

Abstract

This paper examines the ongoing changes in strategy, structure, and performance of the largest 250 non-financial firms in both Britain and Germany. To this end, publicly available firm-level data is presented at first and supplemented by the results of a questionnaire survey that was sent to the chief executives of those companies. What came through from the survey was that many firms in both countries are driven by the desire to specialise and internationalise and are primarily achieving this via 'horizontal' mergers and acquisitions. While seeing a definite convergence in certain areas, clear and distinctive differences remain between the two countries.

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Corporate Restructuring and Firm Performance of British and German Non-Financial Firms

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1. Introduction

The aim of this paper is to explore changes in corporate strategy, structure and performance in the largest British and German non-financial firms. It is structured into two parts. The first part analyses publicly available data on company size and performance. It focuses on establishing structural differences between the largest British and German non-financial firms. The second part outlines the results of a questionnaire survey that was sent to the chief executives of these firms. The survey aims to provide a snapshot of the corporate restructuring efforts, which has been taking place in the two countries, including changes in the role of the head office.

The subject of analysis are the largest non-financial firms in both countries. In Britain, all firms selected were constituents of the FTSE 100 and FTSE 250 in November 1999, in Germany the DAX 100 companies were used. The remaining German firms were selected as being part of the SDAX index, the balance by market capitalisation. This provided a total of 264 British firms and 242 German firms.

The theoretical basis of this study is derived from the work on the nature of the firm initiated by Coase (1937) and continued by others – in particular Oliver Williamson (1975, 1985, and 1986). These authors showed that changes in the boundaries of the firm could increase its efficiency by lowering transaction costs relative to market exchanges. Recent changes might have become necessary through economic or technological developments, or simply because of the failures of earlier strategies. The purpose of corporate restructuring as defined in this study is to improve competitiveness and profitability through changes in the boundaries of the firm, its internal structure, or both.

Chapter 2 of this paper outlines the results of analysing aggregated accounting data on structure and performance of the largest firms in Britain and Germany, Chapter 3 shows the results of the questionnaire survey while Chapter 4 summarises and concludes.

2. Size and Performance Over Time

This chapter aims to establish changes in the size and performance of the target group over time and between the two countries. To gain a more precise reading, the sample is divided into ‘small’ and ‘large’ firms along the lines of the indexes in the respective countries. Large firms are labelled as such if they form part of the FTSE and DAX 100; they are otherwise labelled as small firms.

In addition, two different sets of results are reported, one derived from a rebalanced and the other from a fixed sample. The fixed sample includes all firms for which a full set of data

was available for the investigation period between 1990 through 1998¹. The full, or rebalanced sample comprises all firms including those for which only results for part of the period were available. It has to be taken into account that both samples have a distinctly different nature. For example, the full sample includes new upcoming firms from the ‘new economy’ sectors of technology, media, and telecoms; the fixed sample has a natural bias towards long established firms and multinationals.

Size

One of the key comparisons of size is that of the number of employees. Table 1 below reports the number of employees for both large and small firms. Figure 1 to the left illustrates the figures for a fixed sample, whereas Figure 2 shows the full sample.

Table 1: Average Number of Employees Per Country – Fixed Sample

	UK		Germany	
	FTSE250	FTSE100	Small: D	DAX100
1990	11,212	53,532	2,141	42,223
1991	11,128	53,567	2,316	43,287
1992	11,217	50,085	2,349	45,763
1993	11,034	47,703	2,281	43,592
1994	11,287	45,920	2,250	43,186
1995	11,018	46,615	2,390	44,478
1996	11,580	49,931	2,361	43,605
1997	11,383	51,210	2,168	43,549
1998	11,745	53,118	2,201	43,716

Figure 1
of Employees – Fixed Sample

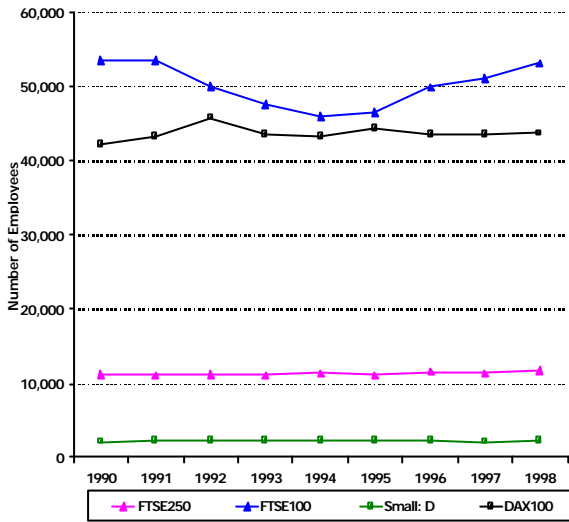
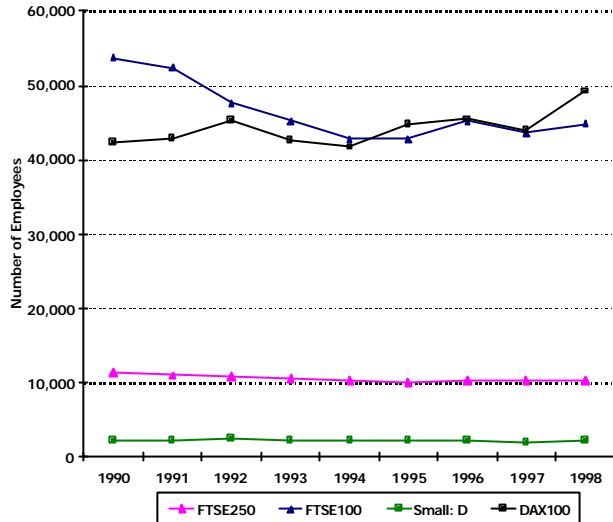


Figure 2
of Employees – Full Sample



At first sight, large firms (that form part of the FTSE 100 / DAX 100) are of similar size in both Britain and Germany with an average of about 45,000 employees. Looking at the two samples separately, quite a different picture emerges. Whereas the size of the average large firm converges for the full sample, a considerable difference remains between large British and German firms in the fixed sample. This provides some evidence that British ‘old economy’ firms might be considerably bigger than their German counterparts. German firms also appear to have a very steady employment base, a result that can be expected given the less flexible labour market.

Interesting differences emerge from the data on smaller firms, i.e. those firms that form part of the FTSE 250 in Britain. Here, British firms are about five times as large in terms of employment as their German counterparts. These results hold for both sets of samples, are very robust, and are significant at the 1% level². The corresponding data for the above figures on the number of employees, together with the data for all other figures reported in this chapter, can be found in Appendices 1 to 11.

Sales

Another basic measure of size is total sales. Comparing firm level data for the two countries is difficult due to a variety of reasons. One issue is the establishment of a 'correct' exchange rate. Another important factor is the difference in accounting standards.

Purchasing Power Parity (PPP) is one of the oldest and most relied upon concepts to set an alternative exchange rate mechanism to the market exchange rate. PPP states that in the long run the exchange rate is proportional to the two countries' price levels. Nevertheless, there are still considerable differences in calculations of the PPP £/DM (€) exchange rate between e.g. the World Bank/IMF and the Bank of England. Sushil Wadhvani³ of the Bank of England suggests a £/€PPP exchange rate of 1:1.25, which is adopted for the purpose of this research. The following figures and tables report in the respective currencies £ and €, the right hand scale of figures, however, is condensed by the factor 1.25 to allow for a proportionally correct reading of Euro denominated data.

Figure 3 and 4 display the development of net sales for both the large and small firms, both for a fixed and full sample. The actual figures are summaries; the detailed figures can be found again in Appendices 1 to 11.

Figure 3
Total Average Sales – Fixed Sample

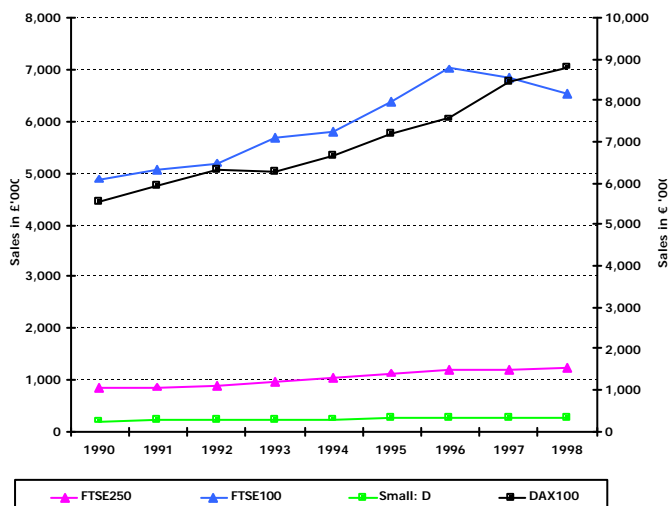
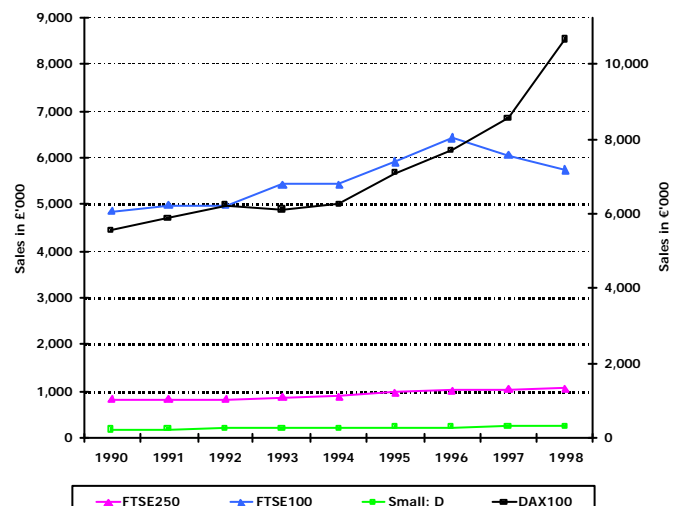


Figure 4
Total Average Sales – Full Sample



The average of total sales for large firms, based on both the fixed as well as the full samples, show that large firms in Britain and Germany were relatively equal in size. The

FTSE 100 firms grew at a rate of 4.3% p.a., against 7.4% p.a. for the German peer group⁴. Here, the higher degree of corporate focus amongst large UK firms (substantiated in Chapter 3) may be one possible explanation for the differences in turnover growth.

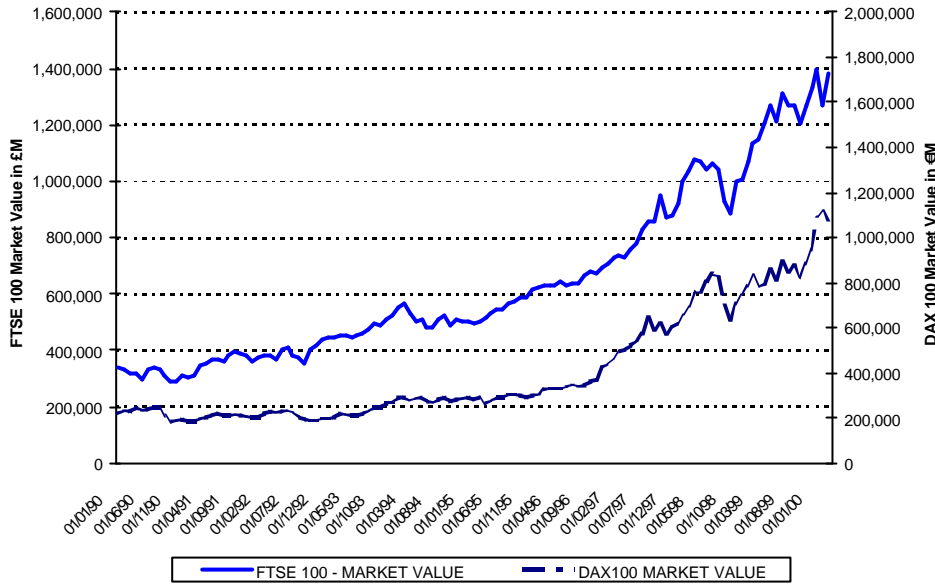
The above figures do not reveal, however, that sales of small British firms grew relatively faster compared to the group of large firms. The FTSE 250 firms increased their sales by 6.1% p.a., slightly above their German counterparts who managed a 5.3% p.a. increase. The FTSE 250 firms are also much larger than their German peer group; the average sales were about 4.5 times that of the German firms in 1998. This is slightly smaller than the employment difference would suggest, indicating that small German firms had a slightly higher turnover per employee.

Market value

The market value of British firms is considerably higher than that of the German peer group. Figure 5 below depicts the market value of FTSE 100 and DAX 100 companies. Although this measure includes both financial and non-financial firms, it is nevertheless a reasonable proxy for the market performance of the non-financial firms. Non-financial firms are the majority of all firms in those indices, and indirectly influence⁵ the performance of financial firms. In 1990, the market value differential was 2.0 and narrowed over the decade to about 1.7 in 1998. It was further reduced to about 1.6 times by 2000. This indicates that DAX 100 companies were able to attract new capital and interest over the last decade, and to partly close the gap in market value.

The picture for smaller firms is different. Here, the FTSE 250 companies were able to double their market value between 1990 and 1998, whereas the market value of small German firms stayed at about the same level (see Appendix 3).

Figure 5: Market Value of FTSE & DAX 100 Firms



Sectoral activity

Table 2 depicts the average activity level of each sector for FTSE 100 and DAX 100 firms. The sectoral activity is thereby measured as the sum of the share of turnover of all firms divided by the overall activity across all sectors⁶. The activity of large British and German non-financial firms is distributed differently. The largest German firms are more focused and focus primarily on the production of metal goods, engineering, and automobiles⁷, while large British firms distribute their activity more evenly across all the various sectors.

The industries in the two countries are most similar in the non-metal manufacturing sectors. The higher levels of privatisation of utilities in Britain can be seen in the relative strength of the water & energy sector (SIC 1) and the transport and communication industries (SIC 7). Most striking is the relative importance of financial services, e.g. through the provision of credit card services, even for ‘non-financial’ firms in Britain⁸.

**Table 2: Average Economic Activity Within the One-Digit SIC Code of Firms Included
in the FTSE 100 & DAX 100**

		N	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
Britain	1994	63	14%	15%	9%	16%	0%	16%	9%	11%	10%
	1995	63	14%	15%	9%	14%	0%	17%	9%	10%	11%
	1996	65	16%	13%	9%	13%	0%	18%	9%	11%	10%
	1997	69	17%	13%	8%	10%	1%	17%	12%	10%	11%
	1998	72	16%	15%	8%	13%	0%	16%	12%	11%	9%
Germany	1994	69	4%	18%	39%	12%	5%	9%	2%	2%	9%
	1995	72	4%	20%	37%	14%	5%	9%	2%	2%	8%
	1996	73	4%	19%	35%	14%	4%	11%	2%	2%	9%
	1997	73	3%	21%	38%	13%	4%	9%	2%	2%	8%
	1998	69	4%	21%	41%	12%	2%	7%	4%	2%	7%

Source: Own calculations based on company accounts (via Datastream).

