THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE PRACTICES AND FINANCIAL PERFORMANCE IN NEW ZEALAND: AN EMPIRICAL INVESTIGATION

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ABSTRACT

Corporate Governance is the set of structures and behaviours by which a company or other business entity is directed and managed (New Zealand Securities Commission, 2003). The structures and behaviours guide how the entity sets objectives, develops strategies and business plans, monitors and reports on performance, and manages risks. They also guide how directors and managers meet all expectations and that they are responsible and accountable in their respective roles. In 2004 the New Zealand Securities Commission (NZSC) adopted a principle-based corporate governance approach which was intended to contribute to high standards of corporate governance in New Zealand entities. The principles/guidelines are broad statement generally applied to the governance of entities that have economic impact in New Zealand or are accountable, in various ways, to the public. The economic entities are required to observe the principles/guidelines to the fullest extent that they reasonably can and depart only where they are subject to competing statutory or public policy requirements (NZSC, 2004).

This thesis investigates the effect principle-based corporate governance practices have on the financial performance of publicly listed companies and public corporate entities in New Zealand. The adoption of the principle-based approach was to encourage entities to develop governance structures that are specific to their context. Therefore, this research examines: (i) whether the NZSC recommendations have encouraged institutions to develop entity and/or industry specific governance structures; and (ii) whether the differences in governance practices at entity and industry level contribute to the differences in the financial performance.

Prior studies have examined governance practices of larger corporations in large economies. The governance practices of companies in smaller economies have received little attention. This research extends the understanding of responses to smaller entities, both private and public sector, in a small open economy with a mature capital market.

The focus of this thesis is on the governance variables that have been highlighted by the NZSC in 2004 and also other governance variables that are supported in the literature as providing an appropriate structure for the institutions in the environment in which it operates.

Data for the small and large capitalisation (cap) companies were obtained from the New Zealand Stock Exchange (NZX) Deep Archive. The data for the small cap companies[1] covered the period 1999 to 2006 and for large cap companies[2] the sampling period was from 1999 to 2007. For public sector corporate entities, data were obtained from their respective annual reports for the period 2000 to 2007.

Pooled data were analysed using ordinary least squares (OLS) regression and two stages least squares (2SLS) regression techniques to evaluate: (i) whether entities have complied with the NZSC recommendations; (ii) whether those entities that were continuously compliant with the NZSC recommendations have superior financial performance; (iii) the entities' financial performance post-NZSC recommendations is better than pre-NZSC recommendations; and (iv) the difference in governance practices in different entities and industries and the effect they have on company financial performance.

The findings indicate that small cap and large cap companies and public sector corporate entities have universally adopted the Securities Commission recommendations. Results for the large cap companies show that compliance with NZSC recommendations had a positive effect on financial performance, but empirical results show that compliance with NZSC recommendations has had a negative effect on the financial performance of small cap companies and public sector corporate entities.

There is also evidence that governance practices in certain industries have contributed towards the differences in entities' financial performance. This suggests that a principle-based governance approach led to the development of industry-specific governance structures in large cap companies and State-Owned Enterprises (SOEs) as intended. However, the evidence for the small cap companies is specific to the finance/investment sector.

As a result of this study, the relationship between 'soft regulations' and entities' financial performance is better understood, and in terms of public/regulatory requirements, the issues associated with compliance cost burdens are better informed. This study offers insights for policy makers around the world who have adopted principle-based approaches and to those jurisdictions that are interested in adopting similar governance approaches in the future.

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[1] Small cap companies are those companies that are not part of NZX50 companies.

[2] Large cap companies are NZX50 companies.

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INTRODUCING THE STUDY

1.0 INTRODUCTION

The recent global financial crisis of 2007 to 2010 has seen the collapse of large companies in many countries including the UK and the USA. This crisis and the preceding Asian financial crisis of 1997 has revealed problems with corporate governance and the apparent inability of boards to monitor and control company performance, and the remuneration and performance of managers (OECD, 2009). However, these challenges are not new. For these reasons the corporate governance structures and practices over the years has been subject to extensive scrutiny, controversy and debate (Gugler, 2001). The focus primarily was on the managerial corporation inspired by the seminal work of Berle and Means (1932), that is, how managers with either very little or no investment in the organisation they manage, could be motivated to work in the best interest of the shareholders. Modern public corporations are managed by managers and monitored by a board of directors. The separation of the decision making role (the CEO) from the control role (the board) and from risk-bearing (shareholders) is thought to be a reasonable way to structure company governance (see Fama & Jensen, 1983a, 1983b; Jensen, 2000), so long as decisions made are in the best interest of the residual claimants and efficiency is maximised.

However, poor company financial performance, scandals and failures over the years has revealed that the board has not been effective in monitoring managerial behaviour. A study undertaken by the Asian Development Bank (2000) revealed that poor governance practices was one of the major contributing factors that led to the Asian financial crisis in 1997. The failure of high profile companies such as Adelphia, Enron, Parmalat, Tyco, WorldCom, and HIH Insurance, among others, has also been linked to poor corporate governance practices. The debate after the crises focused on ways in which corporate governance practices could be improved to ensure (i) that investors' funds are not expropriated or wasted in value-decreasing projects; and (ii) the survival of the company in the long-term (Bonn, 2004).

Anecdotal evidence (Ingley & McCaffrey, 2007) and empirical evidence (Brown & Caylor, 2006a, 2006b; Larcker, Richardson and Tuna2007; MacAvoy & Millstein, 2003; Millstein & MacAvoy, 1998) support the view that good governance practices lead to improved company

financial performance. Improved governance practices lead to an increase in company performance in two distinct ways: (i) they increase expected cash flows accruing to the investors and (ii) reduce the cost of capital. First, shareholders believe that with improved governance practices more of the company's free cash flow will be returned to them as dividend rather than being expropriated by the managers who control the company (Jensen, 1986; La Porta, Lopez-de-Silanes, Shleifer & Vishny2002; Shleifer & Wolfenzon, 2002). Second, good governance reduces the cost of capital to the extent that it reduces shareholders' monitoring and auditing costs (Lombardo & Pagano, 2002, cited in Beiner, Drobetz, Schmid & Zimmermann, 2004). This supports the view that agency costs can be controlled by limiting managerial discretion through the establishment of structures to monitor and control management behaviour (Burton, 2000). To this end, the appropriateness of a flexible principle-based governance approach versus a "one size fits all" rule-based approach to address governance concerns was debated by many countries. The United States has taken a distinctively rule-based approach regarding certain aspects of corporate governance with the adoption of the Sarbanes-Oxley Act of 2002. Whereas New Zealand, along with the UK, Canada and Australia, has adopted a more nuanced principle-based approach. The reason for adopting a principle-based approach was based on the view that it is voluntary, flexible and non-binding. It allows companies to develop company specific governance structures that will enhance efficiency. This led to a proliferation of corporate governance codes/principle and guidelines with particular emphasis on accountability and conformity (Edwards & Clough, 2005). Corporate governance codes such as the Cadbury code in the UK, the Australian Stock Exchange (ASX) guidelines, New Zealand Corporate Governance Principles and Guidelines, and the OECD corporate governance principles can be found to contain certain assumptions about what governance factors make for a good performing organisation. These factors are company attributes that are assumed to lead to good company financial performance (Edwards & Clough, 2005). Emphasis is placed on an independent board of directors, independent chair and independent board sub-committees such as audit, remuneration and nomination. These structures have been prescribed as important corporate governance reforms in New Zealand and internationally.

Although New Zealand was not directly affected by the high profile company crises that occurred in the US in 2001, the evidence of poor company financial performance (Healy, 2003) and sub-standard governance practices (Godfrey & Horsely, 2003) were prevalent in

many sectors. The perception among investors (local and overseas) was that New Zealand did not sufficiently protect investors with appropriate reporting, compliance and governance standards. This was an influencing factor for a number of major listed companies during 1980s and 1990s for shifting offices offshore (Farrell, 2005). These events provided a signal to New Zealand to enhance its corporate governance practices in order to promote and safeguard the integrity and efficiency of the market.

The section that follows provides a brief discussion on the corporate governance environment in New Zealand.

1.1 CORPORATE GOVERNANCE ENVIRONMENT IN NEW ZEALAND

The development of corporate governance practices in New Zealand is very much related to the history and development of the formation of corporations, and with that, the development of commercial law. It is also associated with the capital markets participants' reaction to the events that occurred both locally and internationally. Prior to 1978, New Zealand did not have securities regulation that specifically protected minority investors' interest. The collapse of some major companies in the mid-1970s led to the enactment of the Securities Act 1978. However, the focus of the Securities Act 1978 was on controlling the activity of raising funds rather than the entity, which was raising funds. The Companies Act 1955 was the exact copy of the United Kingdom Act of 1948 and did not provide any guidance on corporate governance structures and practices, apart from the requirement to have a board of directors. It became apparent during the 1987 stock market crash that the corporate governance practices and structures in New Zealand were not of the same standard as those practiced in other developed economies. After the stock market crash, an ensuing backlash against perceived corporate excesses provided New Zealand with its first set of rules, guidelines and legislation for corporate governance (Hossain, Prevost & Rao, 2001) with the enactment of the Securities Act 1988. However, there were no company guidelines or rules that specified directors' duties until the enactment of the Companies Act 1993. Insider trading[3] was not outlawed until late 1990s, and there are examples of takeover cases and market manipulation activities that questioned the integrity of the New Zealand capital market. A poor standard of

[3] Insider trading is recognised as a behaviour which is damaging not just to individual companies and stakeholders, but also to the efficiency and integrity of the securities market as well (Kavanagh, 2005).

financial reporting and inadequate audit functions were contributory factors that lead to the failure of a number of companies during the late 1980s and 1990s, namely, Equiticorp, Chase and Fortex. There were also cases where poor quality corporate governance practices led to the erosion of shareholder wealth, examples of such companies were the Bank of New Zealand (BNZ), Air New Zealand and Brierley Investments Limited (BIL) (Healy, 2003). Poor company financial performance and sub-standard governance practices were not only restricted to the private sector; it was also apparent in the public and not-for-profit sectors as well. Poor governance practices in public sector entities were the reasons for the financial bailout of some significant educational institutions (McKinlay, 2003), and poor corporate governance practices relating to misuse of funds were experienced in the voluntary sector organisations as well (McKinlay, 2003). These cases of poor governance practices, among others, created the perception that investors were not protected that led to the deterioration of New Zealand's image internationally.

Changes made to corporate governance practices in countries that suffered corporate failures have had an impact on the New Zealand capital market and on companies operating in New Zealand. Also, the deregulation of the economy in 1984 made it possible for New Zealand companies to attract foreign capital for investment and growth. These cases (among others) motivated market regulators in New Zealand to enhance corporate governance practices in order to encourage capital participation by local and international investors.

New legislation was introduced[4] with the aim of: first, promoting investor protection; second, promoting and safeguarding the integrity and efficiency of the New Zealand capital market; and third, improving New Zealand's image internationally by striving for cost effective securities regulation. The corporate governance practices between 1987 and 2004 underwent sustained change, influenced by the events occurring nationally and internationally.

It was acknowledged that good corporate governance practices will not eliminate corporate failures or destruction in shareholder value. However, if implemented, monitored and updated regularly, they will reduce corporate fraud and assist in achieving maximisation of the shareholder wealth. As stated in the Higgs report:

[4] Refer to Table 3.1 on page 63 for details.

> *"Good corporate governance must be an aid to productivity, not an impediment. It is an integral part of ensuing successful corporate performance, but of course only a part. It remains the case that successful entrepreneurs and strong managers, held properly to account and supported by effective boards, drive wealth creation." (Higgs, 2003)*

The business of business is risky and companies taking risks to create shareholder value may end up with either losses, breakeven, or profit situations. As far as the competitive market forces are at work, good governance practices will ensure that corporate resources are utilised in an efficient manner. The nine high level principles and guidelines recommended by the New Zealand Securities Commission (hereafter NZSC) in 2004 were intended to contribute to high standards of corporate governance in New Zealand entities. It was assumed that the principles and guidelines would improve shareholder confidence in governance processes and also harmonise corporate governance practices among the trading partners.

1.2 CONTEXT AND GOVERNANCE STRUCTURES

From a country perspective, quality of governance is determined by the following six governance dimensions: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption (Kaufmann, Kraay, & Mastruzzi, 2006). These dimensions are seen to reflect the effectiveness of the institutions and financial markets as they are determined by the behaviour of individuals within a society (Rutherford, 2001; The World Bank, 2009). Governance in this context is the outcome of the effectiveness of the society's institutions (North, 1990) and if institutions are appropriate and effective, then governance dimensions are regarded as indicators of the quality of a country's institutions (Duncan, 2003). The growing body of empirical research that has evolved in this area has linked institutions with economic growth and measures of governance with economic performance (Kaufmann, Kraay, & Mastruzzi, 2004; Knack, 2001b; Rutherford, 2001). La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 1998). This builds on a long tradition of scholars including Coase (1937), Alchian (1965), Demsetz (1964), Cheung (1970, 1983), North (1981, 1990) who have stressed the interaction between property rights and institutional arrangements shaping economic behaviours. La Porta et al. have also emphasised the importance of law and legal enforcement of the governance of firms, the development of markets and economic growth. From this perspective, the nature of corporate governance practiced by companies in a country is very much dependent on the nature and purpose of the

companies, and the place of corporate law and practices within the wider national and international frameworks of governance.

Therefore, a system of governance is mainly determined by the nature and purpose of the company. An understanding of the nature and purpose of a company is drawn from the following company characteristics: the degree of ownership; the level of control the shareholders have; identity of the controlling shareholders; board accountability, that is, whether it is shareholder or stakeholder focused; the legal and regulatory environment; and the level of market competition faced by the company (La Porta et al., 1998; Maher & Anderson, 1999; Shleifer & Vishny, 1997). The differences in these company characteristics traditionally reflected the differences in corporate governance practices of different companies in a single country and also, across countries. The extant literature focusing on different models of governance (Analytica, 1992; Bianchi, Bianco & Enriques, 1999; Black & Coffee, 1993; Brecht & Roell, 1999; Franks & Mayer, 1994; Garrett, 1996; Isaksson & Skog, 1994; Monks & Minnow, 1995; Porter, 1992; Preston, 1996) reveal that there are no specific governance structures that are suited to every company and all countries. Also, these structures tend to change over time and there is evidence of convergence of different practices over time. For example, concentrated ownership structures, commonly found in insider (bank-based) systems, are now present in outsider (market-based) systems, which have a strong recognition of minority shareholder rights as well as a greater emphasis on transparency. Also, familial control, common in insider systems, is also common in Anglo-Saxon countries like Australia, Canada, and New Zealand.

