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FIRED OR RETIRED? A COMPETING RISKS ANALYSIS OF CHIEF EXECUTIVE TURNOVER*

Ian Gregory-Smith[†], Steve Thompson and Peter W. Wright

We apply duration analysis to model the tenure and mode of exit of CEOs from FTSE 350 companies from 1996-2005, a decade in which corporate governance reforms have sought to increase the accountability of the CEO to shareholders and their representatives on the board. We find a greater likelihood of dismissal in the latter part of the period. However, we also find that the likelihood of forced departure sharply decreases from the fifth year of a CEO's tenure. We find evidence that this is because CEOs who survive beyond year four are able to entrench themselves in their position.

JEL codes: G30, J60

In a UK public company, whilst the board sets the company's aims and the broad strategies for achieving them, the chief executive officer (CEO) is responsible for the day to day running of the company. Concern has been raised, however, about the ability of the board to adequately control the actions of the CEO, with the result being that the CEO may depart from the efficient pursuit of shareholder value maximisation (Jensen and Meckling 1976, Fama 1980, Shleifer and Vishny 1997). One instrument used to align the interests of the shareholders and the CEO is the CEO's remuneration package. The level of remuneration is often twice as high for the CEO as that of the second highest

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paid director (MM & K Ltd 2007) and typically contains large performance-related elements. A second instrument is the ability of the board of directors to sack the CEO (Fama and Jensen 1983, Zajac 1990, Lin 1996). Indeed, Fama (1980) argues that damage to managerial reputation, with the implied threat to future earnings, is the main constraint on CEO behaviour. The strength of this incentive will be influenced by the extent to which boards are able to monitor the actions of the CEO and, as with remuneration, it is typical that the board will proxy the CEO's ability by a measure of firm performance. Poorly performing CEO's should lose their jobs.

There is a perception in the business press that the typical length of service for CEOs within large UK companies has decreased in recent times¹ and, moreover, CEOs are experiencing shorter tenures due to a greater likelihood of being fired.² This increased risk of dismissal in the UK is in turn attributed to the ongoing reform of corporate governance arrangements that began with the Cadbury (1992) Report and continued in the review of board effectiveness by Higgs (2003), whose recommendations were included in the revised version of the Combined Code (2003).³ It has also been suggested that an increase in shareholder activism and voting levels, as called for by the Hampel (1998) and Myners (2001, 2004) Reports, have contributed to a more demanding governance regime. It is argued that institutions have increasingly coordinated their behaviour to provide a more effective constraint on CEO actions (Leech 2003). Indeed, the ability of shareholders in the UK to dismiss the board at a company meeting is envied by activists in the US (Monks and Minow 2004).

Despite this, there is an increasing body of literature that has raised concerns about whether boards are willing or able to remove under-performing CEOs, even if these can

¹See, for instance, 'The art of the sweetly timed exit', Financial Times, 19th Aug 2004.

²As opposed to alternative modes of exit such as voluntary retirements.

³Companies listed on the London Stock Exchange are expected to comply with, or explain their non-compliance with, the Combined Code (2003).

be identified (Lipton and Lorsch 1992, Jensen 1993). Although boards are traditionally constituted as guardians of shareholder interests, they are likely to fail in this task if they have inadequate incentives to avoid the rational attempts by the CEO to capture or negate their influence. Indeed, boards have been accused of providing inefficient contracts, that are heavily weighted in favour of the CEO, because of the undue influence the latter has in the pay-setting process (Bebchuk and Fried (2003, 2004)). Similarly, if the board gets ‘captured’ by the CEO the latter will become entrenched and difficult, if not impossible, to dismiss.

The extent to which policy measures are able to impact on the relative power of the CEO and shareholders is also disputed in the literature (Weisbach 2007). If CEOs have the capacity to capture the remuneration and dismissals processes, it follows that efforts to reduce their power relative to the board might also be captured and rendered ineffective.⁴

A less ambiguous impact of the reform process in relation to CEO tenure has been the reduction in contract length and of the notice period in a CEO’s service contract. Prior to the Cadbury (1992) and Greenbury (1995) Reports, contracts with 3 or even 5 year rolling notice periods were not uncommon. Moreover, contract termination provisions were typically opaque and often resulted in compensation payments that included forgone annual bonus opportunities, enhanced pension provision and an acceleration in the vesting of share options (Trade and Industry Select Committee 2003). After Greenbury, contracts were reduced and termination provisions curtailed to the point that, under the revised Combined Code (2003), service contracts should provide for no

⁴For example, the Combined Code relies on the boards themselves to determine the independence of their non-executive directors. If the board is already captured, then it could classify directors as independent to satisfy the provision in the Combined Code, even if such an assessment might be considered dubious.

more than 12 months' salary.⁵ In addition, disclosure was made more transparent and formalised in the Directors' Remuneration Report Regulations (Department of Trade and Industry 2002).

There is empirical evidence that poor performance increases CEO turnover in US corporations from, *inter alia*, Coughlan and Schmidt (1985), Dalton and Kesner (1985), Friedman and Singh (1989), Parrino (1997), Audas, Dobson and Goddard (1999) and Brickley (2003). The composition of the board of directors, both in terms of its size and insider-outsider ratio, has also been shown to impact the probability of CEO turnover (Weisbach 1988, Boeker and Goodstein 1993, Yermack 1996). An interesting finding in this literature is that CEO replacement decisions may have similar determinants across different corporate governance regimes. Kaplan (1994) and Kaplan and Minton (1994) found that CEOs in Japan and Germany, countries whose governance systems are traditionally characterised as involving long job tenure, were subject to similar influences to their Anglo-American counterparts.

Whilst such studies are instructive, there are good reasons to suspect that they are not telling the whole story. For example, it has been suggested that a CEO may use their control of information and board appointments to entrench themselves during their tenure, ensuring the board of directors becomes increasingly favourably disposed towards them (Hermalin and Weisbach 2003). If this is true, then it is likely that the impact of performance on the probability of CEO exit will vary over time. An alternative hypothesis, which would also lead to a time varying impact of performance relates to imperfect monitoring: if the output of a CEO cannot be observed directly and must be inferred from the firm's results, then there will be some lag before a CEO is judged to

⁵Note that, at the median, 12 months' salary is worth approximately double in real terms in 2005 compared to 1995 (Gregory-Smith 2007). Nevertheless, this still means a substantial reduction in the total cost of removing a CEO has occurred over this period.

be under-performing. It is only after this period that a badly performing CEO will be removed from their position. Finally, as outlined above, it is widely conjectured that substantial changes to the governance environment in which CEOs have been operating will have affected exit probabilities.