Key to SIC-Codes:

- 10-19: Energy and water supply industries
- 20-29: Extraction of minerals and ores other than fuels; manufacture of metals, mineral products and chemicals
- 30-39: Metal goods, engineering and vehicles industries
- 40-49: Other manufacturing industries
- 50-59: Construction
- 60-69: Distribution, hotels and catering; repairs
- 70-79: Transport and communication
- 80-89: Banking, finance, insurance, business services and leasing
- 90-99: Other services

Performance measures

In the following, a variety of performance measures will be used to evaluate performance changes and identities within and between British and German industry. Financial accounting data and ratios are based on the respective accounting principles of each country, UK GAAP and German HGB. This limits the comparability of the results between the two countries, and therefore allows only inferences over time and between large and small firms of the same country. Despite major efforts, it was impossible to uncover research (both academic and private), which would give guidelines on how to account for those differences. To partly overcome these limitations, the various indicators will also be indexed at 1990 values. This provides information on the relative change between the two countries, but does not allow a comparison at the absolute level.

All reported means are based on a 1% trimmed sample on both ends of the distribution. A 1% threshold was selected to eliminate extreme values that might result from measurement errors, exceptional circumstances, or deficiencies in the formulas used. The conventionally used 5% trimmed mean was reduced to just 2% to ensure that superior managerial or economic performance was adequately reflected in the sample. The performance ratios are based on data taken from Datastream.

Return on shareholder equity

Return on shareholder equity (ROSE) analyses the return on equity on shares with voting rights. Comparing the two figures 6 and 7 below, the most prominent features are the impact of the deep German recession from 1994 to 1996 and the British recession in 1992/1993. It is interesting to see that economic cycles appear to have had much larger impacts on the profitability of the large (Top 100) firms than for small and mid-cap firms.

Small British firms were able to maintain a very fixed return on shareholder equity compared to both larger British firms and their German peer group. In terms of ROSE levels, small British firms earned much higher ROSE with about 12% for the fixed sample, and about 10.3% for the full sample. There is a less clear relationship between the average FTSE 100 and the DAX 100 firms. It can be expected, however, that part of the performance differences are due to differences in accounting standards.

Over the investigation period, large German firms earned a 4% higher return on shareholder equity than their smaller rivals. The corresponding figure for Britain was 4% for

the fixed, and 2% for the full sample. Large firms seem to be more successful in maximising shareholder value. However, no significant correlation can be established between Sales and ROSE, nor the number of employees and ROSE.

Figure 6
ROSE – Fixed Sample

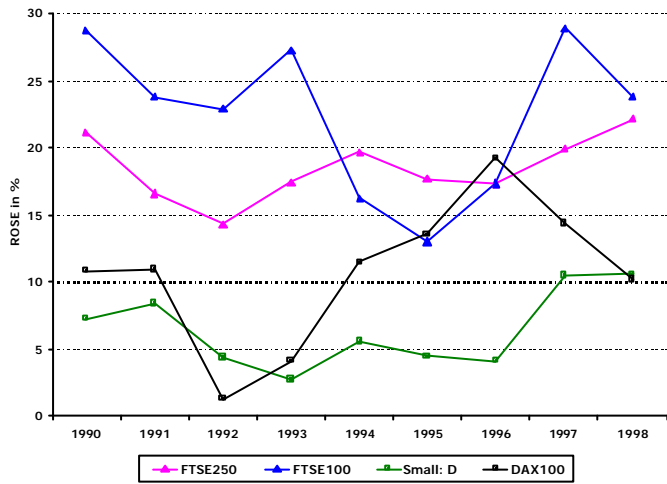


Figure 7
ROSE – Full Sample

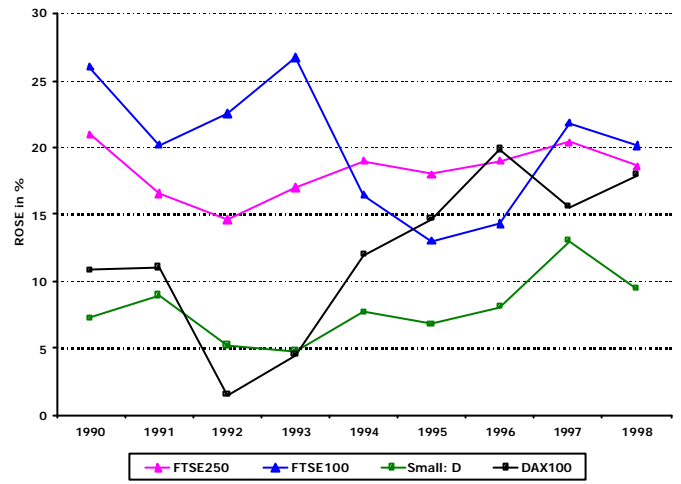


Figure 8
ROSE Index – Fixed Sample

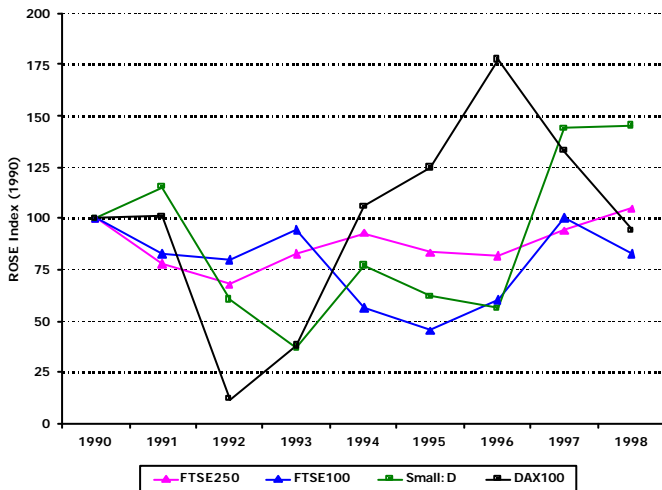
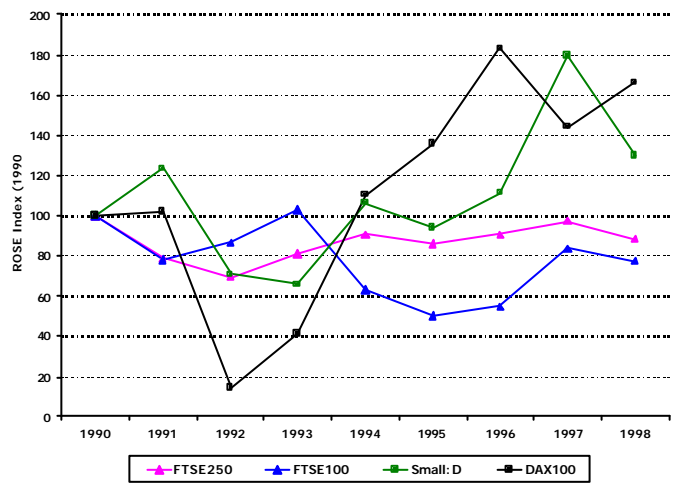


Figure 9
ROSE Index – Full Sample



Return on capital employed

The return on capital employed (ROCE) is depicted in figures 10 and 11 below. A strong disparity in the level of ROCE between British and German firms can be identified. This again might be ascribed to differences in accounting standards. There is also a substantial difference between the return on capital employed for FTSE 100 and FTSE 250 firms. For the fixed sample, large firms returned about 5% more for the same unit of capital between 1990 and 1998, in the full sample the difference is even higher with 9.1%. In contrast, there appears to be no major difference between large and small German firms.

In terms of change (Figures 12 and 13), no clear 'behavioural pattern' emerges other than that British firms (both large and small) outperformed their German counterparts over this eight-year period.

Figure 10
ROCE – Fixed Sample

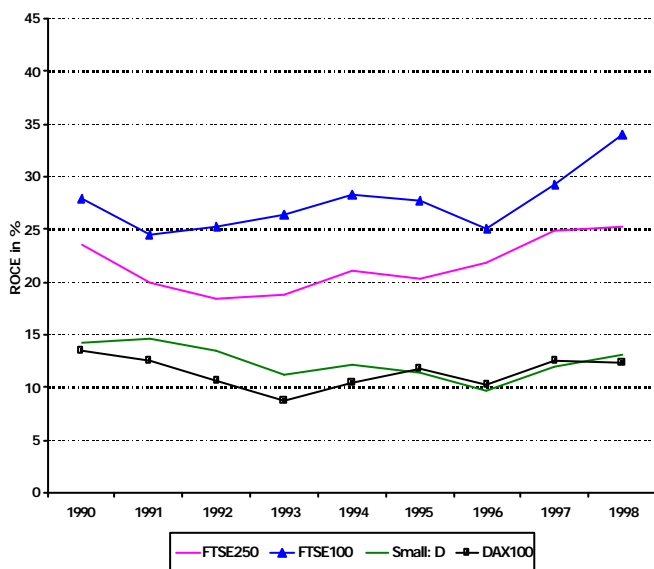


Figure 11
ROCE – Full Sample

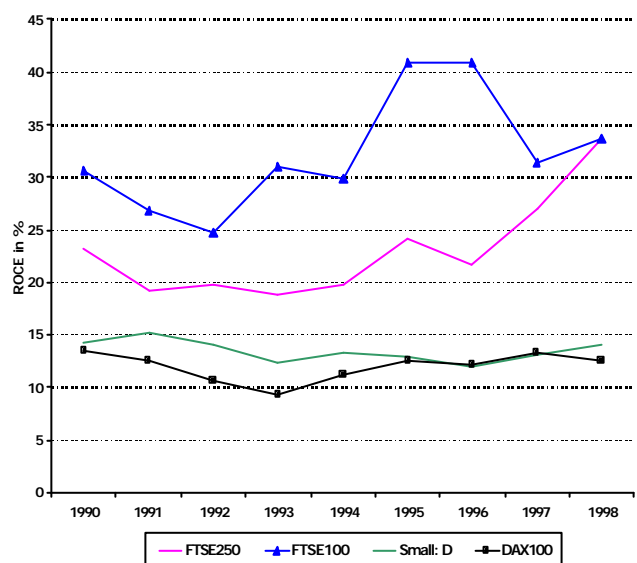


Figure 12
ROCE Index – Fixed Sample

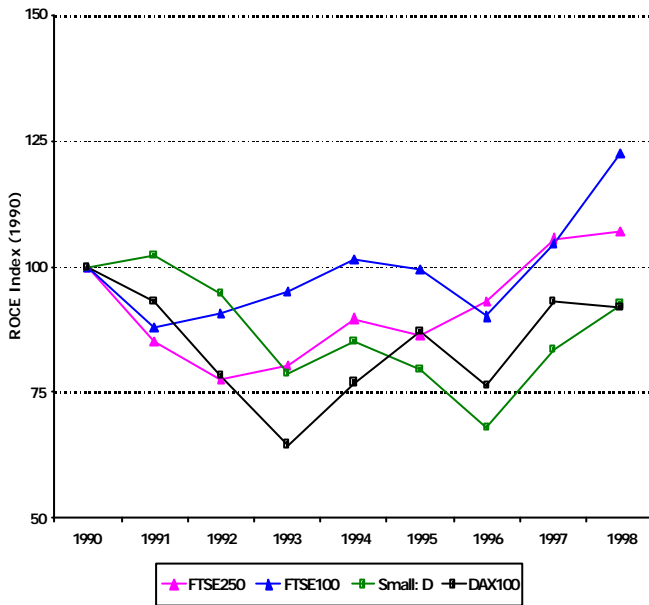
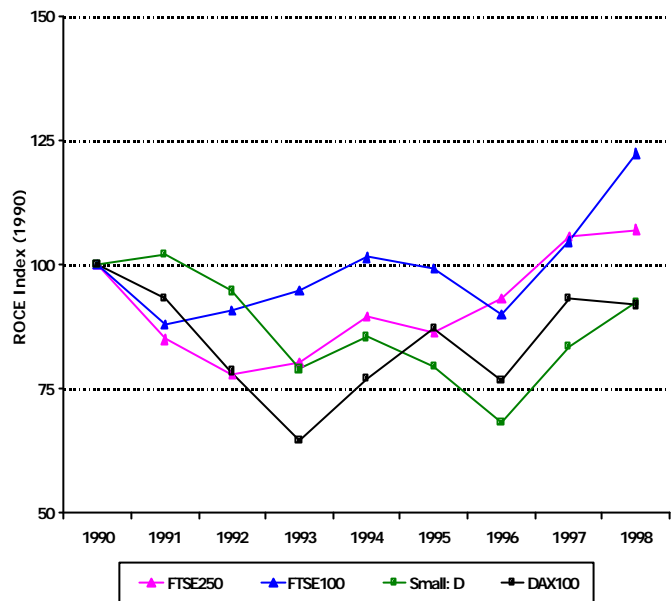


Figure 13
ROCE Index – Full Sample



Operating margin

The operating margin, defined as operating profit over total sales, confirms the above finding that large British firms appear to outperform their smaller peers consistently over the entire eight-year investigation period. In contrast, large German firms underperformed their smaller parts over large parts of the 1990s. A substantial gap also remains in operating margin between German and British firms. Again, the more conservative German reporting system can explain part, but possibly not all, of the difference.

Figure 14
Operating Margin – Fixed Sample

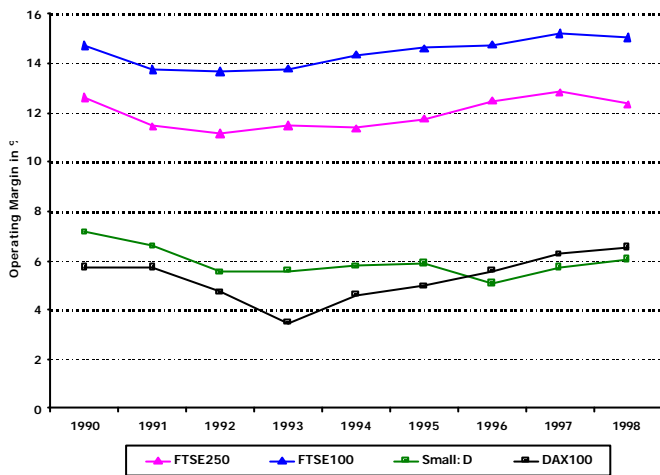
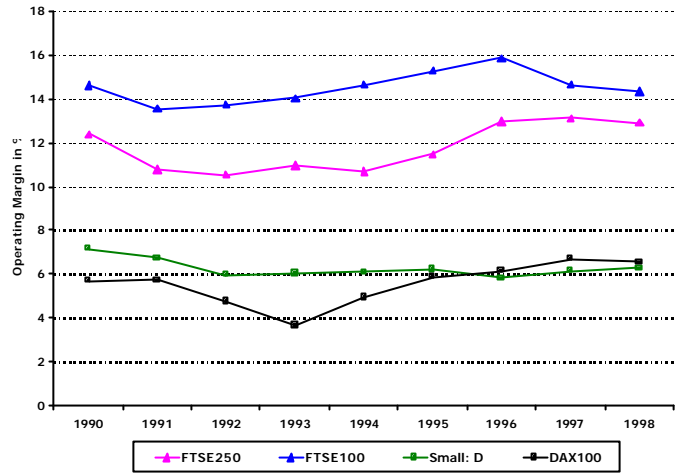


Figure 15
Operating Margin – Full Sample



In respect to changes in operating margin, it is noteworthy that none of the four subgroups improved their operating margins considerably over the eight-year period. After being the worst performing group in the early 1990s, the German DAX 100 companies showed the relatively best performance by 1998. For all other subgroups, no clear trend can be identified.

