

# **The Impact of the Australian Stock Exchange's Corporate Governance Codes on Investor Confidence**

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*We investigated the impact of the governance reforms, particularly the Australian Stock Exchange's (ASX) corporate governance codes on investors' confidence. We used data of randomly selected 271 ASX listed companies for the reporting period ending 2004, the period in which the codes became binding on companies. We used the company's stock return volatility as the investor confidence proxy which we approximated using its historical stock prices. The Weighted Ordinary Least Square Regression model was used to analyse data. The results showed negative and statistically significant association between the company's levels of compliance with the ASX governance codes and its stock returns volatility, after controlling for five other influences. This indicates that companies that adopted the ASX codes during the study period experienced significantly lower stock returns volatility suggesting that investors expressed more confidence in those companies. The results also showed that the codes that are intended to ensure board independence are more influential than the practices that are intended to ensure the company's financial reporting credibility and promoting company directors and managers' ethical behaviour. This indicates that structural independence of board is the key aspect of the company's corporate governance mechanism and codes of best practice that are intended to enhance reporting integrity and promote ethical behaviour complement the overall effectiveness.*

**Keywords:** ASX guideline, Investor confidence, stock returns volatility

**JEL Classifications:** G34, G38, K22

## **1. Introduction**

Corporate governance issues attract headlines whenever corporations collapse. Investors' confidence hits rock bottom and the blame game soon follows. A lot gets said and written mostly with hindsight. The viability of regulatory systems is then questioned. The regulatory authorities come under pressure to act and thus begin the process of regulatory reform (Clarke, 2004).

The start of 21<sup>st</sup> Century saw déjà vu of a kind following several high profile collapses in Australia (principally HIH Insurance in 2001 and One.Tel in 2000) and in offshore jurisdictions notably in the United States. The crisis has resulted in a full-scale governance reform in Australia. The key objective of the reform was to restore and enhance investor confidence in the capital market (ASX, 2003).

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The key question here is whether such regulatory measures actually affect investor confidence. To answer this research question, we conducted a company level analysis to test the impact of the reform on investor confidence by using the proxy variable of the company's stock returns volatility. Our study extends Lee and Shailer (2008/2005) and CPA Australian (2004) which suggested that such a governance reform would enhance investors' confidence.

We found that the entities that have adopted the ASX's corporate governance codes experienced significantly lower stock returns volatility among the sample companies during the study period suggesting that investors expressed more confidence in those companies. They also revealed that codes that are intended to ensure board independence are more influential than those that are intended to ensure the company's financial reporting credibility and promoting company directors' and managers' ethical behaviour. In particular, the results seem to suggest that having an independent board structure is the key aspect of the company's corporate governance framework and other sets of governance codes complement the overall effectiveness of the company' corporate governance mechanism.

## **2. Theory and Relevant Literature**

The critical aspect of the modern-day corporate structure is the separation of ownership and control. That has created an agency relationship between two groups of people – (i) managers who undertake the management responsibility of the company and (ii) shareholders who actually own the company (Jensen & Meckling, 1976). In theory, managers, as the agent, have a duty to act in the best interest of their owners (principals). In practice however, there are practical problems inherent to such a relationship being – (i) goal diversion (Tosi, Katz & Gomez-Mejia, 1997; Eisenhardt, 1989) (ii) incomplete contract (Brudney, 1985) and (iii) information asymmetry (Adkere & Azevedo, 2005; Easterbrook & Fischel, 1989). That provides managers with discretion in committing the organization to whatever contracts and transactions they feel appropriate within their responsibility to the principals (Crowther & Jatana, 2005).

Protecting shareholders' interest has been, and will always be, the key challenge of corporate governance regulations in the modern corporate world that is operating under the theory of principal-agent relationships. Investors question the adequacy and effectiveness of regulations that have been put in place to address the agency issues when companies collapse particularly due to the management's apparent unethical behaviours or malfeasance. Investors lose confidence and leave the market until the authorities take action to rectify the situation. We had a déjà vu of sorts at the start of the Century providing a trigger for regulatory reform on a scale not seen in Australia before (Du-Plessis et al., 2005).

