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ANNOUNCEMENTS**

E. Welch*
G.A. Fleming**
R.A. Heaney**

** School of Banking and Finance, University of New South Wales*
***Department of Commerce, Australian National University*

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Contact author:

Grant Fleming

Department of Commerce

The Australian National University

Canberra ACT 0200 AUSTRALIA

Telephone: 02 6249 2269 (International +61 2 6249 2269)

Facsimile: 02 6249 5005 (International +61 2 6249 5005)

Email: Grant.Fleming@anu.edu.au

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E. Welch*
G.A. Fleming**
R.A. Heaney**

** School of Banking and Finance, University of New South Wales*

***Department of Commerce, Australian National University*

Abstract

While executive directors are responsible for superior performance, their behaviour may not always be aligned with shareholder interests. Non-executive directors provide one method of monitoring and controlling these and other agency costs. An event study focusing on director departure provides some insight into the economic importance of directors to shareholders. Initial results highlight both the importance of non-executive directors relative to other directors and the possibility of performance and size impacts. Multivariate tests suggest that non-executive director departures, especially when combined with resignation, explain the cross-sectional variation in share returns associated with director departure even after controlling for performance and size.

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1. Introduction

The financial press speculate frequently over announcements of director departures and their likely impact on the future direction of a company. This focus appears warranted given the significant role often apportioned to directors in corporate governance. The board of directors is responsible for setting and implementing corporate policies and making strategic decisions that are congruent with shareholders' stated objectives. Once policies and decisions have been implemented, the board is obligated to monitor both corporate and executive performance (Sternberg 1998). This requires the establishment and monitoring of internal control systems to ensure that actions taken by people within the corporation are consistent with corporate objectives (Lipton and Herzberg 1998; Little 1997).

The finance and management literature describes the theoretical functions of an effective board of directors in the fulfilment of their corporate governance responsibilities (see for example Shleifer and Vishny 1997; Sternberg 1998). For example, it highlights the theoretical role of the board of directors in controlling agency costs, though agency costs may also arise from executive director opportunistic behaviour. There is also a growing body of empirical literature on the wealth effects of changes in boards of directors and top management positions. Thus literature provides insights on how market participants react to changes in a firm's corporate governance structure, especially the composition of the board of directors.

The objective of this paper is to examine the market reaction to news of director departures within the Australian corporate environment. It considers the magnitude of shareholder wealth effects as a function of both director and firm characteristics; executive versus non-executive departures, reason for director departure, financial performance and size. The empirical results support arguments

advanced in the theoretical literature regarding the importance of non-executive directors relative to executive directors in alleviating agency concerns, with more negative excess returns observed for resigning non-executive directors at the announcement of the director departure.

Australian empirical evidence on the importance of the board of directors is limited.¹ This paper provides some insight into just one issue of corporate governance, the impact of director departure on the value of ordinary shares. The paper is organised as follows. Section 2 reviews previous literature. Section 3 describes the data, sample selection procedures, sample characteristics and empirical methods. Results of statistical analysis are presented in section 4 and section 5 contains concluding remarks.

2. Literature review and hypothesis development

The board of directors is often seen as central to corporate governance mechanisms in market economies along with the threat of takeovers and the impact of concentrated shareholding (Cadbury Report 1992; Fama 1980; and Fama and Jensen 1983; Hampel Report 1998; John and Senbet 1998). Thus changes in the composition of the board of directors should have an impact on the value of the firm. Empirical analysis of the impact of changes in the board of directors on share price tends to focus on several key variables. In this section we provide theoretical justification for each of the variables chosen for this study: namely, director type, reason for departure, financial performance and firm size.

¹ On board composition and firm performance see Grace, Ireland and Dunstan (1995), Stapledon and Lawrence (1997), Farrer and Ramsey (1998), Calleja (1999) and Lawrence and Stapledon (1999).

2.1 Executive versus non-executive directors

Several reviews of corporate governance structures highlight the value that non-executive directors bring to a firm through monitoring and independence. The general argument is that agency problems that may arise between shareholders and the board of directors can be ameliorated to some extent by appointing non-executive directors to the board. Non-executive directors are more likely to provide monitoring of executive decisions (to ensure that decisions are in line with achieving the goals of shareholders) and are more independent than executive directors in assessing the strategic choices facing the firm (Bacon, Cornett and Davidson 1997). The relative importance of non-executive directors as compared with executive directors in monitoring management is recognised by Weisbach (1988). In that research it is found that the incidence of CEO turnover is more highly correlated with firm performance for corporations with a majority of non-executive directors than for companies where executive directors dominate (see also Byrd and Hickman 1992; Brickley, Coles and Terry 1994).

The market valuation of non-executive directors can be seen in the US empirical literature on management changes. Baysinger and Butler (1985) found a positive correlation between firm performance and the number of outside directors on a board, up to the point where non-executives hold a slight majority. Rosenstein and Wyatt (1990) found that, on average, the appointment of a non-executive director was accompanied by a significantly positive average abnormal return. This result held even when there was a majority of outside directors on the board prior to the new appointment. It is also possible that the appointment of an outside director may signal a change in a firm's strategy, which is perceived as positive news by the market.

Executive directors have the potential to bring considerable firm-specific knowledge to the board (Fama and Jensen 1983), which by itself may induce a negative reaction at the announcement of an executive director departure. However, there is scepticism in the literature regarding executive directors' lack of independence and their potential inability to voice their opinions (see for example Kaplan and Reihus 1990). This may result in a positive market reaction to the announcement of the executive's departure. Thus, although market reaction to executive director departure is uncertain, the research to date suggests that non-executive director departure would be regarded as bad news by the market.

