Ownership, Managerial Control and the Governance of Poorly Performing Companies listed on the London and Brussels Stock Exchanges

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Abstract

This dissertation provides insights in how corporate control is exercised in poorly performing companies of two countries with markedly different equity markets : the U.K. and Belgium.

Since there seems to be little relation between hostile takeovers and poor performance in the U.K., we examine how corporate control is exerted when companies perform poorly. We find an important relation between the composition of corporate boards, share ownership and the exercise of corporate control. This is reflected in a strong relation between board turnover and concentration of share ownership in the sample of poorly performing firms and is particularly pronounced for certain classes of large outside shareholders. However, where there is substantial insider ownership, the incumbent management is more successful in retaining control following poor performance. Corporate control seems to be exerted by coalitions of shareholders. We also report trades in share stakes between shareholders in poorly performing companies. These trades are closely associated with changes in the management of poorly performing companies, which suggests that changes in the pattern of large shareholdings are an important way in which corporate control is exercised in the U.K.

In the second part of the thesis, we contrast the U.K. findings with the results from the study of corporate control in Belgium. Both the board of directors and large shareholders discipline managerial underperformance, but only when the company reaches critically low profitability. Specific classes of large shareholders, especially those holding majority share stakes or at least stakes of blocking minority size, are involved in disciplining underperforming management. Control is not only exerted by direct shareholders on the first ownership tier, but also by ultimate shareholders.

Furthermore, like in the U.K., poor performance triggers a market in share stakes. Those shareholder classes with superior monitoring abilities increase their shareholdings so that they can substitute errant management. Post-disciplining performance in the form of dividends per share improves over a two year period after management restructuring.

To my parents

"Alia propter se scienta sunt, alia autem quamvis non propter se videantur nostro labore digna, quia tamen sine ipsis illa enucleate sciri non possunt, nullatenus debent negligenter praeteriri. Omnia disce, videbis postea nihil esse superfluum."
(Hugo De Sainte Victore. Didasc. VI, c3, about 1135 A.D.)

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CHAPTER 1 : Introduction.

Objective of the study.

Over the last few years, corporate governance debates in, the U.K., France and Belgium have focused on how internal corporate control mechanisms, like the non-executive component of the board of directors, ought to be changed to cope more effectively with corporate underperformance. Legal frameworks of ownership disclosure have recently also been adapted (e.g. in Belgium and Germany). This dissertation aspires to provide insights on how corporate control is exercised in poorly performing companies in two countries with markedly different equity markets : the U.K. and Belgium.

U.K. (and U.S.) research has cast doubt on the role of takeovers on the correction of corporate underperformance. Consequently, we concentrate on alternative mechanisms which correct managerial failure. We find that, in line with the suggestions in e.g. the Cadbury report in the U.K. (Cadbury 1992) and the Viénot report in France (Viénot 1995), the composition of the board of directors and separation of the role of chairman and CEO are positively related to disciplining underperforming managers in the U.K.

Compared to Continental Europe, ownership is more widely held in the U.K., but the aggregate share stake held by shareholders owning stakes of 5 percent or more, still amounts to more than 35 percent. Therefore, we investigated the monitoring role of these large shareholders. We report that the nature of the owner is related to management turnover, when corporate performance is poor, and that coalitions of shareholders actively monitor the company. We also address the question whether poor corporate performance triggers changes in ownership. We find that a market for share stakes results from poor corporate performance and that increases in ownership by specific shareholder classes are related to replacement of management.

We subsequently focus on Belgian corporate control. Belgian equity markets have characteristics typical of other Continental European markets: few companies are

quoted, ownership is highly concentrated and pyramiding is used to retain control. Another interesting aspect is the presence of holding companies.

We report whether disciplining of management is preceded by poor corporate performance and which profitability benchmarks trigger corporate control actions. We find that critical performance benchmarks, like negative earnings, dividend cuts and low share price returns are followed by management replacement.

Like in the U.K. study, we address questions on the role of the non-executive board and the impact of separation of the role of the CEO and chairman on monitoring of management. Next, we concentrate on the disciplining of management by large shareholders. We model control in several ways: the importance of direct ownership is contrasted with ultimate shareholder control, and models in which equal weight is given to each of the voting rights are compared to models with threshold shareholdings like blocking minorities, majorities and supermajorities. We find that control is exercised by ultimate shareholders and that large share stakes owned by specific shareholder categories are strongly correlated to management turnover. Poor performance also gives rise to a market of share stakes which is related to corporate control.

Finally, we investigate whether the success of disciplinary actions taken against management by examining the companies' performance after management restructuring. We find that there is a negative relation between CEO turnover and subsequent share price returns and earnings changes. However, CEO turnover precedes dividend increases.

Organization of the study.

Chapter 2 focuses on how corporate control is exerted in U.K. The motivation for the examination of aspects of corporate governance for all Belgian companies listed on the Brussels Stock Exchange starts with Chapter 3. In Chapter 4, the hypotheses are listed and embedded in the relevant literature. In addition, methodology and data sources are discussed. Chapter 5 gives stylized facts regarding ownership concentration in Belgium.

The chapter begins with a comparison of ownership structures in different countries and the relation of the shareholder structure to corporate monitoring. A concise overview of recent Belgian ownership disclosure legislation is given, as well as of the laws regarding the protection of minority shareholders. Next, details about ownership concentration, critical shareholdings and control measures are presented. The chapter concludes with an description of size, composition and turnover of the board of directors and of the management committee. Chapter 6 summarizes the empirical tests of the hypotheses advanced in Chapter 4. Finally, Chapter 7 summarizes the findings of the two parts of this dissertation - aspects of corporate control in the U.K. and Belgium - and provides some suggestions for further research.

PART I : Aspects of corporate control in underperforming companies listed on the London Stock Exchange.

CHAPTER 2 : The role of large share stakes in poorly performing companies in the U.K.

2.1 Introduction.

In the U.K. and U.S., corporate control is supposed to be closely associated with hostile takeover markets: poorly performing companies are acquired by other firms. Contrary to this conventional view, Franks and Mayer (1995a) in the U.K. and Martin and McConnell (1991) in the U.S. demonstrate that there is little relation between hostile takeovers and poor performance: targets of hostile bids do not appear to be, on average, poorly performing companies. This raises the question of how corporate control is exerted in the U.K. and U.S. in poorly performing companies.

This chapter compares ownership and control in two samples of U.K. quoted firms with markedly different performance; the first sample is drawn from the lowest quintile of performance, the second comes from the middle quintile. We examine and compare how each category of shareholder exerts control over executive management and how both the pattern of ownership and the composition of the board change in the light of poor performance. Shareholders include banks, institutional investors, directors and their families, and industrial and commercial companies.

We find an important relation between the composition of corporate boards, share ownership and the exercise of corporate control. This is reflected in a strong relation between board turnover and concentration of share ownership in the sample of poorly performing firms and is particularly pronounced for certain classes of large outside shareholders. There is more board turnover in poorly performing companies where there is a high proportion of non-executive directors and where there is separation of chairman and chief executive officers. However, where there is substantial insider ownership, the incumbent management is more successful in retaining control following poor performance.

We also report trades in share stakes between shareholders in poorly performing companies. These trades are closely associated with changes in the management of poorly performing companies. Although the chapter finds, like previous studies, no observed relation between performance and takeovers, it finds that changes in the pattern of large shareholdings are an important way in which corporate control is exercised in the U.K.

The results shed light on how control is changed in the U.K. where ownership is less concentrated than in continental Europe. Whereas in Germany, for example, there is frequently a single shareholder with a majority of the voting rights, in the U.K. coalitions of shareholders with stakes greater than 5% own between 35-40% of the equity capital. Findings suggest that substantial changes in these share stakes occur in the absence of tender offers or mergers and without a violation of the U.K. Takeover Code's mandatory offer rule, which requires a full bid to be made to all shareholders. As a result, the market for corporate control may be substantially broader then previously documented.

2.2 Hypotheses, Data and Methodology.

2.2.1 Hypotheses.

Little or no relation has been observed between performance and board turnover consequent on hostile takeovers in the U.K. and U.S. However, Weisbach (1988) finds that top management in U.S. corporations is replaced rapidly after poor share price performance. A similar result is reported by Warner, Watts and Wruck (1988) and Coughlan and Schmidt (1985). This section begins by examining whether there is evidence of disciplining of management of poorly performing companies.

Hypothesis 1 :

There is a higher level of board turnover in poorly performing companies than in average performing companies.

The Cadbury Committee (1992) in the U.K., the Viénot report in France (Jack 1995) and the Bacon study (1993) in the U.S. point to the importance of non-executive directors. As agents of investors, non-executive directors should assist in the monitoring and disciplining of management (Williamson 1983 and 1984). This is consistent with an external labour market for non-executive directors (Fama 1980 and Fama and Jensen 1983). The importance of this market has been emphasized by Kaplan and Reishus (1990) who find that directors of poorly performing companies are likely to lose directorships in their own companies and are unlikely to be offered new directorships in other companies. Similarly, Gilson (1990) finds that directors who left the boards of distressed companies held approximately one-third fewer directorships after their departure.

In the U.S., Weisbach (1988) reports a closer relation of CEO turnover to performance in firms in which non-executive directors dominate the board. Morck, Shleifer and Vishny (1989) argue that internally precipitated executive turnover is more likely to occur in firms that underperform their industry than when the industry as a whole is suffering.

Hypothesis 2 :
There should be a higher level of board turnover in poorly performing companies as the proportion of non-executive directors increases.

A second recommendation made by the Cadbury committee concerns the separation of the role of chief executive officer and chairman.[1]

Hypothesis 3 :
There should be a higher level of board turnover in poorly performing companies which separate the role of chairman and chief executive officer.

Diffuse ownership encourages shirking of monitoring and control responsibilities by owners (Demsetz 1983). Shleifer and Vishny (1986) show that concentrated

[1] The Cadbury Committee was set up by the U.K. Government in 1992 to recommend changes in the practice of corporate governance.

shareholdings can mitigate free rider problems of corporate control. As a result, we would predict more active corporate governance in the presence of concentrated ownership. Burkart, Gromb and Panunzi (1995) show that optimal ownership structure depends on the performance of a company: when it is performing well a diffuse ownership structure increases managerial discretion and enhances managerial effort, while poor performance necessitates closer monitoring through concentrated ownership.

McConnell and Servaes (1990) examine the relation between ownership concentration and corporate performance. They find that corporate performance, as measured by Tobin's Q, initially rises with low levels of ownership and then falls with high levels of ownership.

Hypothesis 4 :

In a sample of poorly performing companies, there is a greater level of board turnover in the presence of concentrated shareholdings.

Demsetz and Lehn (1985) and Barclay and Holderness (1989, 1991) note that shareholders may attach different values to control derived from concentrated ownership. For example, the exercise of control by corporate investors may be based on superior information or monitoring ability. In contrast, control by insiders, in particular directors and families, may be more heavily influenced by private benefits which are at variance with the interests of outside shareholders.

Hermalin and Weisbach (1991) find that at low levels of ownership, corporate performance increases with managerial ownership up to a level of 1% as managers' and shareholders' interests are more closely aligned. However, it decreases above this level as management is able to insulate itself from disciplinary sanctions.

Hypothesis 5 :

We would expect to observe higher board turnover in poorly performing companies with large shareholdings held by corporate investors and lower board turnover with share stakes held by directors.

In light of the predicted relation between ownership and control, we would expect to observe changing patterns of ownership over time. During periods of good performance, the advantages of managerial discretion may argue for dispersed share ownership as suggested by Burkart, Gromb and Panunzi (1995). However, greater concentrations of share ownership might be expected to emerge during periods of financial difficulty. In particular, we would expect to observe increased concentrations in the hands of those who are best placed to exercise control.

Hypothesis 6 :

In a sample of poorly performing companies, we would expect to observe increasing concentrations of ownership. In particular, we would predict increasing concentrations of ownership in the hands of corporate shareholders and new directors who are best placed to exercise control.

Hypothesis 7 :

The increased concentrations of ownership in the hands of active investors will be reflected in higher board turnover in poorly performing companies.

2.2.2 Data.

Samples of poorly and average performing companies were identified from abnormal share price returns over the period July 1984 to June 1985. Two samples of 80 companies were drawn randomly from the lowest and middle quintile of all industrial and commercial companies listed on the London Stock Exchange in 1985 and ranked according to their abnormal returns. Abnormal returns were calculated from the London Share Price Database (LSPD), which contains data on share prices, returns, market capitalization and risk measures. For the poor performers, abnormal returns, measured using a market model, were -61.35% versus -.7% for the average performers; the raw returns were -39.4% and 19.9% for the two samples respectively. Since complete data for nine companies were unavailable, they were deleted from the samples. As a result, the lowest abnormal return sample consists of 74 companies, of which 19 were taken over during the period 1985-1989 and 3 went into bankruptcy. Table 2.1 shows that,

of the 77 firms in the zero return sample, 21 were acquired over the same period and 1 went into receivership. It is striking that the incidence of takeovers in the worst performing sample is similar to the average performing sample.

Table 2.2 shows the size distribution of the 151 companies used in this analysis. The size quartiles are based on 'assets employed', total assets minus short term liabilities, of all non-financial industrial companies listed on the London Stock Exchange in 1985. The average size of companies on the London Stock Exchange was £160.9m. For the 74 companies in the lowest abnormal return sample, the mean of 'total assets employed' is £97.9m, while the average size of the 77 companies in the zero abnormal return sample is £130.2m. The second panel of Table 2.2 shows that the size distribution of companies in the zero abnormal return sample is evenly distributed across the four quartiles. In contrast, 37.8% of the lowest abnormal return sample falls in the lowest size quartile, whereas only 16.3% is in the highest size quartile. Differences in size in part reflect the fact that poor performance shrinks companies' assets.

Of the 74 poorly performing companies, 34 were introduced on the London Stock Exchange over the period 1980-84 - henceforth called recent IPOs, while only 13 companies of the average performing sample were IPOs over the same period.[2] Within the lowest abnormal return sample, half of the recent IPOs (over a period of 1980-84) had a market capitalization lower than the median.

[2] Of the 34 poorly performing companies introduced in the period 1980-84, 10 were introduced in 1984, 14 in 1982-83 and 10 in 1980-81. Four of the averagely performing IPOs were floated in 1984, 6 in 1982-83 and 3 in 1980-81.

Table 2.1 : Takeover activity and number of bankruptcies in lowest and zero abnormal return samples for the years 1985-1991.

	lowest abnormal return sample		zero abnormal return sample	
	M&A	bankruptcy	M&A	bankruptcy
1985	2	0	0	0
1986	7	0	3	0
1987	4	3	7	1
1988	2	0	6	0
1989	4	0	5	0
1990	3	2	1	0
1991	5	2	1	1
total co's in sample	74		77	

Source : Risk Measurement Service, London Share Price Database.

Table 2.2 : Size distribution of the companies in the lowest and zero abnormal return samples in 1985.

	SAMPLES			
	Lowest abnormal return sample		Zero abnormal return sample	
Size quartiles (1)	NUMBER	%	NUMBER	%
1 Smallest	28	37.8 %	20	25.9 %
2	20	27.0 %	20	25.9 %
3	14	18.9 %	19	24.7 %
4 Largest	12	16.3 %	18	23.5 %
Total	74	100.0 %	77	100.0 %

(1) Total assets employed, total assets minus short term liabilities, is used as size measure.

Source : Datastream.

The lowest abnormal return sample has higher betas and higher variances than the zero abnormal return sample. The Price to Earnings ratio of the poor performers is only 8.1 compared with 16.4 for the average performers. This is consistent with poor performers being higher risk and lower growth stocks than average. Most industry sectors are represented in both samples.

For each of the sample companies, data on the composition of the board of directors and on concentrated ownership were compiled from annual reports, Datastream, the Financial Times and Nexus databases for each year from 1984-91. The proportions of the executive and non-executive board members were collected, including data on the CEO and the Chairman. It was not possible to identify executive and non-executive directors separately in annual reports or other public sources of information for slightly less than half of the poor performers and about one third of the average performers.

We also measured turnover of the board and examined reasons for resignations using the annual reports from 1984 to 1991, press releases on new listings on the Stock Exchange, and the Financial Times and Nexus databases. We were, in particular interested in distinguishing between natural and enforced turnover. A resignation was classified as 'natural' if the director was described as having left the board for reasons of retirement, death or illness. Otherwise the resignation was classified as being enforced.[3] In addition, we recorded whether the managing director and the chairman of the board resigned or whether they relinquished their functions but remained on the board.

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[3] We only classified a director as 'retiring' when it was clear that his retirement was age related. We took 63 to be the minimum retirement age and viewed an earlier retirement as enforced. Public announcements of a director or manager being fired are rare. In the annual reports a variety of euphemisms for enforced turnover are used, such as 'leaves by mutual consent', 'parts the company to spend more time with his family' or 'desires to pursue an alternative career'. Weisbach (1988) confirms that 'companies do not announce the true reason behind their CEO's resignation'; he too only adjusts his statistics on resignations for deaths, illness and retirements at an age over 63.

We collected ownership data on the size of shareholdings, including stakes of 5% or more of market capitalization.[4] We classified these large shareholdings according to 7 categories: (i) investment trusts, unit trusts and pension funds, (ii) insurance companies and (iii) banks - these three categories are combined into an institutional investor category - (iv) executive and non-executive directors and their families and trusts, (v) venture capital companies, (vi) industrial and commercial companies, and (vii) other major shareholders, mainly individuals. We will refer to directors and their families as 'insiders' and industrial and commercial company and other major shareholders as 'outsiders'.

Some companies had nominee companies as major shareholders. We contacted company secretaries or financial directors of all firms with nominee investors as major shareholders and in almost all cases were able to identify the beneficial shareholder behind the nominees. The beneficiary of the nominee company is usually an institutional investor who amalgamates a number of holdings to reduce administrative costs.

[4] Listed companies have been required to record shareholders with 5% or more of equity capital since 1985. In 1989 the reporting level was reduced to 3%.

2.3 Results.

2.3.1 Board size, composition and turnover.

Board size and composition.

The size of average and poorly performing companies is similar in 1985, with a median of 7 and a mean of 7.5. It rises slightly to 8 in 1988. Executive directors form a majority of board members of both samples: non-executives on average represent 40% of the board. There is no difference in board composition of the two samples and the average number of executives and non-executive directors remains relatively stable over time at 4.5 and 3.5 respectively, with a median of 4 and 3 over the period 1985-88.

Board turnover.

We calculated the proportional total board turnover and the turnover of executive and non-executive directors for both samples. The turnover data exclude deaths, illness or retirements. Since the focus is on forms of corporate control other than takeovers or bankruptcies, we have excluded turnover of boards in the years of and subsequent to takeovers or receivership.

The first row of table 2.3 records a statistically significantly higher board turnover as a proportion of total board size in poorly performing companies compared with the average. Over a four year period from 1985 to 1988, 46% and 27% respectively of the boards of poorly performing and average companies resign. Rows 3 and 4 show that the difference in turnover is primarily associated with executive rather than non-executive directors. The turnover of the poorly performing sample appears low when compared with the board turnover of more than 80% after takeover reported by Franks and Mayer (1995a) - high board turnover in takeovers may reflect economies of scale in merging two boards of directors. The level of turnover for the average performing sample of 27% over 4 years is equivalent to about 7% per year.

We separated the sample into those firms brought to the market before and after 1980 (recent IPOs) and compared board turnover in poorly and averagely performing companies in the two samples. The results were similar to those reported above: board turnover was higher in poorly than averagely performing companies in both samples. Total board turnover of poorly performing recent IPOs over 1985-88 was, at 50%, statistically different from board turnover of average IPOs at 27% (see table A1). This suggests that high board turnover in poorly performing firms is not merely a feature of recent IPOs.[5]

Executive turnover in poorly performing companies (excluding recent IPOs) over the period 1985-88 amounted to 40% versus non-executive turnover (at 23%). With regard to recent IPOs, however, there was some evidence of a higher proportion of non-executive board turnover suggesting that the executive directors of recent IPOs may be more firmly entrenched than those in companies which have been quoted for longer periods.

Company size is not significantly correlated to board turnover: board turnover in poorly performing companies with a market capitalization below the sample median is similar to that of the larger companies.

[5] Throughout the paper, the IPO results do not change significantly if we restrict the IPOs to companies introduced on the London Stock Exchange after 1982.

Table 2.3 : Board turnover and the frequency of chairman and CEO turnover in the lowest and zero abnormal return samples.

For both the lowest and the zero abnormal return samples, the turnover of the board, of the executive directors, of non-executives, of chairmen and of CEOs are shown for the period 1985-88. Sample comparison is performed via t-statistic and the Wilcoxon-Mann-Whitney test. N stands for the number of companies in the sample, STD for the standard deviation and W-M-W p for the p-value of the Wilcoxon-Mann-Whitney test. Calculations are based on data from annual reports.

	LOWEST ABNORMAL RETURN SAMPLE			ZERO ABNORMAL RETURN SAMPLE			STATISTICS	
	N	%	STD	N	%	STD	T-stat	W-M-W:p
PANEL A : TURNOVER OF ALL DIRECTORS, EXECUTIVE DIRECTORS AND NON-EXECUTIVE DIRECTORS (proportional to total number of directors, of executives and of non-executive directors respectively).								
board turnover in 1985-88[1]	55	45.7	32.9	57	26.6	26.7	3.157	0.002
board turnover in 1985-88[1,4]	23	33.3	29.5	45	25.0	23.8	1.253	0.279
executive turnover in 1985-88[2]	23	35.8	31.1	45	23.1	27.3	1.733	0.077
non-executive turnover in 1985-88[3]	23	27.2	37.8	45	26.9	33.1	0.032	0.974
PANEL B : PERCENTAGE OF COMPANIES IN WHICH AT LEAST ONE, TWO OR THREE CEO(S) LEAVE THE COMPANY.								
turnover of one CEO in 1985-88	55	33.3	47.6	57	16.9	37.8	2.057	0.043
turnover of two CEOs in 1985-89	51	9.8	30.0	56	0.0	0.0	2.496	0.017
turnover of three CEOs 1985-89	51	5.9	23.8	56	0.0	0.0	1.856	0.069
PANEL C : PERCENTAGE OF COMPANIES IN WHICH AT LEAST ONE, TWO OR THREE CHAIRMEN LEAVE THE COMPANY.								
turnover of one chairman in 1985-88	55	38.6	49.1	57	22.0	41.8	1.958	0.053
turnover of two chairmen in 1985-89	51	8.8	28.5	55	3.4	18.3	1.214	0.228
turnover of three chairmen in 1985-89	51	3.9	19.6	55	1.8	13.4	0.664	0.513

1. turnover is proportional to total number of directors.
2. executive turnover is proportional to total number of executive directors.
3. non-executive turnover is proportional to total number of non-executive directors.
4. sample size was reduced with those companies for which data were not available on which directors had executive or non-executive functions.

CEO and chairman turnover

Table 2.3 shows the turnover of managing director/CEO and chairman for reasons other than retirement, illness and death. It reports that the incidence of resignations of managing directors is significantly higher in the worse performing companies than average performers for the period 1985-88. There are no cases in the averagely performing sample of a CEO being replaced more than once but a significantly positive number of cases in the worst performing sample.

Table 2.3 records a higher turnover of chairmen of poorly performing firms: 39% of chairmen in poorly performing companies leave the board for reasons other than natural retirement over the period 1985 to 1988, while only 22% of chairmen of average performing companies leave. There is therefore *prima facie* evidence of a disciplining function of both CEOs and chairmen of boards as predicted by hypothesis 1.

The relation between board turnover and performance was investigated further by regressing board turnover in the years 1985 to 1989 on annual abnormal share price returns in 1984-85.[6] For all years apart from 1986, there is a statistically significant negative relation at the 5% level in poorly performing companies. There is a statistically significant relation at the 0.1% level over the whole period 1985-1989 in poorly performing firms but not in average performers. The evidence is consistent with hypothesis 1, that board turnover results from a disciplining process when companies perform poorly.

Non-executives and board turnover

Table 2.4 examines whether there is a relation between board turnover and the proportion of non-executive directors on the board. There is a clear statistically significant relation in the poorly performing sample for three out of the five years from 1985 to 1989. The relation is significant for the whole period at the 5% level.

[6] We also regressed executive board turnover on performance where it was possible to identify it separately. The results were similar to those reported above.

However, there is no statistically significant relation in the average performing sample. Consistent with hypothesis 2, the influence of non-executive directors is therefore particularly pronounced in poorly performing companies.[7] This finding is consistent with the emphasis placed by the Cadbury committee on the presence of non executive directors on the board of companies.

Separation of chairman and chief executive and board turnover

Table 2.5 examines whether the separation of chairman and CEO is an important contributor to corporate governance. There is little relation in the overall sample between separation and board turnover. However, partitioning the samples of poorly performing and average companies reveals a significant relation, independent of company size, over the period 1985 to 1988 in the poorly but not averagely performing companies. The importance of separation of control is limited to poorly performing companies which were not recent IPOs. As described below, this is related to the particular ownership patterns of those companies. Consistent with hypothesis 3, there is a clear relation between separation of functions, disciplining and the performance of firms.[8]

[7] This relation is not found for poorly performing recent IPOs: the percentage of non-executives on their boards is not correlated with board turnover.

[8] Only board structure (percentage of non-executives) was significant in a regression on poorly performing firms which combined board structure and separation of control in a single regression. The insignificance of the separation of control variable may reflect the reduced number of observations when board structure was included.

Table 2.4 : The relation between board turnover, performance and the proportion of non-executives on board.

This table shows the results of the relation between the proportion of non-executive directors on board and board turnover. Turnover data are collected from the annual reports and performance data are from the London Share Price Database (LSPD).

$$TURN_i = \alpha_i + \beta_i * NONEX_i + \epsilon_i$$

where i = period of time, $TURN_i$ stands for board turnover and NONEXi represents the percentage of non-executive directors on board over the period 1985-88.

Dependent Variable	Independent Variable				
	Intercept	% non-executives on board	Sample Size	R^2 adj.	Prob>F
Panel A : Lowest Abnormal Return Sample					
1. Board turnover 85-88	0.009 (0.790)	0.175 (0.062)	23	11.1	0.062
2. Board turnover 85-89	-0.009 (0.830)	0.257 (0.017)	20	22.6	0.023
Panel B : Zero Abnormal Return Sample					
1. Board turnover 85-88	0.072 (0.003)	-0.022 (0.648)	44	0.0	0.648
2. Board turnover 85-89	0.083 (0.000)	-0.036 (0.444)	43	0.0	0.444

Note : Parameter estimates of the % non-executives in 000, p-values are in parentheses.

Table 2.5 : The relation between board turnover and the separation of the role of CEO and chairman.

This table shows the results of the relation between board turnover and the separation of the functions of CEO and chairman. Turnover data are collected from annual reports, performance data are from the London Share Price Database (LSPD).

$$TURN_i = \alpha_i + \beta_i * SEPAR_i + e_i$$

TURN stands for board turnover. $SEPAR_i$ is a dummy variable which stands for separation of control : 0 means that the functions of chairman and CEO are divided over two directors while 1 represents unitary control over the period 1985-88.

Dependent Variable	Independent Variables		Sample Size	R^2 adj.	Prob>F
	Intercept	Separation of control			
PANEL A : Lowest Abnormal Return Sample					
Board Turnover 1985-88	141.832 (0.000)	-51.422 (0.044)	69	4.5	0.044
PANEL B : Zero Abnormal Return					
Board Turnover 1985-88	71.838 (0.000)	23.544 (0.203)	74	0.1	0.203

Notes : All parameter estimates in 000, p-values are in parentheses.

2.3.2 Concentration of ownership and board turnover.

Table 2.6 reports the incidence of concentrated shareholdings of 5% or more. There is no significant difference in overall levels of concentration in the two samples: aggregate ownership stakes of 5% and more amount to between 35 and 42% in each sample (Panel A). Concentrations of shareholdings in Continental European countries are typically much higher. For instance, 84% of Italian companies with more than 1000 employees have a single shareholder owning a majority of the shares (Bianco, Gola and Signorini 1995). In Chapter 4, we show that in 93% of Belgian industrial companies listed on the Brussels Stock Exchange a single shareholder owns a block of at least 25% of voting rights. Franks and Mayer (1995b) report that more than 25% of shares are held by a single shareholder in 85% of the largest German quoted companies.

Subsequent panels record concentrated ownership of the most important shareholding categories. Insiders (managers, directors and their families) own the largest combined ownership stake (panel B): in both samples directors own between 20 and 25% of market capitalization in the period 1985-88. There is no statistical difference in director ownership of the poor and averagely performing sample.

There is, however, a statistically significantly higher level of ownership by industrial companies in poor than in average performers (panel C) over the period 1985-88. Stakes in average companies are between 3 and 4% while they amount to around 10% in poorly performing companies. In contrast, panel D records that institutional ownership is lower in poorly performing companies. Nowhere are holdings by banks found to be significant; on average, banks own less than one percent of reported share stakes. Large stakes held by venture capital companies are also relatively rare: their average reported holdings are less than 0.5%.

Table 2.6 : Aggregate large share stakes of 5% and more held by directors, industrial companies and institutional investors.

This table summarizes the aggregated large shareholdings for the years 1985 and 1988 for both the poorly and averagely performing sample companies. N, MEAN and STD stand for respectively, the number of sample companies, the mean of aggregate concentrated ownership and the standard deviation. W-M-W : p stands for the p-value of the Wilcoxon-Mann-Whitney test. Data are collected from the annual reports.

	LOWEST ABNORMAL RETURN SAMPLE			ZERO ABNORMAL RETURN SAMPLE			STATISTICS	
	N	%	STD	N	%	STD	T-STAT	WMW : p
PANEL A : OWNERSHIP OF ALL SHAREHOLDERS WITH A STAKE OF 5 % OR MORE								
1985	70	39.021	24.994	75	34.846	25.581	0.994	0.305
1985[1]	56	39.858	25.360	59	35.689	25.689	0.878	0.364
1988	56	42.342	22.905	59	38.361	27.157	0.847	0.358
PANEL B : OWNERSHIP OF DIRECTORS AND THEIR FAMILIES WITH A STAKE OF 5% OR MORE								
1985	70	24.211	25.657	75	21.164	23.834	0.740	0.486
1985[1]	56	25.632	26.537	59	20.705	22.733	0.878	0.365
1988	56	20.207	21.632	59	23.167	26.193	-0.659	0.689
PANEL C : OWNERSHIP OF INDUSTRIAL AND COMMERCIAL COMPANIES WITH A STAKE OF 5% OR MORE								
1985	70	8.101	16.441	75	3.044	9.260	2.261	0.013
1985[1]	56	8.371	17.093	59	3.869	10.302	1.720	0.085
1988	56	10.608	21.065	59	3.886	90994	2.204	0.050
PANEL D : OWNERSHIP OF INSTITUTIONAL INVESTORS WITH A STAKE OF 5% OR MORE								
1985	70	5.042	8.842	75	8.503	13.755	-1.815	0.041
1985	56	4.037	7.486	59	8.864	14.899	-2.166	0.028
1988	59	9.889	12.949	59	9.005	13.004	0.365	0.715

Note : the class of total institutional investors consists of unit trusts, investment trusts, pension funds, insurance companies and banks.

1. The sample in 1985 was reduced to those companies with data available in 1988.

The ownership structures of recent IPOs and of companies brought to the market before 1980 are detailed in table A2 (appendix A). The aggregate ownership of poorly and averagely performing IPOs in 1985 is 46% while on average only about 33% of shares of non-IPOs are held in the form of large stakes (statistical significance within the 1% level). The main reason for ownership discrepancies between IPO's and non-IPO's is the share stakes held by insiders (directors and their families). In 1985, about two thirds of the shares of IPO's are held by directors, whereas insiders only possess 18% of non-IPO shares (1% significance level).

Insiders' ownership is reduced by an average of only 5% between 1985 and 1988 in poorly performing IPO's, but declines sharply from 34% to 22% in averagely performing IPO's.[9] In contrast, the aggregate ownership of directors in averagely performing non-IPO's increases (but not significantly so) from 18% to 23% over a period of 1985-88, whereas the cumulative shareholdings in poorly performing companies declines. The reductions in insider's shareholdings is compensated by increases in ownership by the industrial companies and institutional investors.

In the lowest abnormal return sample, the ownership structure of the smallest companies, defined as firms with a market capitalization below the median of the sample, is different from that of the larger firms. Total aggregate ownership amounts respectively, to 35% and 45%. Whereas average corporate and institutional ownership levels are similar in both subsamples at respectively about 9% and 8%, directors own in 1985 only an average of 17% in the smallest companies versus 31% in the large companies. Differences are reduced over time when insiders' ownership diminishes to 24% (in 1988).

Table 2.7 presents the distribution of ownership stakes per investor class. In about 40% of the poorly performing companies, directors hold share stakes of 25% or more. Most

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[9] An analysis of the ownership structure of the IPO's of the period 1982-84 yields similar results: in poorly performing IPO's the average insiders' shareholding decreases from 43% to 34% over a period 1985-1988 and in average IPO's there is a reduction by 19%. These results confirm the findings of Brennan and Franks (1995) who state: "in less than seven years almost two thirds of the offering company's shares have been sold to outside shareholders, thereby substantially advancing the process of separation of ownership and control."

of these stakes are held in recent IPOs. Industrial and commercial companies also hold large stakes while institutional investors (predominantly, investment and insurance companies) typically own shareholdings of less than 10%. Average performers show a similar pattern but with smaller holdings by industrial and commercial companies.

Table 2.8 examines the relation between board turnover and concentrations of shareholdings. It reports the results of regressions of board turnover on performance and concentration. The concentration variable is found to be insignificant in the combined samples. However, there is some evidence of a relation in some years in poorly performing companies and a significant interaction term between concentration and performance. While there is therefore no evidence of a higher concentration of ownership in poorly performing companies, there is evidence of a higher turnover of executives in poorly performing companies in the presence of concentrated shareholdings, a result which is consistent with hypothesis 4. This suggests that disciplining of management is facilitated when free riding on corporate control is limited due to strong ownership concentration.

There is evidence in table 2.8 of a *negative* relation between board turnover and concentration of ownership in average performing companies. Table 2.9 sheds some light on what might be contributing to this. It examines the influence of particular categories of large shareholders on board turnover. Ownership is disaggregated into three classes[10]: institutional investors (banks, insurance companies and pension funds), outsiders (industrial and commercial companies, individual and family investors) and insiders (directors).[11]

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[10] In fact, we consider the influence of the aggregate shareholdings of substantial share stakes per shareholder category. If the parameter estimates of these variables are statistically significant and the parameter estimates of the largest shareholder are not (which is the case), we could deduct that coalitions of shareholders monitor management.

[11] A size variable was included in all regressions. It entered the regressions with a negative parameter, suggesting that boards of small companies are more easily restructured than those of large. However, it was only significant at around the 10% level.

Table 2.7: Distribution of the size of the share stakes per investor class.

This table records the number of companies in which particular investor classes hold shareholdings of a specific size in 1985. The number of IPOs (introduced on the London Stock Exchange over the period 1980-84) with share stakes of a specific size is shown in parentheses.

Total number of companies is 74 for the lowest abnormal return sample (panel A) and 77 in the zero abnormal return sample (panel B). There is a total of 34 IPOs in panel A and of 13 in panel B. Data were collected from the annual reports.

1985	[5%,10%[	[10%,15%[	[15%,25%[	[25%,50%[	[50%,100%]
PANEL A : lowest abnormal return sample					
institutional investors	22 (10)	4 (1)	3 (1)	3 (0)	0 (0)
industrial co's	4 (2)	2 (0)	6 (4)	7 (4)	2 (0)
individuals	1 (0)	2 (1)	1 (1)	1 (1)	0 (0)
directors	6 (2)	4 (0)	7 (3)	14 (9)	15 (10)
PANEL B : zero abnormal return sample					
institutional investors	29 (3)	8 (3)	7 (1)	3 (0)	2 (0)
industrial co's	3 (0)	1 (1)	0 (0)	6 (0)	0 (0)
individuals	5 (1)	3 (0)	3 (1)	0 (0)	0 (0)
directors	4 (2)	8 (1)	5 (1)	15 (4)	13 (4)

Source : Own calculations based on annual reports.

Table 2.8: The relation between board turnover, performance and large shareholdings.

This table analyzes the relation between board turnover and the presence of a concentrated ownership structure in both the lowest and the zero abnormal return sample.

$$TURN_i = \alpha_i + \beta_{1i} * PERFORM_i + \beta_{2i} * TOTOWN_i + e_i$$

TURN stands for board turnover. PERFORM stands for abnormal returns of 1985. TOTOWN stands for the aggregative large shareholdings (of 5% or more) as a percentage.
Data on turnover and shareholdings are collected from the annual reports. Performance data come from the London Share Price Database (LSPD). parentheses.

Dependent Variable	Independent Variables				Sample Size	R^2 adj.	Prob >F
	Intercept	Abnormal Return 1985	Total concentr. ownership over 85-88	(abn. return * tot. concentr. ownership over 85-88			
PANEL A : all companies							
Board Turnover in 1985-88	86.875 (0.000)	-0.824 (0.000)	-0.334 (0.329)		109	9.6	0.002
Board Turnover in 1985-88	106.254 (0.000)	0.065 (0.896)	-0.855 (0.046)	-0.022 (0.046)	109	12.1	0.001
PANEL B : Lowest Abnormal Return Sample							
Board Turnover in 1985-88	97.545 (0.001)		0.640 (0.304)		52	0.1	0.304
PANEL C : Zero Abnormal Return							
Board Turnover in 1985-88	107.550 (0.000)		-0.846 (0.029)		56	6.8	0.029

Notes : All parameter estimates in 000, p-values are in parentheses.

Panel B reports that there is evidence of significantly higher turnover of boards of poorly performing companies in the presence of concentrated share stakes held by outsiders. In contrast, directors who have large shareholdings reduce board turnover in both average and poor performing companies. The negative relation between board turnover and concentration in average performing companies would therefore appear to reflect the influence of insiders. This is most pronounced in recent IPOs where, as noted above, holdings by directors are particularly large. This is consistent with directors owning substantial shareholdings impeding board changes to protect the private benefits they derive from control. In the case of non-IPOs, directors appear to be unable to inhibit board turnover in poorly performing companies. However, in recent IPOs, there is a negative relation between board turnover and directors' holdings even in poorly performing companies. There is no significant relation between shareholdings of institutional investors and board turnover in either average or poorly performing companies.

We also investigated the interrelation between performance and ownership concentration of the three main shareholder categories by including interaction variables (performance * ownership by each category of investor). Only the interactive term with outside ownership concentration was statistically negatively significant, confirming that board turnover is high in the presence of poor performance and large outside ownership.[12] The interactive term with director ownership was not significant, consistent with the observation that directors impede board turnover in both average and poorly performing IPOs.

In summary, we find clear support for hypothesis 5: board turnover is higher in poorly performing companies in the presence of outsider (non-institutional) shareholders and lower in the presence of insider shareholdings. The influence of insiders is most pronounced in recent IPOs where their holdings are particularly large. Quite strikingly in light of the debate on the role of institutional investors, institutions do not appear to be involved in disciplining poorly performing management.

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[12] The interactive term is statistically significant in most of the individual years as well as across the period as a whole.

Table 2.9 : The relation between board turnover, performance and large shareholdings of institutional, insider and outsider investors.

This table reports whether board turnover is associated to the presence of shareholdings of specific shareholder categories : institutional investors, outsider and insider shareholders.

$$TURN_i = \alpha_i + \beta_{1i} * PERFORM_i + \beta_{2i} * INSTIT_i + \beta_{3i} * OUT_i + \beta_{4i} * INSIDE_i + \epsilon_i$$

where i stands of the period. PERFORM, TURN, INSTIT, OUT AND INSIDE respectively stand for the performance criterion (abnormal returns over 1985), board turnover, and the concentrated shareholdings of institutional investors, outsider shareholders (industrial and commercial companies and individual large shareholders) and insider shareholders (directors and their families). Concentrated shareholdings of the shareholder classes is averaged over the period 1985-88. IPOs are the companies introduced on the London Stock Exchange in the period 1980-84. Non-IPOs are all sample companies floated before 1980. Turnover and shareholdings are collected from the annual reports. Performance data are from the London Share Price Database (LSPD). All parameter estimates are in 000s, p-values are given between parentheses.

Dependent Variable		Independent Variables					Sample Size	R^2 adj.	Prob > F
		Intercept	Abnormal Return 1984-85	Concentr. ownership held by instit. investors	Concentr. ownership held by outsiders	Concentr. ownership held by insiders			
Panel A : all companies									
Board Turnover in 1985-88	all	82.198 (0.000)	-0.667 (0.003)	-0.398 (0.544)	1.887 (0.010)	-1.599 (0.005)	109	15.9	0.000
Board Turnover in 1985-88	IPOs	117.616 (0.011)	-0.265 (0.575)	-0.718 (0.753)	1.801 (0.181)	-2.535 (0.040)	35	5.5	0.225
Board Turnover in 1985-88	non-IPOs	85.193 (0.000)	-0.738 (0.023)	-0.006 (0.992)	0.604 (0.305)	-1.503 (0.023)	74	13.6	0.006
Panel B : lowest abnormal return									
Board Turnover in 1985-88	all	87.436 (0.002)		0.559 (0.691)	1.697 (0.023)	-1.615 (0.022)	52	6.6	0.009
Board Turnover in 1985-88	IPOs	149.967 (0.001)		-2.163 (0.377)	1.977 (0.112)	-2.734 (0.018)	27	11.9	0.112
Board Turnover in 1985-88	non-IPOs	52.668 (0.238)		2.028 (0.346)	2.239 (0.050)	-1.709 (0.182)	25	5.4	0.25
Panel C : zero abnormal return									
Board Turnover in 1985-88	all	98.882 (0.000)		-0.059 (0.927)	-0.425 (0.564)	-1.811 (0.025)	57	12.1	0.020
Board Turnover in 1985-88	non-IPOs	104.095 (0.000)		-0.372 (0.607)	0.538 (0.547)	-1.766 (0.075)	48	7.7	0.073

2.3.3 Sales of share stakes.

Although the traditional market for corporate control appears to be unrelated to performance, we find a market in share stakes in poorly performing companies. We divided shareholders into 'old' and 'new' shareholders for each main shareholder category. New shareholders are those who acquire a shareholding of at least 5% in the current year; old shareholders held share stakes of 5% or more in previous year. We investigate three directions of change in ownership patterns: decreases and increases in holdings of 'old' investors and the emergence of 'new' shareholders with reported share stakes.