In this paper we seek to examine these issues using a dataset which is unique in terms of its detail. It allows us to model the duration of CEO tenure and to ascertain the varying likelihood of CEO exit using a competing risks framework. This permits us to test between a number of the competing hypotheses outlined above by deriving the determinants of competing exit states for appointed CEOs . Section 1 gives an overview of the data, including a graphical inspection of the hazard rates before a more formal semi-parametric analysis is presented in Section 2. Section 3 of the paper concludes.

1. Data

The primary information used in this study is supplied by Manifest Information Services Ltd, corporate governance consultants, who maintain a comprehensive governance and compensation database for all UK companies that have featured in the FTSE 350 Index during any financial year between January 1996 and December 2005. A major advantage of Manifest's data is that the name of the CEO, together with their appointment and departure date are identified.⁶ The period chosen covers a full economic cycle, with market growth until 2001, subsequent decline and recovery. Moreover, the period under analysis is particularly interesting given the steady flow of corporate governance reforms designed to improve the transparency and accountability of boards. Investment trusts that contained no executive directors are excluded from the sample, although self-

⁶To avoid survivorship bias as far as possible, companies that drop out of the index prior to 2006 are included in our sample unless the company is no longer publicly quoted.

managed investment trusts are retained. Manifest's data was further supplemented with other control variables from Thomson Datastream. Summary statistics are provided in Table 1 below.

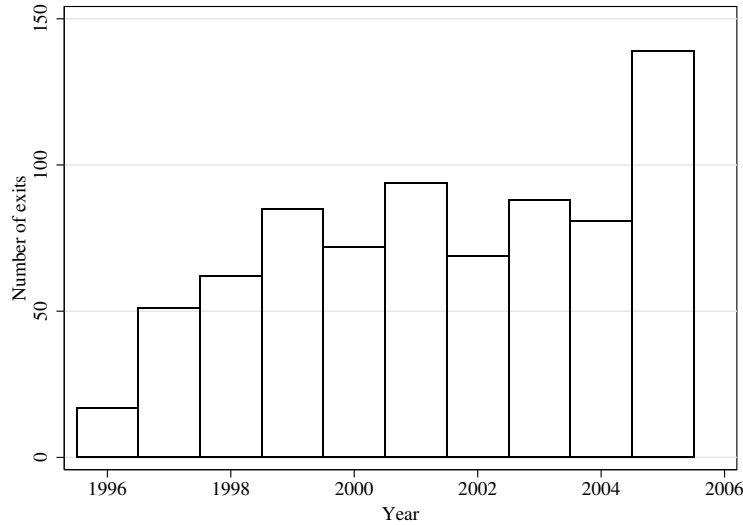
Table 1: Sample Description

	1996-2000	2001-2005	1996-2005
No. of companies	505	508	590
No. of CEOs	676	759	1179
No. of CEO exits	333	579	912
No. of interim appointments	23	84	107
% of CEOs exiting (excluding interim)	47%	73%	75%
Total Observations	2120	2413	4533
<i>Survival times, years</i>			
1st quartile	2.53	2.18	2.33
Median	5.41	4.00	4.34
3rd quartile	10.01	6.51	7.24
<i>Age</i>			
1st quartile	46	45	46
Median	51	50	51
3rd quartile	55	55	55
<i>Total Shareholder Return</i>			
1st quartile	-9.40%	-18.00%	-13.48%
Median	11.74%	8.35%	10.12%
3rd quartile	33.40%	26.30%	29.60%
<i>%Insiders on board (median)</i>			
Company assessment	0.510	0.500	0.500
Sales (median) (2006, £)	563m	573m	570m
Board Size (median)	8	8	8

Over our sample period we observe 1179 CEOs working for 590 companies. Of these, 912 end with the termination of the CEO's contract. The median survival time for a CEO is about $4\frac{1}{2}$ years. Note that, in line with popular perception, the proportion of CEOs experiencing an exit event is significantly higher in the second period, with the median survival time being approximately $1\frac{1}{2}$ years shorter in the second half of the sample. This increase is shown year on year in figure 1. This decline in average CEO tenure coincides with a decline in market performance, as measured by total shareholder

return.⁷

Fig. 1: CEO exits over time



Notes: Figure excludes interim appointments and internal position changes.

The table also reflects the institutional changes over the period, with the percentage of insiders⁸ falling steadily during the period (Figure 2) and the percentage of non-executive directors rising.⁹

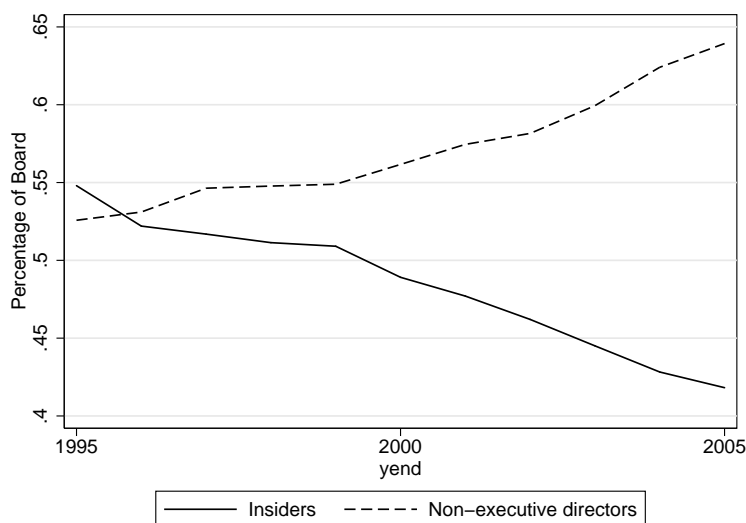
There are a number of ways in which a CEO can leave their position, only one of which is dismissal. We conducted an electronic search of financial news archives and regulatory news service announcements in order to identify the circumstances under which the CEO left his/her position and so exited the sample. Information confirming

⁷Total shareholder return reflects both the capital gain from the movement in the share price and income from dividends.

