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TITLE: The performance-governance relationship: the effects of Cadbury compliance on UK quoted companies.

YEAR: 2000

Publisher citation: WEIR, C. and LAING, D. 2000. The performance-governance relationship: the effects of Cadbury compliance on UK quoted companies. Journal of managemen and governance [online], 4(4), pages 265-281. Available from: http://dx.doi.org/10.1023/A:1009950903720

OpenAIR citation: WEIR, C. and LAING, D. 2000. The performance-governance relationship: the effects of Cadbury compliance on UK quoted companies. Journal of managemen and governance, 4(4), pages 265-281. Held on OpenAIR [online]. Available from: https://openair.rgu.ac.uk

The performance-governance relationship: the effects of Cadbury compliance on UK quoted companies

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ABSTRACT

This paper investigates the extent to which recommendations made by the Cadbury Committee have affected UK company performance. The Committee recommended that certain internal monitoring mechanisms should be adopted by quoted firms because they were more effective than others as a means of promoting shareholder interests. The mechanisms analysed are duality, the number of outside directors on the board and the presence of a remuneration committee. We analyse the relationship between governance structures and performance for two years, 1992 and 1995. Using samples of 200 companies for each of the years, we find that the proportion of firms adopting the governance structures recommended by Cadbury has increased. However there is mixed evidence that the structures are associated with better performance. Depending on the choice of dependent variable, the presence of a remuneration committee has a positive effect on performance and outside director representation has a negative effect. However, there is evidence of a simultaneous relationship between outside director representation and performance, a result consistent with additional outside directors being appointed after a period of poor performance. Complete compliance with the model of governance proposed by the Cadbury Committee does not, however, appear to be associated with performance which is better than that achieved by either partial or non compliance.

Key words; Board structure; Company performance; Governance structures; Remuneration committees.

Corporate performance and changes in governance characteristics: the impact of the Cadbury Committee's recommendations on UK plcs

ABSTRACT

This paper investigates the extent to which recommendations made by the Cadbury Committee have affected UK company performance. The Committee recommended that certain internal monitoring mechanisms should be adopted by quoted firms because they were more effective than others as a means of promoting shareholder interests. The mechanisms analysed are duality, the number of outside directors on the board and the presence of a remuneration committee. We analyse the relationship between governance structures and performance for two years, 1992 and 1995. Using samples of 200 companies for each of the years, we find that the proportion of firms adopting the governance structures recommended by Cadbury has increased. However there is mixed evidence that the structures are associated with better performance. Depending on the choice of dependent variable, the presence of a remuneration committee has a positive effect on performance and outside director representation has a negative effect. However, there is evidence of a simultaneous relationship between outside director representation and performance, a result consistent with additional outside directors being appointed after a period of poor performance. Complete compliance with the model of governance proposed by the Cadbury Committee does not, however, appear to be associated with performance which is better than that achieved by either partial or non compliance.

I. Introduction

This paper analyses the extent to which governance structures influence firm performance. It assesses the relationship for two samples of UK public limited companies, one for 1992 and the other for 1995. The Cadbury Committee which published its report in 1992 (Cadbury 1992), had been set up to investigate corporate governance issues. In its Code of Best Practice, the Committee recommended a number of governance mechanisms which it believed would improve the corporate governance of UK companies. The year of the report therefore represents the governance-performance relationship pre-Cadbury. The 1995 results will show the extent to which recommended changes have been implemented and whether or not the governance-performance relationship has changed in the post-Cadbury period.

The agency model deals with issues raised by the separation of ownership and control whereby the principals, or shareholders, delegate authority for the running of the business to the agent, or management team, Fama (1980) and Fama and Jensen (1983). In relation to public limited companies, the model attempts to resolve the problem of residual control rights, brought about by the diffuse nature of ownership, by means of contracts. The difficulty encountered in this situation is that the principals and agents may have different objectives. Principals are assumed to be wealth maximisers whereas managers are assumed to treat wealth as a constraint rather than an objective. Consequently they attempt to achieve objectives such as growth of assets, sales maximisation, or the purchase of perquisites. Central to the agency problem is information asymmetry which means that monitoring and

incentive costs are incurred by the principals as they attempt to reduce opportunistic behaviour and align manager interests with their own.

It has been argued that opportunistic behaviour, which is contrary to shareholders' interests, can be minimised if firms adopt certain governance characteristics relating to incentives and monitoring mechanisms. For example, in terms of incentives, Jensen and Meckling (1976) argue that if senior management own significant shareholdings in the firm, their interests will become more closely aligned to those of other shareholders. Alternatively, an important monitoring mechanism is the appointment of non-executive directors. Fama and Jensen (1983) maintain that reputation is important to non-executive directors and that this ensures that they are effective monitors of management. The Cadbury Committee also stressed the importance of non-executive (outside) directors and it identified the resolution of conflict as one of the outside directors' main functions. Effective monitoring mechanisms and appropriate incentive schemes should therefore improve corporate performance.