Over the period 1985-87, old directors decreased their shareholdings in 39 poorly performing companies by more than 5% while they increased their shareholdings in only 6 companies (see table A3 in appendix A). In 16 companies, new directors acquired stakes of more than 5%. The number of companies where outside investors significantly decreased their share stakes was balanced by purchases by industrial and commercial companies. The pattern of share stake sales for the zero abnormal return sample was similar to that of poorly performing companies.

Splitting the sample into recent IPOs and non-IPOs reveals greater sales of director holdings in IPOs. This is particularly pronounced in average performing companies: in 1985 the average size of director holdings was 34% - by 1988 this had fallen to 22%. The share stakes are purchased by industrial companies and institutional investors.

Table 2.10 analyses whether a market for shareholdings is triggered by performance. Panel A records that institutional investors neither reduce nor increase their holdings in poorly performing companies.[13] However, there is some evidence of new large institutional investors emerging in poorly performing companies.

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[13] Although not shown in the table, when institutional investors were split into more detailed classes, there was evidence of insurance companies reducing their holdings by statistically significant amounts in 1985 and the three subsequent years.

Panel B of table 2.10 reveals that there is no evidence of old outside shareholders increasing their stakes in poorly performing companies. Instead, there is a significant relation between sales by old outside shareholders and purchases by new outside shareholders and poor performance. This suggests that there is a market in share stakes in poorly performing companies with old industrial investors selling out to other companies rather than exercising control themselves.

Panel C of table 2.10 records that insiders sell out of poorly performing companies. It reveals that there is some evidence (at the 10% level) that increased holdings are associated with new directors. This suggests that the sale of share stakes by old directors is part of a change in corporate control in the face of deteriorating corporate performance rather than simply portfolio diversification by directors.

In sum, consistent with hypothesis 6, we observe a market in share stakes in poorly performing companies. Active shareholders - corporate investors and directors - trade shares in poorly performing companies: old corporates and directors sell out to new.[14]

Table 2.11 examines whether increases of ownership stakes have an impact on turnover of board members. We focus on three categories of investors: institutional, outsider and insider investors. The independent variables relate to the combined holdings of old and new shareholdings in the relevant category.[15]

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[14] The results remain valid when recent IPOs are excluded from the sample. In addition, there is no significant effect from size of firms.

[15] The data on increases in holdings of 'new' investors contain an unavoidable bias. Suppose a shareholder increases its stake from 4.9% to 5.1%. This will be recorded as an increased holding of 5.1% because stakes less than 5% do not have to be disclosed.

Table 2.10 : The relation between performance and changes in large shareholdings of institutional investors, insider and outsider shareholders.

This table reports whether changes in large shareholdings over the period 1985-88 are correlated to abnormal returns in 1984-85.

$$CHINSTIT_i = \alpha_i + \beta_i * PERFORM_i + \epsilon_i$$

$$CHOUT_i = \alpha_i + \beta_i * PERFORM_i + \epsilon_i$$

$$CHINSIDE_i = \alpha_i + \beta_i * PERFORM_i + \epsilon_i$$

CHINSTIT, CHOUT AND CHDINSIDE stand respectively for changes in concentrated ownership of institutional investors, of outsider shareholders (industrial and commercial co's and individual and family investors), and of insiders shareholders (directors and their families and trusts). We distinguish among three kinds of changes : 1. decreases in shareholdings by the existing (old) shareholders, 2. increases in shareholdings by the existing (old) shareholders and 3. ownership stakes of the new shareholders (these are the shareholders who had no shares or shareholdings under 5 % in previous period). The changes are the average of yearly changes over the period 1985-88. Turnover and shareholdings are collected from the annual reports. Performance are from the London Share Price Database (LSPD). Parameter estimates of abnormal return are in 000s, p-value is given between parentheses.

Dependent Variable	Independent Variable				Sample Size	R^2 adj.
	Intercept	p-value of intercept	Abnormal Return 1984-85	p-value of abnormal return		
Panel A : Changes in large shareholdings of institutional investors.						
decreases	1.652	0.000	7.344	0.296	109	0.0
old increases	0.181	0.003	-0.925	0.466	109	0.0
new increases	1.205	0.000	-16.819	0.017	109	4.1
Panel B : Changes in large shareholdings of industrial and commercial companies, and individual and family investors.						
decreases	1.176	0.480	-22.779	0.028	109	3.3
old increases	0.120	0.518	-4.237	0.287	109	0.0
new increases	0.949	0.096	-38.740	0.002	109	7.5
Panel C : Changes in large shareholdings of directors and their families.						
decreases	1.381	0.015	-47.194	0.000	109	11.3
old increases	0.599	0.001	2.285	0.560	109	0.0
new increases	1.094	0.013	-14.944	0.100	109	1.3

Table 2.11 records the relation between turnover of the board and increases in concentration of shareholdings in the total sample. The table demonstrates that the relation between board turnover and share ownership changes is particularly pronounced for outsider investors and directors: there is a significantly higher level of board turnover in poorly performing companies where there are increases in large share stakes held by industrial and commercial companies and directors. This suggest that where disciplining of management is required, concentration emerges in the hands of those best placed to exert it. There is little relation between board turnover and increases in institutional investor stakes. Instead, the table reveals that the relation between increased institutional holdings and board turnover is most pronounced in the average performing companies.[16]

Consistent with hypothesis 7, we therefore find evidence of a relation between the exercise of corporate control and increased share ownership by active investors, in particular corporate shareholders and new directors. There may also be a parallel between the high board turnover found by Franks and Mayer (1995a) in hostile takeovers of averagely performing companies and the higher board turnover of averagely performing companies with increased institutional investor stakes. The latter may be motivated by attempts to enhance value in averagely performing companies through changes in corporate control.

2.3.4 Impact of composition of the board, ownership concentration and the market for share stakes on board turnover.

In this section, we have shown that a high number of non-executive directors, high board concentration of specific shareholder classes and increases of share stakes are positively correlated to board turnover in poorly performing firms. In table A4, we investigate, by including those variables into one model, which of these effects prevail. We find that the results of separate analyses remain valid : it seems that when performance is poor, (i) a higher proportion of non-executive directors on the board

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[16] The results are not changed by the inclusion of size proxies and coefficients on the size variable are insignificant. The results quoted above also apply to both recent IPOs and non-IPOs.

facilitates the disciplining of underperforming management, (ii) that concentrated ownership held by outside shareholders is positively correlated to board turnover, while directors who own substantial shareholdings impede board turnover, and (iii) that increases in share stakes held by outsiders and new directors coincides with increased turnover.

Table 2.11 : The relation between board turnover, performance and increases of large shareholdings owned by institutional investors, by outsider shareholders and by insider shareholders.

This table reports the relation between board turnover and increases in the share stakes owned by large shareholders.

$$TURN_i = \alpha_i + \beta_{1i} * PERFORM_i + \beta_{2i} * ININSTIT_i + \beta_{3i} * INOUT_i + \beta_{4i} * ININSIDE_i + e_i$$

TURN and PERFORM stand respectively for board turnover (as a percentage of total board size) and the performance criterion (abnormal return 1985). ININSTIT, INOUT and ININSIDE represent increases in concentrated ownership by the existing and new investors of the following shareholder classes: institutional investors, outsider shareholders (industrial and commercial companies and individual holdings), and insider shareholdings (directors and their families and trusts). Data on turnover and shareholdings are collected from the annual reports. Performance data are from the London Share Price Database (LSPD).

Dependent Variable	Independent Variables					Sample Size	R^2 adj.	Prob >F
	Intercept	Abnormal Return 1984-85	Concent. ownership of instit. investors	Concent. ownership of outsiders	Concentrated ownership of insiders			
PANEL A : all companies								
Board Turnover 85-88	55.532 (0.000)	-0.453 (0.045)	3.928 (0.124)	5.356 (0.001)	4.102 (0.036)	109	21.6	0.000
Board Turnover 85-89	51.574 (0.000)	-0.248 (0.351)	6.436 (0.048)	6.498 (0.012)	4.628 (0.079)	70	24.5	0.000
PANEL B : Lowest Abnormal Return Sample								
Board Turnover 85-88	39.951 (0.240)	-0.602 (0.228)	-1.058 (0.725)	7.005 (0.000)	9.602 (0.001)	52	33.6	0.000
Board Turnover 85-89	11.395 (0.738)	-0.613 (0.266)	2.725 (0.462)	7.995 (0.008)	17.669 (0.000)	24	64.7	0.000
PANEL C : Zero Abnormal Return								
Board Turnover 85-88	56.373 (0.000)	0.746 (0.632)	12.840 (0.007)	1.405 (0.714)	1.031 (0.706)	57	7.2	0.097
Board Turnover 85-89	68.028 (0.000)	0.873 (0.545)	5.875 (0.223)	5.083 (0.208)	-3.059 (0.336)	45	3.2	0.260

Notes : All parameter estimates in 000, p-values are in parentheses.

2.4 Conclusions.

This chapter has reported a strong relation between the exercise of corporate control in the U.K. in the form of board turnover and corporate performance. This result stands in marked contrast to evidence on hostile takeovers in the U.K. and U.S.: the incidence of takeovers in the sample of the worst and averagely performing companies in the U.K. in 1985 is about the same.

If takeovers do not perform a corporate governance function, how is corporate control exercised? The chapter has recorded a number of important influences. Firstly, consistent with recent recommendations about improved corporate governance and the literature on principal-agent relations, the presence of non-executive directors and the separation of the role of chairman and chief executive exert significant influences on corporate governance.

Secondly, consistent with the literature on free rider problems and large share stakes, concentrated ownership is associated with more active corporate governance than dispersed share ownership. However, we also find that the nature of the owner is of critical importance: corporate investors exercise more control than institutional investors and those with private benefits of control, such as directors, may impede the exercise of good governance. Managerial entrenchment is most in evidence in recent IPOs where director shareholdings are particularly high.

But perhaps the most interesting observation relates to the dynamic relation between ownership, control and performance. Where poor performance is observed, sales of share stakes occur between different investors. In particular, there is a market in shares between new and old non-institutional shareholders and directors. These trades in shares are associated with significant changes in boards of poorly performing companies.

There are some interesting parallels between the U.K. and Germany. While levels of concentration of ownership are much greater in Germany than in the U.K., there is more evidence of an influence of concentration of ownership on the disciplining of management in the U.K. than in Germany. This may result from the private benefits

of control of large shareholders in Germany impeding the exercise of corporate control in an analogous fashion to the negative influence of directors' holdings on board turnover in the U.K. Takeovers are not the method by which managerial discipline is imposed in either country; instead, partial sales of share stakes are more closely associated with the exercise of corporate governance in both countries.

An important issue concerns the ability of coalition formations in the U.K. to overcome impediments to changes in control from regulatory rules. The Takeover Code, for example, imposes mandatory bid requirements once share stakes of more than 30% have been accumulated. The ability to circumvent such rules through the formation of coalitions may come at the expense of the minority shareholders whom regulatory rules are designed to protect. On the other hand, the ability of large shareholders to exercise control at low cost may be an important contribution to good corporate governance.

Appendix A: Additional tables for Chapter 2.

Table A1 : Board turnover in poorly and average performing companies introduced on the London Stock Exchange respectively before and after 1980.

	LOWEST ABNORMAL RETURN SAMPLE			ZERO ABNORMAL RETURN SAMPLE			STATISTICS	
	N	%	STD	N	%	STD	T-stat	W-M-W: p
PANEL A : TURNOVER OF ALL DIRECTORS, EXECUTIVE DIRECTORS AND NON-EXECUTIVE DIRECTORS : in all companies excluding those IPO's of the period 1980-84.								
board turnover in 1985-88[1]	27	41.5	35.2	49	28.1	25.8	1.899	0.061
board turnover in 1985-88[1 4]	14	34.4	33.0	40	25.8	23.7	1.044	0.488
executive turnover in 1985-88[2]	14	40.4	32.6	40	22.7	26.1	1.038	0.043
non-executive turnover in 1985-88[3]	14	22.3	40.4	40	30.2	33.6	-0.721	0.234
PANEL B : TURNOVER OF ALL DIRECTORS, EXECUTIVE DIRECTORS AND NON-EXECUTIVE DIRECTORS : in all companies introduced on the London Stock Exchange in the period 1980-1984.								
board turnover in 1985-88[1]	28	49.7	30.7	8	26.2	33.5	1.872	0.073
board turnover in 1985-88[1 4]	9	31.6	24.7	5	18.4	25.9	0.944	0.418
executive turnover in 1985-88[2]	9	28.7	28.8	5	25.3	39.4	0.177	0.728
non-executive turnover in 1985-88[3]	9	34.7	34.2	5	00.0	00.0	2.288	0.032

Source : Own calculations based on annual report.
N : number of companies in the sample.
STD : standard deviation.
W-M-W p : p-value of the Wilcoxon-Mann-Whitney test.
1. turnover is proportional to total number of directors.
2. executive turnover is proportional to total number of executive directors.
3. non-executive turnover is proportional to total number of non-executive directors.
4. sample size was reduced with those companies for which data were not available on which directors had executive or non-executive functions.

Table A2 : Aggregate large shareholdings of 5% and more by directors, industrial companies and institutional investors.

This table shows the average shareholdings for both recent IPOs and non-IPOs. The mean stands for the average percentage of concentrated ownership (> 5%) of the sample companies per investor class. IPOs are for those companies that were introduced on the London Stock Exchange during 1980-1984. Non-IPOs were floated before 1980.

	LOWEST ABNORMAL RETURN SAMPLE			ZERO ABNORMAL RETURN SAMPLE			STATISTICS	
	N	%	STD	N	%	STD	T-STAT	WMW:p
PANEL A : OWNERSHIP OF ALL SHAREHOLDERS WITH A STAKE OF 5 % OR MORE								
1985 non-IPOs	38	33.310	26.645	62	33.200	25.475	0.020	0.983
1988 non-IPOs	27	37.555	24.482	51	38.647	28.375	-0.169	0.981
1985 IPOs	32	45.796	21.345	13	42.661	25.616	0.421	0.782
1988 IPOs	29	46.800	20.767	8	36.537	18.847	1.259	0.260
PANEL B : OWNERSHIP OF DIRECTORS AND THEIR FAMILIES WITH A STAKE OF 5% OR MORE								
1985 non-IPOs	38	17.463	23.554	62	18.422	22.506	-0.203	0.999
1988 non-IPOs	27	12.900	17.544	51	23.394	27.106	-1.817	0.133
1985 IPO's	32	32.225	26.095	13	34.238	26.531	-0.233	0.706
1988 IPOs	29	27.010	23.100	8	21.725	20.828	0.583	0.838
PANEL C : OWNERSHIP OF INDUSTRIAL AND COMMERCIAL COMPANIES WITH A STAKE OF 5% OR MORE								
1985 non-IPOs	38	8.623	18.913	62	3.493	10.037	1.770	0.076
1988 non-IPOs	27	10.496	22.755	51	3.639	9.928	1.852	0.089
1985 IPOs	32	7.481	13.189	13	0.900	3.244	1.766	0.114
1988 IPOs	29	10.713	19.769	8	5.462	10.970	0.716	0.481
PANEL D : OWNERSHIP OF INSTITUTIONAL INVESTORS (1) WITH A STAKE OF 5% OR MORE								
1985 non-IPOs	38	6.613	10.343	62	9.324	14.706	-0.994	0.234
1988 non-IPOs	51	12.485	15.242	51	9.096	13.044	1.029	0.354
1985 IPOs	32	3.171	6.299	13	4.584	6.867	-0.664	0.473
1988 IPOs	29	7.472	10.054	8	8.425	13.612	-0.219	0.968

Source : Own calculations based on annual reports.

Note : the class of total institutional investors consists of unit trusts, investment trusts, pension funds, insurance companies and banks.

N : number of companies in the sample.

STD : standard deviation.

W-M-W p : p-value of the Wilcoxon-Mann-Whitney test.

Table A3 : The distribution of the changes in the size of substantial shareholdings of 5% or more per shareholder class.

This table shows the number of increasing or decreasing share stakes over the period 1985-87. Old investors are defined as investors who owned a substantial share stake of at least 5% in the previous year. New shareholders did not hold a share stake of 5% or more in previous year but acquire shareholding so that their shareholding reaches the 5% ownership notification threshold. The class of total institutional investors consists of unit trusts, investment trusts, pension funds, insurance companies and banks.

1985-87		[0.2%,5%[	[5%,10%[	[10%,25%[	[25%,50%[	[50%,100 %]
PANEL A : lowest abnormal return sample						
increase old investors	instit. investors	15	2	1	0	0
	industrial co's	2	3	0	0	1
	individuals	2	0	0	0	0
	directors	8	4	1	1	0
increase new investors	instit. investors	0	7	9	2	0
	industrial co's	0	11	6	6	4
	individuals	0	4	3	1	0
	directors	0	2	8	5	1
decreases old investors	instit. investors	14	19	8	1	1
	industrial co's	10	12	11	5	1
	individuals	1	2	4	0	0
	directors	35	12	20	4	3
PANEL B : zero abnormal return sample						
increase old investors	instit. investors	20	1	0	0	0
	industrial co's	6	2	0	0	0
	individuals	6	0	0	0	0
	directors	29	4	1	0	0
increases new investors	instit. investors	0	2	9	1	0
	industrial co's	0	3	3	2	0
	individuals	0	5	2	0	0
	directors	0	3	4	1	1
decreases old investors	instit. investors	18	22	11	2	0
	industrial co's	2	3	1	3	0
	individuals	5	6	3	0	0
	directors	46	13	5	2	1

Source : Own calculations based on annual reports.

Table A4 : Impact of board composition, large shareholdings per investor class and increases in share stakes on turnover of the board.

This table shows, for both averagely and poorly performing sample companies, the regression of board turnover on the following independent variables : 1. a company size variable (log of total assets), 2. the proportion of non-executive directors on board, 3. separation of control (dummy equals 1 if the functions of CEO and chairman are combined), 4. the aggregate share stakes for the investor classes of institutional investors (banks, insurance companies and investment companies), outsiders (industrial and commercial companies and individual investors) and insiders (directors and their families) and 5. increases in share stakes for the same investor classes.
Between brackets, under the parameter estimates of the regression, the standard error and the corresponding p-value are given.

INDEPENDENT VARIABLES (averages 1985-88)	DEPENDENT VARIABLE : Board Turnover over 1985-88.			
	Poor performers	Good performers	Poor performers	Good performers
Sample Size	23	44	52	56
Intercept	0.058 (0.074,0.45)	0.126 (0.047,0.01)	0.101 (0.041,0.02)	0.129 (0.041,0.00)
Company size	-0.008 (0.008,0.30)	-0.006 (0.007,0.37)	-0.011 (0.005,0.06)	-0.008 (0.006,0.19)
Non-executives (proportion of total board)	-0.015 (0.084,0.85)	-0.029 (0.050,0.57)		
Separation of control (yes=1, no=0)	-0.043 (0.022,0.07)	-0.005 (0.020,0.78)	-0.058 (0.017,0.00)	0.008 (0.017,0.65)
Institutional investors' stakes (banks, insurance, investm. co's)	-0.001 (0.001,0.42)	-0.0003 (-0.390,0.69)	0.0001 (0.001,0.96)	-0.0006 (0.0007,0.38)
Outsiders' stakes (ind. co's and individuals)	0.002 (0.0005,0.03)	-0.0014 (0.0009,0.12)	0.001 (0.006,0.10)	-0.001 (0.0009,0.14)
Insiders' stakes (directors)	-0.002 (-2.782,0.01)	0.0002 (0.0008,0.81)	-0.001 (0.006,0.02)	-0.0002 (-0.299,0.76)
Increases in Institutional investors' stakes (banks, insurance, investm. co's)	0.006 (0.004,0.13)	0.004 (0.004,0.40)	0.00003 (0.003,0.99)	0.005 (0.004,0.22)
Increases in Outsiders' stakes (ind. co's and individuals)	0.004 (0.002,0.10)	0.006 (0.004,0.14)	0.005 (0.002,0.01)	0.001 (0.375,0.70)
Increases in Insiders' stakes (directors)	0.008 (2.501,0.02)	0.0005 (0.003,0.85)	0.011 (0.002,0.00)	0.002 (0.002,0.33)
F-test	0.00	0.26	0.00	0.06
adjusted R squared	0.68	0.06	0.50	0.14

Source : Own calculations based on annual reports.

PART II : Corporate Control in Belgian Companies Listed on the Brussels Stock Exchange.

CHAPTER 3 : Overview of Corporate Control Issues in Belgium.

While in the U.S. and the U.K., managerial performance is maintained by the complementary intervention of both internal and external control mechanisms[17], the impact of the takeover market as a corporate governance device in Belgium, and most other Continental European countries, is limited. Recent Belgian legislative changes with regard to ownership disclosure laws and anti-takeover procedures have further reduced the likelihood of takeovers as a corporate control mechanism. Consequently, as in the French Viénot report (Jack 1995, Viénot 1995) and Cadbury report in the U.K. (Cadbury 1992), the Belgian policy debate on corporate governance currently focuses on the effectiveness of internal corporate control mechanisms and the role of large shareholders in the corporate governance monitoring process.

The main objective of this part of the thesis is to investigate whether poor corporate performance triggers executive board turnover and whether disciplining actions are initiated by the non-executive directors, usually appointed by and representing the large shareholders. This paper also investigates whether the accumulation of shares into large blocks of shares mitigates problems of free riding in corporate control, permitting control to be exerted more effectively. In addition, we examine whether the presence of particular types of major shareholders is associated with increased incidence of disciplinary turnover when corporate performance is poor. If this is the case, we can assume that such large shareholders are more effective monitors.

We also analyze whether, when company performance is poor, a market for share stakes arises. In Continental Europe, such a market might have an equivalent role of the external market for corporate control in the U.K. and the U.S. We hypothesize that,

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[17] Over the last 15 years, takeover activities and, in particular, the hostile take-over market as an external corporate control mechanism, have been the main focus of corporate governance research. However, the effectiveness of hostile takeovers as a corporate control mechanism in Anglo-American capital markets has been disputed by, among others, Franks & Mayer (1995a) for the U.K. and, for the U.S., Martin & McConnell (1991) and Schleifer & Summers (1988), Jensen (1986). Berkovitch & Narayanan (1993) show that not managerial correction is the main motive for takeover activity but synergies and hubris. For an overview of takeover activity in France, Germany and the U.K., see e.g. Franks & Mayer (1990). Jensen & Ruback (1983) summarize M&A activity in the U.S.

if a company underperforms and if there is no absolute majority control, able monitors will increase their voting rights in order to reach a control level allowing them to nominate a new management team. Finally, for corporate governance mechanisms to be effective, there should not only be a greater incidence of top management changes in poorly performing firms, but also improvements in firm performance following management restructuring.

This part of the thesis also describes ownership patterns of all Belgian companies listed on the Brussels Stock Exchange over the period 1989-1992, and details the ownership structure of subsamples consisting of all the Belgian holdings companies, the industrial and commercial companies, and financial firms. We also report the relative importance of different investor categories, the occurrence of blocking minorities and majorities, and control leverage via ownership pyramids.

The paper has 6 major findings. First, we document that poor company performance precedes increased turnover of the executive directors, of the management committee and of the CEO and executive chairman. These findings are consistent with the board of directors and major shareholders serving an important role in monitoring and disciplining poorly performing companies. Similar relations were reported by Denis and Denis (1994) and Warner, Watts and Wruck (1988) for the U.S., by Franks and Mayer (1995b) for Germany and in Chapter 2 for the U.K. We use a number of different criteria to measure performance : operating income, earnings after tax, share price returns, dividend changes and negative earnings. The levels of and changes in the performance criteria are standardized by total assets or total equity and corrected for industry effects. Market adjusted returns over both short (one to three years) and long term periods (up to ten years) are employed. Statistically significant corporate control relations are only found for the inability to generate positive earnings, for substantial decreases in dividends and for market adjusted returns, but the other performance benchmarks are still, as expected, negatively correlated with board turnover.

Second, the structure of the Belgian board of directors has an important impact on the functioning of the internal corporate control system, since a high number of non-executive directors and separation of the functions of CEO and chairman of the board

increases turnover of executive directors of underperforming companies. Weisbach (1988) reports similar results for the U.S. : outside directors play a larger role in monitoring management than inside directors. For Japan, Kaplan and Minton (1994) show that board appointments of directors representing banks and corporations are followed by increases in top management turnover. In Chapter 2 of this thesis, we found that a high proportion of non-executive directors serving on the boards of poorly performing U.K. companies is positively correlated with board turnover. Franks and Mayer (1995b) show that, in German companies with concentrated ownership, supervisory board representation goes hand in hand with ownership or large shareholdings.

Third, consistent with Shleifer and Vishny (1986) and Grossman and Hart (1980), we find higher board turnover related to increasing concentration in ownership since the costs of free riding in control are reduced. We also find that disciplining of underperforming management depends on the presence of specific categories of large shareholders. For instance, while industrial and commercial companies, family shareholders and holding companies, replace directors and management when the company's profitability is low, large institutional investors do not seem to be involved in monitoring the corporation.

Fourth, the ownership structure of Belgian companies is complex with multiple owners and stakes held through multiple tiers of ownership. The decision to substitute top management of poorly performing companies is taken by ultimate shareholders who control either directly or indirectly, via affiliated companies, a large percentage of the voting rights. The presence of direct large ownership stakes is only weakly correlated to board turnover, whereas regressions of the aggregate of the direct stakes controlled by the same ultimate shareholder on board turnover shows a significant positive relation. However, when an ultimate shareholder has invested in a company via a pyramid of intermediate companies (through multiple ownership tiers) which he controls with less than 100% of the shares, the association between board turnover and large shareholdings is weaker. This yields some evidence of control dilution throughout the ownership tiers of a control chain.

Fifth, we find an active market in share stakes following poor performance. Specific shareholder classes with superior monitoring abilities or with private benefits of control, increase their percentage of voting rights in order to be better positioned to replace management. Such a market for blocks of control also exists in the U.K. and in Germany, as respectively detailed in Chapter 2 and Franks and Mayer (1995b). Shareholders who increase their holdings do so with a clear intention to assume an active monitoring role since management turnover significantly increases in subsequent periods.

Sixth, corporate control actions leading to the replacement of management are followed by an improvement of corporate performance in the form of increases in dividends per share over a period of two years after turnover. However, replacement of CEO and executive directors is followed by decreases in earnings. This may be the result of new management's decision to expense large amounts of costs so that the reduction in earnings can still be attributed to their predecessors and the lower results allows for substantial improvements in subsequent years. This result is analogous to the findings of, among others, Murphy and Zimmerman (1993).

The remainder of this part of the thesis is organized as follows. In Chapter 4, the hypotheses and methodology are discussed and the sample data are described. Chapter 5 details the ownership structure and the importance of investor groups, foreign investment and the size and composition of the board of directors and the management committee of all Belgian listed companies. Chapter 6 exhibits the main results of the hypotheses. Chapter 7 concludes.

CHAPTER 4 : Hypotheses, methodology and data.

4.1 Hypotheses.

4.1.1 Corporate performance and disciplinary corporate governance actions.

Since one of the principal responsibilities of the board of directors is monitoring the company's performance, the most striking, observable actions taken by directors or major shareholders are the replacement of the CEO, of members of the management committee and of executive directors when companies underperform.

Hypothesis 1 :
Disciplining of top management is triggered by poor company performance : directors, CEOs, top managers and executive chairmen are replaced following poor share price performance and/or low operating income and net earnings.

Boards must assume the task of extracting information about true managerial performance from noisy financial performance realizations. Both accounting and market returns (see section 4.2) are determined in part by factors beyond the control or influence of the firm's managers. However, to the extent that these returns are also influenced by the quality of managerial inputs and actions, they may provide useful information on managerial performance (Joskow and Rose 1994).

Testing hypothesis 1 also yields an answer to the question about who is held accountable for the poor performance : CEO, executive directors, or those members of the management committee who do not serve on the board. Unlike in Germany, a Belgian management committee is not a collegial council; it consists of the top management of the company and is chaired by the CEO (delegated director). The most senior members of the management committee, including the CEO, usually serve on the board of directors.

Furthermore, we investigate whether the non-executive directors and the non-executive chairmen are replaced following poor performance, which would either be an indication

that poor monitors are substituted or that changes in the shareholder structure have occurred.

4.1.2 The impact of board composition and structure on the board's ability to monitor performance.

The board of directors which has the power to hire, fire and compensate senior management, serves to resolve conflicts of interest among decision makers and residual risk bearers, the shareholders (Williamson 1983 and 1984). The existence of a balanced board including both executives and non-executives, reduces the transaction or agency costs associated with the separation of ownership and control. Executive directors and members of the management committee, who bear responsibility for their company's results are not likely to discipline themselves. Moreover, their careers are tied to the CEO's, which discourages them to remove incumbent CEOs (Vance 1987, Mace 1986). Consequently, the task of evaluating senior management is likely to fall mainly on the non-executive directors who have several incentives to remove underperforming CEOs and top management :

Firstly, some of the non-executive directors represent the (large) shareholders who have delegated their monitoring task and who might replace directors who do not assume their monitoring tasks. In other words, the monitors on the board are in turn monitored by large shareholders. The ownership structure in Belgium is highly concentrated : in more than 85% of all quoted companies a large shareholder owns a share stake of at least 25%. A voting rights majority is held by a shareholder in more than half of the companies (see Chapter 5). Therefore, in many cases, even 'independent experts' who serve on the board of directors are appointed with the consent of major shareholders. Consequently, the concentration of ownership ensures that the relation between major shareholders and the board of directors in Belgium is much stronger than that in an Anglo-American corporate governance system.[18] Hirshleifer and Thakor (1992) model

[18] Maug (1994) models alternative governance structures in an Anglo-American context and concludes that a strong board of independent directors whose main instrument of control is (i) the discretion they can exercise over the managers' renumeration and (ii) the authority they have to fire top management, is a more effective and less costly mechanism than an external control mechanism (takeovers).

a multi-layered principal-agent relationship in which shareholders delegate the task of monitoring managerial quality to the board of directors and rely on the external take-over market to provide additional disciplining of poorly performing managers. However, their U.S. model is not an appropriate description of the corporate governance mechanism in Continental Europe, where ownership structure and legislation limits the (potentially) disciplining role of such a (hostile) takeover market much more than in Anglo-American capital markets.

Secondly, non-executive directors are usually respected business leaders whose reputations suffer when they are directors of faltering companies. Non-executives have incentives to develop reputations as experts in decision control whose human capital depends on their performance as internal decision managers and monitors in other organizations (Fama and Jensen 1983, Fama 1980). Consequently, directors face an external labour market which provides some form of disciplining of passive leadership. The importance of this market and its reputation signal has been emphasized by Mace (1986) : managers accept outside directorships to signal that they have been accepted by their peers. In the case of the U.S., Kaplan and Reishus (1990) report that managers of poorer performers are likely to lose directorships in their own company, but they do not seem to lose directorships in other companies. However, failing managers will rarely be offered new directorships. Directors who left the boards of distressed U.S. companies, of firms that filed for bankruptcy or restructured their debt, held approximately one-third fewer directorships three years after their departure (Gilson 1990).

A third reason for the non-executive board to monitor the company's performance actively, is that directors have legal obligations to the shareholders and they can be held liable for damages. In Belgium, minority shareholders who own, individually or collectively, a minimum of 1 percent of the voting rights can sue the board if the board has violated the rights of the minority shareholders[19].

[19] The rights of the minority shareholders are discussed in section 5.2.2.

Hypothesis 2 :

The composition of the board of directors determines the board's monitoring capabilities. The greater the proportion of non-executive directors, the lower potential board domination by management and the higher the monitoring ability of the non-executive directors as observed in turnover of executive directors, of the CEO and of the management committee.

One of the recommendations of the U.S. Bacon study (1993), of the U.K. Cadbury Committee[20] (1992) and of the French Viénot report[21] (Viénot 1995, Jack 1995) focused on the importance of separation of the role of CEO and of non-executive chairman. As a result of this direction, conflicts of interest for the CEO who would be both chairman of the management committee and of the board of directors are avoided and the possibility that a strong CEO dominates the board is reduced. The recommendation is based on the idea that a non-executive chairman could set the agenda of board meetings more independently of management and that this would strengthen the monitoring ability of the non-executive directors.

Hypothesis 3 :

The separation of the functions of CEO and of chairman of the board, facilitates disciplining of underperforming management. Therefore, with dual control, we would expect to see higher turnover.

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[20] Its recommendations have been made obligatory for all companies listed on the London Stock Exchange since July 1993.

[21] The committee was chaired by Mr. Viénot, chairman of the banking group, the Société Générale. The report argues that the directors should not act in their own personal interest but as representatives of the company and as employees and not only in the interests of shareholders. The French system of cross-shareholdings is questioned, and the need for more independent shareholders who should form audit, renumeration and nomination committees is emphasized.

4.1.3 Ownership concentration, the costs of free riding on control and superior monitoring abilities.

Grossman and Hart (1980 and 1988) persuasively argue that outsiders without a share in a diffusely held corporation would never take over that company in order to improve its performance. If such a shareholder can gain only on the shares he already owns and has to pay all the monitoring and takeover costs, the deal may not be worthwhile. The atomistic incumbent shareholders will hold out unless they are offered a price which equals their estimate of the post-restructuring value of the company. For the same reason, monitoring management and disciplining in the case of company underperformance, may be prohibitively expensive for small shareholders. Monitoring shareholders pay the costs related to their corporate control efforts but they only benefit in proportion to their shareholding (Demsetz and Lehn 1985, Demsetz 1983, Easterbrook and Fischel 1983). Therefore, monitoring of management will only be effective if a single party becomes large enough to internalize the costs of corporate control. The disadvantage of greater diffuseness in ownership structure is shirking of control by the owners. A shareholder's benefit of free riding on control is the ability to use his time on other tasks while the costs of shirking are shared by all the shareholders. The inefficiencies implied by these externalities highlight the advantage of concentrated ownership with regard to corporate governance.

Shleifer and Vishny (1986) focus on the ways in which large shareholders bring about value-increasing changes in corporate policy. They model that in the process of tender offers, proxy fights and internal management shake-ups, the presence of a large minority shareholder provides a partial solution to the free-rider problem. Burkart, Gromb and Panunzi (1995) argue that the ownership structure of a firm acts as a commitment device to delegate a certain degree of authority from the shareholders to the management. They show that when long-term profits are important, a large shareholder may be desirable. Their model also shows that, on the one hand, monitoring ensures that managers' and shareholders' interests are aligned and reduces the risk that a bad manager continues to provide low returns. On the other hand, close monitoring reduces managerial discretion and hence management's current effort. In fact, the authors suggest that, depending on the performance of the company, an

optimal size for a large share stake exists so that conflicting effects of monitoring are balanced.

Hypothesis 4 :

The presence of large shareholdings in the ownership structure is positively correlated with higher board turnover when performance is poor.

The incentives to monitor and correct managerial failure depend not only on the concentration of ownership, but also on the monitoring ability of major shareholders. Since different classes of shareholders might have different information, monitoring competencies and incentives, we categorized all shareholders with a stake of 5 percent or more into 8 classes[22] : (i) holding companies, (ii) banks, (iii) investment companies (pension funds, investment funds), (iv) insurance companies, (v) industrial and commercial companies, (vi) families and individual investors, (vii) federal or regional authorities, (viii) realty investment companies. Each of these shareholder classes is subdivided into Belgian and foreign investors.

Like Shleifer and Vishny (1986), we do not expect monitoring actions by investment companies, banks, insurance companies and realty investors. In Belgium, these investors have so far taken a passive stance with regard to monitoring; they are often affiliated to holding companies or financial institutions and want to avoid conflicts of

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[22] Ownership disclosure is only obligatory for stakes of 5% and more. Unlike for the U.S. and the U.K., managerial ownership data under 5% are not available in Belgium. Wealth constraints rarely allow new managers to build up a stake of more than 5%. Consequently, direct agency tests on the impact of managerial ownership on the disciplining-control relation the can not be performed. For the U.S., Morck, Schleifer & Vishny (1989) and McConnell & Servaes (1990) find that, at low levels, management's interest are increasingly aligned with the shareholders' but with less than one percent of the stock, management does not own enough stock to insulate it from other disciplinary devices such as the takeover market. Beyond one percent, corporate performance, measured by Tobin's Q, declines with ownership, possibly because the increasing insulation from disciplinary devices more than offsets the increased alignment of interests. This result suggests that there is an optimal managerial ownership structure in the U.S. and that we observe firms deviating form it experiencing lower performance. An alternative view of this problem is that different governance structures are optimal for different firms, as Demsetz & Lehn (1985) argue.

interest[23]. No such impediments hinder monitoring by holding companies, industrial and commercial companies, individual investors and the government whose major shareholdings are, consequently, expected to be positively correlated with turnover.

Burkart, Gromb and Panunzi (1995) argue : "In absence of private gains, blocks of shares ought to be sold at a discount due to the greater risk exposure and due to the monitoring costs. However, blocks are usually sold at a premium which suggests the presence of private gains. Private gains may be pecuniary or non-pecuniary, and may stem from taking decisions which actually reduce the security benefits, e.g. use the firm's structures for personal purposes, or engage into sweetheart deals. (p.26)" Demsetz and Lehn (1985) and Barclay and Holderness (1989, 1991) also note that concentrated ownership and control is valued differently by diverse classes of U.S. shareholders who have different attitudes towards monitoring. The holding companies' incentives to monitor the company or to acquire a major shareholding are manifold and include e.g. capturing tax reductions by facilitating intercompany transfers, reducing transaction costs by offering economies of scale or an internalized form of capital market (Leleux, Vermaelen and Banerjee 1995). Corporate shareholders with customer or supplier relations might hold substantial share stakes in order to have a board representative who could try to influence management's strategic decisions favourably for the investor. Individuals or family shareholders whose stakes give them the right to an executive or non-executive board seat are likely to value opportunities to consume perquisites more highly than will corporate blockholders.

Thus, the incentives to monitor and discipline underperforming management are not uniquely based on an improvement of the financial benefits related to the shares (dividend income and capital gains), but also on private benefits of control accruing to a major shareholder. Such benefits of control are unique to a shareholder and not tradeable.[24] Manne (1964) and Jensen and Meckling (1976) report that control is

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[23] The reasons of conflicts of interest are discussed in section 5.2.6.

[24] DeAngelo & DeAngelo (1985) and Lease, McConnell & Mikkelson (1983) provide additional evidence on the value of private benefits in their analyses of dual voting rights.

valuable and the source of value is the additional compensation and perquisites that the controlling security holders can accord themselves.[25]

Hypothesis 5 :

Disciplining of underperforming management is accomplished by large shareholders with superior monitoring abilities.

4.1.4 Dilution of control.

As ownership structures are frequently complex and/or pyramidal (see Chapter 5), the question arises as to whether decisions about disciplining management of the sample company are taken by direct investors (at ownership tier 1) or by 'ultimate shareholders' who control these direct shareholders directly or via intermediate companies through multiple tiers of ownership. An investor is considered to be the 'ultimate shareholder' in an ownership-control chain if control is maintained through multiple tiers of ownership. Interlocking ownership via a holding company or through a more elaborate stock pyramid enables a given investor to own different quantities of voting and cash flow rights. For instance, 50.1 percent of ownership (and voting rights) held by the ultimate shareholder in an intermediary holding company which, in turn, owns 50.1 percent of an operating subsidiary could guarantee majority control on the subsidiary's board with only a 25.1 percent interest in its common stock cash flows.

Sequences of majority control in the form of e.g. stakes of 50.1% throughout the pyramid might not guarantee the same control rights as a first tier majority holding would give, unless there is board representation on each level of the ownership structure. As the number of ownership tiers increases, control dilution might occur because of agency costs. In addition, the more the share stakes in intermediate companies of an ownership pyramid deviate from full control (100%), the higher the potential dilution of control. A shareholding of 50% owned by an ultimate investor at the second tier in an intermediate company that holds in turn 50% of the voting rights

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[25] An explicit test, however, to determine the source and magnitude of such private benefits for different shareholder classes is beyond the scope of this paper.

of a sample company might not give the same control as a direct stake of similar size owned by a company with a dispersed ownership structure. A sequence of vetos does not ensure that the ultimate shareholder can veto decisions at the board level of the target.[26]

Hypothesis 6 :

When a sample company's performance is poor, the influence of an ultimate shareholder on managerial disciplining is reduced when controlling stakes are held through multiple tiers of ownership.

4.1.5 The disciplining role of the market for share stakes.

When performance is poor, a market for share stakes may result. Decisions to build up a substantial shareholding, to increase a shareholding to a critical ownership threshold (e.g. 25% or 50%) or to expand a toehold share stake are motivated by future performance improvements after the failing management team and/or the board is restructured. Moreover, stakeholders can obtain or safeguard private benefits of corporate control at relatively low cost when performance is poor. Still, Barclay and Holderness (1989) point out that large blocks of shares are typically priced at substantial premiums (of about 20 percent) over the stock exchange price in the U.S.

Poor performance may reflect not simply poor management but may also be the result of ineffective monitoring and control. If this is the case, we may also expect that poor performance is accompanied by sales of stakes and changes of concentration of ownership. Low quality monitors sell out to shareholders with a managerial alternative. Large share stakes usually change hands through negotiated deals ex exchange. Shleifer and Vishny (1986) state that once a block of shares is assembled, the position is unlikely to be dissipated. It is in the large shareholder's interest to wait until someone who can monitor effectively expresses interest in his shares. For if he sells his shares on the open market, he loses that part of the firm's value that comes from the

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[26] Franks and Mayer (1995b) and Nicodamo (1993) document pyramiding for respectively German and Italian countries.

possibility of a value-increasing monitoring. This suggests that large blocks of shares will tend to be passed on rather than dissipated.

We analyze the changes in ownership by distinguishing among increases in ownership of the old (existing) shareholders and increases in ownership of 'new' investors. These 'new' investors are investors who build up a shareholding of 5 percent or more and did not hold any shares in the previous year or had a toe-hold stake under 5 percent.

Hypothesis 7 :
In companies without sufficiently large shareholders or with shareholders who take a passive stance with regard to monitoring, poor performance gives rise to changes in the ownership pattern.

When a market of share stakes originates from poor performance and for control purposes, we might expect disciplining of management. Larger ownership stakes held by high quality monitors yield a more powerful control position. Therefore, increasing shareholdings owned by 'old' shareholders and share stakes acquired by new shareholders coincide with or are followed by changes in management.