⁸The percentage of insiders is defined as the proportion of the board that consists of executive directors and affiliated non-executive directors.

⁹Some concern has been raised in the literature regarding the reliability of company own assessments (Lin, Pope & Young 2003, Young 2000). To examine whether our results are sensitive to this issue, we re-estimated the model using Manifest's assessment of independence, which differs only marginally to that suggested by Lin *et al.* (2003). The measured impact of insiders is reduced in significance, but the results for the other covariates are not qualitatively different from the results given in the paper. These results are available from the authors on request.

Fig. 2: Mean board composition



their departure was found in every case and, in all but 65, some explanation of their leaving was offered. This allowed us to split the exit events into 9 types, details of which are given in Table 2.

Note that CEOs are rarely officially ‘dismissed’, with only 10 CEOs suffering this fate in the 10 years of the sample. In many cases it is suspected that face-saving descriptions are used, either to avoid further damage to the ousted executive’s reputation or to facilitate the conclusion of negotiations over compensation. Therefore, care was required when classifying executive departures by exit state. However, where clear evidence was found to show that the CEO had been forced out of their position, the CEO was considered to have been ‘ousted’.

A common occurrence during the sample period was that the roles of Chairman and Chief Executive were split, consistent with the post-Cadbury recommendation for best practice. We code these cases separately as ‘internal change’ since they do not appear to constitute a forced CEO exit. We also code separately those CEO exits arising from

restructuring or change of control.¹⁰ ‘Interim’ appointments to the CEO’s position generally arise as a consequence of the sudden departure of the previous CEO, when someone, most often the Chairman, steps in to fill the role of Chief Executive on a caretaker basis. As these appointments are temporary by definition we exclude them from our analysis.

In a small number of cases no clear reason was given for the departure of the CEO and we could find no clear evidence of either an ousting or an immediate appointment to another company. We put these into an ‘unclassified’ departure category. The absence of any press rumours of dismissal suggests these cases were not among the more egregious examples of CEO behaviour, but it is suspected this category includes departures from a number of causes, including changes of career, moves to private equity companies etc.

Table 2: CEO turnover by mode of exit

	1996 – 2000		2001 – 2005		1996 – 2005	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
Dismissed	3	0.90	7	1.21	10	1.10
Ousted	41	12.31	84	14.51	125	13.71
Internal Change	28	8.41	28	4.84	56	6.14
Interim Appointment	23	6.91	84	14.51	107	11.73
Retirement	90	27.03	162	27.98	252	27.63
Retired to Part Time	30	9.01	54	9.33	84	9.21
Change of Control	74	22.22	89	15.37	163	17.87
Head-hunted	23	6.91	27	4.66	50	5.48
Unclassified	21	6.31	44	7.60	65	7.13
Total exits	333	100	579	100	912	100

Table 3 breaks down CEO tenure by exit event. The survival times are lowest for interim appointments, as might be expected, followed by those who are headhunted, who also tend to be relatively young. Those who are dismissed and ousted have the next shortest tenure. Those whose positions end with retirement generally have the longest

¹⁰Indeed, in some cases the CEO continues as CEO of the new company.

tenures and are oldest at exit. This illustrates the importance of carefully distinguishing exit states in any empirical analysis.

Table 3: Tenure by exit event

	<i>Survival times</i>			<i>Age at exit</i>	
	Lower quartile	Median	Upper quartile	Median	Mean
Dismissed	2.0	2.4	5.0	52.5	49.06
Ousted	1.9	3.0	4.5	50	50.51
Interim appointment	0.3	0.5	0.8	53	51.05
Retirement	2.5	4.8	7.5	56	54.75
Retired to part-time	2.5	3.6	6.0	56	54.14
Change of control	1.4	2.3	4.4	50	49.25
Headhunted	1.7	2.9	5.1	49	47.96
Unclassified	1.9	3.6	6.3	54	52.13

Note: Survival times allow for left truncation and right censoring.

This table illustrates that existing research on executive tenure is likely to suffer from two inter-related difficulties: first, CEOs resign for a variety of reasons some of which (e.g. being headhunted) may be associated with success, some (e.g. dismissal) with failure and others (e.g. retirement) may have ambiguous performance associations. This clearly requires any analysis to allow for different determinants for the alternative exit states. Datasets which do not distinguish between these competing events have distinct disadvantages to those, such as ours, that can. We now consider how best to model the duration of CEO tenure.

2. Duration analysis

In modelling the duration of CEO tenure, we will adopt the Cox (1972) proportional hazard model. A hazard based analysis is useful as our data contains both left truncation (as some CEOs began their tenure prior to the sample start date) and right censoring (as some CEOs have not completed their tenure by the end of the sample) both of which can be readily handled in this framework.

2.1. *Non-parametric analysis*

Prior to estimation, we briefly present a graphical analysis of the hazard rate by exit type. To do so, we combine the possible exit types into three groups: Forced exits (dismissals and ousted), retirements (including remaining as Chairman) and other exits (headhunted, change of control and unclassified).¹¹

Fig. 3: Cause specific hazards

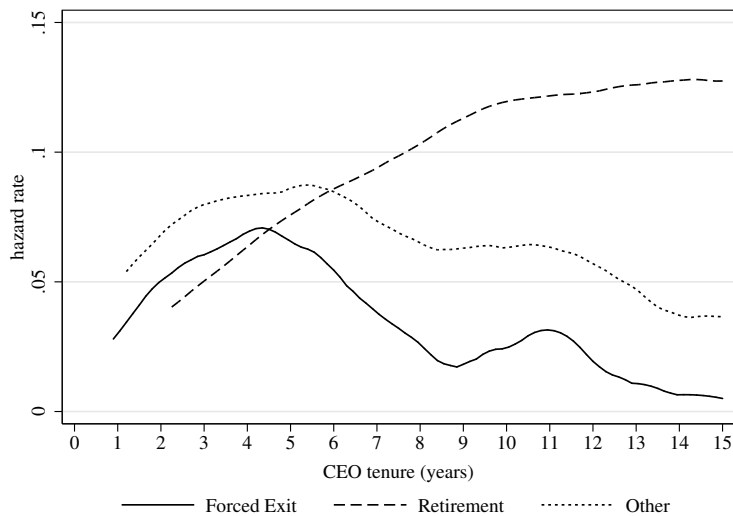


Figure 3 demonstrates the different likelihood of exit to the competing exit states over the tenure of a CEO. At the start of a CEO's employment, the least likely reason for exit is retirement, though this probability steadily increases as time passes. The risk of being forced out rises steadily in the early years, peaks in the fifth year, and declines thereafter- eventually becoming the least likely exit state. Hence, once the CEO has completed 6 years, the most likely form of departure is retirement.

