

Shareholder wealth effects of CEO departures: evidence from the UK

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Abstract

This paper examines share price behaviour surrounding announcements of CEO departures from UK firms listed on the All Share Index between 1990 and 1995. We find that many firms choose not to announce CEO departures, and that these firms have poorer performance records, and higher chances of future failure, than those firms who officially announce CEO turnover to the London Stock Exchange. The market reacts negatively to announcements of top executive departures, especially when the CEO is dismissed or leaves to take up another job. Share price reactions to the disclosure of top executive departure are significantly affected by the financial risk of the firm and whether the board announces a replacement CEO. © 2002 Elsevier Science B.V. All rights reserved.

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1. Introduction

This paper examines 331 CEO departures from All Share firms between 1990 and 1995. It focuses on three areas. Firstly, the issue of voluntary disclosure of CEO departure information. We find that half of the management departures in our sample are not announced officially to the London Stock Exchange (LSE), and that this failure to

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announce is associated with both prior and future firm performance. We also find evidence that firms attempt to mitigate the negative price effects of CEO departure disclosure by issuing other, ‘good news’ around the same time.

The second (and main) issue of interest in this study is the market reaction to the news of CEO departure. We find that this news is perceived as wealth reducing by the market. However, the average negative price effects of such events appear to be driven by the market reaction to CEO departures disclosed by the press, rather than those officially announced by the company. The reason for departure further influences the market reaction, as does the simultaneous announcement of a successor.

Finally, we look at post-departure performance, and find that the market is rational in reacting more negatively to those departures not officially announced to the LSE, as these firms are significantly more likely to fail post-CEO departure.

The rest of the paper is organised as follows. Section 2 discusses some of the prior literature across our issues of interest. Section 3 describes the sample and methodology. This is followed by a descriptive analysis of our sample firms. Section 5 contains the results of the event study, while Section 6 summarises and concludes.

2. Prior literature

2.1. Voluntary disclosure literature

Theoretical and empirical studies have provided evidence that firms manage the release of voluntary information. For example, Lewellen et al. (1996), find evidence of self-serving behaviour in the discretionary disclosure of performance benchmarks, with firms selecting downwardly biased benchmarks in order to boost their relative performance. Several empirical studies document that managers reveal ‘good news’ more often than ‘bad news’ and that the good news announcements enjoy, on average, a positive stock market reaction (see, e.g. Lev and Penman, 1990, on earnings forecast disclosures). Where uninformed investors do not know the extent of managers’ private information, they cannot infer bad news from non-disclosure (Dye, 1985).

However, firms often do disclose bad news, and the reasons for this practice have been examined in the accounting literature. Dye (1985) discusses how investors who know managers possess private information will correctly infer that the market value of the firm is overstated and will revise down the share price until the manager reveals the information. Kasznik and Lev (1995) find that twice as many firms issue pre-emptive warnings about negative earnings surprises than issue early indicators of positive earnings surprises. Skinner (1994), also investigating disclosure behaviour surrounding earnings forecasts, hypothesises that an asymmetric loss function (due to potential lawsuits following large negative earnings surprises) motivates managers to disclose bad news regarding expected earnings. He finds that bad news disclosures generate larger stock price reactions than good news disclosures.

Frost (1994) looks at firms receiving a qualified audit for the first time. She finds that most firms disclose this information prior to it becoming public. However, the market reacts to this news differently, depending on whether the firm is defined as ‘stressed’ or

‘non-stressed’.¹ Early disclosure of a modified audit report generates significantly negative abnormal share returns for stressed firms, but not for non-stressed firms. She finds that many firms announce other news around the same time, and the market reaction to this also appears to depend upon whether the firm is stressed or not. Stressed firms are significantly more likely to make ‘positive tone’ announcements to the press, but the market reacts significantly negatively to them. When non-stressed firms make positive tone disclosures, they enjoy significantly positive abnormal returns. These reactions turn out to be quite rational, as an examination of post-qualification performance reveals that the stressed firms were overly optimistic in their press releases.

We contribute to the voluntary disclosure literature by showing that firms are less likely to disclose news of an imminent CEO departure where prior firm performance is low. We also provide evidence that firms release good news around the same time as announcing CEO departures (which are seen as bad news by investors). When the firm does not officially announce these events, the market reacts significantly more negatively to the news when it is reported by the press. However, not all such events are covered by press articles, so firms may be rational in withholding CEO departure information.

2.2. Market-based research on CEO departures

Various studies have examined the share price effects of top executive departure announcements, with some interesting and apparently conflicting results.

Reinganum (1985) examines the shareholder wealth effects of companies announcing a management departure where the successor is named in the same announcement. He finds no significant share price reaction to this event. However, where no replacement announcement is made, Borstadt (1985)² finds a significantly negative market reaction to management departure announcements. Furtado and Rozeff (1987) find a positive reaction to top executive appointments. These studies jointly imply that the market is concerned with succession at the top of firms; that the departure of a top executive without replacement is a cause of concern for investors, but that this concern can be fully allayed by the announcement of a successor.

Some authors have examined whether different types of management departure generate different price effects. Johnson et al. (1985) find an insignificant positive share price reaction to the announcement of 53 CEO deaths. Sant (1988)² observes a significantly negative market reaction to 140 resignations in the US between 1980 and 1986. Furtado (1985)² also finds a negative price effect to his sample of 402 resignation announcements. However, dismissal announcements and appointment announcements induce significantly positive event window abnormal returns. Retirements appear to cause no market reaction. Weisbach (1988) excludes retirements and finds a positive reaction to 367 CEO departures announced in the Wall Street Journal (WSJ) between 1974 and 1983. Warner et al. (1988) report no significant stock price reactions to WSJ announcements of top management

¹ Stressed firms either (1) have financing difficulties and/or violate debt covenants; (2) report an annual loss; or (3) receive a low credit risk score.

² Cited in Furtado and Karan (1990).

changes between 1963 and 1978, except for where an external successor was announced at the same time as the departure announcement, in which case a positive price effect is observed. They are unable to find a relationship between event window excess returns and reasons for management departure. Denis and Denis (1995) find a significantly positive announcement effect for all top executive (CEO or chairman) departures. However, this appears to be driven by their forced departure sub-sample, which has a stronger effect, with normal retirements inducing no market reaction. Examining shareholder wealth effects of CEO dismissal announcements, Furtado and Rozeff (1987) find a positive and significant price effect; this result is echoed in a UK study by Dahya et al. (1998), who find that the market reacts positively to news of 67 non-routine CEO or chairman departure announcements reported in *Extel* between 1989 and 1992.