2.2 Stated reason for directors departing the board

Few researchers have considered the impact of stated reason for director departure (generally resignation, retirement or death) on share price. While retirement may pose few surprises, resignation is generally unexpected and death rarely foreseen at this level of management.²

Prior research has focussed on changes in key personnel such as chairman, vice-chairman, president or CEO (Furtao and Rozeff 1987; Warner, Watts and Wruck 1988; Bendeck and Waller 1999) and/or insider and outsider directors (Reinganum 1985; Bonnier and Bruner 1989; Rosenstein and Wyatt 1990). Of those studies that do acknowledge the possible differential impact of reason for departure, Warner, Watts and Wruck (1988) examine the relationship between top management changes and stock returns focussing on three groups: forced departures, outsiders, and CEO changes. There was little evidence of differential market reaction at the announcement date.

² Gravely ill directors generally retire or resign prior to death. Thus death of a director would not generally be expected or predicted by the market.

Several studies have focused on the wealth effects of a specific reason for departure. Weisbach (1988), for example, found positive excess returns to shareholders associated with directors' decisions to remove poorly performing CEOs. Johnson, Magee, Nagarajan and Newman (1985) examined the impact on share price of unexpected executive deaths (defined as the death of a company's chairman of the board, CEO or president). Their results indicate no systematic reaction to executive deaths; however, excess returns observed around the announcement date were more dispersed, suggesting that both positive and negative reactions may have occurred in response to announcements. These authors hypothesised that the market reaction to announcements of executive deaths is dependent on the deceased's status within the firm (for example, whether they were a founder), their contribution to the company, their decision-making role within the company and transaction costs associated with finding a replacement director.

While researchers do not find significant evidence of a market reaction to certain management departures the arguments of Johnson, Magee, Nagarajan and Newman (1985) suggest the existence of more complex interactions than is generally proposed in the empirical literature. Further, given the importance of directors in the corporate governance process we expect that the market will react to director departures though the reaction may differ with the level of "surprise" effect. For example retirement may be reasonably foreseeable, resignations less so and deaths at board of director level generally unexpected.

2.3 Financial performance and departures

The importance of considering firm performance in evaluating internal control mechanisms was first suggested by Manne (1965), who hypothesised that internal control mechanisms are of the greatest benefit for under-performing companies. More recently Bonnier and Bruner (1989) found positive excess returns around announcements of management changes for US firms which have already been established as under-performing (management here was defined as the chairman, CEO or president). They note this result is consistent with the “internal control hypothesis”: in the case of financially distressed firms, gains will accrue to shareholders upon a change in top-level management.³

As far as we can ascertain there is no corporate finance study that has considered the wealth effects of director departures from high performing firms. Therefore, this paper extends extant research by considering whether the market reaction to a director departure in low performing firms differs from that observed for high performing firms. We argue that if a firm has been performing strongly, the outgoing director may have been instrumental in this performance. In this case, the departure will be considered bad news by the market and we would expect a negative average abnormal return at the announcement date for director departures. We expect the opposite reaction if the firm had been performing poorly in the lead up to the announcement of director departure. The market may see the departure of a director in such circumstances as the removal of a member of an under-performing board. Moreover, the market may anticipate the appointment of a more competent replacement at the announcement of a director departure. Given this, we hypothesise that positive average abnormal returns will be observed around the announcement of

³ See also Coughlan and Schmidt (1985) who find that under-performing firms are the most likely to replace senior executives.

director departures from low performing firms. This hypothesis is supported by the work of Bonnier and Bruner (1989), who find significant positive gains accrue to shareholders following a change in management of under-performers.

2.4 Firm size

Reinganum (1985) suggests that one must give consideration to the context in which the executive change takes place when determining the impact of executive changes on shareholder wealth. He posits that small companies may have less complex organisational structures than do larger firms and, in view of this, a change in management would have the greatest impact for small firms (1985, pp. 54-55). We hypothesise that if the director departure were perceived as bad news by the market, small firms should exhibit greater negative returns than large firms. However, given that we are unable to hypothesise whether director departures will be viewed as good or bad news by the market, we cannot develop an expectation as to the sign of abnormal returns.

3. Data

3.1 Sample selection procedure

Announcements of director departure from Australian publicly listed companies are collected for the period 1 July 1998 to 30 June 1999 from the ASX. Details include the ASX announcement date (event date) when the departure is announced over the stock exchange trading system. Identification of the event date is critical for event studies (eg. Dodd 1980) though it is difficult to obtain more objective and accurate announcement dates than the ASX announcement dates. Given both the ASX

continuing disclosure requirements and the insider trading regulation, these announcements should be the first official announcements of the director departure.

Details of the identity of the outgoing director, the reason for their departure, the market value of ordinary equity, the book value of ordinary equity and the earnings per share for each affected company are obtained from Datastream⁴ and Huntley's Database⁵. Details regarding whether outgoing directors held executive or non-executive positions were obtained from the Connect 4 database⁶.

Announcements were filtered to remove confounding announcement effects including multiple director announcements and other major announcements, such as takeovers, during an eleven day period ranging from announcement date minus 5 days to announcement date plus 5 days. The initial sample consisted of 630 announcements of director departures (see Table 1 below) filtered using the following criteria.

- (1) Announcements are eliminated if they form part of same-day multiple announcements or announcements for companies with other major announcements within the window period (including announcements involving multiple director departures).
- (2) Announcements are eliminated for firms where there are no financial statements or share prices available during the estimation or event periods.
- (3) Announcements are eliminated for companies with takeover and similar major restructuring activity within the beta estimation period.

⁴ Datastream is provided by Primark Corporation (NYSE:PMK), Waltham, Massachusetts. Datastream is one of a number of data sets provided by the company. More information is available at the web site, <http://www.datastream.com/>.