Hypothesis 8 :
Increases in shareholdings are associated with higher managerial and board turnover in the same year or the year following the monitors' disciplinary actions.

4.1.6 Post-disciplining corporate performance.

For internal and external control mechanisms to be effective, the greater incidence of replacement of top management and directors should be followed by improvements in firm performance.

Hypothesis 9 :
Management and board restructuring triggered by poor performance results in improvements of company performance.

Both share price returns and accounting measures are used as performance measures. Changes in dividends per share are explained by the permanent component in earnings levels and the company's target dividend level (Swanson and Alltizer 1995, Fama and Babiak 1968, Lintner 1956) and dividend reductions tend to have a permanent character (see section 4.2). Therefore, increases in dividends per share are good indicators of performance improvements when dividends were reduced in the past.

However, it is not certain when improvement of accounting measures in the year of the turnover and the subsequent year is to be expected. Following management changes, asset write-offs (Strong and Meyer 1987), changes to income reducing accounting methods changes (Moore 1973) or income reducing accounting accruals (Pourciau 1993) frequently occur. Murphy and Zimmerman (1993) conclude that a 'big bath' is more likely to occur if the outgoing CEO is terminated following poor performance since in these situations it is more credible for the new CEO to blame the previous CEO for past mistakes. Moreover, by constantly overstating losses attributable to predecessors, management improves accounting expectations about the future and lowers the benchmark against which its own accounting performance will be measured (Elliott and Shaw 1988). Consequently, we only expect increases in earnings as of the second or third year after the replacement of management.

Expectations about future performance of a new management team, CEO or new directors will be reflected in the share price return at the latest at the announcement of the replacement. Previous studies examining the wealth effects of changes in the top management team have produced mixed effects. Bonnier and Bruner (1989), Furtado and Rozeff (1987) and Weisbach (1988) detect significant positive price effects while insignificant price reactions are found by Reinganum (1985), Warner, Watts and Wruck (1988) and Dennis and Dennis (1994).

4.2 Performance benchmarks.

To evaluate whether poor performance triggers corporate control actions (hypothesis 1), we focus on several different performance criteria. We analyze whether monitors react quickly when performance declines or whether disciplinary actions are only taken against management when performance reaches critically low levels.

Share price returns

The first performance measure used is the return on the company's stock, adjusted for the return on the value-weighted market index of the Brussels Stock Exchange. To explore how quickly boards or major shareholders react to poor share price performance, market adjusted returns over short pre-turnover periods (one or two years) are examined. Warner, Watts and Wruck (1988) and Coughlan and Schmidt (1985) report that U.S. boards react quickly to poor performance in their decision to replace the CEO : share performance lagged up to two calendar years helps predict current-calendar-year management changes. However, if the CEO and/or top management dominates the board of directors or if top management has built up an excellent managerial record, underperformance over a short period of time might not trigger any disciplinary action (Yungsan 1993). Therefore, returns over longer periods (three to ten years) are also used to verify the presence of managerial entrenchment.

Accounting earnings

A second benchmark of corporate performance is accounting earnings. These earnings data have an advantage over share price data for the purposes of measuring the performance of top management. The share price reflects the present discounted value of the expected future cash flows of the company and, therefore, incorporates the market's estimate of the probability that bad management will be replaced. Consequently, the share price of poorly performing companies is higher than it would be if the management could not be fired. Using share price returns as a performance measure might lead to an underestimation of the turnover-performance relation (Weisbach 1988). Accounting earnings, on the other hand, also have limitations since

it is a variable that management can manipulate to some extent. Large firms are more easily able to smooth earnings (Schipper 1989, Moses 1987). Several earnings definitions are used : operating income (earnings before financial and extraordinary results and before taxes, EBIT), earnings after financial results but before extraordinary results and taxes (EBT), and earnings after extraordinary results and taxes (EAT), all normalized by total assets or by equity. Earnings before interest and taxes are not sensitive to changes in capital structure of special tax treatments. Correcting earnings for depreciation and non-cash items yields a measure of cash flow.

As it is a priori not certain whether the monitors focus on absolute or on relative levels of performance, both earnings levels, standardized by total assets or total equity, and changes in earnings over the period of one to two years before management replacement, are taken into consideration. If the decision to replace top management is related to unanticipated changes in performance, changes in accounting earnings is the appropriate benchmark (Weisbach 1988). Earnings (but not changes in earnings) are reasonably approximated by a random walk which implies that changes in earnings are an unbiased estimate of unexpected earnings (Dechow 1992, Ball and Watts 1972, Foster 1978).

Interviewed Belgian executive and non-executive directors pointed out that absolute performance benchmarks are more likely to trigger management and director turnover.[27]

Industry effects

To control for industry effects, the average standardized absolute level of and the change in operating income of a specific industry is subtracted from, respectively, the standardized operating income levels and the changes for each firm within that industry. A similar industry corrected variable was constructed for the levels of earnings after tax. Morck, Shleifer and Vishny (1989) find that when a firm significantly

[27] Interviewed Belgian directors pointed out that the following measures are important indicators for monitoring of performance: earnings levels, changes in dividends per share, market adjusted share price returns, market capitalization / net equity, long term return on equity and P/E ratio.

underperforms its industry, the probability of complete turnover of the top management team rises. They report that boards are more successful in addressing firm-specific difficulties while industry-wide problems are more likely to trigger hostile takeovers in the U.S.

Critical earnings levels

The only monitoring acts we can observe are the rather drastic actions of replacing underperforming management. It is possible that when performance is declining, the monitors try to assist management in their attempts to improve the company's declining profitability. Only when the non-executive directors or large shareholders doubt current management's competence to make the company more profitable, the monitors will replace them. Therefore, management's inability to generate profits might be the benchmark which triggers a disciplining action by the monitors. Dummy variables referring to negative operating income, negative earnings before tax and negative earnings after tax are used as proxies for poor performance, as does Kaplan (1994a, 1994b).

Dividend changes

Reductions in dividends per share are also used as a measure for poor performance since they are widely followed and reported in the financial press and are not likely to be reversed (Marsh and Merton 1987). Management is generally reluctant to reduce dividends unless a reduction is unavoidable (Baker, Farrelly and Edleman 1985). Bonnier and Bruner (1989) show that a dividend cut tells the market that the problems responsible for the share price drop before the dividend cut are not temporary. Furthermore, dividend cuts are associated with unusually poor stock-price and earnings performance (Healey and Palepu 1988, Ofer and Siegel 1987).

4.3 Methodology.

The control of companies is examined via OLS regressions with the dependent variable being the turnover of the board proportional to board size or the turnover of members of the management committee proportional to committee size.[28] For CEO and chairman turnover, logistic models are used to predict the probability of turnover when performance is poor. The firm-years are pooled with each firm-year over the four year period (1989-1992) representing a separate observation. Using panel data data on ownership, we are able to control for possible simultaneity between performance and turnover data.

4.4 Data.

4.4.1 Sample description.

The sample consists of all Belgian companies listed on the Brussels Stock Exchange during July 1989 and August 1994[29]. In total, 192 firms are included in the sample; some of these went bankrupt in the period under consideration, while others were introduced after 1989.[30] In 1989 and 1994, respectively, 186 and 165 companies were listed. Sector codes, dates of introduction and of delisting are provided by the Documentation and Statistics Department of the Brussels Stock Exchange. In the

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[28] When there was a hint of heteroscedasticity in the data, Weighted Least Squares regressions are used. The results with WLS are similar to those with OLS.

[29] Only two listed companies (Delhaize and An-Hyp) were not included in the sample since ownership information was not available in the Brussels Stock Exchange. These companies should be regarded as widely held (no shareholdings of more than 5% exist). However, the Delhaize family, for instance, is believed to own around 30% of the shares. The non-declaration of these stakes is only legally allowed if several family members own less than 5% (see infra for the Ownership Disclosure Legislation) and if they do not 'act in concert'.

[30] The results of Chapters 5 and 6 do not change when we exclude from our sample recent IPOs or companies that were taken over or went bankrupt. Management changes associated to bankruptcies or takeovers were not included in our sample for the year of respectively the receivership or the takeover.

analysis, the sample size was reduced by 9 companies in 1989 and by 10 in 1994 as these listed firms, all in coal mining and steel production, were involved in a long liquidation process but were still listed.

Table 4.1 : Sample Description

	1989	1994
All listed sample companies[1]	177	155
Holdings[2]	71	64
Financial sector	23	19
Industrial and Service companies	83	72
Financial Sector		
Banks	8	7
Insurance	7	5
Real estate	8	7
Industry		
energy[3]	6	5
materials[4]	34	26
capital equipment[5]	13	12
consumer goods[6]	19	16
Services	11	13

[1] For 1989 and 1994, respectively, nine and ten listed companies that have been in liquidation for years, were not included in the sample. These companies are all in coal mining and steel production. The number of delistings in the period 1989-1994 surpasses the number of new introductions due to mergers, industry restructurings (e.g. in the energy sector) and the policy of the stock exchange to delist infrequently traded companies with tiny market capitalizations.

[2] The holding companies have multi-industry investments. The categorization is based on the NACE classification of the National Bank and the classification of the Bank Brussel Lambert.

[3] mainly petrochemical and electricity production.

[4] ferro, non-ferro, chemicals, building, paper, glass.

[5] electricals, electronics, construction, machine building.

[6] mainly food, pharmaceuticals and retail.

Table 4.1 shows that 40 percent of the Belgian listed companies are holding companies with multi-industry investments, 13 percent are in the financial sector (banking, insurance and real estate) and 47 percent are industrial and commercial companies.

4.4.2 Ownership data.

Data on the ownership structure over the period 1989-1994 were collected from the Documentation and Statistics Department of the Brussels Stock Exchange. Ownership data are only available since 1989, following the introduction of the Ownership Disclosure Legislation (see Chapter 5). The Documentation Department maintains a daily updated database BDPart (Bourse Data Participations) of the shareholding structure of Belgian listed companies. BDPart provides data on the first level of shareholding (direct ownership) in all Belgian listed companies, such as the names of the investors, the number of shares declared, number of shares issued and the percentage of ownership. Apart from voting rights linked to the shareholdings, BDPart also displays potential voting rights linked to securities that will represent voting rights when converted or exercised (e.g. convertible bonds, warrants). Previous ownership positions in the BDPart database are overwritten once new ownership information becomes available. To capture a company's ownership position at the end of its fiscal year since 1989 and changes in shareholdings during each year, about 5000 hardcopy Notifications of Ownership Change from 1989 till 1994 were consulted. These Notifications were sent by the target to the Brussels Stock Exchange which published this information in the official Stock Exchange newspaper *Cote de la Bourse*. Apart from details on voting rights, the investors' status (independent, affiliated or acting in concert with other investors) was compiled from the Notifications. With this information about major direct shareholdings and indirect control, the multi-layered ownership structure was reconstructed for each company over the period 1989-1994. The shareholding data from BDPart and the Notifications of Ownership Change were verified with ownership data of the database of the National Bank which is based on annual reports.[31]

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[31] The database of the National Bank also comprises data on large shareholdings as reported in the annual reports. However, the data on the Notifications of Ownership Changes are more detailed, often present organization charts of pyramidal ownership structures and give all the ownership changes that took place during the fiscal year

The 1988-1994 yearbooks of *Trends 20,000*, which comprise industry sector classification and financial data for most listed and non-listed Belgian companies, were used to classify all Belgian investors into the following categories : (i) holding companies, (ii) banks, (iii) institutional investors, (iv) insurance companies, (v) industrial companies, (vi) families and individual investors, (vii) federal or regional governments and (viii) real estate investors. Foreign companies owning a large share stake in Belgian companies were classified with information from *Kompass*.

4.4.3 Share price and accounting data.

Monthly (from 1980) and weekly (from 1986) share price returns, corrected for stock splits and dividend pay-outs, and a value-weighted index of all companies listed on the Brussels Stock Exchange were provided by the Generale Bank. The number of outstanding shares were collected from the yearbooks *Memento der Effecten* for the years 1988 till 1994.

Accounting data (total assets, equity, operating income, earnings after tax, dividends per share) were collected from annual reports and from the database of the *Balans Centrale* (Central Depository of Balance Sheets) of the National Bank of Belgium.[32]

4.4.4 Data on the board of directors and the management committee.

The database of the National Bank of Belgium also contains data on the boards of directors: the names of directors, of the chairman and of the 'delegated director'

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rather than the ownership structure at the end of the fiscal year.

[32] The annual reports were consulted in the Documentation Department of the Kredietbank. The database of National Bank was used at the Quetelet Library of the Ministry of Economic Affairs. All companies with a balance sheet total of 85 million BEF and a turnover over 170 million BEF have to generate annual accounts and make them public. The accounts on this database are verified for internal consistency by the National Bank. The database does not contain data on banks and insurance companies and only holds consolidated data since 1994.

(equivalent to the CEO) and the fiscal years during which these directors served on the board. The reasons for a director, chairman, CEO or manager to leave the company were collected from the notes in the annual reports. Natural turnover due to retirement, death or illness is often reported. However, since the usual retirement age is 65, early retirement is only accepted as natural turnover if the director or manager was 63 years of age or older. This way, we eliminate most of the non-linearity in the turnover-age relationship. Other reasons for turnover are rarely mentioned in either the annual reports or the financial press.[33] Resignations related to a merger process were also eliminated. When no grounds or non-informative reasons[34] were given for turnover, forced turnover due to disciplining actions or due to company policy disputes was assumed. This turnover uncertainty inserts an unavoidable bias in the data on forced turnover.

Data on size and turnover of the management (or direction) committee were gathered from the annual reports. The number of directors who were (are) also a member of the management committee was also compiled. If the annual report did not mention explicitly the existence of a management committee, the yearbooks *Memento der Effecten* and the *Jaarboek der Bestuurders* (Yearbook of Directors) for the years 1988 till 1993 were consulted to determine whether or not directors had executive functions.

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[33] Warner, Watts & Wruck (1988) and Weisbach (1988) mention similar imprecision in the reasons for turnover. Weisbach also only excludes retirements if they are age related (63 years or older). '...companies do not announce the true reason behind their CEOs' resignations. Therefore, I ignore the stated reasons for resignation in constructing my sample. I do, however, eliminate the resignations for which I am able to corroborate the cause independently. Changes in CEO's caused by death and preceding a takeover are excluded because theses 'resignations' are totally verifiable.' (p.438) This a bias is also mentioned by, among others, Dennis & Dennis (1994), Weisbach (1988), Hermalin & Weisbach (1991). The turnover data presented in Chapter 5 possibly include some resignations due to retirements since the age of all directors was not available from public sources.

[34] Non-informative reasons for leaving the company are of the kind : "pursuing other interests", "spending more time with the family" or "retirements" at an age under 63.

CHAPTER 5 : Ownership and control of Belgian listed companies : stylized facts.

This chapter provides an overview of the main characteristics of the ownership structure of the Belgian companies quoted on the Brussels Stock Exchange. Prior to the changes in corporate law regarding ownership disclosure in 1989, as described in section 5.2.1, little was known about ownership and control and, so far, no comprehensive description has been composed. We detail ownership concentration, the importance of different shareholder classes, the violation of the one share-one vote rule via pyramidal ownership structures, and the corporate control market for share stakes. We also describe management representation on the board of directors, the organization of executives in management committees, and turnover of board and committee. We begin this chapter with a summary of the main aspects of the Belgian capital market which are compared with Anglo-American and other Continental European markets.

5.1 Insider versus outsider ownership and control systems.

According to Berle and Means (1932), dispersed ownership has given rise to separation of ownership and control. Demsetz and Lehn (1985) argue that ownership patterns reflect a trade off of the risk to investors of concentrated investments in large firms and the control potential of the firm. Diversified shareholdings are useful from the point of view of risk reduction but discourage active participation of investors. As Franks and Mayer (1995c) point out, it is puzzling that the resolution of this trade off has taken such different forms in different countries. German and French equity markets can be characterized by few listed companies, an illiquid capital market where ownership and control is infrequently traded and complex systems of intercorporate holdings (Mayer 1993, Franks and Mayer 1992). Consequently, these structures are appropriately described as *insider systems* in which the corporate sector has controlling interests in itself; outsider investors, while able to participate in equity returns through the stock market, are not able to exert much control. In contrast, the Anglo-American system is a market oriented or *outsider system* and is characterised by a large number of listed companies, a liquid capital market where ownership and control rights are frequently

traded and few intercorporate holdings.[35] There are few large, controlling shareholdings and these are rarely associated with the corporate sector itself.

The main characteristics of the Belgian corporate ownership and equity market can be summarized as follows : (i) few Belgian companies are listed, (ii) there is a high degree of ownership concentration, (iii) holding companies and families, and to a lesser extent industrial companies, are the main investor categories, (iv) control is levered by pyramidal and complex ownership structures and (v) there is a market for share stakes. Properties (i) to (iv) imply that Belgium can be portrayed as a German-French 'insider system' rather than an Anglo-American system. However, typical for Belgium is the importance of holding companies which are often part of pyramidal ownership chains and are used to lever control (see section 5.2.3).[36]

Table 5.1 shows the number of quoted companies per country and the total market capitalization as a percentage of GDP. The U.K., U.S. and Japan are characterised by a large number of quoted companies; respectively 1878, 6342 and 1627 in 1992. The market capitalization of companies quoted on the London Stock Exchange is around 81 percent of the U.K. GDP. Companies quoted on the Tokyo Stock Exchange have a value of 89 percent of the Japanese GDP while the value of corporations listed on the

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[35] Wymeersch (1994b) makes a distinction similar to Franks & Mayer (1992) between *company-oriented* and *enterprise-oriented* systems. A company-oriented system is characterised by the existence of a large number of listed companies. Most of the their shares are effectively traded on the markets. The monitoring function is essentially undertaken by the securities market and active market trading is an essential prerequisite for efficient monitoring. Privileged tools of intervention are the appointment of non executive directors who are chosen on their technical abilities and the designation of special board committees. Ultimately, takeovers drive out inefficient management. The U.S. and the U.K. fall clearly under the definition of a company-oriented corporate control system. An enterprise-oriented system has a low number of listed companies, control is held by major shareholder so that a limited number of shares are effectively on the market. Monitoring does not take place via the market, but is regulated by group law.

[36] In this sense, the Italian equity market is similar to the Belgian one : few companies are quoted, concentration of ownership is high, pyramidal ownership structures with holding companies as intermediate investment vehicles are common (Nikodamo 1995, Bianchi and Casavola 1995). But, whereas the Italian state controls a large number of industrial groups and holding companies, Belgian state ownership is rare.

New York Stock Exchange and NASDAQ amounts to 56 percent of U.S. GDP. The capital markets of France, Germany, Belgium and Spain and of most of the remainder of continental Europe, present a different situation: they have many less quoted companies with a market capitalization as a percentage of GDP which is lower than 32 percent.[37]

Compared to the shareholding structure of Continental European corporations, ownership in the U.S. and the U.K. is much less concentrated. For the U.S., the average shareholding of the five largest shareholders in a sample of Fortune 500 companies is 15.4 percent and 23 percent of these companies do not have a shareholder with a share stake over more than 5% (Shleifer and Vishny 1986, Demsetz and Lehn 1985). These two percentages compare to respectively 60 percent and to 1 percent for Belgium. The large shareholders with a stake of at least 5% in the U.S. are mostly families, pension an profit-sharing plans as well as banks, insurance companies and investment funds. About two-thirds of the market capitalization are held by individual investors and institutional investors on behalf of individuals in U.S. and U.K. quoted companies, but the U.S. has a far higher proportion of equity owned directly by individuals. However, Davies and Stapledon (1994) report the enormous growth in the percentage (by value) of equity held by institutional investors in the U.K. and a decline in the percentage held by individuals.

[37] This is also the case for the Netherlands and for Switzerland when the impact of respectively the five Dutch large multinationals and the Swiss financial sector are excluded from the data.

Table 5.1 : Number of domestic quoted companies per country and the market capitalization as a percentage of GDP.

The numbers of quoted companies refer to 1992, but to 1991 for the U.S. and Japan. For each country, only domestic companies listed on the main stock exchanges have been considered : New York and NASDAQ combined, London, Tokyo, Paris, Frankfurt, Madrid, Amsterdam, all Swiss exchanges, and Brussels.

Country	number of domestic quoted companies	equity of quoted co's as % of GDP
U.S.	6,342	56 %
U.K.	1,878	81 %
Japan	1,627	89 %
France	786	26 %
Germany	665	18 %
Spain	433	20 %
Netherlands	314	44 %
Switzerland	180	78 %
Belgium	171	31 %

Source : Own calculations for Belgium and the U.K. are based on data from the Brussels Stock Exchange and the Department of Trade and Industry in London, Wymeersch (1994b) for the Netherlands, Germany, France and Switzerland, Goergen (1993) for Spain, Franks and Mayer (1992) for the U.S. and Japan.

Germany, like Belgium, has few widely held listed companies : only 15 percent of a German sample of the 171 largest companies do not have any shareholder with an equity stake of 25 percent or more (Franks and Mayer 1995b and 1995c).[38] Other German companies and families own the largest share stakes. Trusts and institutional investors are sometimes large shareholders but their stakes are rarely majority holdings. The same holds for banks. However, the significance of banks is greater than their direct equity holdings would suggest : as holders of bearer shares they are able to exercise proxy votes on behalf of dispersed shareholders.[39] Control is maintained at low cost via complex and pyramidal structures : the average tier of company holdings is 2.2 compared with 3.1 for families and 4.2 for banks.

In a French sample of the largest 155 quoted companies, almost 89 percent have a shareholder with an equity stake of 25 percent or more. The major shareholders in the French sample are predominantly other industrial companies (Goergen 1993). So, in France, like in Germany, the corporate sector is by far the single largest group of shareholders. Foreign companies, families and banks are the other large shareholders. Corporations who hold equity stakes in each other are often in related industries or in the same industry (Franks and Mayer 1995c). Furthermore, in most cases, these companies are not trading partners.

The Italian shareholding structure is characterized by high concentration of ownership, the presence of family owners and the pervasive role of the state (see Bianco, Gola and Signorini 1995). About 95 percent of the largest 500 non-financial companies are controlled with absolute majority (Bianchi and Casavola 1995). Contrary to what one would expect, the concentration of direct ownership is greater in larger firms. Controlling shareholders hold via pyramids and coalitions, 88 percent of the largest companies.

Japanese ownership is, similar to Continental Europe, highly concentrated. Financial and industrial groups (keiretsu), represent about 61 percent of the market capitalization

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[38] For the evolution of German ownership structure : see Baums (1994).

[39] Chirinko and Elston (1995) find strong evidence that bank influence and concentrated ownership serve as substitutes for controlling corporations.

of the Tokyo Stock Exchange (Lichtenberg and Pushner 1992). Average ownership in quoted companies held by financial groups has risen to 30 percent in 1989, while average corporate ownership remained stable over the period 1975-1989 at 43 percent.[40]

Franks and Mayer (1995c) argue that the theories of ownership and corporate control[41] do not provide adequate explanations for the organization and operation of Anglo-American, Japanese and Continental European capital markets. They advance the hypothesis that the patterns of ownership are associated with different forms of corporate control that allow for different types of correction. Concentrated ownership allows relations involving commitment on the part of investors to be sustained. Large shareholders who face limited free riding costs of control, can give a long-term commitment to the firm, while allowing a large number of small shareholders to trade in investment opportunities without having any effect on control. Dispersed ownership

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[40] Miyajima (1995) examines the creation and growth of bank centred corporate groups. For a detailed description of the Japanese ownership structure : see Prowse (1992).

[41] There are two strands of the literature on ownership and control. The first focuses on the determinants of ownership while the second concentrates on how corporate control is exercised. With regard to ownership, there are into three classes of models. A first class of the models argues that transaction costs make transactions through markets more costly than internal activities within the firm. In this literature, the firm is considered as a nexus of contracts and it may be costly to write the contracts necessary to undertake transactions between firms through the market place (See, for instance, Coase (1937), Williamson (1975), Aoki, Gustafsson and Williamson (1990)) Secondly, the industrial economics literature emphasizes vertical ownership relations and attempts to explain the reasons why upstream and downstream firms hold stakes in each other (See e.g. Dixit (1983), Salinger (1988)). When upstream firms do not take full account of the interests of downstream firms e.g. with regard to the prices they set, ownership may be required to internalize such externalities in the absence of suitable contractual alternatives. A third series of models concentrate on the effect of incomplete contracts on the ex ante incentive that firms have to make sunk investments. Ownership is here considered as a commitment device with regard to specific investments. Ownership allows parties to avoid decisions being taken in the future that adversely affect the value of past investments (See e.g. Grossman and Hart (1986), Hart and Moore (1990)). The second strand of the literature focuses on corporate control. Manne (1965), Alchian and Demsetz (1972) and Fama and Jensen (1983) state that separation of ownership and control in the outsider system has evoked a number of mechanisms to limit the agency problems that would be expected to arise. Such mechanisms include monitoring and control by non-executive directors, incentive systems and a market in corporate control.

gives management more discretionary power but permits restructuring of management (e.g. by takeovers or by a market for share stakes as shown in chapter 2) even in the absence of past failure, largely because owners are unable to commit. Consequently, it could be expected that different forms of ownership would be suited to promoting different types of activity. Concentrated ownership is needed where investment by other stakeholders is important and cannot be promoted contractually. When little investment is required by other parties or adequate contracts can be written, dispersed ownership will be advantageous.

5.2 Concentrated ownership in Belgium.

5.2.1 Ownership disclosure legislation.

Up to 1989, little was known about the ownership structure of companies listed on the Belgian stock exchanges, given the general use of bearer shares and the lack of ownership disclosure obligation. Following the takeover battle in 1988 between the French Compagnie Financière de Suez and the de Benedetti group for the largest Belgian holding company, Generale Maatschappij van België (Société Générale de Belgique), new legislation concerning corporate control and ownership was initiated. An Ownership Disclosure Law[42] was introduced in 1989 and amendments to the company law with regard to takeovers[43] were made in 1991.

The Ownership Disclosure Law requires all investors, both individuals and companies, to reveal their share stakes in those companies governed by Belgian law, all or part of whose securities conferring voting rights are officially listed on a stock exchange located in a Member State of the European Union. Notification is obligatory if a shareholding equals or exceeds 5 percent[44]. Furthermore, shareholders have to declare any increases and decreases in ownership and their new ownership position if their stake exceeds a multiple of 5 percent of the voting rights or falls below such a threshold. For instance, a company that has revealed that it owns a stake of 11 percent will have to

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[42] Law of 22 March 1989, called *'Transparantiewetgeving'* (transparency legislation) and Royal Decrees of 10 May 1989 and of 8 November 1989.

[43] Law of 18 July 1991.

[44] Individual companies can reduce this threshold in the articles of incorporation, but not to less than 3%. Notification of changes in stakes by the shareholders will have to be made if the following thresholds are passed : 3%, 5%, 10%, 15%, and further multiples of 5%. (Law of 22 March 1989, Section 5.) Currently, about 20 companies have adopted the 3% threshold (Wuille 1994).

notify the Banking Commission[45] again once this ownership stake reaches 15 percent or more, or decreases below the 10%-threshold.

The notification percentages refer to real and potential voting rights. As a result, ownership of securities convertible into shares (convertible bonds, warrants, etc) is treated in the same way as shares in the company.[46] So, when investors make voting rights declarations, they include : (i) the percentage of the actual total voting rights they own proportional to all the actual voting rights outstanding, (ii) the potential voting rights, as a percentage to the aggregate of all potential voting rights and (iii) the percentage of cumulative actual and potential voting rights in the company based on the aggregate number of the voting rights associated with all outstanding shares and convertible instruments.[47]

Furthermore, the law applies not only to the direct owners of the voting rights, but also to those investors who control voting rights indirectly via a pyramid structure of intermediate companies.[48] Investors are obliged to reveal whether they are affiliated to a group of companies or whether they act in concert[49] with other investors. If the real or potential voting rights of the individual investor or of the investor group exceed or fall below the notification thresholds, they have to reveal their cumulative and individual direct and indirect ownership positions and changes in shareholdings. The

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[45] The Commission for Banking and Finance, usually abbreviated to Banking Commission, is the Belgian equivalent of the S.E.C. in the U.S. In a strict legal sense, the authority of the Banking Commission in the area of ownership disclosure supervision and M&A activity is limited, but the Commission has considerable influence on market participants on the basis of its 'moral authority'.

[46] Law of 22 March 1989, Section 1, paragraph 3.

[47] Banking Commission 1989, p. 4-6.

[48] 'Note on the application of the Law of 22 March 1989' (Banking Commission 1989 p.2).

[49] The definition of 'affiliated investors' is given in Article 5 of the Royal Decree of 10 May 1989 and is based on the Royal Decree of 8 October 1976 on the company's annual accounts and consolidation of accounts.
'Acting in concert' is defined in Articles 7 of the Royal Decree of 10 May 1989. Companies acting in concert have agreements with regard to the possession, the acquisition and the selling of securities.

Banking Commission suggests that the ultimate shareholder of an investor group assume notification responsibility for voting rights of its own direct and indirect holdings and for those share stakes held by investors this 'reference shareholder' is affiliated to or acts in concert with.[50] In addition, once the stake of an investor (or of the investors belonging to the same investor group) reaches 20 percent of the voting rights of the company, the strategic policy with regard to the target has to be declared to the Banking Commission and the target.[51]

With regard to timing of notification, the investor who purchases or sells shares (voting rights) has to disclose his shareholding and the changes in his position to the target and to the Banking Commission in Brussels at the latest on the second working day after the transaction, if a notification threshold has been passed. The target who has been notified about changes in ownership by substantial investors, has a maximum of one working day after disclosure to pass on this information to the Documentation and Statistics Department of the Brussels Stock Exchange (Maertens 1994). This department updates its on-line ownership database BDPart and makes this information available *ad valvas* on the trading floor (*parquet*)[52]. The following day, the Documentation department publishes the information in the *Cote de la Bourse*[53], a Stock Exchange publication that is inserted in the two Belgian financial newspapers, *De Financieel Economische Tijd*

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[50] Banking Commission 1989 p.8-9.

[51] Most 'strategy' statements, however, have a low informational content. For instance, on 14 March 1994, Generale Maatschappij van België (Société Générale de Belgique), the reference shareholder for Union Minière and Naviga, notified that these three shareholders had liquidated their combined shareholdings of 62% in Asturienne because 'the share stake is not considered as strategic'.

[52] If a target faxes a ownership notification to the Stock Exchange in the morning, this information is disclosed to the floor at 11.00 a.m. at the earliest via the bulletin board (*ad valvas*) and via the on-line BDPart database. Important news is via this channel quickly dispersed via Tijd Electronic Services or Reuters.

[53] The information in the *Cote de la Bourse* is the full responsibility of the Stock Exchange. The *Cote de la Bourse* in its current form appeared as of 1 January 1992. Before this date, the Stock Exchange disclosed information via de *Wisselkoerslijst* which was sent to about 1000 subscribers, mostly brokerage houses, banks, institutional investors and news agencies.

and *L'Echo de la Bourse*. The same notification timing applies to disclosure of investors' policies (20 percent ownership rule).

An investor's failure to disclose a substantial shareholding may lead to an interdiction for the investor in question to participate to the annual meeting, to a cancellation of the annual meeting which has been called for, to a suspension of the exercise of all or part of the rights pertaining to the securities for a certain period and to liability to penalties[54].[55] The voting rights of recently acquired major shareholdings (5 percent and more) can only be exercised 45 days after notification.[56]

5.2.2 Voting rights and restrictions, and the rights of the minority shareholders.

In principle, the general assembly takes decisions based on a simple majority of the voting rights. Since 1991, the balance of corporate power has shifted to the controlling shareholders who have been given legal instruments to entrench their position in the company and to protect themselves against undesired takeovers. Anti-takeover instruments, like share repurchase schemes or issuance of warrants, are valid for a maximum of 5 years but can be reinstated for a similar period by the general assembly

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[54] Penalties are enumerated in Section 204 of the Coordinated Laws on Commercial Companies.

[55] Law of 22 March 1989, Sections 7-11. In May 1995, minority shareholders of PB Finance, a listed real estate company, sued the Dutch holding Euver in order to annul Euver's voting rights or to limit them to 5% because Euver had not disclosed the size of its shareholding (of 67%) to the Commission of Banking and Finance and there were suspicions of fraud.

[56] Ownership Disclosure Law of 22 March 1989, article 6.

(Wymeersch 1994a).[57] Such measures have further reduced the likelihood of hostile takeovers in Belgium.[58]

However, to provide more protection to small shareholders a supermajority of 75 percent of the voting rights voted at the general assembly, is needed with regard to decisions about changes in the acts of incorporation, increases of the equity capital, limitations or changes in the preferential rights of existing shareholders to purchase shares in new equity issues, changes in the rights of different classes of shareholders[59], repurchases of shares and changes in the legal form of the corporation (Lievens 1994).

Since 1991, minority shareholders or a group of minority shareholders owning at least 1 percent of the equity capital or shares with a value of not less than BEF 50 million, can appoint one or more experts who can scrutinize the company's accounting and its

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[57] The percentage of ownership of the major shareholders is often an underestimation of the real corporate power these shareholders can exercise. The board, nominated by the major shareholders, could interpret a takeover threat as 'grave and imminent danger' which would allow them to repurchase shares. Furthermore, the board can allow share warrants to be exercised or sold to friendly shareholders for a maximum of 10% of equity capital in order to dilute shareholdings of a potential raider. This authority, for a maximum but renewable period of 5 years, has to be granted specifically to the board by the annual general meeting. Autocontrol mechanisms can also be installed whereby the company's shares are held by a subsidiary. However, a subsidiary's stake in the mother company is restricted to 10%.

[58] The mandatory bid rule which existed since 1965 on a self-regulatory basis has been incorporated into the amendments of law of 1991. The rule requires the acquirer of shares, in as far as he obtains control as a consequence of this acquisition, to bid for all remaining shares and the bid price should be set at a premium above the highest market price over the last 12 months. This way, equal treatment of shareholders is ensured since all shareholders are offered the benefit of the control premium. Furthermore, the propensity to trade large blocks, resulting in companies taken over against their will, is diminished. In practice, the proof that (in)direct control is acquired can still be difficult.

[59] There are additional conditions for changes in the rights of different classes of shareholders. The board of directors needs to document the reasons for the changes extensively and has to send that report to all shareholders before the annual meeting. On the annual meeting, the proposal is only valid if 50% of the total outstanding voting rights are present and 75% of each category of shareholders votes in favour (Company Law, article 71).

internal operations.[60] The appointment of experts is conditional on indications that the interests of the company are threatened. Shareholders owning at least 1 percent of the votes can initiate a *minority claim* against the directors for the benefit of the company, if it can be proven that the directors have managed or supervised the company poorly and if the minority shareholders have voted against the directors' *discharge*[61] at the annual meeting. For instance, a minority claim would be justified when directors ensured that the company paid out benefits to large shareholders they represent at the detriment of the company.[62]

Another important change, since the law of 1991, is the abolition of automatic voting rights restrictions.[63] This abolition was motivated by the fact that the restrictions could be easily evaded by redistributing the shares to family members, friends and subsidiaries (Van Nuffel 1994). Still, as in Germany, individual companies can still apply voting right restrictions by including such clauses in the acts of incorporation.

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[60] Law of 18 June 1991, article 191. This law reduced the threshold from 20% to 1%.

[61] At the annual general meeting, the directors are 'discharged' from liabilities that may arise in the future if shareholders present at the annual meeting judge, with information from the external auditors and data in the annual report, that the directors fulfilled their tasks adequately during the fiscal year.

[62] Note that the minority claim (Company Law articles 66 bis paragraph 2, article 132 bis and article 158 bis) is for the benefit of the company and not for the benefit of the minority shareholder directly, although the minority shareholders, like all shareholders, might benefit. Consequently, this procedure to appoint experts cannot be used following conflicts between shareholders, but only if the company's economic position and its long term survival is endangered. Case law is rare, but the appointment of experts was justified in these cases: the stocks were overvalued, a company was badly managed and had negative earnings (Lievens 1994). In addition to lowering the threshold level for the minority claim, the rules of conflicts of interest have been tightened : personal liability cannot be excluded if directors take undue advantage of their position to the detriment of the company (Wymeersch 1994a). An individual liability claim can only be initiated if the shareholder can prove that he has experienced personal damage.

[63] Before 1991, no shareholder could participate in the voting at the annual meeting for more than 20 percent of the voting rights associated with the total shares outstanding or for more than 40 percent of the voting rights associated with shares represented at the annual meeting. The restriction limiting the exercise of voting rights most had priority.

While automatic voting restrictions are abolished, voting agreements among shareholders for (renewable) periods of 5 years are allowed since 1991 if these agreements do not limit the responsibilities of the directors or are used to create different classes of voting rights.

5.2.3 Concentrated direct and ultimate ownership by shareholder class.

The structure of substantial shareholdings in all Belgian companies listed on the Brussels Stock Exchange in August 1994 is presented in table 5.2. On average, the sum of the direct share stakes held by large shareholders (who own at least 5 percent of the outstanding shares) amounts to more than 65 percent (panel A). Cumulative direct ownership is higher, almost 70 percent in the financial sector (panel C), and around 65 percent for both holding companies (column 1 of panel B) and industrial and commercial companies (panel D). It is clear that the concentrated ownership structure does not facilitate hostile takeovers if the acquirer does not initially have a large toehold. In their analysis of the Belgian market for corporate control over the period 1970-1985, Van Hulle, Vermaelen and de Wouters (1991) confirm that tender offers made directly to the public were characterised by substantial initial toehold interests.[64]

Table 5.2 also reports the cumulative ownership of the three most important investor classes: holding companies, families and individual investors, and industrial and commercial companies.[65] From panel A can be concluded that holding companies are the largest direct investors[66]; they hold on average 33 percent of the shares and account for half of the substantial ownership stakes in Belgian companies. Domestic and foreign holding companies have invested more in the Belgian holding companies than

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[64] Legal aspects of the mandatory bid are discussed by Wymeersch (1992).

[65] The columns with data on holding companies, families and industrial companies do not add up to the numbers in the all investors column since the total cumulative concentrated ownership of this column is the sum of 8 investor categories. Institutional investors, banks etc do not hold substantial stakes in the sample companies and are not show in this table but are available upon request.

[66] It was assumed that direct shareholders are not affiliated to any other shareholder; control relations by other shareholders at a higher ownership tier are ignored.

in the industrial and in the financial sector. Direct investment of industrial and services companies (panel A) totals almost 15 percent and is focused on other industrial and commercial companies (panel D). Families' direct investment is of less importance with an average stake of about 4 percent.

A substantial number of share stakes are held by other companies which in turn are held by other shareholders. Therefore, if we want to answer the question who actually owns and controls a sample company, pyramidal and complex ownership structures should be taken into account. Examples of pyramidal and complex ownership structures are illustrated in figures 1 and 2. Figure 1 shows part of the ownership structure of Floridienne, a company in the chemical and food industry, at the end of 1994. On the direct investment level, Mosane and its fully owned subsidiary Cippar hold 25 percent of Floridienne's voting rights. Ultimate minority control lies with the Paribas group which controls its Belgian subsidiary Copeba. Ultimate minority control exists when there is a continuous chain of at least 25 percent if there are no other shareholders with large stakes available at any ownership tier. A continuous chain of holdings of at least 50 percent is called ultimate majority control while supermajority control arises when an uninterrupted chain of 75 percent is in place. The most important reason for the use of pyramids in Belgium is leverage (Wymeersch 1994a) : external equity can be raised while retaining control. The Paribas group controls the blocking minority in Floridienne with an interest in cash flow rights of merely 11 percent (60% x 74% x 25%). In fact, Paribas exercises *pyramidal or levered control* over Mosane. It is clear that, although the one share-one vote rule applies to each individual ownership tier, pyramidal or levered control constitutes a violation of the one share-one vote rule if control extends throughout multiple ownership tiers.

Table 5.2 : Ownership concentration in all Belgian companies listed on the Brussels Stock Exchange.

This table reports the aggregate of individual shareholdings of 5% and more[1] for the main ownership categories. The shareholder classes (holding companies, industrial and commercial companies, and families) consist of both Belgian and foreign investors. Direct stands for the direct shareholdings. Ultimate refers to the fact that the direct shareholdings were classified according to the shareholder class of the ultimate investor and these direct shareholdings belonging to the same ultimate investor group were subsequently summed. Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

Aug. 1994	all investors	holding co's	families	industr. co's	Belgian investors	foreign investors
PANEL A : ALL SAMPLE COMPANIES (N=155)						
Direct	65.38	32.71	3.90	14.60	49.38	16.00
Ultimate	65.38	26.68	15.59	10.84	39.60	24.35
PANEL B: ALL HOLDING COMPANIES (N=64)						
Direct	63.92	36.73	5.15	13.11	46.85	17.07
Ultimate	63.92	34.43	14.12	8.33	36.08	27.97
PANEL C : FINANCIAL SECTOR (BANKS, INSURANCE, REAL ESTATE) (N=19)						
Direct	69.96	26.45	1.18	5.45	55.00	14.96
Ultimate	69.96	26.22	5.31	5.41	38.40	23.63
PANEL D : INDUSTRIAL AND COMMERCIAL COMPANIES (N=72)						
Direct	65.48	30.80	3.50	18.34	50.16	15.32
Ultimate	65.48	20.02	19.70	14.52	43.01	21.36

Source : Own calculations based on information from the BDPart database of the Brussels Stock Exchange and Ownership Notifications of the Documentation Centre of the Brussels Stock Exchange.

[1] In line with the Ownership Disclosure Legislation, substantial shareholdings are defined as share stakes that equal or exceed 5% (of the voting rights), unless investors with smaller shareholdings are affiliated to or act in concert with major shareholders, in which case small stakes ought to be revealed as well. The 5% threshold can be reduced to 3% if the company states this in its acts of constitution.

Cobepa, a Belgian holding company, is also listed on the Brussels Stock Exchange and its organization chart is exhibited in figure 2. Within the ownership chain, Swiss, French and Dutch companies and banks belonging to the Paribas group control the underlying levels with almost 100 percent of the voting rights. This complex ownership structure, however, is not an example of an ownership pyramid, but is a case of majority control where there is hardly any control leverage. Basically, 60 percent of Cobepa's voting rights are held by one major shareholder, the Compagnie Financière Paribas.

FIGURE 1 : Pyramidal shareholding structure of Floridienne.