Since one might expect different influences to impact on the hazard rates for forced exit and retirement, Figure 4 examines the impact of firm performance. We would

¹¹Interim appointments are not regarded as an exit type.

expect poor firm performance to have a stronger influence on the hazard of forced departure than the hazard of retirement. For simplicity, we identify four performance quartiles determined by the annual total shareholder return (TSR) ranking within the FTSE 350.

Fig. 4: Breakdown by firm performance

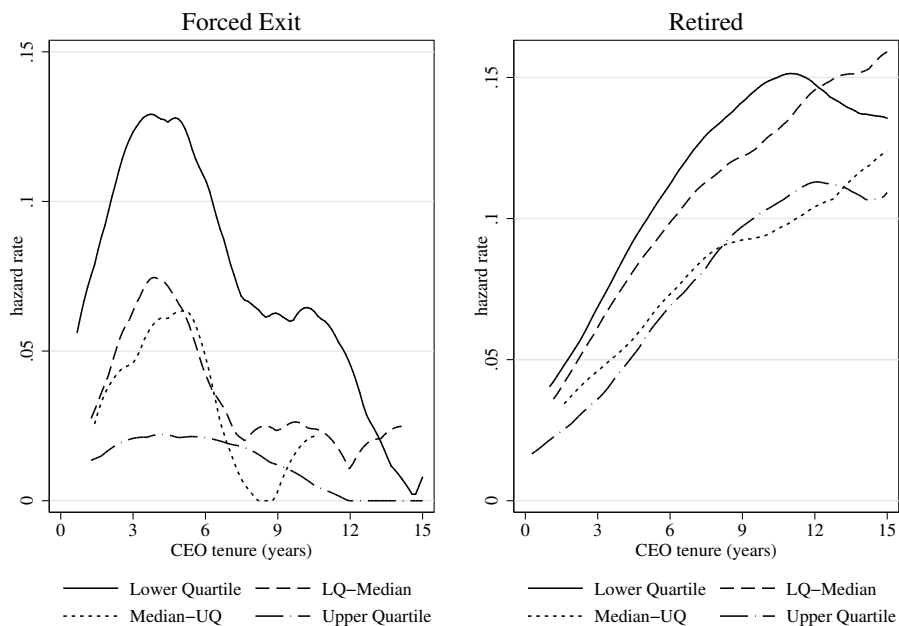
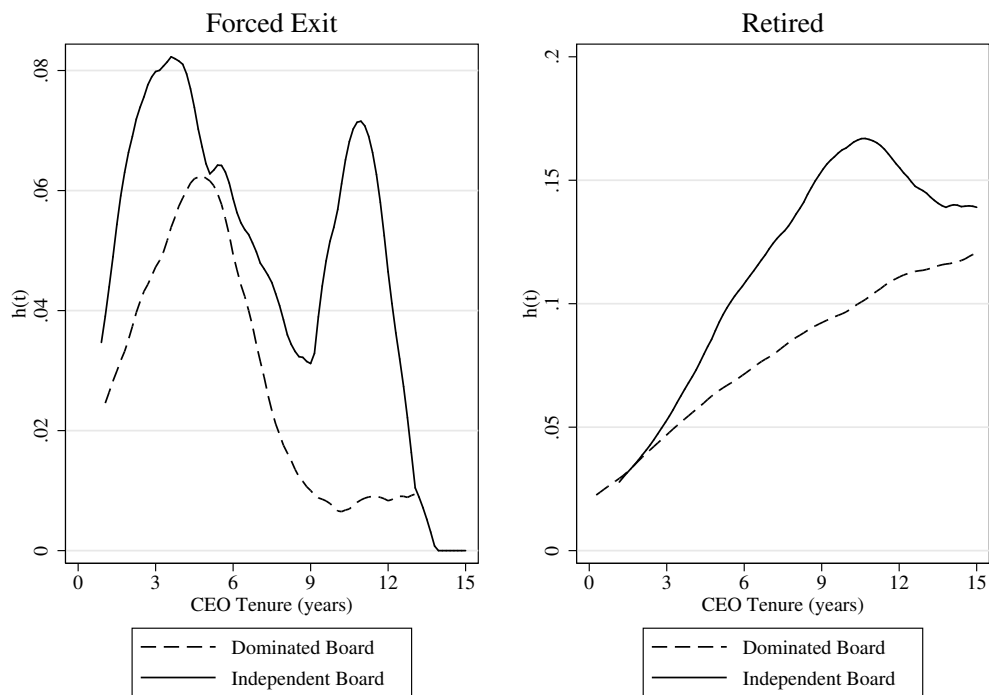


Figure 4 shows that TSR has an impact on the hazard of forced exit with the divergence between the bottom and top quartile performers increasing until year four and remaining higher until year 12. With respect to retirements, the lower quartile performers also have a marginally higher risk of exit up to year 10 or 11, which could reflect CEOs with disappointing performance retiring early.

To investigate the possibility that CEOs may be less likely to be ousted from ‘captured’ boards, Figure 5 compares the hazard rates of those CEOs who have an insider dominated board with those that have independent boards. As can be seen, the hazard for forced exits is consistently lower if a board is dominated by insiders. This is

suggestive of an entrenchment effect. Although the effect is less obvious, the probability of early retirement is also less in dominated boards, also suggesting entrenchment. Moreover, since the difference in the hazard between the dominated boards and the independent boards is greatest between years 9 and 12, this is consistent with the notion that it may take a number of years for a CEO to capture their board.