There are therefore some inconsistencies in the event study literature relating to the share price effect of top executive departure announcements. One possible explanation for this is that some studies (e.g. Dahya et al., 1998; Furtado, 1985, Furtado and Rozeff, 1987; Warner et al., 1988) control for confounding effects by dropping from their samples all departure announcements which occur very closely to the release of other news about the firm, e.g. earnings or dividend announcements. Other studies (e.g. Weisbach, 1988) do not control for confounding announcements. If firms manage the release of news to limit short-term share price fluctuations, then the results of such studies must be viewed with caution. We hope to contribute to this literature by offering some insights into firms' management of discretionary news disclosure, which may help to consolidate previous findings.

2.3. Evidence on firm performance following CEO changes

New managers have incentives to take an earnings 'bath' for the early periods they are in office. Low initial earnings can be blamed on inherited problems and provide a low benchmark against which future performance will be judged. Techniques available to management include increasing depreciation rates and asset write downs. This will lead to improved future performance by reducing future depreciation expense, reducing the asset base for accounting returns, and providing greater scope for future profits on asset sales. DeAngelo (1988) finds that new managers, elected as a result of proxy contests which have cited poor earnings as evidence of inefficient management, tend to take an earnings 'bath' which they blame on the poor decisions of their predecessors, and which enables them to report an earnings 'turnaround' the following year. Pourciau (1993) examines non-routine executive changes and finds some evidence that incoming managers manipulate earnings downwards in their first year, showing increased profits in their second year. Murphy and Zimmerman (1993) also find some evidence of incoming CEOs taking a big bath in the transition year.

3. Sample selection

This study is based on a sample of FT All Share Index firms from April of each year from 1990 to 1995. This index represents over 95% of the UK Stock Market by market

capitalisation. The information was taken from the London Business School (LBS) Risk Measurement Service (RMS), which publishes a quarterly list of constituents of various stock market indices. Some firm years are discarded for two main reasons, resulting in a loss in sample size. Firm deaths (liquidations or takeovers) occasionally occur soon after the All Share has been set for the period, meaning that a full year's data is not available for that firm. Due to the more strict nature of the regulation of financial firms, they are also dropped from the sample. The initial sample selection process yields 3000 firm years, over 846 firms.

For each sample firm year, the CEO as at the accounting year end following their inclusion in the FT All Share Index was compared to the CEO as at the next accounting year end; where different names were recorded, a departure was deemed to have occurred. This information was taken from the Corporate Registers and Annual Reports. From a sample of 3000 firm years, 331 CEO departures were identified in this manner, implying an annual turnover rate of about 11%.

Following this, the Extel database³ was searched for official announcements by companies of each CEO departure. For the time of this study, Extel conveyed to its subscribers verbatim all news announcements made by firms to the London Stock Exchange (LSE) Regulatory News Service.

However, it appears that many companies choose not to announce these events, and only 152 of the 331 identified departures were reported by Extel. The Financial Times (FT) carried articles relating to 133 of the remaining 179 firms, allowing us to include them in the event study, using the date of the FT article which first mentions the CEO change. This brought the sample size up to 285 CEO departures. However, there was insufficient share return data on Datastream to include 34 of the firms (7 Extel announcers and 27 FT announcers), so we are left with a final sample of 251 announcements.

A large proportion (113 firms) of our sample issue other news releases during the test period (i.e. day -1 –day $+1$). Of the 138 non-contaminated announcements, only 32 firms⁴ did not simultaneously announce the successor to the departing CEO. Table 1 summarises the sample selection criteria.

Next, the reasons for each CEO departure were ascertained by studying FT articles relating to the events. CEO departures occur for a variety of reasons. Among these are the natural retirement of the chief executive; his death; his departure to take up a post with another firm; and his dismissal by the board of directors. When firms announce that a CEO is leaving, they often simply refer to the event as a resignation, and outsiders are left unsure as to the motivation behind the departure. CEOs may also give up their post but remain with the firm, often in the capacity of Chairman. This may be due to the succession process of the firm following the nature of a relay race, as described

³ This search was conducted using a 1996 version of the database to insure against long-dead companies being excluded from it.

⁴ Non-contaminated announcements are those CEO departure announcements obtained from both EXTEL and FT which have no confounding official announcements released in Extel news card during the test period. The announcement of a successor to the departing CEO is not defined as a contaminating announcement in this study. However, even these types of announcement are stripped out for the analysis of a totally 'clean' sample, which represents only 32 of the original 331 announcements.

Table 1
Sample selection

Description	Extel	Financial times	Total
Identified departures			331
Announcement dates	152	133	285
Share return data in Datastream	145	106	251
Contaminated ^a	(72)	(41)	(113)
Non-contaminated	73	65	138
CEO replacement announced	(58)	(48)	(106)
Clean announcements ^b	15	17	32

^a Contaminated announcements are those announcements where other information regarding the company (excluding news of the CEO's replacement) is released to Extel on the same day as the CEO departure announcement appears in Extel or the FT.

^b Clean announcements are non-contaminated announcements where no news of a successor is released.

by Vancil (1987). Alternatively, and particularly in UK firms, where combining the roles of CEO and Chairman in one individual has been denounced as poor corporate governance practice by the Cadbury and Hampel Committees (1992 and 1998, respectively), a joint CEO/Chairman may give up the role of CEO in order to divide these two posts.

Departures are classified as being due to retirement; succession, where a CEO succeeds to the position of Chairman or deputy Chairman of the board; dismissal, where press articles strongly suggest the CEO was forced to quit; resignation, where there was no information given, other than that the CEO had resigned; new job, where the CEO had voluntarily left to take up a post elsewhere; split, where a joint CEO/Chairman had relinquished the post of CEO; death or illness of the CEO; and in a few cases, it was impossible to find any articles pertaining to the event, so they remain unclassified. Section 4 discusses the research methodology employed in the event study.

4. Research methodology

This paper uses standard event study research methodology, including a short test window (i.e. including day -1 , day 0, and day $+1$) and a 150-day estimation period (i.e. a period between day -160 and day -11). The market model is used to measure abnormal returns. Both Student's *t*-test and Patell's standardised residual statistics tests are used to examine whether the abnormal returns for the test period are statistically different from zero.