Figure 16
Operating Margin Index
Fixed Sample

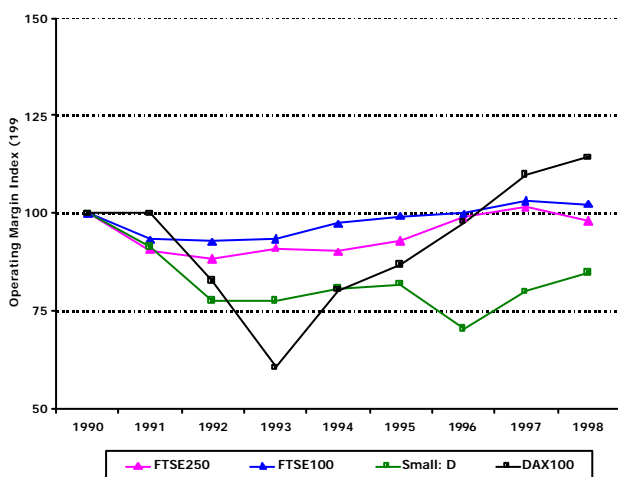
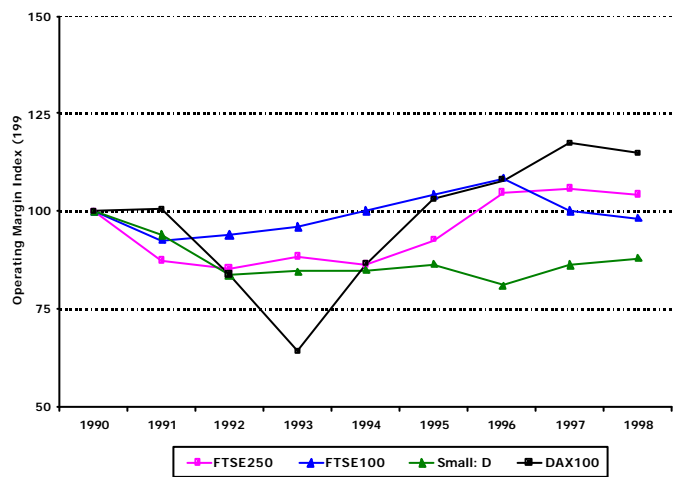


Figure 17
Operating Margin Index
Full Sample



Various reasons might explain the differences in operating margins and ROCE between large and small British companies. Large British firms seem to operate more

efficiently than their smaller peers. Another possible explanation is that entry and exit into and out of the FTSE 100 is more fluid than that of the DAX 100. This implies a certain self-selection bias.

The above analysis was also repeated for Cash Flow Margins, which revealed very similar behavioural patterns to the above outlined results.

Capital employed per employee

The next variable looks at the median values of capital employed, depicted in figures 18 to 21 below. Smaller firms are less capital intensive per employee than their larger counterparts, and grew their capital base per employee at a slower rate than their larger peers. Consequently, the gap in capital intensity between large and small firms increased over the last decade. Comparing the results, it seems that large British firms are more capital intensive per employee than large German firms⁹. The reverse is the case when comparing small firms.

In addition, the median value of the capital employed per employee for small British firms is fixed for both samples since 1995, and has declined in absolute terms in 1998. This finding is in line with a recent report on the UK economy by Goldman Sachs, an American Investment Bank (Broadbent, 2000). It is also suggested that the growth of capital in relation to employment is decelerating. These findings are supported by this research. The authors of the report attribute the higher labour participation rate for this change in the capital intensity of British industry. The authors are also of the opinion that this might partly explain the lower productivity growth rates in Britain over the last few years.

Figure 18
CE/E (Median) – Fixed Sample

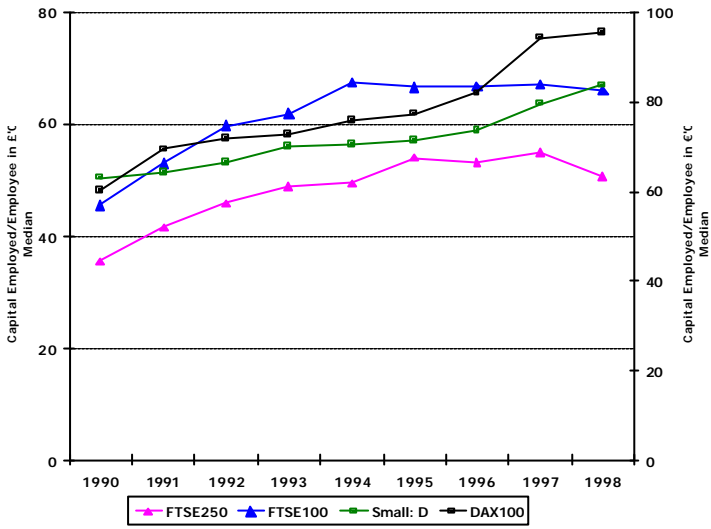


Figure 19
CE/E (Median) – Full Sample

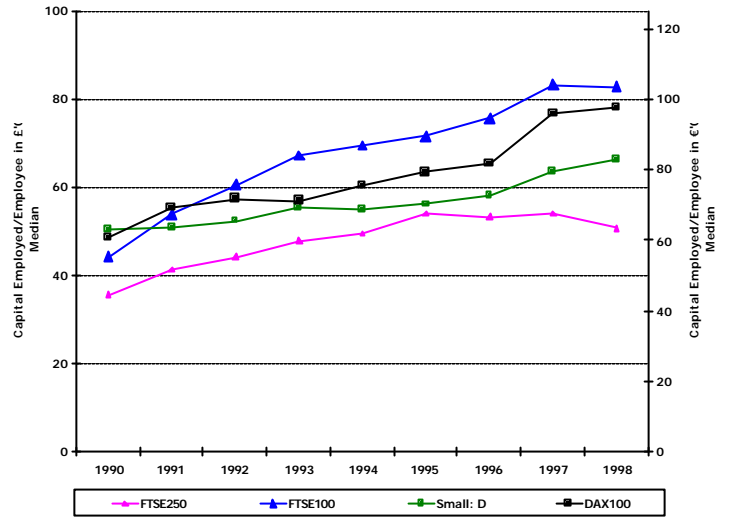


Figure 20
CE/E (Median) Index – Fixed Sample

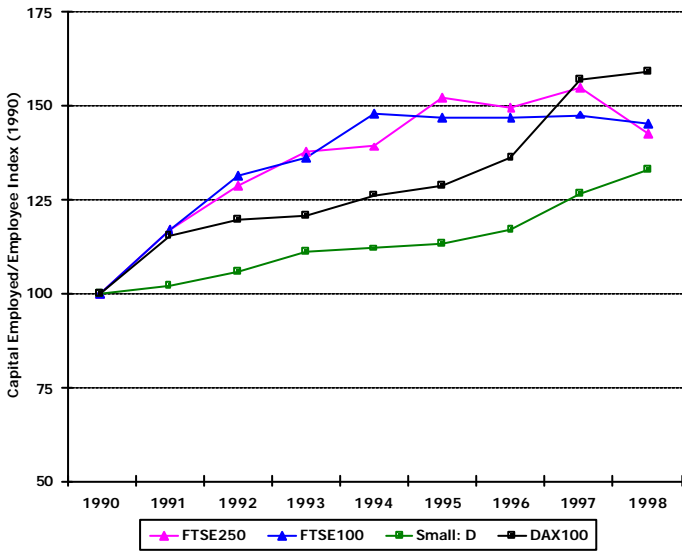
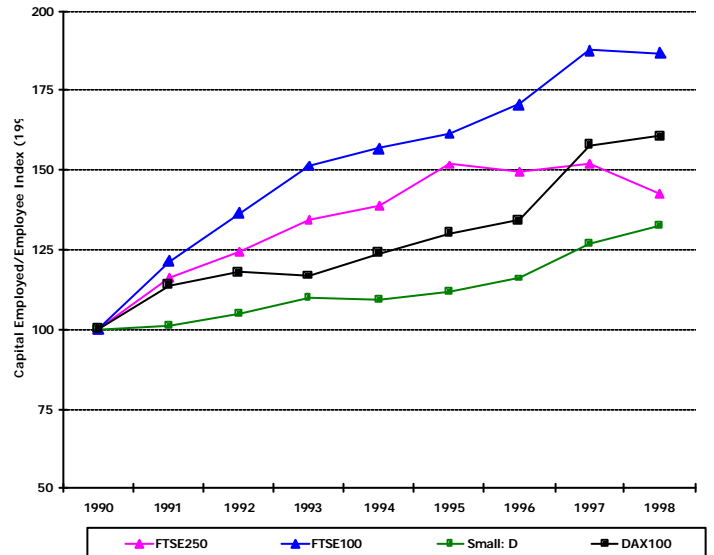


Figure 21
CE/E (Median) Index – Full Sample



Effective tax rate

A distinctly different pattern emerges for Britain and Germany in relation to their effective tax rates. The British tax rate remained fixed on a comparatively low level of around 30%. The tax rate for German firms declined strongly from about 55% in 1990 to about 40% in 1998. It is worth noting that the larger DAX 100 companies had an effective tax advantage of about 5% over their smaller counterparts. Larger German firms appear to have enjoyed a ‘competitive advantage’ in taxation because of accounting rules that seem to prefer larger firms.

Figure 22
Effective Tax Rate – Fixed Sample

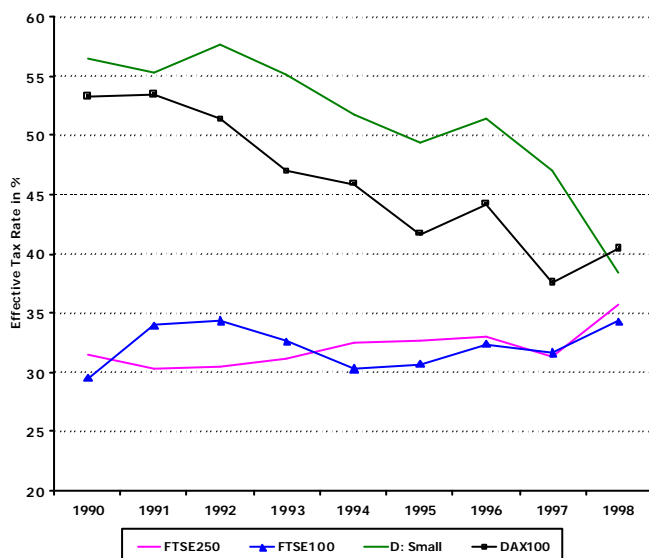


Figure 23
Effective Tax Rate – Full Sample

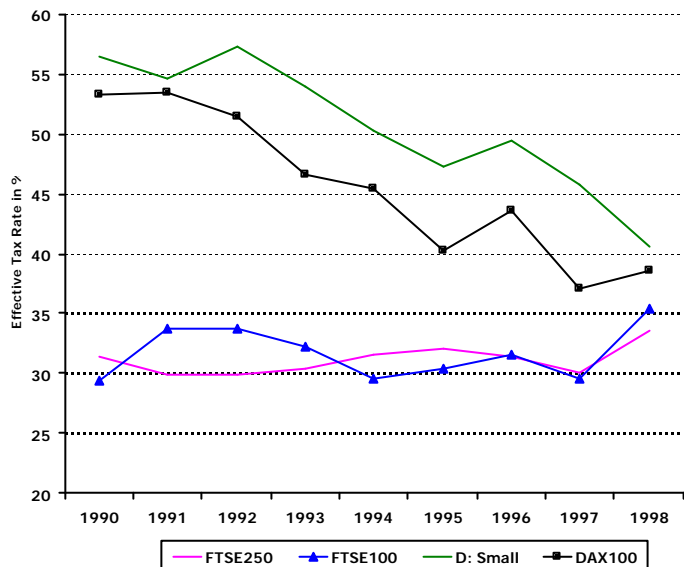


Figure 24
Effective Tax Rate Index –
Fixed Sample

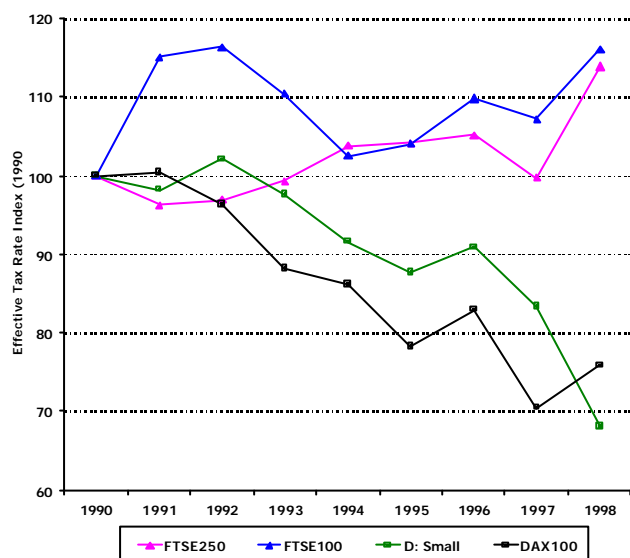
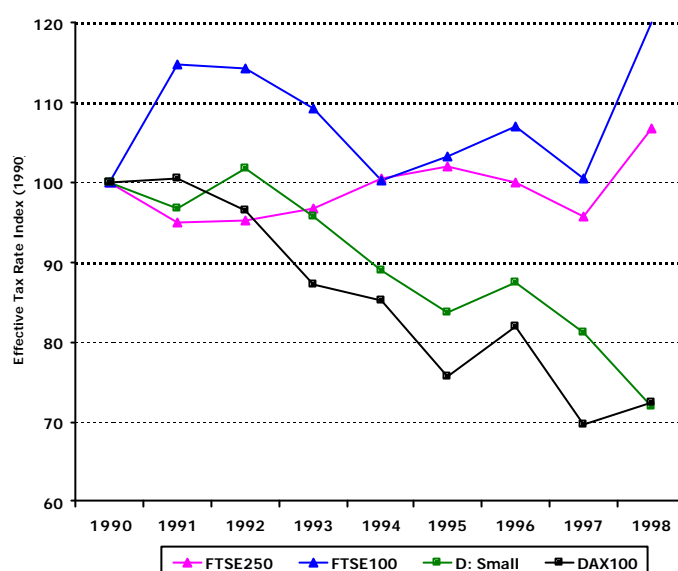


Figure 25
Effective Tax Rate Index –
Full Sample



3. Results of the Questionnaire Survey

The following third chapter outlines the results of the questionnaire survey that was sent to the chief executives of 264 British and 242 German firms. Some of the questions put to them were adapted from a similar survey carried out by Ansgar Richter in 1996; about half of the questions were asked for the first time. Where applicable, the results of the last survey are reported in conjunction with the results of the new survey.

The aim of this survey, which had the sponsorship of the Financial Times and Financial Times Deutschland, is to provide a snapshot of corporate restructuring in the two countries. It identifies changes in the degree of diversification; mergers and acquisitions as well as demergers and divestments, changes in the head office and in R&D. The purpose for this survey was to overcome the lack of firm level data on ongoing restructuring efforts in Europe. The survey was mailed out in early December 1999, with a reminder in February 2000. In total, 52 British firms and 31 German firms replied to the survey. The resulting response rate was 19.7% for Britain and 12.8% for Germany. Amongst the FTSE 100 companies, 18 firms replied whereas of the DAX 100 companies 8 firms returned the questionnaire.