The model of corporate governance practised in New Zealand is referred to as market-based or an outsider system of governance. This form of governance is typical in Anglo-Saxon countries, where the role of the board of directors is prescribed in law. The role of management and directors is to maximise shareholder value through allocative, productive and dynamic efficiency. The distinguishing features of the shareholder model are: (i) dispersed ownership structure with a large institutional holding; (ii) the existence of a unitary board; (iii) the supremacy of shareholders' interests is recognised in corporate law; (iv) a strong emphasis is placed on the protection of minority investors through securities law and regulation; and (v) a relatively strong requirement for disclosure promoted through principles and guidelines.

The underlying problem for governance in the market-based system is the agency problem arising from the separation of ownership and control. Therefore, the framework for this research is drawn from the agency theory perspective and analysis of governance-performance relationship is to determine whether or not different corporate governance structures impact or constrain executive behaviour and whether it has an impact on company financial performance. The test of the governance–performance relationship provides confirmation that the relationship conforms to theoretical predictions.

1.3 OBJECTIVE OF THE STUDY

The purpose of this study is to investigate whether the corporate governance practices of publicly listed companies and public sector corporate entities in New Zealand have an effect on their financial performance. In order to achieve this aim, the following specific objectives are presented:

1. To determine the relationship between corporate governance practices of small cap companies and financial performance measured by Tobin's Q, Market to Book, Return of Assets and Return on Equity.
2. To determine the relationship between corporate governance practices of large cap companies and financial performance measured by Tobin's Q, Market to Book, Return on Assets and Return on Equity.
3. To determine the relationship between corporate governance practices of public sector corporate entities and financial performance measured by Return on Assets, Return on Equity, Sales to Total Assets and Cost to Revenue.
4. To ascertain whether or not sectoral and entity-level differences in corporate governance practices have an effect on financial performance.
5. To ascertain whether compliance of NZSC recommendations has an effect on financial performance.

1.4 SIGNIFICANCE OF THE STUDY

Studies using data from the UK and the US show that better-governed companies reduce control rights that shareholders and creditors confer on managers, increasing the probability that managers invest in shareholder value-creating projects (Shleifer & Vishny, 1997). Claessens, Djankor, Fan and Lang (2003) posit that better governed companies have easier access to finance, lower cost of capital, better financial performance and also have favourable treatment by all stakeholders. They argue that weak corporate governance not only leads to poor company performance and risky financing patterns, but is also conducive to

macroeconomic crises. However, the focus of past research has mainly been on larger economies and therefore the nature of governance practices in companies in smaller economies is not well understood. It is not clear whether the findings of large companies from the larger economies also hold for small and large companies in smaller economies.

Since the New Zealand economy is dominated by small and medium sized companies compared to larger economies overseas, the conjecture is that the improved governance practices by small cap companies will also lead to an increase in financial performance. This study extends the current literature by providing an understanding of the nature of corporate governance practices in small cap companies in New Zealand and the effect such practices have on financial performance.

The conjecture that improved governance practices by large cap companies in New Zealand will also lead to an increase in financial performance is derived from the results of large companies in larger economies. This study provides an understanding of the nature of corporate governance practices in large publicly listed companies in New Zealand and the effect such practices have on their financial performance.

The surveys undertaken by the NZSC since 2004 provide evidence that listed companies, in general, have complied with the corporate governance recommendations (NZSC, 2005, 2006, 2007, 2008). However, little has been said about the impact compliance has on company financial performance. It is not clear whether an increase in financial performance is large enough (if any) to compensate for the incremental compliance cost incurred by the shareholders in order to comply with the NZSC recommendations. If the net present value of incremental free cash flows derived from the increased performance is not sufficient to compensate shareholders for the additional costs incurred, it will lead to the destruction of shareholder value. In such circumstances, the motivation of shareholders to remain committed to the NZSC recommendations becomes questionable.

Corporate governance codes/principles and guidelines have only been in existence since 1992 (revised in 2004) and surprisingly little research has been undertaken on their underlying mechanisms. An understanding of the dynamics of so-called ‘soft regulation’ in general is rather limited. It is difficult to ascertain whether changes to corporate governance practices in New Zealand have been made for the benefit of the shareholders or simply to fit with regulation applied in other countries. This study adds to our understanding of the workings of the so-called ‘soft regulations’ and their effect on financial performance.

The availability of only a small pool of directors for board positions in New Zealand has created an overboarding problem in large companies where some directors sit on many different companies' boards (Keown, 2009). According to Quinn, some people are engaged in boards of four to ten different companies (Keown, 2009), thus taking risks, as they are unable to spend sufficient time with the companies for which they are legally responsible. Large companies offer attractive remuneration packages (in New Zealand terms) and also, being a board member of a large company creates a better reputation in the marketplace for future board career prospects. Arguably, small cap companies cannot compete with large companies in terms of resources, and therefore have difficulty attracting experienced directors. People opting for board positions in small cap companies generally tend to be less experienced (Directions - Understanding Governance, 2007) than boards members for large companies and possess expertise in certain specific areas only. To acquire all the required skills at board level, small cap companies may have to engage many people at board level. In large companies, the effect that overboarding has on governance is not clear.

Healy (2003) reported that foreign institutions and corporations collectively held 54% of equity in New Zealand listed companies while local institutions held a meagre 15%. With the institutional ownership geographically spread, it is unlikely that such ownership structures will generate significant incentives for effective collusion and monitoring (Bhabra, 2007). The popular press has made scathing criticism of institutions relating to the complete lack of shareholder activism in New Zealand compared to the US, UK and Australia (Bhabra, 2007). In support, Korn/Ferry International (2000) adds that no companies in New Zealand have been seriously questioned by their investors at the annual general meetings on corporate governance issues. It is not clear what role institutional shareholders play in publicly listed companies in New Zealand in terms of monitoring and directing.

The Companies Act 1993 requires full disclosure of ownership of directors and other relevant governance related information, and such information is obtainable from the company's annual reports. The availability of such information makes this study possible. With the conflicting results obtained from previous studies, it is suggested that using data from a country that is significantly different will add to our understanding and contribute to the growing body of knowledge that examines governance-performance relationship.

Since the focus of past studies has mainly been on publicly listed companies, the corporate governance practices of public corporate entities are not well understood. Therefore the

governance-performance relationship in public sector companies and institutions is not well understood. The public sector reforms that started in the 1980s have transformed many public sector organisations into private sector company look-a-likes. These transformations require a board of directors to be appointed to the public corporate entities to take responsibility for making key strategic decisions in the management of those organisations. This development is seen to be important for public sector corporate entities as they take on the task of operating under the private sector guidelines. It was assumed that a change in structure and ownership would bring about improved performance in public sector corporate entities. Sufficient time has passed since New Zealand public sector organisations were transformed into private sector look-alikes, which makes it possible to study: (i) the nature of corporate governance practices in the public corporate entities in New Zealand; and (ii) whether the improved governance practices in the public sector corporate entities also lead to improved financial performance similar to the private sector companies.

Norman (2006) and Devlin (2006) point out that there are key differences in the way governance practices are undertaken in public sector corporate entities compared with private sector organisations. State-appointed directors have to be politically acceptable. Performance is overwhelmingly based around compliance and micro-management; and, the rewards seem to be more to do with recognition, payback and egos than with financial recompense for skilled direction (Norman, 2006). Since board members in public corporate entities are appointed for political or diversity reasons, they do not necessarily contribute to or prescribe the policies themselves. So, in reality, such boards are, in fact, management committees overseeing the activities of their managers rather than setting the strategic direction of their organisations. A survey of directors on boards of state-owned entities found that the process for selection employed by the Crown Company Monitoring Advisory Unity (CCMAU) was 'too drawn out' and did not sufficiently involve boards and their chairpersons (Norman, 2006).

The relative youth of most of the public corporate entities means that there has hitherto been no stock of retired executives or past experienced directors to lead boards of these enterprises. Ensuring that boards have the correct mix of experience, skills and competencies remains central to the performance of the entities. The government can draw on these skills to strengthen the technical knowledge of these boards.

The Public Finance Act 1989 introduced new systems of financial management and accountability into the state services. The 1989 Act introduced new and more transparent financial reporting and management systems, as well as improved accountability mechanisms, to allow government and parliamentary monitoring. The responsibility for achieving the contracted outputs rests with the chief executive of the relevant department or agency who is accountable to the relevant minister. The State Sector Act 1988, and later the Employment Contracts Act 1991, provided the tools necessary for managing the employment dimension of the 'new' state sector. The Crown Entities Act 2004 provided a legislative clarification on the roles of the Crown companies and this is one of the key initiatives designed to support the government's goal of improving trust in government organisations. The reforms have been subject to a range of evaluations and scrutiny highlighting their advantages, disadvantages and unintended consequences (Pittard & Weeks, 2007). Although many commentators note that the reforms have resulted in major management and efficiency gains, there been a cost to the state sector in terms of employment, performance and accountability. Given that the underlying structural reforms are now over a decade old, their longer-term consequences have become more apparent (Pittard & Weeks, 2007).

CCMAU has also adopted the nine high-level corporate governance principles and guidelines recommended by NZSC in 2004. In NZSC's view, the nine high level principles and guidelines would contribute to a high standard of corporate governance practices in New Zealand business entities. The key elements of the NZSC's principles and guidelines include: independence of the chair, non-executive/independent directors, audit independence, non-audit services, board committees, adoption of international accounting standards and continuous disclosure. Although the focus of the NZSC's recommendations is towards listed companies, it does provide good guidelines for improving corporate governance practices in public corporate entities as well. No study has been undertaken on the governance practices of the public sector entities in New Zealand.

This study focuses on the wider range of variables, including governance practices recommended by the NZSC, variables identified in other governance studies to be important in mitigating agency problem, and variables that have not received much attention in other governance studies. Collectively these factors indicate that there exists an environment that is very different from those that have been the focus of earlier studies.

This research looks at the control mechanisms within a corporate governance structure that could be used to align the interest of ownership and control. Although previous research has added to our knowledge of the relationship between corporate governance practices and financial performance, the present study provides a contribution and uniqueness to the literature in terms of the small country -New Zealand- the size of companies and sectoral differences (see Andjekovic, Boyle & McNoe, 2002; Fox, 1996a, 1996b; Fox & Hamilton, 1994; Fox & Walker, 1995a, 1995b, 1998; Hossain, Cahan & Adams, 2000; Hossain et al., 2001). Most of the studies on corporate governance practices and financial performance are based on larger developed economies like the US and the UK. Their findings are not usually generalisable to smaller countries which have different economic structures and companies smaller in size compared to the companies in larger economies.

Also, the studies on corporate governance practices and financial performance to date tend to focus on publicly listed companies only. This study aims to extend the literature by providing corporate governance practices by different sectors, specifically, small cap companies, large cap companies and public sector corporate entities. This study will control for the industry and entity-specific factors, allowing for more precise observation of the governance-performance relationship to be undertaken.

As stated above, the study relating to small and large cap companies is notable in a number of ways. First, New Zealand has a very small capital market compared to the UK and the US (which were the focus of prior studies) meaning that managerial decisions are likely to be more transparent. New Zealand's domestic market capitalisation in 2007 was approximately US$48 million in comparison to the US (US$20 billion), UK (US$4billion), Canada (US$2.1 billion) and Australia (US$1.3 billion) (World Federation of Exchanges, 2010). A high level of transparency may lead to a more competitive market for managerial labour (Fama, 1980) and as a consequence, may have potential for a greater convergence of interest. Second, the enactment of the Companies Act 1993, the amendments thereafter and the Securities Act 1988 and the amendments thereafter, have substantially increased director accountability in New Zealand by strengthening internal control mechanisms. This could impact the alignment of the interests between managers and shareholders, which consequently has the potential to impact on the relationship between insider ownership and company financial performance. Third, this study focuses on small cap and large cap companies instead of just large companies which were the focus of governance research undertaken overseas. Fourth, large

companies in New Zealand are comparatively smaller than similar type companies in larger economies which may provide evidence that is different from studies conducted overseas. Fifth, the effect of small cap companies' compliance on performance is not widely researched. Sixth, small companies are not ranked highly by potential board members who are seeking board appointments and the problem is exacerbated in New Zealand because the pool of directors available for board appointments is small. This makes the study of small cap companies in New Zealand more interesting than large cap companies. Seventh, the overboarding by some board members in large companies raises questions about their accountability and financial performance. Eighth, the governance practices in the public sector corporate entities are not well understood. Finally, this study focuses on the wider range of variables, including governance practices recommended by the New Zealand Securities Commission which have not received attention in other governance studies. Collectively, these factors indicate that there exists an environment which is very different from those that have been the focus of earlier studies.

1.5 ORGANISATION OF THE THESIS

The remainder of the thesis is organised as follows. In Chapter 2 a review of the corporate governance variables and companies' financial performance literature is undertaken. This review is primarily based on previous studies that focused on corporate governance practices and company financial performance. Chapter 3 provides a discussion on the corporate governance practices in New Zealand. It includes a brief discussion on the development of corporate governance regulatory regimes in publicly listed companies and the role of various monitoring organisations. It also provides a discussion on the development of governance in public sector corporate entities and the role of the monitoring agencies. Chapter 4 describes the measurement of variables, data and the methodology undertaken for the empirical analysis. Chapter 5 provides a discussion on the empirical results for the governance practices in small cap companies in New Zealand. Chapter 6 provides a discussion on the empirical results for the governance practices in large cap companies in New Zealand. Chapter 7 provides a discussion on the empirical results for the governance practices in public sector corporate entities in New Zealand. Chapter 8 presents the conclusions, contributions, policy implications and future directions for governance research.

CHAPTER 2
LITERATURE REVIEW

2.0 INTRODUCTION

The question as to whether corporate governance matters in terms of company value has, been extensively debated in corporate governance literature over the last 40 years or so. The root of this debate can be traced to Adam Smith who, as early as 1776, raised concerns regarding the separation of ownership from control, as stated below:

> *The directors of such [joint-stock] companies, however, being the managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company (Smith, 1776 & 1939 cited in Jensen & Meckling, 1976).*

In Adam Smith's view, the separation of ownership and control in corporations created poor incentives for professional managers to operate companies efficiently. Adam Smith postulated that if shareholders want managers to operate companies in their own best interest, then they need to devise ways to control managers' actions.