4.1. Share returns

Daily logarithmic returns are calculated as follows:

$$R_{it} = \log[(P_{it} + D_{it})/P_{it-1}] \quad (1)$$

Where R_{it} is the share return of firm i on day t ; P_{it} is the share price of firm i on day t ; D_{it} is the cash dividend paid of firm i on ex-dividend day t ; P_{it-1} is the share price of firm i on day $t-1$. The above variables are all based on per share basis and are adjusted for capitalisation.

4.2. Market returns

Daily logarithmic market returns are calculated as follows:

$$R_{mt} = \log[FTAI_t/FTAI_{t-1}] \quad (2)$$

Where $FTAI_t$ is the Financial Times All-Share index on day t .

4.3. Abnormal returns

Abnormal share returns for the test period are then derived from the model below:

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt}) \quad (3)$$

Where AR_{it} is the abnormal share returns of firm i on day t ; R_{it} is the actual share returns of firm i on day t , derived from model (1); R_{mt} is the market return on day t , derived from model (2); $\hat{\alpha}_i$ and $\hat{\beta}_i$ are the estimated parameters of the market model during the estimation period (between day -160 and day -11). To control for non-synchronous trading, this paper uses Scholes and Williams's (1977) unbiased parameters.⁵

4.4. Statistical tests

4.4.1. Student's *t*-test

The *T*-test statistic is computed as follows: (MacKinlay, 1997)

$$t_t = \frac{\overline{AR}_t}{\sqrt{\text{var}(\overline{AR}_t)}} \sim N(0, 1) \quad (4)$$

Where $\overline{AR}_t$ is the mean abnormal returns on day t ; $\text{var}(\overline{AR})$ is the variance of mean abnormal returns during the estimation period.

⁵ SW unbiased beta estimator: $\hat{\beta}_{sw} = \frac{\hat{\beta}_t^{-1} + \hat{\beta}_t^0 + \hat{\beta}_t^{+1}}{1 + 2\hat{\rho}_m}$, where $\hat{\beta}_t^t$ is the slope coefficients derived from regressing the share returns of firm i at time t against the market returns at time t , $t-1$ and $t+1$; $\hat{\rho}_m$ is the first-order serial correlation coefficient of the market returns at time t .

4.4.2. The standardised residual statistic

A standardised residual statistic is computed as follows (Patell, 1976):

$$Z_t = \frac{\sum_{i=1}^{i=N} \text{SAR}_{it}}{\left[\sum_{i=1}^{i=N} \frac{T_i - 2}{T_i - 4} \right]^{1/2}} \sim N(0, 1) \quad (5)$$

$$\text{SAR}_{it} = \frac{\text{AR}_{it}}{\hat{\sigma}_{e_i}} \quad (6)$$

Where AR_{it} is the abnormal return of firm i on day t ; $\hat{\sigma}_{e_i}$ is the standard deviation of abnormal share returns of firm i during the estimation period. T_i is the number of observations of firm i in the estimation period; N is the number of companies.

5. Descriptive analysis

Table 2 describes the reasons for CEO departure, partitioning the sample by whether the firm made an official announcement to Extel (via the LSE), or had the event reported by the FT, and by whether the company released other news items during the test period.

It may be argued that firms anticipate a drop in investor confidence on the discovery of certain types of CEO departure (e.g. sudden death, departure to take up a new job). Firms

Table 2

Reasons for CEO departures, partitioned by whether the firm made an official announcement and whether other news is announced simultaneously

Departure reasons	Official announcers (i.e. reported to Extel)			Non-official announcers (i.e. news story in FT)		
	Non-contaminated	Contaminated	Total	Non-contaminated	Contaminated	Total
Column #	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Dismissal	9	13	22	15	5	20
Resignation	18	17	35	10	7	17
Retirement	15	12	27	7	2	9
Split	16	15	31	14	12	26
Succession	5	7	12	10	13	23
Illness/death	2	3	5	1	1	2
New jobs	4	4	8	6	1	7
Unclassified	4	1	5	2	0	2
Total	73	72	145	65	41	106

Table 3

Group characteristics tests

Panel A examines 251 announcements reported in Extel vs. FT.

Panel B excludes contaminated announcements and examines 138 announcements.

	CAR day – 1–day + 1	CAR-250 days	CAR-500 days	Market value ^a	ROA	Gearing
<i>Panel A, N = 251</i>						
Reported in Extel (145)	– 0.29%	– 9.40%	– 10.20%	1,014,772	10.55%	309.5%
Reported in FT (106)	– 2.07%	– 25.47%	– 30.58%	1,178,851	9.65%	162.07%
<i>T</i> statistics	1.24	2.53 **	2.43 **	– 0.42	0.83	1.53
<i>Panel B, N = 138</i>						
Reported in Extel (73)	0.05	– 7.29%	– 8.28%	1,344,450	9.88%	248.44%
Reported in FT (65)	– 2.30	– 30.51%	– 37.53%	817,228	9.70%	145.04%
<i>T</i> statistics	1.87 *	2.53 **	2.40 **	1.04	0.12	0.99

^a Unit = £1000.* *T* statistic significant at the 10% level.** *T* statistic significant at the 5% level.

may try to restore investor confidence in these circumstances by announcing some ‘good’ news, e.g. earnings/dividend increases. In order to examine whether firms are more likely to release other information at the same time as the disclosure of particular types of CEO departure, we conduct chi-squared tests of column 1 against column 2. We find that, in the official announcers category, the announcement of other news is not dependent on the reason for departure (chi-squared statistic = 3.45; $p = 0.84$). We therefore conclude that the reason for departure does not have a significant impact upon the likelihood of firms releasing confounding information.

We then examine whether firms are more likely to reveal (or attempt to suppress) the news of different types of CEO departure. We look at whether the official release of information is independent of the reason for departure (by testing column 3 against column 6), obtaining a chi-squared statistic of 16.19 ($p = 0.02$), indicating that firms are more likely to officially announce certain types of departure than others. Table 2 suggests that firms are quite willing to announce news of CEO resignations and retirements, but that they are less likely to announce news of CEOs progressing to the position of Chairman or Deputy Chairman.⁶

Table 3 compares characteristics of firms which make an official CEO departure announcement to those whose chief executive departure is reported only in the press.

