory) barriers to trade in wholesale financial services[24] (the "optimistic view").[25]

4.16 The results of our survey, reported in Appendix 2, are consistent with the idea that many firms take the "pessimistic" view, and indeed this possibility is incorporated into our "Limited Effect" scenario, as discussed above. However, other scenarios incorporate versions of the "optimistic" view.

4.17 An aim of MiFID is to remove barriers to the development of a pan-EU Single Market in wholesale financial services, and consequently a Single Market for capital. Consider, by way of comparison, the not-altogether-dissimilar case of the development of the Single Market in goods. At a relatively early stage in the development of the Single Market in goods, explicit tariff barriers were eliminated. However, this was not sufficient to achieve a Single Market in goods, partly because the removal of tariff barriers led, at first, to a significant expansion in "non-tariff barriers" (such as manufacturing or production requirements that favoured established national practices, or health and safety requirements that could only practically be met by domestic suppliers, or onerous customs procedures). In order really to achieve a Single Market in goods, the Single Market Programme was required, stripping away, also, the non-tariff barriers. But once the Single Market Programme was in place, even if a national regulator did devise some new and unexpected way to raise a barrier, the principle was well-established and

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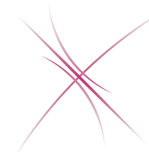
[24] We note that MiFID would not address non-regulatory barriers such as differing exchange rates, tax systems, or protectionist measures against mergers and acquisitions by foreign firms.

[25] Note that we term these views "pessimistic" and "optimistic" only in the sense that our measures of the gross benefits to UK stakeholders will be higher under the "optimistic" view. It does not fall within the scope of this study to consider whether the creation of a single pan-EU capital market is or would be a positive development in itself (for example, we do not consider the geopolitical or cultural consequences), or to consider the costs (for example, nothing considered in this study rules out the possibility that there could be higher costs in the "optimistic" case that would more-than-offset the higher benefits).



understood that a directive or regulation, or if really necessary a treaty amendment, would be introduced to counter such a re-segmenting of the Single Market. In this sense the Single Market programme represented a watershed in the development of the Single Market in goods.

4.18 Now, as regards MiFID, is it best thought of as rather like the “explicit tariff barrier removal” stage of the development of a Single Market, or is it more like the Single Market Programme stage?

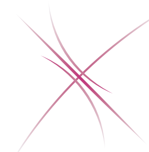
4.19 The view of firms responding to our survey, as set out in Appendix 2, appears to be that potential benefits from MiFID would be marginal at best, and that it would not be a watershed in terms of fostering a pan-EU Single Market in wholesale financial services. Further, a number of firms amplified their comments to state explicitly that the reason for this was that national regulators would use their scope for discretion to negate the Single-Market-promoting aspects of MiFID. If firms are correct in this pessimistic view, many of the potential benefits set out above and below will simply not be realised.

4.20 However, our interpretation of the statements of policy-makers, of the text of MiFID and the surrounding documentation, and our discussions with those involved in the process, suggest that policy-makers at the European level take a more “optimistic” view.[26]

4.21 If a more “optimistic” view is indeed correct, then the benefits of MiFID may go wider even that the ways in which MiFID directly allows the realisation of the benefits of other regulation, as set out above. If MiFID serves as a watershed moment in the establishment of an EU capital market, there would be an argument for attributing to it some proportion of the entire benefits of EU financial integration (including benefits from other measures only distantly related to MiFID). Even our “Key Measure” scenario does not go this far, but it does, in some cases (as set out below) attribute to MiFID the whole gains associated with channels of benefit that might arguably depend on a number of different directives and perhaps on other drivers of integration, in cases where MiFID is (at least in regulatory terms) highly relevant. One ground on which one might claim that this is not intrinsically a source of exaggeration would be the watershed argument.

4.22 Intermediate scenarios embed a view somewhere between the “optimistic” and “pessimistic” views.

[26] Indeed, this has been the intention and interpretation of MiFID among policy-makers from even before it was first proposed — for example, in Appendix 1, p48 of “Towards A Single Market For Finance: The Financial Services Action Plan”, House of Lords, Select Committee On The European Union, 45th Report, Session 2002–03, it is stated: “The one measure which will do most to unleash [the benefits of capital market integration] will be the forthcoming Directive on investment services and regulated markets [i.e. MiFID], due to be proposed shortly.”



Second-Round Benefits

4.23 If MiFID succeeds in creating a more pan-EU market for capital, this may have a number of effects on capital markets. Specifically:

(a) Markets may become deeper — that is to say, the total available pool of capital may become greater;

(b) Markets may become more liquid — that is to say, the volume of capital actually traded in any given period may increase;

(c) There may be more participation of stocks in given movements of the market (general market sentiment may be more rapidly reflected in the movement of all stocks, rather than some thinly traded stocks changing price only rarely);

(d) There may be more independently issued price forecasts for any given stock;

(e) The range of available risk-return tradeoffs in the market may become broader or "span" more completely the possibilities (or, to put it another way, it will become less common for there to be certain levels or types of risk simply "unavailable to buy into"; or, to put it a third way, there will become more stocks available offering any given risk-return trade-off);

(f) There may also be more sophisticated development in certain particular markets, such as those for credit derivatives and commodity derivatives.

4.24 A deeper and more liquid market, that more effectively spans the risk-return possibilities and has further development in certain complex markets, may create additional second-round benefits, such as:

(a) Reduced costs of diversification in Europe (potentially increasing both investment into the UK (e.g. by US firms) and investment from the UK into other parts of the EU);

(b) Better risk hedging, which might (inter alia) lead to more willingness to offer fixed rate mortgages, more flexible fixed rate mortgages, and cheaper fixed rate mortgages;

(c) Increased ability of Pension Funds, Investment Trusts, and other Insurers to diversify risks of investment by investing overseas.

4.25 The effects above combined with greater competition, and consequently reduced transactions costs, may lead to a reduced cost of capital. If the cost of capital is lower, then investment may increase, and consequently there may be increases in GDP across the EU. In a later section we provide some quantitative estimates of this effect.

4.26 A deeper and more liquid capital market may have further effects. Recent academic papers by Aghion & Howitt[27] and Aghion, Angeletos, Banerjee & Manova[28] have argued that when capital markets are well developed companies that are in temporary financial difficulties but essentially sound can borrow to keep operating during recessions. In contrast, when capital markets are thin, some such businesses will fail.[29]

4.27 If this view is correct, MiFID, by promoting deeper capital markets, might contribute to preventing good firms in Europe from inefficiently failing in recessions, thereby in theory increasing incentives to engage in long-term research and development, reducing the depth of recessions and increasing the sustainable growth rate of economies.[30]

4.28 A further possibility is that there may be increased inward investment into the UK. The effects above may make the EU as a whole a more attractive place to operate for firms outside the EU — for example, US or Japanese firms. The combination of the extension of passporting and greater attractiveness of operating in the EU may lead such some such firms to locate operations in the UK. The associated inward investment, and consequent jobs and higher wages are another potential source of benefits.

Benefits Not Attributed

4.29 There are a number of benefits sometimes suggested as arising from integration of European capital markets that we shall not attribute to MiFID in this study. In particular, the 2002 London Economics report for the European Commission, "Quantification of the Macro-Economic Impact of Integration of EU Financial Markets" (hereafter referred to as *EC 2002*) suggested that greater integration might be a driver of greater use of bond finance, as opposed to bank finance, as a sort of debt financing.

4.30 For example, for the UK *EC 2002* argued that greater integration might drive a rise in the percentage of bond financing from 2.0 per cent of all financing to 8.0 per cent, at the expense of bank finance, as a form of convergence to the 10.6 per cent level of bond financing then found in the US.[31] This rise in the share of bond finance was modelled as adding 0.3 per cent to UK GDP.

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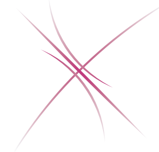
[27] Aghion, P. & Howitt, P. (2005) "Appropriate Growth Policy: A Unifying Framework", http://post.economics.harvard.edu/faculty/aghion/papers/Appropriate_Growth.pdf

[28] Aghion, P., Angeletos, G-M., Banerjee A. & Manova, K. (2005) "Volatility and Growth: Credit Constraints and Productivity-Enhancing Investment", http://post.economics.harvard.edu/faculty/aghion/papers/Volatility_and_Growth.pdf

[29] Aghion and Howitt argue further that because capital markets in the EU are less deep than in the US, fiscal policy should be more aggressively counter-cyclical in EU Member States than is required in the US.

[30] If Aghion and Howitt are correct in believing that more activist fiscal policy is required as a consequence of less perfect capital markets, MiFID may have yet further spillover benefits, since if recessions become less deep as a consequence of deeper and more liquid capital markets, there will be less need for countercyclical fiscal or monetary policy in Europe, and hence
(a) fewer interest rate changes — so more certainty over financing costs and reduced "menu costs" of adjusting to changes; and
(b) fewer changes in taxes — so more certainty over tax costs; and potentially also
(c) lower required levels of taxation — a more efficiently functioning economy, with less deep recessions and consequently unemployment being lower and rarer, might lead to less need, in a general sense, for direct government involvement in the economy, thereby reducing the well-known deadweight costs of government economic activity.

[31] *op. cit.* p122, Table 6.3.



4.31 In our view, the differences between bond financing levels in the US and the EU are primarily attributable to historical features of US banking that tended to restrict the ability of retails banks to make commercial-scale loans and thereby encouraged the use of bond financing, rather than because segmentation within Europe limited the feasibility of bond financing (so that a reduction in segmentation would lead to convergence to a more "natural" US-style level).[32] Techniques in bond financing have advanced considerably in recent years, and as a consequence it seems plausible that the importance of bond financing will continue to rise in Europe. However, this change is better understood in "technological development" terms, rather than as arising because of greater financial integration within Europe. Thus we do not attribute any gains arising from this source to MiFID.

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[32] In the US, historically, inter-state banking was prohibited and some states restricted, or even prohibited, branching. For many years this restricted the size of US banks and thus their ability to engage in on-balance-sheet transactions.

5 QUANTITATIVE ESTIMATES OF FIRST-ROUND EFFECTS

5.1 In this section we provide further discussion of — and attempt to estimate, as far as is feasible — the ways in which (first-round) benefits to the UK might arise through the effects of MiFID, particularly the effects on trading in European equities markets, but also on other areas, such as operating costs.

5.2 For each category of benefit for which we investigate the possibility of quantification, we first set out the basis for quantification, then state the quantification for each of our four scenarios, then offer some comment.

5.3 In a number of places the quantifications below appeal to the results of our survey of firms, which are reported in more detail in Appendix 2 and in Annexes 1 and 2.

Benefits, for those Directly Affected by the Regulation, Arising Directly out of the Regulation ("Direct Direct" Benefits)

5.4 A number of the potential benefits identified in Section 4 are not suitable for quantitative estimation. Those we attempt here to estimate or to quantify in terms of the significance of their impact on firms are:

(a) Benefits from reduced costs of complying with regulation;

(b) Benefits from the extension of the passport;

(c) Aggregation benefits;

(d) Benefits from the capture of systematic internalisation business;

(e) Benefits from selling own market data.

Benefits from reduced costs of complying with regulation

5.5 A number of market participants that we interviewed identified the reduced need to produce multiple compliance systems for multiple regulators as one of the main benefits of MiFID.[33] We attempted to gain a view to the size of this possible effect through a section of our questionnaire on costs that companies might avoid in various areas.

5.6 Unfortunately, not many companies were able to estimate a value for this benefit, but we note that those that did were largely savings involved only in equities business. Further, the way that companies organise their compliance systems can vary widely and will affect the possible savings from the reduced need for complying with more than one set of regulations. This means that the calculation on the views gathered here, even more so than responses to other questions, may not be representative of the effect on the whole industry.

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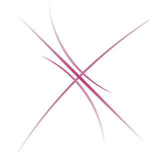
[33] See paragraphs A2.12ff.



5.7 Nevertheless, and with the above caveats, the responses can give us some insight to the extent of these cost savings. Based on the responses of relevant firms, for each additional EU Member State that they currently operate in, companies face additional compliance costs of roughly 30 per cent of their cost of compliance function in the UK.[34] Firms in our sample varied significantly in the number of countries in which they were involved. Focusing on the three largest states apart from the UK — Germany, France and Italy — on average half of firms would have been involved in one of these states in addition to the UK.[35]

5.8 Europe Economics study "Costs of Compliance" June 2003 estimated the incremental cost of compliance with financial regulation at 1.6 per cent of non-regulatory operating costs.[36] This would imply that 30 per cent additional compliance cost for each additional Member State represents an addition to operating costs of approximately 0.5 per cent.

5.9 The UK financial services sector represents 6.0 per cent of GDP in 2004, or some £70bn. Assuming that operating costs constitute the considerable majority of total costs for the firms concerned, and that currently passporting firms affected by MiFID cover around fifteen percent of the value of the financial sector[37], this implies that the reduction in compliance costs has a potential value of some £100m per year, if companies that do passport are assumed to passport to an average of two other EU countries.[38]

5.10 Table 5.1 presents the estimates for each of our four scenarios.

Table 5.1: Estimates for the Four Scenarios

Scenario	Estimate	Comment
Limited Effect	Zero	As usual, this scenario assumes that the effect will not arise
Non-Regulatory Factors Dominate	£100m per year	Regardless of whether financial market integration is achieved, or whether the achieving of this is directly attributable to MiFID, gains from reduced compliance costs can arise, and are straightforward to attribute
Contributor to FSAP	£100m per year	
Key Measure	£100m per year	

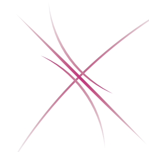
[34] We assume that, because this effect relates to a reduction costs because of a reduction in compliance functions located abroad, it is not already accounted for in the parallel costs study. To the extent that this assumption is incorrect, our inclusion of this as a benefit here involves an element of "double counting".

[35] Strictly, our sample gave an average of 0.5 additional involvements, with no firms involved in only one other state. However, we express matters as above, because the notion of 0.5 involvements may be difficult for some readers to interpret.

[36] In fact, Table 4.4 of Costs of Compliance gives median "Incremental Costs of FSA Compliance as Percentage of Non-regulatory Operating Costs" for firms by activity grouping at 2.0 per cent for firms engaged in "Capital Market Operations", 1.5 per cent for "Exchanges, Counterparties and Others", and 1.1 per cent for firms engaged in investment management. However, for our purposes the 1.6 per cent overall median is sufficient.

[37] Note that the FSA estimates some 2400-4000 firms to be affected by MiFID, out of its total number of FSA-authorised firms of around 25,000. Out of these the FSA estimates that 900 firms currently passport services under the Investment Services Directive. However, these firms are likely to be among the larger turnover companies.

[38] Viz, 70bn * 0.05% * 15% *2.



Benefits from extension of the passport

5.11 Roughly half of the respondents that deal in commodity derivates at the moment to other EU Member States said that extension of passport will be valuable, but not essential — they would be able to do business in other EU member states without the extension of passporting, but it would cost additional money or effort.

5.12 Roughly half of all firms (including, now, also, those that do not deal in commodity derivatives) that do not currently supply to the EU said that they are at least somewhat more likely to begin supply due to MiFID, with some considering acquisition as an option of entry as a cause of MiFID.

5.13 Again, roughly half of all respondents said that new opportunities would be material, the range varying from less than 10 to over 100 per cent of the current UK supply. Most of these, however, thought the benefit to be in the region of less than 10 per cent of UK supply. The expansion of current business in the EU was not thought to be affected strongly. This could imply that companies wanting to do so have found ways around the current regulations, to supply Europe-wide, so that it is not the volume of business, but the cost of conducting it that is affected.