### **2.1 Regulatory Reform**

Following the corporate crises of early 21<sup>st</sup> century and the subsequent public outcry, the Australian Stock Exchange (ASX) released the 'Principles of Good Corporate Governance and Best Practice Recommendations' (referred to as the codes hereafter). The codes signify the ASX's attempt to address the perceived governance policy failures and restore investor confidence in the capital market. The Chairman of the ASX Corporate Governance Council Eric Mayne highlighted the

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focus of the codes as being improving market efficiency and keeping agency costs low (Mayne, 2007). The ASX (2003) speaking to the first version of the codes identified promotion of the investor confidence as an important motivation for the reform, suggesting that the capital market was facing an investor confidence crisis.

The codes at the time of their initial application included 10 principles and 28 recommendations<sup>i</sup> which the ASX considers as governance of best practices and it is these which are examined in this paper. The key feature of the codes is the 'if not, why not' clause. What this clause means is that it is up-to the company concerned to decide its governance structure. In other words, the company is allowed to deviate from the recommended code of best practice or a set of practices as long as those practices are explained and disclosed. The aim is to enhance credibility of a company's corporate governance practices while minimising unnecessary compliance burdens. Hamilton (2003) argued that the flexible approach was necessary because many of Australian listed companies were incredibly small.

As stated, the aim of the ASX code is to boost the investor confidence in the market in general and in each individual company in particular. We evaluated this premise using the two alternative approaches – (i) total index and (ii) group-based indexes. The index construction process will be discussed in the methodology section.

Our main research question is – “Is a company's stock returns volatility partly explainable by its level of adoption of ASX governance codes; stock returns volatility being our proxy for investor confidence.” We reiterate the ASX's motivation for the introduction of the codes – to promote investor confidence. We discuss all 22<sup>ii</sup> relevant codes and how they address the issue of investor confidence. To do this, we divide them into three sub-groups – (i) structural independence (5 codes: 2.1, 2.2, 2.3, 2.4, & 9.2), (ii) promoting ethical behaviour (12 codes: 1.1, 3.1, 3.2, 4.4, 5.1, 6.1, 7.1, 8.1, 9.1, 9.3, 9.4 & 10.1) and (iii) enhancing reporting credibility (5 codes: 4.1, 4.2, 4.3 6.2 & 7.2)<sup>iii</sup>. We used the Fleming (2003) approach in the classification. Our review of the relevant literature will be based on these three subgroups of ASX governance codes.

From the agency theory perspective, a first and possibly the most important step towards restoring confidence is minimising the potential occurrence of conflict of interest. Investigations of the corporate scandals at Enron, World-Com and others have revealed that one of the key issues in those meltdowns was the widespread occurrence of the conflict of interest throughout the chain of monitoring (Van den Berghe & Baelden, 2005). The lack of true independence of so called outside directors (i.e. non-executive) probably exacerbated the problem. For example, a significant number of Enron's outside directors enjoyed business relations of some kind with the company (Downes & Russ, 2005). This potentially provided a means to create a situation where board members were beholden to management, and thus might side with executives in order to retain their business relationships (Downes & Russ, 2005).

A number of governance of best practices recommended in the ASX codes relate to ensuring the independence of boards and board subcommittees. They are designed to reduce potential conflicts of interest by setting up a clear and distinct line of authority in the company's oversight framework. The premise is that, if boards and subcommittees are independent, the conflicting pressure and loyalties are effectively

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stripped away from them. This will enable these boards and subcommittees to be bold enough to ask tough questions and in saying “no” to management’s choices and judgement decisions when deemed appropriate (Clark, 2005).

Lee and Shailer (2008) reported that investors (individual & institutional) exhibit strong confidence in independent boards, an independent chair of the board, and particularly when they are assured that the CEO is not the chair. Their findings also suggest that confidence is enhanced by the independence of board committees. The findings are consistent with the suggestion that the board’s ability to ascertain the validity of management’s decision choices and its effectiveness as a monitoring mechanism rely on its independence from management (Beasley, 1996; Dechow et al., 1996).

Having independent directors does not necessarily mean management always behaves in the interest of shareholders as expected. The apparent existence of information asymmetry allows the management to disguise the real motives for their actions. In other words, if persons occupying the executive positions in the company management are unethical, they are likely to hide or distort information in such a way as to make many of those actions appear benign or even in the best interests of the stockholders. Downes and Russ (2005) study suggests that such were the circumstances at Enron before its spectacular collapse. Therefore, better corporate governance requires more than adhering to structural independence of boards and their committees (Fleming, 2003).