The paper is organised as follows. Section II discusses the roles of the various internal governance mechanisms. The variables, hypotheses and model are described in Section III. The results are analysed in Section IV. Finally, some conclusions are drawn in Section V.

II The Cadbury Report and Internal Governance Mechanisms

The Cadbury Committee was set up in 1991 to address the issues of financial reporting and corporate governance. Increasingly concerns had been expressed about matters such as the accuracy of financial reporting, accountability and the lack of a clear link between director pay and company performance. These concerns had been compounded by the sudden failure of a number of large quoted companies. In an attempt to address these issues, the Committee proposed a particular model of governance which should be adopted by UK quoted companies. The model was laid out in a Code of Best Practice which identified preferred corporate governance structures. These included the separation of the roles of CEO and chair, the importance of outside director representation and the formation of remuneration and audit committees. In addition, the report also highlighted the importance of institutional shareholders as a means of influencing the standards of corporate governance. Thus Cadbury proposed a specific combination of control and incentive mechanisms which were designed to improve governance and promote shareholder interests. If this model is effective, we would therefore expect that firms that complied with Cadbury would, as a result of the more effective control mechanisms, perform better than firms that did not do.

Companies which put in place effective internal governance mechanisms should therefore pursue shareholders' interests, that is, implement value-maximising policies. If they fail to do this, the market for corporate control serves as an external monitoring mechanism of last resort, Fama (1980), and changes in ownership and governance mechanisms will be effected.

Outside Directors

Although the executive directors are considered to have the necessary skills and expertise, Fama (1980) maintained that a board consisting wholly of inside directors could not adequately monitor itself and such a structure would merely exacerbate the agency problem. It was therefore argued that the key function of outside directors was to provide an effective check on the actions of executive directors, Fama (1980).

However, whilst outside directors can bring a breadth of knowledge, experience and objectivity to bear upon board decisions, it may be difficult for them to understand the complexities of the company, particularly as outside directors are usually part-time and may sit on a number of other boards. For example, Baysinger and Hoskisson (1990) found that there is no link between board composition and performance when both relate to the same year. They argue that outside directors lacked the information necessary for decision-making; did not appear to fully understand the business; and may have too little time to devote to their duties. Support for this comes from Yermack (1996) who found a negative relationship between the proportion of outside directors and performance. In contrast, Rosenstein and Wyatt (1990) find that positive abnormal returns occur when an outside director is appointed. Shivdasani and Yermack (1999) find that the market reaction to the appointment of new outside directors depends on two things: first, whether or not the CEO was involved in the appointment and second, the perceived independence of the newly appointed director. Finally Dalton *et al* (1998) find,

using meta-analysis, that board composition has no meaningful impact on financial performance.

A number of studies have, however, suggested that the relationship between board structure and performance is endogenous rather than exogenous. Baysinger and Butler (1985) find a lagged effect between board structure and performance. Weisbach (1988) reports that companies that have outsider dominated boards are more likely to replace the CEO after a period of poor performance than are companies with boards that have a majority of insider directors, a finding supported by Borokovich et al (1996). Hermalin and Weisbach (1988) show that poor firm performance is more likely to result in outside directors joining the board and inside directors leaving the board. Bhagat and Black (1998) find a negative correlation between board independence and performance using both lagged and led relationships. In addition Bernhart *et al* (1994), using both OLS and instrumental variables, find a curvilinear relationship between board structure and performance. In contrast, Klein (1998) finds no link between board composition and prior performance.

In spite of the inconclusive evidence about the beneficial effects of outsider representation, their importance is a central element of the Cadbury Report. It recommends that firms should have at least three outside directors on their boards. This recommendation indicates that the Committee concluded that the advantages of better monitoring outweighed any costs associated with the possible lack of specialist, company-specific knowledge.

Duality

Duality refers to a board leadership structure in which the Chief Executive Officer (CEO) is also the chairman of the board. It has been argued that by serving as chairman, the CEO will acquire a wider powerbase and locus of control, thus weakening decision control by the board, Morck *et al* (1987). Duality therefore appears to impair the ability of the board to ensure that the board pursues goals consistent with the objectives of the shareholders.

Research on the duality-performance relationship has, however, produced mixed results. Boyd (1995) found that combining the roles was associated with higher profitability. In contrast Rechner and Dalton (1991) concluded that combining the roles reduced profitability whereas Baliga *et al* (1996) and Dalton *et al* (1998) found that duality had no effect on performance. Thus, although duality may increase the opportunities for the potential appropriation of residual control rights, it does not necessarily mean that it will occur.

In spite of the lack of evidence that duality had a detrimental effect on performance, the Cadbury Committee concluded that combining the roles was undesirable. In its Code of Best Practice it recommended that the roles should be separate and, where they were combined, there should be strong outside director monitoring.