Table 5.2: Company views about benefits from extension of the passport

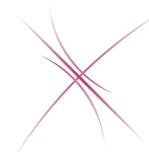
	Proportion of responses that rate benefits as:		
	>50% of UK supply	From < 10 to 50% of UK supply	Not material
Ability to approach new customers and supply new products	5%	40%	55%
Expansion of current existing business in non-UK EU Member States	5%	25%	70%
Expansion of current investment in non-UK EU Member States	0%	5%	95%

Aggregation benefits

Basis

5.14 The ambition of MiFID is to create a Single European Market in wholesale financial services, and to promote the integration of the European capital market. This ambition is reflected in the "Key Measure" scenario.

5.15 This scenario assumes that, at present, such a Single Market does not exist. However, it might be contended that, in a number of areas affected by MiFID, a single market is already in place. For example, the feedback we received from the consultation process has indicated that, for certain commodity derivatives markets, there is already a single market covering the whole of Europe, based in London. The extent to which this is true



for a range of markets will clearly influence any estimates of aggregation benefits, and we attempt to reflect this (to varying degrees) in three of our four scenarios.

5.16 To the extent that markets are already aggregated, MiFID will not lead to aggregation benefits/economies of scale, of the sort described in Section 4.9(h). (Note that this would not mean that MiFID did not lead to any benefits in these cases — there might still be reductions in costs and increases in efficiency because of increased contestability (e.g. a London-based market might have to charge lower fees than in the past, because of the greater threat that the market would relocate to Frankfurt (say), post-MiFID).)

5.17 Even in the case of equity markets, it could be contended that there is already considerable integration and substitutability. However, since the provisions of MiFID are most extensive in the area of equities markets, it seems most reasonable to focus attention on the hypothesis that, at present, equities markets remain relatively segmented and that the provisions of MiFID (and other elements of the FSAP) intended to address this will be successful. Note that this is an assumption, not an assessment — assessing whether there could have been better measures devised to achieve the goals of MiFID and other elements of the FSAP falls outside the scope of this study.

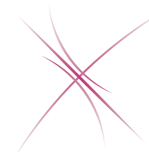
5.18 The issues raised above suggest that the "Already integrated" variant (variant (c)) of the "Limited Effect" scenario, although clearly very distant in concept from the ambitions of the drafters of MiFID, might be of particular interest in this case.

5.19 In what follows we shall set out a model based on the premise that, at present, equity markets are segmented, and that in the future, after MiFID (and other elements of the FSAP) European equities markets will become fully integrated. We note that, to the extent that such markets are already integrated, the approach here will overstate the benefits MiFID will bring about through this mechanism. However, even if one takes the view that there is bound to be *some* degree of integration in equities markets, it would be too swift to conclude that this means that the final estimates for benefits from the "Key Measure" scenario are inevitably over-stated. For, within this scenario, some over-statement in the benefits arising through this mechanism is balanced by the case of (a) other markets that are currently more segmented, but for which we attempt no quantification and attribute no gains from MiFID; and (b) other sources of benefits that we do not quantify — remembering always that our approach in the "Key Measure" scenario is to quantify and attribute to MiFID only those sources of benefits that we consider most closely attributed to this source, whilst recognising that its total scope is potentially very widespread.

5.20 Other scenarios, of course, explicitly restrict the proportion of impact to be attributed to MiFID, as set out below.

Rationale

5.21 One way to measure direct benefits due to the increased liquidity from aggregation of markets is to estimate the direct effect this would have on the bid-ask spread present on



the market. Bid-ask spreads differ substantially between securities on the same stock exchange, and between exchanges.

5.22 Despite such differences, we assume that, overall, there is a negative relationship between liquidity and the bid-ask spread — that is to say, we assume that as liquidity increases bid-ask spreads will tend to fall. This is not only a natural assumption, but is also the pattern observed in our dataset.

MiFID's effects

5.23 As discussed in previous sections, a fair proportion of MiFID's impacts will be focused on equities markets. If we could assume that MiFID will in effect allow the creation of a (virtual) single European capital market, in that any security will be able to be traded anywhere, and any person will be able to go to any existing physical exchange — which will in effect be a part of a virtual "single European exchange" — to trade, that would imply that an increase in the capital pool available for trade in each risk class of security.

5.24 In the spirit of our "Limited Effect" scenario, one view one might take is that European equities markets are already highly integrated, so that, in effect, the virtual single capital market already exists.

5.25 Even if there is still scope for considerable integration, how much of such an effect can we attribute to MiFID? There will, of course, be many factors tending to maintain differences between (or within) markets. As mentioned in Section 2, Oxelheim (2000) quotes the following list[39]:

1) "asymmetric information available to investors resident in different countries. This includes not only financial data on corporations but also the analytical methods used to evaluate the validity of a security
2) different tax regulations, especially with regard to the treatment of capital gains and the double taxation of dividends;
3) regulations on security markets;
4) alternative sets of optimal portfolios from the perspective of investors resident in one equity market compared to investors resident in other equity markets;
5) different agency costs for firms in bank-dominated markets compared to firms in the Anglo-American markets;
6) different levels of risk tolerance, such as debt ratios, in different countries;

[39] See Oxelheim, L., (2000) "Routes To Equity Market Integration — The Interplay Between Politicians, Investors And Managers", Forthcoming, Journal of Multinational Financial Management, footnote 2, referring to Oxelheim, L., Stonehill, A., Randöy, T., Vikkula, K., Dullum, K.B. and K-M. Modén, (1998) Corporate Strategies to Internationalise the Cost of Capital (Copenhagen Business School Press, Copenhagen).

7) differences in perceived foreign exchange risk, especially with respect to operating and transaction exposure;

8) political risk such as unpredictable government interference in capital markets and arbitrary changes in rules;

9) take-over defenses that differ widely between the Anglo-American market, characterized by one-share-one-vote, and other markets featuring dual classes of stock and other take-over barriers; and

10) the level of transaction costs involved in purchasing, selling and trading securities."

5.26 In our "Non-Regulatory Factors Dominate" scenario we envisage that the contribution of regulatory factors is rather small — perhaps only factor 3 here, which might imply, perhaps, that only ten per cent or so of such gains should be attributed to MiFID.

5.27 On another view it is important to distinguish between heterogeneity within a market and barriers to a single market, and not all of these ten factors are properly considered barriers to a single market in the sense relevant to this study. The reason is that many of them simply represent differences in natural economic factors such as costs, preferences or endowments, rather than differences intended to protect markets. This will be the case for (1) (information differences — a cost difference); (2) (tax differences — insofar as these arise from differences in public expenditure preferences they are simply differences in political preferences); (4) (investment preferences differences); (5) (market structure differences — bald facts, unrelated to barriers); (6) (differing risk preferences); (8) (political risk — insofar as this simply represents more volatile political preferences).

5.28 This leaves a list of four potential barriers; (3) and (10), fairly clearly associated with MiFID (though there are other sources of costs in (10), especially clearing and settlement costs, which could be very important[40]), and (7) and (9), unrelated to MiFID. Thus the question of the significance of MiFID is reduced to the question of the relative significance of regulatory barriers versus foreign exchange risk, take-over defences and clearing and settlement costs. Although these exchange risk and take-over defences may be material for some classes of stocks, the view taken in the "Contributor to FSAP" scenario is that, for the markets as a whole, the most important alternative to MiFID-addressing regulations, as a source of segmentation barriers, are likely to be clearing and settlement costs.

5.29 The Giovannini Reports (November 2001 and April 2003) and the Commission's subsequent strategy and priorities statements[41] recognise the potential materiality of clearing and settlement issues. An integrated capital market may, in practical terms, require both the sorts of changes introduced by MiFID and also improvements in clearing

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[40] Of course, even clearing and settlement costs are not non-tariff barriers in the strict sense. However, they may serve as practical barriers of an essentially historical nature, susceptible of being addressed by policy.

[41] See http://europa.eu.int/comm/internal_market/financial-markets/clearing/index_en.htm

and settlement costs. Consequently, it might be natural to attribute to MiFID half of the overall FSAP effect.

5.30 Finally, in the "Key Measure" scenario MiFID is assumed to be the key measure leading to the creation of the virtual single equities market, and receives the full effect estimated below.

One exchange versus many exchanges

5.31 Returning to the effects of a greater integration of exchanges, an issue is whether the aggregation effects described would necessarily require the establishing of a single Europe-wide exchange. An illustration is provided by the former regional stock exchanges that existed in the UK. One of the functions they served was that some companies, in the region of the exchange, listed on their local exchange only. They did this because they did not need access to the pool of capital on the London exchange, and because it was advantageous to them to list where they were known. As connections between these exchanges increased, liquidity in these "regional" companies increased.

5.32 It is likely that many companies will remain listed on their local exchange even after MFID, but they will benefit from the increased access to these exchanges that MiFID may bring. [42] Meanwhile, dealing in securities where local knowledge is less important will tend to concentrate until economies of scale in intermediation no longer bring significant benefits.

5.33 In summary, we assume, for the purposes of this calculation, that MiFID will increase (or at worst leave unchanged) liquidity in a wide range of risk-classes of security. This will in turn reduce the costs of immediacy. This is a genuine resource saving, which we attempt to measure below.

5.34 Other elements of the cost of transacting will also be reduced by MFID, although the effects are not so readily quantified. Because every class of share will have its liquidity at worst unaffected, market impact effects (the effect on prices of a "big" trade) will be reduced.[43]

Estimation

5.35 Assuming that MiFID (in combination with subsequent clearing and settlement changes) succeeds in creating an effective (virtual) single European exchange, the effect of this on bid-ask spreads can be estimated. In this section we estimate the effect that aggregation alone of the European exchanges would have on the bid-ask spread across Europe.

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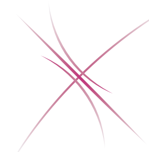
[42] This may in part be offset as a result of reduced local access arising from the removal of the concentration rule.

[43] In principle it could be said that benefits from increased liquidity in reducing market impact costs be cancelled out by the changes to transparency requirements in MiFID. That, however, would be better classified as a potential cost of MiFID, therefore lying outside the scope of this study.



5.36 For the purposes of this calculation, the FSA supplied us with data on the turnover and bid-ask spreads of major European exchanges, covering London, France, Germany and Italy.[44] The data divide the stocks traded on each exchange into ten equal-sized (in terms of number of stocks) deciles by their liquidity (trading volume), giving the relative quoted bid-ask spreads expressed as the bid-ask spread of a percentage of the mid-point of bid and ask prices in 2002. This gives us the 2002 effective bid-ask spreads, expressed as a percentage, in the ten liquidity deciles for each exchange.

5.37 To estimate the effect from aggregating the exchanges we calculated the would-be spreads of the market, if all of the liquidity in the data traded on one particular European exchange. (Another way to think about this would be to imagine that providers of immediacy today provide that service to one exchange at a time, but in the future will provide the immediacy service to the entire EU pool of liquidity at once.) This gives us bid-ask spreads on six different "would-be pan-European" exchanges that we can then compare to the current spreads on the same exchanges to get a measure of the benefit from aggregation of the markets.

5.38 It may seem that this use of multiple "would-be" exchanges involves double-counting, or the assumption of a huge increase in turnover. But that is not correct. The thought experiment involved is as follows: Imagine that there were a single exchange in the EU. Now imagine that that exchange were located in London. Then what would be the savings in transactions costs for that portion of the grand exchange's business that would currently be being done in London? Answer: it would be the difference between the current transactions costs and the transactions costs in this single grand exchange. This is what we calculate below and attribute as London's savings. We do not assume any more liquidity than the current total EU liquidity (or, more strictly, liquidity as at 2002 for the exchanges for which we had data). Figure 4.1 illustrates.

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44 Data is from Capital Markets CRC.

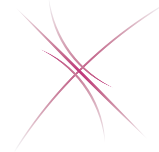
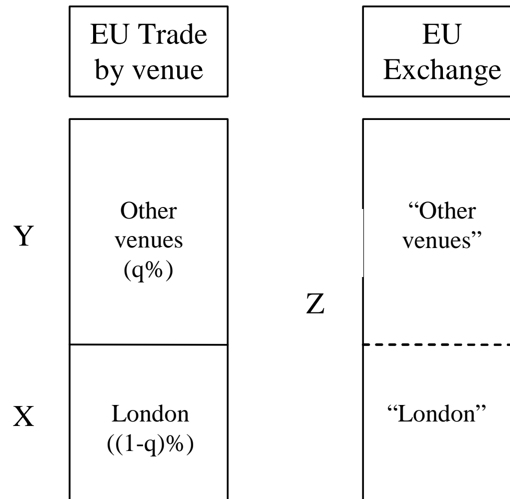


Figure 5.1: The thought experiment



5.39 In this diagram, X is the current trading cost (as measured by spreads) in London. Z is the trading cost if all business were conducted through a single EU exchange. Because of the increased volume:

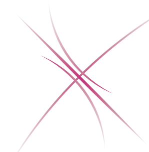
Savings to London = X – Z.(1-q)

5.40 Similarly, Y is the total cost for other venues. Then

Savings to Others = Y – Z.q

5.41 The reason we use the language of multiple "would-be" exchanges is as follows. Consider now what would be the savings for that portion of the grand exchange's business that would currently be being done in Paris? We want to say that it would be the difference between the current transactions costs (in Paris) and the transactions cost in the single grand exchange (in London). But it is not completely straightforward to compare London and Paris transactions costs in this way (since there are some differences in functioning of the exchanges), and in any event we are not assuming literally one exchange located in London, but instead a single "virtual" exchange. So what we did in calculating the Paris savings was to shift the thought experiment and imagine, instead, a single European exchange located in Paris. This thought does not double the liquidity. All it is doing is converting the single exchange costs into a metric whereby Paris costs today can be compared to the "Paris" component of costs in the single exchange. In terms of the diagram above, instead of calculating a single Z, we calculate a series of Zs (Zlondon, Zparis, etc.), based on a series of thought experiments - "as-if-London", "as-if-Paris", etc..

5.42 Thus, to aggregate the liquidity from the separate exchanges to the would-be pan-European exchange we calculated where the liquidity of the decile m of the would-be pan-



European exchange fits in with the existing liquidity deciles. Suppose that the liquidity of decile m is between deciles n and n+1 in London, then the spread of the decile m of the pan-European exchange should be somewhere in between the spread on deciles n and n+1 of London exchange. We assumed a monotonic (linear or log-linear) relationship between liquidity deciles and spreads that allowed us to calculate exactly the bid-ask spread of the would-be pan-European exchange depending on which current exchange it would be based.[45]

5.43 In effect, then, each decile of the current exchange is moved towards more liquidity and consequently lower spread, with the existing higher liquidity deciles used as a reference point. This method produces a result for deciles two to ten, but for the first decile there is no decile with higher liquidity to base the interpolative calculation on, for which we report N/A in the table below.

5.44 The total overall spread of the would-be exchange is calculated as the average spread across deciles weighted by liquidity. Rather than assuming no improvement for decile 1 (thereby underestimating the benefit), we have taken the turnover-weighted average of the improvement for deciles 2 to 10 and used that for decile 1 in calculating the weighted average of the total improvement across whole of the exchange. This would, however, over estimate the total benefit — the benefit from aggregation is expected to be higher the lower the starting level of liquidity. Therefore some limit on the benefit for the first liquidity decile is needed. We used the effective spread of the New York Stock Exchange decile 1 as a notional limit of the obtainable level of spread in decile 1 in the would-be pan-European exchanges.[46] [47]

5.45 Table 5.3 shows the percentage difference in spreads between the actual spreads in 2002 and the would-be spreads on the pan-European exchange based on different existing exchanges, both for each liquidity decile and as the calculated weighted average improvement as discussed above.