Echoing Adam Smith's views, Berle and Means (1932) in their seminal work pointed out that the modern corporations have diffused ownership structure which allows managers to have discretionary power over the company. According to Berle and Means, large corporations have many owners each making only a small investment in the company who either do not have an interest[5] and/or resources (knowledge, time and money) to monitor managers' actions. The costs incurred by small shareholders in monitoring managers' actions tend to outweigh the benefits they derive from it. For these reasons, the small shareholders tend to leave the role of monitoring to the large shareholders, while enjoying the benefits of

[5] They can always exit by selling their shares in the company.

monitoring without incurring any costs. As a result, the consequences are free-rider problems[6] (Grossman & Hart, 1980) and absenteeism from general meetings. This leaves managers unchecked to pursue self-interest activities (such as, shirking and other opportunistic behaviour) at the expense of the shareholders (Berle & Means, 1932).

In both Adam Smith and Berle and Means' view, the separation of ownership from control made modern corporations an untenable form of organisation. The challenge then became to find mechanisms that allowed shareholders to have control over managers' actions so that managers continuously worked towards maximising company value.

There are differing views in the literature as to how the issues arising from the separation of ownership and control could be resolved. Some believed that tighter regulation would ensure that managers would act in an honest and responsible manner (Cary, 1974; Gilbert, 1956; Ruder, 1965). Others argued this was not a viable strategy (see below). Neo-classical economists believed that competition would cure all market illnesses and would force companies to adopt optimal structures that would lead to the maximisation of the company value. The company that did not adopt cost-effective structures would fail to survive competition and therefore vanish.

The extant literature highlights a number of factors that are present in a competitive market that have potential to discipline managers to act in the best interests of companies' owners, including: (i) product market competition (Alchian, 1950; Stigler, 1958); (ii) the market for corporate control (Manne, 1965); and (iii) labour market pressure (Fama, 1980). However, the deficiencies in the product, factor and capital markets arising from market failures, such as principal-agent problems, asymmetric information, and fund hold-up issues, tend to divert companies from wealth maximising equilibrium. A general lack of market for corporate control in some countries, (especially in New Zealand, Japan and Continental Europe) further reduces the range of mechanisms available in the market to discipline managers to engage in performance enhancing activities. The product, factor and capital market deficiencies provide managers with opportunities to expropriate shareholders' rent (Berle & Means, 1932; Roe, 1994). Shleifer and Vishny (1997) argue that while competition tends to reduce

[6] Full cost of monitoring is born by the monitoring shareholders and only a fraction of the benefits are appropriated. The rest is claimed by the non-monitoring shareholders.

expropriation by managers, in itself, it may not be sufficient to engender company financial performance.

A relatively recent development within the economics discipline has been an emergence of new literature so-called institutional economics which attempts to extend the range of neoclassical theory by highlighting the importance of institutions that are fundamental to the effective functioning of market-based economies, such as law and order, property rights, contracts, and governance structures (Rutherford, 2001). The role of institutions in the process of economic growth has long been emphasised by North (1990) and Duncan (2003). The importance of the financial system for growth and poverty reduction has been established by Levine (1997) and World Bank (2001). As companies work within a governance framework set by law, by regulation, by the companies' own constitution, by those who own and fund them, and by the expectations of those they serve; therefore their choice of internal governance is only a reflection of the appropriate and enforceable legal system (Cadbury, 2003). Also governance framework tends to differ from country to country, owing much to history and culture (and it involves both rules and institutions). The standard of corporate governance therefore are determined by the measures which companies take for themselves to improve the way they are directed and controlled, and by the legal, financial, and ethical environment in which they work (Cadbury, 2003).

From the 1970s onwards, starting in the US, many companies sought to attract managerial talent by offering executive stock options. In addition, there has been development in the market for corporate control and regulation. These are some of the examples of the market's response to address market failures. Studies also show that market competitiveness is enhanced by a strong regulatory and legal environment (Shleifer & Vishny, 1997). The views presented by Berle and Means (1932), Coase (1937) and later by Williamson (1970)[7] that different agents have different interests made economists realise that competition alone would not cure the problems faced by modern corporations involving managers' performances, financing and corporate control. The need to explore other measures in addition to competition to control managers' behaviour became the focus of the research. The

[7] Williamson (1970) used transaction cost economics (also referred as TCE) to explain the issues around writing contracts and the possible costs associated with it when one is not able to write perfect contracts.

agency-theoretic literature identifies a number of mechanisms that are internal and external to the company that shareholders can use to control managers' behaviour. These mechanisms are tools shareholders can use to minimise the effect of agency costs on company value (Becht, Bolton & Roell2002; Shleifer & Vishny, 1997; Tirole, 2001). The section below discusses agency theory and the mechanisms that have been supported in the literature that have the potential to motivate managers to pursue the interests of their shareholders by maximising the value of the company, and not the size or diversity of their organisation.

2.1 AGENCY THEORY

Agency theory is based on the proposition that there is a separation between ownership and control. Jensen and Meckling (1976) used agency theory to show that a manager who owns anything less than 100% of the residual cash flow rights of the company has potential conflicts with the outside shareholders (Denis, 2001; Jensen & Meckling, 1976). According to Jensen and Meckling, the owner (principal) and the manager (agent) have different interests and they refer to the divergence of interest as an agency problem. The agency problem is based on two limitations, regarding human beings ability to make allocative decisions (Williamson, 1970). First, adverse selection or bounded rationality problems prevent investors (principals) from knowing *a priori* whether the managers (agents) they have employed are good or bad resource allocators. Second, the problem of moral hazard or opportunism reflects proclivity, which is inherent in an individualistic society, whereby managers as agents use their positions as resource allocators to pursue their own self-interests and not necessarily the interests of the companies' principals. Because of these limitations, companies' shareholders are unable to write perfect contracts ex ante. To minimise the effect of agency problems on company value, shareholders have to incur costs and these costs are referred to in the literature as the agency costs.

The literature identifies four sources through which agency costs could arise from shareholders' inability to write perfect contracts for the agents. These are: (i) managerial shirking and consumption of perquisites; (ii) managers' desire to remain in power; (iii) managerial risk aversion; and (iv) free cash flow (see Denis, 2001). The least costly and the most obvious of the four sources of agency costs is managerial shirking and consumption of perquisites. By virtue of managers having control over the companies' operations, they have the ability to realise private benefits which effectively are borne by the shareholders ex post.

The other three sources of agency costs are less obvious but are more costly to the shareholders. Agency costs arise from managers who are not able to create value for the company but wish to remain in power. Not having the management team focused on creating value leads to the divergence of interest between managers and shareholders. Companies' shareholders face agency costs from managers who are risk averse. Finance theory suggests that owners with well-diversified portfolios will not be averse to company-specific risk (Brealey & Myers, 1995). Since shareholders hold well-diversified portfolios, they would like managers to maximise the value of their investment by investing in risky projects that have higher expected returns. However, a managers' human capital is specific to the company only and would lose more if the project failed. Therefore, managers may be unwilling to invest in projects that are worthwhile from the shareholders' point of view. In addition, managers have access to the company's free cash flows as well.

Shareholders also face agency costs from companies' free cash flows not being invested in value generating projects. Shareholders would like managers to invest free cash flows in positive net present value (NPV) generating projects. However, managers would like to hold cash flows and/or may even invest in negative NPV projects rather than return cash flows to the companies' shareholders. Research shows that managers aim to increase the size of the company and not the return because executive compensation plans often reward company size (Chalmers, Koh & Stapledon, 2006; Murphy, 1985; Shah, Javed & Abbas, 2009; Tosi, Werner,Katz & Gomez-Mejia, 2000).

The extant literature is motivated by the assumption that, by managing the principal-agent problem between shareholders and managers, companies will operate more efficiently and perform better. In this regard, the agency theory literature identifies a number of mechanisms which shareholders could use to ensure managers strive to achieve outcomes that are in shareholders best interest (Shleifer & Vishny, 1997). These mechanisms can either be internal and/or external to the company. The mechanisms that are internal to the company include: insider ownership (ownership by officers and the board), board independence, board size, board diversity, board committees, leverage, and dividends. The mechanisms that are external to the company include: block ownership, institutional ownership, market for corporate control, product market competition, labour market competition and legislation (see Barnhart & Rosenstein, 1998; Byrd, Parrino & Pritsch, 1998; Demsetz & Lehn, 1985; Gedajlovic & Shapiro, 1998).

Being rational entrepreneurs, shareholders continuously evaluate the costs and benefits of employing particular monitoring mechanisms to oversee management. It is assumed that shareholders will agree to certain governance mechanisms depending on: (i) whether it narrows the gap between the shareholder interests and the managers' interests; and (ii) whether it increases shareholders' value. Theoretically, if the answer to the first question is yes, then the answer to the second question should also be yes as well.

The section that follows provides a theoretical explanation of the effect of the use of the internal and external governance mechanisms on company value.

2.1.1 INSIDER OWNERSHIP

Jensen and Meckling (1976) proposed an incentive alignment hypothesis to mitigate agency problems arising from separation of ownership and control. They suggest shareholders will benefit by making management want the same things as they do, that is, by making management benefit – financially or otherwise, from an increase in the value of the company's common stock. In other words, giving managers shares in the company is one way of aligning managers' interest with those of the shareholders, thus reducing agency costs to some extent. Based on this incentive alignment hypothesis, Jensen and Meckling (1976) propose a linear relationship between managerial ownership and corporate financial performance, that is, performance increases with the level of management or insider ownership[8] in a company.

On the other hand, Demsetz (1983) argues that the increased level of insider ownership will reduce company financial performance . This is referred to in the literature as an entrenchment hypothesis, which is in direct contrast to the incentive alignment hypothesis of Jensen and Meckling (1976). Proponents of the entrenchment hypothesis argue using the expropriation effect (expropriation hypothesis) of minority shareholders, that by providing managers with share ownership to align their interests with the shareholders may not effectively solve the agency problem (Johnson, Boone & Breach, 2000; Shleifer & Vishny, 1997). The entrenchment effect happens when large shareholders use company resources for

[8] Although Jensen and Meckling (1976) initially focused on only managerial ownership as an incentive to align interest of managers and shareholders, this argument has been extended to board members as well. Different categories of insider ownership used in research include: CEO equity, managerial equity, officer and director equity, inside board equity, and outside board equity (Dalton, Daily, Trevis & Roengpitya, 2003).

their own benefit, at the expense of the minority shareholders. The ex-post expropriation by large (or controlling) shareholders is likely to lead to sub-optimal levels of investment by minority investors and other stakeholders (Maher & Anderson, 1999), and according to Faccio and Lang (2002), this effect happens in companies when large shareholders are present.

Other studies have suggested that the relationship between managerial ownership and corporate financial performance is non-monotonic. Studies by Morck, Shleifer and Vishny (1988), McConnell and Servaes (1990, 1995), Stulz (1988), Steiner (1996) and Han and Suk (1998)[9] show that the relationship between managerial ownership structure and company value is non-linear, although the inflection points found in these studies are not homogeneous. These studies show that at low levels of managerial ownership, managerial ownership aligns the interest of managers and outside shareholders by reducing managerial incentives for perk consumption, utilisation of insufficient effort and engagement in non-maximising projects (alignment effect). However, after some level of managerial ownership, managers exert insufficient effort, collect private benefits and entrench themselves at the expense of other investors (entrenchment effect).

The theory does not provide any guidance on the level of insider ownership at which shareholder value is maximised and/or the exact nature of the relationship between insider (managerial) ownership and financial performance. However, empirical evidence does provide support for the view that some low levels of insider ownership increases financial performance and at some higher levels of insider ownership the tendency is for financial performance to decrease. Being rational entrepreneurs, shareholders continuously evaluate the costs and benefits[10] of employing a particular monitoring mechanism to oversee

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[9] Others who found similar results include: Hermalin and Weisbach (1991), Kole (1996) and Wruck (1989). Hermalin and Weisbach found performance measured by Tobin's Q increases in the managerial ownership range of 0%-1% and decreases in the range of 1%-5%. Kole found performance measured by Tobin's Q increases in the managerial ownership range of 0%-5%. Wruck (1989) found performance measured by cumulative abnormal returns (CAR) increases in the managerial ownership range of 0%-5% and decreases in the range of 5%-25%.

[10] The incomplete contracting literature views the standard financial instrument (e.g. equity) as conferring both control rights and rights to a return stream on income for their holders (Berglof, 1990).

management. It is assumed that shareholders will agree to a level of insider ownership that will maximise their benefit.

Scholarship in agency theory seeks to determine the level of insider ownership that will minimise agency costs; the costs of monitoring, motivating and ensuring the commitment of the agent (Davies & Thompson, 1994). In this regard, the focus of corporate governance research since 1976 has primarily been based on agency theory, which is also characterised as "a theory of the ownership (or capital) structure of the company" (Jensen & Meckling, 1976, p. 309). Despite substantial empirical research undertaken to determine the relationship between managerial ownership and company financial performance, the findings are inconsistent, thus limiting theory development in this field (Sánchez-Ballesta & García-Meca, 2007). The inconsistencies in the findings are attributable mainly to the differences in the investigation effort reflecting different points in time, varying geographical contexts, and different terminologies, definitions and variables.

Extant literature reflects two common themes in regard to using insider (managerial) ownership to mitigate agency costs. First, interest alignment that provides managers with equity stakes in the company enables shareholders to align managers' interest with their own. Presumably, financial performance improves as managers concurrently work for their own and shareholders' benefit (Jensen & Murphy, 1990; Perry & Zenner, 2000). Second, control can be attained by having concentrated ownership and there is a stream of literature indicating that shareholders can exercise control by appointing the board of directors (see Agrawal & Knoeber, 1996; Bethel, Liebeskind & Opler, 1998; Dalton, Daily, Ellstrand & Johnson, 1998).

2.1.2 CONCENTRATED OWNERSHIP

One way of controlling managers' actions is to have concentrated shareholding in the company. Two types of concentrated shareholding from outsiders mentioned in the literature are by institutions and blockholders. Empirical evidence suggests that concentrated holding may mitigate a number of agency problems inherent in the company (Prowse, 1994). Although agency theory does not differentiate between different types of large equity holders, research undertaken recently shows that the identity of such owners has implications for companies because different owners have different objectives (Bushee, 1998; Thomsen & Pedersen, 2000).