Internal Committees

Cadbury recommended the setting up of board subcommittees which were to assume responsibility for specific governance functions. One such subcommittee was the remuneration committee, the purpose of which was to link executive rewards more closely to performance. Main and Johnston (1993) found that the existence of a remuneration committee was positively related to performance. Klein (1998) found a weak, positive link between the presence of a remuneration committee and performance. However, as Dalton *et al* (1998) point out, relatively little research has been undertaken on the relationship between board subcommittees and performance.

Internal Shareholdings

Jensen and Meckling (1976) argue that the agency problem can be minimised when managers have an ownership interest in the company. This convergence-of-interest model maintains that, as the proportion of equity owned by insiders increases, the interests of management and shareholders become more aligned and the incentive to indulge in opportunistic behaviour diminishes. In this context insiders are managers and directors who, in addition to being shareholders, also participate in the decision-making process.

There is evidence, however, that the relationship between management ownership and performance is non-linear, Morck *et al* (1988), McConnell and Servaes (1990) and Mudambi and Nicosia (1998). Thus increased director shareholdings could indicate the presence of managerial entrenchment .

External Shareholdings

The diffuse nature of public limited companies means that most shareholders own a small proportion of a company's share capital. As a result shareholders have little incentive either to monitor the actions of managers or to devote the time to challenge management's decisions. However, the larger a shareholder's stake, the greater the incentive to monitor both the decision plans and outcomes of managers because the potential costs associated with a management's decisions are now greater, Demsetz and Lehn (1985). Shleifer and Vishny (1986) and Leech and Leahy (1991) all find that large external shareholdings are associated with improved levels of profitability and company performance. Further, large shareholders pose a serious threat to management in relation to the market for corporate control. In this context the larger the shareholder, the greater is the potential to encourage a take-over bid which, if successful, is likely to lead to the replacement of the existing board members and management team. Large shareholders may also be able to exert influence over the board in relation to the appointment of non-executive directors.

III DATA, VARIABLES AND HYPOTHESES

Company names were taken from the Times 1000 for 1992 and 1995. The Times 1000 lists the firms with the largest sales in the UK. For each year, 200 non-financial, fully quoted UK companies were randomly selected. The two samples were taken from different populations and therefore the analysis will not suffer from survivorship bias, Brown *et al* (1992) and Powell (1997).

Firm performance data were taken from Extel Company Analysis. Share price data were taken from Extel Equity Research. Governance data were taken from company annual reports and the Price Waterhouse Corporate Register which includes coverage of all UK fully quoted companies. The Register provides information on board size, structure, the presence of duality, director shareholdings, external shareholdings in excess of 3% and whether or not a company has a remuneration committee[1]. However, there was a lack of a requirement for firms to disclose detailed governance information on committees and committee structures in 1992. Consequently, where possible, we telephoned companies to check the 1992 governance data. There may therefore be some underreporting of the extent to which remuneration committees existed as separate bodies. The governance data and performance data relate to the situations at the end of each of the 1992 and 1995 financial years.

Cadbury (1992) was published in late 1992 so that the 1992 figures represent the companies' immediate pre-Cadbury governance structures. The data will therefore allow us to test how far the governance-performance relationship has changed since the publication of the Cadbury Report in 1992.

The general model specification is:

$$\text{Performance}_i = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \varepsilon_i$$

where

PERFORMANCE is measured in accounting and market terms - ROA and RAW respectively. They are defined as:

ROA_i - return on assets which is defined as (profit before interest and tax/total assets)*100

RAW_i - raw market returns measured by the percentage change in the share price over the financial year.

All values are at the balance sheet date.

X_1 = a matrix of board structure variables: NNX, NX, DUAL, REM and CC

X_2 = a matrix of incentive control variables: SHARE1, SHARE1SQ and SHARE2

X_3 = a matrix of non-board control variables: DEBT, SIZE and BETA

X_4 = a vector of the lagged dependent variable.

The right hand side variables are defined next along with the hypotheses which are based on the Cadbury Committee's recommendations in relation to the preferred governance structures.

NNX_i - the number of outside (non-executive) directors on the board of each company. The higher the number of outside directors, the more effective they will be in monitoring the executive directors. We therefore expect a positive relationship between NNX and PERFORMANCE

$NX3_i$ - is a binary variable. It is equal to 1 if a firm has at least three outside directors on its board and zero if it has less. Given that this measures one of Cadbury's recommendations, we expect a positive relationship between NX3 and PERFORMANCE.

$DUAL_i$ - is a binary variable. If the roles of CEO and chairman are held by a single individual, DUAL is one and zero if they are not. Although the evidence is inconclusive, Cadbury suggests that duality is associated with poor

corporate performance and therefore, we expect a negative relationship between DUAL and PERFORMANCE.

REM_i - is a binary variable. If a company has a remuneration committee, REM is one and zero if it does not. Given that the presence of the committee should have a positive effect on firm performance, we expect a positive relationship between REM and PERFORMANCE.