The response rate was only about two thirds that of a similar survey conducted in 1996. Given the similar institutional sponsorship for both surveys¹⁰, other factors were found to have influenced this lower response rate. Compared with the last survey, about double the number of firms replied stating that they had a policy of not answering questionnaires. Unlike the last survey, some firms replied that the increase in the number of questionnaire surveys forced them to introduce such a policy. Others stated that they have reduced the number of staff normally responsible for such matters.

One of the intentions of this repeat questionnaire survey was to generate a panel. By matching the panel data on restructuring to that of performance, it was expected to link changes in structure to performance (*ceteris paribus*). However, the creation of such a panel was impossible as only 9 British and 8 German firms participated in both surveys.

Another issue faced was the fast changing nature of the composition of the various indexes. This in itself can be an indicator of the changing structure of the corporate sector in Britain and Germany. The analysis revealed that there were 7 new listings in the DAX 100 between the 01.07.1997 and the 31.12.1998, compared to only 1 of a similar nature in the FTSE 100¹¹. This difference in turn seems to support the notion that some fundamental changes are occurring within the German corporate model in the direction of Anglo-American financing structures. This can also be an indication that large German companies are turning increasingly to the capital market for their financing needs.

It also should be noted that there were some changes between the method and structure of the two surveys. First, the 1996 research asked questions regarding changes spanning as many as 10 years, compared to a five-year period for the recent survey. The results are nevertheless roughly comparable; Ansgar Richter (1997), the author of the last survey, noted that many firms who participated in his survey appeared to have had an organisational memory of about 5 years or less. Second, those questions that were adopted from the earlier survey were carefully edited. To summarise, results of the last survey are only indicative and cannot be compared perfectly to current results.

Respondent companies

The characteristic of the overall surveyed population was described in the first section of this chapter. However, as the entire population was invited to participate in this research, and only a portion of those decided to do so, a certain self-selection bias exists. This means that the body of respondent companies may not necessarily reflect the entire population in a

representative way. Testing was done for differences between the overall population identified above and for the firms that took part in the survey. It was found that there are no statistically significant differences between the two groups for each country. Variables that were used in this test¹² included the number of employees, total sales and several performance indicators such as pre-tax profit and return on capital employed. This indicates that there is no significant bias in the 'sample' of respondent companies.

Change in diversification

The first question addresses changes in the degree of diversification within the firm. In general, firms are considered to diversify if they expand their operations beyond their existing activities. In this respect, it is important that the new activities result in new products, which operate in different markets and that it might draw on new resources (Cosh, 1987 and Pass et al., 1988). In addition, others also distinguish between product diversification and technological diversification (Patel and Pavitt, 1994).

Most British and German firms diversified actively through mergers and acquisitions in the 1970s and 1980s, whereas others diversified their operation through internal development of unrelated lines of business. Schwalbach (1989, 1990), among others, claims that fifteen years ago British companies were in general among the most diversified in the world, whilst German companies were either highly specialised or large diversified conglomerates. This view is in part supported by Rondi et al. (1996), which established that in 1987, large British firms were, with an average of 5.7 three-digit industries, more diversified than large German companies engaged in 4.6 industries. Richter (1999) established that both British and German firms markedly reduced their degree of diversification between 1988 and 1994, although German firms to a much lesser extent. With this in mind, it is of great interest to identify any current trends toward conglomeration or de-conglomeration and the possible convergence of organisational structures in Britain and Germany.

It was asked: "Did your company change the degree of diversification over the period 1995 – 1999?" Possible answers ranged from reduced diversification substantially to increased diversification substantially (Table 3).

Table 3: Change in the Degree of Diversification

		1999		1996	
		UK	D	UK	D
Reduced substantially	Count	18	5	38	12
	%	34.6%	16.1%	53.5%	29.3%
Reduced somewhat	Count	3	6	18	9
	%	5.8%	19.4%	25.4%	22.0%
Stayed about the same	Count	16	10	5	6
	%	30.8%	32.3%	7.0%	14.6%
Increased somewhat	Count	8	8	8	9
	%	15.4%	25.8%	11.3%	22.0%
Increased substantially	Count	7	2	2	5
	%	13.5%	6.5%	2.8%	12.2%
Total number of firms	Count	52	31	71	41
	%	100.0%	100.0%	100.0%	100.0%

In total, 40% of all British, and 36% of all German firms replied that they had reduced the degree of diversification either somewhat or substantially. These figures contrast with those from the 1996 survey when almost 80% of all British and 51% of German firms indicated that they had reduced their degree of diversification in the previous five years. 29% of British and 32% of German respondents in this current survey stated that they had increased their degree of diversification. Just under a third of all firms in Britain and Germany were satisfied with their degree of diversification and had not altered it over the period 1996 to 1999.

In contrast to the earlier period, firms in both countries have shown a very similar diversification pattern. Almost as many firms increased their degree of diversification as decreased it, with the remaining ones not changing it. De-diversification, which was the prominent trend in the earlier survey, was replaced by a more balanced approach to diversification.

To draw any definite conclusions from these results would be premature, as they should first be compared and verified with results of other research projects. At this point in time, it is feasible to assume that the economy might have found a diversification equilibrium. With the number of firms reducing and increasing their degree of diversification in balance, the overall stock of firms with a constant degree of diversification remains fixed. Another possible explanation is that firms follow a more tailor-made, and therefore more sensible, approach to diversification.

The sample was also divided into smaller and larger firms. Size was thereby defined along the lines of the respective indices. In respect to diversification, it can be established that size does not appear to have any noteworthy influence on the approach of large

companies (i.e. FTSE 100 and DAX 100 firms) to de-diversification in both countries. Small British firms, however, seem to continue an aggressive drive towards de-diversification. The detailed results for small and large firms are reported in Appendix 12. It should be remembered that the low number of respondents, in particular for large German companies, limits the generalisation of the results.

To establish not only the changes but also the level of diversification, data on the degree of specialisation was collected from published accounts for the years 1994 to 1998¹³. The analysis was limited to the level of diversification in the largest non-financial firms listed in the FTSE 100 and DAX 100 due to the limited availability of data.

Table 4: Degree of Diversification Amongst the British and German Non-financial Firms Included in the FTSE & DAX 100

	Year	N	N-sector	Specialisation Index	Berry's Diversification Index
UK	1994	63	2.11	0.83	0.23
	1995	63	1.98	0.84	0.22
	1996	65	2.06	0.83	0.23
	1997	69	2.06	0.83	0.22
	1998	72	2.06	0.84	0.22
Germany	1994	69	2.38	0.77	0.30
	1995	72	2.33	0.80	0.27
	1996	73	2.30	0.80	0.28
	1997	73	2.32	0.79	0.29
	1998	69	2.35	0.79	0.28

Table 4 denotes the number of firms (N) in the sample for which data was available. To evaluate the degree of diversification, three diversification measures were calculated (number of sectors (N-Sector), specialisation index and Berry's diversification index). The column "N-Sector" depicts the average number of two-digit SIC-Code level sectors in which a firm operates¹⁴. The N-Sector measure of diversification is the simplest as it ignores the size and nature (relatedness) of activities. Due to its simplicity, it is amongst the most commonly used (Richter, 1999). The specialisation index measures the share of a firm's turnover derived from its largest sector. Although it gives an indication of a firm's focus, it

does not give any indication of the relatedness of its activities¹⁵. The third measure, Berry's diversification index D^{16} (Berry, 1975, p. 62) is an extension to the specialisation index and does take into account the activity in less important sectors.

Table 4 reveals two characteristics: first, large British firms seem to be more focused than German firms. All three indicators consistently support this finding over the five-year period from 1994 to 1998. Richter (1999) reports, whilst most small German firms are relatively specialised, the larger firms are highly diversified. One would naturally expect the diversification index to be higher amongst the largest firms than in the entire population. The literature on diversification in Britain and Germany is somewhat divided about the level and changes in diversification. For large British companies, however, the consensus appears to be that since the late 1980s they have reduced their degree of diversification. In respect to the German firms, the literature is less clear-cut, partly because of the influence of 'bifurcation'. (Bifurcation describes that most small German firms are highly specialised, whilst the larger firms are highly diversified). The results of this various studies seem to depend strongly on the sample size, and with it on the inclusion of smaller and SME-type firms (ditto).

Second, the degree of diversification (of the Top 100 firms) is fixed over this period in both countries. This finding is in line with the results of our questionnaire survey. As outlined above, the number of firms reducing and increasing the degree of diversification is roughly equal. Both effects cancel each other out. It is possible that a dynamically stable situation has been reached in which as many firms diversify than de-diversify. Taken together, there is no fundamental shift in the average degree of diversification in both countries¹⁷.

Mergers & acquisitions and demergers & divestments

Mergers and acquisitions as well as demergers and divestments are of particular importance in the debate on corporate restructuring. They allow firms to swiftly change their boundaries. In both the 1999 and 1996 surveys, the investigated firms were asked if mergers and acquisitions or demergers and divestments over the previous 5 years have significantly altered their organisation. The aim of this question is to establish to what degree firms make use of M&A as well as demergers and divestments as a 'tool' for corporate restructuring.

Table 5: Organisational Change Due to Mergers and Acquisitions or Demergers and Divestments¹⁸

		1999		1996	
		UK	D	UK	D
Mergers & Acquisitions	Count	44	22	60	38
	%	84.6%	71.0%	84.5%	90.5%
Demergers & Divestments	Count	27	10	39	12
	%	51.9%***	32.3%***	54.9%	28.6%
None of the above	Count	7	7	5	2
	%	13.5%	22.6%	7.0%	4.8%
Total Number of Firms		52	31	71	42

Cross-country comparison: *** p < 0.1

In 1999, 86% of all respondents in Britain and 71% in Germany stated that they had significantly altered their organisation through mergers and acquisitions. More than 90% of those firms that stated in question 1 (Table 1) that they increased or decreased their degree of diversification were involved in M&A activity. Amongst the firms that did not change the degree of diversification, about 60% of British and 40% of German firms were involved with mergers and acquisitions. This indicates that M&A is a very important way of increasing the degree of diversification, but also a very important vehicle in restructuring the corporation.

Analysing the high levels of M&A activity, one may infer that many firms still prefer growth through mergers and acquisitions to organic growth, although this statement is somewhat speculative as detailed data on the degree of organic growth is missing.

This is as such surprising, as some scholars have pointed out that growth through acquisition is typically less profitable than through internal growth. It appears that management values the speed of acquiring additional resources and knowledge more than the long-term benefits of building them up internally. The above data also points to the large degree of corporate restructuring activity that is going on in both countries; to some extent more so in Britain than in Germany. It also shows that firms actively use mergers or acquisitions to help to achieve their restructuring goals.

Many firms were also involved in divesting or demerging parts of their operation, again more so in Britain. In this case, firms generally separate themselves from part of the income stream. In a divestment, the income stream is sold to another party normally in return for a cash payment, in a demerger the firm's cash flow is split into two or more parts, but the

ownership remains fixed (at least at the time of the break-up). Both restructuring methods result in a reduction of the size of the firm and an increase in corporate focus.

As was known from the previous survey, divestments and demergers were only half as popular in Germany than in Britain. It was therefore interesting to see if the two countries have also converged in their use of this corporate restructuring tool. In addition, one would expect the numbers of mergers and acquisitions to roughly correspond with those of demergers¹⁹ and divestments, as by definition the number of divestments and acquisitions should be identical.

In this survey, more than half of the British respondents reported that they engaged in this activity, compared with only one third of the Germans. Seven firms in both countries stated that they had not altered their organisation in this way, amounting to 14% in Britain and 23% in Germany. This is a noteworthy increase since 1996 when the same figures were 7% and 5% respectively. In addition, statistically significant differences in respect to divestments and demergers could be identified for the two countries, but not so for mergers and acquisitions. The large and statistically significant difference in divestment and demerger activity is quite surprising; large British and German companies have not converged in respect of divestments and demergers. Various factors might have influenced this lack of convergence. One important reason is the difference in the taxation of divestment proceeds. With the changes of the tax law in Germany after 1st January 2002, one would have expected a high number of corporate divestments to occur. However, anecdotal evidence suggests that this has not yet occurred, which might partly lay in the falling stock market valuations in 2002 and 2003. Another factor may be differences in corporate governance. As an example, the German stakeholder model seems to allow firms to have lower returns on capital. This would mean that firms are under less pressure to sell off less profitable units. However, this conflicts with other evidence of this research, which showed that firms appear to be under the same pressure from both the financial as well as the product market in both countries. Another conclusion is that large firms might actively acquire private firms and those smaller firms that fall below the size threshold of this research. As the figures for acquisitions and divestments are considerably different, particularly for Germany, one can assume that the difference in the number of firms is drawn from outside the group of the largest 250 firms. Large firms actively acquire smaller firms.

Disentangling the data further by splitting it by size reveals that small firms are less active in mergers and acquisitions as well as demergers and divestments. About 18% of small British and 26% of small German firms stated that they were engaged in neither of the

two over the last five years. However, as established earlier in this chapter, small German firms are only about one quarter of the size of British firms. This would naturally imply that small firms are less active in the M&A market, as the activity in the M&A market requires certain minimums of organisational and financial strength. The detailed results for large and small firms are depicted in Appendix 13.

Over the last century, the various merger waves were characterised by distinct merger activity: horizontal, vertical or conglomerate. To identify the type of merger driving the current merger wave, the following question was asked: “If you have engaged in large-scale mergers and acquisitions, has your strategy been to merge with / acquire companies that until then were:” (answers depicted in Table 6).

Table 6: M&A Motive

		1999		1996	
		UK	D	UK	D
Your supplier or customer (Vertical expansion)	Count	7	3	3	9
	%	15.9%	13.6%	5.3%***	23.7%***
Competing in the same line of business (Horizontal expansion)	Count	42	19	53	32
	%	95.5%	86.4%	93.0%	84.2%
Competing in unrelated business (Unrelated diversification)	Count	4	1	9	13
	%	9.1%	4.5%	15.8%**	34.2%**
Total number of firms		44	22	57	38

Cross-country comparison: *p < 0.1, ** p < 0.05, *** p < 0.01

An overwhelming majority of all the firms that expanded their operation via M&A did so horizontally²⁰. More than 95% of British and 86% of German firms acquired other firms with this motive in mind; figures similar to those in the 1996 survey. About 15% of companies in both countries integrated with their suppliers, compared with 5% of the UK and 24% of German firms in 1996. Greater international competition seems to give anti-trust authorities the ability to allow horizontal mergers and acquisitions. Firms appear to make readily use of this newfound freedom. On the other hand, unrelated diversification appears to have largely gone out of fashion. In 1996, about a third of the German firms were expanding into unrelated lines of business, compared with 16% in Britain. Over the current survey period, less than 5% of German firms and less than 10% of British firms were doing so. By comparing the results of the current survey with those from 1996, it appears that German and British firms may be converging upon a similar approach in respect of M&A strategy. The

cross-country differences for unrelated diversification and vertical integration were statistically significant between the two countries in 1996, but are not so any longer. No important differences appear to exist between large and small firms (Appendix 14). It seems that the increasing integration of the European market helps to erode national differences. These results support the claim that firms appear to work in an increasingly similar environment facing comparable product and capital market pressures.