⁵ An extensive database on Australian companies. For more information see the web sites, http://www.huntley.com.au/my_html/__database.html and http://www.huntley.com.au/html/__contact_info.html

(4) Comparison of executive and non-executive directors requires the identification of these two classifications. Only 82 observations could be split into one of these two groups on the basis of information reported in the annual accounts.

[Insert Table 1 here]

3.2 Sample characteristics

The first announcement included in the sample was made on 1 July 1998, with the last announcement in the sample made on 30 June 1999. The distribution of announcements across the months of the year is presented in Table 2 with an average of 14 announcements per month. It is unlikely, given the fairly even distribution observed across the year, that month in the year concentration will confound the results reported in the paper. Although announcement concentration might be expected to occur around the later half of the calendar year, with director changes frequently announced at a company's annual general meeting, only August and November exhibit unusual announcement activity.

[Insert Table 2 here]

Descriptive variables are summarised in Table 3, Panel A. Firm size is the firm's equity market value obtained seven calendar days prior to the announcement date and sourced from either Datastream or from the Australian Financial Review and Shares. The average company value is \$1,291.2 million with a maximum of \$38,158.3 million

⁶ Connect 4 provides Australian Company Information. Further information is available on the web site, <http://www.connect4.com.au/index.html>

and a minimum of \$0.2 million. The book value of ordinary equity is obtained from the firm's most recent annual reports preceding the commencement of the sampling period (total owners' equity is a summation of share capital, reserves and retained profits, or accumulated losses). The book value ranged from -\$3.1 million to \$12,581.3 million with an average of \$608.4 million. Two measures of performance are used in the study. The first measure is ratio of the book value of ordinary equity to the market value of equity, book to market, calculated using the equity numbers just described. This ratio ranges from -7.8 to 30.2 with a mean of 1.3. The second is the earnings per share (EPS) number obtained for each of the companies with a mean of \$2.2 per share, ranging from -\$397.0 per share to \$140.0 per share. Both performance measures exhibit extraordinary ranges though this is not unusual with accounting variables. In later univariate analysis, market value, book to market and EPS are used to categorise the data into thirds so that analysis can focus on large and small as well as high performing and low performing firms though this is not required in subsequent multivariate analysis.

[Insert Table 3 here]

Two categorical variables are described in Panel B of Table 3, executive versus non-executive director departures and reason for director departure. Only a subset of the full sample (82 observations) is available for director type analysis with 29 executive director departures and 53 non-executive departures. Not all companies reported whether directors were executive or non-executive directors and the final sample is based solely on the classification provided in the annual reports. This avoids the need for arbitrary allocations required where no company disclosure is made. Reasons for

departure are available for all of the 166 observations in the final sample. Director resignations dominate the sample comprising 82% of announcements. The “other” category consists of the four announcements that could not be classified into one of the three stated reasons for departure; for example one director was declared bankrupt and another’s board membership was terminated for an undisclosed reason.

Within the final sample there were twenty-seven companies that had more than one separate director departure announcement (note that multiple announcements on a single day were removed from the sample). A potential problem associated with these announcements is that if they occur regularly the market may develop an expectation of such news and build it into its pricing of the firm’s stock. We shall treat these announcements as independent and recognise that multiple departures and board of director spills remains a topic of future research.

3.3 Returns generating model

We calculate abnormal returns to shareholders using the market model with Dimson (1979) adjustment for thin trading, including 5 leads and 25 lags.⁷ All returns are calculated as continuously compounded rates of return, and prices have been adjusted for capitalisation changes and dividends (see Brailsford, Faff and Oliver 1997, p. 8). Expected returns for individual stocks are calculated as:

$$ER_{it} = \mathbf{a}_i + \mathbf{b}_{iD} R_{mt} \quad (1)$$

where ER_{it} is the expected return for company i in period t , R_{mt} is the return on the

market in period t , \mathbf{a}_i and $\mathbf{b}_{iD} = \sum_{i=-25}^{+5} \mathbf{b}_i$ are ordinary least squares multiple regression

coefficients calculated in the estimation period (12 months of daily observations preceding the event period). The initial event window consists of the five working days either side of the announcement date, day 0, for every company identified as part of the final data set. This ensures that the impact of confounding factors such as other announcements are clearly excluded from the analysis. Abnormal returns (ARs) are defined as the difference between the realised return and the expected return.

$$AR_{it} = R_{it} - ER_{it} \quad (2)$$

where AR_{it} is the abnormal return for company i in period t , R_{it} is the actual return for company i in period t , and ER_{it} is the expected return for company i in period t as defined in equation (1). Abnormal returns are estimated for three days, the announcement day (event day 0), the preceding day (event day -1) and the subsequent day (event day 1), as well as for a two-day event period consisting of the announcement day and the subsequent day (event days 0 and 1). The two-day event period is used to capture the impact of announcements made after close of trading on the event day as well as announcements made during trading. A standard t-test statistic constructed using the event day (or in-sample) standard deviation is used to test for statistical significance of average abnormal returns. The in-sample variance test statistic allows for event induced increases in variance and biases testing towards failure to reject the null hypothesis (see MacKinlay 1997, p. 27; Boehmer *et. al.* 1991, p. 255).

⁷ Sensitivity analysis using alternative lead/lag combinations indicated that this choice was reasonable for the sample. See Sinclair (1981) and Brailsford, Faff and Oliver (1997) for further discussion.

4. Empirical results

Univariate tests are undertaken to examine the statistical significance of the market reaction to the director departure. Overall, there was no statistically significant market reaction to the announcement of director departures with the average full sample announcement day abnormal return equal to -0.670% (t-statistic, -1.62) and the two-day event period abnormal return equal to -0.327% (t-statistic, -0.50). For following univariate analysis the sample is stratified either according to the classifications described in Section 3, or into thirds according to size or performance, and the results are reported in Table 4.