When institutions and blockholders hold substantially large equity stakes in the company, it gives them power to make management serve their interest (Agrawal & Mandelker, 1990; Demsetz & Lehn, 1985; Hill & Snell, 1988, 1989; Shleifer & Vishny, 1986) and thus improves company financial performance (Demsetz & Lehn, 1985, p. 1174). Agrawal and Mendelker (1990) and Shleifer and Vishny (1986) argue using the active monitoring hypothesis that concentrated shareholdings are better monitors than other shareholders.

However, agency theory is based on the assumption that an efficient capital market and the value of the residual claims held by shareholders are reflected in the share price on the stock market. Efficient capital markets allow companies to have access to cheaper sources of funds. The market efficiency serves as the mechanism to discipline a company's governance structures that is reflected in its share price. In countries where corporate control activities (mergers, acquisitions and takeovers) are inactive (or not well developed), the role of the capital market in providing the monitoring role tends to be ineffective compared to those countries where there has been a shift towards reliance on other control mechanisms (Jensen, 1983) such as concentrated shareholdings. For example, the presence of weak minority investor protection rights, a weak capital market and a lack of anti-takeover regulations has led to a concentrated ownership structure in listed companies in New Zealand (Anderson & Marshall, 2007; Gunasekarage & Reed, 2008). Given that the monitoring benefits for the shareholders are proportionate to their equity stake (see Grossman & Hart, 1988), a small or average shareholder has little or no incentive to exert monitoring behaviour. It is argued that only concentrated shareholders (individual and institutions) have the incentive to undertake monitoring or other costly control activities.

Although concentrated shareholding is restricted[11] in Anglo-Saxon countries, evidence shows that it is on the rise (Gugler, 2005). Anyone holding five percent or more of voting equity in Anglo-Saxon countries is required to declare it in the company's annual reports. Whereas, it is common in continental Europe[12] for large shareholders to hold, on average, 30% to 55% of the voting power in companies. In these countries, the capital market is not well developed and the agency problem arising from the separation of ownership and control is not an issue.

[11] Equity holdings by financial institutions are restricted in Australia, Canada, the United States and New Zealand but not in the UK.

[12] Austria, France, Germany, Italy, Belgium, the Netherlands and Spain

The issues regarding corporate governance in these countries is the conflict of interest arising between large shareholders and minority owners.

Shleifer and Vishny (1997) and Gugler (1999) provide empirical evidence that concentrated shareholders do receive private benefits at the expense of minority shareholders. La Porta et al. (2002) state that the existence of concentrated shareholding is a reflection of weak minority shareholder rights. It is argued that in countries that have strong regulations protecting minority shareholder rights (Anglo-Saxon), concentrated shareholding can act as an effective mechanism to control management's opportunistic behaviour.

2.1.3 BOARD OF DIRECTORS

In addition to having equity ownership by managers and concentrated shareholders to control managers' actions, the role of the board of directors is also regarded as an important internal control mechanism to resolve the agency problem in modern corporations. Fama and Jensen (1983a) discuss the role of organisational mechanisms in mitigating agency conflicts and better aligning management interests with those of residual claimants. Among the most important organisational controls is the board of directors. The board of directors can reduce agency conflict by separating the management and control aspects of the decision making processes. The management aspects include the initiation and implementation of decisions, while the control aspect involves the ratification and monitoring of decisions (Fama & Jensen, 1983a, 1983b). While management is delegated by the board to initiate and implement various decisions, it is the board that has the control and authority to ratify and monitor major policy initiatives and to hire, fire, and set the compensation of top level managers (Fama & Jensen, 1983a). It is the role of the board to replace poorly performing managers. The board of directors is legally and ethically responsible for the owners. A board of directors is an efficient and less expensive governance mechanism than other internal and external mechanisms.

The literature highlights a number of characteristics of boards of directors that have the potential to enhance board performance, including: board composition, board size and board diversity.

2.1.3.1 BOARD COMPOSITION

The structure and composition of the board tends to differ in different countries. Germany has a two-tier board structure, that is, a non-executive supervisory board and management board. Traditionally, Japanese boards are large, having thirty or more members, and mainly

dominated by executives. In the United States, boards are smaller and mainly made up of outsiders. In Britain, Australia, Canada and New Zealand, boards have a mix of insiders and outsiders. In some countries, the board is prescribed in law, in others by custom. One thing common to all countries is that the board is ultimately responsible for the conduct of the company. This highlights the importance board plays in monitoring management.

Studies undertaken in Anglo-Saxon countries show that boards have been ineffective in recognising problems faced by the company and standing up to management, especially when tough decisions are necessary (Jensen, 1983). Denis (2001) points out that on average, the role of the boards of directors in monitoring companies has been poorly executed. According to Davis, Lukomnik and Pitt-Watson (2006), boards have insufficient information, exert improper influence and in some cases are even incompetent. In most cases the non-executive directors are not given all the information about the company they need to make quality decisions as most information is held by the CEO. Lack of information restricts even talented boards from performing to their level of expertise. These have been factors that have conspired to corrode board performance.

The demise of high profile companies such as Adelphia, Enron, Parmalat, Tyco and WorldCom (to name a few) demonstrates how there has been a diversion of board loyalty from the shareholders to the CEOs, evidenced by the extraordinary excesses in executive pay awarded by directors to CEOs (Davis et al., 2006). The board not being independent of management is the reason for the abrogation of accountability by directors to owners. Board independence is compromised by having board duality[13] or joint board leadership.

In a two-tier board structure, executive boards are comprised of the top-level management team, while the supervisory board is completely composed of outside experts with a broader control function (Moerland, 1995). Supervisory boards composed only of outside independent directors, who do not have any affiliation with the management, are considered to be important for controlling agency costs (Daily & Dalton, 1992, 1994).

Taking this view, the proponents of the board-as-monitors argue that a board that is independent of management and dependent on shareholders will be more effective in aligning the interests of managers and owners (Bebchuk & Fried, 2004). Recent policy statements

[13] Occurs when CEO is also chair of the board, also referred to as joint board leadership (Daily & Dalton, 1997).

such as Cadbury (1992), Greenbury Report (1995) and Hampel Report (1998) focused attention on boards' monitoring responsibilities and highlighted the special contribution that non-executive and independent directors can make to this process (Young, 2000). Two key recommendations from these reports included the separation of the board chair and CEO role, and that the boards should contain sufficient numbers of non-executive and independent directors to help ensure managerial accountability to shareholders. These recommendations have influenced the platform in which board effectiveness is now debated in different countries.

The failure of high profile companies in the US in 2001 raised concerns that the current system of corporate governance practices was not working and there was a need to improve the quality of governance practices in order to maintain the confidence of investors in the capital market. The focus primarily was on two broad issues: (i) how to make boards independent of management; and (ii) how to improve the quality of the corporate governance practices of each company. To this end, the appropriateness of a flexible-based governance approach versus a "one size fits all" rule-based approach to address governance concerns was debated by many countries. The need for regulation to influence corporate governance structure and disclosure is often challenged in the academic as well as in the professional literature. Jensen (1983) points out that, "The legal/political/regulatory system is too blunt an instrument to handle the problems of wasteful managerial behaviour effectively." Despite this argument, the United States has adopted a rule-based governance structure - Sarbanes-Oxley Act of 2002. Whereas other countries (including Australia, Canada, the UK and New Zealand), have adopted a nuanced principle-based approach. The principles, guidelines and the Codes of Best Practice emphasise the importance of having an independent chair and as well as non-executive and independent directors on the board.

The New Zealand Securities Commission (NZSC, 2004) published nine high level principles and guidelines for all economic entities in New Zealand. It articulated that the majority of the board members should be non-executive and a minimum of one third of the board members should be independent[14]. The role of the chair and the CEO position should be separated and

[14] A non-executive director is classified as independent only where s/he does not represent a substantial shareholder and where the board is satisfied that s/he has no direct or indirect interest or relationship that could reasonably influence their judgement and decision making as a director.

the chair should be an independent director only. It emphasised the need to have an audit committee which should have at least three members and comprise only of non-executive and independent directors with a majority being independent. At least one member of the audit committee should be a chartered accountant or have another form of financial expertise. The chair of the audit committee should be an independent director and not be chairperson of the board. All entities, particularly those with large boards, are also encouraged to have a remuneration committee as well as a nomination committee. Proponents claim that such practice will be a significant step towards better governance.

Principles, guidelines or codes do not have a force of law; the proposal on board composition is best viewed as a statement of best practice rather than a regulatory intervention. Compliance is voluntary and companies remain free to choose their own board composition. In New Zealand, the stock exchange listing rules require companies to publish a statement explaining why the principles, guidelines or best practice were not followed. The securities regulator (for example, NZSC) assesses the information disclosed in the annual reports of each company against the set guidelines. This is intended to improve the quality of corporate governance practices of each company.

However, the quality of information disclosed by companies in the annual reports is not assessed in most countries apart from Canada (Labelle, 2002). Also, the quality of explanations provided by companies that do not follow set guidelines are not assessed. Opponents argue that comply-or-explain policies fail to provide motivation for companies to disclose quality governance information in their annual reports. Theory provides two reasons why companies would elect to adopt governance provisions. First, adoption of such provisions could act as a signalling device to ensure prospective investors that the company is well-governed. Such signals could enable the company to access external funds on better terms, which is beneficial for company valuation. Second, governance provisions could also act as a bonding device, where companies commit to investors to adhere to better governance standards (Chhaochharia & Laeven, 2007).

The opponents also claim that the greater use of non-executive and independent directors for monitoring and control purposes is either irrelevant, excessively costly, or a threat to board unity. Fama and Jensen (1983a) suggest that executive directors represent an important source of company-specific knowledge and that their presence on the board can lead to more effective decision making. Rosenstein and Wyatt (1997) present evidence that, under certain

conditions, the appointments of additional executive directors is associated with an increase in company value.

With arguments for and against a move towards greater non-executive and independent director representation on the board, the precise outcome of recent changes remains an open question. However, there is a general consensus that there should be a balance between executive, and non-executive and independent director representation on the board.

2.1.3.2 BOARD SIZE

In addition to board composition, the size of the board seems to impact company financial performance. Studies show that there is a strong relationship between company size and board size (Reddy, Locke, Scrimgeour & Gunasekarage, 2008a). Theoretically, there is an optimal board size for each company. Jensen (1983) suggests that a board should have a maximum of seven to eight members to function effectively. Organisational behaviour researchers argue that when boards grow larger, total productivity exhibits diminishing returns (Hackman, 1990). Forbes and Milliken (1999) argue that larger boards are difficult to coordinate and have difficulties in making value-maximising strategic decisions. Lipton and Lorsch (1992) suggest that larger boards may be less effective monitors because of the inability of members to fully express their ideas and concerns during the limited time available at board meetings. This inability allows the CEO to exert considerable control over meetings of larger boards and hinders the board's monitoring effectiveness.

However, the proponents for larger boards argue using resource dependency theory (Dalton, Daily, Johnson & Ellstrand, 1999; Hillman, Cannella & Paetzold, 2000; Johnson, Daily & Ellstrand, 1996) that large boards tend to provide an increased pool of expertise and environmental linkages that companies need (Goodstein, Gautam & Boeker, 1994). Also, Anderson, Mansi and Reeb (2004), Klein (2002a) and Monk and Minnow (1995) find that larger boards provide greater degrees of freedom for optimal committee assignments, thus improving the quality of monitoring.

On the other hand, the proponents for small board size argue that smaller boards are more likely to reach consensus and also allow members to engage in genuine debate and interaction (Firstenberg & Malkiel, 1994). Boone, Field, Karpoff and Raheja (2007), Coles, Daniel and Naveen (2006), Linch, Netter and Yang (2006) and Raheja (2005) state that optimality of board size is situational, that is, it depends on the nature of the company. It is assumed that

when determining the appropriate size of the board, the skills directors have and the skills that are required are the factors that are considered.

2.1.3.3 BOARD DIVERSITY

As women and minorities are becoming a larger proportion of the workforce in the modern economy, corporations are experiencing significant changes in pools of potential candidates for high-ranking officer positions (Berke, 1997; Berke & Nelson, 2002; Conyon & Mallin, 1997; Holton, 1995). The diversification of these resource pools impacts the composition of boards of directors and subsequently corporate governance (Shrader, Blackburn & Iles, 1997). While diversity within boards of directors may be a highly visible effort to demonstrate an absence of discrimination, it is unclear if diversity within boards of directors has an impact on organisational performance (Erhardt, Werbel & Shrader, 2003). The diversity literature suggests diversity adversely impacts group dynamics, but improves group decision-making. Two categories of board diversity mentioned in the literature include observable diversity (which is readily detectable) and less visible diversity (background of directors) (Milliken & Martins, 1996). Observable diversity includes race/ethnicity, nationality, gender and age. Less visible diversity includes education, functional and occupational background, industry experience and organisational membership. The advantages of having board diversity is that it improves the understanding of the market place, increases creativity, innovation and effectiveness when problem solving (Carter, Simkins & Simpson, 2003). Board diversity can also promote more effective global relationships and increase board independence because people with different gender, ethnicity or cultural backgrounds might ask questions that would not come from directors with similar backgrounds (Arfken, Bellar & Reeb, 2004).

2.1.3.4 BOARD COMMITTEES

The NZSC (2004) recommends that companies should have audit committees to oversee the audit of the financial statements and a remuneration committee for setting remuneration of executive officers and directors. The appointment of such committees is expected to have a positive effect on company financial performance. Empirical research focusing on the presence of an audit committee has associated companies with fewer financial reporting problems (McMullen, 1996). John and Senbet (1998) report empirical evidence that the presence of monitoring committees (audit and nominations) is positively related to factors associated with the benefits of monitoring. Klein (2002b) shows that independent audit

committees reduce the likelihood of earnings management, thus improving transparency. However, Baxter (2006) finds no significant relationship between audit committee and financial reporting quality.

On the other hand, Main and Johnston (1998) and Weir and Laing (2000) report that the existence of a remuneration committee has a positive effect on financial performance. Klein (1998) finds evidence of a positive relationship between the presence of a remuneration committee and company financial performance but notices this relationship is not highly significant.