Over the last 10 years, most of the growth in international production has been via cross-border M&A rather than greenfield investment. Market entry through mergers and acquisitions over greenfield investment has essentially two advantages: fast track access to new markets and access to proprietary assets. “Cross-border M&As are growing so rapidly in importance precisely because they provide firms with the fastest way of acquiring tangible and intangible assets in different countries, and because they allow firms to restructure existing operations nationally or globally to exploit synergies and obtain strategic advantages” (UNCTAD, 2000, p. XXI).

To learn more about the geographic focus of M&A activity and the participation of large British and German firms in this latest cross-border M&A restructuring activity, firms were asked: “Has your M&A activity been mainly geared towards:” (Answers depicted in Table 7.)

Table 7: Geographic Focus of M&A Activity

		1999		1996	
		UK	D	UK	D
The domestic market	Count	8	8	17	12
	%	18.2%	36.4%	28.8%	32.4%
The international market	Count	33	6	30	11
	%	75.0%***	27.3%***	50.9%**	29.7%**
Roughly equal	Count	3	8	12	14
	%	6.8%**	36.4%**	20.3%*	37.8%*
Total number of firms		44	22	59	37

Cross-country comparison: * p < 0.1, ** p < 0.05, *** p < 0.01

British firms use mergers and acquisitions primarily to expand abroad, with 75% of all firms responding in this way. About 7% of British firms gave equal focus to their home and international markets. This is in contrast to German firms, of which 36% focused primarily

on their home market and another 36% on their home and international markets in roughly equal measure. These findings are generally in line with the more detailed results for small and large companies as shown in Appendix 13.

In respect of geographical focus, firms in each country seem to follow distinctly different paths. Cross-country differences are statistically significant for the 'international market' and the 'roughly equal' strategy. Here, no convergence between the two countries can be identified. It seems that British firms are far more determined to take part in the global rationalisation of assets and the attempt to open up new markets via mergers and acquisitions. Here, the 'strong' pound in the foreign exchange market might have supported their desire to internationalise.

Overall, the desire to increase the strategic focus of the firm, often in areas that promise high growth potential in the future, and to expand the geographic spread of the firm in its chosen industry were the main drivers of M&A activity in both countries. These were the recurring themes offered by managers when asked to elaborate on the motivation to engage in M&A or divestment activity.

Performance effects

Questions were posed in the 1999 survey about the perceived performance effects of both M&A and demerger and divestments activities. The question focused on how managers perceive the performance effects of their own actions. Sirrower (1997) established for US data from the 1980s that only 35% of all M&A announcements effects were in positive territory. This means that the market expects only about 35% of all merger and acquisition proposals to create value. The most prominent studies on the performance effects of mergers for Britain are by Limmack (1991) and Franks and Harris (1989), revealing that following the merger announcement shareholders in the target company enjoy a wealth increase of some 30% while shareholders in the bidding company do not lose. In the long run, however, Limmack found significantly negative returns for the shareholders in the bidding company in the UK; a finding which corresponds to Brühner's (1991) finding for Germany. One would therefore expect the results of the survey to be roughly in line with those of the empirical studies. A question about the perceived performance effects of mergers and acquisitions allows the comparison of the empirical results with the perceived results of management. This might help to explain why managers engage themselves in M&A activity despite the low propensity for such deals to succeed.

We asked: “Did your Merger & Acquisition activity have a positive impact on your share price?” (Answers depicted in Table 8.)

Table 8: Performance Effects of Mergers and Acquisitions

"Positive Impact on the Share Price?"		1999	
		UK	D
Yes	Count	26	9
	%	59.1%	40.9%
No	Count	5	6
	%	11.4%	27.3%
Not clear	Count	13	7
	%	29.5%	31.8%
Total number of firms		44	22

Almost 60% of British and just over 40% of German firms thought that their M&A activity had a positive impact on their share price. About one third of all respondents in both countries could not identify any clear effects. Only 11% of the British respondents thought their M&A activity had a negative impact on the share price, although 27% of German firms thought so. The above results were unaffected by the type of M&A activity, i.e. whether firms increased or decreased their degree of diversification via mergers and acquisitions. The change in the degree of diversification had no impact on the perceived performance of the transaction. Size, however, appears to have had an influence on performance. About half of all small British and German companies are of the opinion that mergers and acquisitions had a positive impact on performance, with the remaining indicating either a negative or no clear effect. Amongst large firms, more than 70% of British firms indicated a positive impact of mergers and acquisitions, whereas the same number of large German firms stated no clear effect. The results, classified by size, are depicted in the Appendix 16.

Based on the empirical evidence outlined above, a far gloomier evaluation of the performance effects was expected. It is difficult to assess whether the obtained results were a correct assessment of the performance effects, or if they are the result of misperception or deliberate misrepresentation. Perhaps managers have an inherent incentive to overestimate the performance. However, assuming that managers do indeed report the performance effects correctly, one would have to conclude that managers appear to systematically overestimate the performance effects of their merger and acquisition activity. Prospect theory might in

part be able to explain this systematic misperception. In any case, the above data gives reason to believe that managers do indeed act rationally when entering into a merger or acquisition process, but might systematically overestimate its performance impact.

For similar reasons, we also asked about the performance effects of divestments and demergers on the share price of the firm. “Did your Divestment/Demerger activity have a positive impact on your share price?” The results are depicted in Table 9 below. Almost 60% of the British and more than 40% of the German respondents claimed that the reduction in the size of the company through divestments had a positive effect on their share price - a similar result to the perceived performance effects of M&A. About 10% claimed that it had no effect, with 33% and 44% of the respondents in the respective countries stating that the performance effects were unclear. The results stratified by size are shown in Appendix 17.

Table 9: Performance Effects of Divestments and Demergers

"Positive Impact on the Share Price?"		1999	
		UK	D
Yes	Count	16	4
	%	59.3%	44.4%
No	Count	2	1
	%	7.4%	11.1%
Not clear	Count	9	4
	%	33.3%	44.4%
Total number of firms		27	9

The relative low number of respondents, in particular for Germany, does not allow us to draw overall conclusions from this question.

Management buy-outs

Management buy-outs (MBOs) and leveraged buy-outs (LBOs) are important elements in the process of corporate restructuring and were a dominant feature of the capital markets in the US and Europe in the 1980s. As Thompson and Wright (1987, p. 8) point out, management buy-outs were a predominantly European feature, focusing on the “re-establishment of ownership and control in the hands of operating management”. A management buy-out is normally backed by venture capitalists that, together with the new management, take an

equity stake in the newly formed company. The remaining purchasing price is normally financed by debt capital, often below investment grade (junk bonds). In contrast to the European management buy-outs, American buy-outs do not necessarily include the incumbent management. American buy-outs also involved much larger buy-out targets. The buy-out concept has its origin in the United States, and spread to Europe via Britain. Wright et al. (1993) documents that many, in particular British, management buy-outs were driven by the separation of functioning business units from insolvent companies. The authors have shown, however, that buy-outs from insolvent business have a “significantly higher risk of failure than general buy-outs” (p. 20). Other factors driving corporate buy-outs are, following Thompson and Wright (1987), the death of the owner, or disposals of underperforming or strategically unimportant lines of business. Lastly, the privatisation of formerly state-owned companies was a motivation for management buy-outs. This was an important feature of German management buy-outs.

We were interested to see if management buy-outs are still used as an important restructuring vehicle in the late 1990s. Indirectly it was also of interest to see if management buy-outs are a restructuring tool primarily used in recessive times, or if it is also an important feature in boom times. To establish the level of and change in MBO activity in Britain and Germany, we asked if the company has sold any part of its operation via management buy-outs since 1995. We received the following answers on Table 10:

Table 10: Management Buy-Outs

"Sold Any Part of Your Operation via MBO?"		1999		1996	
		UK	D	UK	D
Yes	Count	19	5	44	9
	%	37.3%	16.1%	59.5%	21.4%
No	Count	32	26	30	33
	%	62.7%	83.9%	40.5%	78.6%
Total number of firms		51	31	74	42

Cross-country differences are significant at the 5% level in 1999, and at the 1% level in 1996

The popularity of MBOs has declined in both countries since 1996. This was particularly prominent amongst British firms. In Britain, about 37% of all respondents said that they had engaged in an MBO since 1995, and were more than twice as likely than their German counterparts to do so. About one third of the British firms experienced two MBOs,

with another third having three MBOs over the last five years. German firms, however, only executed one MBO per firm. Particularly active in MBOs were those British firms that stated in question 1 that they aimed to reduce their degree of diversification (14 out of those 19 that were involved in an MBO). Small British firms seem to be particularly active in divesting parts of their operation via management buy-outs (Appendix 18).

The results show that the use of management buy-outs as a tool for corporate restructuring has slowed considerably in the last five years than compared with the early parts of the 1990s. In Britain, firms mainly used this restructuring vehicle over this investigation period to reduce their degree of diversification. The buy-out of insolvent businesses appears to have decreased in importance, a likely result of lower insolvency rates common in times of economic prosperity. This would imply that the success rates of buy-outs in general were higher than over the comparable period five years ago.

Joint ventures and strategic alliances

Joint ventures and strategic alliances are considered hybrid modes of organisation. On the organisational continuum between coordination through hierarchy on the one hand and market based coordination using the price mechanism on the other, joint ventures and strategic alliances are set in between (Lorange and Roos, 1992). Seen along the organisational continuum, joint ventures are closer to hierarchies, and strategic alliances closer to markets. Joint ventures and strategic alliances are used for a variety of objectives. Joint ventures create a new legal entity, formed by two or more businesses contributing capital and knowledge to the joint venture. They are often of limited scope and duration (Weston et al., 1997). Strategic alliances are a co-operative agreement between two or more firms to share certain services and/or knowledge for the benefit of both parties. Hill (2000) claims that the 1980s and 1990s saw an explosion of the number of strategic alliances, which are often used as a mode of entry into foreign markets. Strategic alliances are also used to share large fixed costs in the development of new products or processes, to bring together complimentary skills and assets that neither company could easily develop on its own, and to establish technological standards (Lorange and Roos, 1992 and Contractor and Lorange, 1988). Similar motives drive joint ventures.

Joint ventures and strategic alliances share an inherent problem, namely that firms enter co-operative agreements with potential and actual competitors. Critics, for example, claim that the success of the Japanese machine tool and semiconductor industry largely rests

on technology that was transferred from American firms in strategic alliances (ditto). In addition, firms do not always command sufficient control over the entity, limiting the degree of influence, which in some cases might be necessary to align the joint venture or strategic alliances with its global strategy or to protect it from expropriation by the partner.

It is of great interest to identify as to whether the general trend towards joint ventures and strategic alliances has changed over the last five years. Since both joint ventures and strategic alliances have similar strategic objectives, the question was combined in both surveys to: “have you engaged in a policy of joint ventures and strategic alliances with other partners?”. The results are depicted in Table 11:

Table 11: Joint Ventures and Strategic Alliances

		1999		1996	
		UK	D	UK	D
Yes	Count	23	13	38	18
	%	44.2%	41.9%	51.4%	42.9%
No	Count	29	18	36	24
	%	55.8%	58.1%	48.6%	57.2%
Total number of firms		52	31	74	42

Joint ventures and strategic alliances have been of equal importance for British and German industrial firms. 44% of British and 42% of German said that they had been involved in a joint venture or strategic alliance. Joint ventures and strategic alliances include, on average, only minor parts of the organisation. Most respondents indicated that only about 5% of sales was generated by a joint venture or strategic alliance²¹. This indicates that those firms that enter joint ventures or strategic alliances are well aware of the difficulties of these hybrid forms of organisation. However, this form of corporate restructuring is clearly favoured amongst large firms, of which more than two thirds indicate their use for both countries (see Appendix 19 for details). Comparing the results of the current survey with those from the 1996 survey, it appears that German firms had not changed their approach to this form of restructuring, whereas British firms slightly reduced the use of joint ventures and strategic alliance by about 8%. Comparing these results with those of question 4b, it becomes apparent that British firms have reduced the number of joint ventures and strategic alliances in favour of mergers and acquisitions as their primary form of market entry. Those British firms that engaged in joint ventures and strategic alliances did so far more frequently

than the German firms. On average, they were involved in 4.1 such agreements per firm, compared with a frequency of 2.5 for the German firms. In the most extreme case, a firm from the British food industry was involved in 20 such joint ventures and strategic alliances.

In conclusion, German firms kept their involvement in joint ventures or strategic alliances constant whereas British firms have slightly reduced it. Firms in both countries seem to have converged to the same level of activity, which might be preconditioned by the level of market necessities²² as opposed to firm specific choices.

Motivation for structural change

Corporate restructuring is widely associated with the disciplining of poorly performing management and the reorganisation of underperforming firms (Mayer, 1998). Well functioning corporate governance through internal or external control mechanisms and pressures by competitive forces should ensure that the firm functions optimally now and in the future. Fundamentally, corporate governance is concerned with the protection of investors' rights. An efficient corporate governance system should ensure that investors get some share of the return on their investment, and ensure that managers do not expropriate the capital for sub-optimal investment projects (Shleifer and Vishny, 1997).

Here we were interested to identify the main drivers behind the corporate restructuring efforts of the largest British and German companies. In particular we were interested to see the level of corporate governance performed by competitive forces and pressures by the capital market, and if significant differences persist between the two countries. Berglof (1997), for example, argues that whilst competitive forces might mitigate the agency problems, they are themselves insufficient to solve it. Prowse (1998, cited by Webb, 1998, p. 3) argues that an “an efficient corporate governance mechanism depends upon the right mix of the competitive environment, the legal protection available to outside financiers, ownership structure and the strength of contractual mechanisms in financial contracts”.

We asked: “If your company has changed its corporate structure significantly over the last five years, was this due to increasing competition in the product market, pressure from the capital market or both? Please rate the importance of both factors between 1=low and 5=high”. The results are presented in Table 12.

Table 12: Motivation for Change

		Product Market Pressure		Capital Market Pressure	
		UK	D	UK	D
1 (Low)	Count %	2 5.7%	1 4.0%	10 32.3%	7 29.2%
2	Count %	4 11.4%	3 12.0%	7 22.6%	7 29.2%
3 (Medium)	Count %	8 22.9%	4 16.0%	2 6.5%	4 16.7%
4	Count %	14 40.0%	10 40.0%	6 19.4%	3 12.5%
5 (High)	Count %	7 20.0%	7 28.0%	6 19.4%	3 12.5%
Mean		3.6	3.8	2.7	2.5
Number of firms	Count	35	25	31	24

Companies in both countries felt that their corporate restructuring was more in response to product market than to capital market pressure. Product market pressure had an average score of 3.6 in Britain and 3.8 in Germany. Capital market pressure returned an average score of 2.7 for British firms and 2.5 for German firms. This demonstrates that German companies are apparently becoming almost as responsive to ‘shareholder value’ considerations as their British counterparts. Both countries seem to converge in respect to product and capital market pressures. The results are very similar for the two countries, indicating that the European market for both goods and capital is functioning relatively well, and that in respect to those two corporate governance variables, no considerable differences exist. The diversification strategy of firms (increase or decrease in the degree of diversification) had thereby practically no influence on the above results. Disentangling the data further by size of the respondents’ company shows that product market pressure seems to be particularly intense for both large British and small German firms (Appendices 20 and 21).