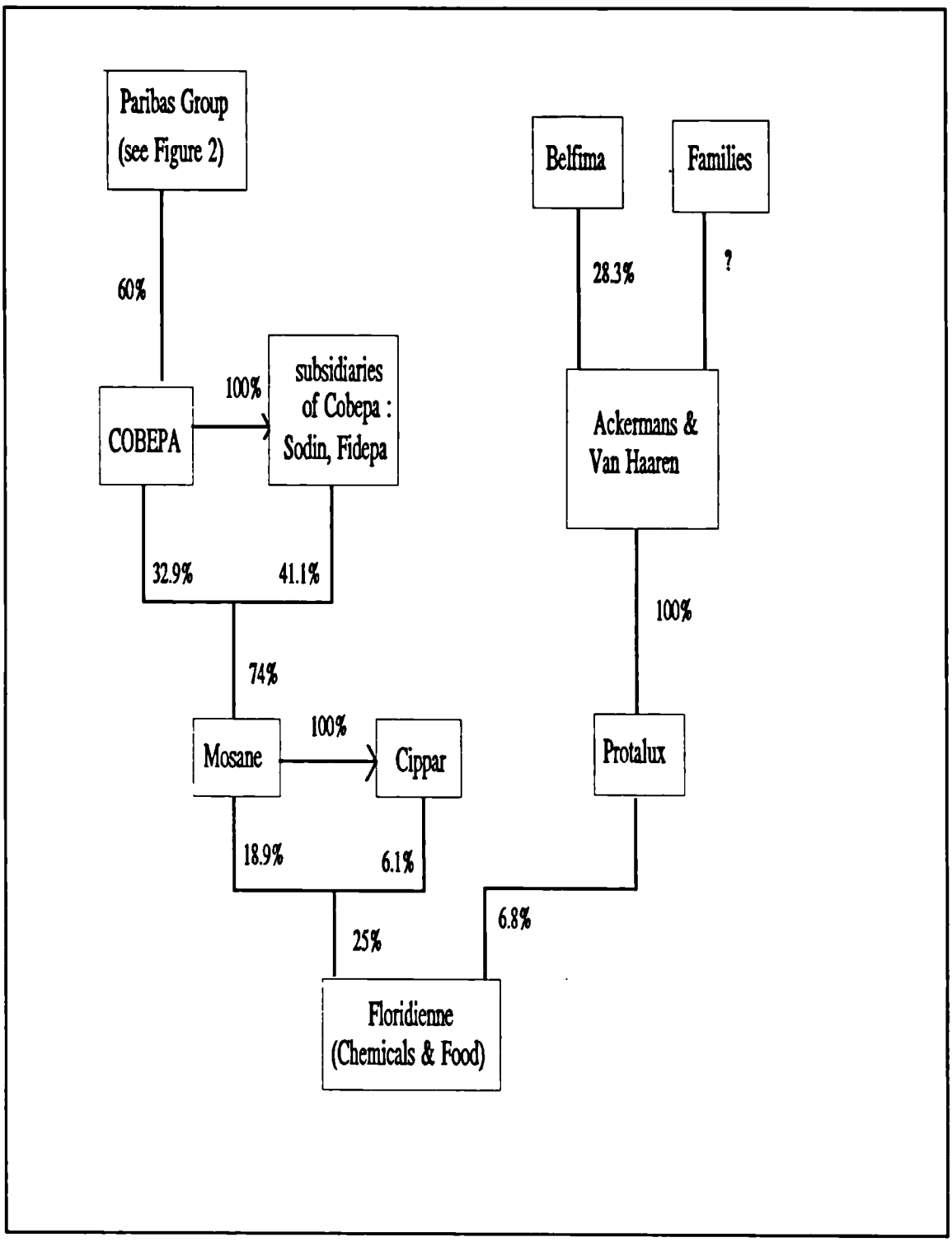
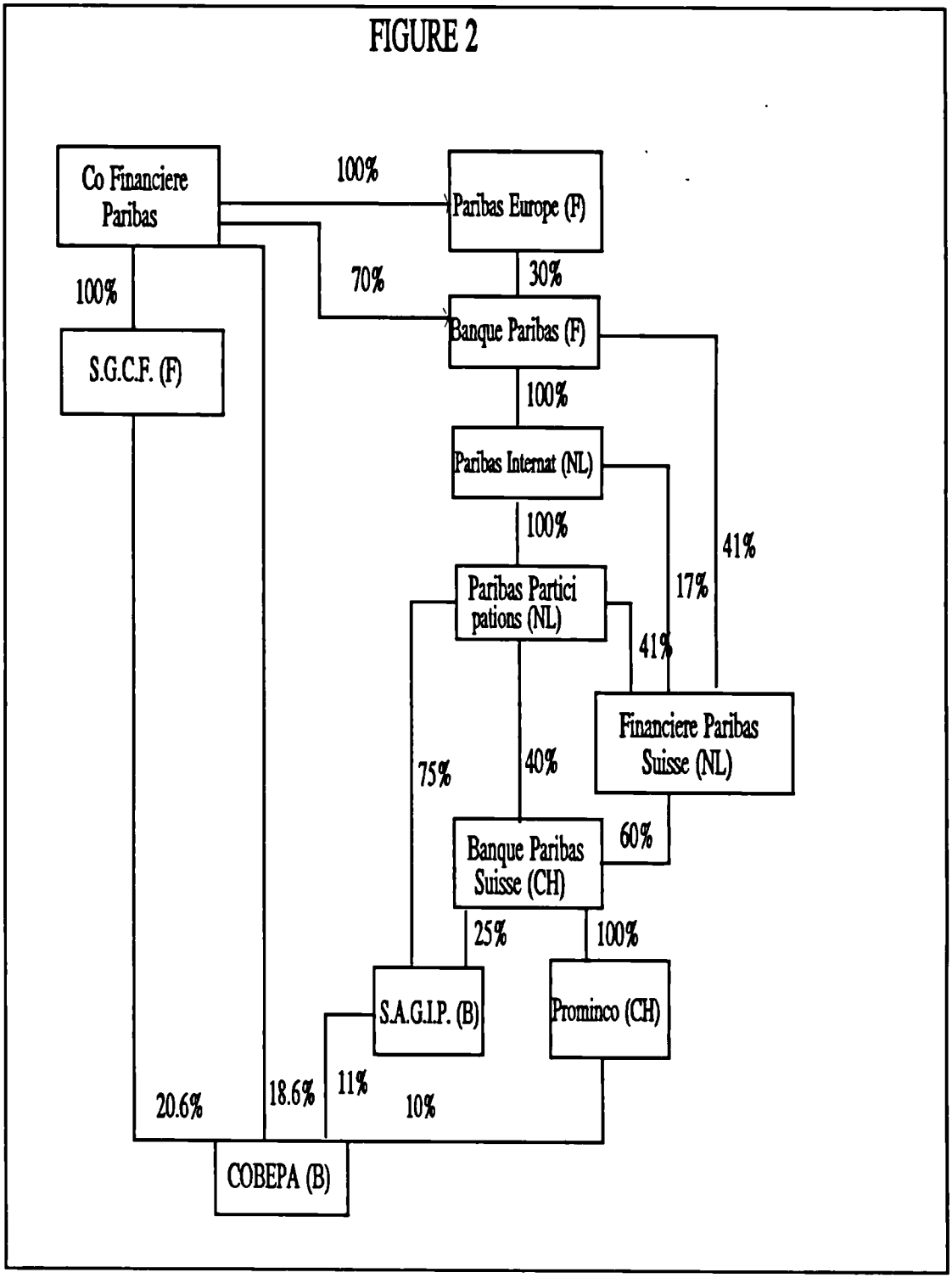


FIGURE 2 : Shareholder structure of Cobepa.



Previous examples clarified that the true owners of the Belgian sample companies are mostly not the direct shareholders (at ownership level 1), but that control is exercised by an ultimate shareholder on a higher ownership tier in the pyramid. It is important to identify these *ultimate shareholders* so that the percentages of voting rights held by direct or first-level shareholders controlled by the same ultimate investor can be aggregated into investor groups. Such investor group is named after and classified according to the identity and shareholder class of the ultimate shareholder.[67] Control exerted by an ultimate shareholder on a sequence of intermediate companies and, ultimately, on the sample company exists if (i) there is a series of uninterrupted majority shareholdings on every ownership tier throughout the pyramid or (ii) if there is a large shareholding of at least 25 percent on every ownership level in the absence of other shareholders with stakes of blocking minority size or larger. Applying this criterion, henceforth called the *ultimate shareholder criterion*, to the example (figures 1 and 2), the direct shareholdings of Mosane (18.9%) and Cippar (6.1%) are summed to 25% and classified according to the shareholder category of the ultimate shareholder (Paribas), namely, a holding company.

Table 5.2 also details the aggregate large share stakes of the main investor classes after applying the ultimate shareholder criterion.[68] Although holding companies remain the most important shareholder class in Belgian listed companies, their average cumulative shareholding on an ultimate control basis decreases to 26.7 percent from an average

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[67] To identify and classify investor groups according to the ultimate shareholder criterion, the BDPart database, the Notifications of Ownership Change and annual reports were consulted. If data on the percentage of voting rights held in a part of the control chain were not given and the top company explicitly declared that it controlled a company lower in the control chain, a 51% share stake was assumed and used in the calculations. Our control criterion is closely related to the one used by Bianchi & Casavola (1995). Applying their criterion does not yield significantly different results. They assign a company to an investor group if the voting shares held by the investor group represent a sufficient relative majority. A relative majority in a company i held by the group G (q_{Gi}) is defined as sufficient when it exceeds the sum of the maximum stake held by any other group j ($q_{j,i}$) plus the sum of all the stakes held by the companies not assigned to any other group ($w_{j,i}$). The condition for control to be assigned becomes : $q_{G,i} > \max(q_{j,i} + w_{j,i})$.

[68] Note that for tables 5.2, 5.5, 5.6 and 5.7, the ultimate shareholder criterion is only used to determine those direct shares that need to be aggregated and reclassified when they belong to the same investor group.

direct shareholding of 32.7 (panel A, table 3.2). The differences are explained by the fact that family controlled holding companies are now classified according to the identity of the ultimate investors, namely, families and individuals. The average shareholding held by industrial and commercial companies decreases to 11 percent for similar reasons. Industrial and commercial companies seem more inclined to hold substantial stakes in other industrial firms (panel D). Individual and family investors frequently do not hold shares directly in Belgian companies, but use intermediate companies as their average concentrated ownership amounts to almost 16 percent, while direct stakes held by individual and family investors average only 4 percent (panel A). Family shareholdings are most distinctly present in the ownership structure of industrial and commercial companies (panel D) with an average substantial shareholding of nearly 20 percent.

The relative importance of domestic and foreign investors is examined in the last two columns of table 5.2. More than 75 percent of the direct large shareholdings (or an average of 49.4 percent of the voting rights) are held by Belgian investors, while foreign investors' direct investments account for an average of 16 percent. This proportion is similar for holding companies (panel B) and the industrial firms (panel D), but for the financial sector, domestic investments are higher with an average of 55 percent (panel C). When applying the ultimate shareholder criterion and taking account of the nationality of the ultimate shareholders, columns 5 and 6 show that foreign investors often use Belgian intermediary companies to control Belgian listed companies. Domestic ownership in a Belgian company amounts to nearly 40 percent; slightly lower (36%) in holding companies, and somewhat higher (43%) in industrial and service companies. Foreign investors hold about 38 percent of the substantial shareholdings (or an average of 24.3 percent of the total number of shares) in Belgian listed companies.

A comparison of the size of means and medians of concentrated cumulative ownership in 1994 and 1989 via parametric and non-parametric tests reveals that neither the total ownership concentration nor the average shareholding by shareholder class has changed significantly over time. This suggests that stakes are mostly sold to investors of the same shareholder class with whom the seller has a priority purchase agreement or to investors who belong to the same investor group.

5.2.4 Pyramiding and the violation of one share-one vote rule.

The ultimate shareholder criterion served to determine control relations through the pyramidal ownership structures. In previous section, we aggregated direct shareholdings which belonged to the same investor group and reclassified the aggregate share stake according to the investor class of the ultimate shareholder. In the example of figure 1, we found that the Paribas controlled 25 percent of the shares of Floridienne. In this section, we examine pyramiding by estimating deviations from the one share-one vote rule. These deviations have potentially important implications with regard to dilution of control. For instance, it is not certain whether a sequence majority control with e.g. 50% at every ownership tier, yields a determining voice in board decisions of the target sample company (level 0).

Table 5.3 shows the average ultimate ownership level (ultimate shareholder criterion). Direct share stakes are defined as level 1-shareholdings. The level from which ultimate control is exercised is, on average, 2.2 and only slightly decreases to 2.1 over the four year period.

Table 5.3 : Largest direct and ultimate levered shareholdings, and the control leverage factor

This table presents the ultimate ownership level, defined as the highest level of ownership in an uninterrupted control chain (direct shareholdings are level 1). Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

The direct largest shareholding is the average direct largest share stake of at least 25%. The ultimate levered shareholding is calculated by multiplying the share stakes of subsequent ownership tiers. The control leverage factor is the ratio of the direct shareholding divided by the ultimate levered shareholding. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The ultimate shareholder level is 2, the direct largest shareholding (of B in C) is 40%, the ultimate shareholding is 16% (40% x 40%), and the leverage factor is 2.5 (40/16).

There was no direct shareholding of at least 25% in 17 sample companies, which were not included in this table. Standard deviation in parentheses.

	1989	1990	1991	1992
sample size	160	156	156	156
ultimate ownership level	2.2 (1.364)	2.2 (1.290)	2.1 (1.188)	2.1 (1.159)
direct largest shareholding	55.1 (19.737)	56.4 (19.509)	57.2 (19.923)	57.8 (20.632)
ultimate levered shareholding	38.0 (22.524)	38.5 (22.906)	40.3 (23.988)	41.7 (24.600)
control leverage factor (direct/ultimate shareholding)	3.6 (8.391)	3.6 (8.650)	3.0 (6.756)	2.9 (6.710)

Source : Own calculations based on data from the BDPart database and the Notifications of Ownership.

As a proxy for the control leverage effect of the pyramid structures, we define the control leverage factor as the ratio of the direct largest shareholding[69] and its ultimate levered shareholding. The average of the largest direct stake per investor group amounts to about 58% in 1992. The ultimate levered shareholding is calculated by multiplying the consecutive controlling shareholdings. For example, the ultimate levered shareholding of Paribas in Floridienne (see figures 1 and 2) amounts to 11 percent (60%*74%*25%) while the largest direct shareholding of the Paribas group is 25 percent. Consequently, the control leverage factor is 2.27 (25%/11%). The smaller the shareholdings with which control is maintained throughout intermediate levels and the more intermediate ownership tiers, the higher the control leverage factor or the more considerable the violation of one share-one vote. Table 5.3 discloses that the control leverage factor in 1989 was 3.6 and decreases to 2.9 in 1992. Since the average ultimate ownership level and the ultimate levered shareholding do not change significantly over time, the decline of the control leverage factor indicates that control on intermediate levels becomes more concentrated. The average direct largest shareholding for companies with a direct share stake of at least 25 % amounts to 57 percent while the ultimate levered shareholding is 41 percent.

There are substantial differences in pyramiding among the subsamples of the listed Belgian holding companies, financial firms and industrial and commercial companies.[70] In 1992, the ultimate ownership level for financial firms amounted to 2.6 versus 1.9 for industrial companies. Moreover, the control leverage factor for financial firms was 7.1, 3.0 for holding companies and only 1.9 for industrial companies. This reveals that control of holding companies and financial firms is more levered than that of industrial firms.

We also investigate the control leverage established by the different classes of ultimate investors (table 5.4). Of the 156 sample companies in 1992, 64 ultimate investors were

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[69] Seventeen companies which did not have a large direct shareholder owning at least 25 percent of the shares were excluded. Table C1 of appendix C summarizes the data inclusive of companies without a direct shareholding of at least 25%. With regard to these companies the same ultimate control criterion was applied to the largest direct stakeholder. The results are similar to table 5.3.

[70] See table C2 in appendix C.

holding companies, 49 were families and 27 were industrial companies.[71] Both the ultimate ownership level and the control leverage factor point out that holding companies, insurance companies and families use more intermediate companies and smaller intermediate share stakes to ascertain control than industrial companies. Hence, the deviation of the concept of one share-one vote is considerable for investing holding companies and, consequently, the potential for dilution of control increases (see chapter 6).

[71] Only one bank was among ultimate shareholders. The results of this table refer to 1992, but other years in the period 1989-1991 reflect a similar picture.

Table 5.4 : Largest direct and ultimate levered shareholdings, and the control leverage factor by ultimate investor category.

This table presents the ultimate ownership level, defined as the highest level of ownership in an uninterrupted control chain (direct shareholdings are level 1). Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

The direct largest shareholding is the average direct largest share stake of at least 25%. The ultimate levered shareholding is calculated by multiplying the share stakes of subsequent ownership tiers. The control leverage factor is the ratio of the direct shareholding divided by the ultimate levered shareholding. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The ultimate shareholder level is 2, the direct largest shareholding (of B in C) is 40%, the ultimate shareholding is 16% (40% x 40%), and the leverage factor is 2.5 (40/16).

There was no direct shareholding of at least 25% in 17 sample companies, which were not included in this table.
Standard deviation in parentheses.

1992	ULTIMATE SHAREHOLDERS					
	holding co's	investment co's	insurance co's	industrial co's	families	government
sample size	64	5	5	27	49	6
ultimate ownership level	2.3 (1.270)	1.4 (0.489)	2.4 (1.496)	1.7 (1.116)	2.0 (0.868)	1.7 (1.105)
direct largest shareholding	57.0 (17.906)	44.6 (12.116)	75.2 (23.961)	60.4 (23.584)	54.6 (20.649)	63.3 (18.607)
ultimate levered shareholding	35.1 (21.741)	31.2 (12.023)	43.6 (27.659)	50.8 (25.277)	41.5 (23.997)	63.3 (21.116)
control leverage factor (direct/ultimate shareholding)	4.3 (9.959)	1.7 (0.877)	3.0 (3.121)	1.5 (1.387)	2.9 (1.387)	1.1 (1.185)

Source : Own calculations based on data from the BDPart database and the notification of ownership disclosure.

5.2.5 Blocking minorities, majorities and supermajorities.

Table 5.5 examines control patterns and gives the percentage of Belgian companies with an ownership structure characterized by the presence of blocking minorities, majorities and supermajorities. When a shareholder possesses more than 50 percent of the voting rights, he can dominate the agenda at the annual meeting and control the selection and hiring process of the board members and the delegated director (CEO). In practice, less than 50 percent of the voting rights will be needed to have a majority on the annual meeting because some - predominantly the small - investors usually choose not to be involved in active monitoring and will only use their voting rights under special circumstances e.g. in the case of a potential acquisition. The importance of a blocking minority of at least 25 percent the voting rights was clarified in section 5.2.2. Therefore, table 5.5 shows the percentage of sample companies with the critical threshold stakes of 25%, 50% and 75%. Both the direct threshold shareholdings are presented and the threshold shareholdings per investor group[72]. Panel A reveals that a voting rights majority exists in more than half (56%) of the Belgian listed companies based on the ultimate shareholder criterion. In 18 percent of the Belgian companies, a supermajority gives absolute control to one shareholder or a group of shareholders as blocking minorities cannot be formed. Shareholdings of 25 percent or more are present in 85 percent of all companies. The concentrated ownership pattern is similar in all subsamples. Share stakes of more than 25 percent exist in more than 80 percent of the holding companies (panel B) and the financial firms (panel C) and even in 93 percent of the industrial and commercial companies (panel D). We find that ownership concentration in very strong in most companies within each subsample. Consequently, as, to large extent, takeovers have to be ruled out as a corporate control mechanism, large shareholders bear responsibility for monitoring management's performance.

Holding companies, both Belgian and foreign, are the main ultimate investors since they dominate with voting rights majorities 26 percent of the Belgian firms (panel A). Holding companies invest mainly in other Belgian and foreign holding and companies

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[72] For each direct large shareholding we applied the ultimate shareholder rule : we then aggregated these direct shareholding belonging to the same investor group (ultimate shareholder criterion).

(see panels B and D). Family and individual investment (panel A) is high (on ultimate control basis) since they hold stakes of at least 25 percent in almost one fourth of all Belgian listed companies and majorities in 14 percent. This shareholder class owns large stakes (of over 25%) in 29 percent of the industrial and commercial sector (panel D) and has absolute control in 18 percent. The industrial shareholders predominantly hold share stakes of minimum blocking minority size in other industrial companies (panel D).

Total Belgian and foreign ownership concentration based upon direct shareholdings gives a different picture when ultimate control is considered. The proportion of about 75%-25% of the sample companies with direct share stakes of at least blocking minority size held by respectively Belgian and foreign shareholders, changes to a 60%-40% ratio on an ultimate shareholder basis. This fact reconfirms that foreign investors predominantly control stakes in Belgian companies via Belgian intermediaries.

With regard to absolute control in the form of supermajorities, foreign investors control 10 percent of the companies while Belgian investors only control 9 percent (panel A). Table 5.5 also reveals that Belgian and foreign investors each hold majority stakes in 30 percent of the Belgian listed holding companies. Consequently, the proportion domestic versus foreign ultimate investors has changed to a 50%-50% proportion. The majority of Belgian industrial and services companies (panel D) is still dominated by Belgian investors.

This section has disclosed that over the period 1989 till 1994, Belgian ownership was highly concentrated with more than half of the listed companies controlled with majority stakes. The average substantial stakes held by the different ownership classes has remained relatively stable.[73]

[73] Parametric and non-parametric tests on means and medians show that the difference is not statistically significant.

Table 5.5 : Blocking minority, majority and supermajority shareholdings.

Percentage of the sample companies with a minority, majority or supermajority shareholdings held by the main shareholder categories.
MIN = % of companies with a stake of 25% or larger,
MAJ = % of companies with a stake of 50% or larger,
SUP = % of companies with a stake of 75% or larger.

Direct stands for the direct shareholdings. Direct stands for the direct shareholdings. Ultimate refers to the fact that the direct shareholdings were classified according to the shareholder class of the ultimate investor and these direct shareholdings belonging to the same ultimate investor group were subsequently summed. Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

AUG. 1994	all investors			holding co's			families			indus. co's			Belgian investors			foreign investors		
	MIN	MAJ	SUP	MIN	MAJ	SUP	MIN	MAJ	SUP	MIN	MAJ	SUP	MIN	MAJ	SUP	MIN	MAJ	SUP
PANEL A : ALL SAMPLE COMPANIES (N=157)																		
Direct	82	45	14	48	23	5	2	1	1	21	12	5	63	36	9	19	9	5
Ultimate	85	56	18	41	26	6	23	14	3	15	8	5	51	33	9	34	23	10
PANEL B : HOLDING COMPANIES (N=64)																		
Direct	79	39	14	50	23	8	5	2	2	17	9	2	59	31	11	20	8	3
Ultimate	83	59	20	50	36	13	22	13	2	9	6	3	45	30	11	38	30	13
PANEL C : FINANCIAL SECTOR (BANKING, INSURANCE, REAL ESTATE) (N=20)																		
Direct	75	50	10	35	15	0	0	0	0	5	5	5	62	40	10	13	10	0
Ultimate	80	55	15	40	15	0	5	5	0	5	5	5	48	33	10	32	22	5
PANEL D : INDUSTRIAL AND COMMERCIAL COMPANIES (N=73)																		
Direct	86	47	15	48	25	4	0	0	0	28	15	8	66	37	7	20	10	8
Ultimate	93	55	16	34	19	3	29	18	4	24	11	7	61	37	8	32	18	8

Source : Own calculations based on BDPart and Ownership Notifications.

5.2.6 Belgian shareholder classes

Of the Belgian shareholder classes[74], the dominant stake holders are families and holding companies. These two shareholder groups hold most of the controlling stakes (in respectively 12% and 11% of all the sample companies) and each shareholder class holds share stakes of more than 25 percent in about 20 percent of the sample companies.

Family shareholders.

Belgian families own a voting rights majority in 15 percent of the industrial and commercial companies and hold 26 percent of the shareholdings of at least 25%. Families also often use the holding companies as investment vehicles to control indirectly a variety of listed and non-listed companies in different industries.

Holding companies.

Belgian holding companies are substantial investors in all sectors : in other Belgian holding companies, in the financial sector and in industrial and commercial companies. The importance of the Belgian holding companies and the lack of large share stakes held by banks should be understood in its historic framework : banking and investment business had to be separated by law in 1934. This resulted in the creation of large financial holding companies which became the major shareholders in the financial institutions and diversified their investments over a wide gamut of industrial and commercial sectors. As clarified in figure 1, pyramidal ownership structures allowed holding companies[75] to exercise levered control with relatively small share stakes.

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[74] Ownership tables about the different Belgian shareholder classes (holding companies, banks, investment and pension funds, insurance co's, industrial co's, families, federal and regional government) are not shown, but are available upon request.

[75] Since 1967 (See Article 1 of Royal Decree nr. 64 of 10 November 1967), there is a registration requirement for Belgian holding companies with a portfolio value of over 0.5 billion BEF (£ 10 million). Company Law does not distinguish between different holding categories and in this paper the NACE classification of the National Bank and of the Bank Brussel Lambert is used. However, as Bodson (1993) points out, the group of holding companies is still rather heterogeneous and includes holdings which are purely financial (e.g. Sofina), a combination of financial and industrial (Generale Maatschappij van België / Société Générale de Belgique) or more like a

Financial Institutions.

As of 1934, 'credit institutions' were prohibited from taking share participations in industrial companies. Only since the 1993 Credit Institutions Act[76] which implemented the Second Banking Directive of the European Union, are credit institutions (banks, savings banks and other financial institutions) entitled to hold shares in industrial corporations and holding companies. Currently, credit institutions are allowed to hold up to 10 percent of their equity in Belgian shares. There is no limitation with regard to the percentage of the outstanding shares of an individual company a credit institution is allowed to own.

In practice, banks still do not invest much in shares of non-financial companies to avoid conflicts of interest :

- According to Belgian law, banks are held liable towards creditors of bankrupt companies, if the banks granted credit to these companies at times when a reasonably prudent banker should not have granted nor maintained the credit. A substantial shareholding in a financially distressed company by a bank might influence that bank's decision with regard to ceasing additional credit.
- Since most banks are controlled by a holding company which might be a substantial shareholder in a company, it is doubtful whether banks would be able to make independent decisions with regard to a shareholding in that company or the loans granted to a company (Verwilst 1992).
- Most investment and pension funds are managed by a bank that ensures the distribution of the investment fund's certificates (shares). Legally, investment and pension funds' management should use the voting rights associated with the shares of a company they have invested in, independent of the managing bank.

The Government .

In principle, the federal state does invest in listed Belgian companies. But it owns 50 percent of the shares of the National Bank, of which the shares are listed in the Brussels

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conglomerate (Tractebel).

[76] Law of 22 March 1993. The Royal Decree of 8 May 1990 had already allowed the credit institutions to purchase shares up to 5% of their own funds since 1990.

Stock Exchange, and 50 percent of the 'public credit institutions'. The role of the public credit institutions has been broadened to that of a bank and they are being privatised. The 'public investment companies', owned by the regional governments hold blocks in shares of a few listed companies. Those investments were made either to save ailing companies or to provide risky companies with growth capital so as to stimulate and support entrepreneurial and industrial expansion activities. In general, in contrast to France, federal and regional governments have not considered their shareholdings in companies as a long term financial investment. Only in two percent of the listed companies, the state still holds a share stake via the regional investment companies.

Employee shareholdership.

Since 1991, mechanisms of beneficial acquisition of shares by employees have been introduced. In general, employee ownership in most companies remains low. For instance, employees of Petrofina own 5.4 percent of the shares; in de Bank Brussels Lambert, employees hold 7%; in Creyf's Interim 0.9%; in Desimpel Kortemark 0.5%; in Royale Belge, 0.69% (Wymeersch 1994a).

Institutional investors.

Belgian institutional investors (insurance companies, pension funds, credit institutions, investment funds and investment companies) usually hold small share stakes (of under 5 percent), but own in aggregate about 22 percent of the shares in Belgian listed companies.[77] For instance, the average shareholding of all Bevek/Sicav-investment funds[78] in the 60 most traded Belgian companies, amounted to 1.5 percent in 1994 and the average shareholding of pension funds measures about 4 percent (B.B.L. 1994).[79]

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[77] Most share stakes held by institutional investors are under 5% and are as such not included in the analysis. Data about investment funds should be interpreted with caution since some investment funds investing in Belgian shares are domiciled in Luxembourg but managed by subsidiaries of Belgian banks. The Luxembourg authorities do not differentiate according to nationality of the managers of the fund.

[78] *Beleggingsfonds met veranderlijk kapitaal (Bevek)/ Société d'Investissement à Capital Variable (Sicav)* (mutual fund with variable capital).

[79] Until the end of 1990, the investors in investment funds could not be represented by the investment fund on annual general meetings of companies in which the investment fund held shares. In practice, this legal prohibition made it impossible that the voting rights of shares held by investment funds were exercised. The legislation

Insurance companies are legally allowed to invest up to 25 percent of their reserves in shares listed on the Belgian stock exchanges, but owned only about 12 percent of the Belgian shares over the period 1986-1991. Most institutional investors reinforce the present majority's power by systematically voting in favour of management or, more commonly, by not taking part in the general assembly.

5.2.7 Foreign shareholder classes

Of the foreign investors, it is primarily the holding companies that hold large share stakes and control with a majority stake in 15 percent of all the Belgian listed companies.[80] Foreign holding companies invest predominantly in Belgian holding companies, one fourth of which they control with a majority of the voting rights. This way foreign holding companies also indirectly invest in unlisted Belgian companies with shares held in the investment portfolios of Belgian holding companies. Foreign industrial companies prefer Belgian industrial companies as long term investments, while foreign banks and insurance companies are substantial shareholders in the Belgian financial and insurance sector. Foreign institutional investors do not rely heavily on the Belgian stock market.

Although shareholders from a wide variety of countries[81] are present in the ownership structure of Belgian listed companies, the main investors are from the neighbouring

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wanted to avoid that investment funds would become instruments of financial groups which could strengthen their control on quoted companies. However, the result of this legislation was not neutral since the position of controlling shareholders was even reinforced (Cornelis & Peeters 1992). The Law of 4 December 1990, article 112, abolished this prohibition and stated that the acts of incorporation can determine in which cases the investment fund is to exercise the voting rights.

[80] Ownership tables with the relative importance of each of the foreign shareholder classes (holding companies, banks, institutional investors, insurance companies, industrial companies, families and the government) are available upon request.

[81] Shareholders of almost all the member states of the European Union, Switzerland, U.S.A., Canada, Japan, Panama, Zaire, Rwanda, Liberia and the Cayman Islands hold stakes of at least 5% in Belgian listed companies. Details per country are available upon request.

European countries. Dutch investors own an average direct share stake of 3.8 percent and invest predominantly in Belgian industrial and commercial companies. German direct average ownership is low. German industrial companies mainly invested in the concrete industry via e.g. Heidelberger Zement. Investors from Luxembourg own, on average, directly 4.1 percent of Belgian companies, and have invested mainly in industrial and commercial companies. But, companies from Luxembourg are almost never the ultimate investor and are used as intermediary investment vehicles by e.g. French companies. U.K. and North American shareholders hold large stakes in only 3 companies. Only one large shareholding of a Belgian listed company is Japanese: Ashaki acquired a majority stake in the glass manufacturer Glaverbel. The average French direct average shareholding is higher and close to 4.3 percent.

The single most important foreign ultimate investors are French; their accumulated substantial shareholdings amount on average to almost 13 percent (table 3.4). They invest mainly in the Belgian holding companies of which they own an average stake of 19 percent and in the financial sector in which they hold an average of 14 percent of the voting rights. Via controlling participations in Belgian large holding companies, French investors control a substantial part - estimated at 30% (Wymeersch 1994a) - of all the listed and unlisted industrial companies in Belgium. Columns 2 to 5 of table 5.6 reveal that it is the French holding companies, rather than French family investors or industrial companies that have acquired substantial stake of the Belgian listed companies. French insurance companies own significant shareholdings in the Belgian banks and insurance companies.

Table 5.6 : Size of large shareholdings held by a French ultimate investor (group).

This table reports the aggregate substantial shareholdings[1] owned by the main French investor groups. Ultimate refers to the fact that the direct shareholdings were classified according to the shareholder class of the ultimate investor and these direct shareholdings belonging to the same ultimate investor group were subsequently summed. Ultimate control is control based on (i) a majority control (minimal 50% of the voting rights) on every ownership tier of the ownership pyramid or (ii) shareholdings of at least 25% on every tier in the absence of other shareholders holding stakes of 25% or more. A chain of fully owned subsidiaries are considered as one single shareholder.

AUG.1994	SHAREHOLDINGS OWNED BY ULTIMATE FRENCH INVESTORS					SHAREHOLDINGS EXCLUDING SUEZ AND PARIBAS	
	all investors	holding co's	insurance co's	indus. co's	families	all investors	holding co's
PANEL A : ALL SAMPLE COMPANIES (N=157)							
MEAN	12.89	9.37	1.05	1.41	0.45	6.32	2.80
STD	25.17	22.27	8.53	8.91	5.67	19.39	13.91
t-stat[3]	-1.775[4]	-1.740[4]	-0.453	0.125	-0.600	-0.670	-0.513
PANEL B : ALL HOLDING COMPANIES (N=64)							
MEAN	18.82	15.28	0.16	2.28	1.11	9.21	5.67
STD	31.09	29.11	1.25	12.40	8.88	24.30	20.07
t-stat[3]	0.040	-0.015	0.120	0.472	-0.064	0.050	-0.025
PANEL C : FINANCIAL SECTOR (BANKS, INSURANCE, REAL ESTATE) (N=20)							
MEAN	13.96	5.72	7.76	0.00	0.00	11.61	3.37
STD	25.82	15.04	23.19	0.00	0.00	26.01	13.98
t-stat[3]	-1.253	-0.933	-0.408	0.000	-1.000	-0.729	-0.080
PANEL D : INDUSTRIAL AND COMMERCIAL COMPANIES (N=73)							
MEAN	7.39	5.19	0.00	1.04	0.00	2.33	0.13
STD	17.00	14.87	0.00	6.00	0.00	9.38	0.84
t-stat[3]	-2.274[5]	-2.484[5]	-0.998	-0.384	0.000	-0.783	-1.511

Source : Own calculations based on BDPart and Ownership Notifications.

[1] In line with the Ownership Disclosure Legislation, substantial shareholdings are defined as share stakes that equal or exceed 5% (of the voting rights), unless investors with smaller shareholdings are affiliated to or act in concert with major shareholders, in which case small stakes ought to be revealed as well. The 5% threshold can be reduced to 3% if the company states this in its acts of constitution.

[2] The direct shareholdings are accumulated if they are directly owned or (indirectly) controlled by a French ultimate investor (group)

[3] The t-stat. tests the difference between the ownership means in 1994 and 1989. Non-parametric tests give similar results.

[4] Statistical significance at 10%.

[5] Statistical significance at 5%.

The French Suez group controls the Generale Maatschappij van België (Société Générale de Belgique) and the Paribas group dominates the Belgian Cobepa holding. To investigate the prominence of these two large French holding companies, the average substantial shareholdings held by French investors excluding the Suez and the Paribas group are presented in columns 6 and 7 of table 5.6. A comparison of the aggregate concentrated French ownership including and excluding Suez and Paribas reveals that these holding companies account for more than half of the substantial French investments in Belgian listed companies (holding and industrial companies). The average large share stake held by the French holding companies falls from 9.4% to 2.8% after exclusion of the Suez and Paribas holding companies (columns 2 and 7). The 9.4% average shareholding is equivalent to majority control in 10 companies and the 2.8% represents control in 2 companies. Apart from controlling stakes, Suez and Paribas are present with minority stakes in 45 listed companies. Panel D (column 7) shows that the French holding companies other than Suez and Paribas, control virtually no voting rights directly in the Belgian industry.

The French average shareholding slightly decreases from 1989 to 1994 mainly due to a reduction of ownership by the French holding companies.[82] An important reason is the restructuring of the Generale Maatschappij van België (Société Générale de Belgique) after the takeover by Suez. Since then, the Generale focuses on eight core strategic sectors and has reduced its shareholdings in others.

5.2.8 Changes in large shareholdings.

We have shown that the aggregated large shareholdings per shareholder category remained stable over time. As selling activity of stakes within shareholder categories is not reflected in the aggregate ownership data, table 5.7 examines these changes in large shareholdings. Over the period 1989-1992, there were 238 shareholding increases of more than 1 percent, while 247 stakes were sold. Of these changes in ownership, there

[82] Parametric and non-parametric tests on means and medians show that the average investment by French holding companies was significantly reduced (at 1% level).

were 120 increases of a magnitude between 5% and 24.9%, versus 110 decreases of similar size. In 16 cases, majority shareholdings were acquired and 28 blocks of blocking minority size were purchased. Thirty-three blocking minorities were sold, in addition to 28 majority stakes. It should be noted that the changes are corrected for shareholding restructuring within investor groups. For example, a redistribution of share stakes in a sample company held by two companies which are controlled by the same ultimate investor, has a limited impact on control and is consequently not included in the changes of large shareholdings.

These observations suggest that this market for share stakes is not insignificant : in one fourth of the sample companies, share stake changes of 5 percent or more occur in the period 1989-1992. The relevance of this market as a an external corporate control mechanism will be investigated in the following chapter.

Table 5.7 discloses that the holding companies are the main sellers and purchasers of share stakes. Institutional investors, mainly banks and insurance companies, acquire 38 shareholdings of more than 5 percent and sell 30 stakes of similar sizes. Families sell 15 stakes of blocking minority size and more, while 8 such stakes are bought by this shareholder category.[83] Most of the exchanges of blocks of shares are negotiated deals and take place ex exchange.[84]

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[83] If a firm acquires control of another company through a private transaction, and pays a premium to the selling shareholders, a public tender offer has to be made all the remaining shareholders, under the same terms as the private transaction. Van Hulle, Vermaelen en de Wouters (1991) mention that when the private transaction only involves a fraction of the large shareholder's holding, the offer has to be made for only the same fraction of the remaining shares. For example, if the bidder acquires 60% of the shares of a large shareholder who owns 80% of the outstanding shares, the bidder has to make an offer for 60% of the other 20% of the outstanding shares.

[84] Unlike in the U.S., U.K. and France, undisclosed accumulation of large shareholdings in Belgium via open market and private transactions was possible until March 1989. Van Hulle, Vermaelen and de Wouters (1991) test, over the period 1970-85, the Schleifer & Vishny (1986) hypothesis which states that bidders in a tender offer would benefit most if they had accumulated large holdings prior to the tender offer. Van Hulle et al. find that, while the targets in tender offers earn significant abnormal returns of 37%, bidders earn abnormal returns or zero. The authors advance as part of the explanation for the bidders' low return, the negotiation process with major shareholders. In most companies it is impossible to build up a large stake via open market

Table 5.7 : Increases and decreases of large shareholdings over 1989-1992.

This table gives the size distribution of increases and decreases of large shareholdings over the period 1989-1992. Increases and decreases were calculated by comparing the share stakes of a shareholder category of a fiscal year to the shareholdings of previous year.

1989-1992	Number of increases and decreases stakes					
	[1%-5%[	[5%-10%[	[10%-25%[	[25%-50%[	[50%-100%[	Total
PANEL A : INCREASES FOR ALL SAMPLE COMPANIES (number of observations : 693)						
Increases : all shareholders	74	72	48	28	16	238
Increases : holding companies	34	35	17	16	2	104
Increases : institutional investors	24	17	12	4	5	62
Increases : industr. & commerc. co's	5	9	8	4	5	31
Increases : families	11	11	11	4	4	41
PANEL B : DECREASES FOR ALL SAMPLE COMPANIES (number of observations : 693)						
Decreases : all shareholders	76	51	59	33	28	247
Decreases : holding companies	26	31	34	12	18	121
Decreases : institutional investors	31	8	11	9	2	61
Decreases : industr. & commerc. co's	3	2	6	1	4	16
Decreases : families	16	10	8	11	4	49

Source : Own calculations based on BDPart and Ownership Notifications.

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transactions. Therefore, private negotiations are almost inevitable for an outsider who wants to enlarge his share stake.

A more detailed overview of the selling and purchasing is presented in table C3 (appendix C). For the subsamples of the holding companies, financial firms and industrial and commercial companies, holding companies remain the most active sellers and buyers. Not many large stakes of 25 percent or more in holding companies and financial firms are sold, but 31 such stakes change hands in industrial and commercial firms.

If this market for share stakes proves to be a relevant corporate control mechanism (see chapter 6), the findings of table 5.7, suggest that the holding companies are fulfilling a monitoring role, but monitoring is limited to the industrial and commercial sector.

5.3 The board of directors and the management committee.

5.3.1 The board of directors.

Role and size of the board of directors.

The power of the board is 'residual', which means that the board holds the authority that has not been explicitly conferred by law to the annual general assembly[85]. The articles of association, however, can redefine the respective responsibilities of the board and of the general assembly. Usually, the general assembly at the annual meeting is responsible for, apart from the election of directors and auditors, the approval of accounts and the changes of the articles of association. Consequently, the board possesses wide legal powers and has substantial freedom in decision making. Still, the board acts under supervision of the general assembly: board members cannot be appointed permanently but can be dismissed at will by the general assembly, without notice or indemnity.[86] However, case law concerning conflicts between board and annual meeting or concerning conflicts interests of directors on the board is rare. Sensitive issues, like e.g. conflicts or discussions about directors' renumeration, never

[85] Article 54, paragraph 1, Company Law.

[86] Consequently, dismissal cannot be contracted away by the parties (See e.g. Supreme Court declarations : Court of Cassation, 22/1/1981, 1981, No. 6165, p.285).

reach the outside world due to the lack of an investigative press and a tradition of secrecy (Wymeersch 1994a).

The general assembly at the annual meeting has the authority to appoint the board of directors.[87] As a result, the composition of the board to a certain extent reflects balance of power of the shareholders : the major shareholders are well represented whereas small shareholders do not usually have board representatives. Unlike the German two-tier board system, a system of co-determination was not created in Belgium[88].

The board of directors consists of almost ten members over the period 1989-92 (table 5.8) with a median of nine. Whereas the board of holding companies and industrial and commercial corporations comprises about 9 directors[89], the boards of banks and of utilities have much larger boards with an average of about 19 directors. Average board size is relatively small for insurance companies with 5 directors and for the services industry (retail, leasing, etc) which has a mean and median of 7 directors. The t-test on the means and non-parametric tests (not shown) indicate that the average board size has not changed substantially over the period 1989-1992.[90]

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[87] Belgian law also allows bodies corporate to be appointed member of the board of directors of a Belgian '*Naamloze Vennootschap/Société Anonyme*' (N.V./S.A).