Panel A, which examines all 251 announcements, shows that firms with announcements released to Extel have smaller, but not significantly different, event period returns than firms who do not make official announcements, but are covered by the FT. Firms

⁶ This is confirmed by further, unreported binomial tests on Table 2.

with CEO departures generally suffer from negative cumulative share returns for 2 years before the announcements, although the extent of this poor performance varies between official and unofficial announcers. Departure announcements reported by the FT have significantly more negative (at the 5% level) cumulative share returns for both 1 and 2 years before the announcements in comparison with those reported by Extel. However, market capitalisation, return on total assets, and debt-to-equity ratio do not appear to be statistically different between firms with CEO departure announcements reported in Extel and the FT. These results suggest that prior firm performance is an important factor when firms are considering whether to officially release CEO departure news.

Panel B provides results for our 138 non-contaminated announcements and demonstrates that removing contaminated announcements does not materially affect the results obtained in Panel A. CEO departure announcements reported in the FT have significantly more negative cumulative share returns (at the 10% level) in the test period (day -1 –day $+1$) than CEO departure announcements reported in Extel. Measuring share price performance over a longer period shows that firms with announcements reported in FT have significantly more negative cumulative share returns for both 1 and 2 years before CEO departure announcements in comparison with firms who announce to Extel.

Table 3 therefore provides evidence that firms who have been performing badly are less likely to make official announcements of CEO departures. It also suggests that those firms who choose not to officially announce this news suffer a significantly more negative market response to the news when it is reported by the press.

Around 45% (113/251) of CEO departure announcements are released with other information (not including CEO successor announcements) during the test period (i.e. day -1 –day $+1$). On the actual day of the announcement, 73 of our 251 firms make a total of 204 other announcements. Fig. 1 classifies these other announcements and shows that the majority of them give information regarding results, other board changes or dividends.

Comparing the firms with confounding announcements to the non-contaminated announcement firms suggests that it is firms with good news available which tend to make other announcements simultaneous to the CEO departure announcement. We find that the contaminated sub-sample firms have, on average, a greater increase in the pro-

Other Announcement Categories	Frequency	Percentage
Results related	64	31%
Board changes	52	26%
Dividend	37	18%
Other	51	25%
Total	204	100%

Fig. 1. Summary of other information released simultaneous to CEO departure announcements.

Variables	Contaminated	Non-contaminated
Change in outsider%	4.28%	2.06%
Change in earnings	1410,000	-1923,000*
Average change in ROA (past three years)	-1.13%	-1.35%

* After deleting an extreme negative value

Note: The original average percentage of outsiders for contaminated and non-contaminated is 35% and 37% respectively. CEO departure is associated with an increase in the percentage of outsider directors for both contaminated and non-contaminated firms to around 39%.

Fig. 2. Summary of different financial characteristics between contaminated and non-contaminated firms. Non-contaminated firms are those who announce no other new, apart from the CEO replacement, on day 0. Contaminated firms make other news public on day 0.

portion of non-executive directors on their boards, experience a higher change in earnings, and are superior in their change in ROA for 3 years prior to CEO departure, than firms who choose not to make any simultaneous announcements. Fig. 2 displays these findings.

In Table 4, we examine whether CEO departure announcements are an indicator of impending company failure.

Panel A of Table 4 provides results showing that the possibility of firms failing post-CEO departure is related to whether the news is officially announced. It compares survival rates (to 15 June 2000) of 145 official announcer firms with 106 non-official announcers whose CEO departures were reported by the FT, and 43 firms whose CEO departure was identified from annual reports only. Firms whose CEO departure announcements are only reported in the FT or annual reports (i.e. they did not make an official announcement to Extel) are more likely to be taken over, de-listed, or go bankrupt by June 2000, than those firms who did make an official announcement to Extel (failure rates are 51%, 51% and 23%, respectively). An independence test produces a significant chi-squared statistic ($p=0.001$), suggesting a relationship between CEO departure disclosure and post-departure firm survival. This implies that the market is rational in its stronger reaction to FT reports than Extel announcements, as the FT firms are more likely to fail. However, as not all firms who fail to officially announce are covered by the FT (43 firms in our sample), managers *may* also be rational in their failure to make official announcements of CEO departure.⁷ In Panel B, we examine whether CEO departure reasons are associated with firm failure, but chi-squared tests provide no evidence of this.

⁷ We find no evidence that this observation is caused by the distribution of announcements/non-announcements over time.

Table 4
CEO departure announcements and company failure prediction

Panel A: firms who were taken over, delisted, or dead by June 2000

	Live	%
Extel	112/145	77
FT	52/106	49
Financial reports	21/43	49
Total	185/294	63

Chi-squared statistic = 25.14 ($p = 0.001$)

Panel B: association between firm failure and CEO departure reasons

	Live	%
Dismissal	24/42	57
Resignation	38/59	64
Retirement	21/37	57
Split	51/74	69
Succession	27/38	71
Illness and death	5/9	56
New job	9/15	60
Unclassified	10/20	50
Total	185/294	63

Chi-squared statistic = 5.17 ($p = 0.46$)

Panel C: differences in pre-departure financial characteristics between firms which survive/fail after CEO departure

	CAR day – 1 – day + 1	CAR-250 days	CAR-500 days	Market value ^a	ROA	Gearing
Live firms (164)	0.29%	– 10.12%	– 13.65%	1,326,221	10.71%	140.00%
Dead firms (87)	– 3.55%	– 27.62%	– 28.54%	429,792	9.46%	394.76%
<i>T</i> statistics	2.30 **	2.55 **	1.65	3.26 ***	1.08	– 2.00 *

^a Unit = £1000.

* *T* statistic significant at 10% level.

** *T* statistic significant at 5% level.

*** *T* statistic significant at 1% level.

We then examine whether surviving/failing firms have different characteristics. Panel C tests the firms which survive to June 2000 against the firms which are dead by this time. It provides results suggesting that firms which later die are likely to have had stronger negative share returns both around and for one year before CEO departure announcements than firms which are still on Datastream as at June 2000. Dead firms are also smaller in market capitalisation, and have higher debt-to-equity ratios than firms which survive. This is consistent with earlier work in the area of bankruptcy prediction (e.g. Jones, 1987; Lennox, 1999; Zmijewski, 1984).