Some individual companies added qualifying comments. One British engineering company reported that “price pressure from our customer base has been and still is extreme”. Another said: “the real driver is the need to focus on customer needs fast”. A leading oil company spoke of “intensified competition due to market liberalisation and new entrants”. One British company noted that the strength of the pound had enhanced the case for a narrower focus, and for getting out of sectors where little product differentiation was

possible. Another spoke of shifting from low-growth “old economy” businesses to high-growth activities.

One British company spoke of the need for simpler corporate structures, which analysts could understand, helping them to forecast performance more easily. Several German companies referred to “shareholder value” as a factor in their decision-making. One of them commented that the capital market had to be taken seriously, but “we should not surrender unconditionally.”

The performance effects of corporate restructuring

As a last step, the various measures of corporate restructuring that were discussed above were related to the various performance measures of the first part of this chapter.

Four performance measures were selected (as dependent variable) which were each regressed against corporate restructuring efforts. Each regression was controlled for the country fixed effect. The regression coefficients are depicted in Table 13. Each row of the table refers to a different bivariate regression. The performance effects were: return on shareholders equity %, return on capital employed %, operating profit margin %, pre-tax profit margin %. The selected measures of corporate restructuring were: The degree of diversification (divers), involvement in a merger and acquisition (MA+), involvement in a divestment and demerger (MA-), involvement in a vertical (ma_1), horizontal (ma_2) or conglomerate (ma_3) merger or acquisition. In addition, it was tested if there is a correlation between the type of geographic expansion and performance. The variables tested for were expansion in the domestic market (ma_4), international market (ma_5) and roughly equal (ma_6). The involvement in a management buy-out (mbo_1) or joint venture and strategic alliance (jv) were the last corporate restructuring activities analysed.

Table 13: Correlation Coefficients of Performance Variables with Restructuring Methods

	Return on s'holders equity %	Return on capital employed %	Operating profit margin %	Pre-tax profit margin %
DIVERS99	7.99	-2.17	0.08	-0.42
MA+	-18.06	3.10	-2.55	-3.04
MA-	-32.31	-0.25	2.40	2.75
MA_1	40.20	-15.07	-3.90	-4.77
MA_2	-8.96	-3.01	-0.68	-1.41
MA_3	43.42	-23.98	-8.26**	-13.92***
MA_4	-0.73	2.94	3.09	1.92
MA_5	-17.01	1.49	-6.15***	-6.75
MA_6	18.26	-5.10	3.32	4.20
MBO_1_99	21.06	-14.62	0.88	1.28
JV	18.28	3.90	0.63	0.06

*: 10% Significance Level

**: 5% Significance Level

***: 1% Significance Level

Interpreting the results, it has to be stated that most correlations did not produce any significant results. However, the involvement of firms in conglomerate type mergers had a significant negative impact on operating profit and pre-tax profit. The involvement in a conglomerate merger resulted on average in an 8.2% reduction in operating profit margin and a 13.9% reduction in pre-tax profit. In addition, the involvement in an international merger had a negative impact on the operating profit margin of 6.1 percent, but no impact on any of the other performance measure.

4. Summary and Conclusion

This paper explores the ongoing corporate restructuring efforts amongst the largest 250 non-financial firms in Britain and Germany. In its first part, publicly available data for the

population group is used to establish development patterns in the size and performance of those firms during the 1990s. It was established that larger firms - those that belong to the FTSE 100 and DAX 100 indices – are roughly of equal size. This is in contrast to the smaller firms in the population, where British firms seem to be about five times larger than their German counterparts. Comparing firm performance indicators for both countries is somewhat limited, as both rely on two distinctly different accounting systems. Certain identities could be identified though. First, large British and German firms seem to have converged to a similar level of return on shareholder equity. Second, there is a distinct difference in the level of return on capital employed and operating margin between the two countries, which most likely is the result of differences in accounting practices. Third, large British firms appear to have both a higher operating margin and return on capital employed. The same performance identities cannot be established for Germany. If anything, smaller firms might be slightly more successful than larger ones. Fourth, the capital employed per employee is stable for Britain since the mid 1990s. The second part of this paper outlines the results of a questionnaire survey that was sent to the chief executives of the target firms; the largest 250 non-financial firms in both Britain and Germany. In contrast to a similar survey that was conducted in 1996, it was established that almost as many firms increased their related diversification as decreased it, with the remaining ones not changing their degree of diversification. The most prominent form of corporate restructuring was still the horizontal expansion via mergers and acquisitions. Expansion into unrelated lines of business was, unlike in the last survey, negligible. In addition, in particular British firms used M&A to expand their business internationally. Asked about the perceived performance effect of the M&A activity, almost 60% of British and 40% of German respondents claimed that M&A has positively influenced their share price. Companies in both countries still attempt to reduce the number of layers, albeit the British ones from a higher initial level. In addition, it appears that firms in both countries have significantly increased the number of headquarter staff over the last five years. In another question, managers were asked to rank the influence of both product market pressure and capital market pressure on their decision to restructure the operation. Companies in both countries felt that their corporate restructuring was more in response to product market than capital market pressure. It seems that German companies are becoming almost as responsive to ‘shareholder value’ consideration as their British counterparts.

Appendix

Appendix 1

Size: Employment

Fixed Sample

year	FTSE250			FTSE100			Small: D			DAX100		
	Average	N	StDev	Average	N	StDev	Average	N	StDev	Average	N	StDev
1990	11,212	128	15,547	53,532	55	56,600	2,141	108	2,915	42,223	63	66,836
1991	11,128	127	15,615	53,567	56	55,221	2,316	110	3,250	43,287	66	67,635
1992	11,217	127	16,665	50,085	56	51,909	2,349	109	3,180	45,763	64	70,822
1993	11,034	128	15,878	47,703	55	49,105	2,281	114	3,091	43,592	65	67,507
1994	11,287	128	16,015	45,920	55	48,108	2,250	112	2,894	43,186	65	66,060
1995	11,018	129	13,837	46,615	55	47,898	2,390	96	3,010	44,478	63	64,830
1996	11,580	127	14,098	49,931	55	49,871	2,361	97	2,798	43,605	65	64,675
1997	11,383	129	13,372	51,210	54	50,924	2,168	122	2,729	43,549	66	64,646
1998	11,745	128	13,213	53,118	55	51,664	2,201	118	2,616	43,716	66	67,628

Full Sample

year	FTSE250			FTSE100			Small: D			DAX100		
	Average	N	StDev	Average	N	StDev	Average	N	StDev	Average	N	StDev
1990	11,265	132	15,343	53,674	56	56,093	2,141	108	2,915	42,223	63	66,836
1991	10,910	134	15,328	52,309	59	54,318	2,291	114	3,197	42,865	67	67,209
1992	10,828	136	16,262	47,567	61	50,817	2,336	114	3,116	45,285	65	70,372
1993	10,537	140	15,394	45,178	61	47,839	2,232	123	2,992	42,565	67	66,743
1994	10,300	148	15,264	42,822	62	46,818	2,238	120	2,806	41,630	68	64,988
1995	10,039	152	13,226	42,830	63	46,605	2,280	113	2,808	44,807	69	66,585
1996	10,253	157	13,294	45,192	64	48,453	2,219	120	2,595	45,371	73	67,644
1997	10,215	167	12,861	43,490	68	48,736	2,058	155	2,491	43,903	76	66,570
1998	10,297	179	12,550	44,799	71	49,605	2,125	153	2,382	49,174	78	82,787

Appendix 2

Size: Sales

Fixed Sample

Sales	UK (£)						Germany (€)					
	FTSE250			FTSE100			Small: D			DAX100		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	834,465	126	971,401	4,887,939	56	7,352,721	245,371	122	384,714	5,539,554	65	8,295,719
1991	857,483	125	1,017,853	5,073,926	57	7,291,963	270,719	121	399,732	5,941,378	67	8,967,413
1992	877,109	125	1,029,904	5,184,758	57	7,571,866	281,488	121	405,339	6,319,424	66	9,475,563
1993	948,609	125	1,103,796	5,676,641	56	8,431,381	280,300	123	399,076	6,263,657	66	9,165,593
1994	1,013,749	124	1,152,709	5,788,624	56	8,384,323	296,968	122	398,544	6,676,362	66	9,722,652
1995	1,123,616	125	1,240,948	6,386,418	56	9,145,849	330,717	122	460,978	7,202,304	66	10,464,869
1996	1,194,825	123	1,259,806	7,024,773	56	10,413,954	324,935	121	432,117	7,559,204	66	11,174,874
1997	1,193,682	125	1,263,298	6,835,735	55	9,909,216	350,499	120	470,643	8,454,940	66	12,544,748
1998	1,244,214	124	1,288,681	6,545,241	56	7,933,017	349,138	119	450,823	8,816,997	66	13,516,362
Average	1,031,972			5,933,784			303,349			6,974,869		

Full Sample

Sales	UK (£)						Germany (€)					
	FTSE 250			FTSE100			Small: D			DAX100		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	832,683	130	958,173	4,856,871	57	7,290,550	245,371	122	384,714	5,539,554	66	8,295,719
1991	834,191	132	1,001,101	4,993,863	60	7,114,656	266,520	127	391,337	5,874,344	68	8,917,390
1992	841,148	134	1,010,314	4,981,308	62	7,299,882	273,397	130	393,241	6,246,057	67	9,422,661
1993	898,724	136	1,079,905	5,428,242	62	8,056,256	269,396	136	382,263	6,105,548	68	9,074,564
1994	916,382	143	1,112,506	5,436,094	63	7,981,801	287,299	136	380,576	6,263,491	71	9,490,993
1995	1,001,471	147	1,193,679	5,908,245	64	8,665,398	308,926	145	428,041	7,088,862	73	10,563,767
1996	1,023,124	152	1,201,668	6,421,390	65	9,797,980	303,660	154	410,139	7,686,643	74	11,330,234
1997	1,055,789	162	1,223,614	6,044,915	69	9,025,528	327,965	153	443,038	8,543,573	74	12,614,947
1998	1,079,028	174	1,220,274	5,738,243	72	7,223,111	329,733	154	422,729	10,645,482	76	19,757,907
Average	942,505			5,534,352			290,252			7,110,395		

Appendix 3 Market Value

Fixed Sample

MV	UK						Germany					
	FTSE250			FTSE100			Small: D			DAX100		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	422,934	130	486,654	3,470,586	56	4,106,069	122,628	108	135,772	1,773,728	61	2,366,905
1991	513,786	129	536,820	4,252,392	57	4,817,512	110,209	117	119,346	1,887,857	63	2,784,303
1992	553,524	129	581,785	4,492,438	57	5,007,304	99,197	119	117,530	1,756,918	63	2,686,110
1993	731,357	129	693,692	5,412,883	56	6,042,323	121,519	123	132,646	2,413,459	63	3,623,665
1994	754,178	128	661,788	5,600,697	56	5,696,708	120,313	124	132,875	2,535,303	63	3,677,006
1995	778,791	129	685,703	6,487,065	56	7,172,970	102,193	125	111,836	2,611,956	66	4,044,893
1996	929,268	127	763,871	7,577,719	56	8,157,240	94,212	125	108,422	3,543,239	66	5,938,780
1997	928,637	129	730,535	8,899,668	55	11,089,413	114,142	124	123,096	4,606,637	66	7,557,901
1998	907,648	128	768,011	10,959,009	56	14,116,615	120,447	122	135,816	5,178,476	66	8,454,127
Average	724,458			6,350,273			111,651			2,923,064		

Full Sample

MV	UK						Germany					
	FTSE250			FTSE100			Small: D			DAX100		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	417,224	134	480,976	3,440,125	57	4,075,736	122,628	108	135,772	1,773,728	61	2,366,905
1991	496,244	136	530,530	4,152,963	60	4,714,956	109,654	119	118,448	1,887,857	63	2,784,303
1992	532,612	138	575,419	4,284,722	62	4,853,183	99,471	122	116,579	1,756,918	63	2,686,110
1993	690,279	141	681,683	5,261,285	62	5,793,561	122,731	129	131,398	2,413,459	63	3,623,665
1994	687,093	148	647,158	5,411,351	63	5,447,375	120,031	133	131,247	2,474,579	65	3,635,858
1995	708,086	152	670,025	6,214,558	64	6,835,102	102,437	139	109,862	2,465,453	72	3,903,947
1996	831,885	157	739,456	7,233,842	65	7,769,103	94,108	146	104,180	3,925,325	75	7,325,705
1997	847,247	167	716,917	8,036,845	69	10,264,282	112,046	154	116,959	4,912,744	76	8,671,062
1998	867,194	179	748,392	9,875,657	72	12,834,835	116,643	157	127,700	6,966,540	78	14,476,888
Average	675,318			5,990,150			111,083			3,175,178		

Appendix 4 Dividend Payment

Fixed Sample

Dividend PS	UK						Germany					
	FTSE250			FTSE100			Small: D			DAX100		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	8.3	130	8.9	8.6	56	6.5	1.9	91	2.2	1.0	61	1.6
1991	8.4 1.1%	129	8.4	9.3 7.1%	57	6.9	1.8 -3.8%	113	2.3	0.9 -2.0%	65	1.7
1992	8.2 -2.3%	129	8.7	9.4 1.6%	57	7.0	1.9 4.0%	118	3.7	0.8 -16.3%	64	1.4
1993	8.6 5.5%	129	9.2	10.2 8.7%	56	7.7	2.0 4.4%	123	4.4	0.8 0.7%	64	1.5
1994	9.3 8.2%	128	9.5	11.2 9.5%	56	8.2	1.9 -4.9%	123	2.9	0.9 16.0%	66	2.0
1995	9.8 5.2%	129	8.2	12.5 11.7%	56	8.9	2.0 4.9%	124	3.9	0.6 -34.7%	66	1.1
1996	10.8 10.0%	127	8.5	13.5 8.3%	56	9.4	1.9 -5.4%	125	3.4	0.7 14.2%	66	1.2
1997	11.3 5.0%	129	9.1	14.2 4.9%	55	10.2	2.6 38.7%	124	8.5	0.9 33.3%	66	1.6
1998	12.4 9.6%	128	10.5	15.3 8.0%	56	10.5	3.1 18.4%	120	13.5	1.1 20.4%	66	1.9
Average	9.7			11.6			2.1			0.9		

Full Sample

Dividend PS	UK						Germany					
	FTSE250			FTSE100			Small: D			DAX100		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	8.12	134	8.9	8.59	57	6.5	1.91	91	2.2	0.96	61	1.6
1991	8.01 -1.4%	136	8.3	9.17 6.7%	60	6.7	1.82 -4.4%	114	2.3	0.94 -2.0%	65	1.7
1992	7.72 -3.6%	138	8.6	9.37 2.2%	62	6.7	1.88 3.2%	123	3.7	0.79 -16.3%	64	1.4
1993	8.05 4.2%	141	9.1	10.49 12.0%	62	7.6	1.97 4.9%	131	4.3	0.79 0.7%	64	1.5
1994	8.57 6.6%	148	9.2	11.31 7.8%	63	8.1	1.86 -5.7%	136	2.8	0.90 12.8%	69	1.9
1995	8.85 3.3%	152	8.0	12.48 10.4%	64	8.9	1.87 0.5%	142	3.7	0.58 -35.1%	74	1.1
1996	9.45 6.7%	157	8.4	13.73 10.0%	65	9.5	1.80 -3.7%	150	3.3	0.66 13.9%	75	1.1
1997	9.85 4.2%	167	8.9	14.36 4.6%	69	10.3	2.26 25.6%	155	7.7	0.88 32.4%	76	1.5
1998	10.43 5.9%	179	9.9	15.22 6.0%	72	10.9	2.55 12.6%	155	12.0	1.06 21.0%	78	1.7
Average	8.8			11.6			1.99			0.84		