CC_i - is a binary variable measuring whether or not the firm fully complies with the Cadbury recommendations about duality, the number of outside directors and the setting up of a remuneration committee. If a company has a remuneration committee, has a separate CEO and chair and at least three outside directors on the board, CC is one, and zero otherwise. We expect a positive relationship between CC and PERFORMANCE.

We control for the following incentive governance variables:

$SHARE1_i$ - measures the total percentage shareholdings of the directors. Because of the proposed positive link between director and shareholder interests, we expect a positive relationship between SHARE1 and PERFORMANCE.

$SHARE1SQ_i$ - is the square of the shareholdings of the directors. If managerial entrenchment is present, we expect a negative relationship between SHARE1SQ and PERFORMANCE.

$SHARE2_i$ - measures the total of all external shareholdings in excess of 3%, this being the figure above which shareholdings must be declared. It is proposed that the larger the external shareholding, the greater the incentive to monitor management decisions. As monitoring increases, so agency costs

increase. However, assuming that the benefits are greater than the costs, we expect a positive link between SHARE2 and PERFORMANCE.

We also control for four non-board governance variables:

$DEBT_i$ - is total debt divided by total assets where total debt is defined as long term loans + short term loans.

$BETA_i$ - calculated using the market model over the accounting year. It is the beta value of the market equation.

$SIZE_i$ - is the natural log of market capitalisation.

LDV_i - dependent variable lagged one year. This allows us to take account of possible endogeneity between performance and board composition.

IV RESULTS

Insert Table I

Descriptive statistics for the two years are given in Table I. For both years the average number of outside directors was above the minimum of three recommended by Cadbury. The proportion of boards with at least three outside directors was high in 1992 at 83% and rose to 90% in 1995. In 1992, 29% of firms had a combined CEO and chair. By 1995, the figure had fallen to 15% indicating a clear move away from this type of structure. There has also been a large increase in the percentage of firms with remuneration committees to 95% in 1995. The 1992 figure of 51% should be treated with caution because firms were not obliged to report the existence, or otherwise, of such committees prior to the Cadbury Report. The figure may therefore be an underestimate. For example, Main and Johnston (1993) using company

accounts as a data source, found that 31% of quoted companies had a remuneration committee in 1990. Conyon (1994) used questionnaires and found a much higher incidence, 54% for 1988 and 94% for 1993. The proportion of firms which fully complied with Cadbury's recommendations on duality, the number of non-executive directors and the setting up of remuneration committees increased from 38% to 74% over the period. The figures in Table 1 indicate that firms had moved towards governance structures consistent with the Cadbury model. The control variables show a fall in debt, a slightly lower beta and an increase in the average size of firms.

Insert Table II

Table II compares the mean values of the governance variables and hence enables us to assess the extent to which there have been significant changes in the relevant governance mechanisms over the period. The fall in the incidence of companies having the same person as CEO and chairman is significant at the 1% level with only 15% of firms combining the roles by 1995. Although the number of non-executive directors has increased, the increase is not statistically significant. The proportion of companies having at least three non-executive directors is higher in 1995, now 90%, with the difference being significant at the 10% level. There has also been a significant increase, at the 1% level, in the proportion of firms with a remuneration committee. There has been a significant increase in the proportion of firms that have adopted all of the recommendations, again at the 1% level. Average director shareholdings increased, but the increase was not significant. There was a small, insignificant fall in the average external shareholdings.

The univariate analysis shows that firms have moved towards adopting the governance structures recommended by Cadbury. Regression analysis was then used to test the general governance-performance relationship for both years to find out if these mechanisms have a significant impact on company performance.

Insert Table III

Table III gives results for the accounting performance measure, return on assets. Two equations are presented for each year because of the high correlation between the two outside director variables. The first includes NX3, the variable which splits boards into those with at least three outside directors and those with fewer, and the second includes the number of outside directors on the board, NNX. The results show DUAL is insignificant for both years showing that firms that separate the posts do not perform better than those that combine them. NX3 is negative but insignificant in 1992 but is negative and significant in 1995. Thus the move towards adopting the minimum recommended number of outside directors has had an unexpectedly detrimental effect on performance. In addition, increasing the number of non executives, NNX, has had a significant but negative impact on performance for both years. This is also contrary to expectations and suggests that the calibre of the non-executives may be more important than simply the number.

However, an alternative interpretation is possible. The lagged dependent variable is also significant which suggests that the relationship between

performance and outside director representation is endogenous. Thus the result is consistent with additional outside directors being appointed in response to poor performance, a finding consistent with Hermalin and Weisbach (1988).

A number of the control variables are significant. Incentive effects appear to be present in 1995 with SHARE1, director shareholdings, being positive and significant. There is also some evidence of director entrenchment in 1995 with SHARE1SQ being negative and significant. SHARE2, external shareholdings, is positive and significant in 1992 but it becomes insignificant in 1995. SIZE is positive and significant at the 1% level for both years. BETA is negative and weakly significant in 1992 but insignificant in 1995. All models are significant at the 1% level.