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[45] The results using linear or log-linear are quite similar, the results below are from using the log-linear assumption

[46] We note that NYSE and European stock exchanges have importantly different structural features, limiting the extent to which their spreads can be considered directly comparable. For the purposes of this exercise, the NYSE data serves only in the small role of providing a limit in decile one. The point is that as liquidity rises spreads will not fall all the way to zero — at some point a technical feasibility limit will be reached. We use the NYSE as our proxy for the current state of this technical limit.

[47] This limit was binding for the estimated improvements for the would-be France and would-be Germany exchanges. Its removal would have increased the estimated savings by 15 per cent France and 100 per cent in Germany. Simply assuming no improvement for decile one would result in most of the estimated benefits disappearing, as decile one accounts for more than 95 per cent of total turnover on the exchanges.

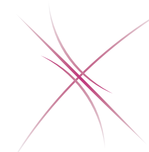

Table 5.3: Percentage change in spreads due to aggregation

Exchange	Percentage fall in effective bid-ask spread in liquidity deciles										
	Average	1	2	3	4	5	6	7	8	9	10
Would-be London	7.90	N/A	7.38	7.83	12.09	9.57	13.43	7.94	9.58	8.39	8.73
Would-be France	26.21	N/A	26.09	51.56	54.75	61.05	62.46	65.52	61.54	62.44	58.48
Would-be Germany	26.06	N/A	42.45	60.73	75.11	83.38	86.93	90.63	92.98	88.92	82.64
Would-be Italy	62.56	N/A	54.71	74.19	89.82	93.73	95.80	97.04	98.14	98.67	98.51

Source: Europe Economics calculations on Capital Markets CRC data

5.46 It can be seen quite consistently that the lower the liquidity (higher the decile) the more effect there would be on the effective bid-ask spreads. By aggregating markets MiFID may produce benefits from increased liquidity and lower spreads where it is most needed — in the most illiquid segments of the market.

5.47 These can be translated into savings in pounds sterling using the total turnover for each of the exchange in 2005. We have done this using data from the World Federation of Exchanges. For London the saving in spread would translate to £1 billion direct annual saving in transacting on the equity market in 2005. The annual saving in France would be £933 million, £748 million in Germany and roughly £2.2 billion in Italy.

5.48 Total market capitalisation for London, in October 2005, according to the World Federation of Exchanges[48], was £1,682bn. Thus a saving of £1bn represents a saving equivalent to 0.06 per cent of market capitalisation.

5.49 This fall in spreads is a genuine saving on costs of raising equity finance — some of the resources simply lost in the spread as the price of immediacy are now retained — that translates to a fall in the cost of capital across the economy. (We will return to the quantification of this additional benefit in Section 6.)

5.50 As discussed above, under the "Non-Regulatory Factors Dominate" scenario, only tent per cent of these benefits are attributed to MiFID, whilst the "Contributor to FSAP" scenario assumes that, in addition to the regulatory changes introduced by MiFID, these aggregation benefits will only truly be realised if difficulties associated with clearing and settlement costs are also addressed, so that only half of these gains are attributed to MiFID. Table 5.4 gives the quantifications by scenario.

[48] http://www.world-exchanges.org

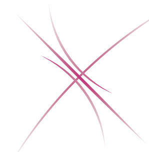

Table 5.4: Estimates of gains to the UK for the Four Scenarios

Scenario	Estimate	Comment
Limited Effect	Zero	As usual, this scenario assumes that the effect will not arise
Non-Regulatory Factors Dominate	£0.1bn per year	10% x £1bn = £0.1bn = 0.006% of mkt cap
Contributor to FSAP	£0.5bn per year	0.5 x £1bn = £0.5bn = 0.03% of mkt cap
Key Measure	£1bn per year	£1bn = 0.06% of mkt cap

Benefits from the capture of internalisation business

5.51 As discussed in Section 4.9(e) and 4.10(g), a potential source of benefits to the UK could be the capture and creation of internalising business. The UK is prominent among the Member States as a location where internalisation is a significant and well-established practice. This may mean that UK firms would be well-placed to capture business from other regulated markets by internalising trades when that becomes possible in 2007.[49] In addition, there may be some activity that would not have taken place on the exchanges currently, but will take place once MiFID facilitates internalisation across Europe.

5.52 The question is: what is the value of the business that could come to UK via this route? To answer this we need figures for the value of European securities market, the proportion of that which could be internalised, and the proportion of the internalised business that might find its way to the UK.

5.53 Using data from the World Federation of Exchanges, the total value of the 2005 turnover from EU exchanges outside the UK will be roughly £5,000bn.[50]

5.54 Internalisation has been a standard practice in the UK for some years, therefore it could be assumed that business that is susceptible to be internalised is in fact being internalised. We shall take a range of 10 to 14 per cent as our estimate of the proportion of business that would be accurately characterised as "internalising". The 14 per cent estimate of "truly off-exchange trading" currently conducted in the UK is provided in Appendix 3, p54 of "Towards A Single Market For Finance: The Financial Services Action Plan", House of Lords, Select Committee On The European Union, 45th Report, Session 2002–03 (quoting OC&C Report "The Potential Impacts of ISD2 Article 25", August 2003.).

5.55 It is worth explaining in more detail the nature of this 14 per cent figure, because (i) it is a lower figure than some readers may find familiar; (ii) what it represents is not quite the

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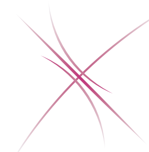
[49] Conversely, if the location of internalisation is in the future determined by the location of the order flow, it is feasible that such capture of business will not occur.

[50] http://www.world-exchanges.org



same concept as some readers may expect; and (iii) the difference is crucial to the quantification in which we use the figure.

5.56 This 14 per cent is only a small subset of all trade usually regarded as "off-exchange", representing only the approximately 10 per cent of trade which firms "cross" between clients and the 4 per cent or so that firms execute directly with other firms. Back-to-back riskless principal trading, worked riskless principal trade, and true principal trades involving positions worked off in central markets are all excluded.

5.57 Thus the subset of off-exchange trading with which we are concerned involves special niche trades and trades for which positions are not worked off in central markets. This set of special or difficult trades might be distinctive enough to gain from specialist treatment, and be regarded as an economic "market" in itself, rather than as just an add-on service naturally accompanying a more general client relationship (of which much of what is normally thought of as off-exchange trading might consist).

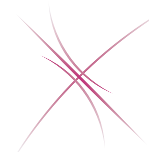
5.58 Add-on services may most naturally follow the location of the primary business. Thus, insofar as internalising simply represents a natural extension of existing client relationships, when there is internalising associated with Italian stocks, much of that business may be most efficiently located in Italy.

5.59 On the other hand, the subset of business that is the focus of interest here, involving niche or difficult trades (perhaps, for example, including large trades difficult to execute without material market impact), might be of a form that is most efficiently located where there is the greatest expertise in execution. Then the combination of permitting internalising and requiring best execution may lead to such business becoming geographically mobile in the longer term.

5.60 Let us assume that a fairly similar proportion of all European trade value will be internalised as niche and difficult off-exchange trades once the practice becomes common, or when the UK firms bring the practice to them. Since 10 to 14 per cent of £5,000bn is £500bn to £700bn, we estimate that the turnover of European internalising business available for capture would be roughly £500bn to £700bn.

5.61 There are reasons to believe that quite a large share of the subset of (niche and difficult) European internalisation of interest might be done in the UK. First, the firms likely to take up the opportunity that operate from the UK are already very familiar with the practice, whereas it will not be permitted in certain Member States until MiFID is implemented. Second, international financial markets are mobile and prone to concentration. An example of this is the Eurobonds market, of which 70 per cent trades in London. This figure of 70 per cent may represent what is achievable for internalising business.[51] A

[51] Indeed, it might even be conservative. Some markets can become totally concentrated in one location — there are markets for which 100 per cent of trade in Europe occurs in the UK (e.g. certain markets in commodity derivatives).



more conservative basis might be the approximately 40 per cent share of wholesale business that is the UK's at present.[52]

5.62 We therefore estimate that the annual turnover captured from the European exchanges by UK based internalisers would be 40 to 70 per cent of £500bn to £700bn ≈ £200bn to £500bn.

5.63 This additional turnover may itself have effects on trading costs — a form of economy of scale benefit. The effect on trading costs of this additional turnover being handled in London can be measured using the models developed for the above approach to benefits from the aggregation effect. So as to use our model to derive a figure, we treat the captured business as if its contribution to trading costs were the same as they would be if it were additional turnover on the London Stock Exchange. (This is, of course, an assumption made purely for modelling purposes, since the business in question is, by definition, off-exchange.) The additional turnover is allocated across the different liquidity deciles according to the proportion of the 2002 LSE turnover in the different deciles. The model then calculates the saving moving from 2002 LSE turnover to the new turnover including the captured internalisation volumes.

5.64 The estimated saving is approximately £150m for the low scenario and £350m for the high scenario.

Table 5.5: Estimates of gains to the UK for the Four Scenarios

Scenario	Estimate	Comment
Limited Effect	Zero	
Non-Regulatory Factors Dominate	£15m to £35m	10% x £150m to £350m
Contributor to FSAP	£75m to £175m	0.5 x £150m to £350m
Key Measure	£150m to £350m	This figure is additional turnover, rather than a per se gain

Benefits from selling own market data

5.65 As described in Appendix A1.27, MiFID will allow companies to publish their own market data on "reasonable commercial terms". European exchanges generate roughly £340 million annually through sales of market data. If we assume that the main source of new sales will be systematic internalisers[53], that half those firms engaging in internalising move eventually to selling their data, and take as 10 to 14 per cent our estimate of the

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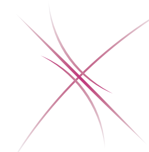
[52] Source: p35 of Corporation of London (2005), "The City's importance to the EU economy 2005".

[53] The ability to sell one's own data is not restricted to systematic internalisers. It applies to post-trade publication and so is much wider in its potential scope. However, it is probably a benefit mostly for firms whose data is valuable (i.e. firms with a critical mass of data to sell), and is also partly a transfer from exchange to firm.



proportion of business that might engage in "internalising",[54] this could bring a direct annual benefit of about £18m to £25m.

5.66 In addition, MiFID may bring cost savings also for companies that do not take the opportunity to publish their data due to MiFID-induced competition between data publishing venues.

5.67 Table 5.6 summarises. Note that since the calculation of this figure is directly related to the estimated additional systematic internalising business, the basis for differentiation between scenarios is identical.

Table 5.6: Estimates of gains to the UK for the Four Scenarios

Scenario	Estimate	Comment
Limited Effect	Zero	
Non-Regulatory Factors Dominate	£1.8m to £2.5m	10% x £18m to £25m
Contributor to FSAP	£9m to £12.5m	0.5 x £18m to £25m
Key Measure	£18m to £25m	This figure is additional sales value

Competition Benefits

5.68 As with Direct Direct benefits, not all the potential competition benefits considered in Section 4 can be estimated. Those we do attempt to estimate or comment on in terms of their quantitative significance are:

(a) Benefits from best execution and transparency;

(b) Impact on transaction costs;

(c) Competition between exchanges and internalisers.[55]

Benefits from best execution and transparency

5.69 About two fifths of firms responding to our survey thought that lack of best execution and transparency requirements similar to that of the FSA puts them at a disadvantage in providing services in the EU outside the UK. The main reasons cited for this were the costs associated with implementing and testing best execution, transparency requirements that put the FSA regulated entities at a disadvantage because information publicised may be taken advantage of by competitors elsewhere, and because transparency requirements in UK impose costs that are not borne by European competition.

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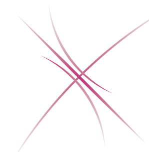
[54] See above.

[55] In addition to internalisation, competition may also come from MTFs.



5.70 Though a large majority of firms thought that the best execution requirements in MiFID will level the playing field in terms of reputation costs and costs of execution, only about two fifths thought that this would create material new opportunities for them as compared to current UK supply. Those that estimated benefits were roughly evenly divided between less than 10 to 50 per cent of current UK supply. Some companies identified that new opportunities do arise, but that they are not material compared to the current UK supply. Companies already offering services to Europe, or operating in Europe through other means were less optimistic about the benefits that European wide best execution requirement will bring.

Table 5.7: Company views about benefits from best execution and transparency

	Proportion of responses that rate benefits as:		
	>50% of UK supply	From < 10 to 50% of UK supply	Not material
Extent to which a more level playing field, in terms of reputation and costs effects associated with best execution and transparency, creates the opportunity to approach new customers and supply new products in non-UK EU Member States	5%	35%	60%

Impact on bid-ask spreads

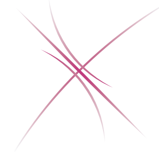
5.71 As discussed in Section 4.8 above, in addition to the direct benefits from aggregation of the different exchanges to one pan-European market, there could also be benefits due to increased competition between markets. Indeed, the competition effect could arise independently of the aggregation effect.

5.72 Transactions costs are an important factor when deciding where and with whom to trade in highly competitive equity markets, and increased competition could drive down the costs of operating on markets either by process of convergence between markets or by reduction in absolute levels of costs in all markets:

(a) Increased competition among exchanges will tend to drive down exchange fees – not necessarily to a uniform level, as there may for example be some specialist exchanges, but fees on average will tend to fall.

(b) There will be similar downward pressure from competition on intermediary commissions.

5.73 We have attempted three avenues of quantification of impact of competition on the costs of trading. First we use Global Securities Consulting Services data to consider how trade commission costs could converge as a result of competition and the saving this might bring about. Second, we gain indications of the size of the impact from the survey of



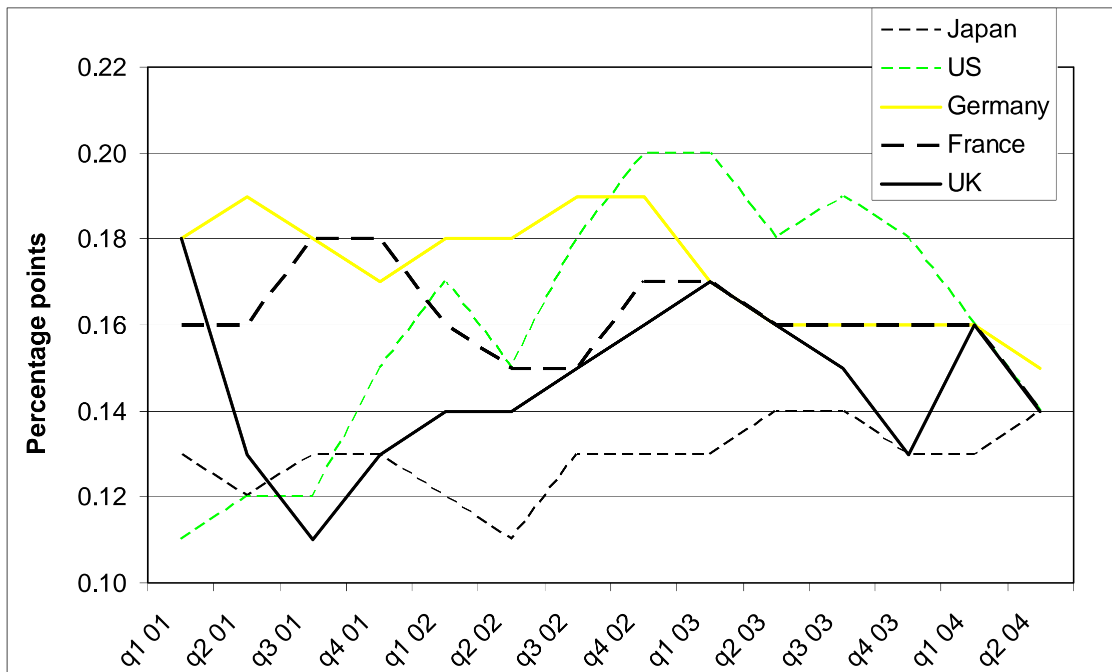
companies. Third, we analyse what effect competition from systematic internalisers might have on the spread.