[Insert Table 4 here]

4.1 Director Type: Executive versus Non-executive director departures

Table 4, Panel A reports a statistically significant negative average abnormal return of -1.417% on the day subsequent to the announcement in response to news of a non-executive director departure. There is also a statistically significant negative average abnormal return of -1.665% over the two-day event period for this group. By contrast, no significant average abnormal return is found in the case of announcements of executive director departures.

These results are consistent with the findings of Rosenstein and Wyatt (1990) for the United States where, on average, the appointment of a non-executive director was accompanied by a significantly positive average abnormal return. Given the perceived value of non-executive directors it follows that, on average, their departure would be viewed as bad news by the market and, therefore, it is argued here that announcements of their departure would be accompanied by significant negative

abnormal returns. The executive director departure results provide further support for the work of Rosenstein and Wyatt (1997), who note that excess returns are near zero at the time of the announcement of an executive director appointment. A similar near zero result is observed in this study for executive director departure.

4.2 Reason for Director Departure

Table 4, Panel B, provides no evidence of statistically significant market reactions to the three stated reasons for departure, death, resignation and retirement for the full data set (N=166). There is evidence, though, of a statistically significant negative resignation effect in the smaller data set (N=82) based on director type (results not reported). Further, Figure 1 suggests that the Johnson, Magee, Nagarajan and Newman (1985) result for director deaths is also evident here, with a lack of statistical significance and evidence of greater variance around the announcement date. This is consistent with the existence of large positive and negative market reactions in this group, though the small sample of 6 observations makes further statistical analysis difficult.

[Insert Figure 1 here]

As stated in section 2, Warner, Watts and Wruck (1988) divide management changes into three groups based on reasons cited for departure. However, their results provide little evidence of non-zero stock returns around the announcement date of management departures, consistent with the full sample results reported in Table 4. There is some evidence of a resignation effect in the smaller data set though further analysis of this question is left to section 5.

4.3 Financial performance and director departure

Table 4, Panel C, reports a statistically significant average negative abnormal return for high EPS companies of -1.241% over the two-day event period. This result is consistent with the expectation that if a firm has been performing well prior to the director departure, the outgoing director may have been instrumental in this strong performance and, therefore, the market perceives their departure as bad news. No statistically significant positive excess returns were found in the case of low performing firms and this is at odds with prior research. Similar results are reported for the performance measure, book to market, in Panel D of Table 4 with statistically significant negative average two days abnormal returns of -1.661% for the low book to market (high performance) firms.

The average two-day event period abnormal return for low performance firms is essentially zero. Thus although there is some support for loss in value with the departure of a director from a successful firm there is essentially no value change where the director departs a poorly performing firm. Similar results are also apparent with the smaller data set consisting of 82 observations (not reported here). Perhaps the performance measure partitioning needs to be finer to capture the results observed in Bonnier and Bruner (1989, p. 96) where they define financially distressed firms as those companies who had “negative earning in the last quarterly report before the management change, accompanied by the elimination of a dividend no earlier than 24 months before the management change, with no reinstatement of the dividend before the change”. Given sample size considerations this question is left to future research.

4.4 Firm Size

Table 4, Panel E, indicates an average negative abnormal two-day event period return for large firms of -1.258%, a result significant at the 5% level. No significant market reaction to news of director departures was found for either the small size or the medium size firms. Similar results are also obtained for the smaller 82 observation data set (not reported here). Correlation coefficients between the continuous variables are reported in Table 5. The correlation between market value and two-day event period abnormal return is -0.12 for the full data set and 0.03 for the data set based on director type classification. As neither estimate is statistically significant these results suggest little direct relation between size and two-day event period abnormal returns. Further research is warranted in this area.

[Insert Table 5 here]

5. Multivariate Analysis

Section 4 identifies two results. First, the departure of a non-executive director appears to have a greater negative impact on share prices than the departure of an executive director. Second, there is a statistically significant negative market reaction to director departure in strongly performing firms and in large firms. These results suggest the possibility of confounding factors. Is the executive versus non-executive director result driven by firm performance, size effects or could it be due to the importance of the function that non-executive directors play in corporate governance?

In the following analysis market reaction to director departure announcement is measured using the two-day event period abnormal return. This is chosen to capture the impact of announcements made either during trading on the announcement day or after trading with price effects observed on the following trading day. Analysis focuses on the smaller 82 observation data set. This ensures that all observations used in analysis may be classified into both the reason for departure categories and the type of director categories.

The final model chosen for testing includes reason for departure, director type, natural log of market value of equity (*LMV*) and one measure of performance (*Perf*) being either book to market (BM) or earnings per share (EPS). It takes the following form:

$$CAR_{i,0,1} = \mathbf{a} + \mathbf{b}_{Other} D_{i,Other} + \mathbf{b}_{Death} D_{i,Death} + \mathbf{b}_{Resign} D_{i,Resign} + \mathbf{b}_{Nonexec} D_{i,Nonexec} + \mathbf{b}_{LMV} LMV_i + \mathbf{b}_{Perf} Perf_i + \mathbf{e}_i \quad (3)$$

The coefficients, \mathbf{b}_{Other} , \mathbf{b}_{Death} and \mathbf{b}_{Resign} , capture the difference between the average retirement category CAR and the average CAR for the categories, other, death and resignation respectively. The coefficient, $\mathbf{b}_{Nonexec}$, captures the difference between the average executive director category CAR and the average CAR for the non-executive director category.