Insert Table IV

Table IV gives the results for the market performance measure, raw returns. DUAL, NX3 and NNX are insignificant for both years. Of the Cadbury variables only REM is significant, and positive, and then only for 1995. There is no evidence of shareholder incentive effects. SIZE was positively and significantly linked to performance in 1992. DEBT is negative and significant for both years indicating that the market regards the higher costs of greater debt as having a negative impact on performance. LDV was negative and significant at the 1% level in 1995. All models have significant F values but the R^2 is low.

The initial results show that, individually, only some of the governance mechanisms recommended by Cadbury have an effect on performance. The relationship was investigated further by generating a number of interactive terms to assess the impact of combinations of Cadbury compliance on performance. In addition to CC (defined earlier), three new interactive variables were created:

CC1 - a binary variable which has a value of 1 if a company has at least three non executive directors and a remuneration committee. If not, it is zero.

CC2 - a binary variable which has a value of 1 if a company has at least three non executive directors and a dual CEO-chair. If not, it is zero.

CC3 - a binary variable which has a value of 1 if a company has a dual CEO-chair and a remuneration committee. If not, it is zero.

The results are reported in Tables V and VI.

The 1992 results for both performance measures are given in Table V and show that there is no real evidence to support the governance model proposed at the time the Cadbury Report was published, whether performance is measured in accounting or in market terms. CC is insignificant for both performance measures, which shows that firms that complied fully with Cadbury's recommendations, performed no better than those that did not. The interactive terms are also insignificant which shows that partial compliance neither improves nor harms performance. The only board structure variable that is significant is NNX, but then only at the 10% level. This indicates that increasing the number of outside directors has a negative

impact on performance. The significant lagged dependent variable, however, indicates evidence of endogeneity, which suggests that outside directors are added after a period of poor performance. The results show that there is no compelling evidence that, at the time the Cadbury Committee was making its recommendations, the proposed governance model performed more effectively than others. Of the non-Cadbury variables, SIZE and SHARE2 are significant if accounting performance is used. If market performance is used, no structural corporate governance variable is significant with only SIZE and DEBT being significant.

Insert Table VI

The 1995 results for both performance measures are given in Table VI. They show that the governance-performance relationship has changed very little over the intervening years. Complete compliance does not lead to better performance and, as in 1992, partial compliance neither harms nor benefits performance. The accounting measure of performance shows that the negative relationship between outside directors and performance has become more pronounced with both NX3 and NNX now being negative and significant. However, there is still evidence of endogeneity with LDV again being significant. The control variable SIZE remains significant and there is evidence of director entrenchment with SHARE1SQ being negative and significant. As in 1992, market performance does not appear to be influenced by the extent of Cadbury compliance with none of the variables being significant. Only DEBT and LDV of the control variables are significant.

Sensitivity Analysis

We undertook a number of further analyses in an attempt to assess how sensitive the results were to changes in method and variable definition. First, the use of different companies in each of the years, and the increased acceptance of Cadbury's recommendations, may be subject to sample selection bias. One way to address this problem would be to compare the governance-performance relationship of the same companies at the different years. We identified a subsample of 103 companies that appeared in both years and reran the analyses. The results were similar to those reported above. There is evidence that the companies have adopted the internal mechanisms recommended by Cadbury. However regression analysis finds a weaker governance-performance relationship with none of the governance variables being statistically significant.[2] The lack of clear cut relationship between the internal governance mechanisms and performance is therefore robust and is found to hold using both methodological approaches.

Second, Cadbury recommends that boards should have at least three non-executive directors. However, rather than number, an alternative measure of the strength of their representation is the percentage of the board that are non-executive directors. When this was included instead of the other measures of non-executive director representation, it was found to be statistically insignificant.

Third, in addition to assessing the impact that the presence of a remuneration committee had on performance, we also analysed whether or not having the CEO on the remuneration committee had an impact on performance. The presence of such an officeholder may inhibit the decision-making processes of

the committee and so may harm performance. However, we found that the presence of the CEO on the committee had no statistical effect on performance.

V CONCLUSIONS

The Cadbury Report made a number of important recommendations relating to the desirability, or otherwise, of certain internal monitoring mechanisms. The objective of the Report was to improve the quality of monitoring and hence to enable the users of company-specific information to be better informed. This was to be achieved by means of a Code of Best Practice, which firms were expected to adopt.

These results confirm those of Conyon and Mallin (1997) that firms have, to a large extent, complied with the Code in terms of duality, the number of outside directors on the board and the appointment of board subcommittees. However, the results show that complete compliance with the model proposed by Cadbury does not appear to result in superior performance when compared to the performance achieved by either partial or non compliance. This holds true for the situations at the time the report was being published and in the subsequent years. The impacts of the Cadbury variables also appear to depend on which type of performance measure is used. Market returns are higher if firms have a remuneration committee but this is not reflected in the return on assets. Similarly, outside director representation is negatively related to accounting performance but not to market returns. Thus the choice of performance measure has important implications for understanding the impact of governance structures. This is extremely

important because there is evidence that the relationship between accounting performance and outside director representation is endogenous.