Convergence of commission costs

5.74 Here we look at the effects on direct costs of transactions in terms of commissions charged by companies. The data for the analysis come from Global Securities Consulting Services (GSCS) and cover the regulated markets in UK, Germany, Japan, US and France from 2001 to 2004. These data measure the transaction costs in terms of basis points, or in other words hundreds of a percentage point of a trade value. The data were provided to us by the FSA, along with a memorandum on analysis carried out on the data.

5.75 A possible assumption in measuring the benefits from competition would be that transaction costs tend to converge to the lowest current level available in the European markets. However, the data show that transactions costs, both in terms of commission and indirect costs, had already significantly converged since 2002. Figures 5.1 and 5.2 below show the difference in the buy and sell commission on the different markets.

Figure 5.1: Buy commission



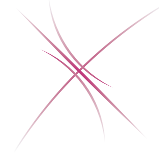
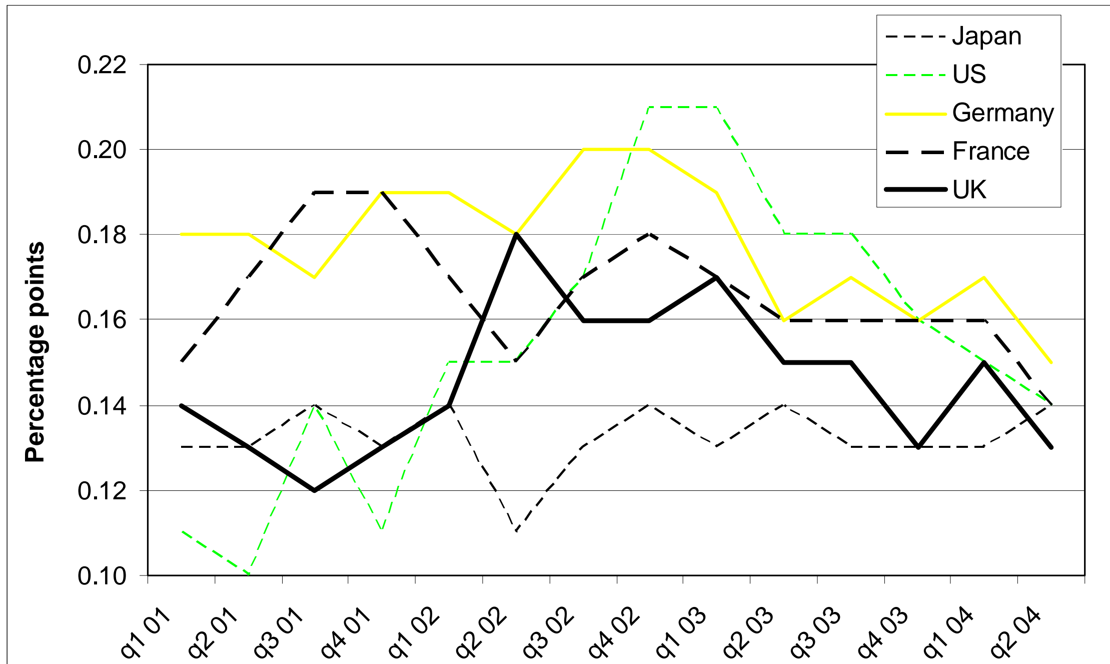


Figure 5.2: Sells commission



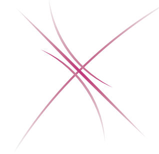
Source: FSA analysis of GSCS data

5.76 Prior to 2003 there seems to be little, if any, trend in the data. However, as noted in the FSA analysis, convergence is evident from 2003 onwards until the end of the data set where all the countries both buy and sell commissions are very close to the 14 basis point mark.

5.77 The FSA analysis of the data suspected that the convergence could be the result of growing cross border competition, or that it could reflect certain characteristics of the companies that the data comes from — the witnessed convergence might be the effect of large institutional investors, who by having operations in more than one country become able to benchmark costs of services. In other words, according the FSA memorandum, instead of exhibiting the effect of international competition, these data could reflect increased bargaining power of institutional clients.

5.78 Alternatively within Europe, a contribution to the convergence may also be made by the existence and gradual implementation of the FSAP, of which MiFID is a part. The international nature of the convergence does, however, suggest that there are also other important reasons at play. In fact, it does seem — for the duration of the convergence — that the costs have been converging internationally towards Japan, rather than towards the lowest average (UK) within Europe.

5.79 It has to be remembered that the above considered only reductions in the commission costs, and only by the way of convergence. In addition to these benefits, competition may reduce the costs in the exchange currently on the efficiency frontier.



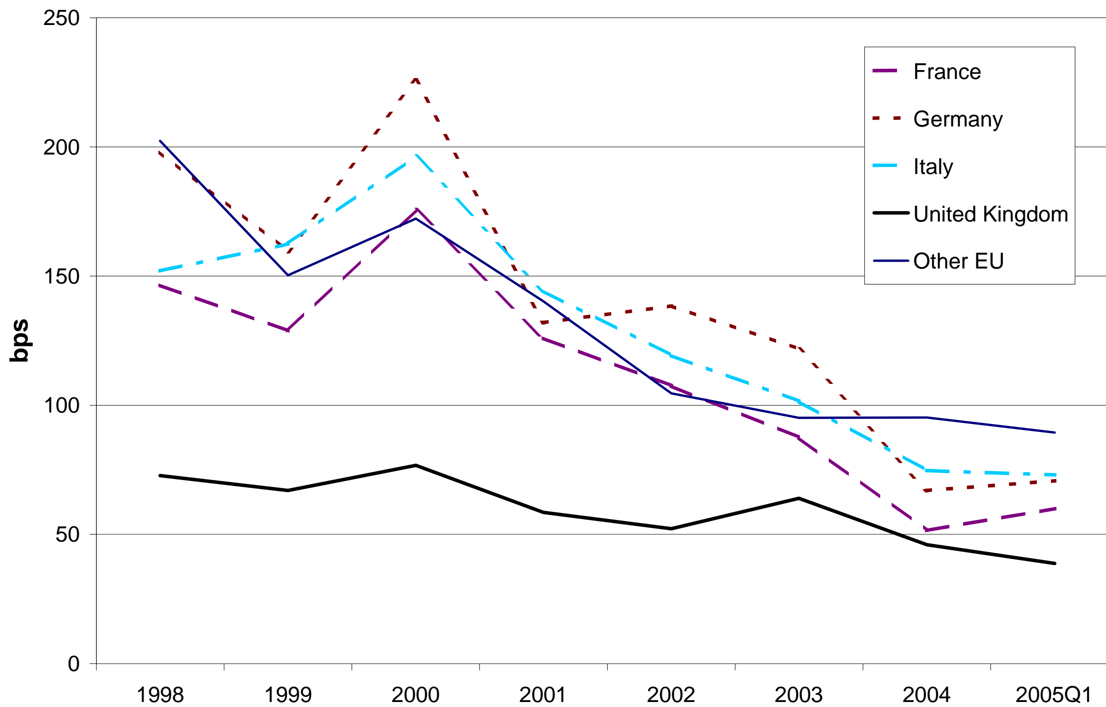
Convergence of total transaction costs

5.80 Commission costs are only a part of the costs of transaction on the markets that competition could have an effect on — costs from timing and impact of the trade might reduce as companies strive to achieve best execution.

5.81 Data from GSCS, provided to us by the FSA, measures the total transaction costs in basis points including the costs of timing, market impact and commission. The data are quarterly running from 1998Q1 to 2005Q1 and covers a sample of companies operating in the equity markets of all EU countries except Luxembourg.[56]

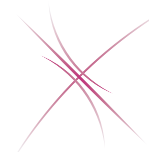
5.82 Figure 5.3 below shows the evolution of total transaction costs as in the data for UK, France, Germany, Italy and an average for the other EU countries in the sample. The data shown are annual averages except for the last data point for 2005Q1.[57]

Figure 5.3: Total transaction costs in EU Member States



[56] Some existing gaps in the data were filled in by applying identified long-term trend across countries to the data points preceding the gap.

[57] We note that there was no evidence of systematic quarterly variation in the data.



5.83 Transaction costs in the UK have been the lowest among the EU through out the period. All the countries and the other EU average show a declining trend, though this is much stronger outside the UK. Convergence seems to have been stronger since 2002, but it is notable that there still remains significant scope for further convergence.[58]

5.84 The magnitude of the convergence can be clearly seen in Table 5.8 below, which shows the difference in the total transaction costs relative to the UK in different years and for 2005Q1.

Table 5.8: Remaining scope for convergence (bps)

	1998	1999	2000	2001	2002	2003	2004	2005Q1
France	74	62	99	68	55	24	6	21
Germany	125	93	149	74	86	58	21	32
Italy	79	96	120	86	67	38	29	34
Other EU	130	83	96	82	52	31	49	51

Source: Europe Economics analysis of GSCS data

5.85 Convergence beyond a general falling trend exhibited by the UK costs has been strongest in the case of Germany (where the difference in transaction costs compared to the UK has fallen from 125 basis points in 1998 to only 21 in 2004) and weakest in Italy (where, having started at similar levels with France, transaction costs relative to the UK rose for two consecutive years before starting to fall again in 2001). Overall, we can see that there has been a 68 to 104 basis points convergence from 1998 to 2004, with much of it taking place in 2002 and after.

5.86 There may of course be many different reasons behind the observed convergence, as well as behind the general falling trend of the costs witnessed in Figure 4.3. It is however not altogether implausible to assume that one of the reasons behind the convergence (over and above the falling general trend) in the time period is the FSAP. Some of the benefit from the convergence that has already taken place could therefore be attributed to the FSAP in general, of which MiFID is a material component.

5.87 During and after 2002 there have of course been several other elements of the FSAP either implemented or announced. For example the implementation or the expectation of Prospectus and UCITS2 directives may all have a part to play in the convergence we witness from 2002 onwards. Some convergence might have also taken place due to factors not related to FSAP.

5.88 For our purposes here we assume it is the case that FSAP changes (enacted and anticipated) are indeed behind much of the convergence witnessed since 2002 in

[58] Different trading strategies are a particular issue for different countries, and this may explain some of the differences in the data — the FSA study made particular reference to momentum trading.

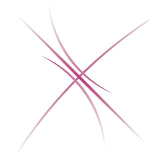


Table 5.8 above, and that MiFID is a significant and relevant component of FSAP. We do not attempt a precise attribution of these benefits to MiFID, as they would only be relevant to the UK in the third round of benefits, which we do not quantify in this study.

5.89 As indicative figures, if MiFID is the reason for 10 per cent of the completion of the convergence beyond 2002 due to competition effects, MiFID would imply savings of 6 basis points in France, 9 in Germany, 7 in Italy and 5 in the rest of the EU. If, however, 50 percent of the remaining convergence could be attributed to MiFID, this would imply savings of 27 basis points in France, 43 in Germany, 34 in Italy and 26 basis points in rest of the EU.

5.90 These estimates measure only the catch-up to current level of efficiency in the UK — they assume that the underlying falling trend is the same across countries and not attributable to FSAP or MiFID. Insofar as transactions costs fall further in the UK because of technological or global trends, the calculations here do not (mis-)attribute such gains to MiFID.

Indications from company responses

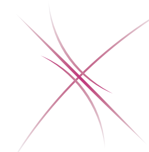
5.91 Alternative indication for the extent in trade transaction costs savings comes from the responses to the longer version of the questionnaire. We ask the companies to estimate their relative transaction cost for a comparable typical trade in UK, France, Germany and Italy. Again, assuming that MiFID will increase cross border competition that will bring the cost of transacting down to the best currently available level, we can gain some insight to the magnitude of this aspect of benefit from competition.

5.92 For confidentiality reasons we can only report rough averages of overall response. On average the companies able to do so estimated their total transaction costs on a comparable typical trade to be 50, 10 and 40 per cent higher respectively for France, Germany and Italy when compared to the UK.

5.93 We note that our GSCS data gives figures for the difference of 55, 83 and 88 per cent, and thus for France the figures from our survey and those in the GSCS data are very similar. For Italy there is a material difference, but the most significant disparity is between the results in the GSCS dataset and those reported by the companies in our survey for Germany. However, because of the small sample size, the significant proportion of non-responses to this question, and the fact that our sample is not chosen at random, we consider the GSCS data superior and use the results based on that dataset.

Competition from internalisers

5.94 In addition to the capture of business to the UK from foreign exchanges, there may be economic gains associated with competition between exchanges and internalisers, leading to the creation of new business (either through simple price reductions or because internalising business offers new opportunities (e.g. in terms of reduced market impact)).



5.95 Responses to our consultation with firms suggest that some 5 to 15 per cent of off-exchange business captured from exchanges is “new”, in this sense, whilst 85-90 per cent is business that would, in any event, have taken place on exchange. We shall use 10 per cent as our estimate of the extent of new business.

5.96 Therefore, using the value of £200bn to £500bn of captured turnover from the European exchanges as calculated above, we assume that there would, in addition, be a benefit from generated turnover of some £20bn to £50bn from business that would not have taken place in the absence of internalisation.

5.97 We would not expect this amount of turnover, in itself, to lead to significant further benefits in terms of effects on cost of capital. Whether there are spill over benefits on the cost of capital depends significantly on the source of this additional turnover. There are two key possibilities:

(a) MiFID may change the existing relationships between the volume of capital and turnover in the marketplace, with a largely unchanged volume of capital simply turning over more frequently;

(b) Alternatively, this increased turnover might in fact reflect an increase in the European capital base.

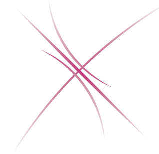
5.98 It seems likely that, in practice, such an increase in turnover would reflect some combination of (a) and (b) (perhaps weighted towards effect (a), but we cannot say to what extent).

5.99 However, we are confident that, insofar as MiFID is successful in removing concentration rules, there would be significant additional benefits from an increased European capital base — effect (b). The reasoning behind this is as follows. Before MiFID there exists some potential trading activity that would be profitable if done via internalisation, but regulation prevents this from taking place. The same activity is not profitable via the exchanges due to for example additional transaction and market impact costs. Allowing such activity via internalisation effectively lowers the cost, and therefore the required returns, of the marginal transaction that it is profitable to execute. To put it another way, some investment has become more attractive as compared to alternative uses of the same resources, typically consumption. The effect is that more capital is available for investment than previously was the case.

5.100 Therefore, the combined effect of increased turnover and increased capital base could have significant further benefits in terms of changes to the cost of capital, though here we offer no estimate of the magnitude of the effect.

An alternative approach

5.101 We have set out above our preferred modelling approach. However, for completeness we also describe a potential alternative. This focuses on the idea that insofar as MiFID



breaks down the barriers between markets, it might thereby increase the number of players, and attempts to model the process within a "Cournot" framework, as follows.

5.102 We shall think of the main exchanges as the key strategic players, and off-exchange internalisers as a "fringe" that take a market environment set by the strategic decisions of the other players.