There are a number of extremely large values for the two-day event period abnormal return, the EPS variable and the book to market variable. Extreme values and heteroscedasticity are common problems with accounting variables drawn from a wide range of firms. While the impact of extremely large and small values may not be so critical for the results reported in section 4 such observations may have a

substantial impact on regression analysis. As a result two estimation techniques are used. The first is ordinary least squares regression (OLS) with t-statistics reported both with and without White's adjustment for heteroscedasticity. The second is a robust regression technique based around minimum absolute deviations (MAD). The later method is briefly described in Appendix 1.

There are two sets of regression estimates based on equation (3), reported in Table 6. The first set includes earnings per share as the performance measure and the second set of regressions includes book to market as the performance measure. None of the regressions are statistically significant. Only for the robust regression is there evidence of a statistically significant coefficient, the non-executive dummy variable coefficient. This results remains statistically significant at the 10% level in a regression consisting only of a constant and the non-executive dummy variable (results not reported here). The market appears to react more negatively to non-executive director departures than to executive director departures.

The variation between standard ordinary least squares regression results and robust regression results highlights the impact of extreme values on the analysis. To gain further insight into the impact of extreme values the ordinary least squares regression residuals from equation (3) were plotted and five extreme observations were visually identified. Dummy variables were then included in the regressions to remove the impact of these variables and the regressions were rerun. The results were consistent with the robust regression results though somewhat stronger in terms of the statistical significance. Essentially the executive versus non-executive comparison appears to be responsible for the univariate analysis results. Neither size nor performance measures appear to explain the cross-section of abnormal returns once the impact of non-executive resignations is taken into account.

[Insert Table 6 here]

The possibility of interactions was raised in the previous discussion and interaction terms were included in the regressions. This is especially important with the resignation result observed for the smaller data set. Only one interaction coefficient was found to be statistically significant, the interaction between the non-executive director category and resignation category. As no other variables were found to be important in a statistical sense the model was pared down to a constant term and the product of the non-executive director dummy variable and the resignation dummy variable, the interaction term. The results of this regression are reported table 7. The share price reaction to non-executive directors who resigns is 1.8% more negative than the average for all other director departures of -0.3% . It is apparent that neither size nor performance provides a statistically significant alternative explanation for the variation in cross-sectional abnormal returns exhibited in this data set.

[Insert Table 7 here]

In section 2 it was suggested that smaller firms may exhibit greater variation in share price returns on the announcement date because of the greater impact of the loss of a director for the smaller board size and also given the indeterminate relation between size and director departure. The Table 6 regressions are repeated in Table 8 with a new dependent variable, the absolute value of the two-day event period abnormal return. This regression over absolute values provides an analysis of the factors affecting the cross-sectional volatility of the two-day event period abnormal returns. It is apparent that the non-executive dummy variable t-statistics are consistently

statistically significant with greater variance in event day abnormal returns evident for non-executive director departure. There is some evidence of a negative relation between size and variance as discussed previously but this is not consistent across the estimation methods. The results highlight the problems associated with extreme values inherent in the use of accounting data and abnormal returns. Further analysis of the impact of size is left to future research.

[Insert Table 8 here]

6. Summary and conclusions

This paper is motivated by the gap between a well developed body of theoretical corporate governance literature and the limited empirical testing of the value of corporate governance mechanisms. The few studies that have examined the market reaction to director or management departures have often failed to consider that the shareholder wealth effects may be dependent on the characteristics of the outgoing director, reasons for director departure or characteristics of the firm. The current study contributes to the literature by considering these characteristics and their impact on the market reaction observed at the time of director departure announcements.

Although univariate tests identify some relation between reason for departure and returns, there is a statistically significant relation identified between executive versus non-executive director type and equity returns. Further, director departure from strongly performing and larger firms also appears to explain cross-sectional variation in two-day event period abnormal returns. In the case of the strongly performing firms, it was initially posited that these directors may have been instrumental in attaining that level of performance and, therefore, their departure is viewed as a signal

that high performance may not be maintained with their departure. Significant abnormal returns in response to announcements of director departures were not observed for low performing firms.

Multivariate analysis was introduced to account for the possibility of interactions. These results suggest that the non-executive director departure effect is robust even after controlling for both performance and size. This result is important as it suggests that the size and performance results may be simply a reflection of the importance of non-executive director departure. Analysis of the impact of interaction terms isolated only one statistically significant interaction between non-executive director and resignation. Apparently, the observed non-executive departure effect is driven by non-executive directors who resign. Further, greater variance in abnormal returns is also observed on departure of non-executive directors even after adjustment for size and performance. These results suggest that the stock market places substantial importance on the role of non-executive directors. Their stated function, of providing independent monitoring and strategic advice to the company on whose board they sit, is apparently valuable to shareholders.

No evidence of significant negative abnormal returns was found either in the univariate or multivariate tests for executive director departures. This suggests that while executive directors contribute firm-specific knowledge to the board, their perceived lack of independence may negate this benefit from the viewpoint of shareholders. Alternatively, the surprise effect of executive director departure may not be so great on the announcement date as the magnitude of this term is close to zero. Perhaps the market is better able to predict executive director departures than non-executive director departures.

Regardless, this study provides evidence to support the argument that the departure of certain directors is economically important to shareholders. A two-day average abnormal loss of almost 2% is observed in this study with the announcement of the resignation of a non-executive director.