Having the right attitudes, a sense of responsibility and behaving ethically are equally important for directors to be effective in their roles as credible monitors. Obviously, these are attributes which cannot be fully regulated. However, having various codes of practices that require directors to engage in certain processes and practices is likely to increase their self-awareness and diligence and thus enabling them to develop the culture of ethical behaviour and practices in the decision making process.

Disclosure of key information is the underpinning element of the ASX codes. In fact, the legal requirement to disclose particular information about the company’s corporate governance practice under the Listing Rule 4.10.3 is what sets the ASX codes apart from other voluntary measures introduced earlier.

Investors must have confidence in the company’s reporting practices in order to be confident to invest in that company. That means the information disclosed in the annual reports or any other mediums must be credible or at least perceived to be credible by the investors. In the survey by CPA Australia (2004) 43% respondents indicated that they depend on the company’s annual report to a degree when considering an investment. However, only 17% expressed their confidence in the annual report.

Enhancing the firm’s reporting credibility is another key focus of the ASX codes. Annual report certification by the CEO or/and CFO and requiring the auditor to attend the annual general meeting to answer questions about the conduct of the audit and the preparation and content of the auditor’s report are some examples of this.

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Lee and Shailer (2008) examined the effect of regulation (i.e. ASX codes) on investors' confidence of the regulatory changes intended to enhance reporting credibility. Their results indicate that requiring the CEO and CFO to take responsibility for the integrity of financial reports increases investors' confidence in a company's accounting systems and financial reports. They also found that individual investors exhibit a greater increase in confidence than institutional investors.

This study tests the impact of the complying with the ASX recommended corporate governance codes on investor confidence from an empirical perspective. In particular, we depart from the commonly used method of surveying investors' opinion and test the anticipated impact of the codes on investor confidence using the proxy measure of the investors' confidence. To the best of our knowledge, this is the first study to have used such approach in a study of this nature and thus adds a new methodological perspective. The underlying hypothesis is – ***A company's level of compliance (as measured by the compliance index score) with the ASX governance codes is negatively associated with its stock return volatility***".

### 3. Methodology

We conduct a company level analysis of a sample of 271 listed companies for the financial reporting period ending 2004. The study period is chosen for the obvious reason – this is the period when the ASX Corporate Governance Codes came into effect.

Samples were chosen from companies listed between 1 April 2001 and 31 December 2007 to ensure that a company's decision to adopt the ASX recommended best practices is not affected by its decision to list or an impending de-list. In order to ensure a balanced coverage across the industry sectors, the stratified random sampling was employed in the sample selection process. In other words, international research on governance may not be fully applicable to Australia because they focus on larger organisations (Arcot et al., 2010; Seidl et al., 2009) and thus fail to reflect the range in the size of the listed companies in Australia. Thus this study is designed to capture a wide cross section of companies. In addition the research by focusing on share market data examines the issues from a different perspective from those that focus on self-reporting by shareholders of their perceptions of changed governance on their level of confidence.

The data for listed companies is derived from '<http://www.ascii-data.com>'. The ASX All Ordinaries Index prices were obtained from '<http://au.finance.yahoo.com>' whereas sample firms' stock prices were collected from Aspect Huntley FinAnalysis database. Corporate governance information was hand collected from the corporate governance section of sample entities' 2004 annual report which was obtained using the Aspect Huntly Annual Reports-online database.

The dependent variable in the analysis is investor confidence. We use stock return volatility to proxy the variable. Stock return volatility is a standard deviation of the firm's stock returns which is a dispersion measure. It is the function of frequency and size of trading as well as the movement in the prices of stocks. We calculate the company's stock returns volatility using the following estimation methods:

$$rd_{i,t} = \frac{xd_{i,t}}{yd_{i,t-1}} \tag{Eq. 1}$$

$$\sigma_{i,t} = \sqrt{\frac{\sum_{i=1}^N rd_i - \bar{rd}}{N-1}} \tag{Eq. 2}$$

$$y_{i,t} = \sigma_{i,t} \sqrt{252} \tag{Eq. 3}$$

Where *rd* is daily return of the company *i* in time *t*. *xd* is daily adjusted share price in time *t* whereas *yd* is daily adjusted share price in time *t-1*. *y* represents company’s annualised stock volatility. Actual trading days in a year (roughly 252) were used to annualise. Where stock prices were available for less than a year, actual number of trading days were used.