The results in Table 4 suggest that, in some cases, CEO departure is a signal of impending firm failure. This explains (a) why firms are often reluctant to announce CEO departures; (b) why they so often release ‘good’ news regarding earnings/dividends around the announcement of a CEO departure (in an attempt to differentiate themselves from

Table 5

Mean performance measures for different sub-samples for 7 years surrounding CEO departure. Year 0 is the last full accounting period in which the CEO held office

Year	Measures	Performance % for different samples			
		Non-contaminated (<i>n</i> = 138)	Contaminated (<i>n</i> = 113)	Total (<i>n</i> = 251)	Clean (<i>n</i> = 32)
– 3	Lag3ROA	13.68	13.56	13.63	13.32
– 2	Lag2ROA	12.70	12.97	12.82	11.79
– 1	Lag1ROA	11.13	11.93	11.50	10.03
0	ROA	9.80	10.62	10.17	7.73
+ 1	Lead1ROA	7.35	6.43	6.93	– 1.52
+ 2	Lead2ROA	8.21	4.12	6.28	3.44
+ 3	Lead3ROA	8.17	7.57	7.88	3.80
– 3	Lag3ROA1	1.79	1.92	1.85	0.28
– 2	Lag2ROA1	1.55	1.85	1.68	– 0.18
– 1	Lag1ROA1	0.93	1.62	1.24	– 0.02
0	ROA1	– 0.04	1.06	0.46	– 2.10
+ 1	Lead1ROA1	– 2.31	– 2.26	– 2.29	– 10.09
+ 2	Lead2ROA1	– 0.61	– 4.28	– 2.34	– 3.94
+ 3	Lead3ROA1	– 1.07	– 1.51	– 1.28	– 4.60
– 1	CAR-500 days	– 22.06	– 14.85	– 18.81	– 52.03
0	CAR-250 days	– 18.23	– 13.69	– 16.18	– 37.28

ROA = net profit before extraordinary and exceptional items, divided by the book value of total assets.

ROA1 = the sample firms' industry-adjusted return on total assets. We adjust for industry by subtracting from each firm's ROA the mean ROA for all Datastream firms in the same industry reporting in the same calendar year.

CAR-500 days is the market adjusted stock return for the 2 years prior to the departure announcement day.

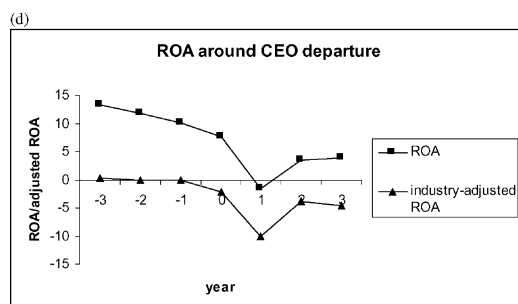
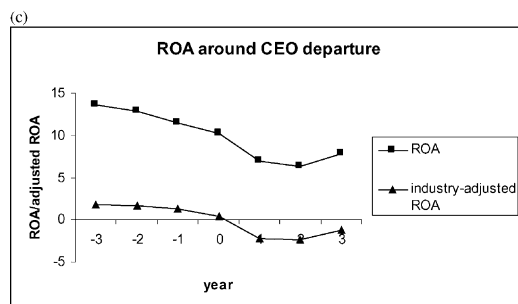
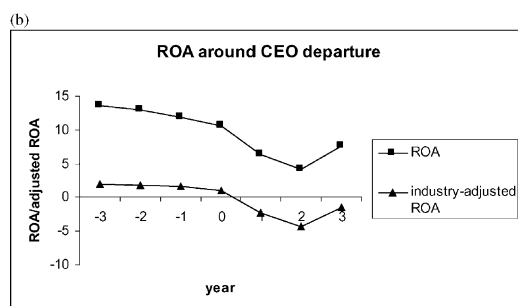
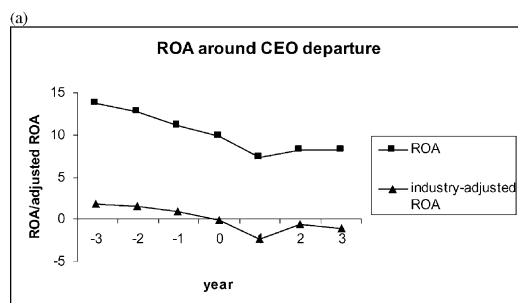
CAR-250 days is the market adjusted stock return for 1 year prior to the departure announcement day.

firms about to fail); and (c) why the rate of CEO departure is so low even when companies are performing badly.⁸

Table 5 and Fig. 3a–d provide evidence on whether CEO departures can be predicted by accounting performance measures. The measure we apply is return on total assets (ROA). Year 0 represents the last full accounting year for which the departing CEO held office. Departures occur between Year 0 and Year 1.

In all cases, firms suffer from declining ROA for three years before the year of CEO departure, and also for the last full accounting period of his office (Year 0). This is consistent with prior research, which indicates that the probability of CEO departure is significantly increased in firms with poor performance (see, for example, Coughlin and Schmidt, 1985; Warner et al., 1988; Weisbach, 1988). However, we also find that firms suffer an even worse performance decline in the year including the CEO departure (Year

⁸ In the US, Weisbach (1988) and Warner et al. (1988) found departure rates of only 6% in the lowest decile of performers; in the UK, it has recently been found to be nearer 13% (Dedman, 2000), but this is still very low.



+ 1), especially those firms in our ‘clean’ subset, where ROA fell from 7.73% to – 1.52% in the accounting year following the CEO departure announcement. This finding is consistent with new managers (or boards in the case where there is no new CEO by the year end) taking an earnings ‘bath’ while still able to blame their predecessors. Earlier evidence of this behaviour is provided by Pourciau (1993), who finds that CEOs appointed as a result of a non-routine turnover tend to depress earnings in their first year of office, and also by DeAngelo (1988), who examines the behaviour of winners of proxy contests.

ROA1 denotes the sample firms’ industry-adjusted return on total assets. We adjust for industry by subtracting from each firm’s ROA the mean ROA for all Datastream firms in the same industry reporting in the same calendar year. Adjusting for industry effects does not alter our findings—CEO departure firms suffer 4 years of declining industry-adjusted ROA up to and including the accounting year of departure. Again, firms suffer an even worse performance decline in the year after the CEO departure; this effect is particularly pronounced for ‘clean’ announcements. Both ROA and ROA1 generally increase 2 years after the CEO left. Overall, firms with CEO departures suffer large, negative abnormal share returns 1 and 2 years earlier. Again, the effect is especially strong for ‘clean’ announcement firms, who have cumulative share returns of around – 52% for the 2 years prior to announcement.

5.1. Summary

This section has presented evidence that firms, which do not officially announce news of impending CEO departures, suffer lower event period abnormal share price returns than firms who disclose this news to the LSE. Firms which fail to make official disclosures have performed more badly, on average, for the 2 years prior to the revelation of the CEO departure, than official announcement firms. The non-announcers are also significantly more likely to fail by June 2000 than those firms who make official announcements, which may explain why the market reacts more negatively to press releases than official releases of such information.