Fig. 5: Breakdown by board type



2.2. *Semi-parametric analysis*

2.2.1. *All Exit States*

Whilst the graphical analysis is indicative, many additional factors could be impacting on the probability of CEO exit. We therefore proceed with an econometric analysis. In standard parametric survival analysis one needs to assume an explicit form for the

underlying hazard rate, which imposes restrictions on the range of allowable behaviour. By contrast, the Cox (1972) proportional hazard model is a semi-parametric method which allows the estimation of the impact of a covariate without restricting the shape of the baseline hazard. This is convenient for our purposes since we have few priors concerning the form of the underlying baseline hazard. Under the Cox model, the hazard rate that the j 'th CEO faces is multiplicatively proportional to the baseline hazard, $\lambda_0(t)$, that all CEOs face, modified by covariates x_j (Cleves, Gould and Gutierrez 2002).¹²

$$\lambda(t|x_j) = \lambda_0(t) \exp(x_j\beta_x) \quad (1)$$

Table 4 shows the results from running a basic Cox proportional hazards model with all exit states constituting a single failure event.¹³ The t-statistics indicate whether the co-variate has a statistically significant impact, as normal. However, for ease of interpretation, hazard ratios are reported, and thus a coefficient indicates the probability of exit compared to the baseline. A number greater than one indicates the hazard is increased, a number less than one indicates that it is decreased.

The null hypothesis of this paper is that poorly performing CEOs should be dismissed. In our regressions, the total shareholder return variables identify annual performance quartiles compared to the lower quartile performers in the FTSE 350 Index. Even with all exit states bundled together, the impact of a low performance ranking is clear. The probability of exit for low to median performers is 76% that of the worst performers, whilst those in the upper quartile have a hazard that is only 46% of the

¹²The Cox model only concerns itself with the ordering of failure times, not the distribution of failure times. The baseline hazard λ_0 is therefore left unestimated.

¹³The model is estimated in STATA using the `stcox` command.

lowest quartile.

The theoretical caveat to our null hypothesis is that the threat of dismissal is mitigated if the CEO is able to entrench themselves and capture the board. Table 4 shows that the insider variables are also important. Increasing the proportion of independent directors on the board by 20 percentage points, whilst holding the total number of directors the same, would result in an increase in the hazard rate of approximately 14%. In addition, CEO's with larger boards face lower hazard rates, with the results indicating that losing 4 directors from the board would increase the hazard rate by 33%. Age also has a positive impact of the probability of exit.¹⁴ A 65 year old CEO has double the hazard rate of a 55 year old.

Boards which comprise a greater proportion of directors appointed during the tenure of the current CEO result in lower hazard rates.¹⁵ The average length of service of the non-executive directors decreases the hazard, suggesting that a non-executive director does not become more rigorous at monitoring with experience, but rather the CEO carries more influence the longer the director serves in office.

The ownership structure of the firm may also be important in determining CEO turnover. To examine this, we include the difference between the equity holdings of the largest blockholder and those of the CEO. The results indicate that the higher the relative holdings of the blockholder, the more likely the CEO is to be forced from their position.¹⁶

¹⁴Age is entered as a squared term beginning at age 50.

¹⁵In the UK, directors are appointed by the Nomination Committee, a subcommittee of the board, typically led by the chairman or a non-executive director. However, the CEO or other executive directors may also sit on this committee. The percentage of the Board appointed by the CEO variable is constructed by recording the proportion of the board appointed during the tenure of the CEO. This variable is a proxy for the friendliness of the board towards the CEO on the presumption that the CEO is unlikely to preside over the appointment of hostile board members.

¹⁶A complete analysis of control in a public company requires more detailed knowledge of (at least the upper tail of) the distribution of voting shares, as in Leech (2001).

Table 4: Hazard to Any exit

	<i>a</i>		<i>b</i>	
<i>Total shareholder return</i>				
Lower quartile-Median	0.764***	(-2.83)	0.530	(-1.13)
Median-Upper quartile	0.612***	(-4.59)	0.432	(-1.37)
Upper quartile	0.458***	(-7.20)	0.367*	(-1.85)
Ln Sales	1.092***	(2.99)	1.094***	(2.96)
Age	1.005***	(4.06)	1.005***	(4.08)
Board Size	0.918***	(-4.47)	0.905***	(-3.04)
% Insiders on Board	0.322***	(-3.44)	0.323***	(-3.18)
% Board Appointed by CEO	0.257***	(-6.64)	0.248***	(-5.08)
Ave NED Tenure	0.909***	(-4.87)	0.894***	(-3.44)
Block equity-CEO equity	1.013***	(4.20)	1.013***	(4.08)
<i>Total shareholder return interactions</i>				
Board Size				
Lower quartile-Median			1.028	(0.66)
Median-Upper quartile			1.010	(0.23)
Upper quartile			1.024	(0.50)
% Insiders on Board				
Lower quartile-Median			1.073	(0.12)
Median-Upper quartile			1.076	(0.11)
Upper quartile			0.968	(-0.05)
% Board appointed by CEO				
Lower quartile-Median			0.936	(-0.18)
Median-Upper quartile			1.145	(0.32)
Upper quartile			1.081	(0.17)
Ave non-executive tenure				
Lower quartile-Median			1.029	(0.62)
Median-Upper quartile			1.031	(0.59)
Upper quartile			1.000	(0.00)
N	3364		3364	
No. CEOs	871		871	
No. Failures	607		607	
Wald (χ^2)	252.096(19)		256.561(31)	

1. Robust t-statistics, clustered on CEO, are reported in the parentheses.

2. *** Significant at 1%. ** Significant at 5%. * Significant at 10%.

3. Year dummies included.

It is possible that the governance of the company modifies the effect that performance has on the likelihood of CEO exit. To investigate this, we interact board size, % insiders, % board appointed by the CEO and average non-executive tenure with the total shareholder return variables. The results are shown in column *b* of Table 4. None of these interactions are statistically significant and so the structural measures of entrenchment described above appear not to diminish the impact of performance on the likelihood of exit.