Performance Measures

Appendix 5 Return on Shareholder Equity

Fixed Sample

ROSE Margin %	UK									Germany								
	FTSE250			FTSE100			Total			Small: D			DAX100			Total		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	21.1	129	20.8	28.7	55	41.6	23.4	184	28.7	7.3	124	21.7	10.8	65	11.1	8.5	189	18.8
1991	16.5	129	18.1	23.8	56	33.8	18.7	185	24.1	8.4	124	18.1	10.9	66	11.5	9.2	190	16.1
1992	14.3	129	14.8	22.9	56	31.9	16.9	185	21.7	4.4	122	32.0	1.3	66	39.3	3.3	188	34.7
1993	17.4	127	22.6	27.2	54	48.3	20.3	181	32.6	2.7	123	38.6	4.1	63	21.0	3.2	186	33.6
1994	19.6	127	23.5	16.2	53	19.3	18.6	180	22.3	5.6	124	37.2	11.4	63	16.3	7.5	187	31.8
1995	17.7	128	16.2	13.0	55	41.1	16.3	183	26.2	4.5	122	30.3	13.5	64	45.1	7.6	186	36.2
1996	17.3	125	16.8	17.3	54	50.2	17.3	179	30.8	4.1	122	41.3	19.2	64	35.8	9.3	186	40.1
1997	19.9	125	32.4	28.8	53	61.6	22.6	178	43.2	10.5	119	23.4	14.4	66	37.9	11.9	185	29.4
1998	22.2	123	43.5	23.8	52	57.3	22.6	175	47.9	10.5	120	41.7	10.2	63	40.0	10.4	183	41.0
Average	18.4			22.4			19.6			6.4			10.6			7.9		

1% Trimmed Mean on both sides of the distribution per country

Full Sample

ROSE Margin %	UK									Germany								
	FTSE250			FTSE100			Total			Small: D			DAX100			Total		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	21.0	133	20.7	26.0	57	45.1	22.5	190	30.1	7.3	124	21.7	10.8	65	11.1	8.5	189	18.8
1991	16.5	136	26.6	20.2	60	41.0	17.7	196	31.7	8.9	130	19.0	11.0	67	11.4	9.7	197	16.8
1992	14.6	137	15.3	22.5	61	30.6	17.0	198	21.5	5.1	131	31.2	1.5	67	39.1	3.9	198	34.0
1993	17.0	139	25.1	26.7	60	45.8	19.9	199	32.9	4.8	136	39.6	4.4	65	21.0	4.7	200	34.7
1994	19.0	146	22.9	16.4	60	18.5	18.2	206	21.7	7.7	138	36.4	11.9	69	18.9	9.1	207	31.7
1995	18.0	151	17.7	13.0	63	38.8	16.5	214	25.8	6.8	144	30.8	14.6	72	42.7	9.4	216	35.3
1996	19.0	154	27.2	14.3	64	50.4	17.6	218	35.6	8.1	155	40.9	19.8	73	34.0	11.8	228	39.2
1997	20.4	162	31.0	21.8	67	59.9	20.8	229	41.4	13.0	150	24.6	15.5	76	35.8	13.9	226	28.8
1998	18.6	172	38.1	20.1	67	52.8	19.0	239	42.6	9.4	154	42.2	18.0	74	32.9	12.2	228	39.6
Average	18.2			20.1			18.8			7.9			12.0			9.2		

1% Trimmed Mean on both sides of the distribution per country

Appendix 6

Return on Capital Employed

Fixed Sample

Average of ROCE % stable s.	UK									Germany								
	FTSE250			FTSE100			Total			Small: D			DAX100			Total		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	23.5	127	16.5	27.8	55	25.2	24.8	182	19.6	14.2	124	9.7	13.4	65	7.3	13.9	189	8.9
1991	20.0	124	17.1	24.4	56	23.2	21.4	180	19.3	14.5	125	10.0	12.5	67	7.5	13.8	192	9.2
1992	18.3	126	16.5	25.3	57	25.5	20.4	183	19.9	13.4	122	12.3	10.5	66	8.4	12.4	188	11.2
1993	18.9	126	16.3	26.4	55	30.2	21.2	181	21.7	11.2	121	11.5	8.7	65	8.3	10.3	186	10.6
1994	21.1	126	18.1	28.2	55	31.1	23.2	181	23.0	12.1	120	10.8	10.3	65	8.3	11.5	185	10.0
1995	20.3	125	13.8	27.6	54	27.4	22.5	179	19.2	11.3	122	11.3	11.7	65	9.0	11.4	187	10.5
1996	21.9	123	16.4	25.0	52	17.1	22.8	175	16.6	9.6	122	11.0	10.3	63	6.9	9.9	185	9.8
1997	24.8	124	20.6	29.1	52	24.6	26.1	176	21.8	11.8	122	10.1	12.5	65	8.3	12.1	187	9.5
1998	25.2	123	21.1	34.0	55	31.8	27.9	178	25.1	13.1	115	10.4	12.3	64	8.6	12.8	179	9.8
Average	21.5			27.6			23.4			12.4			11.4			12.0		

1% Trimmed Mean on both sides of the distribution per country

Full Sample

Average of ROCE %	UK									Germany								
	FTSE250			FTSE100			Total			Small: D			DAX100			Total		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	23.3	131	16.4	30.6	57	33.3	25.5	188	23.0	14.2	124	9.7	13.4	65	7.3	13.9	189	8.9
1991	19.3	132	17.4	26.8	60	30.5	21.6	192	22.5	15.1	131	10.4	12.6	68	7.4	14.2	199	9.5
1992	19.7	136	24.7	24.7	62	24.5	21.3	198	24.7	14.0	129	12.4	10.6	67	8.4	12.8	196	11.3
1993	18.9	136	15.9	31.0	62	48.2	22.7	198	30.4	12.3	134	11.9	9.2	67	8.8	11.3	201	11.0
1994	19.8	147	19.1	29.9	63	36.5	22.9	210	25.9	13.2	133	11.1	11.2	71	9.6	12.5	204	10.6
1995	24.1	149	46.5	40.9	64	70.5	29.2	213	55.2	12.9	145	12.3	12.6	73	9.6	12.8	218	11.4
1996	21.7	152	17.3	40.9	64	68.0	27.4	216	40.5	12.0	151	11.7	12.2	74	9.8	12.1	225	11.1
1997	27.1	163	27.1	31.3	67	35.4	28.3	230	29.8	13.0	153	10.6	13.3	75	9.0	13.1	228	10.1
1998	33.7	175	69.2	33.8	71	39.6	33.7	246	62.1	14.0	147	11.0	12.6	74	8.5	13.5	221	10.2
Average	23.1			32.2			25.8			13.4			12.0			12.9		

1% Trimmed Mean on both sides of the distribution per country

Appendix 7 Operating Margin

Fixed Sample

Operating Margin % unbiased	UK									Germany								
	FTSE250			FTSE100			Total			Small: D			DAX100			Total		
	year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N
1990	12.6	127	10.3	14.7	56	8.9	13.3	183	9.9	7.2	121	4.9	5.7	65	3.6	6.7	186	4.6
1991	11.4	122	10.0	13.8	57	9.4	12.2	179	9.9	6.6	119	4.8	5.7	67	4.5	6.3	186	4.7
1992	11.2	122	9.9	13.7	57	10.0	12.0	179	10.0	5.6	118	6.7	4.7	66	4.6	5.3	184	6.0
1993	11.5	124	10.8	13.8	56	10.1	12.2	180	10.6	5.6	118	6.7	3.5	66	5.6	4.8	184	6.4
1994	11.4	120	9.2	14.3	56	9.4	12.3	176	9.4	5.8	116	5.7	4.6	66	5.5	5.4	182	5.6
1995	11.8	123	10.0	14.6	56	8.8	12.7	179	9.7	5.9	118	6.1	5.0	65	5.8	5.5	183	6.0
1996	12.5	122	10.8	14.7	56	8.3	13.2	178	10.1	5.0	118	6.3	5.6	65	5.1	5.2	183	5.9
1997	12.8	125	10.1	15.2	55	8.3	13.6	180	9.6	5.7	117	5.9	6.3	66	5.2	5.9	183	5.7
1998	12.4	122	9.2	15.1	56	8.4	13.2	178	9.1	6.1	113	5.7	6.5	66	4.7	6.2	179	5.4
Average	12.0			14.4			12.7			5.9			5.3			5.7		

1% Trimmed Mean on both sides of the distribution per country

Full Sample

Operating Margin % full sample	UK									Germany								
	FTSE250			FTSE100			Total			SDAX			DAX100			Total		
	year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N
1990	12.4	132	10.3	14.6	57	8.9	13.0	189	9.9	7.2	121	4.9	5.7	65	3.6	6.7	186	4.6
1991	10.8	132	10.3	13.5	60	9.3	11.7	192	10.0	6.7	125	4.8	5.7	68	4.5	6.4	193	4.7
1992	10.5	133	9.9	13.7	62	9.7	11.6	195	10.0	6.0	125	6.2	4.8	67	4.6	5.6	192	5.7
1993	10.9	135	10.0	14.0	62	9.8	11.9	197	10.0	6.1	129	6.2	3.7	68	5.7	5.2	197	6.1
1994	10.7	139	9.7	14.6	62	9.2	11.9	201	9.7	6.1	129	5.6	4.9	71	5.6	5.7	200	5.6
1995	11.5	144	10.0	15.3	63	8.8	12.6	207	9.8	6.2	141	6.1	5.9	70	5.4	6.1	211	5.9
1996	13.0	150	12.0	15.8	64	9.1	13.8	214	11.3	5.8	150	6.2	6.2	73	5.4	5.9	223	5.9
1997	13.1	162	10.4	14.7	69	11.9	13.6	231	10.9	6.2	149	5.7	6.7	73	5.5	6.4	222	5.7
1998	12.9	172	9.5	14.3	72	10.7	13.3	244	9.8	6.3	147	5.9	6.6	75	5.5	6.4	222	5.7
Average	11.8			14.5			12.6			6.3			5.6			6.0		

1% Trimmed Mean on both sides of the distribution per country

Appendix 8 Cash Flow Margin

Fixed Sample

CF Margin %	UK									Germany								
	FTSE250			FTSE100			Total			Small: D			DAX100			Total		
	year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N
1990	11.9	42	9.0	15.0	13	9.2	12.6	55	9.0	8.2	118	5.3	7.8	63	4.1	8.0	181	4.9
1991	9.6	92	6.0	12.5	31	9.5	10.3	123	7.1	7.6	118	5.3	7.8	64	4.2	7.7	182	4.9
1992	10.5	114	7.8	14.1	56	9.7	11.7	170	8.6	7.1	117	6.0	7.4	64	5.3	7.2	181	5.7
1993	11.0	121	8.4	14.2	56	9.5	12.0	177	8.9	7.3	116	6.0	6.9	66	5.6	7.2	182	5.8
1994	11.6	121	8.6	14.5	55	9.4	12.5	176	8.9	7.6	118	5.6	7.6	65	5.4	7.6	183	5.5
1995	11.9	123	9.2	14.3	55	8.5	12.6	178	9.1	7.1	119	5.9	8.6	65	6.8	7.6	184	6.2
1996	12.2	122	9.4	14.5	55	8.1	12.9	177	9.0	6.4	120	7.0	8.3	66	5.9	7.1	186	6.7
1997	12.5	126	8.5	15.0	55	8.6	13.2	181	8.6	6.9	116	5.7	8.7	66	5.4	7.5	182	5.6
1998	12.8	125	9.0	15.1	56	8.2	13.5	181	8.8	7.3	111	5.7	7.9	65	4.6	7.5	176	5.3
Average	11.6			14.4			12.4			7.3			7.9			7.5		

1% Trimmed Mean on both sides of the distribution per country

Full Sample

CF Margin %	UK									Germany								
	FTSE250			FTSE100			Total			Small: D			DAX100			Total		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	11.8	43	8.9	14.4	14	9.1	12.4	57	9.0	8.2	118	5.3	7.8	63	4.1	8.0	181	4.9
1991	8.9	101	6.7	12.3	32	9.4	9.7	133	7.5	7.7	124	5.3	7.8	65	4.1	7.7	189	5.0
1992	9.4	126	7.8	14.1	61	9.4	11.0	187	8.6	7.1	125	5.9	7.4	65	5.3	7.2	190	5.6
1993	10.7	134	8.4	14.3	62	9.2	11.8	196	8.8	7.4	127	5.9	7.0	68	5.6	7.3	195	5.7
1994	11.4	140	8.9	14.7	61	9.1	12.4	201	9.0	7.8	131	5.6	7.7	70	5.2	7.8	201	5.5
1995	11.5	145	9.9	14.7	62	8.3	12.5	207	9.6	7.2	142	5.8	8.9	72	7.0	7.8	214	6.2
1996	12.4	148	9.0	15.4	63	8.5	13.3	211	9.0	6.9	151	6.4	8.6	74	6.2	7.5	225	6.3
1997	12.7	163	8.4	14.4	69	11.4	13.2	232	9.4	7.1	148	5.4	8.9	73	5.9	7.7	221	5.6
1998	13.3	174	9.3	14.6	72	9.4	13.7	246	9.4	7.3	144	5.2	8.6	75	6.1	7.7	219	5.6
Average	11.4			14.3			12.2			7.4			8.1			7.6		

1% Trimmed Mean on both sides of the distribution per country

Appendix 9 Borrowing Ratio

Fixed Sample

Operating Margin %	UK									Germany								
	FTSE250			FTSE100			Total			Small: D			DAX100			Total		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	0.6	128	0.7	0.7	56	1.5	0.6	184	1.0	0.8	124	2.2	0.7	65	0.7	0.8	189	1.8
1991	0.5	129	0.6	0.6	57	1.5	0.5	186	1.0	0.8	124	1.9	0.8	67	1.8	0.8	191	1.9
1992	0.6	129	0.7	0.6	55	0.9	0.6	184	0.7	0.9	120	2.7	1.4	66	2.6	1.0	186	2.7
1993	0.6	128	0.7	0.8	55	1.2	0.6	183	0.9	0.9	124	2.7	0.9	64	3.8	0.9	188	3.1
1994	0.5	128	0.6	0.5	56	1.2	0.5	184	0.8	1.2	123	3.1	0.8	64	2.5	1.1	187	2.9
1995	0.5	129	0.7	0.4	55	1.2	0.5	184	0.9	1.1	122	1.9	0.8	64	3.9	1.0	186	2.8
1996	0.4	125	0.6	0.4	56	1.9	0.4	181	1.2	0.9	123	2.2	0.7	63	3.4	0.9	186	2.7
1997	0.6	125	1.0	0.5	50	1.4	0.5	175	1.1	0.9	120	2.9	0.6	64	1.7	0.8	184	2.5
1998	0.6	120	1.1	0.7	52	2.0	0.7	172	1.4	0.7	119	3.0	0.6	64	3.2	0.6	183	3.0
Average	0.5			0.6			0.5			0.9			0.8			0.9		