6. Event study

This section applies standard event study research methodology, as detailed in Section 4, to the 251 CEO departures covered by either Extel and the FT, and Datastream.

Fig. 3. (a) Non-contaminated announcements. Sample is 138 non-contaminated announcements. Year 0 is the last full accounting period for which the departing CEO held office. Both ROA and adjusted ROA are declining until 2 years after CEO departure. (b) Sample consists of 113 contaminated announcements. Both ROA and adjusted ROA are declining until 3 years after CEO departure. (c) All announcements. Sample is all 251 Extel and FT announcements for firms which appear in Datastream. Both ROA and adjusted ROA are declining until 3 years after CEO departure. (d) Sample comprises 32 clean announcements. Both ROA and adjusted ROA are declining until 2 years after CEO departure.

Table 6

Mean abnormal returns for different samples for the test period (*T* statistics in parentheses)

Sample	Total (<i>n</i> = 251)	Contaminated (<i>n</i> = 113)	Non- contaminated (<i>n</i> = 138)	Non- contaminated Extel (<i>n</i> = 73)	Non- contaminated FT (<i>n</i> = 65)	Clean (<i>n</i> = 32)
Day - 1	-0.64% (-3.62)***	-0.55% (-2.16)**	-0.71% (-2.92)**	0.00 (0.01)	-1.50 (-3.41)***	-2.33% (-3.92)***
Day 0	-0.72% (-4.11)***	-0.68% (-2.68)**	-0.76% (-3.12)***	-0.01 (-0.03)	-1.60 (-3.63)***	-1.92% (-3.23)***
Day + 1	0.31% (1.78)*	0.40% (0.79)	0.20% (1.67)*	0.05 (0.22)	0.80 (1.82)*	0.28% (0.48)
3 days	-1.04% -3.44***	-1.03% (-2.34)**	-1.06% (-2.52)**	0.05 (0.12)	-2.30 (-3.02)***	-3.97% -3.85***

* Significant at the 10% level.

** Significant at the 5% level.

*** Significant at the 1% level.

Table 6 provides the results of tests on the market's reaction to CEO departure announcements.⁹ Day - 1, day 0, and the entire 3-day test period have significantly negative market reactions in all cases except for the 73 firms who make official announcements to the LSE and who release details of the successor, but no other information, on the same day. This is consistent with earlier findings by Reinganum (1985) and Furtado and Rozeff (1987), who find that there is no market reaction to CEO departure announcements when firms simultaneously announce a replacement, and suggests that the significant negative effect of the departure announcement has been cancelled out by the positive market reaction to the replacement announcement.

We find that the sub-set consisting of clean announcements, i.e. where firms release no other news and do not announce a successor, is subject to the most significant negative abnormal returns. This evidence is consistent with that of Borstadt (1985) and implies that the market generally reacts negatively to the news of a CEO departure, especially when firms do not release any other information in the test period.

We find that only CEO departures reported by the FT appear to have strong negative reactions, while official announcements made to Extel do not appear to induce a market response. This is another indication that managers attempt to suppress bad news. However, when the market does learn of the CEO departure, they react more strongly to it. This implies that, if firms know they are not likely to fail even though the CEO is departing, they ought to release the news officially.¹⁰

Table 7 examines whether the market reaction to CEO departure announcements is related to the reason for departure, by partitioning the non-contaminated sub-sample with respect to departure reason. Departures caused by CEO dismissal appear to induce very strong, negative market responses in all groups. This finding initially appears inconsistent

⁹ We use sub-samples of our full sample of 251 departures by using the first day that a relevant news article appeared in the FT as the announcement day for firms who do not make official announcements.

¹⁰ The results remain qualitatively unchanged when we use Patell's standardised *T* statistics.

Table 7

Abnormal returns (Patell's standardised *t* statistics) for 138 non-contaminated announcements partitioned by departure reason

Departure reason	Dismissal (<i>n</i> = 24)	Resignation (<i>n</i> = 28)	Retirement (<i>n</i> = 22)	Split (<i>n</i> = 30)	Succession (<i>n</i> = 15)	Illness and death (<i>n</i> = 3)	New job (<i>n</i> = 10)	Unclassified (<i>n</i> = 6)
Day − 1	− 1.81 (− 3.66)* * *	− 0.90 (− 1.82)*	− 0.17 (0.21)	0.16 (− 0.15)	− 0.03 (0.28)	0.23 (0.37)	− 2.92 (− 4.28)* * *	− 0.11 (− 0.43)
Day 0	− 3.98 (− 2.93)* * *	0.34 (0.98)	0.14 (0.40)	0.12 (0.65)	− 0.04 (1.34)	1.26 (1.59)	− 1.63 (− 3.86)* * *	− 1.96 (− 2.22)* *
Day + 1	2.39 (0.76)	0.04 (1.04)	0.12 (0.50)	− 0.15 (− 0.85)	0.02 (0.54)	0.40 (0.54)	− 0.46 (− 0.96)	0.42 (0.23)
3 days	− 3.40 (− 3.37)* * *	− 0.53 (0.12)	0.10 (0.64)	0.13 (− 0.20)	− 0.06 (1.25)	1.89 (1.44)	− 5.02 (− 5.26)* * *	− 1.64 (− 0.90)

* Significant at 10% level.

** Significant at 5% level.

*** Significant at 1% level.

with those of prior studies Furtado and Rozeff (1987) and Dahya et al. (1998). However, it is reasonable to assume that the managerial labour market is thinner in the UK than the US, which would mean that succession problems are more of an issue in UK firms, particularly following non-routine CEO departures. We believe this explains why CEO dismissals are viewed negatively in the UK, in contrast to the observations of Furtado and Rozeff in the US.

In addition, departures caused by the fact that CEO found a new job induce significant negative abnormal returns. This is evidence that the market regards CEOs leaving for a new job as either a signal of the firm being unable to retain a good CEO, or an impending succession crisis (due to these types of departure often being unexpected by the firm).

Firms with CEO departures, which we are unable to classify by reason, suffer negative abnormal returns especially for clean announcements. This suggests that when the market is given partial information, it assumes that the firm is concealing bad news.

The findings in Table 7 generally suggest that the sign and magnitude of the market's reaction to CEO departure announcements is related to the reasons for departure. We examine this association further in the regression models in Section 7.