Derivation of the Model Used

5.103 In the Cournot model, the firms choose the quantity to supply which maximises profits, subject to the quantities chosen by the remaining players in the market. We can start the analysis with a general market demand curve, which can be expressed as:

$$Q(p) = \beta(\alpha - p)^{\gamma}$$

where

α is a measure of the maximum willingness to pay for the product

β is a measure of market size

γ is a parameter that affects the shape of the demand function

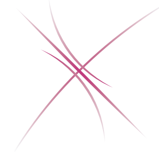
$\gamma = 1$: linear demand function

$\gamma > 1$: "convex" demand function — i.e. a curve which bends in towards the origin

$\gamma < 1$: "concave" demand function — i.e. a curve which bends away from the origin

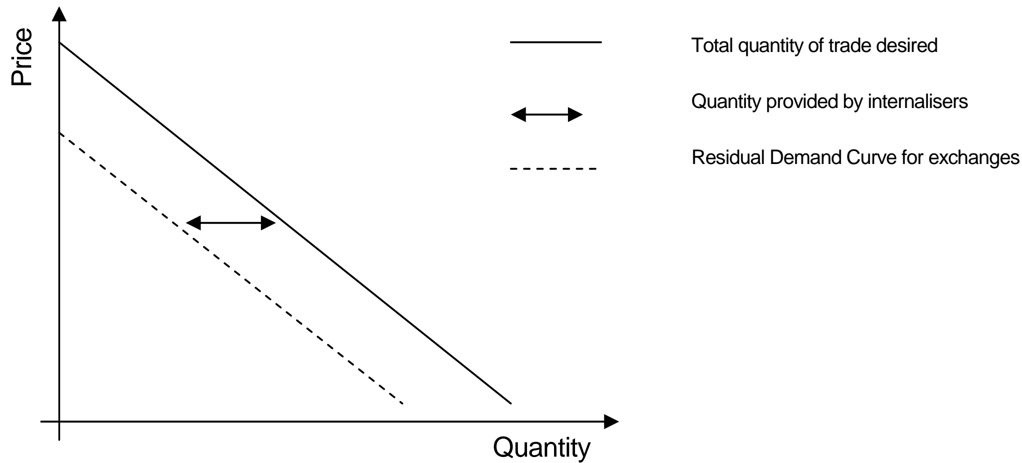
5.104 In this case we could imagine the total market being served by a number of small fringe players (those providing off-exchange services) in addition to the main Cournot players. Since these fringe producers do not play strategically in this model, the relevant demand curve that the Cournot players face is the market demand curve minus the demand served by the fringe. Thus the equation above is modified to:

$$Q_{oligopolists}(p) = Q(p) - Q_{fringe}(p) = \beta(\alpha - p)^{\gamma}$$



5.105 Figure 4.4 illustrates this point for a linear demand curve.

Figure 4.4: A derived demand curve



5.106 Assuming that this output is divided equally between the major players, each player produces $\theta\, Q_{oligopolists}$ where θ is a parameter that defines the intensity of competition:

$\theta = \frac{1}{N}$: Cournot oligopoly with N players

$\theta \rightarrow 0$: perfect competition

$\theta = 1$: monopoly

5.107 The total revenue function can be computed by $p(Q)\ \theta\ Q_{oligopolists}$. Differentiating this with respect to quantity gives us the marginal revenue. For profit maximisation, we set this marginal revenue equal to the marginal cost, *c*.

5.108 This gives the following equilibrium condition:

$$p + \theta Q_{oligopolists} P'\left(Q_{oligopolists}\right) = c$$

5.109 Given the demand function considered, the equilibrium price reads

$$p = \frac{\theta\alpha + \gamma c}{\gamma + \theta}$$

The effect of greater competition

5.110 We shall assume a linear demand function: $\gamma = 1$. We shall also assume that, pre-MiFID the domestic exchange can be thought of as a monopolist (so $\theta = 1$), whilst after MiFID the number of players increases.

5.111 Hence the initial price charged by an exchange will be

$$p_{initial} = \frac{\alpha + c}{1+1} = \frac{\alpha + c}{2}$$

5.112 Next let us assume that the number of players increases to 4 (which we might interpret as the situation changing from one in which an Italian exchange operates as a monopolist to its facing competition from French, German and UK exchanges), so $\theta = 0.25$. Then we will have a new price

$$p_{new} = \frac{0.25\alpha + c}{1+0.25} = \frac{0.25\alpha + c}{1.25}$$

5.113 Hence the percentage fall is

$$\frac{p_{new} - p_{initial}}{p_{initial}} = 0.6\frac{\alpha - c}{\alpha + c}$$

5.114 We do not have data on the willingness to pay of firms, or of the marginal costs of exchanges. However, we can say that in a case in which the marginal cost of an exchange to service an additional transaction is very low compared to the willingness to pay of users of the exchange, the percentage fall will tend towards 60 per cent.[59] In contrast, when the willingness to pay to use the exchange is close to the marginal cost of supplying an additional transaction, the percentage fall will be close to zero.

5.115 With appropriate data it would be possible to estimate such an effect more precisely, but a rough-and-ready figure of a 30 per cent fall would not seem unreasonable from these figures.

Problems of interpretation

5.116 This Cournot setting creates a number of problems of interpretation. For example, it is not straightforward to view an exchange as offering a fixed quantity of transactions services, with prices finding their own level. Quantities are rarely, if ever, constrained on major exchanges.

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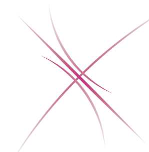
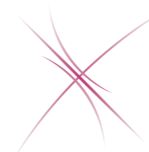
[59] To see this, consider, for simplicity, the case in which $c = 0$.



5.117 Serious as this issue of interpretation is, a greater difficulty yet arises from the two-sided nature of an exchange. To be successful, an exchange must attract both buyers and sellers, and each additional user makes using the exchange more valuable to all participants. Such markets are poorly described by a Cournot process.

5.118 For these reasons, although an approach of this form offers an attractive way to model an approximate value of additional competition, we consider our main approach superior for the purposes of this current study.



6 QUANTIFYING SECOND-ROUND EFFECTS

6.1 Section 5 has considered in detail (and provided quantitative estimates for) certain of the first-round effects associated with MiFID. In this section we move on to consider second-round benefits — that is to say, those benefits that arise for the broader economy as a consequence of the benefits for those stakeholders directly involved in the regulated industries.

6.2 In this section we shall attempt to quantify second-round effects. This will consist of:

(a) Converting the first-round effects discussed above into reductions in the cost of capital (thereby increasing annual GDP);

(b) Consideration of how making capital markets deeper, broader and more liquid might reduce the loss of sound companies in recessions and hence affect sustainable economic growth rates (thereby increasing annual GDP growth).

6.3 Table 6.1 summarizes the first-round (gross)[60] benefits of MiFID discussed in previous sections, and our estimate, under the Key Measure scenario of their quantitative size (set out in previous sections) and their impact on the UK cost of capital (explained below). We give break-downs of the impacts for other scenarios in later tables.)

[60] Note that the figures in Table 6.1 exclude costs that would be identified in the costs study.

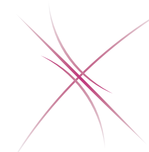
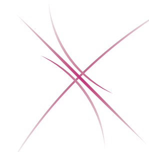


Table 6.1: Summary of first-round benefits — Key Measure Scenario

Source of first-round benefit	Quantitative estimate (Key Measure Scenario)	Ongoing effect on the UK cost of capital
Direct Direct effects		
Reduced costs of obtaining and maintaining authorisation	Figures unavailable	~zero
Reduced costs of duplicate complying with regulation	Up to 0.5 per cent of operating cost for affected firms ≈ £100M	£100M reduction in cost of transacting ≈ 0 to 1bps fall in the cost of equity
Reduced market reputation costs	Unestimated	~zero
Reduced other operating costs	Unestimated but potentially material	
Improved access	£200bn to £500bn (captured turnover) £20bn to £50bn (created turnover) (In addition there will be some benefits from increased UK investment.)	£150m to £350m savings through economies of scale on trading costs (because of higher turnover in London) = 1 to 2 basis points fall in the cost of equity
Improved prices directly because of Best Execution requirements	Estimation combined with competition effects, as below	
Improved functioning of markets because of improved regulation	Unestimated	Unlikely to be material in UK
Reductions in transactions costs because of aggregation effects	[% fall in costs, £, % of market cap] London: 8%, £1bn, 0.06% France: 26%, £0.9bn, 0.06% Germany: 26%, £0.7bn, 0.11% Italy: 63%: £2.2bn, 0.53%	£1bn reduction in cost of transacting ≈ 0.06% of mkt cap ⇒ 6bps fall in cost of equity (as explained below)
Realisation of economic value of data	£18m to £25m, of which £1.8m to £2.5m is pure gain	~£1m reduction in net cost of transacting ≈ 0bps effect on cost of capital
Competition and industrial structure effects		
Extension to range of passportable activities and simplified passporting regime	Modest but material increase in supply	Unlikely to be material in UK, overall, though cost of capital in some markets could be materially affected
Best Execution may make price a more visible and thence more important dimension of purchaser choice	See below	
Requirements for firms to disclose their execution policies might impose	See below	



Source of first-round benefit	Quantitative estimate (Key Measure Scenario)	Ongoing effect on the UK cost of capital
some additional discipline on costs		
Greater ease of comparison might force more competition in those dimensions consumers consider important	See below	
Abolition of concentration rules should allow competition between regulated markets and systematic internalisers and/or MTFs in non-UK stocks. It may also provide an indirect route of competition between exchanges	See below	
Increased entry into the UK market from the EU	See below	
Increased entry into the EU markets from outside the EU	See below	
Above factors, leading to increased price competition bidding down spreads and other transactions costs	[bps fall]: France: 6-22 Germany: 9-34 Italy: 7-27 Other EU: 5-21	~zero (second-round) effect in UK. (However, note that there could be important third-round effects, since these figure imply significant second-round gains in France, Germany and Italy, which could lead to increased UK exports)
The provisions of MiFID enabling firms to realise the economic value of their data may create competition in data publication	Unestimated	~zero
Economies of scale and scope	See above	
Innovation effects		
More rapid and complete exploiting of recent innovations	Unestimated	Unpredictable
New innovations	Unestimated	Unpredictable
Effects on related regulation		
More full realisation of the benefits from other directives already in place	Unestimated	Potentially significant
Possibility that MiFID represents a regulatory watershed	Unestimated	Potentially a significant proportion of entire benefits from FSAP

Conversion of First-Round Effects into Reductions in the Cost of Capital

Equities

Benefits associated with reductions in the cost of transacting

6.4 Some benefits of MiFID arise from reductions in the cost of transacting. Consider total equity capitalisation, C. This will offer some return per year, R. So,

cost of equity = R/C.

6.5 Now, R will be made up of pure return, P, and costs of transacting, Z. So,

R = P + Z

=>

cost of equity = (P + Z)/C

6.6 Next imagine that MiFID reduces the cost of transacting by d. Then the new cost of equity will be

New cost of equity = (P + Z - d)/C

6.7 Thus the change in the cost of equity will be d/C = the percentage of total capitalisation represented by the fall in the cost of transacting (i.e. in the aggregate relevant first-round benefits). ("Relevant" here should be taken as excluding benefits, such as increased inward investment, that do not affect the cost of transacting.)

6.8 For London, as explained in paragraph 5.48 the reduction in costs is equivalent to 0.06 per cent of market capitalisation, so the expected fall in the cost of equity from this channel is (for the Key Measure scenario) 0.06 per cent, i.e. 6 basis points. As usual, for the Contributor to FSAP the effect is half this (3 basis points) and for the Non-Regulatory Factors Dominate the effect is just 0.6 basis points.

6.9 We note that this estimate of the fall in the cost of equity associated with reduced illiquidity is markedly lower (even for the Key Measure scenario) than in some other studies. For example, in *EC 2002*, the scope for reduction in the cost of equity capital due to decreased illiquidity costs is estimated at 26 basis points. (However, that report did not consider reductions in explicit trading costs (brokerage commissions or exchange fees) or various other potential benefits that are encompassed in the current study.)

Benefits associated with increases in the amount of available capital

6.10 Another form of benefit from MiFID may arise in cases where the reform leads to an increase in the aggregate amount of capital available. Though such an effect is potentially material, we do not have a sufficiently basis for quantification to offer an estimate here.

Scaling from cost of capital effects to GDP effects (Key Measure Scenario)

6.11 The aggregate estimated effect on the cost of equity in the Key Measure scenario is given by

(a) 0 to 1 basis points associated with reduced compliance costs;

(b) 1 to 2 basis points associated with economies of scale in trading in London, associated with higher turnover because of captured business;

(c) 6 basis points arising from falls in transactions costs associated with pure aggregation increases in liquidity;

which sum to 7 to 9 basis points reduction in the cost of equity.

6.12 Table 6.5 of *EC 2002* estimates the long-run impact of a 37 basis point reduction in the cost of equity at 0.5 per cent of GDP. If one were to take this modelling basis as given, our estimate of a 7 to 9 basis point reduction associated with MiFID would equate to a long-run gain of approximately 0.1 per cent of GDP.

6.13 There would, however, be also some additional benefits from a cost of capital reduction associated with an increased available capital base as explained in paragraphs 5.97ff.

Time profiles of effects

6.14 Our four scenarios relate to the significance and contribution of MiFID. But there is another potentially important dimension of uncertainty over benefits — the time profile over which they are realised.

6.15 Our scenarios relate to the long-run gains that can be attributed to MiFID. However, there are a number of ways such gains might be realised — for example:

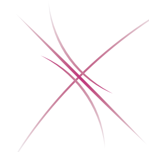
(a) All the gains might accrue rapidly, during the first few years after MiFID starts to have its effects;

(b) There might be no gains at all during the early years, with gains being realised only later.

(c) Much of the gains might accrue during the early years, with the degree of change tailing off gradually over time.

(d) There might be some small gains at the beginning which accelerate over time until the full gains are realised.

6.16 These different time profiles affect the value to be placed on benefits. Benefits that accrue more rapidly are more valuable than those that take many years to offer any effect.



6.17 To illustrate the materiality of these points, if we assume that these benefits will materialise linearly over a ten year period, using the 2004/5 Money GDP figure of £1,178bn, the Treasury long term real GDP growth forecast of 2 per cent per annum and a real 10 year bond yield of 1.68 per cent as the discount rate, over the ten years the net present value of the benefits from 0.1 per cent of GDP translate to a present value of £6.6bn.

6.18 In contrast, if such benefits were to arise over a three-year period, the present value (still taking a ten year horizon) would be £10.8bn, whilst if no benefits at all were to arise for the first seven years and it were only between the eighth and tenth years into the future that benefits started to arise, the present value would be only £2.4bn. The corresponding figures for the more pessimistic scenarios would be £3.3bn, £5.4bn and £1.2bn for the "Contributor to FSAP" scenario, and £660m, £1.08bn and £240m for the "Non-regulatory factors dominate" scenario.

Effects of Deeper, Broader and More Liquid EU Financial Markets on the UK Fund Management Sector

6.19 A further source of second-round benefits could be associated with expansion of the UK fund management sector — already an important component of the UK financial sector.

6.20 For the EU as a whole, currently financial activities are a less significant component of total GDP than in the US. This is illustrated by Table 6.2 below, which shows the share of the financial sector as a percentage of GDP.