Despite the NZSC recommendations and guidelines to incorporate board committees, very few studies, to date, have focused on the relationship between board committees and company financial performance. Dalton, Daily, Ellstrand and Johnson (1998) provide a similar view, that relatively little research has been undertaken in the relationship between board sub committees and financial performance. In addition to the corporate governance mechanisms mentioned above, corporate governance literature identifies other mechanisms that have potential to enhance board vigilance and therefore, mitigate the agency problem (see Barnhart, Marr & Rosenstein, 1994; Byrd, Parrino & Pritsch, 1998; Demsetz & Lehn, 1985; Gedajlovic & Shapiro, 1998). These governance mechanisms include CEO compensation, CEO influence (CEO age, tenure, and education), debt, dividends, and the market for corporate control, the managerial labour market competition, the product market competition, and legislation.

2.1.4 CEO COMPENSATION, AGE, TENURE AND EDUCATION

The executive compensation literature suggests that managers can be induced with incentives to act in the best interests of the shareholders. By linking managerial compensation (such as, salaries, cash bonuses, equity and stock options) to company financial performance allows compensation to be subject to similar risks faced by the shareholders, thus aligning managerial interest with shareholder interests. Since the remuneration packages vary across countries, optimality of contingent performance-based compensation depends on whether or not direct monitoring alternatives are available.

Evidence shows that CEOs are paid target performance pays even if they do not meet their financial performance targets (Gunasekarage & Reed, 2008). This shows that the performance pay system is not working effectively (Davis et al., 2006; Moyle, 2008) and by

linking target payments to financial performance could improve productivity. Studies also show links between company size, CEO pay (Walking, 2008) and CEO age, tenure and education tend to influence CEO compensation (Palia, 2001) and the level of influence CEOs have on the board. In order for the board to provide vigilance over CEO performance, governance reform focuses on board composition and remunerating board members to ensure the board's loyalty lies with the shareholders.

2.1.5 DEBT

Debt is viewed as an internal corporate governance mechanism that can voluntarily be used to transfer the functions of monitoring and evaluating managerial performance to the participants of the capital market (debtholders) (Agrawal & Knoeber, 1996; Begley & Feltham, 1999; Jensen, 1986). In this regard, the literature provides two directions regarding the monitoring function of debt financing. First, increased debt means a large part of the company's cash flow will be returned to the debtholders. Therefore, debt tends to reduce the discretionary power of the managers. Second, given the size of a company, debt financing decreases the company's need for new share issues and allows voting rights to be more concentrated in the hands of the remaining shareholders. Debt forces managers to consume fewer perquisites and become more efficient, as this lessens the probability of bankruptcy and the loss of control and reputation (Grossman & Hart, 1982). Harris and Raviv (1991) provide a comprehensive survey of the theories and related empirical evidence on the use of debt to mitigate agency conflicts and information asymmetry. They conclude that the evidence is broadly consistent with the theory.

Debt can also create an agency problem. According to Novaes and Zingales (1999) the choice of debt from the viewpoint of shareholders differs from the choice of debt from the view point of managers. The conflict of interest between managers and shareholders over the financing policy arises for three reasons. First, managers are less diversified than shareholders, that is, in addition to holding stock and stock options of the company, their human capital is also specific to the company (Fama, 1980). Second, a larger level of debt pre-commits managers to work harder to generate and pay off the company's cash flows to outside investors (Jensen, 1986). Last, managers may increase leverage beyond the "optimal capital structure" to increase the voting power of their equity stakes and reduce the likelihood of a takeover and the resulting possible loss of job tenure (Harris & Raviv, 1988; Stulz, 1988). A relatively high debt to assets ratio may be used to make a company less attractive as

a takeover target, substituting for other takeover defence mechanisms (Agrawal & Knoeber, 1996; Begley & Feltham, 1999; Byrd & Stammerjohan, 1997; Knoeber, 1985). Also, a high level of debt may subject the company to agency costs of debt, especially in the form of risk shifting incentives. Shareholders may prefer riskier projects to compensate for additional risk faced by a high level of debt financing, thus raising a company's earnings volatility.

With the argument for and against debt as a monitoring device, the consensus is that a lower level of debt is better for the company. The capital structure theory also suggests that there is an optimal level of debt for each company that will lead to the maximisation of their return.

2.1.6 DIVIDENDS

Miller and Modigliani (1961) argue that dividend policy is irrelevant under perfect market conditions. However, existence of market imperfections, such as differential tax rates, information asymmetry, agency problems, transaction costs, flotation costs and irrational investor behaviour, makes the dividends decision relevant (Hughes, 2008). In this respect, financial decisions are related to value as they convey information about future profitability. Dividend payments and changes in dividend policies are regarded as conveying information (signalling effect) about permanent earnings (Baker, Veit & Powell, 2001; Brainard, Shoven & Weiss, 1980).

Easterbrook (1984) argues that dividends play a role in controlling equity agency problems by facilitating primary capital market monitoring of the company activities and performance. The reason is that higher dividend payouts increase the likelihood of a company having to sell common stock in primary capital markets. In recent theoretical studies, Fluck (1998) and Myers (2000) provide agency-theoretic models of dividend behaviour, where managers pay dividends in order to avoid disciplining action by shareholders. Also, continued dividend payments help to dissipate cash which might otherwise be wasted on non value-maximising projects, therefore reducing the extent of over investment by managers (Jensen, 1986).

The company's target ratio of dividend to earnings operates as a control instrument, just like debt financing. The higher the payout ratio, the smaller the amount of free cash flows available. Also, dividends impose much less severe constraints on a company's cash flow because payment of a dividend is not mandatory. Studies undertaken by Smith (1977), Hansen and Torregrosa (1992) and Jain and Kini (1999) recognise the importance dividend payments play in terms of improving monitoring by investment bankers in new equity issues.

2.1.7 MARKET FOR CORPORATE CONTROL, LABOUR MARKET COMPETITION AND PRODUCT MARKET COMPETITION

2.1.7.1 MARKET FOR CORPORATE CONTROL

Agency theorists believe that the capital market can determine corporate control and mitigate conflicts of interest between managers and shareholders. Through the process of mergers and acquisition capital market tends to discipline inefficient management. Theoretically, the takeover process occurs when the market perceives that the current management team is inefficient, based on certain performance indicators. Ideally, the market is supposed to react by offering an alternative to such management through a friendly or hostile takeover. The objective of this mechanism is to ensure that incumbent managers perform competently, in case the market acts in response to discipline them.

The efficiency of the takeovers as a disciplinary mechanism is a hotly debated and an unresolved issue. Studies show that takeovers may have adverse effects on the dynamic efficiency of the company if the stakeholders reduce their company-specific investments. For example, if stakeholders think that takeovers will increase the probability that they will be expropriated ex-post, they may provide sub-optimal levels of company-specific investment ex-ante. Takeovers may also aggravate short term behaviour that may impinge on innovative activity and dynamic efficiency (Jarrell, Brickley & Netter, 1988). In some countries the market for corporate control is non-existent and in some countries (e.g. New Zealand) it is very small, which makes it difficult for takeovers to play a monitoring device for the managers. Therefore it is argued that there may be obstacles in the market for corporate control mechanisms to work effectively in some countries.

2.1.7.2 LABOUR MARKET COMPETITION

Fama (1980) investigated the governance properties of the managerial labour market and reported that managerial behaviour is shaped by the discipline and the opportunities for human capital provided by the labour market. Research suggests that managerial human capital is tightly linked to company financial performance. The higher the job competition among managers within and/or outside the company, the higher will be the manager's knowledge and responsive efforts to improve a company's financial performance (Brett & Stroh, 1997; Mahoney & Mahoney, 1993; Ocasio, 1999). This suggests that competition in the managerial labour market will lead to company financial performance.

2.1.7.3 PRODUCT MARKET COMPETITION

Competition in the product market is generally associated with allocative and productive efficiency. Competition encourages the supply of goods and services at the lowest price to reflect the underlying costs of provision. The monitoring function of the product market relies on the degree of competitive pressures faced by a company's output, which is related to its industry and level of product diversification. Publicly traded companies may be faced with a product market concentration where the competition is relatively low, or a highly competitive market where a large number of companies compete under the same conditions (Fama, 1980; Williamson, 1986). The empirical evidence provides support for the view that the discretionary behaviour of managers is also disciplined by the pressure of other companies competing in the same product market (Collin, 1998; Haye, 1997; Nickell, Nicolitsas & Dryden, 1997). This forces companies to implement devices to efficiently monitor the performance of a company's entire team as well as its individual members.

However, countries that have complex patterns of ownership, such as, cross-shareholdings and familial control, tend to create large corporate groupings and high product market concentration. This leads to ownership concentration which promotes monopoly exploitation and allocative inefficiency. Monopoly abuse by *keiretsu* groups in Japan has been resolved by the establishment of competing industrial groups. This shows that in the presence of competition, efficient forms of governance can emerge by their own accord. The alternative view is that competition in the product market (allocative efficiency) may encourage competition for ownership in the corporate control market (productive efficiency), which may undermine the development of long-term relations between the various stakeholders, which are required for dynamic efficiency. Alternative governance mechanisms are required to gain productive efficiency in the presence of product market competition. Product market competition allows managers to align their decisions with owners' interests in an attempt to avoid bad performance, the loss of their job and reputation.

2.1.8 LEGISLATION

Studies show that market competitiveness is enhanced by the presence of a strong regulatory and legal environment, which in turn influences corporate governance structures. Countries that have a weak legal environment tend to have a weak and ineffective governance structure. Since corporate governance structures have an impact on company financial performance (Shleifer & Vishny, 1997), countries that have weak governance structures generally tend to

have poor company financial performance. Therefore, the regulatory and legal environment is important for creating a strong competitive market, effective corporate governance systems and company financial performance. Hossain, et al. (2001) studied the effect of legislation passed in New Zealand in 1994 on company financial performance and concluded that effective corporate governance can be legislated. They found that the effect of the Companies Act and related legislation were relatively benign in influencing company financial performance and outside board representation. Reddy, et al. (2008b) studied the effect of the New Zealand Securities Commission's recommendations on company financial performance and found that compliance with the recommendations improved performance.

The above sections provide theoretical explanations for the effect various governance mechanisms ought to have on company financial performance. As each company is organised differently, the effect each mechanism has on different companies may vary in practice and the sections that follow present results of the empirical findings of studies undertaken concerning various governance mechanisms and company financial performance.

2.2 GOVERNANCE MECHANISMS AND FINANCIAL PERFORMANCE

The effect internal and external governance mechanisms to control agency problems have on company financial performance has been the subject of a number of empirical studies. This section summarises the empirical studies that have been based on governance mechanisms (insider ownership, board composition, board committees, board size, board diversity, CEO influence (age, tenure and education), CEO compensation, debt, dividend policy) and company financial performance.

A number of studies in accounting, economics, finance, and management disciplines have linked corporate governance practices to company performance. Both theoretical (Jensen, 1986; La Porta et al., 2002; Shleifer & Wolfenzon, 2002) and empirical evidence (MacAvoy & Millstein, 2003; Millstein & MacAvoy, 1998; Reddy et al., 2008b) support the view that improved governance practices lead to improved company financial performance. However, previous research has focused mainly on large companies that are based in the United States and the United Kingdom. This tends to portray the view that findings from the US and the UK based research are automatically applicable to other environments.

As a result, little is known about the governance practices of companies outside these countries, especially New Zealand. Little is also known about the governance practices of small and medium sized companies and companies in the public sector.

Demb and Neubauer (1992) state that the mechanisms that different countries use to guide and monitor their corporations are path dependent, that is, they have their roots in the nation's history. The relative impact and structure of each element differs across national settings which in turn reflects its importance based on cultural values, history and traditions (Demb, 1996). While these arguments reject the notion of universal governance practices, also suggests that policy and research will be more effective if it takes account of the potential differences in the governance practices that exist in different companies, sectors and countries.

Despite these shortcomings, previous research has come up with many possible governance mechanisms that shareholders could use to mitigate the agency problem. Their empirical findings are discussed below.

2.2.1 INSIDER OWNERSHIP AND FINANCIAL PERFORMANCE

A number of studies provide empirical evidence of a direct relationship between equity ownership by insiders (officers and directors) and company's financial performance. Mehran (1995) examined the executive compensation structure of 153 large and small manufacturing companies in the US and reported that company financial performance measured by Tobin's Q15 was positively related to the percentage of equity held by managers as well as to the percentage of their compensation that was equity-based. Welch (2003) studied 114 companies listed in the Australian Stock Exchange (ASX) and reported that company financial performance (Tobin's Q) was dependent on ownership. Kim, Lee and Francis (1988) studied 157 companies and found a significant positive relationship between insider ownership and stock returns. Oswald and Jahera, Jr. (1991) studied 645 companies listed in the New York and American Stock Exchanges between 1982 and 1987 and found that insider ownership was positively associated with company financial performance measured by excess stock returns. Ang, Cole, and Lin (2000) examined 1,708 small corporations in the US and found that agency costs (measured by the ratio of operating expenses to annual sales)

[15] Tobin's Q was measured by the market value of all firm's securities to replacement cost of all tangible assets.

were inversely related to the proportion of shares owned by the managers. Singh and Davidson III (2003) replicated the studies by Ang, Cole and Lin (2000) on 1,528 large companies in the US and found similar results that agency costs (measured by asset utilization) wee inversely related to insider ownership. A study conducted in New Zealand by Hossain, at al. (2001) reported that insider ownership (measured linearly) had a strong positive influence on Tobin's Q. Also, Elayan, Lau and Meyer (2003) found a statistically significant relationship between Tobin's Q and both CEO compensation and executive share ownership, suggesting that managers are being rewarded for high company financial performance with higher compensation and shares.

These studies support the view that a low level of insider ownership has a positive effect on company financial performance. Gelb (2000) documents that companies with lower levels of managerial ownership tend to provide more extensive disclosures in their annual reports, suggesting that lower levels of managerial ownership mitigates agency costs and reduces investors' information needs. In summary, the studies mentioned above do provide support for the interest alignment hypothesis that insider ownership does lead to improved financial performance.

Other empirical studies have reported a non-linear relationship, that is, the positive relationship between the level of insider equity ownership and company financial performance only increases up to a point, after which performance declines. Empirical studies conducted by Chen, Hexter and Hu (1993), Griffith (1999), McConnell and Servaes (1990), Morck, Shleifer and Vishny (1988) among others, found that when insider ownership is increased from zero to a certain level, company performance measured by Tobin's Q increases and insider ownership above that level leads to a decline in company financial performance. While these studies report inconsistent results in terms of the level of insider ownership, they do report that the relationship between Q ratio and insider ownership is non-linear, that is, within some range of insider ownership, Q ratio is positively related to insider ownership, but in other ranges, a negative relationship is found. The range of insider ownership positively associated with the Q ratio is inconsistent. Morck, Shleifer and Vishny report insider ownership between zero and five percent, whereas McConnell and Servaes report up to 40%. However, studies conducted by Morck, et al. (1988) and McConnell and Servaes (1990) are based on larger economies like the US. A study conducted in New

Zealand by Hossain, et al. (2001) did not find any evidence of a curvilinear relationship between insider ownership and company financial performance measured by Tobin's Q.