Although the Code is voluntary, it is a condition laid down by the London Stock Exchange that quoted firms must explain their governance policies and give reasons for not complying with it. This public justification may explain some of the increase in compliance. Thus by concentrating on the mechanisms recommended by Cadbury, firms may have been unable to implement alternative, more effective, internal monitoring mechanisms that were appropriate in the specific circumstances.

In 1992, the UK economy was coming out of recession and in 1995 it was in the upswing phase of the cycle. The results are therefore consistent across the phases of the economic cycle with more variables remaining insignificant than becoming significant. The impact of the economic cycle may have a greater impact on the personnel rather than the structure of the governance mechanisms and an area of further research would be to investigate changes in membership. For example, if an outside director replaced one who had left, the structure would not change but the dynamics of the board probably would.

The results point the way to areas of further research. First, a three-year time frame is used in this study. However, the lag between changing the governance structure of a company and seeing an effect on corporate performance may be longer. This may be particularly true for accounting performance measures. A greater understanding of the role, and length of

time lags, may provide useful insights into the governance-performance relationship. Second, further analysis of the characteristics of the board and its committees may provide further insights into the effectiveness of governance structures. For example, analysing the impact of the quality and degree of independence of the board committees on performance may yield additional insights into the relationship. Third, rather than concentrate on structures, we may need to achieve a greater understanding of the processes of corporate governance. This would develop the debate by taking account of the ways in which corporate governance structures actually operate rather than concentrating on their structural set up.

Notes

1. We also obtained information on audit committees. However, we subsequently found that there was a substantial overlap in the presence of the committees. In 1992, of the 100 companies which had a remuneration committee, 99 also had an audit committee. In 1995, of the 190 companies which had a remuneration committee, 188 also had an audit committee. The high degree of multicollinearity between the variables resulted in only the remuneration committee variable being included. Regressions were also run using the audit committees but the results were not significantly different to those achieved by using the remuneration committee variable.
2. For reasons of space, we do not report the results here. They are available from the authors on request.

Acknowledgements

We would like to thank participants at the American Academy of Management Conference, San Diego and at the International Conference on Accounting and Governance, Naples. We would also like to thank Professor Massimo Warglien and two anonymous referees for helpful comments on an earlier draft of this paper. Any errors are our responsibility.

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Table I

Descriptive statistics

		Min	Max	Mean	Standard Deviation
NNX	1992	0	10	4.19	1.78
	1995	0	12	4.25	1.88
NX3	1992	0	1	0.83	0.37
	1995	0	1	0.90	0.30
DUAL	1992	0	1	0.29	0.45
	1995	0	1	0.15	0.35
REM	1992	0	1	0.51	0.50
	1995	0	1	0.95	0.22
CC	1992	0	1	0.38	0.47
	1995	0	1	0.74	0.43
SHARE1 (%)	1992	0	59.02	2.52	7.25
	1995	0.01	58.78	2.84	7.48
SHARE2 (%)	1992	0	88.35	22.61	16.45
	1995	0	81.90	21.96	17.43
DEBT (%)	1992	0	128.5	23.75	14.85
	1995	0	93	19.77	12.62
BETA	1992	-1.93	3.35	1.20	0.66
	1995	-1.46	3.44	1.02	0.75
SIZE (£m)	1992	20	19311	1753.76	3154.70
	1995	36	30659	1830.39	3994.82

Table II

Governance characteristics

Variable	Mean 1992	Mean 1995	T-Value
DUAL	0.29	0.15	3.44***
NNX	4.19	4.25	1.27
NX3	0.83	0.90	1.82*
REM	0.51	0.95	9.33***
CC	0.38	0.74	6.53***
SHARE1 (%)	2.52	2.84	0.43
SHARE2 (%)	22.61	21.96	0.40

*** - significant at 1%; * - significant at 10%

Wilcoxon test used for binary variables NX3, DUAL, REM and CC

Table III Regression results - Governance characteristics and accounting performance

Independent Variable	1992 ROA	1992 ROA	1995 ROA	1995 ROA
DUAL	-0.0689	0.0918	-4.2647	-4.3711
	(0.08)	(0.10)	(0.91)	(0.92)
REM	-1.1788	-1.0810	2.3428	1.8064
	(1.25)	(1.16)	(0.90)	(0.68)
NX3	-2.2348		-3.9402	
	(1.42)		(2.24)**	
NNX		-0.6014		-1.0177
		(1.95)*		(2.15)**
SHARE1	0.0780	0.0865	0.2027	0.2436
	(0.77)	(0.93)	(1.98)**	(2.80)***
SHARE1SQ	-0.0016	-0.0020	-0.0036	-0.0038
	(0.80)	(1.05)	(1.50)	(2.11)**
SHARE2	0.0658	0.0702	-0.0048	-0.0034
	(2.23)**	(2.47)**	(0.20)	(1.49)
SIZE	1.5746	1.7396	1.3381	1.9068
	(4.18)***	(4.29)***	(3.27)***	(3.23)***
DEBT	-0.0413	-0.0344	-0.0683	-0.0556
	(1.18)	(0.98)	(1.69)*	(1.43)
BETA	-0.8920	-1.1269	-1.5777	-2.0908
	(1.54)	(1.80)*	(1.12)	(1.30)
LDV	0.5321	0.5143	0.5504	0.5238
	(5.50)***	(5.06)***	(4.40)***	(4.70)***
CONSTANT	-4.6959	-5.0181	0.5893	-1.2267
	(1.74)*	(1.93)*	(0.17)	(0.38)
R^2	42	36	23	24
F value	13.69***	14.03***	5.65***	5.94***