We first construct a summary of metric, ‘total index’ based on all 22 ASX Corporate Governance Codes using binary code – ‘1’ if the company has adopted the code and ‘0’ otherwise. We then classify 22 ASX codes into three sub groups based on their homogeneous approach to influencing the investors’ confidence (i.e. stock returns volatility) – (i) structural independence, (ii) promoting ethical behaviour and (iii) enhancing reporting credibility. Each group contains 5, 12 and 5 codes. We further construct summary metrics, ‘sub-indexes’ using the same process. Table 1 exhibits the index construction schema.

**Table 1: ASX corporate governance codes compliance index and sub-indexes**

Variable	ASX recommended practices	Minimum	Maximum
<b>Panel A: Total index</b>			
Total index	22	0	22
<b>Panel B: Sub-index</b>			
Sub-index1:Structural independence	5	0	5
Sub-index2:Ethical behaviour	12	0	12
Sub-index3: Reporting integrity	5	0	5

As can be seen from Table 1, the lowest scores for all four indexes are 0 (zero) while the highest possible scores are 22 for total index and 5, 12 and 5 respectively for the sub-indexes. We believe that this approach of using the sub-indexes to examine the effect of different aspects of governance codes separately is relatively unique and therefore will add new methodological perspective to the current literature.

We identify 5 company specific variables having potential to influence the firm’s stock returns volatility and incorporated them in the model to minimise the possibility that the observed influence of adopting the codes on the stock return volatility is not spurious.

- **Firm size**, denoted by natural log of total assets.
- **Leverage**, denoted by non-current liabilities-to-total assets ratio
- **Board size**, denoted by the number of board members.
- **Board gender diversity**, represented by the female directors-to-total number of director ratio.

- **Auditor independence**, measured by the proportion of non-audit service fees-to-total audit fees ratio.

### 3.1 Model Specification

We developed the following 2 equations:

$$y_{i,t} = \alpha_{i,t} + ai_{i,t} + \beta_n \cdot \sum Controls_{i,t} + \varepsilon_{i,t} \quad \text{Eq. 4}$$

$$y_{i,t} = \alpha_{i,t} + xi_{i,t} + yi_{i,t} + zi_{i,t} + \beta_n \cdot \sum Controls_{i,t} + \varepsilon_{i,t} \quad \text{Eq. 5}$$

Where *y* is the company *i*'s stock return volatility at time *t*. *Ai* in the equation 4 denotes total index. *Xi*, *yi* and *zi* in the equation 5 denote subindexes 1, 2 and 3 respectively. Control variables are as defined in the previous section.  $\varepsilon_{i,t}$  is the error term which is assumed to be normally distributed.

## 4. Results analysis

This section presents and discusses the results. Summary statistics of the variables used in this study is presented in Table 2.

**Table 2: Summary statistics**

Variables	Mean	Minimum	Maximum	Std deviation
Stock returns volatility	0.76	0.00	2.74	0.57
Total index	15.42	2.00	22.0	4.98
Sub-index1: Structural independence	2.53	0.00	5.00	1.57
Sub-index2: Ethical behaviour	9.50	1.00	12.00	2.85
Sub-index3: Financial Integrity	3.39	0.00	5.00	1.45
Firm size (Total assets in millions\$)	3036.81	0.33	411309.00	29572.42
Leverage	0.14	0.00	0.99	0.19
Board size	4.96	3.00	13.00	1.95
Board gender diversity	0.03	0.00	0.40	0.07
Auditor independence	0.23	0.00	0.76	0.21

The mean stock returns volatility is 0.76 with standard deviation of 0.57. The mean for all four indexes are above average with subindex2 scoring highest (79 percent). The sub-index1 scored lowest (51 percent). Two possible factors may explain this trait. First, changing the company's board structure is difficult and time-consuming compared to developing policies and setting codes of conduct. Second, entities might have believed that their existing board structure were already at optimum level and therefore, adopting an alternative approach as suggested by the ASX best practice recommendation was unnecessary given the circumstance of the company, at least, at that stage.