[88] In Belgium, companies with a certain turnover and 50 employees or more are legally obliged to create an enterprise council consisting of representatives of the employers and the employees. Via this council the employees are informed and consulted about corporate decisions (Law of 1948 and Royal Decree of 1973), but the council is not involved in decision making.

[89] See table C4 of Appendix C.

[90] CEOs and chairmen interviewed in July 1995 emphasized the gradual tendency towards smaller boards with more independent expert directors. In most sectors, apart from banking insurance and real estate, this trend is supported (although not statistically significantly) by the data over 1989-1992; average board sizes in 1992 of the sample of all companies and of subsamples per industry are smaller than in 1989.

Table 5.8 : Size and turnover of the board of directors.

This table presents the size of the board of directors as well as average yearly turnover of total board, of executive and of non-executive directors, and the percentage of sample companies of which the chairman or of CEO is replaced.

In parentheses : number of sample companies and the standard deviation.

ALL SAMPLE COMPANIES	1989	1990	1991	1992	average 1989-1992
Size of the board	10.034 (175,6.495)	10.005 (175,6.529)	9.872 (173,6.066)	9.738 (168,6.185)	9.914 (691,6.311)
Board turnover[1]	0.110 (175,0.157)	0.103 (175,0.162)	0.106 (173,0.153)	0.097 (168,0.154)	0.104 (691,0.156)
Executive director turnover[2]	0.312 (173,0.611)	0.403 (173,1.046)	0.252 (171,0.602)	0.277 (165,0.637)	0.312 (682,0.750)
Non-executive director turnover[3]	0.081 (173,0.144)	0.066 (173,0.126)	0.074 (171,0.145)	0.058 (165,0.129)	0.070 (682,0.136)
Chairman turnover[4,5]	0.127 (173,0.334)	0.093 (172,0.291)	0.064 (171,0.246)	0.083 (167,0.277)	0.092 (682,0.289)
CEO turnover[5]	0.224 (174,0.418)	0.217 (175,0.413)	0.121 (173,0.327)	0.154 (168,0.362)	0.180 (690,0.384)

Sources : Own calculations based on annual reports, the database of the National Bank of Belgium.

All turnover data are corrected for 'natural turnover', turnover resulting from retirement, illness or death:
1. Proportional to board size.
2. Proportional to total number of executives on the board.
3. Proportional to total number of non-executives on the board.
4. Non-executive chairman turnover only.
5. Percentage of sample companies with chairman or CEO turnover.

Shareholder representation on the board of directors.

In Germany, the *Vorstand* (management board) consists of 7 senior managers, while representatives of the major shareholders (banks, families and affiliated companies) and of unions and employees have seats on the supervisory board (*Aufsichtsrat*) (Kaplan 1994b). The German two-tier system integrates otherwise unrepresented or underrepresented interests into the governance structure. For instance, employee representatives constitute half the supervisory board on which executives are prohibited to reside. The true power of the supervisory board stems from the system of cross-holdings and from the banks' right to use the voting rights of the shares deposited with them. French, Spanish and Italian company ownership structures are characterised by controlling interest of a single family or individual, a core group of shareholders or the state.

In Japan, the board of directors is responsible for managing the corporation, but few are outside directors (Gerlach 1993). Most of the directors are executive managers who are long-term employees. Among the directors, the president of a Japanese company is the most important; he generally fulfils the role of CEO. In addition to the president, two or three directors are given the legal right to represent the company (Kaplan & Minton 1994, Kaplan 1994a, Aoki 1990). The outside directors, who form a small minority on the relative large Japanese boards, hold no representative rights but generally represent either the main bank of the company or an affiliated company of the keiretsu and collect information for them.

Anglo-American companies rely on a strong monitoring role for non-executive directors and on the appointment of a greater number of independent non-executives to boards (Oxford Analytica 1993). Moreover, audit committees consisting of a majority of or completely of outside directors, are present in a vast majority of quoted companies in the U.S., Canada and the U.K. Other committee structures like nomination and remuneration committees are increasingly established to reduce the CEO's potential board domination and to facilitate challenging his authority.

The need for independent directors has been emphasized in France, the U.K. and North America, but has not been incorporated into Belgian corporate governance legislation. Some Belgian companies, however, nominate foreign business associates, former politicians or leading personalities to the board (Wymeersch 1994a). Bankers are not present on the board due to banking restrictions and potential conflicts of interest.[91] Institutional investors[92] who usually only hold small share stakes are seldom represented on the board.

Data on board representation in Belgium are not publicly available. As an example of board representation, we focus on the financial holding company, Nationale Portefeuille Maatschappij (Compagnie Nationale à Portefeuille). During the fiscal year 1994, the board of directors of NPM consisted of 15 members of whom only 2 had executive tasks (see table 5.9). The sole large shareholder, the holding company Frère-Bourgeois Group, owned 50.3 percent of the shares and had 2 board representatives. Via intermediate holding companies NPM controls the Group Brussels Lambert (GBL). Some of the companies controlled by GBL, like Royale Belge and Electrabel, who own a minor share stake in NPM have a representative on the NPM board. The insurance company Royal Belge owns 4.5 percent and appoints 1 director. Electrabel, an energy holding company, has 1 board representative. Mosane, a financial holding company and a subsidiary of Cobepa (Paribas), holds a stake of 2.8 percent (over the last 4 years reduced from 10 percent) has 1 board representative. Two board members represent the minority shareholder Paribas. An institutional investor who held 2 percent of the voting rights nominated 1 director. Of the four directors who were considered to be independent, one was a former chairman of a large Belgian bank and another a former politician. One director was appointed by the large shareholders to represented the small (atomistic) shareholders and oversee whether their rights were respected. This table shows that, despite the fact that large shareholders appoint the directors, their direct representatives do not form a board majority. However, it is still uncertain to what extent the direct representatives of the majority shareholder dominate board and to what

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[91] Article 27 of the Company Law of 22 March 1993.

[92] Institutional investors comprise Ucits (investment funds and companies), insurance companies and pension funds.

Table 5.9 : Shareholder representation on the board of the Nationale Portefeuille Maatschappij (NPM).

1994	Size of shareholding in NPM	Number of board representatives
Large shareholders		
Group Frère-Bourgeois	47.8% (and 2.5% indirect control)	2
Minority shareholders		
Mosane	2.8	1
UAP Paris and Elf Acquitaine (via Figexsa, Safrep)	12.2 (sum)	2
Institutional investor	2	1
Minority shareholders, which NPM controls indirectly (via GBL group)		
Royal Belge	4.5	1
Electrabel	0	1
Independent and Executive directors and minor shareholders' representatives		
Minor shareholders (atomistic)	28.8	1 (appointed by large shareholders)
Independent directors	---	4 (1 politician, 1 former bank chairman, two 'experts')
Executive directors	---	2
Total		15

Source : annual report of Nationale Portefeuille Maatschappij and information provided by NMP's CEO.

degree minority shareholder representatives and independent experts are involved in actual decision making and monitoring of management.

Turnover of directors, CEO and chairman.

Table 5.8 shows that total yearly board turnover amounts to 10 percent and is relatively stable over time. On average, 75 percent of the directors do not exercise executive functions in the company. Industrial and commercial companies comprise a higher proportion of executive directors, namely about 37 percent. Average executive turnover proportional to the total number of executives on the board, is high and amounts to an average of 31 percent over the period 1989-1992 and increased even to 40 percent in 1990. Executive turnover in industrial and commercial companies amounts of 28 percent, but is higher in holding companies (31%) and in the financial sector (42%).[93] Non-executive turnover is much lower and is on average 7 percent (see table 5.8). In holding companies and financial firms, average non-executive turnover amounts to 5 percent and 7 percent respectively and is 8 percent in industrial and commercial companies.[94]

Seven percent of the sample companies lose their non-executive chairman. Over a four year period in about 36 percent of the companies the non-executive chairman leaves or is replaced. Dual control, separation of the functions of CEO and chairman, is established in 55 percent of the sample companies.[95] CEO turnover is high: in almost 70 percent of the companies the CEO leaves within the period 1989-1992, equivalent to an 18 percent yearly turnover. For a sample of 46 U.S. companies that had negative earnings during at least one year followed by three years of positive earnings, John, Lang and Netter (1992) report a CEO turnover rate of about 95 percent over a four year period : in half of their sample companies the CEO leaves in the year of negative earnings and the average turnover rate amounts to 15 percent over the three following

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[93] See table C4 in appendix C.

[94] See table C4 in appendix C.

[95] The tasks of CEO and chairman are combined in 43% of the holding companies, in 25% of the financial firms and in 51% of the industrial and commercial companies.

years. Coughlan and Schmidt (1985) detect an annual turnover rate of 13 percent, Weisbach (1988) attains an 8 percent resignation rate and Klein and Rosenfeld (1988) report more than 9 percent. Gilson (1990) finds a forced CEO turnover rate of 83 percent in companies in financial distress. Martin and McConnell (1991) show that the turnover of the top manager increases from approximately 10 percent in each of the five years preceding a takeover to 41.9 percent in the year after a takeover. The Belgian turnover data are stable over time.[96] Less directors are joining the company following turnover[97], which explains slightly smaller board size over the period 1989-1992.

5.3.2 The management committee.

Although the creation of a management or direction committee is not a legal requirement, 60 percent of the listed companies explicitly mention the existence of such a committee in the annual reports. More then two thirds of the industrial and commercial companies organize top management into a formal management committee. The committee consists of the CEO, executive directors and the top senior managers. The chairman of the management committee usually is the *delegated director* (CEO), who serves on the board. The annual general meeting sometimes appoints several delegated directors : the average number of delegated directors is 1.2 (with a median of 1). Banks, for instance, appoint on average of 2.7 delegated directors. A management committee has on average 3.6 members (see table 5.10). The number of executives on the management committee of holding companies totals 2.8 whereas that of industrial and commercial companies amounts to 4[98].[99]

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[96] Parametric and non-parametric tests on the difference in means and medians for the 1992 and 1989 turnover data are not statistically significant.

[97] Significant difference at the 5% level.

[98] See table C4 in appendix C.

[99] The average size of the management committee in table 3.10 and C5 is based on all sample companies. If a management committee is not mentioned in the annual reports, we equate the size of the management committee with that of the executive directors. When we only consider those companies which state the existence of management committees, the average committee size is about 6 (5.3 for holding companies, 6.2 for industrial and commercial companies). Within each main category,

The turnover of the management committee, excluding CEO turnover, amounts to 13 percent and is low compared to a yearly average of 31% for the executive directors . After excluding turnover of the executive directors, the turnover of top managers who serve on the management committee but not on the board, is even more reduced. This is consistent with the fact that it is the most important members of the management committee who usually get a seat on the board of directors. Only these executives, who bear most responsibility for the company's results and strategy, will face disciplinary actions when the company underperforms or will resign as a result of policy conflicts.

Table 5.10 also shows that an average of about 2.5 executive directors (or about 25 percent of the board) are a member of the management committee. In holding companies and firms in the financial sector, a similar average and proportion of the board acts as executive director, while in the industrial and commercial companies more than 3 board members (or about 38 percent) have managerial functions.[100]

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the sectorial differences are relatively small; e.g. there is an average of 6.7 executives member of the direction committee of sector 'Materials', which includes the building, chemical, glass and paper industry. The sector 'Capital Equipment', which consists of electronics, electrical equipment and machinery construction, has an average of 5.5 directors on the direction committee.

[100] Parametric and non-parametric tests on the mean and median (not shown) reveal that the size and turnover of the management committee, and number of executive directors has not changed significantly over the period 1989-1992.

Table 5.10 : Size and turnover of the management committee.

This table presents the size of the management committee, the number of directors serving on the committee and yearly turnover data.

In parentheses : number of sample companies and the standard deviation.

ALL SAMPLE COMPANIES	1989	1990	1991	1992	average 1989-1992
Size of management committee	3.560 (175,3.358)	3.451 (175,3.145)	3.537 (173,3.146)	3.607 (168,0.362)	3.538 (691,3.208)
Management committee turnover[1]	0.144 (172,0.327)	0.186 (172,0.593)	0.086 (170,0.233)	0.110 (165,0.291)	0.132 (679,0.389)
Number of directors member of mgt committee[2]	2.508 (175,2.167)	2.440 (175,2.094)	2.433 (173,1.989)	2.428 (168,1.950)	2.452 (691,2.049)

Sources : Own calculations, based on annual reports, the database of the National Bank of Belgium, Memento der Effecten.

Turnover data are corrected for 'natural turnover', turnover resulting from retirement, illness or death.
1. Turnover data exclude turnover of CEO.
2. The number of managers who serve on the management committee and also hold an executive directorship.

5.3.3 Correlations of the turnover of CEO, of executive directors and of the management committee.

Replacement of an underperforming management team consisting of the CEO, executive directors and members of the management committee may result from disciplinary actions taken by actively monitoring non-executive directors or large shareholders. An investigation of the correlations between these turnover variables, our proxies for disciplining, gives some preliminary insights in process of corporate control. High correlations would indicate that when the CEO is replaced, executive directors and the members of the management team are disciplined as well. Table 5.11 reports that the correlation between CEO and executive turnover (excluding CEO turnover) is not high and amounts to 0.125. The coefficient would equal 1 if CEO departure coincided with a complete turnover of the executive directors. The low correlation indicates that when the CEO departs, not many other executive directors leave the company. The Pearson correlation between turnover of the management committee (excluding CEO) and the executive directors (excluding CEO) is expected to be high since the variables partially overlap; the executive directors are members of the management committee. However, the correlation is at 0.301 rather low. This suggests that when executive directors are replaced, this is hardly the case for those members of the management committee who do not hold a directorship. The departure of the CEO coincides more frequently with the replacement of members of the management committee (excluding CEO): the Pearson coefficient equals 0.423. These findings give some preliminary evidence that it is either the CEO with some members of this management committee or the executive directors who are replaced following disciplinary actions or policy conflicts.

The correlation between the turnover of the executive directors and the non-executive turnover is also exhibited in table 5.11. If the hypotheses of previous chapter are supported - the non-executive directors and large shareholders discipline underperforming management - we would expect a low correlation between forced executive and non-executive turnover. The correlation coefficient is only 0.143. For the positive sign two reasons can be given within this corporate control framework : (i) in poorly performing companies, the large shareholder replaces his representative non-executive director who is not fulfilling his monitoring tasks adequately or (ii) large

shareholders with low monitoring abilities sell their stake and lose board representation. The relations of poor performance, management turnover, and non-executive and large shareholder disciplining are examined in detail in Chapter 6.

Table 5.11 : Pearson correlations of the turnover variables.

The table presents the Pearson correlation coefficients of the turnover of the board (proportional to board size), the non-executive turnover (exclusive of chairman turnover and proportional to total number of non-executives on board), the executive turnover (exclusive of CEO turnover and proportional to the executives on board), the management committee turnover (proportional to management committee) and the turnover of non-executive chairman turnover and CEO turnover.
Between brackets : p-values corresponding to the null hypothesis that correlation coefficient equals 0.
Number of observations : 702, Period : 1989-1992

TURNOVER OF :	Board of directors	Executive directors[1]	Non-executive directors[2]	Management committee[3]	Chairman[4]	CEO
Board of directors	1.000					
Executive directors[1]	0.602 (0.00)	1.000				
Non-executive directors[2]	0.693 (0.00)	0.143 (0.00)	1.000			
Management committee[3]	0.255 (0.00)	0.301 (0.00)	0.152 (0.00)	1.000		
Chairman[4]	0.286 (0.00)	0.184 (0.00)	0.133 (0.00)	0.252 (0.00)	1.000	
CEO	0.290 (0.00)	0.125 (0.00)	0.205 (0.00)	0.423 (0.00)	0.192 (0.00)	1.000

Source : Own calculations based on a database from the Balance Depository of the National Bank and on annual accounts.
1. Exclusive of CEO turnover and proportional to total number executive directors.
2. Exclusive of chairman turnover and proportional to total number non-executive directors.
3. Exclusive of CEO turnover and proportional to total management committee.
4. Turnover of non-executive chairmen only (corrected for non-separation of control between CEO and chairman).

5.3.4 Director interlocks and control.

Control[101] is usually linked to voting rights since a majority shareholding gives an investor the right to nominate and appoint the directors. However, a company can also have some influence on another company's board via directors interlocks. As mentioned before, data on the representation of shareholders by specific directors, are generally not available. However, the relation between a substantial shareholding in a listed Belgian company held by another listed Belgian holding company, financial firm or industrial and commercial company, on the one hand, and the number of directors these listed corporate investors and targets have in common, on the other hand, can be examined.

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[101] The concept of control in Belgian (and European) law can be found in the accounting laws and the legislation on consolidation of accounts. Control over a company, *de jure* and *de facto*, is defined as the authority to have a determining influence over the appointment of directors or on the direction of company policies. Control is *de jure* and irrefutable in the following cases (Plateau and Van Herck 1992) : 1. A company exercises control over another company if the controlling company holds the majority of the voting rights. 2. A shareholder can, regardless of his shareholding, appoint and discharge a majority of directors. 3. A shareholder is given control in the articles of association of the company under consideration or in another written agreement. 4. A shareholder owns the majority of the voting rights linked to the total of shares based on an agreement with other shareholders of the company in question. In this case the minority shareholder can act as majority shareholder based on agreements with other minority shareholders. This kind of agreements have validity for only 5 years, but can be renewed. 5. There is common control when one parent company, for instance, has the majority of the voting rights, while another parent has been given the authority to appoint a majority of the directors.
With regard to the concept of 'authority to appoint a majority of the directors', it should be noted that it will be difficult to proof with which votes the members of the board were appointed since the companies have no obligation to create a list of attendance of the general assembly (Petit 1984, Van Hulle 1986). When there is no control *de jure*, there might nevertheless be control *de facto*. A shareholder is supposed to have control *de facto* if he has exercised voting rights that represent the majority of the voting rights linked to the shares that were represented on the two last general assemblies. If a parent company has an important, albeit minority shareholding, and the remainder of the shares are dissipated over atomistic investors, the concept of control *de facto* might apply. If two companies have a majority of directors of their respective boards in common, *de facto* control is assumed.

The correlation between director interlocks in Belgian companies and ultimate shareholdings[102] for the years 1989 and 1992 is about 0.35 (table 5.12). A correlation coefficient of 1 would indicate that e.g. companies which own 50 percent and 20 percent appoint respectively half and one fifth of their board of directors to the target's board of directors. In practice, as reported in section 5.3.1, a majority shareholder with stake of 50 percent will usually not appoint more than half of the directors because, even if the minority shareholders demand board representation, the direct representatives of large shareholders will have a more powerful voice on board meetings.[103] Within this context, the correlation coefficient of 0.354 is high. Table 5.13 confirms the strong relation between director interlocks and share stakes. We report that a listed Belgian company that owns a share stake of 30 percent (an on ultimate control basis), generally delegates one of the directors of its own board to the board of the target company. Analysis with direct share participations gives similar results.

In total, there were 1582 directorships (positions on the boards of directors) in the 177 sample companies in 1989 and 1587 in 168 companies in 1992. The average number of directorships in listed Belgian companies per director amounts to 1.43.[104] In both years, 78 percent of the directors occupied only one directorship in a listed Belgian company, representing 54 percent of the number of positions. Ten per cent of the directors hold three directorships or more or 28 percent of the total number of directorships in both 1989 and 1992.

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[102] If two companies are affiliated through multiple ownership tiers, it might be more difficult for the top company to control the investee. To account for a potential dilution effect, the shareholdings used in the calculation of the correlation with director interlocks, are calculated on an levered basis. For example, company A owns 50% of company B which, in turn, owns 50% in company C. Consequently, company A indirectly participates for 25% in company C. Appendix B details the calculation of levered control.

[103] Several interviewed directors reported that a shareholding of 5% usually gives the right to a board seat.
In addition, it should be pointed out that the high correlation even presents a substantial underestimation of the fact that large shareholders, here defined as controlling at least 5% of the voting rights, may nominate directors to the investee's board who do not serve on their own board. This fact is not included in the data.

[104] See table C6 in appendix C.

Table 5.12 : Pearson correlations between director interlocks and share participations.

The director interlocks are the number of directors two listed companies have in common. The share participations are the share stakes owned by listed Belgian companies in other Belgian listed companies on a 'levered' ultimate shareholder basis. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The direct largest shareholding (of B in C) is 40%, the 'levered' ultimate shareholding is 16% (40% x 40%).
The causality with regard to nominations of directors to the board of another company is based on shareholdings : if company A and B have 2 directors in common and company A owns 20% of B's shares while B has no shares in A, company A is assumed to appoint the 2 common directors on B's board of directors.

In parentheses : the p-value expressing the probability that the correlation coefficient differs from zero.

Number of observations : 33,442 (for a 194 by 193[1] matrix of 194 listed companies).

Correlation Matrix	director interlocks 1989	director interlocks 1992	share participation 1989	share participation 1992
director interlocks 1989	1.000			
director interlocks 1992	0.662 (0.00)	1.000		
share participation 1989	0.354 (0.00)	0.327 (0.00)	1.000	
share participation 1992	0.337 (0.00)	0.354 (0.00)	0.783 (0.00)	1.000

Source : Own calculations based on data from annuals reports and Notifications of Ownership.

[1] Diagonal of companies' matrix was deleted.

Table 5.13 : The relation between director interlocks and share participations.

The share participations (SHARES) are the levered ultimate shareholdings owned by listed Belgian companies in other Belgian listed companies. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The direct largest shareholding (of B in C) is 40%, the 'levered' ultimate shareholding is 16% (40% x 40%). The director interlocks (DIRLOCK) are the number of directors two listed companies have in common. The causality with regard to nominations of directors to the board of another company is based on shareholdings : if company A and B have 2 directors in common and company A owns 20% of B's shares while B has not share stake in A, company A is assumed to appoint the 2 common directors on B's board of directors.

$$DIRLOCK = \alpha + \beta * SHARES + \epsilon$$

Number of observations : 33,442 (for a 194 by 193[1] matrix of 194 listed companies).

In parentheses : p-values.

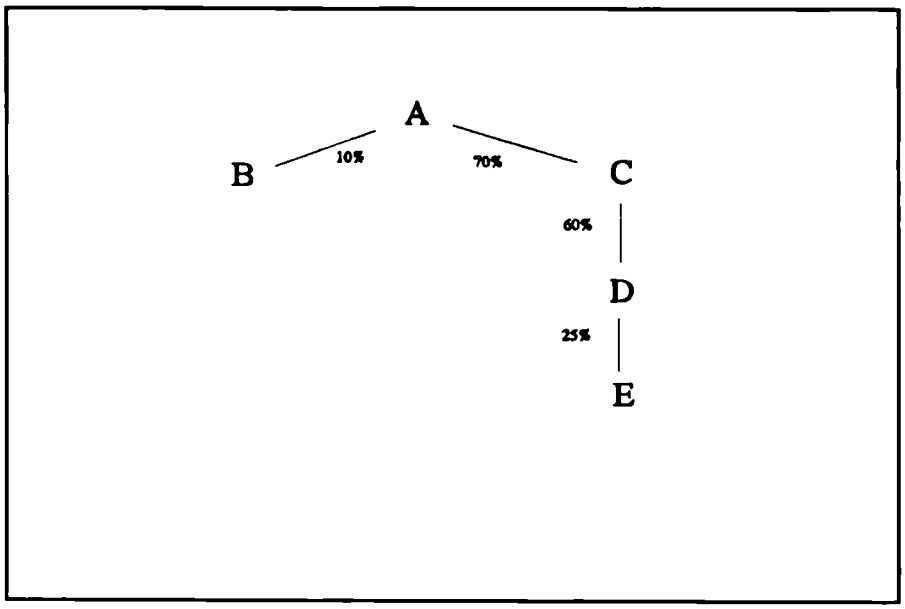
Dep. variable	sample size	intercept	shareholdings 1989	shareholdings 1992	p-value of F-test	R-sq. adj.
directors interlocks 1989	37,441	0.022 (0.00)	0.035 (0.00)		0.00	0.13
directors interlocks 1992	37,441	0.021 (0.00)		0.036 (0.00)	0.00	0.13

Source : Own calculations based on data from annuals reports and Notifications of Ownership Disclosure.

[1] Diagonal of companies' matrix was deleted.

Appendix B :

To describe the ownership relation between companies, we can distinguish among affiliation, association and participation. Two companies are affiliated if one owns at least 50% in the other company (the subsidiary).[105] When two companies are associated, one of these companies holds a stake of more than 25% in the other company.[106] Note that 25% is the blocking minority threshold. If a company X owns a stake of less than 25% in company Y, there is a 'participating relationship' between them.[107]



- A, C and D are affiliated. The control percentage of A in D is 60%, while its percentage of interest on a levered basis amounts of 42% (70% * 60%).
- A and E are associated. The control percentage of A in E is 25%, whereas its percentage of interest on a levered basis is only 11% (70% * 60% * 25%).
- A has a participation in B ; percentage of control and interest is 10%.

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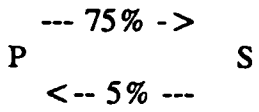
[105] Article 4, par. 1 of the Royal Decree of 8 October 1976.

[106] Article 3 of the Royal Decree of 9 March 1990 and article 6 of the Royal Decree of 30 December 1991.

[107] Participation is the translation of '*deelnemingsverhouding*' (article 67 of Royal Decree of 9 March 1990).

Cross shareholdings

It is possible that there is a reciprocal shareholdership between two companies. For instance, company P (parent) owns 75% of the shares of company S (subsidiary) while company S owns 5% of company P.[108]



To calculate the percentage of interest of P in S, let us assume that a=75% and b=5%. P's shareholders own (1-b) of the share capital of P the remaining b% is held by S. The direct interest of P's shareholders in S is [(1-b) * a]. Indirectly - this is via the shareholdings of S in P, they possess : (1-b) * a * b * a.
If this circular reasoning is repeated several times, the total interest of P in S can be expressed as follows :
direct holding of : (1-b) * a
plus an indirect holding of :
$(1-b) * a + (1-b) * a^2b + \ldots + (1-b) * a^{n+1}b^n$

This sum is a geometrical progression :
$(1-b) * a * (1 + ab + a^2b^2 + \ldots + a^nb^n)$
$= (1-b) * a * (1 - a^nb^n)/(1 - ab)$

And since a^nb^n converges to one for a large n, we can write P's interest in S as :
$(1-b) * a / (1 - ab)$

Applying this result to our example, we conclude that P's ownership in S amounts to 74,03%.

Via a similar reasoning, we find that the percentage of interest of S in P can be formalized (Uytterschaut 1989) :
$(1 - a)/(1 - ab)$
Applied to our example, we find that S owns 5,97% of the share capital of P.

Since the shareholdings of the 'subsidiary' are limited to 10% of the share capital of the parent company, the difference between the percentage of interest of the 'parent' company in the subsidiary with and without considering the cross shareholding of the subsidiary will not be substantial.[109]

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[108] Cross participation between two companies, if one of them has the legal form of a *'vennootschap'*, is limited to 10% by article 52 quinquies and sexies of the coordinated company laws and by article 11 of the Law of 19 July 1991. For instance, if a company owns 55% in another company, the latter company is not permitted to hold more than 10% of the shares in the former.

[109] In our example, the parent's holding of 75.0% (assuming no cross shareholding) would decrease to 74.0% if the subsidiary's cross shareholding of 5% is taken into account. The maximum reduction of the parent's shareholding amounts to 2% (the

Appendix C : Additional tables for Chapter 5

parent effectively owns 73%) and can be found by considering the maximum allowed cross shareholding of 10%.

Table C1 : Largest direct and ultimate shareholdings, and the top level of uninterrupted ownership chains.

This table presents ultimate control, defined as control which is uninterrupted throughout the pyramid if there is a majority shareholding or if there is a large shareholder with at least 25% of the voting rights in the absence of other shareholders with stakes of 25% and more.

The ultimate ownership level defined as the highest level of ownership in an uninterrupted control chain, whereby direct shareholdings are at level 1.The direct largest shareholding is the average direct largest share stake. The ultimate levered shareholding is calculated by multiplying subsequent share stakes.

The control leverage factor is the ratio of the direct shareholding divided by the ultimate levered shareholding. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The ultimate shareholder level is 2, the direct largest shareholding (of B in C) is 40%, the ultimate shareholding is 16% (40% x 40%), and the leverage factor is 2.5 (40/16). A chain of fully owned subsidiaries are considered as one single shareholder.

There was no direct shareholding of at least 25% in 17 sample companies, for which the ownership structure of the largest holding was taken into account.

Standard deviations in parentheses.

	1989	1990	1991	1992
sample size	177	173	173	170
ultimate ownership level	2.3 (1.471)	2.1 (1.330)	2.1 (1.312)	2.1 (1.300)
direct largest shareholding	50.4 (22.898)	51.5 (22.943)	52.6 (23.073)	53.6 (23.453)
ultimate levered shareholding	34.8 (22.131)	35.3 (24.544)	37.1 (24.544)	38.6 (25.222)
control leverage factor (direct/ultimate shareholding)	3.5 (7.956)	3.4 (8.917)	3.0 (6.535)	2.9 (6.555)

Source : Own calculations based on data from the BDPart database and the Notifications of Ownership.

Table C2 : Largest direct and ultimate shareholdings, and the top level of uninterrupted ownership chains.

This table presents ultimate control, defined as control which is uninterrupted throughout the pyramid if there is a majority shareholding or if there is a large shareholder with at least 25% of the voting rights in the absence of other shareholders with stakes of 25% and more.

The ultimate ownership level defined as the highest level of ownership in an uninterrupted control chain, whereby direct shareholdings are at level 1.The direct largest shareholding is the average direct largest share stake of at least 25%. The ultimate shareholding is calculated by multiplying subsequent share stakes. The control leverage factor is the ratio of the direct shareholding divided by the ultimate levered shareholding. For instance, company A, whose shares are widely held, owns 40% of company B which, in turn, owns 40% of company C. The ultimate shareholder level is 2, the direct largest shareholding (of B in C) is 40%, the ultimate shareholding is 16% (40% x 40%), and the leverage factor is 2.5 (40/16). A chain of fully owned subsidiaries are considered as one single shareholder.

There was no direct shareholding of at least 25% in 17 sample companies, which were not included in this table. Standard deviations in parentheses.

	1989	1990	1991	1992
PANEL A : HOLDING COMPANIES (sample size = 60)				
ultimate ownership level	2.2 (1.313)	2.2 (1.330)	2.1 (1.202)	2.0 (1.197)
direct largest shareholding	51.8 (16.125)	51.7 (16.491)	53.3 (16.569)	55.3 (18.722)
ultimate levered shareholding	37.213 (20.903)	37.4 (21.604)	38.4 (21.457)	40.7 (23.053)
control leverage factor (direct/ultimate shareholding)	3.7 (9.253)	3.8 (9.498)	3.0 (7.107)	3.0 (7.150)
PANEL B : FINANCIAL SECTOR (sample size = 20 in 1989 and 17 in other years)				
ultimate ownership level	2.9 (2.021)	2.6 (1.606)	2.6 (1.603)	2.6 (1.610)
direct largest shareholding	55.7 (19.606)	57.8 (19.746)	61.6 (20.322)	61.5 (20.654)
ultimate levered shareholding	29.8 (23.313)	32.4 (22.654)	33.8 (27.109)	34.8 (28.220)
leverage factor (direct/ultimate shareholding)	7.5 (13.597)	6.4 (13.535)	6.9 (13.535)	7.1 (13.841)
PANEL C : INDUSTRIAL AND COMMERCIAL COMPANIES (sample size = 78 in 1989 and 76 in other years)				
ultimate ownership level	2.2 (1.117)	2.1 (1.152)	2.0 (1.018)	1.9 (0.958)
direct largest shareholding	57.3 (21.845)	58.9 (21.113)	59.272 (21.656)	59.012 (21.826)
ultimate levered shareholding	38.8 (23.126)	40.779 (23.614)	43.2 (24.657)	43.9 (24.634)
leverage factor (direct/ultimate shareholding)	2.7 (4.847)	2.8 (5.908)	2.1 (2.337)	1.9 (1.642)

Source : Own calculations based on data from the BDPart database and the Notifications of Ownership.

Table C3 : Changes in large shareholdings.

This table presents the size distribution of increases and decreases of large shareholdings over the period 1989-1992. Increases and decreases were calculated by comparing the share stakes of a shareholder category of a fiscal year to the shareholdings of previous year. The changes in shareholdings per size class over the period 1989-92 are summed.

1989-1992	Number of increases and decreases stakes					
	[1%-5%[	[5%-10%[	[10%-25%[	[25%-50%[	[50%-100%[	Total
PANEL A : CHANGES FOR THE HOLDING COMPANIES (number of observations : 273)						
Decreases : all shareholders	28	35	27	6	1	97
Decreases : holding companies	13	18	14	3	0	48
Decreases : institutional investors	7	6	4	0	0	17
Decreases : industr. & commerc. co's	2	3	2	2	0	9
Decreases : families	6	8	7	1	1	23
Decreases : all shareholders	34	25	29	12	6	106
Decreases : holding companies	9	18	23	4	3	57
Decreases : institutional investors	14	2	4	7	2	29
Decreases : industr. & commerc. co's	1	1	0	0	0	2
Decreases : families	10	4	2	1	1	18
PANEL B : CHANGES FOR THE FINANCIAL SECTOR (number of observations : 91)						
Increases : all shareholders	21	13	2	2	4	42
Increases : holding companies	9	4	0	1	1	15
Increases : institutional investors	10	8	2	1	2	23
Increases : industr. & commerc. co's	2	1	0	0	1	4
Increases : families	0	0	0	0	0	0
Decreases : all shareholders	13	6	9	5	7	40
Decreases : holding companies	6	2	2	0	5	15
Decreases : institutional investors	7	3	6	0	0	16
Decreases : industr. & commerc. co's	0	0	0	0	2	2
Decreases : families	0	1	1	5	0	7
PANEL C : CHANGES FOR THE INDUSTRIAL AND COMMERCIAL COMPANIES (number of observations : 329)						
Increases : all shareholders	25	24	19	21	11	100
Increases : holding companies	12	13	3	12	1	41
Increases : institutional investors	7	3	6	3	3	22
Increases : industr. & commerc. co's	1	5	6	3	4	19
Increases : families	5	3	4	3	3	18
Decreases : all shareholders	29	20	21	16	15	101
Decreases : holding companies	11	11	9	8	10	49
Decreases : institutional investors	10	3	1	2	0	16
Decreases : industr. & commerc. co's	2	1	6	1	2	12
Decreases : families	6	5	5	5	3	24

Source : Own calculations based on BDPart and Ownership Notifications.

Table C4 : Size and turnover of the board of directors.

In parentheses : number of sample companies and standard deviation.

	1989	1990	1991	1992	average 1989-1992
Panel A : HOLDING COMPANIES					
Size of the board	9.426 (68,5.953)	9.550 (69,5.942)	9.275 (69,5.606)	9.132 (68,5.719)	9.346 (274,5.777)
Board turnover[1]	0.092 (68,0.158)	0.095 (69,0.141)	0.075 (69,0.111)	0.092 (68,0.162)	0.089 (274,0.143)
Executive director turnover[2]	0.352 (67,0.712)	0.384 (68,1.050)	0.203 (68,0.524)	0.338 ((66,0.773)	0.312 (269,0.788)
Non-executive director turnover[3]	0.064 (67,0.111)	0.056 (68,0.120)	0.056 (68,0.113)	0.039 (66,0.090)	0.054 (269,0.110)
Chairman turnover[4]	0.089 (67,0.287)	0.058 (68,0.237)	0.028 (69,0.168)	0.029 (68,0.170)	0.051 (272,0.221)
CEO turnover	0.176 (68,0.384)	0.217 (69,0.415)	0.043 (69,0.205)	0.147 (68,0.356)	0.145 (274,0.353)
Panel B : FINANCIAL SECTOR					
Size of the board	13.047 (21,7.946)	13.454 (22,8.545)	13.000 (20,8.194)	13.500 (18,8.590)	13.246 (81,8.163)
Board turnover[1]	0.134 (21,0.103)	0.191 (22,0.251)	0.115 (20,0.111)	0.109 (18,0.096)	0.139 (81,0.159)
Executive director turnover[2]	0.356 (20,0.447)	0.669 (21,0.887)	0.222 (19,0.372)	0.422 (17,0.579)	0.423 (77,0.661)
Non-executive director turnover[3]	0.072 (20.0.085)	0.101 (21,0.113)	0.063 (19,0.094)	0.050 (17,0.072)	0.072 (77,0.093)
Chairman turnover[4]	0.200 (20,0.410)	0.095 (21,0.300)	0.000 (19,0.000)	0.235 (17,0.439	0.129 (77,0.338)
CEO turnover	0.380 (21,0.497)	0.409 (22,0.503)	0.100 (20,0.307)	0.222 (18,0.427)	0.283 (81,0.453)
Panel C : INDUSTRIAL AND COMMERCIAL SECTORS					
Size of the board	9.779 (86,6.401)	9.476 (84,6.194)	9.619 (84,5.692)	9.414 (82,5.724)	9.574 (336,5.989)
Board turnover[1]	0.118 (86,0.168)	0.087 (84,0.145)	0.129 (84,0.185)	0.098 (82,0.160)	0.108 (336,0.165)
Executive director turnover[2]	0.277 (86,0.552)	0.351 (84,1.060)	0.297 (84,0.697)	0.196 (82,0.503)	0.281 (336,0.737)
Non-executive director turnover[3]	0.096 (86,0.173)	0.065 (84,0.133)	0.090 (84,0.174)	0.075 (82,0.160)	0.082 (336,0.160)
Chairman turnover[4]	0.141 (85,0.350)	0.120 (84,0.327)	0.108 (83,0.312)	0.097 (82,0.298)	0.117 (333,0.322)
CEO turnover	0.223 (85,0.419)	0.166 (84,0.374)	0.190 (84,0.395)	0.146 (82,0.355)	0.182 (335,0.386)

Sources : Own calculations based on annual reports, the database of the National Bank of Belgium.

All turnover data are corrected for 'natural turnover', turnover resulting from retirement, illness or death.

1. Proportional to board size.
2. Proportional to total number of executives on the board.
3. Proportional to total number of non-executives on the board.
4. Non-executive chairman turnover only.

Table C5 : Size and turnover of the management committee.

In parentheses : number of sample companies and standard deviation.

	1989	1990	1991	1992	average 1989-1992
PANEL A : HOLDING COMPANIES					
Size of management committee	2.691 (68,2.234)	2.797 (69,2.392)	2.855 (69,2.396)	2.823 (68,2.374)	2.791 (274,2.338)
Management committee turnover[1]	0.117 (66,0.288)	0.143 (67,0.312)	0.058 (67,0.261)	0.100 (66,0.271)	0.105 (266,0.284)
Number of directors member of mgt committee	2.191 (68,1.870)	2.333 (69,2.048)	2.376 (69,2.015)	2.279 (68,1.819)	2.295 (274,1.932)
PANEL B : FINANCIAL SECTOR					
Size of management committee	3.952 (21,3.368)	3.590 (22,3.142)	3.650 (20,3.183)	4.222 (18,3.797)	3.839 (81,3.310)
Management committee turnover[1]	0.270 (21,0.382)	0.354 (22,0.413)	0.075 (20,0.115)	0.128 (18,0.319)	0.213 (81,0.344)
Number of directors member of mgt committee	3.190 (21,2.522)	2.909 (22,2.136)	2.900 (20,2.125)	3.222 (18,2.414)	3.049 (81,2.263)
PANEL C : INDUSTRIAL AND COMMERCIAL SECTOR					
Size of management committee	4.151 (86,3.936)	3.952 (84,3.596)	4.071 (84,3.579)	4.121 (82,3.546)	4.074 (336,3.654)
Management committee turnover[1]	0.134 (85,0.339)	0.177 (83,0.777)	0.110 (83,0.229)	0.113 (81,0.303)	0.134 (332,0.463)
Number of directors member of mgt committee	2.593 (86,2.271)	2.404 (84,2.129)	2.369 (84,1.943)	2.378 (82,1.928)	2.437 (336,2.068)

Sources : Own calculations, based on annual reports, the database of the National Bank of Belgium, Memento der Effecten.

Turnover data are corrected for 'natural turnover', turnover resulting from retirement, illness or death.
1. Turnover data are proportional to total committee size and exclude CEO turnover.

Table C6 : Multiple directorships (positions on the board of directors).

These data are for all sample companies (or 98 % of the Brussels Stock Exchange). Number of companies in 1989 is 177, and 168 in 1992. The companies in liquidation were deleted.

number of directorships held by a director	1989		1992	
	number of directors	number of positions	number of directors	number of positions
1	869	869	864	864
2	136	272	137	274
3	51	153	62	186
4	17	68	18	72
5	11	55	11	55
6	8	48	4	24
7	6	42	4	28
8	3	24	4	32
9	1	9	2	18
10	3	30	1	10
11	0	0	0	0
12	1	12	2	24
total number of positions	1106	1582	1109	1587
average number of directorships per director		1.4		1.4

Source : Own calculations based on information from a database of the National Bank.

CHAPTER 6 : Corporate control in Belgium : Empirical results.

In this chapter, we test the corporate control hypotheses advanced in Chapter 4. We will discuss whether disciplinary actions against management are taken when corporate performance is poor. The impact of the composition of the board of directors and of the presence of specific shareholder classes on turnover of management is analyzed. We also investigate whether a market for share stakes results from poor performance and whether this market is related to the exercise of corporate control. Finally, we examine the performance after the management restructuring.

6.1 Corporate performance and the disciplining of management.

Hypothesis 1 states that poor share price performance and low accounting earnings trigger disciplinary actions against (i) the executive directors, (ii) the CEO and (iii) the management committee. The three following sections will focus on one of these turnover variables.[110]

6.1.1 Corporate performance and turnover of the board of directors.

Share price performance.