Similar to Morck et al., McConnell and Servaes, Fama and Jensen (1983a), and Stulz (1988) found that managers owning a large block of stock leads to entrenchment problems. Greater stock ownership by managers increases the power of the internal constituency (Fama & Jensen, 1983a; McConnell & Servaes, 1990; Morck et al., 1988; Stulz, 1988), but decreases the power of the external constituency in influencing corporate financial performance. Research shows that incentive-based compensation[16] decreases when blockholders are present (Bertrand & Mullainathan, 2001; Mehran, 1995) showing a negative relationship between insider ownership and ownership concentration. It could be that blockholders appoint outside directors to represent them on the board and they tend to be more vigilant about CEO performance. This is supported by the findings of Bhagat and Black (2001) reporting an inverse relationship between insider ownership and board composition. These studies support the view that a high level of insider ownership has a negative effect on company financial performance measured by the Q ratio.

However, these studies considered insider ownership as an exogenous variable. There are growing concerns that insider ownership may be endogenously determined. The proponents of this view argue that managers are rewarded with stock and stock options when companies exceed target performance. This goes against the popular view promoted by Jensen and Meckling (1976) that when mangers have stock ownership in the company it leads to improved company financial performance. To this end, Hermalin and Weisbach (1991) considered the endogeneity of ownership and found a nonmonotonic relationship between ownership and performance. Cho (1998) also reported that performance determines ownership. Reddy et al. (2008a) considered endogeneity of insider ownership in small cap companies in New Zealand and found a negative relationship between insider ownership and financial performance when measured by Tobin's Q. They concluded that insider ownership in New Zealand small cap companies was not at optimal. This reasoning is in line with the argument provided by Demsetz (1983), that company financial performance will increase only if the insider ownership is in disequilibrium. So, when insider ownership is at

[16] It represents the percentage of executive compensation that comes from new stock options, restricted stocks, and performance shares.

equilibrium, company performance will be at the maximum and there will be no relationship between ownership and financial performance. However, if ownership is below equilibrium, then company financial performance will improve by moving towards the equilibrium. If ownership is above equilibrium, then there will be a negative relationship between ownership and financial performance.

Owner(s) who start the company tend to hold a fraction of shares in the company after going public and also take up officer and director positions. Evidence also shows that concentrated ownership structure is common in New Zealand, where the top twenty shareholders on average hold 69.3% of the shares (Gunasekarage & Reed, 2008; Reddy et al., 2008a, 2008b). It is argued that because of weak minority investor protection regulations and a small and weak capital market, companies in New Zealand have a tendency to use insider and concentrated ownership mechanisms to mitigate agency problems.

In summary, the evidence shows that a level of insider ownership increases company financial performance but a high level of managerial ownership leads to management entrenchment. There also exists a view that insider ownership may be determined by company financial performance instead of insider ownership determining financial performance.

2.2.1 CONCENTRATED OWNERSHIP AND FINANCIAL PERFORMANCE

Ownership concentration is viewed in the literature as a mechanism for mitigating agency costs because it provides better monitoring incentives to maximise shareholder value. The shareholder model suggests that managers are less likely to engage in shareholder value maximising behaviour if strict monitoring is provided by the shareholders. Therefore, the presence of ownership concentration under the stakeholder model would enhance company financial performance. Empirical research supports the claim that a higher ownership concentration leads to better monitoring which enhances company financial performance.

In a survey of empirical studies (conducted in the US and the UK) of ownership concentration on company financial performance, Gugler (1999) reported that owner-controlled companies outperform manager-controlled companies. The owner-controlled companies were classified as those that had a single block of equity exceeding 5% or 10%. The dependent variables used in these studies were net income/net worth, rate of return on equity or Tobin's Q, or the riskiness of returns.

The beneficial effect of direct monitoring by ownership concentration also had an effect on managerial turnover and unrelated diversification. Franks and Mayer (1994) found a large turnover of directors when ownership concentration was present. Amihud and Lev (1991) reported that companies controlled by large block shareholders were less likely to engage in (value reducing) unrelated mergers and acquisition. Hill and Snell (1989) and Hoskisson, Johnson and Moesel (1994) found that large blockholder ownership were negatively related to product diversification. Kang (1986) found that concentrated ownership enhanced company financial performance measured by accounting and stock-price-based measures. These studies show that ownership concentration has a potential to minimise agency costs (Fama & Jensen, 1983a; Jensen, 1989, 1993). Ownership concentration influences managers, thus reflecting on company strategy in regard to profit goals, dividends, capital structure and growth (Thomsen & Pedersen, 2000).

One of the problems with the above studies is that they are based on US or UK data and the findings are not necessarily reflective of countries that have a relatively high ownership concentration. For example, studies conducted in New Zealand, Germany, France and Japan provide evidence that manager-controlled companies outperform owner-controlled companies. Thonet and Poensgen (1979) found that manager-controlled companies in Germany outperformed owner-controlled companies in terms of profitability. Jacquemin and de Ghellinchk (1980) using French data found no difference in performance between familial and non-familial controlled companies. Prowse (1994) found no relationship between ownership concentration and profitability in Japanese companies. Fitzsimons (1997) and Hossain et al. (2001) state that in the absence of a takeover code (prior to July 2001), New Zealand was an attractive environment for overseas companies to acquire controlling influence in companies without paying a full takeover premium. Most of these acquisitions were undertaken with the short term view of maximising current income rather than creating long term company value. Other authors that have noted the role of governance in aiding economic performance include Gani ; Barro (2001), Fischer, Alonso-Gamo and Von Allmen (2001), Knack (2001a). Gani (2007) reported strong correlation between the rule of the law; control of corruption; regulatory quality; government effectiveness and political stability and foreign direct investment (FDI).

However, the US and the UK studies do show that company financial performance increases as ownership concentration increases and financial performance declines as ownership

concentration increases above certain level (see Franks, Mayer & Renneboog, 1995; McConnell & Servaes, 1990; Morck et al., 1988; Wruck, 1989). In addition, Zeckhauser and Pound (1990) state that the industry in which a company operates is also important for company financial performance. They found that owner-controlled companies have superior performance in industries that have a relatively low level of asset specificity[17], but no difference in industries that had high asset specificity.

In countries that have a relatively high ownership concentration (Continental Europe, Japan, and Korea), the objectives and identity of different owners become important for company financial performance as well. Ownership concentration may have a negative effect on financial performance if it insulates companies from efficiency-enhancing takeovers. Ownership concentration may also lead to self enrichment at the expense of small shareholders by paying out too much dividend relative to the company's investment and growth opportunities. On the other hand, ownership concentration may have a positive effect on financial performance if it provides close monitoring and expertise. The benefits provided by alignment of cash flow rights and control rights may outweigh the costs associated with low diversification opportunities or rent extraction by majority owners.

2.2.2 INSTITUTIONAL OWNERSHIP AND FINANCIAL PERFORMANCE

Existing literature recognises that institutional investors serve a significant role as external monitors in the stock market (Agrawal & Mandelker, 1990). Investment made by institutional investors is so large that they do not have the ability to divest their holding without severely affecting share price (Pound, 1992). As a result, institutional investors have a strong long-term interest in the financial success of the companies (see Gilson & Kraakman, 1991; Holderness & Sheehan, 1988a; Smith, 1996) and may play an active role in monitoring top management (Hoskisson, Johnson & Moesel, 1994).

There is an alternative view that institutional investors have failed to monitor managers. This perception seems to arise from two sources: (i) the dispersed nature of institutional shareholding, and (ii) being short-term returns focused. While institutional investors hold a large fraction of companies, the fraction of shares held for each company is very small in

[17] High asset specificity means that investment is specific to the industry (or the company) and has relatively few alternative uses. The opposite is true of low asset specificity investment.

proportion to their total shareholding. This is seen as a consequence of both portfolio diversification and regulatory constraints placed on majority ownership. The portfolio diversification view seems to outweigh the maximisation of returns view at the expense of good corporate governance. Another view exists that institutional investors are predominately concerned with short-term earnings. Institutional investors are represented by managers whose primary objective is to maximise current returns because of their own reward systems, which emphasises quarterly performance (see Fortune, 1993; Starks, 1987). Managers receive a percentage of the value of assets and a bonus or penalty, based on how their funds perform relative to an index calculated quarterly. This pressure for short-term profitability, coupled with the potential difficulty of selling a large block of stocks without a loss, may result in a preference for projects with a high probability of short-term payoff.

However, the potential benefit of moving investments to another company may be outweighed by transaction costs. This may encourage institutional investors to closely monitor managerial actions, or provide shareholder activism and force institutional investors to better scrutinise board decision making. Stapledon (1996) provides evidence of active institutional involvement in the UK. He reports that institutional interventions to change management in the UK have occurred since the 1950s and their prevalence in the 1990s suggests that they may be a substitute for takeovers. However, their intervention was mainly in small and medium sized companies because institutional shareholdings were too small to allow effective coalitions to be formed in the larger companies.

Statistics show that a large part of the equity market in New Zealand is owned by institutional investors (Healy, 2003, p.197). This highlights the importance of institutional investors in the functioning of the capital market and the economy.

2.2.3 BLOCK OWNERSHIP AND FINANCIAL PERFORMANCE

The presence of blockholders has similar benefits to those of ownership concentration in providing supervision and monitoring. However, a problem arises when blockholders extract private benefit at the expense of minority shareholders and other stakeholders. One of the consequences of this is that minority shareholders reduce their level of investment, thus causing illiquidity in the stock market and reducing diversification opportunities. In a survey of corporate governance literature, Shleifer and Vishny (1997) and Gugler (1999) report evidence that blockholders do receive benefits at the expense of the minority shareholders. Barclay and Holderness (1989, 1992) report from US experience that large blocks of equity

trade at a substantial premium to the post-trade price of minority shares, and on average these stocks trade at a 20% premium. DeAngelo and DeAngelo (1985), Jarrell and Poulsen (1988), and Zingales (1995) found that shares with superior voting rights trade at a premium, but the premium is small. However, Zingales (1995) reported that the premium rises sharply in situations where control is contested.

The evidence from other countries where concentrated ownership is a norm suggests that expropriation of private benefits by controlling blockholders is a major problem. Rydqvist (1987) found a 6.5% average voting premium for Sweden, Levy (1982) found a 45.5% premium in Israel, Horner (1988) found a 20% premium for Switzerland, and Zingales (1994) found an 82% voting premium on the Milan stock exchange. The evidence from Israel and Italy suggests that the agency cost can be very large in some countries.

However, in a US study Holderness and Sheehan (1988a, 1988b) found no evidence of expropriation of private benefits by blockholders and, Asquith and Wizman (1990) reported that the benefits were very small, if any. The evidence of expropriation from Israel and Italy does suggest this may be only relevant to the US where a strong protection of minority shareholder rights exists.

The expropriation by controlling shareholders can deter minority shareholders from investing, resulting in a small and illiquid equity market. The evidence of this can be found in countries, such as Austria, Italy, Spain, and Germany, where expropriation is a major problem and companies rely more on debt financing. The capital market remains underdeveloped in these countries compared to the US and UK, where investor protection is high. The investor protection law induces controlling shareholders to reduce their control or stake, thus increasing liquidity and dispersion of ownership.

The empirical evidence supports the view that the potential conflicts of interest between dominant shareholders and other stakeholders in countries that have low investor protection rights may have detrimental effects associated with expropriation. The conflict of interest is the result of structure of ownership and the legislation that protects investor rights.

2.3 BOARD OF DIRECTORS AND FINANCIAL PERFORMANCE

A number of studies have examined the relationship between board characteristics (board independence, board size, board committees, and board diversity) and company financial

performance. The section below provides literature relating to board characteristics and company financial performance.

2.3.1 BOARD COMPOSITION AND FINANCIAL PERFORMANCE

The effectiveness of the board in monitoring managers is associated with board composition, in other words, board independence. In this regard, board composition becomes significant as the primary responsibility in keeping the board independent (Fama, 1980; Fama & Jensen, 1983a; Weisbach, 1988; Zahra & Pearce II, 1989). Outside, unrelated (independent) directors are viewed as professional referees who can objectively assess managerial performance, determine their remuneration, and replace them if necessary (Boeker, 1992).

The empirical research on board composition and company financial performance found mixed results. Some authors (see Ezzamel & Watson, 1993; Hossain et al., 2001; Vance, 1964) found a positive relationship between board composition and company financial performance. Hermalin and Weisbach (1991) and Baysinger and Butler (1985) found a very weak relationship. Lawrence and Stapledon (1999) found inconsistent evidence of a direct relationship between board composition and company financial performance in Australia. These studies support the view that there is evidence of a (weak) positive relationship between board composition and company financial performance.

In contrast, Agrawal and Knoeber (1996) and Yermack (1996) found a negative relationship between board composition and company financial performance measured by Tobin's Q. Klein (1998) found a significant negative relationship between a change in market value of equity and the proportion of independent directors, but an insignificant relationship for return on assets and raw stock-market returns.

Other studies (Byrd & Hickman, 1992; Chin, Vos & Casey, 2003; Daily & Dalton, 1992; Mace, 1986) found no relationship between board composition and company financial performance.

Most studies related to board composition are based on Anglo-Saxon countries which have a unitary board. The countries that have a compound board structure have not received much attention. Since countries that follow the stakeholder system also face similar challenges to a shareholder system, the inclusion of independent directors may also improve their performance.

In summary, the effectiveness of the board in monitoring the actions of managers has been a positive function of the proportion of outside, unrelated directors (Agrawal & Knoeber, 1996; Core, Holthausen & Larcker1999; Gagnon & Pierre, 1995). Therefore, an increase in non-executive directors may increase board vigilance.