2.2.2. *Competing risk estimates*

By grouping all exit types together, the model presented in Tables 4 implicitly assumes the same underlying hazard rate across all failure types. However, as we have seen, there are good reasons to suspect that the baseline hazard is likely to vary depending on the event from which the CEO is at risk. For example, under an entrenchment hypothesis, one would expect the hazard of dismissal to reduce over the course of the CEO's tenure but the hazard of retirement will increase. One strategy, as used by Geddes and Vinod (1997), is to exclude observations that experience the competing event and just analyze the event of primary interest, in this case dismissal. However, a more efficient and informative approach is to directly compare alternative exit states in a common framework. We therefore adopt a competing risks methodology (Prentice et al. (1978), Kalbfleisch and Prentice (1980)). The risks are competing in the sense that the exit states are mutually exclusive (i.e. upon retirement the CEO can no longer be dismissed) and thus each event censors each other event. We distinguish between three competing exit types: forced departures; retirements; and other exits. We follow the method of Lunn and McNeil (1995) and stratify by risk type, since we do not wish to restrict the baseline hazards of the different risk types to share a constant ratio. This

is achieved by duplicating the data so that there are three entries per observation, one for each risk type. The duplicated entries show the other risk types and are always censored. If the original observation is right censored, then three entries exist, one for each failure type, all of which are censored. A Cox regression, stratified by failure type, is then performed with the covariates interacted with each risk type. By this method we can identify how the covariates impact upon each competing risk.

Examining the competing risk estimates, a clear distinction can be observed in Table 5 with respect to the influence of covariates upon CEO turnover. Firm performance is critical in the hazard of a forced exit, with CEOs of firms in the top quartile having a hazard rate only 20% of that of the bottom quartile. In contrast, performance has a positive impact on exits to other states, presumably as high performers move on to other jobs.

Table 5 shows that CEO's with a larger proportion of the board appointed during their tenure are at significantly lower risk of dismissal. *Ceteris paribus*, increasing the proportion of the board who have been appointed during the tenure of the CEO by 50 percentage points reduces the risk of dismissal by 40%. Boards comprising longer serving non-executive directors also reduce the risk of dismissal for the CEO.

As with the single risk estimates, we also interact the performance with the governance variables, but again these effects are largely insignificant. Therefore, we are unable to conclude that the impact of poor performance upon dismissals is reduced in weakly governed firms.

To summarise, we have provided evidence that poorly performing CEOs are at a greater risk of dismissal. We have also shown that governance matters: CEOs with larger boards, with more directors appointed during their tenure, with established non-

Table 5: Hazard to Competing Risks

	<i>Forced Departure</i>	<i>Retirement</i>	<i>Other</i>	<i>Forced Departure</i>	<i>Retirement</i>	<i>Other</i>
<i>Total shareholder return</i>						
Lower quartile-Median	0.402*** (-3.70)	2.220** (2.69)	2.072** (2.34)	0.246 (-0.90)	2.685 (0.56)	4.762 (0.83)
Median-Upper quartile	0.360*** (-4.17)	1.829* (1.93)	2.034** (2.21)	0.074* (-1.70)	8.066 (1.10)	10.477 (1.20)
Upper quartile	0.196*** (-5.15)	3.317*** (3.28)	2.325** (2.18)	0.103 (-1.19)	10.907 (1.13)	2.599 (0.43)
Ln Sales	1.194** (2.53)	0.933 (-0.80)	0.883 (-1.42)	1.209** (2.60)	0.922 (-0.91)	0.869 (-1.55)
Age	0.999 (-0.41)	1.008*** (2.84)	0.998 (-0.58)	0.999 (-0.41)	1.008*** (2.78)	0.998 (-0.52)
Board Size	0.936 (-1.42)	0.966 (-0.60)	1.003 (0.05)	0.910 (-1.42)	0.999 (-0.01)	0.987 (-0.13)
% Insiders on Board	0.205** (-2.08)	2.252 (0.88)	1.707 (0.54)	0.182** (-2.16)	2.137 (0.76)	2.423 (0.85)
% Board Appointed by CEO	0.196*** (-4.26)	2.260* (1.72)	0.957 (-0.10)	0.147*** (-3.77)	2.946 (1.55)	1.964 (0.97)
Ave NED Tenure	0.806*** (-3.57)	1.160** (2.24)	1.150** (2.00)	0.814** (-2.38)	1.155 (1.35)	1.120 (1.09)
Block equity-CEO equity	1.017** (2.38)	0.994 (-0.72)	0.997 (-0.36)	1.017** (2.48)	0.993 (-0.82)	0.996 (-0.41)
<i>Total shareholder return interactions</i>						
Board Size						
Lower quartile-Median				0.997 (-0.03)	1.045 (0.37)	1.034 (0.26)
Median-Upper quartile				1.121 (1.29)	0.829 (-1.49)	0.949 (-0.42)
Upper quartile				1.023 (0.16)	0.957 (-0.28)	1.093 (0.53)
% Insiders on Board						
Lower quartile-Median				1.643 (0.30)	1.026 (0.01)	0.284 (-0.59)
Median-Upper quartile				1.130 (0.08)	1.218 (0.10)	0.662 (-0.21)
Upper quartile				2.096 (0.36)	0.462 (-0.34)	0.391 (-0.37)
% Board appointed by CEO						
Lower quartile-Median				3.278 (1.29)	0.189 (-1.46)	0.141* (-1.69)
Median-Upper quartile				0.774 (-0.29)	2.572 (0.81)	0.788 (-0.20)
Upper quartile				2.982 (0.78)	0.316 (-0.72)	0.138 (-1.19)
Ave non-executive tenure						
Lower quartile-Median				0.878 (-0.77)	1.128 (0.64)	1.221 (1.05)
Median-Upper quartile				1.152 (1.09)	0.877 (-0.85)	0.846 (-0.97)
Upper quartile				0.835 (-1.20)	1.115 (0.63)	1.262 (1.22)
No. CEOs		871			871	
No. Failures		607			607	
Wald (χ^2)		375.810(59)			410.609(95)	
Equality of coefficients across risks (χ^2)		78.97(20)			104.96(44)***	

1. Robust (clustered around CEO) t-statistics reported in the parentheses.

2. *** Significant at 1%. ** Significant at 5%. * Significant at 10%.