Share prices reflect the current profitability of the firm and expected future opportunities including the expected managerial performance and the consequences of a potential substitution of top management in case of underperformance. Table 6.1 presents the relation between board turnover proportional to board size and corrected for natural turnover, and share price returns. In the regressions, executed on pooled data over the period 1989-1992, we correct for size, proxied by the logarithms of total

[110] We used both the proportional turnover variables and the logarithm of these factors as independent variables. Similar results are obtained with these variables. Throughout the chapter, only the proportional turnover variables are presented.

assets or of the market capitalization. A dummy variable referring to each year of the period 1989-1992 is also included.[111]

The annual market adjusted share price data are averaged for periods of one to ten years preceding the year of board turnover. As such we investigate not only short but also long term share price underperformance because, in some companies delays in replacing an underperforming management team might occur if executives can entrench themselves by dominating the board (Molz 1988, Mizruchi 1983). Furthermore, excellent past performance records might insulate executive directors with long tenure against the threat of disciplining following short term poor performance. Consequently, managerial disciplining might be slow and will only take place after prolonged poor profitability. Another explanation is that the whole managerial record of executives with long tenure is evaluated so that short term low profitability does not immediately affect their position.

Panel A of table 6.1 shows, that both long term underperformance (market adjusted return over a period of 5 or 10 years before turnover) and short term underperformance (one year before turnover) are negatively correlated to board turnover (at 5% statistical significance).[112] Board turnover includes both turnover of executive directors, who assume direct responsibility for the firm's profitability, and of the non-executives, who represent the large shareholders and are accountable to them for their monitoring accomplishments. An investigation of the relation between executive director turnover and past stock performance yields a strong negative relation, while the replacement of non-executive directors is not preceded by low share price returns.[113] This confirms

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[111] In all regressions results presented in this chapter, the parameter estimate of the dummy variables are not statistically significant and, consequently, not shown.

[112] There is a reaction time between the occurrence poor performance of and disciplinary actions since current market adjusted share price returns do not yield a significant correlation with director turnover.

[113] Executive turnover variables are standardized by both total board size and total number of executive directors. Both turnover measures yield similar results. Non-executive turnover is taken proportional to board size and to the number of non-executive directors on board.

hypothesis 1 : the lower short and long-term returns, the higher the subsequent executive board turnover.

An analysis of the subsamples reveals that, in industrial and commercial companies, poor stock price performance for two to five years leads to a high proportion of the directors leaving the company (panel C). Turnover in financial firms[114] is preceded by long term poor share performance (over a 10 year period) only. In holding companies, the replacement of directors does not seem sensitive to share price returns.

Accounting earnings.

In table 6.1, we also analyze the importance of several accounting-based profitability measures. Accounting measures can portray a biased picture of the company's profitability since they can be temporarily manipulated by management. Outgoing managers may have an incentive to increase reported earnings in order to safeguard their position. Similarly, incoming managers may be tempted to reduce reported earnings immediately following taking office so that predecessors might be blamed for poor performance. Moreover, a reduction in reported earnings creates more potential for impressive performance improvements for which incoming management can take credit. Therefore, we do not consider the accounting earnings in the year of management changes, but over periods of one and two years preceding turnover .

We use three profitability benchmarks. The first measure is operating income which is defined as earnings before financial and extraordinary results and taxes (EBIT/TA), as used by Weisbach (1988). The advantage of this measure is that it reflects a clearer picture of the true profitability as it are not sensitive to financing policy, tax regime, windfall profits or extraordinary losses. The use of operating income rather than net earnings after tax reduces the impact of the described 'earnings management' (Dennis and Dennis 1994). The second and third accounting yardsticks are respectively earnings after financial but before extraordinary results and taxes (EBT), and earnings after

[114] Table available upon request.

extraordinary results and taxes (EAT). All accounting measures are standardized by total assets (TA) or equity. In our regression and logistic models, both absolute income levels and changes over the current year and over one and two years preceding the year of management turnover are utilized.

We find that the parameter estimates of the accounting profitability measures over the current year and the changes in profitability over periods of one and two years preceding the year of turnover are all negative (not shown). This implies that the lower the operating income[115] or the lower EBT/TA or EAT/TA, the higher the board turnover.[116] However, these relations are not statistically significant within the 5% level for all sample companies and for the subsamples of industrial companies and of financial firms. In holding companies, the replacement of directors is sensitive to a relative earnings benchmark: we find statistically significant negative parameter estimates for changes in earnings before and after tax (EBIT/TA and EAT/TA) over a one or two year period before the year of management replacement.

We conclude that we only find weak evidence that the levels of and changes in accounting earnings precede the replacement of (executive) directors. Consequently, hypothesis 1 is only weakly supported.

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[115] Cash flow and changes in cash flow, defined as operating income (changes) plus depreciation and corrected for other non-cash items, yields parameter estimates similar to those of the operating income and changes in operating income.

[116] Standardization by total equity yield similar results.

Table 6.1 : Impact of past performance on board turnover in 1989-1992 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + e$$

TURN stands for the turnover of all members of the board proportional to board size. SIZE represents the logarithm of the total assets. PERFORM stands for performance variables : share price, accounting returns and changes in dividends per share. OLS regressions are estimated. The market adjusted returns are calculated over a periods of 1, 2, 3, 5 and 10 years before the year of turnover. T stand for the year of turnover in the period 1989-1992. (T-1) and (T-2) represent respectively 1 and 2 years before the year of turnover. EBIT/TA : earnings before financial and extraordinary results and taxes / total assets, EBT/TA : earnings before extraordinary results and taxes / total assets, EAT/TA : earnings after taxes / total assets. EBIT/TA (T-1,T), EBT/TA (T-1,T), EAT/TA (T-1,T), EBIT/TA (T-2,T-1), EBT/TA (T-2,T-1) and EAT/TA (T-2,T-1) are dummy variables indicating whether the respective earnings were negative (dummy equals 1) in at least one of the years of period (T-1,T) or (T-2,T-1). DVD/SH (T-1,T) is a dummy variable indicating whether there was a reduction in dividends per share of 25% or more over the period (T-1,T) or whether dividends remained at zero over this period (dummy equals 1).

	MARKET ADJUSTED RETURNS					OPERATING INCOME		EARN. BEFORE TAX		EARN. AFTER TAX		DIV/SH
	1 year period	2 year period	3 year period	5 year period	10 year period	EBIT/TA (T-1,T)	EBIT/TA (T-2,T-1)	EBT/TA (T-1,T)	EBT/TA (T-2,T-1)	EAT/TA (T-1,T)	EAT/TA (T-2,T-1)	DIV/SH (T-1,T)
PANEL A : ALL SAMPLE CO'S												
sample size	622	612	598	563	533	594	580	606	592	653	642	567
betacoeff.	0.020	-0.006	-0.005	-0.005	-0.001	0.019	0.017	0.064	0.060	0.057	0.057	0.043
t-stat.	2.095	-1.213	-1.258	-1.890	-1.948	1.444	1.284	4.269	3.624	3.938	3.586	3.475
p-value	0.03	0.22	0.20	0.05	0.05	0.14	0.19	0.00	0.00	0.00	0.00	0.00
R-sq. adj.	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.02	0.02	0.02	0.02
PANEL B : ALL HOLDING COMPANIES												
sample size	259	255	252	249	240	228	220	240	232	250	244	223
betacoeff.	-0.014	-0.001	-0.001	-0.001	-0.001	0.001	-0.021	0.072	0.064	0.068	0.060	0.052
t-stat.	-1.249	-0.142	-0.161	-0.390	-0.838	0.056	-0.912	3.553	2.735	3.326	2.597	0.789
p-value	0.21	0.88	0.87	0.69	0.40	0.95	0.36	0.00	0.01	0.00	0.01	0.01
R-sq. adj.	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03	0.04	0.03	0.03
PANEL C : INDUSTRIAL AND COMMERCIAL COMPANIES												
sample size	283	278	272	251	233	330	325	330	325	330	325	277
betacoeff.	-0.031	-0.021	-0.018	-0.010	-0.001	0.045	0.052	0.067	0.066	0.059	0.066	0.053
t-stat.	-1.512	-1.706	-1.779	-1.886	-1.265	2.465	2.779	3.271	2.948	2.868	2.948	2.936
p-value	0.13	0.08	0.07	0.06	0.20	0.01	0.01	0.00	0.00	0.00	0.00	0.00
R-sq. adj.	0.01	0.02	0.02	0.03	0.01	0.02	0.02	0.03	0.03	0.02	0.02	0.03

Source : Own calculations based on data of the National Bank and annual reports.

Industry corrections.

The relation between board turnover and companies' performance relative to the performance of their industry was also examined. The average EBIT/TA, EBT/TA and EAT/TA was calculated for each industrial sector and subtracted from the sample companies' respective profitability measures.[117] Board turnover increases when earnings levels, corrected for industry and size, are low and when adjusted changes in earnings levels are negative. However, the relation is not statistically significant.[118]

Critical performance measures.

As the replacement of management is a rather radical governance action, it is expected to arise only after considerable corporate underperformance. Warner, Watts and Wruck (1988), for instance, confirm that unless performance is extremely good or bad, their logit models for U.S. CEO turnover have no predictive value. Therefore, in our regression and logistic models, a dummy variable was included which equals 1 when operating income is negative in at least one of the years in a two year period before replacement of executive directors. Similar dummy variables are constructed for negative EBT/TA and EAT/TA.

Table 6.1 exhibits the parameter estimates and significance levels of the negative earnings dummy variables. Since this variable equals 1 when earnings are negative, a positive sign is expected for hypothesis 1 to be supported. Panel A discloses that negative operating income is not followed by increased board turnover. However,

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[117] All sample companies are categorized into 16 industrial sectors using the NACE industry classification of the National Bank. At this detailed level, most industrial sector only consists of a few companies, so that industry correction is not very meaningful. Seven larger industrial sectors were formed based on a classification by the Bank Brussels Lambert : 1. holding companies, 2. financial sector (banking, insurance, real estate), 3. energy, 4. materials (construction, chemicals, paper, metals), 5. capital equipment (electricals and electronics, machinery), 6. consumer goods 7. services (leasing, etc). A second industry correction was based on a classification of all companies in only three categories : 1. holding companies, 2. financial sector and 3. industrial and commercial companies. Both industry corrections give similar results.

[118] Tables available upon request.

negative earnings before tax or after tax (EBT and EAT) is strongly correlated to high subsequent board turnover (0.1 % significance level).

Consequently, we conclude that hypothesis 1 is strongly supported by our evidence: the inability to generate earnings is followed by executive board turnover. An analysis on the subsamples shows that this relation is corroborated for the holding companies (panel B) and the industrial and commercial companies (panel C), but not for the financial sector[119].

Dividend changes.

Another critical performance measure is substantial changes in dividends. Management will usually postpone a reduction in dividends per share as long as possible because such a reduction emits a strong signal of poor performance. We define a considerable reduction of dividends per share as a decrease of more than 25 percent. Table 6.1 shows that a substantial dividend cut in the same year as the director replacement is positively correlated by high director turnover (panel A) at a significance level of 1%. This relation can also be observed for holding companies (panel B) and industrial and commercial companies (panel C).[120]

The parameter estimate of size variable (not shown) is in most regressions of this section significant at the 5% level and has a negative sign implying that there is more resistance to turnover in larger companies than in smaller ones.

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[119] Table for the financial sector is available upon request. It should be noted that the financial sector consists of a heterogenous group of companies: banks, insurance companies and real estate companies.

[120] Evidence about the negative relation between turnover and dividend reductions in the period (T-2,T-1), where T is the year of director turnover, is less clear (10% level). This relation for dividend changes over (T-1,T) was expected given the strong correlation between director turnover and negative earnings over the period (T-2,T-1).

We conclude that hypothesis 1 is corroborated when critical accounting measures are reached. When management faces negative earnings or has to reduce dividends substantially, there is a high probability that it will be replaced. In comparison, German and U.K. board turnover is also sensitive to poor performance measured by the incidence of earnings losses and abnormal returns (see Franks and Mayer (1995b) and Kaplan (1994a) for Germany and Chapter 2 for the U.K.).

6.1.2 Poor company performance and CEO replacement.

While previous section concentrated on executive director turnover, table 6.2 examines the relation between the replacement of the CEO and corporate performance. Identical profitability yardsticks are employed. The results of the logit models indicate that poor share price performance over both a short and over longer period (2 to 10 years) is associated with a high probability of CEO turnover (panel A). However, this relation is only valid for industrial and commercial companies (panel C). It seems that the position of the delegated director of a holding company or a financial firm is relatively insensitive to stock price performance.

When the levels of earnings and cash flows are low, or earnings, cash flows and dividends decrease, CEO and executive chairman substitution increases, but the relation is not statistically significant. Similar results are found for industry corrected performance variables.

From table 6.2 can also be deduced that CEO (and executive chairman) turnover is significantly related to critically low profitability measures, namely to negative earnings before tax (EBT) and negative earnings after tax (EAT). Panel A shows that the absolute benchmark of negative earnings (over a period of two years before CEO turnover) causes CEOs to be disciplined[121]. Analysis of the subsamples of holding companies shows that the result is valid for both the subsamples of holding companies

[121] Separate analyses on 1. CEO turnover when there is separation of control, and 2. non-executive chairman turnover, show that both turnover variables are preceded by negative earnings.

(panel B) and industrial firms (panel C). Substantial decreases in dividends in the year before the replacement of the CEO provide support for hypothesis 1 as well, but only for industrial and commercial companies (panel C).

In each of the logistic regressions a size factor in the form of the logarithm of the book value of total assets or the logarithm of market capitalization was included. This statistically significant size variable indicated that, in contrast to the size factor in the board turnover regressions, that the probability of CEO turnover following poor performance increases for larger companies. Reasons might be that larger companies have a larger internal managerial labour market which might create greater internal pressure and instigate political struggles for the top positions as Harrison, Torres and Kukalis (1988) suggest. Another reason is that large firms can attract more outside job offers because of their high visibility and CEO turnover might be less disruptive in large organizations because they are more formalized and decentralized (Puffer and Weintrop, 1991).

We conclude that hypothesis 1 is strongly supported : the CEO of an industrial company is disciplined when share price performance is low, when earnings are negative and when dividends are cut considerably. The probability that delegated directors of holding companies depart is significantly correlated to negative earnings.

CEO turnover has been researched extensively in the U.S. Most of those results are in line with the findings of this paper. Jensen and Murphy (1990) measure the strength of the performance-turnover relation and also use net-of-market share price returns over a period of two years. They find that CEO turnover increases when performance is poor.[122] Weisbach (1988) includes in his logit models the current and one year lagged stock returns and accounting earnings and also finds that the lower the company's profitability, the higher CEO turnover. Relative measures of performance are utilized by Gibbons and Murphy (1990). They include market average stock returns and/or industry average stock returns together with the firm's own stock return. Since the

[122] However, they argue that, despite of the statistical significance, the economic significance of CEO turnover is weak. If the firm earns 50% less relative to the market in each of the two previous years, the probability that the CEO will be replaced is only 0.175.

industry return has a significant and positive parameter estimate, they conclude that companies take other firms' performance into account in evaluating their CEOs. Harrison, Torres and Kukalis (1988) employ return on assets, return on equity, profit margin and dividend yield of the current year as measure of performance. Only return on assets has a significant effect on CEO turnover. The sum of daily abnormal returns over the firm's fiscal year is used by Coughlan and Schmidt (1985) and they also conclude that low performance leads to increased turnover.[123]

Longer term performance measures are used by Warner, Watts and Wruck (1988), but they do not find a consistent pattern in the parameter estimates of three year lagged stock returns. Yungsan (1993) uses both short and long term performance measures: the average of current and one year lagged stock returns, changes in EBIT/TA, and a stock return measure that incorporates the current year stock return and up to nine years of lagged stock returns whereby the more recent stock returns are given more weight. He finds that both short and long term performance measures are important in predicting CEO turnover.

[123] Fizel & Louie (1990) use return on assets and earnings per share over a one year period to measure the short term unexpected profitability but do not find any effect of performance on CEO turnover. It should be noted that in that study no attempt is made to distinguish normal and forced turnover. Moreover, only one year profitability measures are collected and are not lagged in relation to the CEO turnover data.

Table 6.2 : Impact of past performance on turnover of the CEO in 1989-92 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \epsilon$$

TURN stands for CEO turnover. SIZE represents the logarithm of the total assets. PERFORM stands for performance variables : share price, accounting returns and changes in dividends per share. OLS regressions are estimated. The market adjusted returns are calculated over a periods of 1, 2, 3, 5 and 10 years before the year of turnover (T). T stand for the year of turnover in the period 1989-1992. (T-1) and (T-2) represent respectively 1 and 2 years before the year of turnover. EBIT/TA : earnings before financial and extraordinary results and taxes / total assets, EBT/TA : earnings before extraordinary results and taxes / total assets, EAT/TA : earnings after taxes / total assets. EBIT/TA (T-1,T), EBT/TA (T-1,T), EAT/TA (T-1,T), EBIT/TA (T-2,T-1), EBT/TA (T-2,T-1) and EAT/TA (T-2,T-1) are dummy variables indicating whether the respective earnings were negative (dummy equals 1) in at least one of the years of period (T-1,T) or (T-2,T-1).
DVD/SH (T-1,T) is dummy variable indicating whether there was a reduction in dividends per share of 25% or more over the period (T-1,T) or whether dividends remained at zero over this period (dummy equals 1).

Indep var.->	MARKET ADJUSTED RETURNS					OPERATING INCOME		EARN. BEFORE TAX		EARN. AFTER TAX		DIV/SH
	1 year period	2 year period	3 year period	5 year period	10 year period	EBIT/TA (T-1,T)	EBIT/TA (T-2,T-1)	EBT/TA (T-1,T)	EBT/TA (T-2,T-1)	EAT/TA (T-1,T)	EAT/TA (T-2,T-1)	DIV/SH (T-1,T)
PANEL A : ALL SAMPLE CO'S												
sample size	623	613	599	564	534	590	574	602	586	647	633	561
-2 log L	0.18	0.02	0.01	0.05	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00
param. est.	0.333	-0.359	-0.301	-0.122	-0.032	0.021	0.054	0.382	0.554	0.395	0.534	0.382
Wald chi-sq	1.360	3.504	4.483	2.998	2.918	0.010	0.071	2.821	5.390	2.964	5.066	2.919
p-value	0.24	0.06	0.03	0.08	0.08	0.91	0.79	0.09	0.02	0.08	0.02	0.08
PANEL B : ALL HOLDING COMPANIES												
sample size	260	256	253	250	241	228	219	240	231	250	243	222
-2 log L	0.26	0.42	0.33	0.36	0.38	0.10	0.14	0.13	0.02	0.04	0.01	0.05
param. est.	-0.177	-0.158	-0.158	-0.088	-0.025	0.611	0.407	0.265	0.861	0.468	0.833	0.444
Wald chi-sq	0.199	0.411	0.622	0.648	0.636	1.330	0.74	0.415	4.145	1.322	4.081	1.435
p-value	0.65	0.52	0.43	0.42	0.42	0.24	0.38	0.51	0.04	0.25	0.04	0.23
PANEL C : INDUSTRIAL AND COMMERCIAL COMPANIES												
sample size	284	279	273	252	234	328	323	328	323	328	323	276
-2 log L	0.24	0.03	0.01	0.11	0.18	0.13	0.08	0.05	0.04	0.06	0.03	0.07
param. est.	-0.440	-0.575	-0.493	-0.160	-0.030	0.187	0.354	0.482	0.569	0.473	0.591	0.499
Wald chi-sq	1.197	3.779	5.354	2.149	1.476	0.502	1.805	2.741	3.478	2.673	3.731	2.569
p-value	0.27	0.05	0.02	0.14	0.22	0.47	0.17	0.09	0.06	0.10	0.05	0.10

Source : Own calculations based on data of the national bank and annual reports.

6.1.3 Poor performance and management committee turnover.

This section focuses on turnover of the management (or direction) committee[124], which consists of the senior managers. The impact of short and long-term market adjusted returns on management committee turnover over the period 1989-1992 is rather weak.[125] The lower the market adjusted return over three year and ten year periods, the higher the turnover of the management committee (at 10% significance) for industrial and commercial firms. Share price returns do not influence the replacement of members of the management committee in holding companies and financial firms. Changes in earnings or dividends, or low earnings levels explain some of the turnover, but the critical benchmarks prompting replacement of committee members are - as before - (i) negative earnings before and after tax over a two year period preceding replacement of members of the management committee, and (ii) substantial reductions in dividends.[126]

The turnover of German management boards (Vorstand) was examined by Kaplan (1994a) who finds that turnover increases significantly with poor current and one year lagged stock performance and particularly with negative earnings. No significance was discovered for EBIT/TA and changes in EBIT/TA. Japanese managers, on the other hand, are believed to be insulated against poor short term stock and accounting profitability since they maximise growth, not profits. Hence, managers are able to pursue such a growth strategy, because Japanese shareholders are unable to effectively discipline them (Milgrom and Roberts, 1992). However, Kaplan (1994b) finds that the fortunes of top managers are positively correlated with stock performance and with

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[124] Only 59% of all sample companies (and 66% of the industrial companies) have a management committee. We state that a company has a management committee if the annual reports explicitly mention the existence of this committee and names its members. If a company does not mention the committee, we assume that the committee consists of the executive directors .

[125] See table D1 in appendix D.

[126] The management committee turnover data include CEO and executive director turnover. Excluding CEO replacement and executive director turnover from the data, generates similar results, but weakens the significance levels to the 10% level.

current cash flows. Both turnover and compensation are most sensitive to negative earnings, and more so than in the U.S.

6.1.4 Poor profitability and top management replacement.

Our general conclusion for section 6.1 is that hypothesis 1 is strongly supported by our evidence. The poorer the performance, the higher turnover of the board, of the management committee and of the CEO. Underperforming executive directors are substituted in the following cases: (i) when short or long term share price performance is low, (ii) when earnings before or after tax are negative (iii) and when dividends per share were reduced by more than 25 percent or remain omitted. Similar results are found for the replacement of the CEO. Substitution of managers is predominantly triggered by negative earnings.

It is apparent that disciplining actions are not taken after a mere decline in the company's profitability or a decrease in corporate performance relative to an industry benchmark, but only after a critical absolute performance level is reached, like the inability to generate positive earnings. In industrial and commercial companies, there is a strong relation between the three above mentioned performance benchmarks and managerial disciplining. However, with regard to holding companies, only negative earnings before and after tax trigger management replacement. In financial firms, there seems to be no relation between executive turnover and performance.

In addition, a size factor is important: the smaller the company, the stronger the negative relation between performance and turnover of the executive board. But, when performance is poor, the negative relation between CEOs and performance is stronger in larger companies.

6.2 The impact of the composition of the board and separation of control on executive turnover.

The composition of the board of directors.

Hypothesis 2 states that the structure of the board determines the monitoring efficiency of the internal governance mechanism. The more non-executive directors serve on the board, the more independent the non-executives as a group will be from management. Consequently, they will be able to replace management more easily when managerial performance is inadequate.

Table 6.3 provides convincing support for this hypothesis : each panel shows the results of regressions of the proportion of non-executives on the board of directors on board turnover, corrected for size and performance. We find in panel A that the higher the proportion of non-executive directors on the board, the higher the turnover of executive directors is for companies with negative after tax earnings or with poor share price performance over short or long term periods. Similar levels of significance can be found in panel C, for the industrial and commercial companies. The hypothesis is also supported for the subsample of the holding companies with negative earnings (panel B), but not for the financial sector (not shown).

The probability of CEO replacement in industrial and commercial companies also increases when the board counts a high proportion of non-executives, but only significantly when accounting earnings are negative.[127] Turnover of the management board, excluding for CEO and executive director turnover, is not influenced by the presence of non-executives on the board. This suggests that it is only the most senior managers, namely the CEO and the executive directors, whom the non-executives hold liable for the firm's underperformance.

A majority of Belgian listed companies have a majority shareholder who can, in theory, completely control the board since, at the annual meeting, he can appoint his representatives to the board. If the whole board would consist of the majority

[127] Tables available upon request.

shareholder's representatives, the monitoring by non-executive directors could be identical to large shareholder monitoring (investigated in section 6.3). However, in sections 5.3.1 and 5.3.4, we argued that, despite of the positive correlation between board representation and large shareholdings, the majority shareholder usually does not appoint a majority of his direct representatives to the board and that the minority shareholders' representatives as well as 'expert' directors enhance the board's monitoring role (see table 5.9).

The results of the impact of U.S. board composition on CEO turnover are mixed. Weisbach (1988) finds that CEO turnover is more sensitive to performance in firms whose boards are dominated by outsiders. Outsiders are carefully defined as directors who work neither for the corporation nor have extensive dealings with that company. In a study on the performance effects of the composition of the board of directors in the U.S., Baysinger and Butler (1985) were able to classify the board of directors into three components : 1. an executive component, 2. a monitoring component, consisting of truly independent and outside directors, and 3. an instrumental component, brought on board for e.g. strategic reasons like acquisition of information about industry, competition, etc. They find that those firms with stronger independent boards ended up with superior performance records, in the form of higher relative financial performance (an industry corrected return on equity).[128] It should be emphasized that research about the impact of U.S. board composition on CEO turnover is not directly comparable with research on Belgian boards. The emphasis in the U.S. has been put on the independence of 'outside' directors, whereas some non-executives in Belgium are large shareholder representatives and 'independent or expert' non-executive directors' appointment to the board might be subject to large shareholder approval.

[128] Allen & Penian (1982), Harrison, Torres & Kukalis (1988) and Fizel & Louie (1990) do not find any significant relationship between board composition and CEO turnover. Their definitions of outside directors are not as rigorous as Weisbach's; they regard non-employee directors as outsiders.

Table 6.3 : Impact of board structure on executive board turnover in 1989-92 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \beta_3 * NONEX + \epsilon$$

TURN stands for the turnover of the executive board proportional to total executive directors on the board. SIZE represents the logarithm of the total assets. PERFORM stands for performance variables : share price and accounting returns. OLS regressions are estimated.
MAR1y and MAR5y stand for respectively the market adjusted return over a one year and five year period before the year of turnover (T). EAT/TA : earnings after taxes / total assets
T stands for the year of turnover in the period 1989-1992, (T-1) stands for 1 year before the year of turnover. EAT/TA (T-1,T) is a dummy variable indicating negative earnings (dummy equals 1) in at least one of the years of the period (T,T-1). Between brackets, under the parameter estimates, the t-statistic and the corresponding p-value are given.

Dep. variable	SAMPLE SIZE	NON-EX.	SIZE	MAR1Y	MAR5Y	EAT/TA (T-1,T)	p-value of F-test	R-sq. adj.
PANEL A : ALL SAMPLE COMPANIES								
exec. turnover	594	0.160 (4.389,0.00)	-0.004 (-1.786,0.07)	-0.018 (-1.884,0.06)			0.00	0.04
exec. turnover	541	0.161 (3.983,0.00)	-0.005 (-1.896,0.05)		-0.004 (-1.755,0.08)		0.00	0.04
exec. turnover	646	0.121 (3.709,0.00)	-0.001 (-0.649,0.51)			0.052 (3.538,0.00)	0.00	0.04
PANEL B : ALL HOLDING COMPANIES								
exec. turnover	245	0.132 (2.619,0.01)	-0.002 (-0.707,0.48)	-0.012 (-1.229,0.22)			0.02	0.03
exec. turnover	235	0.138 (2.365,0.02)	-0.002 (-0.647,0.51)		-0.001 (-0.125,0.90)		0.08	0.02
exec. turnover	249	0.111 (2.288,0.02)	-0.001 (-0.043,0.96)			0.061 (2.861,0.00)	0.00	0.05
PANEL C : INDUSTRIAL AND COMMERCIAL COMPANIES								
exec. turnover	279	0.195 (3.592,0.00)	-0.010 (-2.172,0.03)	-0.021 (-1.055,0.29)			0.00	0.05
exec. turnover	247	0.200 (3.481,0.00)	-0.013 (-2.652,0.01)		-0.008 (-1.660,0.10)		0.00	0.07
exec. turnover	327	0.123 (2.650,0.00)	-0.002 (-0.626,0.53)			0.055 (2.614,0.00)	0.00	0.04

Source : Own calculations based on data of the National Bank, on a General Bank database and on annual reports.

Japanese board composition changes under the influence of performance: outside directors representing banks and corporate groups are nominated to the board of non-financial companies when the company faces poor earnings and stock performance, particularly when current income is negative. In years of outside director appointments, top management turnover increases substantially and performance improves modestly after such appointments (Kaplan and Minton 1994).

Separation of control.

According to hypothesis 3, non-executive directors will discipline the CEO in the case of poor profitability and the replacement will be facilitated if the responsibilities of CEO and chairman are not assumed by one single person. In other words, more non-executives on board and separation of control are positively correlated with CEO turnover. Table 6.4 provides strong support for this hypothesis.[129] When an industrial company has a large proportion of non-executive directors and there is separation of control, the probability that a CEO will be replaced, increases (panel C). Size does not seem related to turnover probability (panel C). The replacement of CEOs of both financial firms and holding companies depends on neither board composition nor separation of control (panel B).[130]

Fizel and Louie (1990) reach a similar conclusion with regard to control separation for the U.S. They report a positive correlation between separation of the functions of CEO and chairman and CEO turnover. Yungsan (1993) reports that when the CEO also holds the functions of chairman and of president, he is less accountable for his performance than otherwise. Harrison, Torres and Kukalis (1988), however, reach different conclusions : separation has a positive and significant effect on the turnover of chairmen but none on the turnover of U.S. CEOs.

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[129] This statistically significant correlation remains valid even when concentrated ownership variables and increases in ownership of specific shareholder classes are included for the sample of industrial companies (see section 6.5).

[130] Separation of control is not correlated to turnover of executive directors and of the management committee.

Table 6.4 : Impact of board structure on turnover of CEO in 1989-92 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \beta_3 * SEPAR + \epsilon$$

TURN stands for CEO while SIZE stands for the logarithm of the total assets. PERFORM stands for performance variables : share price and accounting returns. Logistic regressions are estimated. NON-EX stands for the % of non-executives on board. SEPAR. stands for separation of the functions of CEO and chairman (dummy equals 1 if the CEO and chairman are the same person). SIZE stands for the log of the total assets. MAR1y and MAR5y stand for respectively the market adjusted return over a one year and five year period before the year of turnover (T). EAT/TA : earnings after taxes / total assets. T stand for the year of turnover in the period 1989-1992, (T-1) stands for 1 year before the year of turnover. EAT/TA (T-1,T) is a dummy variable indicating negative earnings (dummy equals 1) in at least one of the years of the period (T-1,T).
Between brackets, under the parameter estimates, the Wald Chi-squared and its corresponding p-value is given.

Dep. variable	SAMPLE SIZE	NON-EX.	SEPAR.	SIZE	MAR1Y	MAR5Y	EAT/TA (T-2,T-1)	p value of -2 Log L
PANEL A : ALL SAMPLE COMPANIES								
CEO turnover (logistic)	590	1.745 (6.779,0.01)	-0.505 (5.047,0.02)	0.107 (6.861,0.01)	0.048 (0.091,0.76)			0.00
CEO turnover	537	1.836 (6.336,0.01)	-0.447 (3.429,0.06)	0.116 (7.350,0.01)		-0.031 (0.376,0.53)		0.00
CEO turnover	628	1.382 (5.188,0.02)	-0.455 (4.458,0.03)	0.132 (11.083,0.00)			0.466 (3.810,0.05)	0.00
PANEL B : ALL HOLDING COMPANIES								
CEO turnover	244	1.082 (0.892,0.34)	0.165 (0.170,0.67)	0.225 (6.623,0.01)	0.095 (0.242,0.62)			0.09
CEO turnover	234	1.965 (2.101,0.14)	0.167 (0.145,0.70)	0.230 (6.484,0.01)		0.010 (0.019,0.88)		0.08
CEO turnover	241	0.491 (0.212,0.64)	0.313 (0.610,0.43)	0.280 (9.678,0.00)			0.965 (5.198,0.02)	0.01
PANEL C : INDUSTRIAL AND COMMERCIAL COMPANIES								
CEO turnover	277	2.641 (7.757,0.01)	-1.034 (10.193,0.00)	-0.007 (0.010,0.91)	0.059 (0.034,0.85)			0.00
CEO turnover	245	2.307 (5.652,0.02)	-0.965 (7.937,0.00)	-0.006 (0.007,0.93)		-0.061 (0.541,0.46)		0.00
CEO turnover	320	1.976 (5.706,0.01)	-0.939 (9.742,0.00)	0.070 (1.419,0.23)			0.572 (3.419,0.05)	0.00

Source : Own calculations based on data of the National Bank, on a General Bank database and on annual reports.

6.3 Management turnover and ownership concentration.

6.3.1 Disciplining of management, ownership concentration and free riding on control.

Only if the benefits of monitoring exceed the costs, will shareholders assume discipline underperforming management. Since all the shareholders gain from the monitoring activities of one single shareholder, it is likely that only large shareholders can internalize the costs of monitoring and bear the costs of free riding on control. Therefore, we expect a positive correlation between concentration of ownership and turnover when performance is poor (hypothesis 4).

Modelling control.

Control derived from voting rights can be modelled in several ways. Firstly, the shareholdings owned by all large shareholders with share stakes of 5% or more can be aggregated for each shareholder category. This implies that equal weight is given to all these voting rights.

Secondly, specific control thresholds of ownership might be relevant with regard to disciplining underperforming management as the one share-one vote rule does not assign effective votes in direct proportion to shares. Under majority rule someone with 50.1 percent of the shares can exert almost complete control (DeAngelo and DeAngelo 1985). Therefore, the impact of share ownership on turnover of the board and the CEO might not be linear. For instance, disciplinary actions against top management might only be initiated by a shareholder owning more than 50 percent of the voting rights. The 75 percent ownership level is also an important threshold because the owner does not face a blocking minority which amounts of 25 percent of the voting rights. In practice, since on average 35 percent of the shares of Belgian listed companies are widely held and since institutional investors do not use their voting rights, the level of

'absolute' control might be at a level below 50 percent.[131] We introduce piecewise linearities in ownership variables as did Hermalin and Weisbach (1991).

Thirdly, as it is possible that the decisions to discipline management are substantially influenced by the largest shareholder regardless of the stake of this large shareholder, we only consider the share stakes of the largest shareholder for each sample company in the regression and logistic models.

Aggregate voting rights of 5% and more.

Table 6.5 exhibits the regression results of the relation between board turnover and total cumulative ownership. It is clear that the more shares that are owned by major shareholders (shareholders who own at least 5%), the higher the board turnover when performance is poor. This finding corroborates hypothesis 4. However, a large concentration of ownership held by Belgian shareholders does not seem to lead to increased board turnover (panel B), whereas the presence of a high concentration of cumulative stakes owned by foreign investors in the ownership structure is positively correlated to turnover (panel C).[132]

In all the regressions, the size proxy (the logarithm of total assets) is significant (within 10% level) and negative, suggesting that members of the board of directors are more easily replaced if shareholding concentration is high in smaller companies. The performance variable, the market adjusted share price return over a period one year before the year of turnover, is significantly negative and thus confirms that the relation between ownership concentration and board turnover is only valid in the case of poor corporate performance. Other performance measures over periods before the year of turnover (year T), like the 5 year market adjusted share price return or negative earnings over period (T-1,T-2), yield analogous results.

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[131] Most interviewed chairmen and CEO's mentioned that 35% is the level of share ownership with which a shareholder is usually considered to be the main shareholder with (absolute) control if no other large shareholder was present.

[132] The results for board turnover throughout the remainder of Chapter 6 are also valid for executive turnover.

However, previous findings are only significant for the industrial and commercial companies and not for the subsamples of the holding companies and of the financial sector. Table 6.6 focuses on the industrial subsample and tests the differences in the ownership-turnover relation depending on whether the target company is a poorly or well performing company. A company is categorized as a 'poor performer' if its market adjusted share price return during the five years preceding the year of turnover was below the median.[133] When performance is below the median, high total and foreign concentrated ownership levels are positively correlated with increased board turnover. Such a relation between turnover and ownership is not present in companies with a past profitability above the median.

The results from the logit models for CEO turnover also corroborate hypothesis 4 and show that poor performance precedes the departure of the CEO,

[133] Other performance measures which were significant in section 4.1.1 yield similar results.

Table 6.5 : Impact of aggregate concentrated ownership on board turnover in 1989-92 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \beta_3 * TOTOWN + e$$

TURN stands for board turnover. PERFORM stands for a performance variable MAR 1Y, the market adjusted return over a one year period preceding the year of turnover.
TOTOWN stands for the percentage of cumulative concentrated (5% and more) total ownership.
Between brackets, under the parameter estimates, the t-statistic and the corresponding p-value is given.

Dependent variable	REGRESSIONS WITH SUBSTANTIAL SHAREHOLDINGS CLASSIFIED PER (ULTIMATE) INVESTOR GROUP			
	SAMPLE SIZE (F-test, R sq. adj)	TOTAL CUM. OWNERSHIP	MAR 1Y	SIZE
PANEL A : CUMULATIVE TOTAL LARGE SHAREHOLDINGS (BOTH BELGIAN AND FOREIGN)				
Board turnover	589 (0.00,0.03)	0.001 (3.076,0.00)	-0.017 (-1.933,0.05)	-0.003 (-1.310,0.19)
PANEL B : CUMULATIVE TOTAL LARGE BELGIAN SHAREHOLDINGS				
Board turnover	589 (0.07,0.01)	-0.000 (-0.450,0.65)	-0.018 (-1.883,0.06)	-0.004 (-1.835,0.06)
PANEL C : CUMULATIVE TOTAL LARGE FOREIGN SHAREHOLDINGS				
Board turnover	589 (0.00,0.02)	0.0004 (2.524,0.01)	-0.017 (-1.998,0.05)	-0.005 (-1.980,0.04)

Source : Own calculations based on the Notifications of Ownership Changes, the BDPart database of the Brussels Stock Exchange, on annual reports, and on databases of National Bank and of the Generale Bank.

Table 6.6 : Impact of aggregate large shareholdings on turnover of the board, the management committee and CEO for industrial and commercial companies in 1989-92 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \beta_{3i} * TOTOWN_i + e$$

TURN stands for turnover of the board, the CEO and the management committee. $TOTOWN_i$ stands for the percentage of cumulative concentrated (5% and more) total ownership, of cumulative total Belgian ownership and of cumulative total foreign ownership. SIZE stands for the log of the total assets. 'Good performers' are those companies with a five year share price return (MAR5y) higher than the median. 'Bad performers' have a return below the median. MAR5y stands for the market adjusted return over a five year period before the year of turnover. Between brackets, under the parameter estimates, the t-statistic (for the regressions) or the Wald Chi-squared (for the logistic regressions), and their corresponding p-value is given.

dependent variable	GOOD PERFORMERS			POOR PERFORMERS		
	SAMPLE SIZE (p-value of F-test or -2Log L, R sq. adj)	CUM. OWNERSHIP (t-stat. or Wald Chi-sq, p-value)	SIZE (t-stat. or Wald Chi-sq, p-value)	SAMPLE SIZE (F-test, R sq. adj)	CUM. OWNERSHIP (t-stat. or Wald Chi-sq, p-value)	SIZE (t-stat. or Wald Chi-sq, p-value)
PANEL A : TOTAL CUMULATIVE CONCENTRATED OWNERSHIP						
Board turnover (Regres.)	153 (0.30,0.00)	0.0003 (0.658,0.51)	-0.007 (-1.113,0.26)	153 (0.01,0.04)	0.002 (2.899,0.00)	0.0007 (0.143,0.88)
Committee turnover (Regres.)	153 (0.82,0.00)	0.0000 (0.003,0.99)	-0.002 (-0.634,0.52)	153 (0.52,0.00)	0.0009 (0.43,0.66)	-0.002 (-0.544,0.63)
CEO turnover (Logit)	175 (0.35)	0.007 (0.564,0.45)	0.005 (1.356,0.28)	153 (0.01)	0.010 (1.984,0.05)	0.009 (1.344,0.23)
PANEL B : BELGIAN TOTAL CUMULATIVE CONCENTRATED OWNERSHIP						
Board turnover (Regres.)	153 (0.22,0.01)	-0.0004 (-1.004,0.31)	-0.010 (-1.628,0.10)	153 (0.97,0.00)	0.0001 (0.140,0.88)	-0.0007 (-0.133,0.89)
Committee turnover (Regres.)	153 (0.08,0.02)	-0.001 (-2.152,0.03)	-0.012 (-1.734,0.09)	153 (0.53,0.00)	0.0004 (0.347,0.72)	-0.0006 (-0.100,0.92)
CEO turnover (Logit)	153 (0.28)	-0.006 (1.024,0.31)	0.009 (1.544,0.12)	153 (0.00)	0.013 (6.036,0.01)	0.003 (1.444,0.25)
PANEL C : FOREIGN TOTAL CUMULATIVE CONCENTRATED OWNERSHIP						
Board turnover (Regres.)	153 (0.14,0.02)	0.0005 (1.340,0.18)	-0.009 (-1.493,0.14)	153 (0.29,0.00)	0.0006 (1.898,0.09)	-0.002 (-0.389,0.69)
Committee turnover (Regres.)	153 (0.02,0.02)	0.001 (1.937,0.05)	-0.001 (-0.211,0.81)	153 (0.57,0.00)	-0.0001 (-0.124,0.90)	-0.003 (-0.397, 0.70)
CEO turnover (Logit)	153 (0.17)	0.007 (1.848,0.17)	0.007 (1.120,0.26)	153 (0.00)	0.015 (10.545,0.00)	0.008 (1.898,0.15)

Source : Own calculations based on the Notifications of Ownership Changes, on the BDPart database of the Brussels Stock Exchange, annual reports, on databases of the National Bank and of the Generale Bank.

Critical ownership thresholds.

Table 6.7 reports the relation of critical ownership thresholds (25%, 50% and 75%) and management turnover. We calculate critical ownership structures in two ways. Firstly, all direct shareholders are assumed to have no affiliations with other shareholders. Secondly, all direct ownership stakes are aggregated if they are controlled by the same ultimate investor (see section 5.2.3 for a definition) and classified according to the identity of this shareholder. We find that our second method of calculating threshold shareholdings yields results that are more statistically significant. This implies that control is not only exercised by shareholders of the first, direct ownership tier, but also by ultimate investors on higher ownership tiers. For all sample companies, supermajority, majority and blocking minority stakes are all positively related with (executive) board turnover when performance is poor (panel A). Both Belgian and foreign large threshold stakes are important with regard to the disciplining of executive directors (panel B). When a company had negative earnings in a period two years before the year of management replacement and a supermajority held by a Belgian investor in its ownership structure, board turnover increases by 11 percent. Majority and blocking majority shareholders contribute less to director replacement but its parameter estimates are statistically significant.