Table 6.2: Shares of Financial Sectors as a Percentage of GDP

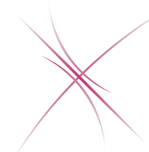
Country	Share of financial sector as a percentage of GDP (%)
US*	7.8
EU25**	4.8
France	4.1
Germany	4.2
Italy	5.2
United Kingdom	6.0

**: calculated as the gross value added by financial corporate business divided by the US GDP*

***: data on the following four Member States are missing: Lithuania, Luxembourg, Portugal, and Sweden*

Source: Eurostat; Europe Economics' calculation of data from US Bureau of Economic Analysis

6.21 It is estimated that, in 2004, funds under management in the UK totalled £2,966bn, and the sector generated £4.9bn, or 0.3 per cent of UK GDP. The revenue of fund



management activities in the UK totalled £7.7bn (of which around 30 per cent was profit), and overall employment in the sector is around 40,000.[61]

6.22 Now, although the EU has a bigger economy than the US, its share of global fund management was only 32 per cent at the end of 2004, compared with 51 per cent of the US.[62] Another piece of evidence of the likely lack of investment opportunities currently in the EU is given by the shares of wealthy investors' assets invested offshore: it is 24 per cent in West Europe but only 3 per cent in North America.[63]

6.23 As we have discussed above, MiFID may lead to a deeper, broader, and more liquid capital market in the EU, which would be likely to provide more investment, diversification, and risk hedging opportunities. This could make Europe a more attractive place for investment and therefore make the EU (and the UK) fund management sector a more attractive location for investors.

6.24 Although such an effect could be potentially material, we do not have a sufficiently robust basis for quantification, or for attribution of effect between MiFID and other elements of the FSAP, to offer an estimate here.

Effects of Deeper, Broader and More Liquid Capital Markets on the Sustainable Growth Rate

6.25 In their 25 August 2005 Joseph Schumpeter Lecture at the 20th Annual Congress of the European Economic Association, Philippe Aghion and Peter Howitt consider what they call the "Schumpeterian view" of business cycles and growth, according to which "recessions provide a cleansing mechanism for correcting organizational inefficiencies and for encouraging firms to reorganize, innovate or reallocate to new markets. The cleansing effect of recessions is also to eliminate those firms that are unable to reorganize or innovate."[64]

6.26 In this process, Aghion & Howitt emphasize the role of efficient capital markets: "if firms could always borrow enough funds to either reorganize their activities or move to new activities and markets, and the same was true for workers trying to relocate from one job to another, the best would be to recommend that governments do not intervene over the business cycle, and instead let markets operate."

6.27 But the availability of funds for firms to engage in such reorganisation depends on the depth, breadth and liquidity of capital markets. If capital market imperfections prevent firms from reorganising in recessions, it will reduce their incentive to engage in long-term

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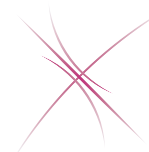
61 International Financial Services, London (2005) "City business series: fund management"
62 International Financial Services, London (2005) "Europe vs. US 2005"
63 International Financial Services, London (200) "International private wealth management"
64 This quote, and those that follow, come from section 5.2 of http://post.economics.harvard.edu/faculty/aghion/papers/Appropriate_Growth.pdf



research and development (since there will be the risk of bankruptcy destroying the value of incomplete R & D).[65]

6.28 But it is plausible that long-term economic growth is related to the degree to which firms innovate (developing new, more efficient methods of production, or new, more valuable products). This means that one effect of capital market imperfections might be to reduce long-term economic growth. Conversely, a deeper, broader, and more liquid capital market might lead to higher long-term economic growth, because it would facilitate more long-term innovation.

6.29 In their May 2005 paper "Volatility and Growth: Credit Constraints and Productivity-Enhancing Investment", Aghion, Angeletos, Banerjee & Manova (AABM) use country panel data from 1960-2000 to estimate the effect of less deep, broad and liquid capital markets on economic growth.

6.30 AABM estimate a relation between the average growth rate of per capita GDP in a panel of countries, and variables such as volatility of growth in per capita GDP and the level of financial development. Different specifications were tested. The baseline estimate could be expressed as in Equation (1) below:

$$GDPg = \alpha GDPVOL + \beta FINDEV + \varphi GDPVOL * FINDEV + ... \quad (1)$$

where $GDPg$ is the average growth of per capita income, GDPVOL is the standard deviation of the rate of growth of per capita income, FINDEV is a measure of financial development which was computed, following Levine et al (2000), as the credit by deposit money banks and other financial institutions to the private sector over GDP.

6.31 From the equation above, the marginal effect of FINDEV on GDPg, can be expressed as in Equation (2):

$$\frac{\partial GDPg}{\partial FINDEV} = \beta + \varphi GDPVOL \quad (2)$$

which, for small changes of FINDEV and GDPg, could be re-expressed as:

$$\Delta GDPg = \Delta FINDEV * (\beta + \varphi GDPVOL) \quad (3)$$

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65 Aghion and Howitt put it thus: "Absent credit constraints, and provided the value of innovation is sufficiently high, volatility will not affect innovation and growth as firms can always borrow up to the net present value of their future earnings in order to cover the short-run liquidity costs. But, now, suppose that the borrowing capacity of firms is proportional to their current earnings (the factor of proportionality is what we refer to as the credit multiplier, with a higher multiplier reflecting a higher degree of financial development in the economy). In a recession, current earnings are reduced, and therefore so is the firms' ability to borrow in order to innovate."

6.32 Although the AABM and Aghion & Howitt results are far from achieving consensus acceptance, they offer, for our purposes here, a way to model a longer-term potential gain from MiFID. Specifically, we can conceive of MiFID as a measure that, because it contributes to increasing the depth, breadth and liquidity of European capital markets, might address the sort of capital market imperfections that AABM discuss. Thus, using equations (1) to (3) above, populated with data, we can model the scope for increased growth that MiFID might offer.

6.33 Table 7, column 1 of AABM (2005) gives β and φ equal to -0.00037 and 0.0184, respectively, while for GDPVOL we considered the weighted average volatility in GDP per capita growth in the largest EU economies (Germany, France, UK, Italy and Spain) using data from 1994 to 2005 taken from EUROSTAT and taking as weights the country-shares of GDP over the combined GDP of the above countries.[66] $\Delta FINDEV$ is taken to be the difference between the level of financial development between the US and the weighted average of the largest EU economies (with weights given by the country share of total cross-sample stock markets capitalisations for Germany, France, UK, Italy and Spain) in 2004, taking data from the IFS database.

6.34 $\Delta FINDEV$ could be in principle be calculated at different years. Table 6.4 below shows the actual values for FINDEV in the US and the weighted average of Germany, France, UK, Italy and Spain in different years (for Germany, France, UK, Italy and Spain we computed only an index for 1999 onwards as the IFS dataset did not contain some relevant information for the previous years). As we can see from Table 6.4, Financial development increased consistently for the US up to 1999, but then, from 2000 onwards, probably due to effects associated with the bear market of the early 2000s, stalled for the next 3 years (in 2002 the value was 105.1), before rising again in 2003 and 2004. For Germany, France, UK, Italy and Spain we instead observe a slow but steady increase in our measure of financial development.

6.35 Although we have argued elsewhere in this report that the end of 2002 is probably the best date to use as the basis for construction of a counterfactual, because of the special issues with the US data in 2002, in this case we feel that computing $\Delta FINDEV$ as the difference between financial development in the EU and the US in 2002 would significantly distort our estimates of $\Delta GDPg$. Instead, we compute $\Delta FINDEV$ as the difference between financial development in the EU and the US in 2004, even though our earlier arguments suggest that financial development in Europe is likely to have increased between 2002 and 2004 partly *because* of the anticipation of MiFID — consequently we believe that using a 2004 base leads the figures below to be a conscious underestimate of the potential contribution of MiFID to growth.

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[66] We used the weighted average of the standard deviation of per capita GDP growth over the period 1994-2004, which yielded a value of about 0.92.

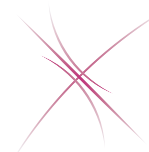


Table 6.4: Financial Development

Year	US	EU index
1995	72.2	n/a
1996	79.5	n/a
1997	86.4	n/a
1998	96.5	n/a
1999	108.9	103
2000	108.8	109.8
2001	108.9	113.5
2002	105.1	115.2
2003	121.0	119
2004	131.1	124.6

6.36 We then entered the information for $\Delta FINDEV$ and GDPVOL (computed as explained above), as well the parameters β and φ, into Equation 3, as follows:

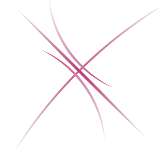
$$\Delta GDPg = \Delta FINDEV * (\beta + \varphi GDPVOL)$$

$\Delta GDPg$ = (131.1 – 124.6) x (-0.00037 + 0.0184 x 0.92) = 0.11

6.37 Thus the estimate is for an increase in the sustainable growth rate of 0.1 percentage points per annum.

6.38 We acknowledge that this is a particularly speculative element of the benefits quantifications conducted in this report, resting as it does on contentious and very academic study. However, we do consider that the achievement of a deeper, broader, and more liquid capital market could have some potentially beneficial effects on the sustainable growth rate of GDP, and the AABM framework has offered us a route by which we could produce an estimate of the potential importance of this.

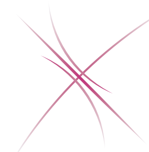
6.39 We note, however, that our estimate is for the scope for full convergence to US financial development. MiFID may be an important material contributor to this, but it would be inappropriate to attribute all such convergence to MiFID. Hence, this 0.1 percentage point addition to annual growth can be regarded as an (under-)estimate of the upper bound of this form of MiFID benefit for EU Member States. Given the fact that the UK financial sector is relatively more developed than those in other EU Member States, much of this aggregate benefit could incur to states other than UK. The main benefit to the UK from this would therefore likely come in the form of third round benefits as a result of growth in trading partners.



7 CONCLUSION

7.1 This report has investigated the potential for benefits arising from the Markets in Financial Instruments Directive to UK firms, investors and the wider economy. As has been repeated many times throughout the report, the focus is on gross benefits. The scope of this study does not extend to the questions of whether MiFID offers net benefits or whether MiFID might be recommended as a piece of regulation on other grounds. Furthermore, the benefits that have been quantified represent only a subset of the potential total gross benefits — not all benefits are susceptible of quantification.

7.2 Benefits have been analysed into first-round benefits, second-round benefits, and third-round benefits. Box 7.1 summarizes the key findings.



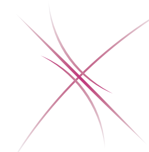
Box 7.1: Summary of Key Findings

Box 7.1a: First-Round Channels of Potential Benefits

- Channels of potential benefits issuing directly out of the regulation ("Direct Direct effects"), including
  - Reduced costs of obtaining and maintaining authorisation
  - Reduced costs of duplicate complying with regulation
  - Reduced market reputation costs
  - Reduced other operating costs
  - Improved access
  - Improved prices directly because of Best Execution requirements
  - Improved functioning of markets because of improved regulation
  - Reductions in transactions costs because of aggregation effects
  - Realisation of economic value of data
- Competition and industrial structure effects, including
  - Extension to range of passportable activities
  - Simplification of passporting regime
  - Economies of scale and scope
  - Price becoming a more important dimension of purchaser choice as Best Execution makes prices more visible
  - Additional discipline on costs as requirements for firms to disclose their execution policies
  - More competition in those dimensions consumers consider important because of greater ease of comparison
  - More competition between regulated markets and systematic internalisers and/or MTFs
  - Competition in data publication
  - Improved regulation improving market functioning
  - Increased entry into the UK from the EU
  - Increased entry into the EU markets from outside the EU
- Innovation effects, including
  - New innovations
  - More full and rapid exploitation of scope for gains from recent innovations
- Effects on related regulation, including
  - More full realisation of benefits from other directives already in place
  - Possibility that MiFID represents a watershed in EU financial regulation

Box 7.1b: Estimated Quantified First-Round Benefits to UK

Source/Scenario	**Limited Effect**	**Non-Regulatory Factors Dominate**	**Contributor to FSAP**	**Key Measure**
Reduced costs of duplicate complying with regulation	Zero	£100m per annum	£100m per annum	£100m per annum
Improved access	Zero	£20bn to £50bn per annum additional turnover	£100bn to £250bn additional turnover	£200bn to £500bn additional turnover



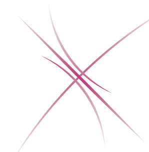
Source/Scenario	**Limited Effect**	**Non-Regulatory Factors Dominate**	**Contributor to FSAP**	**Key Measure**
Reductions in transactions costs because of aggregation effects	Zero	£0.1bn per annum	£0.5bn per annum	£1bn per annum
Realisation of economic value of data	Zero	£1.8m to £2.5m	£9m to £12.5m	£18m to £25m
Extension to range of passportable activities and simplified passporting regime	Zero	Small but material increase in supply	Small but material increase in supply	Small but material increase in supply

Box 7.1c: Channels of Second-Round Benefits

- Reduction in the cost of capital
  - Reductions in cost of transacting, from first-round benefits, leading to reduced cost of capital
  - Increased availability of capital, from first-round benefits, leading to reduced cost of capital
- Increased inflow of funds into the UK
- Deeper, broader and more liquid capital market, leading to
  - Reduced tendency for sound firms to fail in recessions
  - Increased incentives to engage in long-term investment in innovations
  - Above two effects leading to higher sustainable GDP growth rate
  - Above effects leading to reduced need for fiscal intervention

Box 7.1d: Estimated Quantified Second-Round Benefits to UK

Source/Scenario	**Limited Effect**	**Non-Regulatory Factors Dominate**	**Contributor to FSAP**	**Key Measure**
Effects on the cost of equity: Total	Zero	~1 basis point	3 to 5 basis points	7 to 9 basis points
Comprised of:				
reduced compliance costs	Zero	<1 basis point	<1 basis point	0 to 1 basis points
economies of scale because of increased turnover in London		<1 basis point	up to 1 basis point	1 to 2 basis points
falls in transactions costs associated with pure aggregation increases in liquidity;		<1 basis point	3 basis points	6 basis points



Source/Scenario	**Limited Effect**	**Non-Regulatory Factors Dominate**	**Contributor to FSAP**	**Key Measure**
Effect on GDP	Zero	~0.02%	~0.05%	~0.1% with potential additional material benefits from increase in the available pool of capital and increased inflow of funds

Box 7.1e: Third-Round Benefits

- Reductions in cost of capital of trading partners due to convergence of market transaction costs, leading to increased GDP and hence increased demand for UK exports.
- Increases in sustainable GDP growth rate, for partners, leading to increased demand for UK exports: 0.1 per cent increase in sustainable growth rate in UK trading partners as a result of deeper, broader and more liquid capital markets.

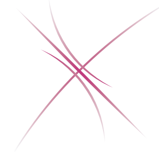
7.3 The numbers estimated are, of course, speculative, and in deriving them we have been required to make a number of very strong assumptions, as explained in the text of the report. The numbers are not more precise than the text explains. The numerical estimates also, as explained above, exclude the quantification of potentially material sources of benefits in certain cases in which the evidential basis we were able to provide for estimation was not sufficiently robust to justify quoting a number.

7.4 Furthermore, the scope of the study excludes altogether consideration of negative aspects of MiFID, including the costs of implementing and complying with the regulation, and issues such as whether reductions in the cost of doing business in other Member States might, in the long-term, threaten London's position as a pre-eminent financial centre.

7.5 However, despite these caveats, we do believe that these numbers are of interest and provide a sense of the significance of the scope for potential benefits from MiFID.