2.3.2 BOARD SIZE AND FINANCIAL PERFORMANCE

Organisational behaviour research suggests that as group sizes grow larger, total productivity exhibits diminishing returns (Hackman, 1990; Steiner, 1972). Based on this view, a number of researchers have looked at whether or not board size has an effect on company financial performance. Holthausen and Larcker (1993) failed to find consistent evidence of a negative relationship between company financial performance and board size. However, Yermack (1996) found an inverse relationship between company financial performance (measured by Tobin's Q) and board size. Eisenberg, Sundgren and Wells (1998) found similar results for small and medium sized companies in Finland. Hossain et al. (2001) found similar results for companies in New Zealand.

Since board size has a negative effect on financial performance, the long term effect of this will be a decline in board members. In support, Bacon (1990) reported that the number of board members in large companies declined from 14 in 1972 to a median of 12 in 1989. Fox (1996b) found similar results in New Zealand, showing board size declined from 7 in 1970 to 6 members in 1993. Reddy et al. (2008a, 2008b) found that the average board in New Zealand ranged between 6 to 8 members.

Hossain et al. (2001) using data from 1991 to 1997 reported that board size in New Zealand was positively related to company size. This means that bigger companies will have bigger boards and smaller companies will have smaller boards. This finding is also supported by Reddy, et al. (2008a, 2008b).

2.3.3 BOARD COMMITTEES AND FINANCIAL PERFORMANCE

The NZSC (2004) recommends that companies should have audit committees to oversee the audit of financial statements and a remuneration committee for setting remuneration for executive officers and directors. The appointment of such committees is expected to have a positive effect on company financial performance. Empirical research focusing on the presence of an audit committee has associated these with companies with fewer financial reporting problems (McMullen, 1996). John and Senbet (1998) report that the presence of

monitoring committees (audit and nominations) is positively related to factors associated with the benefits of monitoring. Klein (2002b) shows that independent audit committees reduce the likelihood of earnings management, thus improving transparency. However, Baxter (2006) finds no significant relationship between audit committees and financial reporting quality.

On the other hand, Main and Johnston (1998) and Weir and Laing (2000) reported that the existence of a remuneration committee had a positive effect on financial performance. Klein (1998) found evidence of a positive relationship between the presence of a remuneration committee and company financial performance but noticed this relationship was not highly significant.

Despite the NZSC recommendations and guidelines to incorporate board committees, very few studies, to date, focus on the relationship between board committees and company financial performance. Dalton et al. (1998) provide a similar view, that relatively little research has been undertaken in the relationship between board sub committees and financial performance. Reddy at al. (2008b) found that a remuneration committee had a positive effect on company financial performance measured by Tobin's Q, market-to-book and return on assets. International and New Zealand evidence suggests it is likely that empirical research regarding board sub-committees and company financial performance will be positive.

2.3.4 BOARD DIVERSITY AND FINANCIAL PERFORMANCE

The diversity literature suggests diversity adversely impacts group dynamics, but improves group decision-making (Erhardt et al., 2003). However, little research has been conducted to date with boards of directors investigating the impact of board of director diversity on company financial performance. Shrader, et al. (1997) examined company financial performance with gender diversity in the middle-and upper management, and at the board of director level for large companies. They found general organisational effects, but few top-level diversity effects on financial performance and, in general, reported a positive link between women (diversity) in management positions with company financial performance. Shrader et al. (1997) explain the positive performance relationship by suggesting that these companies were recruiting from a relatively larger talent pool, and subsequently recruited more qualified applicants regardless of gender. Richard (2000), examined the relationship between organisation-wide diversity, business strategy and company financial performance in the context of the banking industry. Performance was measured by productivity return on

equity, and market performance measured from 64 banks in three states. He reported that diversity added value and was perceived as a relative competitive advantage for banks. Focusing specifically on boards of directors, Catalyst (1995) reported that of the top 100 US companies in terms of revenue, 97 had at least one woman board member. In an earlier study by Catalyst (1993), 82% of the 50 most valuable Fortune 500 companies were found to include at least one woman director on the board. Burke (2000a) found significant correlation between the number of women directors and revenue, assets, number of employees and profit margins for Canadian companies. Reddy et al. (2008a) suggest that female directors on boards of small cap listed companies in New Zealand had a positive effect on company financial performance (Reddy et al., 2008a).

2.4 CEO COMPENSATION, TENUREAND FINANCIAL PERFORMANCE

The transaction cost and incomplete contract theories of the company suggest that from time to time, a company's contract may deviate from optimality (Tirole, 2008). This allows managers to expropriate shareholder rent. The corporate governance literature and more specifically the executive compensation literature suggest that managers can be induced by giving incentives to act in the best interests of the shareholders. By linking managerial compensation (such as, salaries, cash bonuses, equity and stock options) to company financial performance, compensation becomes subject to risks similar to those faced by shareholders, thus aligning managerial interest with shareholder interests.

Remuneration packages vary across countries, suggesting optimality of contingent performance based compensation depends on whether monitoring alternatives are available. Maher and Andersson (1999) state that the executive pay in Germany and Japan tends to be considerably lower than in the US and UK, which is a reflection of a closer relationship between controlling shareholders and managers. Basing empirical evidence on the US, Kole (1997) reported that the presence of family representatives in management or on the board reduces the probability of adopting an equity-based compensation plan. Conyon and Leech (1994) also provide evidence that the level of director compensation is lower in companies that have a higher share ownership concentration or are owner-controlled. The empirical evidence confirms that there is a substitution effect between direct monitoring by owners and compensation incentives.

Research also focused on managerial compensation and the company financial performance relationship. Generally it was found that there was no evidence that higher pay leads to higher financial performance. Murphy (1985), Coughlin and Schmidt (1985) and Barro and Barro (1990) found pay-performance sensitivity in the range of 0.10 to 0.17, suggesting a 10% rise in profitability leads to a 1% to 1.7% rise in CEO compensation (consisting of salary and bonus). Although sensitivity of pay to performance is very small, Hall and Liebman (1998) suggested that these studies ignored changes in the book value of stocks and stock options. When stock and stock options are considered, Hall and Liebman found a mean pay-performance elasticity of 4.5, suggesting a 10% rise in performance leads to 45% increase CEO remuneration. Furthermore, Murphy (1998) found that most of the increases in pay were attributable to a general increase in the stock market and that there was little evidence that higher pay leads to higher stock market performance. Furthermore, Main, Bruce and Buck (1996), Conyon and Leech (1994), and Gregg, Machin and Szymanski (1993) found that company size, and changes in company size were more significant determinants of managerial compensation than financial performance. This evidence suggests that managers are more likely to engage in mergers and acquisition that lead to pay increases rather than improving company financial performance.

Research also linked compensation plans to short-term behaviour of managers. As managers become aware of improvements in company financial performance, they influence their board to award equity-based performance pay. Yarmack (1997) supports the short-term behaviour of managers as she reports that the timing of stock options coincides with favourable movements in company stock prices.

Research has also focused on other mechanisms to align the interest of the managers with shareholders. Separation of the chair and CEO has been proposed as a mechanism to prevent boards becoming entrenched. However, Conyon and Leech (1994) found no evidence that separation of the chair and CEO has any effect on compensation levels. Mehran (1995) reported that the presence of independent directors increases the percentage of equity-based compensation instead of decreasing it. Cosh and Hughes (1997) found no evidence of relationship between institutional holding and compensation or pay-performance in the UK. While shareholder monitoring is a good substitute for compensation incentives, the evidence provided above suggests monitoring by board and institutional investors are relatively weak monitoring devices and not a good substitute for direct monitoring.

In summary, the empirical evidence available indicates that share or share options do not align managerial interest with the shareholders. The apparent conflict of interest between the board of directors and shareholders also raises doubts whether the former should be responsible for setting the key elements of managerial contracts. However, the evidence available does provide support for the view that owners are better monitors and therefore should be responsible for setting executive remuneration packages.

2.5 DEBT AND FINANCIAL PERFORMANCE

According to Novaes and Zingales (1999) the choice of debt from the viewpoint of the shareholders differs from the choice of debt from the viewpoint of the managers. The conflict of interest between managers and shareholders over financing policy arises for three reasons. First, managers are less diversified than shareholders, that is, in addition to holding stock and stock options of the company, their human capital is specific to the company (Fama, 1980). Second, a larger level of debt precommits managers to work harder to generate and pay off the company's cash flows to outside investors (Jensen, 1986). Lastly, managers may increase leverage beyond the "optimal capital structure" to increase the voting power of their equity stakes and reduce the likelihood of a takeover and the resulting possible loss of job tenure (see Harris & Raviv, 1988; Stulz, 1988). A relatively high debt to assets ratio may be used to make a company less attractive as a takeover target, substituting debt for other takeover defence mechanisms (Agrawal & Knoeber, 1996; Begley & Feltham, 1999; Byrd & Stammerjohan, 1997; Knoeber, 1985). Also, a high level of debt may subject the company to agency costs of debt, especially in the form of risk shifting incentives. Shareholders may prefer riskier projects to compensate for additional risk faced by a high level of debt financing, thus raising a company's earnings volatility.

However, other studies support the view that debt reduces the agency costs of the company and enhances company value. Berger, Ofek and Yarmack (1997) reported that managerial entrenchment has a significant impact on companies' capital structure. They found a lower level of debt in companies where the CEO appears to be entrenched, that is, where CEOs have had a long tenure, and compensation plans are not closely linked to company performance. Also, they found lower debt in companies where the CEO does not face significant monitoring that is large boards with few outside directors and no large blockholders. They reported that companies significantly increase their leverage when they experience some discipline (such as a takeover attempt, involuntary CEO departure, or arrival

of outside blockholders) or receive enhanced managerial incentives through the management compensation contract.

Therefore, debt is viewed as an internal corporate governance mechanism that can voluntarily be used to transfer the functions of monitoring and evaluating managerial performance to the participants of the capital market (debtholders) (Agrawal & Knoeber, 1996; Begley & Feltham, 1999; Jensen, 1986). In this regard, the literature provides two directions concerning the monitoring function of debt financing. First, increased debt means a large part of the company's cash flow will be returned to the debtholders, therefore debt tends to reduce the discretionary power of the managers. Second, given the size of a company, debt financing decreases the company's need for new share issues emissions and allows voting rights to be more concentrated in the hands of the remaining shareholders. Therefore debt forces managers to consume fewer perquisites and become more efficient as this lessens the probability of bankruptcy and the loss of control and reputation (Grossman & Hart, 1982). In addition, Harris and Raviv (1991) provided a comprehensive survey of the theories and related empirical evidence on the use of debt to mitigate agency conflicts and information asymmetry. They concluded that the evidence was broadly consistent with the theory.

In summary, the agency framework indicates that debt reduces agency costs of the company and enhances company value.

2.6 DIVIDENDS AND FINANCIAL PERFORMANCE

Easterbrook (1984) argues that dividends play a role in controlling equity agency problems by facilitating primary capital market monitoring of the company's activities and performance. The reason for this is that higher dividend payouts increase the likelihood that the company will have to sell common stock in primary capital markets. In theoretical studies, Fluck (1998) and Myers (2000) presented agency-theoretic models of dividend behaviour where managers pay dividends in order to avoid disciplining action by shareholders. However, Jensen (1986) argued that continued dividend payments help to dissipate cash which might otherwise have been wasted in non-value maximising projects, therefore reducing the extent of overinvestment by managers. The company's target ratio of dividend to earnings operates as a control instrument just like debt financing. The higher the payout ratio, the smaller the amount of free cash flows. Also, dividends impose much less severe constraints on companies' cash flows because their payments are not mandatory. However, the opposing view is provided by Zeckhauser and Pound (1990). Zeckhauser and

Pound document that within an industry there is no significant difference in dividend payout ratios between companies with and without large shareholders. More importantly, their study also suggests that, after controlling for company industry, the effect of dividend policy on other governance mechanisms may be indirectly controlled. The financial literature also links dividend payments to a company's future profitability.

The section below discusses the empirical studies based on external governance mechanisms, i.e., ownership concentration, large (blockholders) shareholders, and institutional investors, market for corporate control, labour market competition, product market competition and legislation and company financial performance.

2.7 MARKET FOR CONTROL, PRODUCT MARKET COMPETITION, LABOUR MARKET COMPETITION AND COMPANY PERFORMANCE

2.7.1 MARKET FOR CONTROL AND FINANCIAL PERFORMANCE

Under the stakeholder system of corporate governance, there is little reliance on the market for corporate control to discipline managers because controlling shareholders act as monitors themselves. However, under a shareholder system of corporate governance, takeovers play a key role in disciplining poorly performing managers. Managerial theorists such as Mueller (1985), suggest that takeovers meet the size and growth objectives of managers, that is, to grow the company by acquisition. Studies also show that takeovers may have adverse effects on the dynamic efficiency of the company if stakeholders reduce their company-specific investments. For example, if stakeholders anticipate that takeovers increase the probability that they will be expropriated ex-post, they may provide sub-optimal levels of company-specific investment ex-ante. Also, takeovers may aggravate short term behaviour that may impinge on innovative activity and dynamic efficiency (Jarrell et al., 1988).

Empirical research supports the view that target company shareholders benefit more from tender takeover offers than the acquiring company's shareholders. Jarrell and Poulsen (1988) reported that in large successful tender offers in the US, the target company's shareholders gained a premium of 19% in the 1960s, 35% in the 1970s and 39% in the 1980s. Higson and Elliot (1998) reported similar results for UK companies for the period 1975-1990, with returns to target company shareholders averaging 37% and positive in 88% of the cases. Many other studies (DeAnglo, DeAnglo & Rice, 1984; Franks & Mayer, 1996; Jensen &

Ruback, 1983) reported similar results. However, for the acquiring companies, returns were close to zero (Bradley, Gregg & Kim, 1984; Franks & Harris, 1989).

In addition, a majority of studies found no significant improvement in company financial performance following a merger. Studies also found that takeovers in the US and UK were motivated by other objectives, such as changes in corporate strategy or rent seeking behaviour (Franks & Mayer, 1996). Other studies have suggested that tax motives have been a contributory factor for merger and acquisition activities rather than value-maximising or efficiency-gaining motives (Auerbach & Reishus, 1988; Bhagat, Shleifer & Vishny, 1990; Lehn & Poulsen, 1987). This raises concerns as to whether hostile takeovers are in fact an effective means of disciplining poorly performing managers in the shareholder system of governance.