The replacement of the CEOs of companies with negative earnings is facilitated by large, particularly foreign, critical ownership thresholds (panels A and B). In contrast, management committee turnover, excluding CEO and executive director replacement, is not significantly influenced by the presence of majority stakes (panel A).

The largest shareholding.

Regressions of the largest direct shareholding, regardless of the size of the share stake, on executive director turnover and CEO substitution yield highly significant parameter estimates, when performance is poor. To compute the largest direct shareholding, those direct shareholdings controlled by the same ultimate investor were aggregated. As in previous section, this way of calculating the largest shareholding gives statistically

better results than when it is assumed that direct shareholdings have no affiliations with other shareholders.

In this executive turnover model, proxies for size, the logarithm of total assets, total equity and market capitalization were not consistently significant. CEO turnover, however, is not independent from the company's size : the probability of CEO replacement is higher in large companies.

We conclude that hypothesis 4 is strongly supported by our findings. There is a significant positive correlation between disciplining of management and ownership concentration whereby concentration was measured by (i) the aggregate of all share stakes of 5 percent and more, (ii) critical ownership thresholds and (iii) the largest shareholding. An important finding is that ultimate shareholders exercise control over the target company via their investments in intermediate companies.

Table 6.7 : Impact of large shareholders on turnover of the board, management committee and CEO for 1989-1992 (pooled data) .

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * BLOCKMIN + \beta_3 * MAJ + \beta_4 * SUPERMAJ + \beta_5 * SIZE + \epsilon$$

The dependent variables (TURN) are board turnover, management committee turnover and turnover of the CEO or chairman. PERFORM stands for performance : EAT/TA (T-1,T-2), a dummy variable indicating negative earnings (dummy equals 1) over the period (T-1,T-2). EAT/TA : earnings after taxes / total assets.
T stands for the year of turnover in the period 1989-1992, (T-1) stands for 1 year before the year of turnover. SIZE stands for the logarithm of total assets.
The variables BLOCKMIN, MAJ and SUPERMAJ are abbreviations of blocking minority, majority and supermajority which are share stake within the respective size intervals : [25%,50%[, [50%,75%[, [75%,100%].
Blocking minorities, majorities and supermajorities are dummy variables equalling 1 if a company such a shareholding in its ownership structure.
The models with board turnover and management committee turnover as dependent variable are regression models (Reg), that with CEO or executive chairman turnover is a logistic model (Logit).
Between brackets, under the parameter estimates of the regressions, the t-statistic and the corresponding p-value are given. Under the parameter estimates of the logit models, the Wald Chi-squared statistic and its corresponding p-value are shown.

ALL SAMPLE COMPANIES

Panel A	Model	SAMPLE SIZE	INTERCEPT	EAT/TA (T-1,T-2)	SIZE	BLOCKING MINORITY : all stakes	MAJORITY : all stakes	SUPERMAJORITY: all investors				p-value of F-test or of -2 Log L	R sq. adj.
board turnover	Reg	609	0.051 (1.209,0.22)	0.059 (3.604,0.00)	-0.0003 (-0.119,0.90)	0.030 (2.303,0.02)	0.043 (2.410,0.01)	0.093 (4.393,0.00)				0.00	0.04
committee turnover	Reg	598	-0.060 (-0.524,0.60)	0.106 (2.455,0.01)	0.008 (1.319,0.18)	0.014 (0.409,0.68)	0.063 (1.327,0.18)	0.060 (1.092,0.27)				0.08	0.01
CEO turnover	Logit	610	-4.208 (32.715,0.00)	0.507 (4.227,0.04)	0.162 (15.831,0.00)	0.334 (2.199,0.13)	0.598 (3.757,0.05)	0.764 (4.081,0.03)				0.00	
Panel B		**SAMPLE SIZE**	**INTERCEPT**	**EAT/TA (T-1,T-2)**	**SIZE**	**BLOCKING MINORITY: Belgian stakes**	**MAJORITY: Belgian stakes**	**SUPERMAJORITY: Belgian investors**	**BLOCKING MINORITY: foreign stakes**	**MAJORITY: foreign stakes**	**SUPERMAJORITY: foreign investors**	**p-value of F-test or of -2 Log L**	**R sq. adj**
board turnover	Reg	609	0.056 (3.507,0.00)	0.057 (3.507,0.00)	-0.0004 (-0.192,0.84)	0.025 (1.800,0.07)	0.026 (1.340,0.18)	0.109 (3.901,0.00)	0.035 (1.714,0.08)	0.060 (2.818,0.01)	0.078 (3.231,0.00)	0.00	0.05
committee turnover	Reg	598	-0.082 (-0.711,0.47)	0.105 (2.428,0.02)	0.009 (1.419,0.15)	0.011 (0.299,0.76)	0.042 (0.824,0.41)	0.158 (2.165,0.03)	0.059 (1.199,0.23)	0.115 (2.053,0.04)	0.012 (0.203,0.83)	0.04	0.02
CEO turnover	Logit	610	-4.141 (30.575,0.00)	0.471 (3.611,0.05)	0.152 (13.196,0.00)	0.140 (0.312,0.57)	0.393 (1.336,0.24)	0.577 (1.489,0.22)	0.970 (11.386,0.00)	0.967 (7.884,0.01)	1.004 (6.981,0.01)	0.00	

Source : Own calculations based on data of the National Bank, on a General Bank database and on annual reports.

6.3.2 Dilution of control through multiple tier control chains.

Hypothesis 6 qualifies the finding of previous section - namely that it is the ultimate investors who exert control over a target company - and states that control leverage through ownership pyramids will lead to a dilution of control. The more intermediate companies between the ultimate shareholder and the target and the larger the deviation of these intermediate shareholdings from full control (100% share stake), the higher the dilution of control.

We test several models of control dilution. Firstly, we include in the turnover models both the direct largest share stake[134] and the ownership tier of the ultimate investor. If there would be control dilution through multiple tiers of the control chain, the ultimate ownership tier-coefficient would be significantly negative. In none of the turnover models of table 6.8, the parameter estimate of the ultimate ownership tier variable is negative.[135] Therefore, we find little evidence of control dilution.

Secondly, we included in the turnover models, the ultimate levered shareholding which was calculated by multiplying the shareholdings of each ownership tier. For example, if company A owns 50.1 percent of company B which, in turn, controls 50.1 percent of company C, the ultimate levered stake held by company A is 25.1 percent (50.1% x 50.1%). Whereas the parameter coefficient of the largest direct shareholding is strongly significant in a turnover-ownership relation (as was shown in previous section), the ultimate levered shareholding is not significant.

Thirdly, the control leverage factor, obtained by dividing the largest direct shareholding by its ultimate levered shareholding (see section 5.2.4), was not significant when regressed on replacement of executive directors or CEO.

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[134] Note that to calculate the direct largest shareholding, we have aggregated all the direct shareholdings controlled by the same ultimate investor (ultimate shareholder criterion). To determine the ultimate shareholder level we also used the ultimate shareholder criterion as explained in Chapter 5.

[135] Interaction terms between the largest direct shareholding and the ultimate ownership tier are not correlated with the turnover data either.

The two preceding models confirm hypothesis 6 : they show that there is evidence of control dilution. This casts some doubt on the strength of the control relation between the ultimate shareholder and the target company when there are multiple ownership tiers and the intermediate shareholdings in the ownership chain deviate substantially from full ownership.

Table 6.8 : Impact of the ultimate levered ownership on turnover data for 1989-1992 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \beta_3 * LARGEDIRECT + \beta_4 * TIER + \epsilon$$

TURN stands for turnover of the board proportional to board size, of the executive directors proportional to total number of executives, of the non-executive director proportional to total number of non-executives, of the management committee proportional to committee size and of CEO. LARGEDIRECT stands for the largest direct shareholding. TIER stands for the tier of the ultimate shareholder, whereby direct shareholdings are on tier 1. PERFORM stands for performance : EAT/TA (T-1,T-2), a dummy variable indicating negative earnings (dummy equals 1) over the period (T-1,T-2). EAT/TA : earnings after taxes / total assets. T stands for the year of turnover in the period 1989-1992, (T-1) stands for 1 year before the year of turnover.
Between brackets, under the parameter estimates, the t-statistic (regression) or the Wald Chi-squared (logistic model) and the corresponding p-value are given.

1989-1992	Sample size (Model)	intercept	EAT/TA (T-2,T-1)	Largest direct stake	Ultimate ownership tier	Size	p-value of F/-2LogL (R-sq)
Board turnover	627 (OLS reg)	0.040 (0.988,0.32)	0.055 (3.461,0.00)	0.009 (3.529,0.00)	0.012 (1.539,0.12)	-0.001 (-0.710,0.47)	0.00 (0.05)
Executive turnover	622 (OLS reg)	0.044 (1.817,0.07)	0.020 (2.203,0.02)	0.0003 (2.316,0.02)	0.004 (1.501,0.12)	-0.002 (-1.675,0.09)	0.00 (0.03)
Non-executive turnover	622 (OLS reg)	-0.030 (-0.907,0.36)	0.039 (3.003,0.00)	0.0003 (1.512,0.13)	0.007 (2.179,0.03)	0.003 (1.658,0.10)	0.00 (0.03)
Committee turnover	615 (OLS reg)	-0.106 (-0.949,0.34)	0.099 (2.357,0.02)	0.001 (1.767,0.07)	0.014 (1.285,0.19)	0.008 (1.214,0.22)	0.01 (0.02)
CEO turnover	627 (Logit)	-3.285 (18.906,0.00)	0.327 (1.494,0.22)	0.006 (1.691,0.19)	0.204 (8.604,0.00)	0.060 (1.934,0.16)	0.01

Source : Own calculations based on the Notifications of Ownership Changes, the BDPart database of the Brussels Stock Exchange, on annual reports, on databases of the National Bank and of the Generale Bank.

6.3.3 Monitoring ability across shareholder classes.

Hypothesis 5 states that the disciplining of underperforming management is accomplished by large shareholders with superior monitoring abilities.

Table 6.9 reports that the relation between large shareholdings owned by seven investor classes and the turnover of, respectively, the board and the CEO. As before, direct stakes controlled by the same ultimate are aggregated. When earnings after tax are negative in at least one of the years in the period (T-1,T-2)[136], institutional investors (banks, insurance companies, and pension funds and investment companies) do not seem to initiate board turnover nor CEO replacement even if they hold majority stakes. When holding companies own blocking minorities, majorities or supermajorities and performance is negative, (executive) turnover is high. This implies that holding companies do assume monitoring tasks and discipline management if absolute earnings levels are poor (negative). CEOs are also substituted by large holding companies, but only if they hold an absolute voting rights majority. Shareholdings of blocking minority and supermajority size owned by industrial and commercial companies are also positively correlated to board and CEO turnover when earnings are negative. Families owning more than 50 percent determine the replacement of directors, but not of the CEO. The parameter estimates, however, of blocking minorities are negative (although not significantly so) which might indicate that families resist director and CEO departure.[137] If these families hold a directorship, the reason for this resistance might be the private benefits of control they derive from that directorship.[138]

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[136] The conclusions do not change if other performance measures which were significant in section 4.1.1 are used. The results for board turnover are also significant for executive director turnover.

[137] Due to lack of data on board representation, this conjecture cannot be tested.

[138] When companies are floated, families often still keep a substantial part of the market capitalization. Brennan and Franks (1995) report that in a typical IPO, 48 percent of the value of the company (in pre-offering terms) remains in the hands of the original owners. According to Goergen (1995), old shareholders hold, immediately after the IPO, at least a majority of votes in 87 percent in a sample of the German companies floated over the period 1970-1988. Six years after the floatation, the old shareholders still control more than half of the ordinary shares in 58 percent of the sample.

As in section 6.3.1, we included the threshold stakes computed in two ways : (i) as direct shareholdings without relations to other shareholders and (ii) as aggregate shareholdings after applying the ultimate shareholder criterion. Again we find that the results with the second measure are stronger, which implies that the control relation between target and shareholder of the ownership pyramid is not limited to the first tier of ownership but that the ultimate shareholder exercises control throughout the intermediate companies.

When we include in the turnover (logistic) regressions the aggregate shareholding of all share stakes 5 percent and larger for each shareholder class (classified on the basis of the identity of the ultimate shareholder), we find similar relations as the ones described in this section. The correlations are, as expected, weaker than for the threshold share stakes.[139]

We conclude that large shareholders of specific investor classes are disciplining management when performance is poor. Especially, industrial companies, holding companies and families seem to initiate the management replacement process. Institutional investors are not actively involved in corporate monitoring.

[139] Tables available upon request.

Table 6.9 : Impact of large shareholdings per investor class on turnover of the board and CEO in 1989-1992 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_{2i} * MIN_i + \beta_{3i} * MAJ_i + \beta_{4i} * SUPERMAJ_i + \beta_5 * SIZE + \epsilon$$

TURN stands for are turnover of the board and of the CEO or executive chairman. PERFORM stands for performance : EAT/TA (T-1,T-2), a dummy variable indicating negative earnings (dummy equals 1) over the period (T-1,T-2). EAT/TA : earnings after taxes / total assets. T stands for the year of turnover in the period 1989-1992, (T-1) stands for 1 year before the year of turnover. SIZE stands for the logarithm of total assets. The variables MIN_i, MAJ_i and $SUPERMAJ_i$ are abbreviations of blocking minority, majority and supermajority which are share stake within the respective size intervals : [25%,50%[, [50%,75%[, [75%,100%], for each of the shareholder classes i. These shareholder classes are : 1. holding co's, 2. banks, 3. investment co's and pension funds, 4. insurance co's, 5. industrial and commercial co's, 6. families, 7. government. The dummy variables equal one of a large stake of the above mentioned size is present in the ownership structure.
Between brackets, under the parameter estimates of the regression, the t-statistic and the corresponding p-value are given.

INDEPENDENT VARIABLES		Number of Stakes	DEPENDENT VARIABLES	
			BOARD TURNOVER	CEO TURNOVER
	SAMPLE SIZE		OLS Reg.	OLS Reg.
			606	606
	INTERCEPT		0.068 (1.550,0.12)	-0.257 (-2.119,0.03)
	EAT/TA (T-2,T-1)		0.054 (3.307,0.00)	0.075 (1.983,0.06)
	COMPANY SIZE		-0.001 (-0.473,0.63)	0.027 (3.794,0.00)
HOLDING CO'S	BLOCKING MINORITY	126	0.035 (2.116,0.03)	0.055 (1.207,0.22)
	MAJORITY	116	0.042 (2.037,0.04)	0.120 (2.110,0.03)
	SUPERMAJORITY	41	0.076 (2.707,0.01)	0.161 (2.063,0.03)
BANKS	BLOCKING MINORITY	4	0.156 (1.735,0.09)	0.312 (1.475,0.14)
	MAJORITY	2	0.143 (1.312,0.18)	0.891 (2.718,0.00)
PENSION FUNDS ETC	BLOCKING MINORITY	12	0.037 (0.915,0.36)	0.077 (0.675,0.50)
	MAJORITY	7	-0.006 (-0.106,0.91)	0.303 (1.852,0.06)
INSURANCE	MAJORITY	8	0.062 (1.116,0.26)	0.114 (0.747,0.45)
	SUPERMAJORITY	6	0.050 (0.790,0.42)	-0.047 (-0.272,0.78)
INDUSTRIAL & COMMERCIAL CO'S	BLOCKING MINORITY	32	0.047 (1.684,0.09)	0.127 (1.637,0.10)
	MAJORITY	13	0.029 (0.649,0.51)	0.111 (0.901,0.36)
	SUPERMAJORITY	29	0.097 (3.031,0.00)	0.231 (2.602,0.01)
FAMILIES	BLOCKING MINORITY	63	-0.005 (-0.234,0.80)	-0.024 (-0.403,0.68)
	MAJORITY	73	0.043 (1.843,0.06)	0.015 (0.239,0.81)
	SUPERMAJORITY	23	0.057 (1.614,0.10)	-0.027 (-0.275,0.78)
GOVERNMENT	MAJORITY	16	0.026 (0.654,0.51)	0.041 (0.376,0.70)
	SUPERMAJORITY	8	0.263 (4.724,0.00)	0.027 (3.794,0.00)
	p-value of the F-test		0.00	0.00
	R squared		0.06	0.07

Source : Own calculations based on the Notifications of Ownership Changes, on annual reports, on databases of the National Bank.

6.3.4 Management turnover and large foreign shareholding.

An analysis of disciplining actions according to nationality of the large shareholders reveals that the presence of foreign holdings, banks and industrial companies are more strongly correlated to board and CEO turnover than the presence of their Belgian counterparts.[140]

We reported in table 5.3 that the shareholdings of, especially, French investors are important in many Belgian quoted companies, while investments from other countries have remained modest or were concentrated in one sector. Therefore, we focus on the disciplinary actions of French large shareholders in table 6.10. The magnitude of French investment in Belgium is to a large extent due to two important holding companies, the Generale Maatschappij van België (Société Générale de Belgique) and Cobepa, which are controlled by respectively the Compagnie Financière de Suez and the Paribas holding. Ownership of shareholdings retained by French ultimate investors leads to high executive and non-executive turnover in both poorly and well performing industrial companies (panels B1 and B2). This suggests that French large shareholders might not only provide an alternative for management failure, but that they also replace directors with their own representatives even when profitability is not poor.

In Belgian quoted holding companies, turnover of neither the board nor the management committee is related to the presence of French large ultimate shareholdings. The probability of CEO replacement in both all well and poorly performing sample companies is not affiliated to the presence of French ownership stakes either.[141]

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[140] Tables available upon request. Turnover of the management committee, excluding executive director and CEO substitution, is not systematically influenced by the presence of large shareholders.

[141] See table D2 of appendix D.

Table 6.10 : Impact of substantial shareholdings held by French investor groups on board turnover in 1989-92 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \beta_3 * FOWN + e$$

TURN stands for turnover of the board proportional to board size. FOWN stands for the percentage of cumulative concentrated (5% and more) French ownership per shareholder category.
SIZE stands for the log of the total assets.
'Good performers' are those companies with a five year share price return (MAR5y) higher than the median. 'Bad performers' have a return below the median. MAR5y stands for the market adjusted return over a five year period preceding the year of turnover.
Between brackets, under the parameter estimates, the t-statistic and the corresponding p-value is given.

Dependent variable	GOOD PERFORMERS					POOR PERFORMERS				
	SAMPLE SIZE (F-test, Rsq. adj.)	All French investors	French holding co's	French indust. & comm. co's	Size	SAMPLE SIZE (F-test, Rsq. adj.)	All French investors	French holding co's	French indust. & comm. co's	Size
	PANEL A1 : ALL COMPANIES					PANEL A2 : ALL COMPANIES				
Board turnover	282 (0.03.0.02)	0.001 (2.448,0.01)			-0.003 (-0.982,0.32)	349 (0.36,0.00)	0.0005 (1.185,0.23)			-0.003 (-0.946,0.34)
Board turnover	282 (0.38,0.00)		0.0006 (0.880,0.37)		-0.004 (-1.109,0.26)	349 (0.73,0.00)		0.0001 (0.034,0.97)		-0.002 (-0.788,0.43)
Board turnover	282 (0.08,0.01)			0.002 (1.962,0.05)	-0.003 (-1.064,0.28)	349 (0.39,0.00)			0.0007 (1.121,0.26)	-0.002 (-0.764,0.44)
	PANEL B1 : INDUSTRIAL & COMMERCIAL COMPANIES					PANEL B2 : INDUSTRIAL & COMMERCIAL COMPANIES				
Board turnover	135 (0.00,0.06)	0.0023 (2.869,0.00)			-0.007 (-1.268,0.20)	174 (0.40,0.00)	0.002 (2.093,0.08)			-0.000 (-0.001,0.99)
Board turnover	135 (0.15,0.01)		0.004 (1.341,0.18)		-0.008 (-1.326,0.18)	174 (0.96,0.00)		0.0002 (0.220,0.82)		-0.0009 (-0.170,0.86)
Board turnover	135 (0.01,0.05)			0.003 (2.500,0.01)	-0.009 (-1.686,0.10)	174 (0.10,0.01)			0.002 (2.046,0.04)	0.0006 (0.125,0.90)

Source : Own calculations based on the Notifications of Ownership Changes, the BDPart database of the Brussels Stock Exchange, on annual reports, on databases of the National Bank and of the Generale Bank.

6.4 The market for share stakes.

6.4.1 Past poor performance and changes in the ownership structure.

We hypothesize that company performance triggers changes in the ownership structure (hypothesis 7). On the one hand, shareholders with no interest or ability to monitor the company actively will sell their stakes if that company is performing poorly and if they cannot free ride on corporate control actions of other shareholders. On the other hand, when a shareholder owns a substantial minority share stake and believes he can satisfactorily replace underperforming management, he will not sell out or may even increase his stake in order to extend his control over the company. Thus, when a company underperforms, new investors with superior information or monitoring skills might purchase blocks of shares from those who sell out.[142]

We reported in section 5.2.8 that the market for share stakes was not insignificant since changes of 5 percent or more occur in one fourth of the sample companies. We found that holding companies were the main purchasers and sellers with, respectively, 70 and 95 shareholdings of more than 5 percent. In many companies, institutional investors and families also seemed to acquire and dispose of, respectively, 68 and 63 shareholdings of 5 percent and more. Industrial and commercial companies were trading a smaller number of shareholdings.

We examine in table 6.11 whether this market for stakes is triggered by poor company performance : we regress past performance on increases in ownership by shareholder class for all sample companies, and for the subsamples of all holding companies and of industrial and commercial firms. All increases, regardless of their size, are taken into consideration because some shareholders only need a small increase in the percentage of their voting rights to reach a blocking minority or a majority. As a performance measure, a dummy variable is defined which equals 1 when the company had negative

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[142] The increases and decreases of ownership are calculated per investor group. Consequently, trading of shareholdings among the shareholders controlled by the same ultimate shareholder are not taken into account.

earnings after tax in at least one of the years of the period (T-2,T-1), whereby (T-1,T) is the period over which the increase in ownership is measured.[143]

We report in panel A that there is a significantly positive relation between negative earnings and increases in the combined shareholdings of all investor categories over the subsequent year (1% significance level). This confirms that when corporate performance is poor, some shareholder classes increase their shareholding. When we focus on the separate shareholder classes, we do not find a significant correlation between negative corporate earnings and increases in stakes by institutionals investors[144], in spite of the fact that institutionals actively purchase and sell share stakes over 1989-1992. However, the average increase in shareholdings owned by holding companies, industrial companies and families amounts to more than two percent when earnings are negative. An analysis of the relation between decreases in major ownership stakes and performance reveals that it is the Belgian and foreign institutional investors and family investors who sell out to the holding companies, other families, industrial and commercial companies, and holding companies when profitability is poor.

A separate investigation of the relation between performance and subsequent increases in shareholdings for the subsamples is also shown in table 6.11. The results mentioned above and shown in panel A are valid for industrial and commercial companies (panel C). In holding companies, it is only foreign institutional investors (predominantly large foreign banks and insurance companies) and families who increase their average total share stake when earnings after tax are negative. The relation between increases in concentrated ownership and past performance is independent of company size.

We conclude that a market for share stakes results from poor performance, which confirms hypothesis 7. Institutional companies and families reduce their share stakes when corporate performance is poor. Holding companies, other families and industrial

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[143] Other performance variables, like the market adjusted return over a period of 1 or 5 years before the period of change in ownership, or substantial decreases in dividends per share, yield similar results.

[144] Institutional investors are here defined as banks, insurance companies, pension funds and investment companies.

companies increase theirs. Consequently, we observe an increase of concentration of ownership held by large shareholders. This confirms the Burkart, Gromb and Panunzi (1995) hypothesis that the optimal ownership structure of a company depends on its performance; improvement of poor performance requires large shareholders' long term commitment and superior monitoring abilities.

6.4.2 Disciplining managerial underperformance and the market for share stakes.

In the previous section, we identified specific shareholder groups who increase their shareholdings when performance is poor. A logical extension is the question as to whether these shareholder classes have high monitoring ability and will act in order to improve managerial performance (hypothesis 8). Industrial and commercial companies, holding companies, and family and individual investors are expected to use their additional control power arising from their increased shareholdings to replace management of industrial companies. Large foreign institutional investors (banks and insurance companies) are expected to discipline underperforming management of holding companies.

Panel A of table 6.12 shows that the higher the increases in substantial shareholders over the period (T-1,T), the higher the board turnover is over the period (T-1,T) when earnings after tax were negative in at least one year of the period (T-2,T-1) (1% significance). Similarly, increases in substantial shareholdings are linked to departure of the CEO when earnings are negative in past periods (although the significance level is only 10%). These conclusions remain valid for the subsamples of the Belgian holding companies and the industrial and commercial firms.

Table 6.11 : Impact of performance on increases in substantial shareholdings in 1989-92 (pooled data).

$$INCR_i = \alpha + \beta * PERFORM + e$$

$INCR_i$ stands for the increases in the cumulative concentrated ownership of the investor categories.
The dependent variable represents the increases in concentrated ownership. Independent variables are performance and company size. SIZE is the logarithm of the total assets. PERFORM stands for performance variables. The one represented in this table is EAT/TA (T-1, T-2) is an earnings dummy variable which equals 1 if the earnings after tax standardized by total assets are negative in the year before or two years before the year of turnover (year T).
Between brackets, under the parameter estimates, t-statistic and the corresponding p-value.

Dependent Variables	SAMPLE SIZE (F-test,R sq. adj.)	EAT/TA (T-1,T-2)	SIZE	SAMPLE SIZE (F-test,R sq. adj.)	EAT/TA (T-1,T-2)	SIZE	SAMPLE SIZE (F-test,R sq. adj.)	EAT/TA (T-1,T-2)	SIZE
	Panel A : ALL SAMPLE CO'S			Panel B : HOLDING COMPANIES			Panel C : INDUSTRIAL AND COMMERCIAL CO'S		
all shareholders	612 (0.00,0.03)	5.700 (4.102,0.00)	0.041 (0.199,0.84)	238 (0.03,0.02)	4.065 (2.348,0.02)	0.586 (1.908,0.06)	306 (0.00,0.04)	8.235 (3.919,0.00)	-0.172 (-0.480,0.63)
all Belgian co's	612 (0.01,0.01)	3.420 (2.888,0.00)	-0.091 (-0.511,0.60)	238 (0.17,0.01)	2.565 (1.803,0.07)	0.252 (0.998,0.31)	306 (0.03,0.02)	4.872 (2.631,0.01)	-0.205 (-0.647,0.51)
all foreign co's	612 (0.01,0.01)	2.221 (2.909,0.00)	0.146 (1.284,0.19)	238 (0.03,0.02)	1.504 (1.843,0.06)	0.331 (2.291,0.02)	306 (0.02,0.02)	3.215 (2.727,0.01)	0.071 (0.362,0.71)
Belgian institutionals	612 (0.15,0.00)	1.087 (1.563,0.14)	0.070 (0.801,0.42)	238 (0.35,0.00)	-0.126 (-0.360,0.71)	0.078 (1.266,0.20)	306 (0.12,0.01)	1.163 (1.067,0.34)	0.019 (0.107,0.91)
foreign institutionals	612 (0.34,0.00)	0.110 (0.608,0.54)	0.038 (1.408,0.15)	238 (0.00,0.05)	0.491 (3.530,0.00)	0.055 (2.254,0.03)	306 (0.94,0.00)	-0.107 (-0.344,0.73)	-0.001 (-0.015,0.98)
holding co's	612 (0.00,0.02)	2.226 (3.162,0.00)	0.129 (1.222,0.22)	238 (0.00,0.04)	0.968 (1.219,0.22)	0.465 (3.296,0.00)	306 (0.00,0.04)	3.747 (3.600,0.00)	-0.008 (-0.047,0.96)
industrial co's	612 (0.43,0.00)	2.138 (2.165,0.02)	-0.163 (-1.298,0.19)	238 (0.73,0.00)	-0.495 (-0.761,0.44)	-0.003 (-0.031,0.97)	306 (0.61,0.00)	2.519 (2.384,0.02)	-0.208 (-0.900,0.36)
families	612 (0.00,0.02)	2.414 (3.606,0.00)	-0.033 (-0.335,0.73)	238 (0.03,0.02)	3.227 (2.565,0.01)	-0.009 (-0.044,0.96)	306 (0.09,0.01)	1.914 (2.190,0.03)	0.026 (0.176,0.86)
government	612 (0.09,0.01)	1.188 (2.167,0.03)	0.021 (0.263,0.79)	238 (0.85,0.00)	-0.101 (-0.536,0.59)	-0.009 (-0.279,0.78)	306 (0.12,0.01)	2.125 (2.060,0.04)	0.011 (0.063,0.95)

Source : Own calculations based on the Notifications of Ownership Changes, and the BDPart database of the Brussels Stock Exchange, annual reports, the CD-rom of the National Bank and the Generale Bank.

Splitting board turnover in executive turnover and non-executive turnover we reach analogous results as with board turnover. Executive directors are replaced after poor managerial accomplishments by those shareholders who have increased their shareholding. The positive correlation between non-executive turnover may primarily be explained by the fact that changes in shareholdings alter board representation of the large shareholders.

Panel B reports that increases in share stakes held by Belgian investors, but not by foreign investors, lead to increased board turnover. However, the probability of CEO replacement rises with increases in substantial shareholdings regardless of whether those shareholders are Belgian or foreign. Panel C of table 6.12 presents a more detailed analysis with 7 shareholder classes which yield the following conclusions : (i) increases of stakes held by industrial and commercial companies coincide or are followed by increased (executive) board and CEO turnover for the subsample of industrial firms when profitability is low, (ii) foreign holding companies increase their stakes to remove executive directors or the CEO, this is predominantly the case in Belgian holding companies and (iii) there is no corporate control relation for institutional investors in industrial companies, but increases in stakes owned by large banks and insurance companies are significantly positively related to management turnover in holding companies and financial firms.[145]

Increases of substantial shareholdings for each of the shareholder classes, lagged by one year with regard to board turnover, were also included in the regression and logistic models. The parameter estimates of the lagged increases confirm the relations described above but only at a weaker statistical significance level. We also investigate the influence of several performance benchmarks. The parameter estimate of a dummy indicating negative earnings over the period (T-1,T) was not significant. Market adjusted returns over 1 to 5 years yields comparable results as for the negative earnings criterion over (T-2,T-1) but at weaker statistical significance levels. The size of the

[145] When the total sample is divided in 'good' and 'poor' performers, we find that the relation between board turnover and increases in shareholdings described in this section are valid for the sample of poorly performing companies only (see table D3 in appendix D).

sample companies is not significant in the board turnover regressions, but it seems that the larger the company, the easier it is to replace a poorly performing CEO. This could be explained that by the fact that large companies have a larger managerial recruiting pool within the company or that they can depend upon, as in Fama (1980), a more efficient (international) managerial labour market.

We conclude this section on the market for share stakes by describing the timing of the corporate control activity: negative earnings after tax trigger changes in ownership structure in subsequent period. Those shareholders without a distinct interest in monitoring - primarily, institutional shareholders and families - sell their stakes, while those with strong monitoring abilities due to, for instance, superior information or private benefits of control increase their stakes in order to reinforce their position as (major) shareholder. They discipline underperforming management in the same (or in the subsequent) fiscal year.[146]

[146] Unlike the models with executive and CEO turnover, regressions with management committee turnover did not give significant results. The reason for the fact that they seem not to be the main target of disciplining actions is that the committee members who are not a director bear less responsibility than the executives directors.

Table 6.12 : Relation between increases in large shareholdings, performance and board turnover in 1989-1992 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \beta_{3i} * INOWN_i + \epsilon$$

TURN, PERFORM and SIZE are defined above. $INOWN_i$ stands for the increases in an ownership variable and can be substituted for increases in the total cumulative concentrated ownership or for increases in the cumulative concentrated ownership of the investor categories (see above). Each of these variables will be split between Belgian and foreign investors.
The dependent variable are board turnover and turnover of the CEO or chairman. The independent variables are performance (EAT/TA (T-1,T-2), company size and increases in large shareholdings over the period (T-1,T).
EAT/TA : earnings after taxes / total assets.T stands for the year of turnover in the period 1989-1992, (T-1) stands for 1 year before the year of turnover. EAT/TA (T-1,T-2) is a dummy variable indicating negative earnings (dummy equals 1) over the period (T-1,T-2). INC. stands for increase in the substantial shareholdings of a specific class of shareholders, BELG. for Belgian, FOR. for foreign, INVEST. for investors, HOLD. for holding company, INSTIT. for institutional, IND. for industrial, FAM. for family, INSUR. for insurance, INDIV. for individual, GOV. for government.
Between brackets, under the parameter estimates, the t-statistic and the corresponding p-value is given.

ALL SAMPLE COMPANIES											
Panel A	Model	SAMPLE SIZE	EAT/TA (T-1,T-2)	SIZE	INC. ALL INVEST.						p-value F/-2LogL (Rsq. adj)
board turnover	Reg	609	0.052 (3.185,0.00)	-0.002 (-0.821,0.41)	0.002 (5.013,0.00)						0.00 (0.06)
CEO turnover	Logit	609	0.392 (2.536,0.10)	0.147 (13.652,0.00)	0.026 (15.119,0.00)						0.00
Panel B	Model	SAMPLE SIZE	EAT/TA (T-1,T-2)	SIZE	INC. ALL BELG. INVEST.	INC. ALL FOR. INVEST.					p-value of F/-2LogL (Rsq. adj)
board turnover	Reg	609	0.053 (3.271,0.00)	-0.001 (-0.723,0.46)	0.002 (5.286,0.00)	0.0009 (1.084,0.27)					0.00 (0.07)
CEO turnover	Logit	609	0.374 (2.503,0.10)	0.145 (13.135,0.00)	0.021 (7.203,0.01)	0.040 (10.240,0.00)					0.00
Panel C	Model	SAMPLE SIZE	EAT/TA (T-1,T-2)	SIZE	INC. HOLD.	INC. BANKS	INC. INV. AND PENSION FUNDS	INC. INSUR.CO'S	INC. IND. CO'S	INC. FAM. OR INDIV. INVEST.	INC. GOV. STAKES	p-value of F/-2LogL (Rsq adj)
board turnover	Reg	609	0.053 (3.336,0.00)	-0.001 (-0.653,0.51)	0.0009 (1.010,0.31)	-0.046 (-1.123,0.26)	0.0007 (0.299,0.76)	-0.002 (-0.344,0.73)	0.002 (3.041,0.00)	0.0003 (0.404,0.68)	0.008 (7.360,0.00)	0.00 (0.06)
CEO turnover	Logit	609	0.410 (2.654,0.10)	0.132 (10.087,0.00)	0.035 (7.079,0.01)	0.613 (1.075,0.29)	0.051 (2.001,0.16)	0.156 (2.332,0.13)	0.024 (5.020,0.02)	0.003 (0.064,0.79)	0.047 (10.087,0.00)	0.00

Source : Own calculations based on data of the National Bank, on a General Bank database and on annual reports.

6.5 An integrated model of managerial disciplining.

In sections 6.1 to 6.4, we have analyzed the relation between, respectively, the composition of the board, the ownership structure and the market for share stakes, on the one hand, and management turnover, on the other. To investigate which effect dominates, we included variables representing these aspects of corporate control into one model. Table D5 presents the results of the integrative model. We find that the conclusions drawn in previous sections of this chapter remain valid : in poorly performing industrial and commercial companies (statistically significant earnings coefficient), board and executive director replacement is positively and statistically significantly correlated to (i) the number of non-executive directors on board, (ii) the presence of large share stakes[147] held by holding companies and industrial and commercial companies, (iii) increases in share stakes of outsider stakes, of holding companies (for total board turnover only), and of institutional investors (for total board turnover only and predominantly induced by some large insurance companies).

CEO and executive chairman turnover is also positively correlated to the number of non-executive directors, the presence of large shareholdings owned by holding companies and outsider investors. As shown in section 6.2, separation of control is an important explanatory variable for CEO turnover (but not for executive board turnover): when there is separation of control, the probability that a CEO of a poorly performing industrial company is replaced increases. Increases in stakes held by holding companies are also positively correlated with CEO turnover.

As also demonstrated before, turnover of the management committee is not correlated to the above mentioned corporate control variables. In none of the models is company size a significant explanatory variable, apart from for the CEO turnover model where the larger the size of the company, the higher the probability that the CEO or executive chairman is replaced.

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[147] We have aggregated those shareholdings controlled by the same ultimate investor and classified the aggregated shareholdings according to the shareholder class of the ultimate investor. If, instead, we include in the model the largest sharestake for each company or the dummy variables expressing the presence of blocking minority, majority or supermajority stakes, the conclusions remain valid.

It should be emphasized that these conclusions only valid for industrial and commercial companies. There is no consistent corporate control relation for our models applied to the financial sector. With regard to replacement of management in poorly performing sample holding companies, we find only (weak) statistically significant evidence of the importance of other holding companies as substantial shareholders. Only these holding companies and foreign institutional investors increase their stakes and subsequently discipline management.

6.6 Post-disciplining corporate performance.

As demonstrated in section 6.1, poor corporate performance generally precedes the replacement of management. The effectiveness of the corporate control mechanism can be judged by analysing its accomplishments in the years following the installation of new management. Consequently, we examine whether accounting returns, share price returns and dividends per share payouts improve in poorly performing companies after disciplinary corporate control actions. Improved performance after managerial restructuring would confirm that the ousted directors and management had underperformed and that the monitors were able to attract a management better suited to reorganize the company (hypothesis 9).

6.6.1 Management turnover and subsequent accounting profitability.

Table 6.13 examines the relation between CEO turnover and post-disciplining performance of all sample companies and of the subsamples of the holding companies, financial firms and industrial and commercial firms. All the sample companies were categorized in subsamples of 'poor' and 'good' performers. Poor performing companies are defined as having had negative earnings in at least one of the years in a period of two years before the year of CEO turnover (year T). From panel A1 of table 6.13, it can be concluded that, in poorly performing companies, CEO turnover precedes decreases in earnings after tax. This suggests that managerial restructuring does not lead to improved earnings as stated in hypothesis 9.

As we explained in section 4.1.6, this finding should not come as a surprise. It is well documented fact that in U.S. companies, a decrease in earnings often follows the departure of the CEO because new CEOs often write off as many expenses as possible during their first year. Consequently, they can claim that a bad result in their first (and second) year should still be attributed to predecessors. In addition, the performance benchmark against which financial results will be measured is reduced.

We argued that increases in dividends per share might be good indicators of performance when dividends had been reduced in the past (see section 4.1.6). The relation between changes in dividends per share and turnover is also analyzed in table 6.13. In these regressions, the dependent variable stands for the changes in dividends per share (as a percentage of last years dividends) and poor company performance is defined by a substantial decrease of 25 percent in dividends per share over the period (T-2,T-1).[148] CEO turnover in all poor performers (panel A1) is followed by increases of dividends per share. This result is valid for industrial and commercial companies and - albeit with a one year delay - for the holding companies.

Consequently, hypothesis 9 is strongly supported ; the performance measure in the form of dividends per share improves notably after CEO departure. However, the replacement of executive directors or of members of the management committee is not followed by increases in dividends or earnings in poorly performing companies.[149]

[148] Similar results are obtained if the performance criterion to separate the well from the poorly performing companies in the dividend regressions, is negative earnings over (T-2,T-1) or substantial dividend reductions.

[149] Tables available upon request.

Table 6.13 : Post-restructuring performance : impact of CEO turnover on changes in accounting earnings in 1989-92 (pooled data).

$$PERFORM = \alpha + \beta_1 * TURNOVER + \beta_2 * SIZE + \epsilon$$

PERFORM stands for performance variables : EAT/TA (T,T+1), EAT/TA (T+1,T+2), DIV/SH (T,T+1), DIV/SH (T+1,T+2). TURN stands for CEO turnover. SIZE stands for the log of the total assets.
EAT/TA (T,T+1) and EAT/TA (T+1,T+2) respectively stand for the percentage change in earnings after financial, extraordinary results and after tax over the period (T,T+1) and over (T+1,T+2) whereby T = the year of turnover and T+1 = the year following turnover. DVD/SH (T,T+1) and DVD/SH (T+1,T+2) respectively stand for the percentage change in dividends per share over the periods (T,T+1) and (T+1,T+2).
For the regressions with changes in earnings, good performers are defined as having had positive earnings after tax over the period (T-1,T-2). Poor performers had negative earnings in at least one year of this period.
For the regressions with changes in earnings, poor performers are defined as having had a substantial reduction (of at least 25 percent) in dividends per share or had kept dividend pay out at zero. Good performers did not have a substantial dividend cut.

Between brackets, under the parameter estimates, the t-statistic and the corresponding p-value is given.

Dep. variable	POOR PERFORMERS				GOOD PERFORMERS			
	SAMPLE SIZE	CEO TURNOVER	SIZE	F-test (R sq. adj.)	SAMPLE SIZE	CEO TURNOVER	SIZE	F-test (R sq. adj.)
	PANEL A1 : ALL SAMPLE COMPANIES				PANEL A2 : ALL SAMPLE COMPANIES			
EAT/TA (T,T+1)	140	-169.383 (-2.466,0.02)	-1.254 (-0.144,0.90)	0.05 (0.03)	436	-1.666 (-0.439,0.66)	0.296 (0.527,0.59)	0.80 (0.0)
EAT/TA (T+1,T+2)	100	-21.705 (-1.726,0.08)	1.222 (0.510,0.61)	0.20 (0.02)	326	0.460 (0.092,0.92)	0.251 (0.347,0.73)	0.93 (0.0)
DIV/SH (T,T+1)	208	55.756 (2.015,0.04)	11.296 (2.645,0.01)	0.00 (0.05)	367	82.876 (2.109,0.04)	8.302 (1.376,0.17)	0.03 (0.02)
DIV/SH (T+1,T+2)	173	85.582 (2.700,0.01)	12.461 (2.450,0.01)	0.00 (0.06)	305	-22.203 (-0.477,0.63)	11.331 (1.624,0.10)	0.25 (0.0)
	PANEL B1 : ALL HOLDING COMPANIES				PANEL B2 : ALL HOLDING COMPANIES			
EAT/TA (T,T+1)	58	-0.024 (-0.006,0.99)	-0.034 (-0.066,0.94)	0.99 (0.0)	168	2.157 (0.472,0.63)	-0.002 (-0.003,0.99)	0.89 (0.0)
EAT/TA (T+1,T+2)	43	1.151 (0.952,0.34)	0.355 (1.458,0.15)	0.23 (0.02)	125	0.143 (0.026,0.97)	-0.792 (-0.857,0.39)	0.69 (0.0)
DIV/SH (T,T+1)	90	9.747 (0.630,0.53)	6.222 (2.731,0.01)	0.02 (0.06)	140	2.404 (2.547,0.01)	-0.108 (-0.705,0.48)	0.04 (0.03)
DIV/SH (T+1,T+2)	75	11.826 (0.734,0.46)	4.925 (2.140,0.04)	0.09 (0.04)	117	8.806 (1.582,0.11)	1.989 (2.375,0.02)	0.01 (0.06)
	PANEL C1 : INDUSTRIAL AND COMMERCIAL COMPANIES				PANEL C2 : INDUSTRIAL AND COMMERCIAL COMPANIES			
EAT/TA (T,T+1)	77	-271.856 (-2.292,0.02)	-1.027 (-0.044,0.96)	0.08 (0.05)	216	-3.562 (-0.520,0.60)	0.363 (0.337,0.73)	0.82 (0.0)
EAT/TA (T+1,T+2)	52	-35.736 (0.733,0.46)	4.448 (0.733,0.46)	0.21 (0.02)	164	2.082 (0.228,0.82)	0.627 (0.456,0.64)	0.87 (0.0)
DIV/SH (T,T+1)	105	87.002 (1.782,0.08)	19.293 (2.272,0.02)	0.01 (0.06)	179	181.598 (2.254,0.02)	24.441 (1.782,0.07)	0.01 (0.04)
DIV/SH (T+1,T+2)	85	148.612 (2.409,0.01)	148.636 (2.211,0.03)	0.01 (0.09)	151	-31.262 (-0.331,0.74)	27.198 (1.702,0.09)	0.22 (0.01)

Source : Own calculations based on data from annual reports, the CD-rom of the National Bank and the Generale Bank.