3. Year dummies included.

executive directors and with a greater proportion of insiders have lower hazard rates of dismissal. Yet, we fail to find evidence of an interaction between performance and governance.

Performance Revelation vs Entrenchment

In the non-parametric analysis in section 2.1. we showed that the hazard of forced exit varied over a CEO's tenure, increasing until year 4 and declining thereafter. This is a pattern that we might expect to see under entrenchment. The hazard rate will decrease if the CEO captures the board, which might take the CEO a number of years. Now, even if shareholders desire to remove the CEO, they will have lower rates of success due to the increasingly entrenched position of the CEO.

However, Figure 3 also describes what we might expect to see with performance revelation. As information regarding the CEOs ability increases as a result of observing additional years of firm performance under their tenure, shareholders may become more willing to stick with the CEO, even if current performance is relatively poor. However, if the declining hazard is due to information revelation, we would additionally expect the impact of cumulative good past performance to make the CEO more secure. To this end, we additionally add the cumulative change in TSR ranking to our regressions.¹⁷ We then allow the impact of the performance and insider variables to vary, by splitting our sample at 5 years of tenure.¹⁸ Table 6 presents the results of this exercise.

Current performance, measured by total shareholder return does indeed appear to become less important after 5 years, as predicted by both the entrenchment and per-

¹⁷The cumulative change in TSR ranking captures performance in all years since appointment, assuming each year's performance is equally important.

¹⁸We have experimented with break points at other tenures, but that at 5 years gives the model with the highest log-likelihood.

formance revelation hypotheses. Our reported estimates also show that the impact of insiders on the hazard of forced departures increases after the CEO has been in office for 5 or more years. This is consistent with the entrenchment hypothesis. No evidence is found for information revelation however- the coefficient on the change in TSR ranking moves in the opposite direction to that expected. This suggests that shareholders continue to regard recent, rather than good past, performance as the key indicator of CEO competence.

Governance Environment

As indicated in the introduction, the period of investigation was one of an ongoing programme of corporate governance reforms (Cadbury 1992, Greenbury 1995, Combined Code 1999, 2003, Higgs 2003) which might be expected to have impacted upon executive tenure: First, as noted above, these changes had the consequence of progressively reducing the contract length for UK senior executive from three years or more, in the early 1990s to 12 months or less by 2003 (Combined Code 2003). This would have had a corresponding impact on the compensation requirements in the event of severance and hence be expected to reduce the costs of CEO dismissal. Second, the reforms from Cadbury onwards have consistently sought to strengthen the role and independence of non-executive directors (Solomon 2007). If successful, this would be expected to increase the accountability of CEOs and increase the risk of dismissal for poorer performers among their number.

Finally, if less obviously, there is a widespread perception that shareholder activism has increased over the period (Davies, Platts & Lewis 2008). In part, this has been encouraged by corporate governance reforms which have increased direct shareholder voice - on such issues as calling shareholder meetings, replacing directors, approving

Table 6: Performance revelation versus entrenchment

	<i>Tenure < 5</i>			<i>Tenure ≥ 5</i>		
	<i>Forced Departure</i>	<i>Retirement</i>	<i>Other</i>	<i>Forced Departure</i>	<i>Retirement</i>	<i>Other</i>
<i>Total shareholder return</i>						
Lower quartile-Median	0.406*** (-3.06)	2.393** (1.98)	1.464 (0.96)	0.320** (-2.12)	2.868* (1.83)	2.867* (1.72)
Median-Upper Quartile	0.359*** (-3.17)	1.432 (0.69)	1.565 (1.02)	0.231** (-2.40)	3.511* (1.90)	2.536 (1.28)
Upper Quartile	0.148*** (-3.59)	3.269* (1.64)	2.037 (1.09)	0.186** (-2.40)	3.979* (1.82)	1.731 (0.64)
Change TSR Ranking	0.943 (-0.15)	1.340 (0.51)	1.973 (1.36)	3.055* (1.60)	0.285* (-1.68)	0.607 (-0.60)
Ln Sales	1.194** (2.43)	0.905 (-1.08)	0.894 (-1.24)	1.217** (2.05)	0.928 (-0.72)	0.865 (-1.41)
Age	1.001 (0.35)	1.014*** (3.07)	0.990 (-1.40)	0.998 (-0.47)	1.008* (1.67)	1.001 (0.11)
Board Size	0.913 (-1.57)	0.963 (-0.44)	0.970 (-0.39)	0.974 (-0.43)	0.932 (-0.99)	1.023 (0.31)
% Insiders on Board	0.345 (-1.18)	3.723 (0.93)	8.220 (1.68)	0.045** (-2.43)	6.341 (1.34)	0.644 (-0.30)
% Board Appointed by CEO	0.298** (-2.07)	0.271 (-1.42)	0.227** (-1.99)	0.297** (-2.09)	1.311 (0.38)	3.297 (1.48)
Ave NED Tenure	0.825** (-2.34)	1.086 (0.70)	1.132 (1.28)	0.862** (-2.15)	1.067 (0.88)	1.055 (0.62)
Block equity-CEO equity	1.020** (2.42)	0.987 (-1.00)	0.992 (-0.65)	0.993* (-0.58)	1.021 (1.64)	1.016 (1.05)
Wald χ^2	544.947(95)					
Equality of coefficients: tenure < 5 & tenure > 5 (χ^2)	101.84(30)					

1. T-statistics reported in the parentheses.
2. *** Significant at 1%. ** Significant at 5%. * Significant at 10%.
3. Year dummies included.

remuneration committee reports etc. (Davies *et al.* 2008, p4) - and thereby encouraged participation at shareholder AGMs. This is reinforced by the increased role of shareholder pressure groups and governance consultancies, such as Manifest, in providing alternative source of information to shareholders. However, above all it reflects the view that the growth of institutional shareholdings challenges the received wisdom of the diffuse control of large public companies (Pensions Investment Research Consultants 2003). Indeed work such as Leech(2001, 2003) suggests that effective voting control in many large UK companies could rest in the hands of a few fund managers if they co-ordinate their voting. Furthermore, the large absolute size of these holdings reduces their liquidity and thereby provides an incentive for intervention (Leech 2003). Following the Myners' Reports (2001, 2004) institutional shareholders' organisations have acknowledged the role of fund managers in corporate governance (Davies *et al.* 2008, p2).