Appendix 1

The Robust regression method used in analysis is based on the MAD estimator and is estimated using the RATS statistical package. The following discussion is drawn from Doan (1996, p. 5-10). The model of interest is the simple linear model or:

$$y_t = X_t \mathbf{b} + u_t \quad (\text{A1})$$

with y_t the dependent variable, X_t the matrix of exogenous or independent variables, \mathbf{b}_t the vector of estimated parameters and u_t the residual term. The basic problem is defined as minimisation problem with respect to the absolute deviations or:

$$\mathbf{b} \quad \text{Min} \sum_t |y_t - X_t \mathbf{b}| \quad (\text{A2})$$

Due to estimation difficulties with this form, the actual estimation approach is based on iterated weighted least squares which provides estimates of both the parameters and a consistent covariance matrix for statistical testing where estimation is based on:

$$\mathbf{b} \quad \text{Min} \sum_t (c^2 - u_t(\mathbf{b})^2)^{0.5} \quad \text{for some } c. \quad (\text{A3})$$

It should be noted that as c approaches 0 the iterated weighted least squares method approaches the MAD result, equation (A2) above.

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Table 1
Initial Sample and Data Filtering Process

Reasons for exclusion from the sample	Number of observations
Initial number of announcements in sample	630
Less: Announcements forming part of same-day multiple announcements or announcements for companies with other major announcements within the window period	(300)
Less: Announcements made by companies for which there were no financial statements available	(137)
Less: Announcements for companies with takeover and other major activity within the beta estimation period	(27)
Final number of announcements in full sample	166
Less: Announcements where the annual reports did not clearly indicate whether the departing director was either an executive director or a non-executive director	(84)
Final number of announcements in sample classified by director type	82

Table 2
Frequency Distribution of Announcements by Month

1998	Jul	Aug	Sep	Oct	Nov	Dec	
Frequency	13	24	12	10	22	9	
Percent	7.8	14.5	7.2	6.0	13.3	5.4	
1999	Jan	Feb	Mar	Apr	May	Jun	Total
Frequency	10	16	17	11	14	8	166
Percent	6.0	9.6	10.2	6.6	8.4	4.8	100

Table 3
Descriptive Statistics

Panel A: Continuous variables

Market Value of equity, seven calendar days prior to the announcement date, is obtained from Datastream for all but 12 companies. For these 12 companies market value is calculated using the Australian Financial Review share price quoted seven calendar days prior to the announcement date and number of shares for the previous month from Shares, Your Guide to Australia's Best Stocks. Book value of equity is obtained from annual accounts information quoted in Connect 4 or Huntley's DAT Analysis and dated at least 6 months prior to the announcement. Book to market is the ratio of the market value and book value of equity. EPS is obtained from Connect 4 or Huntley's DAT Analysis.

Variable	Average	Standard Deviation	Maximum	Minimum
Market value of equity (\$'millions)	1291.231	4907.497	38158.250	0.170
Book value of equity (\$'millions)	608.434	1936.043	12581.000	-3.107
Book to market	1.325	2.563	30.212	-7.768
Earnings per share (EPS)	2.182	46.361	140.000	-397.740

Panel B: Categorical variables

Reason for departure (and announcement date) is obtained from company announcements reported on the Australian Stock Exchange (ASX) web page. Director type is obtained from annual report information in Connect 4 or Huntley's DAT Analysis.

	Frequency	Percent of total
Reason for departure		
Death	6	3.6
Resignation	136	81.9
Retirement	20	12.1
Other	4	2.4
Director type		
Executive	29	17.5
Non-executive	53	31.9
Unclassified	84	50.6
Over the sample period, number of firms with:		
One director departure	109	80.1
Two director departures	24	17.7
Three director departures	3	2.2

Table 4
Abnormal returns

Panel A: Director Type

<i>Event</i>	<i>Executive(N=29)</i>		<i>Nonexecutive(N=53)</i>		<i>Other(N=84)</i>	
	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>
-1	-0.01270	-1.18	-0.00767	-1.04	-0.00477	-0.67
0	-0.00260	-0.57	-0.00248	-0.39	-0.01078	-1.55
+1	-0.00090	-0.16	-0.01417	-2.75**	0.01603	1.66*
(0, 1)	-0.00350	-0.47	-0.01665	-2.00**	0.00525	0.46

Panel B: Reason for departure

<i>Event</i>	<i>Death(N=6)</i>		<i>Resignation(N=136)</i>		<i>Retirement(N=20)</i>		<i>Other(N=4)</i>	
	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>
-1	0.00967	1.22	-0.00786	-1.41	-0.00728	-0.97	-0.00473	-1.15
0	-0.04052	-1.05	-0.00627	-1.40	0.00297	0.29	-0.01901	-1.57
+1	0.00884	-1.03	0.00572	0.89	-0.00811	-1.06	-0.00181	-1.52
(0, 1)	-0.04936	-1.61	-0.00055	-0.07	-0.00514	-0.39	-0.01720	-1.14

Notes: Sub-sample size reported in parenthesis (N=); * indicates significance at the 10% and ** 5% levels respectively.

Table 4
Average abnormal returns (Continued)

Panel C: Performance (EPS)

<i>Event</i>	<i>Low(N=55)</i>		<i>Medium(N=56)</i>		<i>High(N=55)</i>	
	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>
-1	-0.01797	-1.60	-0.00254	-0.33	-0.00083	-0.24
0	-0.00790	-0.93	-0.00365	-0.51	-0.00859	-1.55
+1	0.00731	0.52	0.00674	0.91	-0.00381	-1.31
(0, 1)	-0.00060	-0.04	0.00308	0.30	-0.01241	-2.12**

Panel D: Performance (Book to Market)

<i>Event</i>	<i>Low(N=55)</i>		<i>Medium(N=56)</i>		<i>High(N=55)</i>	
	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>
-1	-0.00519	-0.98	-0.00766	-0.85	-0.00839	-0.89
0	-0.01873	-3.20**	0.00859	1.16	-0.01024	-1.33
+1	0.00212	0.47	0.00287	0.42	0.00530	0.38
(0, 1)	-0.01661	-3.24**	0.01146	1.14	-0.00493	-0.31

Panel E: Size (market value of equity) categories

<i>Event</i>	<i>Small(N=55)</i>		<i>Medium(N=56)</i>		<i>Large(N=55)</i>	
	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>	<i>AAR</i>	<i>t-stat</i>
-1	-0.01888	-1.52	-0.00194	-0.37	-0.00052	-0.14
0	-0.01066	-1.31	-0.00222	-0.29	-0.00729	-1.34
+1	0.01543	1.02	0.00021	0.05	-0.00529	-1.80*
0, +1	0.00476	0.27	-0.00201	-0.27	-0.01258	-2.22**

Notes: Sub-sample size reported in parenthesis (*N*=); * indicates significance at the 10% and ** 5% levels respectively.