Closing Remarks: Comparison with Results of Other Studies

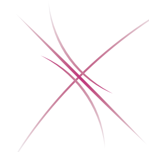
7.6 We note that the figures for benefits given quantitative estimates in this report are significantly lower than those in some other studies, even in our "Key Measure" scenario — in particular lower than those in the London Economics report *EC 2002*, where benefits to the UK are estimated at 1.0 per cent of GDP (some ten times the figure for our Key Measure scenario). Although we have above mentioned one key category of benefits over which we differ in view from London Economics, namely that we do not consider an



increase in the proportion of bond financing to be a likely result of wholesale financial market integration[67], and give an estimate for another channel of benefits that is much lower than that given by London Economics (just 6 basis points reduction in the cost of equity from reduced illiquidity, rather than the 26 basis points estimated by London Economics) we also identify a number of potential benefit-creating mechanisms that London Economics do not discuss. Because for some of these alternative sources of potential benefit we are unable to produce a sufficiently robust basis of quantitative estimation to offer numbers, it would not be legitimate to conclude, from this study, that we are predicting lower benefits from financial integration than those predicted by London Economics. In principle, in the absence of quantitative estimates, these other sources of benefits, for which we do not offer quantitative estimates, could lead to aggregate benefits being as great as or greater than those estimated by London Economics.

7.7 However, we also note that, just as our estimates of benefits here are limited by an evidential bar, so, equally, will be the estimates of costs provided in other studies commissioned by the FSA. Our exercise here has not been to produce our "best guess prediction" of benefits, but, instead, to produce an input into an FSA cost-benefit assessment, on a sufficiently robust estimation basis to be useful for guiding FSA policy.

[67] We emphasize once again that this is not because we deny that there will be such an increase. What we disagree about is whether the factors explaining the lower levels of bond financing in the EU than in the US are associated with limited financial integration in Europe.



APPENDIX 1: MAIN RELEVANT CHANGES INTRODUCED BY MIFID

A1.1 MiFID is a far-reaching directive covering a wide range of activities. Geographically it directly covers all 25 Member States of the EU. In terms of products, MiFID covers nearly all financial instruments. Many elements of MiFID merely re-express existing regulations, and hence seem unlikely to have a significant impact on the market. Some, however, seem likely to lead to far-reaching changes in the operation of EU financial services markets. Table A1.1 below summarises the main changes brought by MiFID that are relevant to the assessment of benefits and the financial instruments affected.

Table A1.1: Main relevant changes brought by MiFID and the instruments affected

Article(s)	Content	Instruments affected
21	Best Execution	Nearly all instruments*
22	Client order handling	Nearly all instruments*
27, 29, 44	Pre-trade transparency	Equity
28, 30, 45	Post-trade transparency	Equity
31	Passporting	Nearly all instruments*
69	Repeal of ISD	Nearly all instruments*
69	Repeal of ISD (abolition of concentration rules)	Equity

**: except spot foreign exchange dealings, and certain other exemptions*

Source: Europe Economics' summary of MiFID

A1.2 We explain below each change discussed in Table A1.1 with relevant Level 1 text extracted. We briefly discuss below how relevant markets of financial instruments under MiFID will be affected by these main changes, since different articles of MiFID will affect different financial instruments as shown in Table A1.1. Due to the uncertainties over unfinished Level 2 text and how MiFID will be implemented within individual Member States, the discussion below is necessarily non-definitive on some points. The Level 2 Text considered was that available as at the time of writing.

Changes Affecting All Instruments under MiFID

Best Execution

A1.3 As interaction and execution venues have become greater in number and diversity, regulators have come to see a need to ensure that investment firms apply their best efforts in fulfilling client orders, especially given that some forms of execution rely on personal communication.

Extracts from Level 1 text

Article 19 (1): Conduct of business obligations when providing investment services to clients

1. Member States shall require that, when providing investment services and/or, where appropriate, ancillary services to clients, an investment firm act honestly, fairly and

professionally in accordance with the best interests of its clients and comply, in particular, with the principles set out in paragraphs 2 to 8.

Article 21: Obligation to execute orders on terms most favourable to the client

1. Member States shall require that investment firms take all reasonable steps to obtain, when executing orders, the best possible result for their clients taking into account price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of the order. Nevertheless, whenever there is a specific instruction from the client the investment firm shall execute the order following the specific instruction.

2. Member States shall require investment firms to establish and implement effective arrangements for complying with paragraph 1. In particular Member States shall require investment firms to establish and implement an order execution policy to allow them to obtain, for their client orders, the best possible result in accordance with paragraph 1.

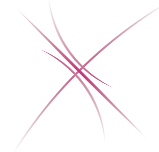
3. The order execution policy shall include, in respect of each class of instruments, information on the different venues where the investment firm executes its client orders and the factors affecting the choice of execution venue. It shall at least include those venues that enable the investment firm to obtain on a consistent basis the best possible result for the execution of client orders.

Member States shall require that investment firms provide appropriate information to their clients on their order execution policy. Member States shall require that investment firms obtain the prior consent of their clients to the execution policy.

Member States shall require that, where the order execution policy provides for the possibility that client orders may be executed outside a regulated market or an MTF, the investment firm shall, in particular, inform its clients about this possibility. Member States shall require that investment firms obtain the prior express consent of their clients before proceeding to execute their orders outside a regulated market or an MTF. Investment firms may obtain this consent either in the form of a general agreement or in respect of individual transactions.

4. Member States shall require investment firms to monitor the effectiveness of their order execution arrangements and execution policy in order to identify and, where appropriate, correct any deficiencies. In particular, they shall assess, on a regular basis, whether the execution venues included in the order execution policy provide for the best possible result for the client or whether they need to make changes to their execution arrangements. Member States shall require investment firms to notify clients of any material changes to their order execution arrangements or execution policy.

5. Member States shall require investment firms to be able to demonstrate to their clients, at their request, that they have executed their orders in accordance with the firm's execution policy.



Summary of Level 2 text and explanatory notes

A1.4 The Committee of European Securities Regulators (CESR) wishes to establish the principle that (regardless of how a firm decides to organise its trading process) if it has a contractual or agency relationship with clients that results in the execution of orders on their behalf, then it must take all reasonable steps to obtain Best Execution. Thus, an investment firm that delegates trading decisions to intermediary investment firms should be responsible for assuring Best Execution being obtained.

A1.5 Although the Level 1 text "contemplates" that there is a best possible outcome, "Best Execution" is only a procedural requirement and investment firms only need to show procedural evidence (e.g. that they have taken all reasonable steps) to show compliance with this requirement.

A1.6 Investment firms are required to take into account factors including price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution.

A1.7 In determining the relative importance of these factors, investment firms must take account of the following criteria:

- the characteristics of its clients;
- the characteristics of the orders to be executed on behalf of its clients;
- the characteristics of the financial instruments that are the subject of those orders; and
- the characteristics of the execution venues to which those orders can be directed.

A1.8 Investment firms are required to review their execution policy and venue on a regular basis to obtain Best Execution, whenever a material change occurs, and at least annually.

A1.9 CESR lists a set of factors that investment firms may take account of when selecting execution venues or intermediaries. In particular, implicit costs should be considered where relevant.

A1.10 Investment firms are required to provide clients with the information describing how they seek to obtain Best Execution (but not demonstrating that Best Execution has been obtained), in particular information about the firms' policy on inducements in relation to the carrying out of client orders.

Issues

A1.11 The text leaves significant room to the investment firms for interpretation of Best Execution, especially because Best Execution is difficult to define and measure, since different clients have different priorities. Moreover, instead of defining what constitutes "Best Execution", MiFID allows firms to comply with this requirement by setting out and sticking to their own execution policies provided they are appropriate. There are many

criteria of potential client interest which could be taken into account in execution policy, including price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of the order, and whenever there is a specific instruction from the client the investment firm shall execute the order following the specific instruction.

Passporting of services

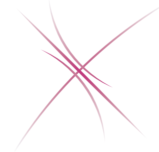
Extracts from Level 1 text

> **Article 31: Freedom to provide investment services and activities**
>
> 1. Member States shall ensure that any investment firm authorised and supervised by the competent authorities of another Member State in accordance with this Directive, and in respect of credit institutions in accordance with Directive 2000/12/EC, may freely perform investment services and/or activities as well as ancillary services within their territories, provided that such services and activities are covered by its authorisation. Ancillary services may only be provided together with an investment service and/or activity.
>
> Member States shall not impose any additional requirements on such an investment firm or credit institution in respect of the matters covered by this Directive.
>
> 5. Member States shall, without further legal or administrative requirement, allow investment firms and market operators operating MTFs from other Member States to provide appropriate arrangements on their territory so as to facilitate access to and use of their systems by remote users or participants established in their territory.

Issues

A1.12 Under the Investment Services Directive (ISD), firms with authorisation in one EU Member State have the right to provide products and services, and to establish branches, in all other EU Member States, or in other words, “passporting”. MiFID has made some significant changes to the current regime, in particular MiFID:

- widens the scope of passporting to include commodity derivatives, credit derivatives, and financial contracts for differentials;
- upgrades advice that involves a personal recommendation to a core investment service that can be passported on a stand-alone basis;
- clarifies that operating an MTF is covered by the passport;



- introduces a discretionary tied agent regime which is very similar to the current UK appointed representative regime.[68]

Changes Affecting Equity

A1.13 Equity is the financial instrument most affected by MiFID. On top of the Best Execution requirement and passporting of services that we have discussed above, MiFID will require better handling of client orders, introduce pre- and post-trade transparency requirements, and reduce market power of exchanges by eliminating "concentration rules" in various Member States.

Client order handling

Extracts from Level 1 text

> **Article 22: Client order handling rules**
>
> 1. Member States shall require that investment firms authorised to execute orders on behalf of clients implement procedures and arrangements which provide for the prompt, fair and expeditious execution of client orders, relative to other client orders or the trading interests of the investment firm.
>
> These procedures or arrangements shall allow for the execution of otherwise comparable client orders in accordance with the time of their reception by the investment firm.
>
> 2. Member States shall require that, in the case of a client limit order in respect of shares admitted to trading on a regulated market which are not immediately executed under prevailing market conditions, investment firms are, unless the client expressly instructs otherwise, to take measures to facilitate the earliest possible execution of that order by making public immediately that client limit order in a manner which is easily accessible to other market participants. Member States may decide that investment firms comply with this obligation by transmitting the client limit order to a regulated market and/or MTF. Member States shall provide that the competent authorities may waive the obligation to make public a limit order that is large in scale compared with normal market size as determined under Article 44(2).

Issues

A1.14 The requirement that investment firms should execute client orders in a prompt, fair and expeditious manner is consistent with and covered by the Best Execution requirement. Note this requirement applies to all instruments under MiFID.

A1.15 In addition, firms must publish any limit orders of shares that are not immediately executed, unless the client expressly instructs otherwise.

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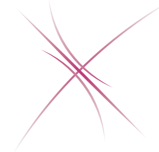
[68] See Articles 23 and 31(2).



Pre-trade transparency

Extracts from Level 1 text

Article 27: Obligation for investment firms to make public firm quotes

1. Member States shall require systematic internalisers in shares to publish a firm quote in those shares admitted to trading on a regulated market for which they are systematic internalisers and for which there is a liquid market. In the case of shares for which there is not a liquid market, systematic internalisers shall disclose quotes to their clients on request.

The provisions of this Article shall be applicable to systematic internalisers when dealing for sizes up to standard market size. Systematic internalisers that only deal in sizes above standard market size shall not be subject to the provisions of this Article.

Systematic internalisers may decide the size or sizes at which they will quote. For a particular share each quote shall include a firm bid and/or offer price or prices for a size or sizes which could be up to standard market size for the class of shares to which the share belongs. The price or prices shall also reflect the prevailing market conditions for that share.

Shares shall be grouped in classes on the basis of the arithmetic average value of the orders executed in the market for that share. The standard market size for each class of shares shall be a size representative of the arithmetic average value of the orders executed in the market for the shares included in each class of shares.

The market for each share shall be comprised of all orders executed in the European Union in respect of that share excluding those large in scale compared to normal market size for that share.

2. The competent authority of the most relevant market in terms of liquidity as defined in Article 25 for each share shall determine at least annually, on the basis of the arithmetic average value of the orders executed in the market in respect of that share, the class of shares to which it belongs. This information shall be made public to all market participants.

3. Systematic internalisers shall make public their quotes on a regular and continuous basis during normal trading hours. They shall be entitled to update their quotes at any time. They shall also be allowed, under exceptional market conditions, to withdraw their quotes.

The quote shall be made public in a manner which is easily accessible to other market participants on a reasonable commercial basis.

Systematic internalisers shall, while complying with the provisions set down in Article 21, execute the orders they receive from their retail clients in relation to the shares for which they are systematic internalisers at the quoted prices at the time of reception of the order.

Systematic internalisers shall execute the orders they receive from their professional clients in relation to the shares for which they are systematic internalisers at the quoted

price at the time of reception of the order. However, they may execute those orders at a better price in justified cases provided that this price falls within a public range close to market conditions and provided that the orders are of a size bigger than the size customarily undertaken by a retail investor.

Furthermore, systematic internalisers may execute orders they receive from their professional clients at prices different than their quoted ones without having to comply with the conditions established in the fourth subparagraph, in respect of transactions where execution in several securities is part of one transaction or in respect of orders that are subject to conditions other than the current market price.

Where a systematic internaliser who quotes only one quote or whose highest quote is lower than the standard market size receives an order from a client of a size bigger than its quotation size, but lower than the standard market size, it may decide to execute that part of the order which exceeds its quotation size, provided that it is executed at the quoted price, except where otherwise permitted under the conditions of the previous two subparagraphs. Where the systematic internaliser is quoting in different sizes and receives an order between those sizes, which it chooses to execute, it shall execute the order at one of the quoted prices in compliance with the provisions of Article 22, except where otherwise permitted under the conditions of the previous two subparagraphs.

Article 29: Pre-trade transparency requirements for MTFs

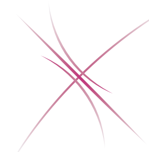
1. Member States shall, at least, require that investment firms and market operators operating an MTF make public current bid and offer prices and the depth of trading interests at these prices which are advertised through their systems in respect of shares admitted to trading on a regulated market. Member States shall provide for this information to be made available to the public on reasonable commercial terms and on a continuous basis during normal trading hours.

2. Member States shall provide for the competent authorities to be able to waive the obligation for investment firms or market operators operating an MTF to make public the information referred to in paragraph 1 based on the market model or the type and size of orders in the cases defined in accordance with paragraph 3. In particular, the competent authorities shall be able to waive the obligation in respect of transactions that are large in scale compared with normal market size for the share or type of share in question.

Article 44: Pre-trade transparency requirements for regulated markets

1. Member States shall, at least, require regulated markets to make public current bid and offer prices and the depth of trading interests at those prices which are advertised through their systems for shares admitted to trading. Member States shall require this information to be made available to the public on reasonable commercial terms and on a continuous basis during normal trading hours.

Regulated markets may give access, on reasonable commercial terms and on a non-discriminatory basis, to the arrangements they employ for making public the information under the first subparagraph to investment firms which are obliged to publish their quotes in shares pursuant to Article 27.



> 2. Member States shall provide that the competent authorities are to be able to waive the obligation for regulated markets to make public the information referred to in paragraph 1 based on the market model or the type and size of orders in the cases defined in accordance with paragraph 3. In particular, the competent authorities shall be able to waive the obligation in respect of transactions that are large in scale compared with normal market size for the share or type of share in question.

Summary of Level 2 text and explanatory notes

A1.16 In principle, RMs and MTFs are obliged to make public sufficient information on the current orders or quotes to facilitate orderly trading, as a core function of most organised markets is price discovery. Different levels and types of information publication requirements apply to different types of markets (e.g. order-driven or quote-driven).

A1.17 Some types of transaction, such as negotiated trades, could be exempted from pre-trade transparency requirement under certain circumstances.

A1.18 Systematic internalisers in shares are also obliged to provide firm quotes for those shares admitted to trading on a regulated market for which they are systematic internalisers and for which there is a liquid market. They can update quotes at any time and may withdraw quotes whenever trading on a regulated market is suspended and outside the trading hours of regulated markets for comparable reasons.