1% Trimmed Mean on both sides of the distribution per country

Full Sample

Borrowing Ratio %	UK									Germany								
	FTSE250			FTSE100			Total			Small: D			DAX100			Total		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	0.7	133	1.0	0.7	57	1.5	0.7	190	1.2	0.6	125	2.9	0.7	65	0.7	0.6	190	2.4
1991	0.5	135	0.6	0.6	60	1.5	0.5	195	0.9	0.8	130	2.0	0.8	68	1.8	0.8	198	1.9
1992	0.5	138	0.8	0.5	60	0.9	0.5	198	0.8	0.9	129	2.7	1.4	67	2.6	1.1	196	2.7
1993	0.5	140	0.9	0.8	61	1.2	0.6	201	1.0	1.0	136	2.7	0.7	66	4.1	0.9	202	3.2
1994	0.5	148	0.7	0.4	63	1.2	0.5	211	0.9	1.3	137	3.5	1.1	71	3.9	1.2	208	3.6
1995	0.5	152	0.7	0.4	63	1.2	0.5	215	0.9	1.2	144	2.6	0.9	72	3.7	1.1	216	3.0
1996	0.4	156	1.2	0.4	65	1.8	0.4	221	1.4	0.9	156	2.9	0.5	73	3.9	0.8	229	3.3
1997	0.4	164	1.4	0.4	65	1.7	0.4	229	1.5	0.9	152	3.1	0.8	74	1.7	0.8	226	2.7
1998	0.5	171	1.4	0.6	67	1.8	0.5	238	1.5	0.7	155	3.9	0.5	75	3.1	0.6	230	3.6
Average	0.5			0.5			0.5			0.9			0.8			0.9		

1% Trimmed Mean on both sides of the distribution per country

Appendix 10

Effective Tax Rate

Fixed Sample

	UK						Germany					
	FTSE250			FTSE100			Small			DAX100		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	31.4	128	8.4	29.5	55	8.4	56.4	117	21.4	53.3	62	12.6
1991	30.2	125	13.1	34.0	56	21.9	55.4	112	19.6	53.5	63	17.2
1992	30.4	123	11.0	34.3	54	18.5	57.6	105	20.7	51.3	59	16.9
1993	31.2	123	13.5	32.6	56	19.3	55.1	96	28.8	47.0	54	19.4
1994	32.6	123	18.5	30.3	55	13.3	51.7	106	35.3	45.9	60	20.1
1995	32.7	123	14.0	30.7	56	9.0	49.4	100	28.8	41.7	59	19.1
1996	33.0	117	16.5	32.4	54	17.0	51.3	93	26.3	44.2	61	26.4
1997	31.3	125	10.7	31.6	55	16.1	47.0	105	35.4	37.5	64	15.2
1998	35.8	119	21.2	34.3	55	16.5	38.4	109	28.6	40.4	62	18.9
Total Average	32.1			32.2			51.4			46.1		

Extreme values > 200% & negative values excluded

Full Sample

	UK						Germany					
	FTSE250			FTSE100			Small			DAX100		
year	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev	Average	N	StdDev
1990	31.4	131	8.3	29.4	56	8.3	56.4	117	21.4	53.3	62	12.6
1991	29.8	131	13.3	33.8	59	21.3	54.6	118	19.7	53.5	64	17.0
1992	29.9	132	11.5	33.7	59	17.8	57.3	114	20.4	51.4	60	16.8
1993	30.4	133	13.6	32.2	62	18.4	54.0	107	27.6	46.5	56	19.4
1994	31.6	142	18.4	29.5	62	13.1	50.2	121	34.1	45.4	66	19.9
1995	32.0	145	13.8	30.3	63	9.0	47.2	122	27.3	40.2	67	19.7
1996	31.4	145	16.0	31.5	62	16.2	49.4	123	24.2	43.7	70	25.1
1997	30.0	161	11.1	29.5	67	15.8	45.8	133	31.7	37.1	74	15.9
1998	33.5	166	19.3	35.4	71	22.6	40.5	134	25.7	38.6	73	19.4
Total Average	31.1			31.6			50.6			45.5		

Extreme values > 200% & negative values excluded

Appendix 11

Capital Employed/Employee (Median)

Full Sample

Median	UK (£'000)		Germany (€'000)	
	FTSE250	FTSE100	Small: D	DAX100
1990	35.58	44.36	62.79	60.88
1991	41.36	53.90	63.37	69.28
1992	44.21	60.53	65.62	71.77
1993	47.86	67.23	69.03	71.19
1994	49.45	69.59	68.67	75.44
1995	53.98	71.65	70.25	79.31
1996	53.17	75.70	72.83	81.65
1997	54.04	83.21	79.55	96.12
1998	50.72	82.80	83.10	97.67

Fixed Sample

Median	UK		Germany	
	FTSE250	FTSE100	Small: D	DAX100
1990	35.58	45.44	62.93	60.04
1991	41.63	53.00	64.27	69.27
1992	45.73	59.64	66.50	71.77
1993	48.92	61.87	69.95	72.60
1994	49.45	67.33	70.41	75.81
1995	54.04	66.65	71.27	77.40
1996	53.17	66.72	73.49	81.76
1997	55.02	67.05	79.61	94.18
1998	50.77	66.00	83.70	95.44

Appendix 12: Change in the Degree of Diversification by Size

		Large		Small	
		UK	D	UK	D
Reduced substantially	Count %	5 27.8%	1 12.5%	13 38.2%	4 17.4%
Reduced somewhat	Count %	1 5.6%	2 25.0%	2 25.4%	4 22.0%
Stayed about the same	Count %	6 33.3%	2 25.0%	10 7.0%	8 14.6%
Increased somewhat	Count %	4 22.2%	2 25.0%	4 11.3%	6 22.0%
Increased substantially	Count %	2 11.1%	1 12.5%	5 2.8%	1 12.2%
Total number of firms	Count %	18 100.0%	8 100.0%	34 100.0%	23 100.0%

Appendix 13: Organisational Change Due to Mergers and Acquisitions or Demergers and Divestments by Size

		Large		Small	
		UK	D	UK	D
Mergers & Acquisitions	Count %	17 94.4%	7 87.5%	27 79.4%	15 65.2%
Demergers & Divestments	Count %	11 61.1%	3 37.5%	16 47.1%	7 30.4%
None of the above	Count %	1 5.6%	1 12.5%	6 17.6%	6 26.1%
Total number of firms		18	8	34	23

Appendix 14: M&A Motive by Size

		Large		Small	
		UK	D	UK	D
Your supplier or customer (Vertical expansion)	Count	4	1	3	2
	%	23.5%	14.3%	11.1%	13.3%
Competing in the same line of business (Horizontal expansion)	Count	15	6	25	13
	%	88.2%	85.7%	92.6%	86.7%
Competing in unrelated business (Unrelated diversification)	Count	2	0	2	1
	%	11.8%	0.0%	7.4%	6.7%
Total number of firms		17	7	27	15

Appendix 15: Geographic Focus of M&A Activity by Size

		Large		Small	
		UK	D	UK	D
The domestic market	Count	1	3	7	5
	%	5.9%	42.9%	25.9%	33.3%
The international market	Count	15	3	18	3
	%	88.2%	42.9%	66.7%	20.0%
Roughly equal	Count	1	1	2	7
	%	5.9%	14.3%	7.4%	46.7%
Total number of firms		17	7	27	15

Appendix 16: Performance Effects of Mergers and Acquisitions by Size

"Positive Impact on the Share Price?"		Large		Small	
		UK	D	UK	D
Yes	Count	12	2	14	7
	%	70.6%	28.6%	51.9%	46.7%
No	Count	1	0	4	6
	%	5.9%	0.0%	14.8%	40.0%
Not clear	Count	4	5	9	2
	%	23.5%	71.4%	33.3%	13.3%
Total number of firms		17	7	27	15

Appendix 17: Performance Effects of Divestments and Demergers by Size

"Positive Impact on the Share Price?"		Large		Small	
		UK	D	UK	D
Yes	Count	6	1	10	3
	%	54.5%	33.3%	62.5%	50.0%
No	Count	1	1	1	0
	%	9.1%	33.3%	6.3%	0.0%
Not clear	Count	4	1	5	3
	%	36.4%	33.3%	31.3%	50.0%
Total number of firms		11	3	16	6

Appendix 18: Management Buy-Outs

"Sold Any Part of Your Operation via MBO?"		Large		Small	
		UK	D	UK	D
Yes	Count	5	1	14	4
	%	29.4%	12.5%	41.2%	17.4%
No	Count	12	7	20	19
	%	70.6%	87.5%	58.8%	82.6%
Total number of firms		17	8	34	23

Appendix 19: Joint Ventures and Strategic Alliances by Size

		Large		Small	
		UK	D	UK	D
Yes	Count	11	6	12	7
	%	64.7%	75.0%	35.3%	30.4%
No	Count	6	2	23	16
	%	35.3%	25.0%	67.6%	69.6%
Total number of firms		17	8	34	23

Appendix 20: Product Market Pressure by Size

Product Market Pressure		Large		Small	
		UK	D	UK	D
1 (Low)	Count %		1 20.0%	2 9.5%	0 0.0%
2	Count %	0.0%	2 40.0%	4 19.0%	1 5.3%
3 (Medium)	Count %	2 14.3%	2 40.0%	6 28.6%	2 10.5%
4	Count %	6 42.9%	0.0%	8 38.1%	10 52.6%
5 (High)	Count %	6 42.9%	0.0%	1 4.8%	7 36.8%
Mean		4.3	2.2	3.1	4.4
Number of firms	Count	14	5	21	19

Appendix 21: Capital Market Pressure by Size

Capital Market Pressure		Large		Small	
		UK	D	UK	D
1 (Low)	Count %	6 46.2%	0.0%	4 22.2%	7 38.9%
2	Count %	2 15.4%	3 50.0%	5 27.8%	4 22.2%
3 (Medium)	Count %	1 7.7%	2 33.3%	1 5.6%	2 11.1%
4	Count %	1 7.7%	1 16.7%	5 27.8%	2 11.1%
5 (High)	Count %	3 23.1%	0.0%	3 16.7%	3 16.7%
Mean		2.5	2.3	2.9	2.4
Number of firms	Count	13	6	18	18

Appendix 22: Employment Effects of Corporate Restructuring by Size

		Large		Small	
		UK	D	UK	D
Decreased	Count	8	4	15	8
	%	44.4%	57.1%	50.0%	34.8%
Increased	Count	9	2	11	11
	%	50.0%	28.6%	36.7%	47.8%
No effect	Count	1	1	4	4
	%	5.6%	14.3%	13.3%	17.4%
Total number of firms		18	7	30	23

References

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Endnotes

¹ The full sample includes all firms that have reported in that year, and for which data is available in principle. Due to technical circumstances at Datastream, the data provider, data might be missing for certain variables and years. As it can be assumed that the error is of random nature the firm/data is included in the full sample.

² Using a Student t-test.

³ Calculated as the average of CPI and PPI based measure. Suggested at a seminar held at the London School of Economics on the 16.09.99. Alternatively, this paper can be obtained under: <http://www.bankofengland.co.uk/>

⁴ For the fixed sample.

⁵ As the performance of the financial sector is closely tied to the performance of the non-financial sector.

⁶ The data does not sum up to 100% as activities with less than 3% turnover are excluded from the analysis.

⁷ This analysis is based on an average share of activity, grouped by one-digit SIC-codes.

⁸ Analysing the fixed or unbiased sample returns very similar results to the one below. This fixed or unbiased sample includes all firms for which a full set of data was available over the entire period of analysis.

		N	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
Britain	1994	62	14%	15%	10%	15%	0%	14%	10%	12%	10%
	1995	62	14%	15%	9%	14%	0%	17%	9%	10%	11%
	1996	62	14%	13%	9%	14%	0%	19%	10%	11%	9%
	1997	62	14%	15%	9%	10%	1%	19%	10%	12%	11%
	1998	62	13%	16%	9%	14%	0%	18%	9%	12%	8%
Germany	1994	64	4%	19%	40%	12%	4%	7%	3%	2%	9%
	1995	64	4%	20%	40%	11%	4%	8%	3%	2%	9%
	1996	64	4%	20%	38%	12%	3%	9%	3%	2%	9%
	1997	64	4%	20%	41%	11%	3%	7%	3%	2%	8%
	1998	64	4%	19%	41%	11%	3%	7%	4%	2%	7%

⁹ Certain inconsistencies exist, however, in the fixed sample for 1997 and 1998. They can be explained with the absence of firms from the technology, media and telecom sector in this sample.

¹⁰ Both, the current survey and the one carried out by Ansgar Richter had the sponsorship of the Financial Times.

¹¹ In Germany, for example, there are to date 13 firms in the DAX 100 that were not included in this index 15 month ago (31.12.1998). Of those 13 firms, five were listed for a long period of time, one was listed in 1998, and the remaining 7 firms were listed after 1998.

In comparison to this, 23 firms in Britain entered the FTSE 100 during the last 15 months (including the latest reshuffle on the 17.03.2000). One such firm (Emap), entered twice and left once. Only three were not listed 15 months ago, of which one was a de-mutualised life insurer, the other two being from the Internet and Telecom sectors (which would have been listed on the Neuer Markt in Germany).

¹² A standard t-test was employed.

¹³ This analysis does not include 1999 data as published accounts data was not fully available

¹⁴ To ensure that the results are not distorted by minor activities, all contributions of sectors with less than 2% of overall turnover were excluded.

¹⁵ In the strictest sense, the specialisation index is not a diversification index as it does not take into account the different businesses a firm is engaged in outside its core activity.

¹⁶ $D = 1 - \sum_{i=1}^n p_i^2$, where p_i is the share of a firm's turnover in industry i .

¹⁷ Very similar results are obtained using an unbiased or fixed sample over the same time period. This fixed or unbiased sample includes all firms for which a full set of data was available over the entire period of analysis.

	Year	N	N-sector	Special- isation Index	Berry's Diversification Index
UK	1994	62	2.13	0.82	0.24
	1995	62	2.00	0.84	0.22
	1996	62	2.08	0.82	0.23
	1997	62	2.10	0.82	0.24
	1998	62	2.08	0.83	0.23
Germany	1994	64	2.39	0.77	0.30
	1995	64	2.39	0.79	0.28
	1996	64	2.38	0.79	0.28
	1997	64	2.33	0.78	0.29
	1998	64	2.34	0.78	0.29

¹⁸ As respondents could give multiple answers, the figures do not sum to 100%.

¹⁹ As shown in Chapter 3 of this thesis only 38 demergers occurred in Europe over the last decade. The numbers are therefore very low compared with the number of divestitures over the same period.

²⁰ This question was structured as a multiple-response question. Therefore, the probabilities add up to more than 100%.

²¹ The share of turnover is a crude proxy as it ignores ventures that are not directly sales related, for example like R&D or support functions of a firm.

²² Given that firms in both countries face similar regulatory circumstances both within and outside the European Union.

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