Since changes in the governance environment have occurred progressively, but incrementally, over the period, we test for their impact by splitting our data at 2000 and labelling the sub-periods thereby created as 'pre-reform' and 'post-reform', respectively. The results of this exercise are given as Table 7. We find supportive evidence of an increase in the importance of firm performance post-reform. In particular, the hazard of forced departure for the bottom quartile performers doubles between the two sub-periods, with a corresponding fall in the other exit states. There is some suggestive decline in the hazard for the top performing companies; although these changes are not significant.

The results for our governance variables suggest a rather limited impact of the reform process. Although the impact of insiders is weaker in the post reform period, the entrenching effect of board members appointed by the CEO appears to have increased.

Table 7: Impact of Governance reforms

	<i>Pre-Reform</i>			<i>Post-Reform</i>		
	<i>Forced departure</i>	<i>Retirement</i>	<i>Other</i>	<i>Forced departure</i>	<i>Retirement</i>	<i>Other</i>
<i>Total shareholder return</i>						
Lower quartile-Median	0.260*** (-2.78)	3.103** (1.97)	3.220** (2.09)	0.526** (-2.19)	1.735 (1.57)	1.605 (1.20)
Median-Upper Quartile	0.389** (-2.26)	1.583 (0.86)	1.676 (0.99)	0.367*** (-3.22)	1.772 (1.47)	2.251** (1.94)
Upper Quartile	0.220*** (-3.19)	2.913* (1.89)	1.081 (0.12)	0.181*** (-3.94)	3.423** (2.54)	3.454** (2.45)
Ln Sales	1.274* (1.82)	0.822 (-1.23)	0.954 (-0.29)	1.183* (1.95)	0.959 (-0.39)	0.812* (-1.89)
Age	1.006** (2.01)	1.002 (0.69)	0.993* (-1.80)	0.988** (-2.11)	1.019*** (3.22)	1.007 (1.11)
Board Size	0.976 (-0.35)	0.970 (-0.36)	0.976 (-0.29)	0.899* (-1.76)	0.984 (-0.22)	1.029 (0.37)
% Insiders on Board	0.096* (-1.83)	4.792 (1.02)	0.958 (-0.03)	0.280 (-1.29)	1.533 (0.36)	3.505 (0.94)
% Board Appointed by CEO	0.349** (-2.05)	2.769 (1.23)	0.574 (-0.85)	0.114*** (-4.13)	2.787* (1.65)	1.480 (0.61)
Ave NED Tenure	0.833** (-2.25)	1.139 (1.43)	1.121 (1.21)	0.769*** (-3.14)	1.209** (2.10)	1.165 (1.50)
Block equity-CEO equity	1.019 (1.08)	0.977 (-1.11)	0.990 (-0.47)	1.018** (2.31)	1.020 (0.86)	1.007 (0.29)
Wald χ^2	488.997(89)					
Equality of coefficients: Pre- and Post-reform (χ^2)	56.41(30)					

1. Robust (clustered around CEO) t-statistics reported in the parentheses.
2. *** Significant at 1%. ** Significant at 5%. * Significant at 10%.
3. Year dummies included.

However, again, neither of these differences are statistically significant. In sum, our estimates cast doubt on the success of the reforms in weakening the ability of CEOs to entrench themselves in their position.

3. Conclusions

We have presented evidence that the threat of CEO dismissal responds to performance as measured by total shareholder return. We have also shown that the threat of dismissal falls with certain structural measures of entrenchment such as the proportion of insiders on the board or number of directors appointed during the CEO's tenure. However, we were unable to find a strong interaction between governance conditions and the impact of performance in determining the threat of dismissal.

Our investigation has also exposed distinct differences between the hazard rates of competing risk types and in the variation of these hazard rates over time. Whilst the risk of retirement increases steadily throughout the CEO's tenure, the risk of an exit under pressure from the board and/or shareholders only increases to year four, after which time a forced exit becomes decreasingly likely. Broadly speaking, such a result can be interpreted in two ways. Either boards are placing increased trust in the competence of CEOs who have survived until year four and therefore are more forgiving in light of subsequent poor performance. Alternatively, and less optimistically, CEOs who survive beyond year four are more capable of entrenching themselves in the position, perhaps by filling the board with compliant directors who are less rigorous in their duty as monitors of the CEO's activity. Thus, the CEO is better able to resist punishment for poor company performance in the later years of their tenure. Our results, favour the latter explanation, as the composition of the board appears to be increasingly important

as a predictor variable in the determination of the hazard rate in the later years of a CEO's tenure.

We also find a greater frequency of dismissals in the post 2000 period. This is perhaps reflective of increased churn following the stock market downturn in 2001, but our reported estimates also provide some support for the view that corporate governance reforms have made it harder for CEOs to resist the consequences of poor share performance. The post 2000 period is characterised by a higher ratio of outsider directors on the board and the progressive reduction in average contract length has made CEO service contracts cheaper to terminate. These changes, reflecting a succession of revisions to the Combined Code, are suggestive of a positive role for policy in increasing the incidence of performance related departures in UK business. However, the corporate governance reforms appear to have been ineffective in reducing the ability of CEOs to entrench themselves during their tenure. The threat of removal after year four continues to recede at least as fast as it did before the implementation of most of the reforms.

Appendix

Definition of exit events

<i>Event</i>	<i>Definition</i>
Retirement	Retirement (including early retirement, illness or death).
Headhunted	CEO gave notice to immediately pursue a position at another company.
Change of Control	The CEO exits the sample due to her Company being acquired, wound up or taken private.
Ousted	The CEO leaves under pressure from the Board or shareholders.
Dismissed	The CEO is officially removed from their position either by shareholders or the Board.
Interim Appointment	The CEO resigns having been appointed only on a temporary basis following a sudden departure.
Internal Position Change	A positional change but the CEO effectively continues as CEO.
Retired to Part Time Position	The CEO retires to become a non-executive director or Chairman of the same company.
Unclassified	The CEO exits the Company and there is no evidence to suggest they had resigned under pressure.

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