Table 5
Correlations between average abnormal returns by size, and
performance measures (EPS and book to market)

Panel A, N = 166 - Full sample

	ln(Market Value)	BM	EPS
<i>CAR (0,+1)</i>	-0.12	0.00	-0.02
<i>Earnings per share (EPS)</i>	0.26**	-0.07	
<i>Book to Market (BM)</i>	-0.27**		

Panel B, N = 82 - Director type sub sample

	<i>ln(Market Value)</i>	<i>BM</i>	<i>EPS</i>
<i>CAR (0,+1)</i>	0.03	0.03	0.03
<i>Earnings per share (EPS)</i>	0.23**	-0.27**	
<i>Book to Market (BM)</i>	-0.58**		

Note: Correlations are Pearson product moment correlation coefficients calculated over the sub sample of 82 observations. * indicates significance at the 10% and ** 5% levels respectively.

Table 6
A Multivariate Analysis of Director Departure
Cumulative Abnormal Return

This table reports regression results for the model:

$$CAR_{i,0,1} = \mathbf{a} + \mathbf{b}_{Death} D_{i,Death} + \mathbf{b}_{Other} D_{i,Other} + \mathbf{b}_{Resign} D_{i,Resign} + \mathbf{b}_{Nonexec} D_{i,Nonexec} + \mathbf{b}_{LMV} LMV_i + \mathbf{b}_{Perf} Perf_i + \mathbf{e}_i$$

Ordinary least squares regression (OLS) is the first method reported and the t-statistics are reported without adjustment in the OLS t-stat column. White's adjusted t-statistics are reported in the column labelled White t-stat. The robust regression technique is based on minimum absolute deviations and the parameter values and t-statistics are reported in columns ROBUST parameter and ROBUST t-stat. EPS is the earnings per share, BM is the ratio of book to market, Death refers to director departure arising from death of the director, Other refers to director departure arising from various other causes, Resign refers to director departure arising from resignation of the director, Nonexec is a director who was identified as being a non-executive director in the annual accounts, LMV is the natural log of market value of ordinary equity,

	<i>OLS</i> <i>Parameter</i>	<i>OLS</i> <i>t-stat</i>	<i>White</i> <i>t-stat</i>	<i>ROBUST</i> <i>Parameter</i>	<i>ROBUST</i> <i>t-stat</i>
EPS as the measure of performance					
Intercept	0.00412	0.19	0.15	0.00356	0.20
Death	-0.00744	-0.21	-0.33	-0.00262	-0.16
Other	-0.03082	-0.72	-1.04	-0.02968	-0.86
Resign	-0.00779	-0.47	-0.39	-0.00404	-0.32
Non-executive	-0.01546	-1.12	-1.26	-0.01885	-2.00**
LMV	0.00030	0.05	0.04	0.00002	0.00
EPS	0.00004	0.39	0.66	0.00005	0.67
R square	0.02				
F-Statistic		0.32			
Chi Square (6) statistic			3.36		6.16
BM as the measure of performance					
Intercept	-0.00755	-0.28	-0.27	0.00245	0.12
Death	-0.00660	-0.18	-0.29	-0.00274	-0.16
Other	-0.02902	-0.68	-1.00	-0.02969	-0.88
Resign	-0.00962	-0.59	-0.48	-0.00498	-0.40
Non-executive	-0.01633	-1.19	-1.31	-0.01769	-1.74*
LMV	0.00354	0.50	0.49	0.00054	0.09
BM	0.00603	0.70	0.72	0.00011	0.02
R square	0.03				
F-Statistic		0.38			
Chi Square (6) statistic			3.03		5.55

Notes: Sample size is 82 observations; * indicates significance at the 10% and ** 5% levels respectively.

Table 7
A Multivariate Analysis of Director Departure
Cumulative Abnormal Return

This table reports regression results for the model:

$$CAR_{i,0,1} = a + b_{\text{Resign*Nonexec}} D_{i,\text{Resign*Nonexec}} + e_i$$

Ordinary least squares regression (OLS) is the first method reported and the t-statistics are reported without adjustment in the OLS t-stat column. White's adjusted t-statistics are reported in the column labelled White t-stat. The robust regression technique is based on minimum absolute deviations and the parameter values and t-statistics are reported in columns ROBUST parameter and ROBUST t-stat. Resign refers to director departure arising from resignation of the director, Nonexec is a director who was identified as being a non-executive director in the annual accounts.

	<i>OLS Parameter</i>	<i>OLS t-stat</i>	<i>White t-stat</i>	<i>ROBUST Parameter</i>	<i>ROBUST t-stat</i>
Intercept	-0.00179	-0.21	-0.25	-0.00317	-0.60
Resign*Nonexec	-0.02043	-1.72*	-1.74*	-0.01802	-2.05**
R square	0.04				
F-Statistic		2.97*			
Chi Square (1) statistic			3.04*		4.18**

Notes: Sample size is 82 observations; * indicates significance at the 10% and ** 5% levels respectively.