*** - significant at 1%; ** - significant at 5%; * - significant at 10%.

t values in parentheses calculated from heteroscedasticity corrected standard errors (White 1980)

Table IV

Regression results - Governance characteristics and market performance

Independent variable	1992 RAW	1992 RAW	1995 RAW	1995 RAW
DUAL	-2.3256	-5.0586	5.9757	6.2291
	(0.40)	(0.91)	(1.31)	(1.39)
REM	-0.7308	0.8936	28.0310	27.5700
	(0.11)	(0.12)	(2.31)**	(2.47)***
NX3	9.2776		0.2954	
	(1.16)		(0.01)	
NNX		-2.5806		0.7540
		(1.47)		(0.47)
SHARE1	1.3618	1.0918	0.0892	0.1450
	(1.47)	(1.22)	(0.13)	(0.23)
SHARE1SQ	-00248	-0.0212	-00067	-0.0085
	(1.40)	(1.35)	(0.56)	(0.74)
SHARE2	0.1765	0.2647	0.0869	0.0853
	(0.80)	(1.02)	(0.60)	(0.57)
SIZE	6.7863	8.8766	0.8083	0.3322
	(3.35)***	(4.33)***	(0.28)	(0.08)
DEBT	-0.3440	-0.3373	-0.3996	-0.4159
	(1.86)*	(1.73)*	(2.24)**	(2.33)**
BETA	10.1590	9.8169	-5.0322	-4.5462
	(1.76)*	(1.19)	(0.91)	(0.91)
LDV	0.0001	-0.0009	-0.1561	-0.1578
	(0.10)	(0.09)	(2.62)***	(2.68)***
CONSTANT	-57.0970	-53.2100	-16.6310	-16.432
	(2.76)***	(2.57)***	(0.72)	(0.71)
R^2	9	10	11	11
F value	2.00*	2.09*	2.42**	2.45**

*** - significant at 1%; ** - significant at 5%; * - significant at 10%

t values in parentheses calculated from heteroscedasticity corrected standard errors (White 1980)

Table V Regression results - Performance and Cadbury compliant board structures - 1992

	ROA	RAW

CC	-1.3094 (1.34)					6.658 (0.93)				
CC1		-1.2264 (1.41)					4.4323 (0.63)			
DUAL		0.2671 (0.29)					-3.4961 (0.62)			
CC2			-1.0414 (1.13)					6.3438 (1.18)		
REM			-1.2291 (1.34)					-0.5767 (0.08)		
CC3				-1.1124 (1.26)	-1.2186 (1.34)				6.5607 (0.91)	3.9035 (0.56)
NNX				-0.5686 (1.93)*					-2.7030 (1.44)	
NX3					-2.1193 (1.34)					9.1978 (1.18)
SHARE1	0.1102 (1.02)	0.1126 (1.03)	0.0964 (0.93)	0.0796 (0.76)	0.0696 (0.66)	1.3341 (1.45)	1.3084 (1.41)	1.2961 (1.43)	1.1778 (1.32)	1.14479 (1.55)
SHARE1SQ	-0.0021 (1.05)	-0.0022 (1.16)	-0.0019 (0.96)	-0.0018 (0.97)	-0.0014 (o.70)	-0.0253 (1.47)	-0.0246 (1.44)	-0.0239 (1.43)	-0.0235 (1.44)	-0.0269 (1.53)
SHARE2	0.0593 (2.26)***	0.0569 (2.15)**	0.0596 (2.11)**	0.0715 (2.59)**	0.0671 (2.38)**	0.2284 (1.06)	0.2317 (1.05)	0.1996 (0.91)	0.2812 (1.30)	0.1839 (0.86)
SIZE	1.3464 (3.72)***	1.3847 (3.81)***	1.4242 (4.09)***	1.6942 (3.95)**	1.5271 (2.71)***	7.0414 (3.87)***	6.9995 (3.84)***	7.3731 (3.99)***	8.5578 (4.13)***	6.4209 (3.24)***
DEBT	-0.0370 (1.05)	-0.0369 (1.03)	-0.0424 (1.17)	-0.0341 (0.97)	-0.0409 (1.16)	-0.3595 (1.95)*	-0.3578 (1.93)*	-0.3353 (1.80)*	-0.3372 (1.75)*	-0.3432 (1.87)*
BETA	-0.9991 (1.69)*	-0.9752 (1.60)	-0.8805 (1.52)	-1.1307 (1.93)*	-0.8884 (1.57)	10.6060 (1.28)	10.3380 (1.24)	10.1770 (1.23)	10.0890 (1.23)	10.2240 (1.23)
LDV	0.5296 (5.09)***	0.5316 (5.13)***	0.5300 (5.25)***	0.5144 (5.03)***	0.5317 (5.44)***	-0.0002 (0.18)	-0.0001 (0.10)	-0.0001 (0.10)	-0.0003 (0.27)	-0.0001 (0.10)
CONSTANT	-5.1096 (1.95)*	-5.3452 (1.95)*	-4.7928 (1.84)*	-4.9160 (1.96)*	-4.6813 (1.80)*	-55.5790 (2.67)***	-53.7880 (2.63)**	-58.5660 (2.79)***	-55.0370 (2.63)***	-57.5520 (2.79)***
R^2	40	40	41	42	42	9	9	9	10	9
F value	16.56***	14.62***	14.91***	11.19***	15.32***	2.64**	2.15**	2.17**	2.38***	2.26**