7. Regression analysis

In this section, we examine the causes of day 0 and 3 day event window returns using OLS regression. The previous sections have identified several possible factors which influence the sign and magnitude of the market reaction to news of a CEO departure. These potential factors include:

(a) *Prior performance*. If the market anticipates an increase in firm performance post-CEO departure, then we would predict a positive reaction to the departure news. However, if the old manager was seen as efficient and difficult to replace, then we predict a negative price response to the news. We therefore predict a negative association between prior firm performance and the market's reaction to hearing of the CEO departure.

(b) *Financial risk*. We expect to see a positive reaction to the departure of managers who have increased the risk of their firm.

(c) *Size*. Managerial departures may differ in their price effects in relation to firm size, due to differences in the managerial labour market and problems in recruiting suitable chief executives for smaller firms.

(d) *Successor announcement*. Managerial succession is an important issue for firms, especially in the UK, where the managerial labour market is rather thin compared with the US. We therefore expect to observe a positive influence on the market reaction to CEO departures where a permanent replacement is simultaneously announced.

(e) *Release of other information*. Including a dummy variable to indicate the release of confounding information enables us to test whether firms are able to manipulate the stock market reaction to CEO departure announcements in this way.

(f) *Reason for departure*. Apparently, departures due to CEO dismissal are seen as particularly bad news by the stock market. We also look at whether dividing the role of CEO and chairman, as recommended by the Cadbury Committee (1992) and successor bodies, induces a positive response from investors.

Table 8

Regression models considering the effect of past market and accounting performance on the market reaction to CEO departure announcements

Model A: Abnormal returns on day 0 = $a + b \cdot \text{ROA} + \text{GEAR} + \text{MV} + \text{REPLACE} + \text{CONF} + \text{DISMISSAL} + \text{SPLIT} + \text{DATA} + \text{DEAD} + e$.

Model B: Abnormal returns days -1 to $+1$ = $a + b \cdot \text{ROA} + \text{GEAR} + \text{MV} + \text{REPLACE} + \text{CONF} + \text{DISMISSAL} + \text{SPLIT} + \text{DATA} + \text{DEAD} + e$.

Variables	Model A ($n =$)	T value	P value	Model B ($n =$)	T value	P value
INTERCEPT	−0.0673	−1.73	0.0861	−0.0453	−0.86	0.3893
ROA	−0.2481	−1.41	0.1631	−0.1645	−0.69	0.4890
GEAR	0.0338	4.59	0.0001	0.044	4.43	0.0001
MV	0.0037	1.30	0.1966	0.001	0.27	0.7873
REPLACE	0.0218	2.03	0.0439	0.0498	3.44	0.0007
CONF	−0.0074	−0.86	0.3936	−0.0164	−1.42	0.1584
DISMISSAL	−0.0315	−2.64	0.0091	−0.0118	−0.73	0.4642
SPLIT	0.0128	1.17	0.2454	0.0049	0.34	0.7376
DATA	−0.0002	−0.02	0.9844	−0.0021	−0.17	0.8658
DEAD	0.0067	0.62	0.5372	−0.0016	−0.12	0.9061
F statistic	4.70		0.0001	4.08		0.0001
R -squared	18.62%			16.56%		
Adjusted R -squared	14.66%			12.5%		

ROA indicates average change in return on assets in the 3 years following CEO departure.

GEAR indicates change in gearing ratio in the 3 years prior to CEO departure.

MV denotes market value of the firm.

REPLACE is coded one when a successor is announced simultaneous to a departure, 0 otherwise.

CONF is 1 when the firm releases other (non-successor) information on the same day as a departure announcement.

DISMISSAL is 1 when the CEO departure is caused by dismissal; otherwise dismissal is 0.

SPLIT is 1 when the CEO departure is caused by split between chairman and CEO; otherwise split is 0.

DATA is 1 when CEO departures were announced in Extel; DATA is 0 when CEO departures were reported by FT.

DEAD is coded 1 if firm does not survive until June 2000; 0 if the firm does survive to this date.

(g) *Official announcement.* Whether or not the firm made an official announcement of the CEO departure—univariate tests suggest that this positively impacts upon the share price reaction to the news.

(h) *Future failure.* If the market is able to make accurate assessments about the impact of the CEO departure upon the firm's chances of survival, then we may expect to observe a positive relationship between event window excess returns and the firm's status as at June 2000.¹¹

Table 8 reports the results of regression models using 1- and 3-day event window excess returns as the dependent variable, and measures of the factors detailed above as independent variables.

¹¹ Of course, there is more than one way for a firm to fail. One may expect firms who are taken over to experience a positive reaction as there are generally gains to targets in such events; firms who liquidate are less likely to provide profits for their owners. Unfortunately, we do not have data regarding what happened to firms that dropped out of Datastream.

The sign on the accounting performance measure is negative, as predicted, but insignificant. The change in gearing over the last 3 years of the departing CEO's office is significantly positively related to event period excess returns. This implies that the market reacts positively to the departure of CEOs who have increased the financial risk of the firm. The size of the firm, as measured by its market capitalisation at the accounting year end of Year 0, has no effect on the market's response to CEO departure announcements. The dummy variable indicating whether a successor is announced is positive and significant, providing evidence that firms may mitigate the negative impact of CEO departure news by simultaneously providing information about a replacement. The coefficients on both the confounding information dummy and the data dummy are insignificant—we therefore find no evidence that firms are able to manipulate the share price effect of the news of CEO departures by either failing to officially disclose it, or by releasing simultaneous, unrelated information. The variable which indicates a departure is due to dismissal is negative and significant. This is inconsistent with US evidence, perhaps due to differences in managerial labour markets, or the factors which lead to such action being taken, between the UK and US. Finally, the stock market reaction to CEO departure news is not dependent upon later firm failure, as our indicator dummy, 'dead' shows. However, we are not able to partition the failures into those due to takeovers and those due to winding up, which are likely to induce very different market responses.

8. Summary and conclusions

This paper examines the market reaction to CEO departure announcements for UK firms included in FT all share index during 1990–1995. The CEO departure announcements generally induce a negative market reaction, especially for those announcements where no other news is released during the 3-day test period. We also find that CEO departure announcements are very likely to be released with other news, which tends to relate to earnings, dividend, and other board changes. Firms appear to announce good news to counter the potential bad news caused by CEO departure announcements. There is no market reaction to CEO departure announcements released simultaneously with replacement announcements. Regression analysis provides further evidence of the importance investors attach to succession problems, with a positive and significant coefficient being obtained on the replacement indicator variable.