The sample includes a wide range of listed companies in terms of assets values as evidenced by the minimum and maximum values of \$0.33 million and \$411309 million respectively. While the mix is logical given the fact that the ASX guidelines apply to all listed companies irrespective of their sizes, it also suggests heteroskedasticity in the data. SPSS normal p-p plot of regression standardised residual (not reported) exhibit this condition. To correct for heteroskedasticity, the models defined in equations 4 and 5 use weighted least square regression.

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Pearson correlation matrix shown in Table 3 indicates the possibility of multicollinearity as most of the coefficients are significant and also reasonably high in magnitude. We checked this possibility by regressing each of the independent variables against other independent variables. The resulting VIF and tolerance level for each of the regression were below 3 and above 0.20 respectively suggesting that multicollinearity is not an issue.

**Table 3: Pearson correlation matrix**

Variables	1	2	3	4	5	6	7
1. Stock return volatility	1						
2. Governance index	-0.426***	1					
3. Board size	-0.431***	0.507***	1				
4. Board meetings	-0.171***	0.206***	0.132**	1			
5. Auditor independence	-0.129**	0.230***	0.263***	0.163***	1		
Firm size	-0.679***	0.515***	0.595***	0.168***	0.272***	1	
6. Leverage	-0.155***	<b>0.215</b>	0.265***	<b>0.020</b>	0.145**	0.328***	1

*Correlations except in bold and underlined are significant at standard levels (i.e. 10% or higher).*

Table 4 presents regression results of equation 4. Dependent variable in the regression is stock return volatility. The coefficient of the total index is negative and significant at 1% level in both models suggesting that a company's stock returns volatility decreases as its level of the adoption of the ASX governance codes increases. As presumed, the company size and the level of debt also influence its stock returns volatility. The results also indicate that the size of the board influences the company's stock returns volatility. R-Squared value of 0.477 indicates that the model explains a satisfactory level of the observed variance in the company's stock return volatility and the model is significant as shown by the F-test.

**Table 4: Dependent variable is stock returns volatility**

Variables	Exp. ±	Model 1		Model 3	
		Coefficient	p-value	Coefficient	p-value
Constant		2.581	0.000	2.541	0.000
Total index	-	-0.015	0.010	-0.014	0.014
Firm size	-	-0.176	0.000	-0.171	0.000
Leverage	+	0.478	0.001	0.455	0.001
Board size	+	0.031	0.071	0.034	0.041
Board gender diversity	-	0.511	0.154		
Auditor independence	+	0.073	0.529		
F-statistic		41.989		62.253	
p-value		0.000		0.000	
R squared		0.477		0.476	

*Estimation of equation 4 Weighted Least Square Regression using the backward removal method. Only the results from the first (model 1) and the last (model 3) are reported.*

The regression results of equation 5 are shown in Table 5. The F-test and R-Squared suggests that the model is significant and explains a satisfactory level of observed variance in the company's stock returns volatility. The interesting aspect of this results is that, although negative, the coefficient of Subindex2 (ethical behaviour related codes) and Subindex3 (reporting integrity related codes) are not significant. This suggests that these sets of practices are not very effective on their own but complement the other set of governance codes particularly, the board independence related items.

**Table 5: Dependent variable is stock returns volatility**

Variables	Exp. ±	Model 1		Model 5	
		Coefficient	p-value	Coefficient	p-value
Constant		2.510	0.136	2.439	0.000
Subindex1	-	-0.039	0.063	-0.045	0.017
Subindex2	-	-0.001	0.929		
Subindex3	-	-0.028	0.235		
Firm size	-	-0.175	0.000	-0.174	0.000
Leverage	+	0.506	0.001	0.497	0.000
Board size	+	0.035	0.043	0.037	0.029
Board gender diversity	-	0.567	0.387		
Non-audit service-to-total audit fee	+	0.102	0.117		
F-statistic		31.858		62.068	
p-value		0.000		0.000	
R square		0.478		0.483	

*Estimation of equation 5 Weighted Least Square Regression using the backward removal method. Only the results from the first (model 1) and the last (model 5) are reported.*

Subject to certain caveats discussed in the next section, the results provides statistically significant evidence that firms' level of compliance with the ASX codes of best practices is negatively associated with the firm's stock return volatility a proxy measure for investor confidence. In other words, the results support our hypothesis. The result is consistent with finding reported by CPA (2004) and Lee and Shailer (2005 and 2008).