*** - significant at 1%; ** - significant at 5%; * - significant at 10%.

t values in parentheses calculated from heteroscedasticity corrected standard errors (White 1980)

Table VI Regression results - Performance and Cadbury compliant board structures 1995

	ROA					RAW				
CC	2.8526 (0.91)					0.9152 (0.17)				
CC1		-1.5289 (0.76)					-5.2418 (1.24)			
DUAL		-4.2125 (0.90)					6.4821 (0.82)			
CC2			2.2840 (0.63)					-6.2330 (0.99)		
REM			0.9746 (0.31)					-6.2306 (1.35)		
CC3				4.4849 (1.12)	4.4020 (1.11)				-3.3681 (0.76)	2.5439 (0.46)
NNX				-1.0448 (2.04)**					-1.3156 (1.07)	
NX3					-3.9235 (1.95)*					4.3088 (0.52)
SHARE1	0.3973 (2.30)**	0.2796 (2.60)***	0.3917 (2.02)**	0.2581 (2.80)***	0.2192 (2.12)**	0.0695 (0.10)	-0.1268 (0.18)	-0.9987 (1.46)	-0.1029 (0.14)	0.1864 (0.28)
SHARE1SQ	-0.0076 (2.37)**	-0.0050 (1.92)*	-0.0075 (2.20)**	-0.0040 (2.35)**	-0.0039 (1.62)	-0.0045 (0.38)	-0.0010 (0.07)	-0.0015 (0.11)	-0.0018 (0.14)	-0.0067 (0.54)
SHARE2	-0.0062 (0.28)	-0.0003 (0.31)	-0.0054 (0.24)	-0.0039 (0.17)	-0.0050 (0.21)	0.0984 (0.66)	0.0498 (0.27)	0.0395 (0.21)	0.0637 (0.37)	0.0958 (0.39)
SIZE	1.1046 (3.58)***	1.336 (3.36)***	1.1247 (3.27)***	1.8815 (3.98)***	1.3195 (3.86)***	2.0970 (0.78)	1.4012 (0.48)	1.6009 (0.53)	1.6654 (0.61)	1.9076 (0.70)
DEBT	-0.0659 (1.62)	-0.0693 (1.72)	-0.0674 (1.69)*	-0.0501 (1.23)	-0.0613 (1.46)	-0.3824 (2.17)**	-0.3497 (1.92)*	-0.3375 (1.83)*	-o.3588 (1.95)*	-0.3931 (2.22)**
BETA	-1.2453 (0.99)	-1.4020 (1.00)	-1.2320 (1.02)	-2.0871 (1.28)	-1.5443 (1.10)	-4.5688 (0.83)	-3.8550 (0.64)	-3.6375 (0.62)	-3.8284 (0.64)	-4.5656 (0.83)
LDV	0.5783 (4.26)***	0.5571 (4.50)***	0.5769 (4.34)***	0.5432 (4.65)***	0.5556 (4.29)***	-0.1461 (2.59)***	-0.1510 (2.56)***	-0.1499 (2.62)***	-0.1424 (2.52)***	-0.1841 (2.64)***
CONSTANT	-2.9514 (0.76)	0.0416 (0.01)	-3.5999 (0.92	-3.7183 (0.87)	-1.5343 (0.41)	0.9777 (0.03)	6.8699 (0.30)	12.0180 (0.80)	10.9900 (0.37)	-2.9881 (0.12)
R^2	21	22	21	24	23	8	9	9	9	8
F value	6.58***	6.06***	5.70***	6.73***	6.38***	2.03**	1.94**	2.01**	1.81*	1.86*

*** significant at 1%; ** - significant at 5%; * - significant at 10%.

t values in parentheses calculated from heteroscedasticity corrected standard errors (White 1980)