We also find the market reaction to CEO departure announcements is partially determined by the reason for the departure. Departures due to dismissal and CEOs getting new jobs are consistently associated with a negative market reaction. This implies the market anticipates the potential succession problems existing in such firms and negatively reacts to this information. However, there may be an over-reaction by the market to dismissal and new job announcements, as these companies are no more likely to fail than other firms with top executive turnover.

Univariate tests suggest that CEO departures which were not announced to the LSE and covered by Extel, suffer a higher probability of subsequent failure (i.e. they

are taken over, delisted, or declared bankrupt). The results show that around 51% of firms whose CEO departures were announced by the FT, or whose CEO departures were not announced by either Extel or the FT, disappear from the London Stock Exchange by the year 2000. Those firms whose CEO departures are only reported in the FT suffered significantly poorer stock price performance than firms who made official announcements. If CEO departure is a signal of firm failure, and not all non-official announcers are covered by the press, then this may explain why some firms choose not to announce CEO departures, and also why firms try to release good news simultaneously. Unless firms can send messages to the market that their survival chances are good, then it may be rational for them to attempt to suppress the news of a CEO departure. However, regression analysis fails to find a significant relation between event period excess returns and non-disclosure, or abnormal returns and future failure.

Firms with CEO departures during this period generally suffer from declining return on assets and industry-adjusted return on assets. These performance measures reach their nadir in the year following CEO departure. This may be evidence of new CEOs engaging in earnings manipulation (the earnings ‘bath’ hypothesis) when they take up a new position. This is a matter for our future research. Generally, firms improve their return on assets 2 years after CEO departure.

Finally, we find that abnormal returns on announcement day, and the cumulative abnormal returns during the 3-day test period, are positively associated with the firm’s average gearing ratio for 3 years before CEO departure announcements. We interpret this as meaning that the market reacts favourably to CEO replacement when the firm has higher financial risk.

Appendix A. Research methodology

This paper uses standard event study research methodology, including a short test window (i.e. including day -1 , day 0 , and day $+1$) and a 150-day estimation period (i.e. a period between day -160 and day -11). The market model is used to measure abnormal returns. Both Student’s t -test and Patell’s standardised residual statistics tests are used to examine whether the abnormal returns for the test period are statistically different from zero.

A.1. Share returns

Daily logarithmic returns are calculated as follows:

$$R_{it} = \log[(P_{it} + D_{it})/P_{it-1}]$$

Where R_{it} is the share return of firm i on day t ; P_{it} is the share price of firm i on day t ; D_{it} is the cash dividend paid of firm i on ex-dividend day t ; P_{it-1} is the share price of firm i on day $t-1$. The above variables were obtained from Datastream, and are all based on per share basis and are adjusted for capitalisation.

A.2. Market returns

Daily logarithmic market returns are calculated as follows:

$$R_{mt} = \log[FTAI_t/FTAI_{t-1}]$$

Where FTAI_{*t*} is the Financial Times All-Share index on day *t*, obtained from Datastream.

A.3. Abnormal returns

Abnormal share returns for the test period are then derived from the model below:

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt})$$

Where AR_{*it*} is the abnormal share returns of firm *i* on day *t*; R_{*it*} is the actual share returns of firm *i* on day *t*, derived from model (1); R_{*mt*} is the market return on day *t*, derived from model (2); $\hat{\alpha}_i$ and $\hat{\beta}_i$ are the estimated parameters of the market model during the estimation period (between day −160 and day −11). To control for non-synchronous trading, this paper uses Scholes and Williams's (1977) unbiased parameters.

A.4. Statistical tests

A.4.1. Student's *t*-test

The *T*-test statistic is computed as follows (MacKinlay, 1997):

$$t_t = \frac{\overline{AR}_t}{\sqrt{\text{var}(\overline{AR}_t)}} \sim N(0, 1)$$

Where $\overline{AR}_t$ is the mean abnormal returns on day *t*; var($\overline{AR}$) is the variance of mean abnormal returns during the estimation period.

A.4.2. The standardised residual statistic

A standardised residual statistic is computed as follows (Patell, 1976):

$$Z_t = \frac{\sum_{i=1}^{i=N} SAR_{it}}{\left[\sum_{i=1}^{i=N} \frac{T_i - 2}{T_i - 4} \right]^{1/2}} \sim N(0, 1)$$

$$SAR_{it} = \frac{AR_{it}}{\hat{\sigma}_{e_i}}$$

Where AR_{*it*} is the abnormal return of firm *i* on day *t*; $\hat{\sigma}_{e_i}$ is the standard deviation of abnormal share returns of firm *i* during the estimation period. This standard deviation has

been adjusted for prediction errors outside the estimation period. T_i is the number of observations of firm i in the estimation period; N is the number of companies.

Appendix B. Data

This study is based on a sample of Financial Times Actuaries All Share Index firms from April of each year from 1990 to 1995. This index represents over 95% of the UK Stock Market by market capitalisation. This information was taken from the London Business School (LBS) Risk Measurement Service (RMS), which publishes a quarterly list of constituents of various stock market indices. Some firm years are discarded for two main reasons, resulting in a loss in sample size. Firm deaths (liquidations or takeovers) occasionally occur soon after the All Share has been set for the period, meaning that a full year's data is not available for that firm. Due to the more strict nature of the regulation of financial firms, they are also dropped from the sample. The initial sample selection process yields 3000 firm years, over 846 firms.

For each sample firm year, the CEO as at the accounting year end following their inclusion in the FT All Share Index was compared to the CEO as at the next accounting year end; where different names were recorded, a departure was deemed to have occurred. This information was taken from the Corporate Registers and Annual Reports. From a sample of 3000 firm years, 331 CEO departures were identified in this manner, implying an annual turnover rate of about 11%.

Following this, the Extel database was searched for official announcements by companies of each CEO departure. For the time of this study, Extel reported articles from the London Stock Exchange Regulatory News Service verbatim and official announcements made to the LSE were conveyed to subscribers via this news service.

However, it appears that many companies choose not to announce these events, and only 152 of the 331 identified departures were reported by Extel. The Financial Times (FT) carried articles relating to 133 of the remaining 179 firms, allowing us to include them in the event study, using the date of the FT article which first mentions the CEO change. This brought the sample size up to 285 CEO departures. However, there was insufficient share return data on Datastream to include 34 of the firms (7 Extel announcers and 27 FT announcers), so we are left with a final sample of 251 announcements.

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