A1.19 Investment firms must disclose any client limit order which they have not immediately executed in a way which is visible and easily accessible to other market participants.

A1.20 MiFID recognises that transactions larger than normal market size are often conducted in a different way to normal-sized transactions and accepts that these trades may be executed more efficiently in a less transparent environment.

A1.21 The Directive therefore provides for the possibility of waivers from pre-trade transparency, and the threshold to qualify for a waiver is dependent on the liquidity of the share in question. More details of the thresholds are included in Table A1.2.

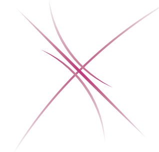
Table A1.2: Pre-trade waiver thresholds

High liquidity shares (Average daily turnover, by value > €50 million)	Upper-mid liquidity shares (€25 – €50 million)	Lower-mid liquidity shares (€1 – €25 million)	Low liquidity shares (< €1 million)
€500,000	€400,000	€250,000	€100,000

Note: minimum size of transaction qualifying for a waiver

Issues

A1.22 The pre-trade transparency requirements introduced by MiFID are more extensive than those currently in place in the UK for RMs and "alternative trading systems" (ATSs) in the UK, while the transparency requirement for investment firms that are systematic internalisers in shares is wholly new.



Post-trade transparency

Extracts from Level 1 text

Article 28: Post-trade disclosure by investment firms

1. Member States shall, at least, require investment firms which, either on own account or on behalf of clients, conclude transactions in shares admitted to trading on a regulated market outside a regulated market or MTF, to make public the volume and price of those transactions and the time at which they were concluded. This information shall be made public as close to real time as possible, on a reasonable commercial basis, and in a manner which is easily accessible to other market participants.

2. Member States shall require that the information which is made public in accordance with paragraph 1 and the time-limits within which it is published comply with the requirements adopted pursuant to Article 45. Where the measures adopted pursuant to Article 45 provide for deferred reporting for certain categories of transaction in shares, this possibility shall apply mutatis mutandis to those transactions when undertaken outside regulated markets or MTFs.

Article 30: Post-trade transparency requirements for MTFs

1. Member States shall, at least, require that investment firms and market operators operating an MTF make public the price, volume and time of the transactions executed under its systems in respect of shares which are admitted to trading on a regulated market. Member States shall require that details of all such transactions be made public, on a reasonable commercial basis, as close to real time as possible. This requirement shall not apply to details of trades executed on an MTF that are made public under the systems of a regulated market.

2. Member States shall provide that the competent authority may authorise investment firms or market operators operating an MTF to provide for deferred publication of the details of transactions based on their type or size. In particular, the competent authorities may authorise the deferred publication in respect of transactions that are large in scale compared with the normal market size for that share or that class of shares. Member States shall require MTFs to obtain the competent authority's prior approval to proposed arrangements for deferred trade-publication, and shall require that these arrangements be clearly disclosed to market participants and the investing public.

Article 45: Post-trade transparency requirements for regulated markets

1. Member States shall, at least, require regulated markets to make public the price, volume and time of the transactions executed in respect of shares admitted to trading. Member States shall require details of all such transactions to be made public, on a reasonable commercial basis and as close to real-time as possible.

Regulated markets may give access, on reasonable commercial terms and on a non-discriminatory basis, to the arrangements they employ for making public the information under the first subparagraph to investment firms which are obliged to publish the details of their transactions in shares pursuant to Article 28.

> 2. Member States shall provide that the competent authority may authorise regulated markets to provide for deferred publication of the details of transactions based on their type or size. In particular, the competent authorities may authorise the deferred publication in respect of transactions that are large in scale compared with the normal market size for that share or that class of shares. Member States shall require regulated markets to obtain the competent authority's prior approval of proposed arrangements for deferred trade publication, and shall require that these arrangements be clearly disclosed to market participants and the investing public.

Summary of Level 2 text and explanatory notes

A1.23 Some post-trade information must be published regardless of where the trade is executed. Such information includes:

- execution venue;
- security identifier;
- date and time of trade;
- volume (number of shares);
- price per share;
- (if applicable) indicator that the trade was a negotiated trade;
- (if applicable) indicator that the transaction was subject to other conditions than the current market price of the share;
- (if applicable) indicator that the trade was subject to delayed publication; and
- any amendments to previously disclosed information.

A1.24 This information is considered to be necessary to provide sufficient data for checking the quality of completed trades and assisting intermediaries in assessing which trading venues consistently offer the most competitive prices and identifying trends on the market.

A1.25 Similar to the pre-trade transparency requirement, MiFID recognises that transactions larger than normal market size are often conducted in a different way to normal-sized transactions and accepts that these trades may be executed more efficiently in a less transparent environment. The Directive therefore provides for the possibility of deferred publication of completed transactions in respect of transactions that are large in scale compared to normal market size. Moreover, the thresholds for deferred publication arrangements (DPAs) would be set at a higher level than the thresholds for waivers from pre-trade transparency, since compulsory public exposure of an order before it is traded is potentially far more damaging to the initiator than publication of a similar-sizes trade already completed.

A1.26 Two criteria are used to establish the thresholds: the percentage of average daily volume (ADV), and the average trade size. More details of the thresholds are included in Table A1.3 below.

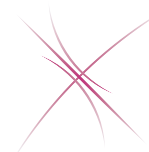


Table A1.3: Deferred publication arrangements

Maximum permitted delay for trade publication	Minimum qualifying size of trade (and cash ceilings)		
	High liquidity shares (> €50m+)	Mid liquidity shares (€1-50m)	Low liquidity shares (< €1m)
60 minutes	More than 10 per cent of ADV or more than €10m	More than 10 per cent of ADV or more than €3.5m	More than 5 per cent of ADV but at least €10,000
120 minutes	More than 20 per cent of ADV or more than €20m	More than 15 per cent of ADV or more than €5m	More than 15 per cent of ADV but at least €30,000
End of day	More than 30 per cent of ADV or more than €50m	More than 25 per cent of ADV or more than €10m	More than 25 per cent of ADV but at least €50,000
End of next trading day	More than 100 per cent of ADV	More than 100 per cent of ADV or more than €10m	
End of second trading day following trade			More than 100 per cent of ADV but at least €1m

Note: ADV = average daily volume

Issues

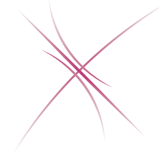
A1.27 In addition to the post-trade transparency requirements for RMs under ISD, MiFID extends the requirements to MTFs and investment firms trading outside RMs or MTFs. On the face of it this does not constitute a change from the current situation — all exchanges require their members to report off exchange trades. However, MiFID provides for new possibilities in terms of where trades are reported.[69] Investment firms will no longer be required to report on the main exchange. They will have the option to publish trade data via the following channels:

- Exchange that has admitted the share to trading;
- MTF that trades the share;
- Third parties, such as existing or new market data consolidators; or
- Proprietary arrangements.

End to concentration rules

A1.28 The current ISD gives Member States options to impose concentration rules that require the execution of retail orders to take place on a "regulated market" (which, in practice, typically means the primary exchange in that Member State). Such concentration rules

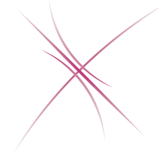
[69] See Articles 28 (1), 30 (1), and 45 (1).



are in contrary to the EC competition rules, and MiFID discontinues the ability of Member States to apply this form of concentration rule.[70]

A1.29 Explicit concentration rules exist currently in, for example, France, Italy and Spain. In other Member States it is sometimes argued that, despite the absence of an explicit concentration rule, other regulations and practice amount to de facto concentration rules, the effect of which is that most orders must be sent to the main exchange. For example in Germany, where internalisation is allowed, investment firms are required to obtain explicit permission for every order before internalising trades. This seems likely to have been a factor in the limited take-up of internalisation there.

[70] Whether other rules that would have similar effect, such as tax advantages to the placing of orders on a regulated market, would really be eliminated is less clear.



APPENDIX 2: COMPANY QUESTIONNAIRES

A2.1 As one of the three strands of information gathering undertaken in the study, we sent out questionnaires to various financial firms to gather their views and estimations about the possible benefits of MiFID. This appendix first describes the content and recipients of the questionnaires, and then describes the more interesting results arising from them. Separate Annexes 1 and 2 give the questionnaires and summary answers to each question.

Content of the Questionnaires

A2.2 We used two versions of questionnaires: a short one and a long one. Both versions of questionnaires sought:

(a) information about the recipient, including

- scope of business activities,
- products and services provided,
- geographic coverage, and
- financial information;

(b) the recipient's estimation of the benefits that might arise to it from MiFID through the extension to passporting opportunities and the abolition of concentration rules;

(c) the recipient's estimation of the benefits that might arise to it from the best execution requirements of MiFID; and

(d) the recipient's estimation of the benefits that might arise to it from the transparency requirements of MiFID.

A2.3 The longer version of questionnaire explores these topics in more detail. In addition to these, the longer version of the questionnaire sought company estimates of different categories of costs in EU Member States, which could be used as a basis of estimated benefit through avoided costs once MiFID is implemented.

Recipients of the Questionnaires and Response Rate

A2.4 Overall in our sample selection we aimed to achieve a good coverage of the type of companies and activities that would be potentially affected by changes from MiFID. To this end the FSA provided us a list a companies and made the initial approach to them in an attempt to boost the participation rate in the study. Most of the companies participated had also taken part in previous FSA cost-benefit studies.

A2.5 The longer questionnaire was sent to 9 companies and the shorter one to 32 companies. The recipients cover both retail and wholesale financial services, and around two thirds of

them currently have operations in other EU Member States. The value of their UK assets range from several hundred thousand pounds to several billion pounds.

A2.6 These recipients participate in a broad range of business activities including:

(a) investment advice;

(b) broking/dealing;

(c) trading;

(d) investment management;

(e) infrastructure provision; and

(f) others.

A2.7 Products covered by these recipients include:

(a) equities;

(b) bonds;

(c) derivatives; and

(d) others.

A2.8 Even though the coverage was set out as wide as possible, because selection of the companies was not random and because of the small size of the sample, the results can only be taken as indicative rather than representative of the financial services sector affected by MiFID.

Summary of Results

A2.9 The company responses were received throughout a period of some four weeks. We received responses to eight out of nine of the longer questionnaires sent, and to 26 of the 32 shorter questionnaires, giving an overall response rate of 85 per cent. Where possible, the companies were asked to give separate answers pertaining to distinctly different parts of their business, if they undertook more than one of the above activities to a significant extent and those different activities would be affected in materially different ways. Therefore the possible number of data points available for analysis was slightly increased over the actual sample size.

A2.10 Overall the companies seemed quite sceptical of the benefits that MiFID would bring. For example, many larger companies in the sample already have found a way to operate where they wished in Europe, so additional benefits from MiFID in terms of ease of access were termed marginal. In addition, some of the smaller companies with only UK operations might not have seen benefits to them as they had no plan to expand services to Europe with or without MiFID as this was not part of their business model. A third reason for the pessimism could of course be scepticism of the vigour with which national governments will implement the provisions in MiFID — this was particularly evident in

some of the interviews we conducted among the sample of the long questionnaire recipients.

A2.11 Further to the above qualms, many companies were not able to answer some of the more informative questions set out in the questionnaires. The responses to the questionnaires did, however, provide valuable insights in some areas of interest, as summarised below.

Benefits from reduced costs of complying with regulation

A2.12 Several market participants that we interviewed identified the reduced need for multiple authorisations and compliance targets as one of the main benefits of MiFID. We attempted to gain a view to the size of this possible effect through a section of our questionnaire on costs that companies might avoid in various areas.

A2.13 Not many companies unfortunately were able to estimate a value for this benefit, and those that did were largely savings involved only in equities business. Further, the way that companies organise their compliance systems can vary widely and will affect the possible savings from the reduced need for complying with more than one set of regulations. This means that the calculation on the views gathered here, even more so than responses to other questions, may not be representative of the effect on the whole industry.

A2.14 Nevertheless, and with the above health warnings, the responses can give us some insight to the extent of these cost savings. Based on the responses of relevant firms, for each additional EU Member State that they currently operate in, companies face additional compliance costs of roughly 30 per cent of their cost of compliance function in the UK.

Benefits from extension of the passport

A2.15 Roughly half of the respondents that deal in commodity derivates at the moment to other EU Member States said that extension of passport will be valuable, but not essential — they would be able to do business in other EU member states without the extension of passporting, but it would cost additional money or effort.

A2.16 Roughly half of all firms (including, now, also, those that do not deal in commodity derivatives) that do not currently supply to the EU said that they are at least somewhat more likely to begin supply due to MiFID, with some considering acquisition as an option of entry as a cause of MiFID.

A2.17 Again, roughly half of all respondents said that new opportunities would be material, the range varying from less than 10 to over 100 per cent of the current UK supply. Most of these, however, thought the benefit to be in the region of less than 10 per cent of UK supply. The expansion of current business in the EU was not thought to be affected strongly. This could imply that companies wanting to do so have found ways around the current regulations, to supply Europe-wide, so that it is not the volume of business, but the cost of conducting it that is affected.

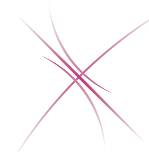


Table A2.1: Company views about benefits from extension of the passport

	Proportion of responses that rate benefits as:		
	>50% of UK supply	From < 10 to 50% of UK supply	Not material
Ability to approach new customers and supply new products	5%	40%	55%
Expansion of current existing business in non-UK EU Member States	5%	25%	70%
Expansion of current investment in non-UK EU Member States	0%	5%	95%

Saving in transaction costs

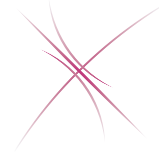
A2.18 The responses to the longer version of the questionnaire provide an indication for the extent in trade transaction costs. We ask the companies to estimate their relative transaction cost for a comparable typical trade in UK, France, Germany and Italy.

A2.19 For confidentiality reasons we can only report rough averages of over all response. On average the companies able to do so estimated their total transaction costs on a comparable typical trade to be 50, 10 and 40 per cent higher respectively for France, Germany and Italy when compared to the UK.

Benefits from best execution and transparency

A2.20 About two fifths of firms responding to our survey thought that lack of best execution and transparency requirements similar to that of the FSA puts them at a disadvantage in providing services in the EU outside the UK. The main reasons cited for this were the costs associated with implementing and testing best execution, transparency requirements that put the FSA regulated entities at a disadvantage because information publicised may be taken advantage of by competitors elsewhere, and because transparency requirements in UK impose costs that are not borne by European competition.

A2.21 Though great majority of companies thought that the best execution requirement in MiFID will level the playing field in terms of reputation costs and costs of execution, only about two fifths thought that this would create material new opportunities for them as compared to current UK supply. Those that estimated benefits were roughly evenly divided between less than 10 to 50 per cent of current UK supply. Some companies identified that new opportunities do arise, but that they are not material compared to the current UK supply. Companies already offering services to Europe, or operating in Europe through other means were less optimistic about the benefits that European wide best execution requirement will bring.



A2.22 Only one company of those surveyed with investments in another EU Member State thought that a more level playing field would shift the balance of business slightly towards the UK, with not one estimating effects on scale of business or a material net effect in the UK.

Table A2.2: Company views about benefits from best execution and transparency

	Proportion of responses that rate benefits as:		
	>50% of UK supply	From < 10 to 50% of UK supply	Not material
Extent to which a more level playing field, in terms of reputation and costs effects associated with best execution and transparency, creates the opportunity to approach new customers and supply new products in non-UK EU Member States	5%	35%	60%

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