Table 8
A Multivariate Analysis of Director Departure
Absolute Value of Cumulative Abnormal Return

This table reports regression results for the model:

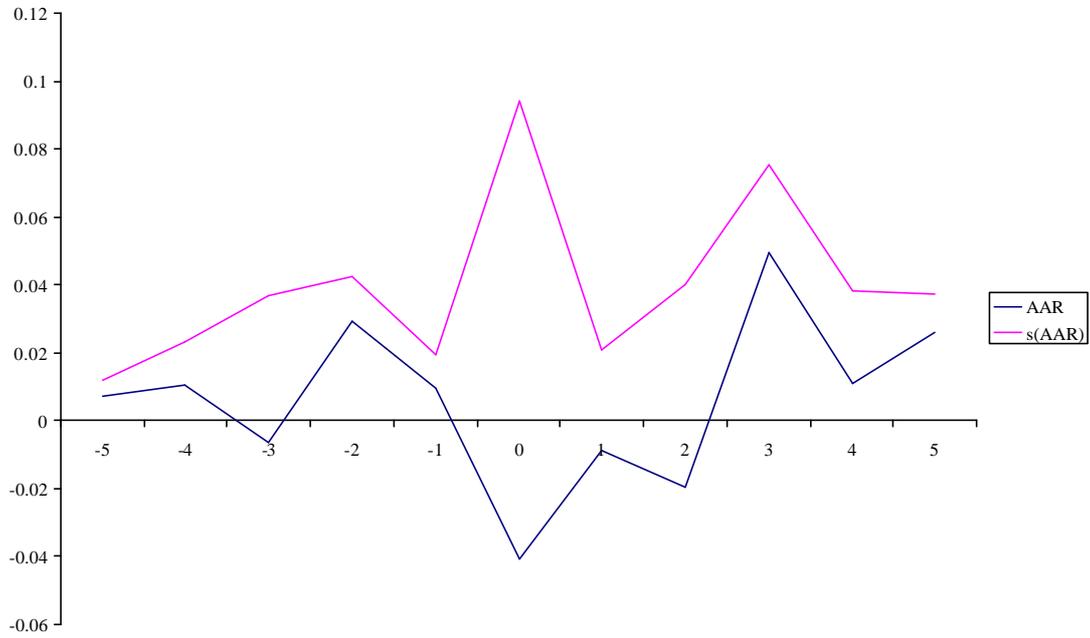
$$Abs(CAR_{i,0,1}) = \mathbf{a} + \mathbf{b}_{Death} D_{i,Death} + \mathbf{b}_{Other} D_{i,Other} + \mathbf{b}_{Resign} D_{i,Resign} + \mathbf{b}_{Nonexec} D_{i,Nonexec} + \mathbf{b}_{LMV} LMV_i + \mathbf{b}_{Perf} Perf_i + \mathbf{e}_i$$

Ordinary least squares regression (OLS) is the first method reported and the t-statistics are reported without adjustment in the OLS t-stat column. White's adjusted t-statistics are reported in the column labelled White t-stat. The robust regression technique is based on minimum absolute deviations and the parameter values and t-statistics are reported in columns ROBUST parameter and ROBUST t-stat. The independent variable is the absolute value of the two-day cumulated return and it is used as a proxy for the variance of returns. EPS is the earnings per share, BM is the ratio of book to market, Death refers to director departure arising from death of the director, Other refers to director departure arising from various other causes, Resign refers to director departure arising from resignation of the director, Nonexec is a director who was identified as being a non-executive director in the annual accounts, LMV is the natural log of market value of ordinary equity,

	<i>OLS</i> <i>Parameter</i>	<i>OLS</i> <i>t-stat</i>	<i>White</i> <i>t-stat</i>	<i>ROBUST</i> <i>Parameter</i>	<i>ROBUST</i> <i>t-stat</i>
EPS as the measure of performance					
Constant	0.05905	3.76**	3.08**	0.03858	2.61**
Death	-0.03783	-1.47	-2.25**	-0.02346	-1.55
Other	-0.00087	-0.03	-0.05	0.00883	0.45
Resign	-0.01352	-1.14	-1.00	-0.00480	-0.46
Nonexec	0.02097	2.11**	2.41**	0.01591	2.14**
LMV	-0.01193	-2.81**	-2.40**	-0.00664	-1.64
EPS	-0.00003	-0.44	-0.81	-0.00004	-0.71
R square	0.15				
F-Statistic		2.16*			
Chi Square (6) statistic			10.46		7.10
BM as the measure of performance					
Constant	0.05928	3.09**	2.86**	0.03901	2.44**
Death	-0.03752	-1.45	-2.24**	-0.02320	-1.52
Other	-0.00083	-0.03	-0.05	0.00896	0.47
Resign	-0.01280	-1.08	-0.95	-0.00398	-0.38
Nonexec	0.01983	2.00**	2.25**	0.01491	1.89*
LMV	-0.01214	-2.39**	-2.27**	-0.00694	-1.60
BM	0.00029	0.05	0.05	0.00012	0.02
R square	0.14				
F-Statistic		2.12*			
Chi Square (6) statistic			9.87		6.36

Notes: Sample size is 82 observations; * indicates significance at the 10% and ** 5% levels respectively.

Figure 1
Announcement of death of a director (N = 6)



Note: AAR is the Average abnormal returns and s(AAR) is the standard deviation of abnormal returns. The Abnormal returns are reported for the period ranging from the event day less five through to event day plus five. The event data is the date on which the death of a director is announced to the Australian Stock Exchange (ASX). There are only six of the 166 announcements dealing with death of a director.