## 5. Conclusion, Limitation and Future Research

In this study, we empirically examined the impact of adopting the ASX corporate governance codes on investors' confidence. We found that the entities that adopted the recommended ASX codes experienced significantly lower stock return volatility suggesting that the investors expressed confidence on them. The results confirm Lee and Shailer (2008/2005) and CPA Australia (2004) findings.

What is more, the results showed that the codes that are intended to ensure board independence influences the company's stock returns volatility individually as well as collectively. However, the practices that are intended to ensure the company's financial reporting credibility and promoting ethical behaviour of company directors and managers appear ineffective in the absence of other set of codes particularly, the composition of board related codes of best practice. The findings provide empirical support for the agency theory suggestion that investors perceive the measures that minimises the agency conflict more positively.

We now outline possible research dimensions for the future research. Firstly, we have only examined a market proxy in this case. The market proxy represents how investors believe the company is doing rather than how effectively the management is running the company. Therefore, using the accounting proxy (e.g. return on assets, return on equity) instead should better reveal whether the proposed changes in the codes have positively impacted on manager's ability to make right decisions to enhance shareholders' returns on investments.

Secondly, the one year time-frame used in this study is regarded as limited to better reveal the impact of the codes. The investor confidence trend is likely to become

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more apparent if a longer time horizon is examined as companies progressively adopt more and more codes. For example, restructuring corporate governance is a slow process. A lot of things need to be considered and many of them take a significant amount of time. Therefore, it may take some time before companies can fully digest the changes recommended by the codes. Extending the time-horizon is another possibility that can be looked at in the future.

And lastly, the ASX codes operate under the ‘if not, why not’ principle. That means assessing the company’s corporate governance practices based on the adoption of the codes captures only half the story. Equally important in the assessment of ASX governance codes are the reasons provided by the company for non-adoption. This is another interesting perspective that may be adopted to examine the issue in the future.

We conclude with some caveats pertinent to this study. It is arguable whether the stock returns volatility, used in this study to denote investor confidence, is a reasonable proxy. Investor confidence is complex term and measuring it reasonably may require a more complex process than the one used in this study (Dailami & Masson, 2009). Furthermore, there is the possibility of measurement errors in the proxy calculation due to the likely mismatch between governance decisions taken by companies and the time investors take to react to the decisions. This is primarily due to the fact that annual reports which contain those decisions are not published until 3 – 6 months after the balance date. There is also potential issue of endogeneity<sup>iv</sup> in the analysis model which has not been tested. We advise readers that discussion of the results particularly any inferences made or conclusion drawn to be interpreted accordingly.

## Endnotes

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<sup>i</sup> The initial guidelines were issued in March 2003 with the possibility of early adoption in 2003 but with a compulsory application in 2004. The ASX released similar but revised guidelines on 2 August 2007 and they apply to financial years commencing on or after 1 January 2008. There were a number of changes including the removal of the term “best practice” from the title. The revised guidelines have 8 principles and 27 recommendations as opposed to 10 principles and 28 recommendations of the previous edition. However this paper addresses the first application under the first version of the codes because it is more likely to convey the attitudes of directors rather than reflecting a desire to conform as might occur when it is subsequently revealed how many companies were adopting the recommendations.

<sup>ii</sup> While the first edition of the ASX guidelines consisted of 28 best practice recommendations, 6 best practices namely 2.5, 3.3, 4.5, 5.2, 7.3 and 9.5 relate to providing a guide in terms of how a company is to communicate corporate governance practices to the stock markets. In other words, they are simply a disclosure guide and therefore not included in the analysis.

<sup>iii</sup> For the full description of all ASX corporate governance codes, please “<http://www.asx.com.au/governance/corporate-governance.htm>”

<sup>iv</sup> One fundamental assumption of Ordinary Least Square (OLS) regression is that independent variable (i.e.  $x_i$ ) values are not correlated with the error terms. Endogeneity occurs if  $x_i$  values are correlated with the error term. If this condition exists, then observed results will be incorrect.

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