6.6.2 Management turnover and subsequent market adjusted share price returns.

In this section, the relation between turnover and share price returns in years subsequent to turnover is examined for poorly and well performing companies.[150] The market adjusted return over a period of 5 years before turnover was used to categorize the sample companies into two subsamples : those with an ex ante share price performance higher than the median and those of which the return fell below the median.

Anticipations about the functioning of the corporate control mechanism, expectations about the potential performance of new management and directors are already reflected in the share price before disciplinary governance actions are taken. If there is no certainty about management substitution and about the identity and qualities of new management, a positive relation between board turnover and the market adjusted share price in the year of turnover is expected for poorly performing firms. If new directors and CEOs fulfil their tasks better than anticipated, there should be a positive correlation between turnover and market adjusted returns in subsequent years.

Table 6.14 in which performance after CEO replacement is presented[151], reports that in poorly performing companies, and particularly in industrial and commercial companies, CEO substitution is followed by low market adjusted returns over 1, 2 and 3 year periods after the turnover. This finding does not necessarily signal market inefficiency, but rather market surprise about performance. This suggests that the company is performing so badly that newly appointed CEO cannot improve the situation in the short run. High market adjusted share price returns of good performing sample companies (panel A2), particularly holding companies (panel B2) and financial firms, follow CEO turnover over 1, 2 and 3 year periods starting the year after turnover. This implies that substitution of the CEO of a company which was not performing poorly, is favourably received by the market. Possible reasons for the replacement when

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[150] Due to the lack of public data with regard to resignation dates of CEOs and top managers, an event study on stock price behaviour around turnover dates is not possible.

[151] A separate analysis of CEO turnover and chairman turnover yields similar results.

performance is not poor, include board disagreements about policy or strategic issues. This result is not obtained for the industrial companies (panel C2).

Turnover of the management committee, excluding CEO and executive director turnover, affects neither the share price return of the current year nor the return of the following three years in badly performing companies.[152] The impact of board turnover on share price returns (see table D4 of appendix D), confirms the results of this section : for poorly performing firms, there is no meaningful relation between post-board turnover performance and the replacement of directors for holding and financial companies. But for industrial companies, board turnover is followed by low share price returns over several years.

The outcome of this section is that new management of poorly performing companies does not convincingly succeed in improving share price returns of holding companies, of financial firms and of industrial and commercial companies.

[152] Tables available upon request.

Table 6.14 : Post-restructuring performance : impact of CEO turnover on market adjusted returns in 1989-92 (pooled data).

$$PERFORM = \alpha + \beta_1 * TURNOVER + \beta_2 * SIZE + e$$

PERFORM stands for performance variables : MARSAME, 1Y MAR, 2Y MAR, 3Y MAR . TURN stands for CEO turnover. SIZE stands for the log of the total assets. MARSAME 1Y MAR, 2Y MAR and 3Y MAR represent respectively the market adjusted share price return over the same fiscal year of the turnover and over 1, 2 or 3 year periods starting the year after the turnover. Good performers had a market adjusted share price return over a period of 5 years before the year of turnover which was above the median return, while bad performers are defined as having had a return below the median return.MARSAME stands for the market adjusted share price return in the same year as the turnover.
Between brackets, under the parameter estimates, the t-statistic and the corresponding p-value is given.

Dep. variable	POOR PERFORMERS				GOOD PERFORMERS			
	SAMPLE SIZE	CEO TURNOVER	SIZE	F-test (R sq. adj.)	SAMPLE SIZE	CEO TURNOVER	SIZE	F-test (R sq. adj.)
	PANEL A1 : ALL SAMPLE COMPANIES				PANEL A2 : ALL SAMPLE COMPANIES			
MARSAME	316	0.015 (0.169,0.86)	-0.007 (-0.521,0.60)	0.86 (0.0)	280	0.173 (2.444,0.01)	-0.015 (-1.178,0.24)	0.03 (0.02)
1Y MAR	317	-0.119 (-2.091,0.00)	0.023 (3.472,0.00)	0.00 (0.05)	275	0.075 (1.657,0.10)	-0.001 (-0.216,0.82)	0.25 (0.0)
2Y MAR	310	-0.114 (-1.153,0.24)	0.017 (1.082,0.27)	0.33 (0.0)	276	0.254 (3.087,0.00)	-0.014 (-0.940,0.34)	0.00 (0.03)
3Y MAR	297	-0.183 (-1.837,0.06)	0.040 (2.537,0.01)	0.01 (0.02)	271	0.281 (3.104,0.00)	0.008 (0.487,0.62)	0.00 (0.03)
	PANEL B1 : ALL HOLDING COMPANIES				PANEL B2 : ALL HOLDING COMPANIES			
MARSAME	128	0.137 (0.608,0.54)	-0.032 (-0.911,0.36)	0.58 (0.0)	118	0.248 (1.725,0.08)	-0.041 (-1.359,0.17)	0.12 (0.02)
1Y MAR	130	0.027 (0.454,0.65)	0.024 (2.515,0.01)	0.03 (0.04)	118	0.055 (0.788,0.43)	0.006 (0.401,0.68)	0.63 (0.0)
2Y MAR	126	0.146 (0.711,0.47)	-0.001 (-0.060,0.95)	0.77 (0.0)	118	0.290 (2.034,0.04)	-0.023 (-0.758,0.44)	0.11 (0.02)
3Y MAR	120	0.226 (1.331,0.18)	0.018 (0.697,0.48)	0.28 (0.0)	118	0.341 (2.222,0.03)	-0.012 (-0.385,0.70)	0.08 (0.03)
	PANEL C1: INDUSTRIAL AND COMMERCIAL CO'S				PANEL C2 : INDUSTRIAL AND COMMERCIAL CO'S			
MARSAME	147	-0.048 (-0.596,0.55)	0.007 (0.488,0.62)	0.76 (0.0)	131	0.110 (1.396,0.16)	-0.002 (-0.155,0.87)	0.37 (0.0)
1Y MAR	146	-0.230 (-3.436,0.00)	0.018 (1.365,0.17)	0.00 (0.07)	127	-0.002 (-0.050,0.95)	0.004 (0.418,0.67)	0.91 (0.0)
2Y MAR	143	-0.298 (-2.362,0.02)	0.023 (0.959,0.33)	0.05 (0.03)	127	0.078 (0.816,0.41)	0.002 (0.105,0.91)	0.71 (0.0)
3Y MAR	137	-0.477 (-3.282,0.00)	0.056 (2.007,0.04)	0.00 (0.08)	123	0.086 (0.753,0.45)	0.022 (0.905,0.36)	0.51 (0.0)

Source : Own calculations based on data from annual reports, the CD-rom of the National Bank and the Generale Bank.

Appendix D : Additional tables for Chapter 6.

Table D1 : Impact of past performance on turnover of the management committee in 1989-1992 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \epsilon$$

TURN stands for the turnover of the members of the management committee, proportional to committee size. SIZE represents the logarithm of the total assets. PERFORM stands for performance variables : share price and accounting returns and changes in dividends per share. OLS regressions are estimated.

The market adjusted returns are calculated over a periods of 1, 2, 3, 5 and 10 years before the year of turnover (T). T stand for the year of turnover in the period 1989-1992. (T-1) and (T-2) represent respectively 1 and 2 years before the year of turnover. EBIT/TA : earnings before financial and extraordinary results and taxes / total assets, EBT/TA : earnings before extraordinary results and taxes / total assets

EAT/TA : earnings after taxes / total assets. EBIT/TA (T-1,T), EBT/TA (T-1,T), EAT/TA (T-1,T), EBIT/TA (T-2,T-1), EBT/TA (T-2,T-1) and EAT/TA (T-2,T-1) are dummy variables indicating whether the respective earnings were negative (dummy equals 1) in at least one of the years of period (T-1,T) or (T-2,T-1).

DVD/SH (T-1,T) is a dummy variable indicating whether there was a reduction in dividends per share of 25% or more over the period (T-1,T) or whether dividends remained at zero over this period (dummy equals 1).

Indep var.->	MARKET ADJUSTED RETURNS					OPERATING INCOME		EARN. BEFORE TAX		EARN. AFTER TAX		DIV/SH
	MAR 1y	MAR 2y	MAR 3y	MAR 5y	MAR 10y	EBIT/TA (T-1,T)	EBIT/TA (T-2,T-1)	EBT/TA (T-1,T)	EBT/TA (T-2,T-1)	EAT/TA (T-1,T)	EAT/TA (T-2,T-1)	DIV/SH (T-1,T)
PANEL A : ALL SAMPLE CO'S												
sample size	354	343	338	320	302	330	321	338	329	368	371	340
betacoeff.	0.005	-0.003	-0.187	-0.010	-0.028	0.059	0.068	0.156	0.185	0.159	0.195	0.028
(t-stat,p-value)	(-0.103,0.92)	(-0.014,0.98)	(-1.764,0.07)	(-0.929,0.35)	(-1.690,0.10)	(1.239,0.21)	(1.375,0.17)	(2.735,0.01)	(2.858,0.00)	(2.893,0.00)	(3.106,0.00)	(1.104,0.27)
R-sq. adj.	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.00
PANEL B : ALL HOLDING COMPANIES												
sample size	122	120	118	117	112	110	105	118	113	126	121	113
betacoeff.	0.015	0.007	-0.009	0.011	0.003	0.045	-0.054	0.094	0.113	0.073	0.116	0.033
(t-stat,p-value)	(-0.284,0.77)	(0.307,0.75)	(0.600,0.55)	(1.438,0.15)	(0.907,0.36)	(-0.796,0.42)	(-1.023,0.30)	(2.068,0.04)	(2.056,0.04)	(1.533,0.12)	(2.059,0.04)	(-0.782,0.43)
R-sq. adj.	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.03	0.03	0.01	0.03	0.00
PANEL C : INDUSTRIAL AND COMMERCIAL COMPANIES												
sample size	192	186	181	166	154	211	208	211	208	211	208	189
betacoeff.	0.236	-0.014	-0.057	-0.039	-0.005	0.168	0.186	0.208	0.243	0.225	0.254	0.086
(t-stat,p-value)	(-2.301,0.02)	(-0.299,0.76)	(-1.662,0.10)	(-1.840,0.06)	(-1.282,0.20)	(2.241,0.02)	(2.437,0.01)	(2.359,0.02)	(2.489,0.01)	(2.506,0.01)	(2.576,0.01)	(2.364,0.02)
R-sq. adj.	0.02	0.00	0.02	0.02	0.00	0.02	0.03	0.02	0.03	0.02	0.03	0.03

Source : Own calculations based on data of the National Bank and on annual reports.

Table D2 : Impact of substantial shareholdings owned by French investor groups on turnover of CEO in 1989-92 (pooled data).

$$TURN = \alpha + \beta_1 * PERFORM + \beta_2 * SIZE + \beta_3 * FOWN + \epsilon$$

TURN stands for CEO turnover. FOWN stands for the percentage of cumulative concentrated (5% and more) French ownership per shareholder category. SIZE stands for the log of the total assets. 'Good performers' are those companies with positive earnings after tax in period (T-1,T-2). 'Bad performers' had a negative earnings after tax in either T-1 or T-2. T stands for the year of turnover. Between brackets, under the parameter estimates, the Wald Chi-square statistic and the p-value of the Wald Chi square is given.

	GOOD PERFORMERS					BAD PERFORMERS				
	SAMPLE SIZE (p-value of -2 Log L)	CUM. OWNERSHIP: all French stakes	CUM. OWNERSHIP: all French holding co's	CUM. OWNERSHIP: all French industr. co's	SIZE	SAMPLE SIZE (p-value of -2 Log L)	CUM. OWNERSHIP: all French stakes	CUM. OWNERSHIP: all French holding co's	CUM. OWNERSHIP: all French industr. co's	SIZE
	PANEL A1 : ALL SAMPLE CO'S					PANEL A2 : ALL SAMPLE CO'S				
CEO turnover (logit model)	524 (0.00)	0.002 (0.300,0.58)			0.148 (12.024,0.00)	132 (0.35)	0.004 (0.255,0.61)			0.109 (1.763,0.184)
CEO turnover	524 (0.00)		-0.008 (0.720,0.39)		0.154 (12.892,0.00)	132 (0.22)		0.012 (1.014,0.31)		0.096 (1.336,0.24)
CEO turnover	524 (0.00)			0.022 (3.223,0.08)	0.150 (12.376,0.00)	132 (0.38)			0.003 (0.074,0.78)	0.110 (1.825,0.17)
	PANEL B1 : ALL INDUSTRIAL AND COMMERCIAL SAMPLE CO'S					PANEL B2 : ALL INDUSTRIAL AND COMMERCIAL SAMPLE CO'S				
CEO turnover	251 (0.01)	0.017 (4.019,0.04)			0.163 (5.532,0.01)	66 (0.62)	0.010 (0.894,0.34)			0.027 (0.048,0.82)
CEO turnover	251 (0.06)		0.014 (0.454,0.50)		0.150 (4.950,0.02)	66 (0.69)		0.012 (0.673,0.41)		0.006 (0.003,0.95)
CEO turnover	251 (0.03)			0.017 (4.121,0.04)	0.150 (4.965,0.02)	66 (0.89)			0.007 (0.213,0.64)	0.013 (0.011,0.91)

Source : Own calculations based on the Notifications of Ownership Changes, the BDPart database of the Brussels Stock Exchange, on annual reports, on databases of the National Bank and of the Generale Bank.

Table D3 : Relation between increases in large shareholdings, performance and turnover of board and CEO in 1989-1992 (pooled data).

The independent variable is board turnover. The independent variables are company size and increases in large shareholdings over the period (T-1,T).
The 'bad sample' consists of companies with a market adjusted return below the median in year T-1. The 'good sample' consists of companies with an excess return higher than the median over the period (T-1,T-2).
T stands for the year of turnover in the period 1989-1992. INC. stands for increase in the substantial shareholdings of a specific class of shareholders, BELG. for Belgian, FOR. for foreign, INVEST. for investors, HOLD. for holding company, INSTIT. for institutional, IND. for industrial, FAM. for family, INSUR. for insurance, INDIV. for individual, GOV. for government.
Between brackets, under the parameter estimates, the t-statistic and the corresponding p-value is given.

Panel A	Dep. variable	SAMPLE SIZE	SIZE	INC. ALL INVEST.						p-value of F/-2LogL (Rsq adj)
POOR SAMPLE	board turnover (Reg)	324	-0.005 (-1.475,0.14)	0.004 (6 075,0.00)						0.00 (0.10)
	CEO turnover (logit)	324	0.097 (3.745,0.05)	0.097 (9.387,0.00)						0.00
GOOD SAMPLE	board turnover (Reg)	307	-0.0003 (-0.107,0.91)	0.006 (1.148,0.25)						0.50 (0.00)
	CEO turnover (logit)	307	0.206 (11.276,0.00)	0.030 (8.866,0.00)						0.00
Panel B		SAMPLE SIZE	SIZE	INC. ALL BELG. INVEST.	INC. ALL FOR. INVEST.					p-value of F/-2LogL (Rsq adj)
POOR SAMPLE	board turnover (Reg)	324	-0.024 (-1.421,0.15)	0.004 (6.178,0.00)	0.002 (1.554,0.12)					0.00 (0.11)
	CEO turnover (Logit)	324	0.096 (3.667,0.05)	0.018 (3.588,0.05)	0.053 (8.846,0.00)					0.00
GOOD SAMPLE	board turnover (Reg)	307	-0.0003 (-0.101,0.91)	0.0006 (0.975,0.33)	0.0006 (0.602,0.54)					0.71 (0.00)
	CEO turnover (Logit)	307	0.205 (11.029,0.00)	0.028 (5.611,0.02)	0.032 (3.488,0.05)					0.00
Panel C		SAMPLE SIZE	SIZE	INC. HOLD.	INC. BANKS	INC. PENSION FUNDS	INC. INSUR. CO'S	INCR. IND. CO'S	INC. FAM. OR INDIV. INVEST.	INC. GOV. STAKES	p-value of F/-2LogL (Rsq adj)
POOR SAMPLE	board turnover (Reg)	324	-0.004 (-1.421,0.15)	0.002 (2.137,0.03)	0.034 (0.945,0.34)	-0.009 (-1.463,0.14)	0.003 (0.280,0.77)	0.003 (2.237,0.02)	0.002 (1.869,0.06)	0.010 (7.841,0.00)	0.00 (0.07)
	CEO turnover (Logit)	324	0.014 (1.614,0.26)	0.010 (7.865,0.01)	0.142 (2.223,0.13)	0.015 (0.392,0.53)	0.029 (0.941,0.33)	0.045 (3.662,0.05)	0.009 (0.122,0.81)	0.009 (7.658,0.01)	0.00
GOOD SAMPLE	board turnover (Reg)	307	-0.0001 (-0.039,0.96)	-0.0007 (-0.676,0.49)	-0.032 (-0.926,0.35)	0.002 (1.075,0.28)	0.009 (2.117,0.03)	0.002 (2.329,0.02)	-0.0002 (-0.234,0.81)	-0.001 (-0.426,0.67)	0.40 (0.00)
	CEO turnover (Logit)	307	0.186 (8.309,0.00)	0.026 (1.706,0.19)	0.710 (1.501,0.22)	0.087 (1.572,0.11)	0.240 (1.597,0.20)	0.026 (3.323,0.06)	0.021 (1.218,0.26)	0.031 (0.443,0.51)	0.00

Source : Own calculations based on data of the National Bank, on a General Bank database and on annual reports.

Table D4 : Post-restructuring performance : impact of board turnover on market adjusted returns in 1989-92 (pooled data).

$$PERFORM = \alpha + \beta_1 * TURNOVER + \beta_2 * SIZE + e$$

PERFORM stands for performance variables : MARSAME, 1Y MAR, 2Y MAR, 3Y MAR .
TURN stands for Board turnover. SIZE stands for the log of the total assets.
MARSAME 1Y MAR, 2Y MAR and 3Y MAR represent respectively the market adjusted share price return over the same fiscal year of the turnover and over 1, 2 or 3 year periods starting the year after the turnover.
Good performers had a market adjusted share price return over a period of 5 years before the year of turnover which was above the median return, while bad performers are defined as having had a return below the median return.MARSAME stands for the market adjusted share price return in the same year as the turnover.
Between brackets, under the parameter estimates, the t-statistic and the corresponding p-value is given.

Dep. variable	POOR PERFORMERS				GOOD PERFORMERS			
	SAMPLE SIZE	BOARD TURNOVER	SIZE	F-test (R sq. adj.)	SAMPLE SIZE	BOARD TURNOVER	SIZE	F-test (R sq. adj.)
	PANEL A1 : ALL SAMPLE COMPANIES				PANEL A2 : ALL SAMPLE COMPANIES			
MARSAME	316	-0.277 (-1.194,0.33)	-0.009 (-0.597,0.55)	0.43 (0.0)	280	0.757 (3.482,0.0)	-0.009 (-0.726,0.46)	0.00 (0.04)
1Y MAR	317	-0.215 (-1.889,0.06)	0.019 (2.928,0.00)	0.00 (0.04)	275	0.299 (2.125,0.03)	0.001 (0.087,0.93)	0.10 (0.01)
2Y MAR	310	-0.471 (-1.878,0.06)	0.012 (0.794,0.42)	0.11 (0.01)	276	0.900 (3.516,0.00)	-0.006 (-0.408,0.68)	0.00 (0.04)
3Y MAR	297	-0.808 (-3.078,0.00)	0.032 (2.096,0.03)	0.00 (0.04)	271	0.890 (3.119,0.00)	0.016 (1.016,0.31)	0.00 (0.03)
	PANEL B2 : ALL HOLDING COMPANIES				PANEL B2 : ALL HOLDING COMPANIES			
MARSAME	128	-0.182 (-0.299,0.76)	-0.030 (-0.860,0.39)	0.67 (0.0)	118	1.467 (3.525,0.00)	-0.032 (-1.108,0.27)	0.00 (0.09)
1Y MAR	130	0.043 (0.262,0.79)	0.025 (2.611,0.01)	0.03 (0.04)	118	0.362 (1.723,0.08)	0.08 (0.556,0.57)	0.20 (0.01)
2Y MAR	126	-0.061 (-0.111,0.91)	0.001 (0.020,0.99)	0.99 (0.0)	118	1.321 (3.146,0.00)	-0.012 (-0.419,0.67)	0.00 (0.06)
0.0233Y MAR	120	-0.049 (-0.110,0.91)	0.022 (0.844,0.40)	0.68 (0.0)	118	1.154 (2.515,0.01)	-0.001 (-0.004,0.99)	0.04 (0.04)
	PANEL C1 : INDUSTRIAL AND COMMERCIAL CO'S				PANEL C2 : INDUSTRIAL AND COMMERCIAL CO'S			
MARSAME	147	-0.352 (-1.821,0.07)	0.004 (0.253,0.80)	0.17 (0.01)	131	0.095 (0.394,0.69)	-0.002 (-0.157,0.87)	0.90 (0.0)
1Y MAR	146	-0.420 (-2.431,0.01)	0.010 (0.817,0.41)	0.03 (0.03)	127	0.114 (0.726,0.46)	0.005 (0.509,0.61)	0.70 (0.0)
2Y MAR	143	-0.832 (-2.702,0.01)	0.011 (0.487,0.62)	0.02 (0.03)	127	0.200 (0.684,0.49)	0.003 (0.163,0.87)	0.78 (0.0)
3Y MAR	137	-1.344 (-3.793,0.00)	0.039 (1.413,0.16)	0.00 (0.11)	123	0.338 (0.945,0.34)	0.024 (1.000,0.32)	0.43 (0.0)

Source : Own calculations based on data from annual reports, the CD-rom of the National Bank and the Generale Bank.

Table D5 : Integrative model of managerial disciplining in industrial and commercial companies.

This table shows the (logistic) regression results for models with the following dependent variables : (executive) board turnover, turnover of CEO or executive chairman and of the management committee. The independent variables in all the models are : performance (EAT/TA (T-1,T-2) which stands for negative earnings after tax in at least one of the years in the period (T-1, T-2) whereby T represents the current-calendar-year turnover), the proportion of non-executive directors on the board, separation of control (dummy=1 when there is no separation of the function of chairman and CEO), the aggregate of the all the large share stakes (of 5% and more) per shareholder category, increases in share stakes versus the previous year for the same shareholder categories. The shareholder categories used are: holding companies, institutional investors (banks, insurance companies and investment companies) and outsider investors (industrial and commercial companies, families and individual investors). Stakes controlled by the same ultimate shareholder are aggregated and such an investor group is categorized according to the class of the ultimate investor.
Between parentheses, under the parameter estimates of the regression, the standard deviation and the p-value of the t-test (regressions) or of the Wald Chi-square test (logit) are given.

INDEPENDENT VARIABLES	DEPENDENT VARIABLES			
	Board turnover (regression)	Executive turnover (regression)	CEO and ex. chairman turnover (logit)	Management turnover (regression)
Sample Size	295	295	295	295
Intercept	-0.063 (0.078,0.42)	-0.642 (0.337,0.05)	-5.592 (1.566,0.00)	-0.113 (0.140,0.42)
EAT/TA (T-1,T-2)	0.049 (0.023,0.07)	0.110 (0.099,0.05)	2.248 (0.174,0.05)	0.065 (0.042,0.12)
Company size	-0.0013 (0.004,0.74)	0.008 (0.175,0.61)	0.116 (0.071,0.10)	0.003 (0.006,0.62)
Non-executives (proportion of total board)	0.156 (0.044,0.00)	0.653 (0.192,0.00)	2.835 (0.984,0.00)	0.165 (0.084,0.05)
Separation of control (yes=0, no=1)	-0.026 (0.019,0.16)	-0.019 (0.082,0.81)	-1.265 (0.356,0.00)	-0.003 (0.033,0.92)
Holding companies : stakes	0.0014 (0.0004,0.00)	0.004 (0.002,0.04)	0.016 (0.008,0.05)	0.0011 (0.0008,0.23)
Belgian institutional investors' stakes	-0.0006 (0.0006,0.28)	-0.001 (0.002,0.67)	-0.012 (0.025,0.30)	0.0005 (0.0009,0.59)
Belgian outsiders' stakes	0.0010 (0.0005,0.04)	0.003 (0.002,0.09)	0.014 (0.007,0.09)	-0.0002 (0.001,0.85)
Foreign institutional investors' stakes	-0.0016 (0.0018,0.37)	-0.005 (0.008,0.51)	-0.037 (0.048,0.44)	0.0027 (0.0023,0.23)
Foreign outsiders' stakes	0.0017 (0.0006,0.00)	0.006 (0.002,0.01)	0.019 (0.009,0.04)	-0.0001 (0.0011,0.88)
Increases in stakes of holding companies	0.0015 (0.0007,0.04)	-0.0015 (0.0031,0.62)	0.023 (0.011,0.03)	-0.0014 (0.0015,0.34)
Increases in Belgian institutional investors' stakes	0.0092 (0.0012,0.00)	0.026 (0.005,0.00)	0.077 (0.029,0.01)	0.024 (0.0026,0.00)
Increases in Belgian outsiders' stakes	0.0015 (0.0008,0.10)	0.001 (0.0004,0.05)	0.007 (0.029,0.60)	-0.0005 (0.001,0.76)
Increases in foreign institutional investors' stakes	0.0080 (0.0047,0.08)	0.014 (0.020,0.46)	0.118 (0.104,0.25)	-0.0038 (0.0046,0.40)
Increases in foreign outsiders' stakes	0.0012 (0.0001,0.09)	0.005 (0.007,0.49)	-0.0009 (0.028,0.97)	0.0044 (0.0037,0.23)
p-value of F-test/-2LogL.	0.00	0.00	0.00	0.00
adjusted R squared	0.25	0.22	—	0.15

Source : Own calculations based on annual reports and Notifications of Ownership Disclosure.

CHAPTER 7 : Conclusions.

Corporate control in poorly performing companies in the U.K.

In the first part of the thesis, we compared the exercise of corporate control for two samples of U.K. companies with markedly distinct performance. We reported a strong negative relation between disciplining of management and corporate performance. As the incidence of takeovers in both samples is about the same and other research for the U.K. and the U.S. casts doubt on the effectiveness of takeovers in correcting managerial failure, we raised the question as to how corporate control is exerted.

Consistent with recent U.K. recommendations about improved corporate governance and the literature on principal-agent relations, there is more board turnover in poorly performing companies where there is a high proportion of non-executive directors and where there is separation of chairman and chief executive officers.

The literature on free rider problems and large shareholdings suggests that concentrated ownership is associated with more active corporate governance than dispersed share ownership. However, the paper also finds that the nature of the owner is of critical importance: corporate investors exercise more control than institutional investors. Where there is substantial insider ownership, the incumbent management is more successful in retaining control following poor performance. Managerial entrenchment is most in evidence in recent IPOs where director shareholdings are particularly high.

An important result with regard to corporate control in the U.K. regards the dynamic relation between ownership, control and performance. Where poor performance is observed, sales of share stakes occur between different investors. In particular, there is a market in shares between new and old non-institutional shareholders and directors. These trades in shares are associated with significant changes in boards of poorly performing companies. The results shed light on how control is changed in the U.K. where ownership is less concentrated than in continental Europe. Whereas in Belgium or in Germany, for example, there is frequently a single shareholder with a majority of the voting rights, in the U.K. coalitions of shareholders with stakes greater than 5%

own between 35-40% of the equity capital. Findings suggest that substantial changes in these share stakes occur in the absence of tender offers or mergers and without a violation of the U.K. Takeover Code's mandatory offer rule, which requires a full bid to be made to all shareholders. The ability to circumvent such rules through the formation of coalitions may come at the expense of the minority shareholders whom regulatory rules are designed to protect. On the other hand, the ability of large shareholders to exercise control at low cost may be an important contribution to good corporate governance. As a result, the market for corporate control may be substantially broader then previously documented.

Corporate control Belgium.

In the second part of the thesis, we have explored how corporate governance is exercised in the companies quoted on the Brussels Stock Exchange. While an external market for corporate control (takeover market) is lacking, there is a statistically significant correlation between internal and alternative external corporate governance mechanisms, and the replacement of management of poorly performing companies. As there is evidence of active monitoring by non-executive directors and large shareholders but only after the company's performance reaches critical levels and as share price performance does not improve after management substitution, one might argue that disciplinary actions are taken rather late. We found that, in the event of poor performance, composition of the board of directors, ownership concentration in the hands of specific classes of shareholders and a market for share stakes triggers replacement of the management.

To verify whether a corporate control mechanism is active, we first analyzed the relation between disciplining of management and poor corporate performance. We find two important results: (i) When the performance of holding companies, financial firms or industrial corporations reach critical levels, replacement of the CEO and/or executive directors can be expected within a subsequent period of two years. These critical profitability thresholds are negative earnings after financial and extraordinary results and after tax, and substantial reductions in dividends (of more than 25%). When

same or the following year. (ii) Both low short term market adjusted share price returns (one to two years preceding management turnover) and long term returns (three to ten years before turnover) are strongly negatively correlated to management turnover in industrial or commercial companies. However, the variance in enforced executive turnover explained by performance variables remains low. While the correlation of turnover short term share price return is a standard result in (mainly U.S.) corporate control research, the fact that there is a relation between turnover and long-term returns suggests that in some companies managerial entrenchment or top management's prior track records defer disciplinary actions when management's performance is poor.

We also investigated whether the replacement of management is related to levels of operating income, of earnings before and after taxes and of cash flow - all corrected for industry and size, and to changes in those earnings criteria and in dividends. All these performance measures are negatively correlated to management turnover, but are not statistically significant. Although this suggests that some monitoring takes place when earnings levels are low and when earnings deteriorate, consistent disciplining of top management will only happen when it becomes unequivocally clear - as the company's performance hits the above mentioned critical levels - that current management is not capable of improving the company's performance. While poor performance triggers corporate control actions, one might argue that the replacement of underperforming management occurs rather late; namely, only after the company's performance goes into the red or after the dividends were reduced substantially.

Next, we examined which managers are held responsible when companies perform poorly. We distinguished among three kinds of senior managers who are all usually members of the management committee : (i) the CEO, (ii) executive directors and (iii) other committee members. The CEO chairs the management committee and the most senior committee members serve on the board as well. We found that it is the executive directors and the CEO (or executive chairman), and not the other members of the management committee, who are replaced when the company faces poor performance. This implies that it is only the most senior management at board level which is held responsible for underperformance. CEO substitution occurs more frequently in large poorly performing companies, possibly due to the fact that such a company has large

internal and external labour market to recruit a new CEO from. However, replacement of executive directors seems to happen more easily in smaller companies. We also investigated the turnover of the non-executive directors, the 'monitors', and discovered that yearly non-executive turnover is low (at 7%) and is mostly only indirectly related to poor performance. When large shareholders sell their underperforming shares they might lose their board representation.

The Belgian corporate governance debate has, like in the U.K. and France, focused on the efficiency of internal corporate control exerted by the board of directors. The average proportion of non-executive directors is 75% for all quoted companies, but this percentage is lower in industrial and commercial companies where 37% of the directors assume an executive role. In line with recent suggestions in the corporate governance debate in Belgium and with the recommendations of corporate governance committees in France and the U.K., we reported two important conclusions. Firstly, a high proportion of non-executive directors serving on the board goes hand in hand with increased executive turnover in poorly performing holding companies and industrial firms. Secondly, CEO turnover in industrial companies is positively correlated to both the separation of the functions of CEO and non-executive chairman and to the percentage of non-executive directors on the board. These results suggest that proposals to increase the ratio non-executive/executive directors and to separate control are consistent with disciplining when performance is poor. The underlying idea is that a higher number of non-executives and control separation enhance the independence of the non-executive component of the board which would in turn lead to more efficient performance monitoring.

In companies with a shareholder owning an absolute majority, monitoring by non-executive directors is, to some extent, equivalent to monitoring by large shareholders since these shareholders have a determining vote in the nomination of directors. Detailed data about shareholder representation were not available, but we found that a shareholding of 50% held by a company usually allows this company to appoint two directors of its own board to the board of the target. We have also shown that there is a high correlation (0.35) between share participations and director interlocks. However, it should be pointed out that large shareholders seldom appoint a majority of the board

as their direct representatives; usually some directors represent smaller shareholders and others are appointed as 'independent experts'. Since these last two categories of directors might enhance the board's monitoring ability, separate analyses of the role of non-executive directors and of the impact of the ownership structure on disciplining of management are necessary.

Ownership in Belgian quoted companies, like in companies of most other Continental European countries, is highly concentrated. The average aggregate shareholding of all share stakes of at least 5% amounts to more than 65%. In 56% of all quoted companies, one large shareholder or an investor group holds a majority of the voting rights. Since monitoring is costly and a shareholder can only realize the potential benefits of improved monitoring managerial performance in proportion to his share stake, we expected and found that strongly concentrated ownership in poorly performing firms is positively correlated to CEO and board turnover. This confirms that, when the costs of free riding on control are limited, monitoring is intensified, as proxied in this study by disciplinary actions against failing top management. For averagely or well performing companies, there is no association between concentrated ownership and management turnover.

We also discovered that specific shareholder categories clearly act upon poor performance and discipline underperforming CEOs or executive directors. Given the complexity of the ownership structure in Belgian companies, we used several approaches to quantify control. Firstly, disregarding all ownership relations on higher ownership tiers, we aggregated all direct shareholdings of more than 5% per shareholder category and observed that in the regressions of ownership on management turnover, the parameter estimates had the expected positive sign but were not consistently significant. Secondly, economically and statistically significant results were obtained when we took account of control relations throughout pyramidal ownership structures; we summed the direct large shareholdings of 5% and more belonging to the same investor group and reclassified the resulting shareholding according to its ultimate investor. We defined ultimate investor control as control exerted throughout multiple ownership tiers, via (i) absolute majorities or via (ii) blocking minorities conditional on the absence of other shareholders with stakes of at least blocking minority size. We

found the following important result : control is not (only) exercised by the direct shareholders on the first ownership tier, but by the ultimate shareholder.

With regard to the importance of the different shareholder classes in the disciplining-ownership relation, we reported the following results : (i) both CEO and executive directors of industrial and commercial companies are disciplined by holding companies and industrial firms owning large shareholdings, (ii) disciplining of top management of holding companies seems to be initiated by other holdings companies, (iii) while families owning supermajorities clearly replace underperforming management, families with stakes smaller than 50% seem to impede director turnover. Like in the U.K., a reason for resisting board restructuring might be that those families have a directorship from which they derive private benefits, (iv) with exception of some foreign banks and insurance companies with large stakes in Belgian financial firms, institutional investors (banks, investment funds and insurance companies), take a passive stance with regard to monitoring.

Typical of previous control measure is the equal weight given to all voting rights associated with shareholdings of 5% and more. However, it is possible that only the largest shareholder (investor group) in each sample company
will assume monitoring responsibilities and that the other smaller investor groups free ride on control. Therefore, we examined the relation between the management turnover and the share stake held by the largest shareholder or investor group and reached conclusions similar to those above. Finally, as control over a company does not necessarily depend linearly on the percentage of voting rights owned - a 50.1% of the voting rights gives majority control, we analyzed the significance of critical voting rights thresholds like blocking minorities, majorities and supermajorities. We find that disciplining of management not only occurs when a large shareholder owns a voting rights majority or a supermajority, but also when he owns blocking minorities.

In the control models discussed above, the stake owned by a large shareholder or an investor group consists of the aggregate of direct share stakes controlled by the same ultimate investor. As such, we made the implicit assumption that an ultimate investor completely controls the Belgian sample company throughout multiple control tiers.

However, controlling intermediate companies with, for instance, shareholdings of 50%, does not automatically guarantee control in the target company at level 0. A series of vetos throughout multiple tiers of the control chain does not lead to a veto on the direct ownership level. Therefore, we analyzed whether pyramiding is subject to control dilution. Whereas there is a significant relation between the largest direct share stakes belonging to an investor group and the disciplining of underperforming management, such a relation is found for neither ultimate levered shareholdings nor for the control leverage factor. A large number of ownership tiers between the sample company and the ultimate shareholder and large deviations from 100% ownership in the share stakes of intermediate companies enhance control dilution.

We detected the following important result : poor company performance gives rise to a market for share stakes. This market is not insignificant : in one fourth of the sample companies, share stakes of more than 5% held by investor groups changed hands over the period 1989-92. We hypothesized that this market for share stakes arises for control purposes as some shareholders increase their stakes when facing poor performance and subsequently change management. This indicates they may be superior corporate monitors. The following empirical results support out hypotheses : (i) For industrial and commercial sample companies, we found that it is predominantly the holding companies, industrial corporations and families owning large share stakes that react to poor performance. These shareholder groups increase, on average, their share stakes, which is followed by an increase in management turnover. In Belgian holding companies, families and holding companies - albeit only the foreign ones - increase their share stake when performance is poor and subsequently change management. (ii) Institutional investors' changes in shareholdings are not substantially correlated to poor past performance of industrial companies, but foreign banks and insurance companies owning large stakes increase their holdings in poorly performing Belgian holding companies. In general, there appears to be no corporate control intentions related to the purchase and selling of blocks of shares by institutional investors.

To investigate the issue of causality and the timing of corporate control actions associated to the market for share stakes, we included lagged ownership and turnover variables. The timing of disciplining management occurs as follows ; firstly, negative

earnings (or substantial decreases in dividends) trigger changes in ownership structure in the subsequent year. Secondly, whereas some shareholders reduce their stakes, shareholders with superior information and a managerial alternative for the poorly performing companies will increase their share stakes and discipline management in the same or the subsequent year.

Like in Germany, this market for share stakes seems, along with active monitoring by current large shareholders, to be a partial alternative for a takeover market. The advantage of acquiring stakes that are smaller than a majority shareholding is that *de facto* control can be obtained while there is no obligation for a tender offer to be made to all shareholders. It is remarkable that, despite of substantial differences in ownership structure and concentration, there is a parallel between this market for share stakes in Belgium (and Germany) and that in the U.K.

To evaluate the success of the disciplinary actions taken against top management by current large shareholders or by new shareholders, the companies' performance after this management restructuring was examined. We find a negative relation between CEO turnover and subsequent share price returns, indicating that corporate performance is worse than the market expected. Whereas the replacement of the CEO is followed by earnings decreases possibly due to the fact that new CEOs write off many expenses during their first period in office, we find increases of dividends per share over each of the years of a two year period after turnover. Since changes in dividends tend to have a permanent character, this might indicate that performance is improving or is expected to do so.

Our general conclusion is that when a company reaches critical performance levels, underperforming management will be replaced in industrial and commercial companies, and in holding companies. This disciplinary action is taken by non-executive directors, current large shareholders - usually industrial investors, holding companies and families - and new shareholders of the same investor classes who increase their ownership in a market for share stakes.

Avenues for further research.

Firstly, with regard to Belgium, an examination of market price reactions to the trade of blocks of shares may provide insights on how the control is valued by the market. This way, the premiums large shareholders are willing to offer for controlling stakes can be estimated. In addition, an investigation of recent tender offers could be compared with the work by Van Hulle, Vermaelen and de Wouters (1991) who have investigated market price reactions around tender offers over a time period before the Belgian Ownership Disclosure Legislation was in existence.

Second, in most Continental European countries, only about one third of the GDP is generated by quoted companies. Therefore an analysis on corporate governance in non-quoted Belgian companies would be a logical follow up study.

Third, typical for the Belgian capital market is the presence of holdings companies. Although we found that the presence of large shareholdings owned by holding companies was correlated to management replacement in industrial companies, the current role of large holding companies is unclear and the reasons for pyramiding should be further investigated. The share price of holding companies is set at a discount versus what is expected based on the value of their investments. Moreover, industrial companies can raise capital at more favourable terms than their controlling holding companies. Consequently, the contribution of these Belgian holding companies to the companies they invest in, deserves further study.

Fourth, although corporate control in the U.S. has been extensively studied, and some papers have focused on the U.K., Germany and Italy, there seems a need for more corporate governance studies on, for instance, France, the Netherlands and Spain. An investigation of institutional differences among countries and the efficiency of specific legislations regarding corporate governance might provide a basis for legislative change. In addition, the changes in ownership and management structure of companies in Central and Eastern Europe are a potentially rich domain to analyze the evolution of agency problems.

Fifth, apart from the U.S. research, there is little empirical work in Europe on how agency costs can be reduced by the determination of managerial compensation contracts. A study associating corporate performance and managerial compensation might produce interesting insights.

Sixth, institutional investors in our U.K. and Belgian studies were not involved in disciplining management of industrial companies. Our U.K. data cover the period 1984-1989. Over the last few years, however, U.K. institutional investors seem to express a new interested in monitoring the companies in which they hold share stakes. For instance, PROSHARE tries to encourage institutional investors to be actively involved in corporate governance. This trend started in the U.S. even earlier. It would be useful to analyze institutional investor activism in the U.K. over the last five years.

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