Although evidence does not support the view that takeovers act to rectify managerial inefficiencies, the threat of takeover itself may serve as a mechanism for disciplining poorly performing managers. Therefore a threat of takeover rather than actual takeover has potential to be an effective control device. Mechanisms that inhibit takeovers need to be observed with apprehension. Franks and Mayer (1996) concluded that there are tradeoffs between different methods of correcting managerial failure. Fama and Jensen (1983b) and Kini, Kracaw and Mian (1995) found that takeovers can serve as a substitute for outside directors when there are few outside directors on the board. Brickley and James (1987) found that in countries where takeovers are more restricted, the number of outside directors and ownership concentration are effective substitute mechanisms for monitoring. Schranz (1993) also noted a substitutability between ownership concentration and takeovers as disciplining devices. Although there are concerns regarding the effectiveness of takeovers as a disciplining device, the evidence supports the view that takeovers should be allowed to function without restriction.

2.7.2 MANAGERIAL LABOUR MARKET AND FINANCIAL PERFORMANCE

Fama (1980) investigated the governance properties of the managerial labour market and reported that managerial behaviour is shaped discipline and the opportunities for human capital provided by the labour market. Research suggests that managerial human capital is tightly linked to company financial performance. The higher the job competition among managers within and/or outside the company, the higher will be the managers' knowledge

and responsive efforts to improve a company's financial performance (Brett & Stroh, 1997; Mahoney & Mahoney, 1993; Ocasio, 1999). This suggests that competition in the managerial labour market will lead to improved company financial performance.

2.7.2 PRODUCT MARKET AND FINANCIAL PERFORMANCE

Competition in the product market is generally associated with allocative and productive efficiency. Competition encourages the supply of goods and services at the lowest costs and prices to reflect the underlying cost of provision. The monitoring function of the product market relies on the degree of competitive pressures faced by a company's output, which is related to its industry and level of product diversification. Publicly traded companies may be faced by a product market concentration where the competition is relatively low, or a highly competitive market where a large number of companies compete under the same conditions (Fama, 1980; Williamson, 1986, 1996). Empirical evidence provides support for the view that the discretionary behaviour of managers is also disciplined by the pressure of other companies competing in the same product market (see Collin, 1998; Haye, 1997; Nickell et al., 1997). This forces companies to implement devices to efficiently monitor the performance of a company's entire team as well as its individual members.

However, countries that have complex patterns of ownership, such as, cross-shareholdings and familial control, tend to create large corporate groupings and high product market concentration. This leads to ownership concentration, which promotes monopoly exploitation and allocative inefficiency. However, monopoly abuse by *keiretsu* groups in Japan has been resolved by the establishment of competing industrial groups. This shows that in the presence of competition, the efficient forms of governance can emerge in their own accord.

The alternative view is that competition in the product market (allocative efficiency) may encourage competition for ownership in the corporate control market (productive efficiency), which may undermine the development of long-term relations between stakeholders that are required for dynamic efficiency. This requires alternative governance mechanisms to be used to gain productive efficiency in the presence of product market competition. Product market competition allows managers to align their decisions with owners' interests in an attempt to avoid bad performance, along with the loss of their job and reputation.

2.8 LEGISLATION AND FINANCIAL PERFORMANCE

Studies show that market competitiveness is enhanced by the presence of a strong regulatory and legal environment, which in turn influences corporate governance structures. Countries that have a weak legal environment tend to have a weak and ineffective governance structure in place. Since corporate governance structures have an impact on company performance (Shleifer & Vishny, 1997), countries that have weak governance structures generally tend to have poor company performance. Accordingly, the regulatory and legal environment is important for creating a strong competitive market, effective corporate governance systems and company financial performance.

Hossain, et al. (2001) studied the effect of legislation passed in New Zealand in 1994 on company financial performance and concluded that effective regulation leads to improved firm financial performance. They found that the effect of the Companies Act and related legislation were relatively benign in influencing company financial performance and outside board representation. Reddy, et al. (2008b) studied the effect of New Zealand Securities Commission recommendations on company financial performance and found that compliance with the recommendations improved financial performance.

2.9 CORPORATE GOVERNANCE IN NEW ZEALAND

During the period 1984-1990 New Zealand undertook a series of economic reforms to reverse the trends of the previous 30 years (Dalziel, 2002). These include unacceptable levels of poverty and difficulties with housing, health care and meeting essential family needs (ESC, 1984). Evans, Grimes, Wilkinson and Teece (1996) termed New Zealand economic reform programme a 'laboratory which will animate economic debate and policy throughout the world.' According to Dalziel (2002), the New Zealand experiment did not succeed, despite achieving greater microeconomic efficiency in some industries and obtaining its intermediate objectives of price stability and fiscal balance. In support, Evans (2009) provides evidence that the New Zealand domestic equity market declined relative to GDP over the period 1996 to 2007 and the number of listed companies fell even further from a low level in 1996 and relative to the comparative countries (Australia, Denmark, Finland, Ireland, Norway, Singapore, Sweden and Switzerland). Evans (2009), also indicates that the average size of listed companies in New Zealand remained constant but the size of listed companies increased in comparative countries. Over this period there has been no significant change in number of companies listed, but the number of foreign owned companies listed in New

Zealand declined (Lawrence, Sharman, & Chapple, 2009). Thomsen and Vinten (2007), state that delisting is influenced by factors such as investor protection and corporate governance requirements, as well as firm specific factors. La Porta et al. (1997), show that countries with poor investor protection have smaller and narrower capital markets than countries with higher levels of investor protection. According to Evans, Quigley and Counsell (2009), New Zealand has the weakest private property rights protection among the OECD countries which may be the reason for the low number of foreign owned companies being listed in New Zealand**.** The weak property rights are a reflection of the standard of the corporate governance practiced in New Zealand**.** As Prevost, et al. (2002) point out that the commonly accepted tenets of effective corporate governance practices, such as a majority of outside directors on boards, separate CEOs and board chairs, etc, were not commonly observed in New Zealand until the late 1980s. It was common practice in New Zealand to have boards dominated by a major executive director-shareholder who had a controlling ownership stake (Goulter, 1997). The large shareholding[18] is another common phenomenon in New Zealand companies. This was a response to inadequate protection provided in the capital market (La Porta et al., 2002). In terms of developments in guidelines or rules for companies on corporate governance, there was none that specified directors' duties. Standards of care expected by directors were only expressed at the common law level (Companies Act 1955) and essentially were that directors would be liable only for acts of gross negligence. The definition of what constituted an act of gross negligence was left to the courts to decide.

This position led to the perception that the New Zealand capital market was not sufficiently protective of investors with appropriate reporting, compliance and governance standards (Godfrey & Horsely, 2003, p.27). The on-going concerns about poor financial performance, excessive remuneration packages[19] (Healy, 2003, p.27), discriminatory takeover practices[20]

[18] Fitzsimons (1997) states that over 80% of firms in New Zealand have one shareholder owning more than 20% of equity or more, which allows corporate transfers to take place without involving the general body of shareholders. These transfers were usually uncontested and involved a very limited number of large blockholders.

[19] FORTEX, Brierley Investments Limited (BIL) and Air New Zealand provide evidence where poor performance and excessive remuneration has been a factor in the wealth erosion experienced by shareholders (Healy, 2003).

(Godfrey & Horsely, 2003, p.27) and ineffective governance practices led to a backlash after the 1987 stockmarket crash. The backlash provided New Zealand with its first set of rules, guidelines and legislation for corporate governance.

The Securities Markets Act came into force in 1988 highlighting requirements for the immediate disclosure of securities traded by company directors and officers. In 1989, the New Zealand Securities Exchange (NZSE) introduced its first set of listing rules stressing appropriate disclosure requirements and a set of guidelines for principles of corporate governance and accountability. The Financial Reporting Act was also passed in 1993, which defined the nature and presentation of financial information to shareholders. It was not until the introduction of the Companies Act 1993 that an explicit definition of the "standard of care" expected from the board of directors was provided.

Evidence from the US and the UK showed that when boards had a majority of independent directors there was increased transparency of the board's decision-making processes and increased shareholder confidence in the governance processes. The calls for a majority of independent directors on New Zealand company boards were initiated by the Companies 1993 Act. However, the number of independent directors on boards was left to companies to decide. To improve the capital market image, the Takeover Code was reintroduced in 2001 with powers to block takeovers that breached the rules.

In the aftermath of 2001 scandals, many countries including the US, UK and Australia developed a new set of guidelines for corporate governance practices. To harmonise corporate governance practices with trading partners and boost investor confidence, the Institute of Chartered Accountants of New Zealand (ICANZ), the Securities Commission (NZSC), and the New Zealand Stock Exchange (NZX) promulgated corporate governance principles for New Zealand companies. The tripartite study was released as a report in 2004. It comprised nine high level statements or principles, each supported by suggestions or guidelines as to how the Principle should be implemented. The Principles articulated: the need for ethical behaviour; the need for balance in the composition of boards; the role of effective board committees; the critical importance of integrity in reporting; the basics of good remuneration policy; the need for risk management processes; the imperative auditor

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[20] In 1998, Kirin Breweries took control of Lion Nathan by over-taking Douglas Myers and his fellow directors' shares without having to make a full bid.

independence; the importance of constructive shareholder relations; and the potential significance of other stakeholders in a governance context (NZSC, 2004).

Although the 2004 corporate governance principles and guidelines are not mandatory, all listed corporate entities are required to observe the Principles to the fullest extent and only depart where they are subject to competing statutory or public policy requirements. Acknowledging that the NZX Listing Rule 10.5.3(h) does not cover all the corporate governance areas of the Principles, companies reporting on corporate governance practices are required to cover all the Principles recommended by the Securities Commission. Any departures must be explained to the shareholders (NZSC, 2004). This indirectly puts pressure on companies to implement the Securities Commission recommendations.

Critics argued that the corporate governance recommendations focused strongly on monitoring and control, which could compel boards to concentrate their efforts more on avoiding any breach of rules and regulations rather than on creating value for shareholders. NZSC studies show some evidence of companies, in general, have complied with the recommendations relating to certain governance structures (NZSC, 2005). However, little has been said about the impact of compliance on corporate performance. It remains to be seen whether the current corporate governance structure enables organisations to sustain a level of entrepreneurial activity which generates growth on the one hand and a satisfactory return on investment on the other.

Corporate governance studies in New Zealand have focused mainly on board composition, particularly on board size (Firth, 1987; Fogelberg & Laurent, 1974; Laurent, 1971). Turner (1985) examined CEO duality among listed companies for 1984. Chandler and Henshall (1982) examined board size, the incidence of executive chairmanship and the proportion of outsiders on the boards of listed companies. Fox (1996b) looked at changes in board structure in New Zealand between 1962 and 1993 and reported that there were fewer board members in 1993 than in 1962.

Fox and Walker (1998) looked at boards of directors and board committees in New Zealand and compared them to cases in the US, UK and Australia. Hossain, et al. (2001) examined the relationship between company financial performance and the presence of outside directors in New Zealand companies both before and after the 1994 Companies Act. This Act was issued in 1994 with the intention of enhancing the financial performance of New Zealand companies through better monitoring by boards. Hossain, Prevost and Rao found a positive relationship,

i.e., a higher fraction of outside directors lead to better financial performance. However, they found no evidence that the strength of that relationship was affected by the Companies Act.

The cross-sectional variation in executive compensation during the first year of public disclosure (1997) was examined by Andjelkovic, Boyle and McNoe (2002) who found no evidence of a positive relationship between pay and financial performance, regardless of company size, leverage and board structure. Instead, they found CEO pay primarily depended on company size. Elayan, et al. (2003) examined the relationship between executive incentive compensation schemes (ICS) and company performance. Their results suggested that neither the compensation level nor adoption of an ICS was significantly related to returns to shareholders or returns on assets (ROA). However, they found a statistically significant relationship between Tobin's Q and CEO compensation and executive share ownership.

Chin, et al. (2003) examined the relationship between company performance and board composition, size and equity ownership structure using a sample of 426 annual observations of New Zealand companies across a five-year period. They found no statistically significant relationship between company performance and board composition, size and equity ownership structure.

In summary, the research findings related to governance mechanisms and company financial performance have been mixed. This was mainly the result of inconsistencies relating to the measurement of variables, differences in data used, different performance measures used and different methodologies employed. Corporate governance research conducted overseas and in New Zealand focuses mainly on listed companies where the focus has been on establishing whether there exists any relationship between corporate governance mechanisms and company financial performance.

This research aims to extend existing corporate governance literature by focusing on the effect good governance practices recommended by the NZSC have had on company financial performance in New Zealand. The extant literature provides evidence that, due to variables being omitted from the model, some of the research findings report spurious correlations. This study aims to extend the methodology that accounts for unobserved variables and also endogeneity.

In addition, this study explores the size and industry effect of corporate governance practices on company financial performance and provides insight into the governance practices of

public corporate entities as well. To date, little is known about the corporate governance of public corporate entities in New Zealand and its effect on financial performance. Hence, this study will contribute new knowledge and facilitate a comparative analysis of governance practices applied in the two different sectors of New Zealand.

Moreover, this research is timely given the recent global financial crisis which started in the US and quickly spread to the rest of the world (Stiglitz, 2009). The root cause of the problem is yet again being attributed to the breakdown of shareholder monitoring and ill conceived managerial incentives (Erkens, Hung, & Matos, 2009). As a consequence, the effectiveness of the principles-based guidelines been increasingly questioned by academics and markets and regulators (Bianchi, Ciavarella, Novembre, & Signoretti, 2010). A key issue debated in the literature and policy circles is whether "comply, and or explain" principles are effective in prompting better governance through the adoption of best practices (de Jong, DeJong, Mertens, & Wasley, 2005).

2.10 CONCLUSION

This chapter surveyed existing literature pertaining to the relationship between corporate governance practices and company financial performance whilst also identifying the contribution to be made through this research. An overview of corporate governance was presented followed by a discussion on corporate governance mechanisms. Relevant empirical studies relating to internal and external governance mechanisms and company financial performance was then presented with a concluding discussion on corporate governance development and research relating to New Zealand.

Chapter 3 provides a broad overview of the corporate governance environment in New Zealand, It will also provide discussion on the changes in corporate governance practices overtime and development of relevant regulations/policies that have enhanced governance practices in New Zealand. The role of various organisations that influence the standard of corporate governance practiced in New Zealand is also discussed.

CHAPTER 3
CORPORATE GOVERNANCE NEW ZEALAND CONTEXT

3.0 INTRODUCTION

The historical development of corporate governance practices in New Zealand is very much related to the history of the formation of corporations and adoption of commercial law in New Zealand. Prior to western colonisation in the mid-19th century, tribal governance structures existed where each tribe possessed their own leaders and governed their own geographic areas to maintain and sustain their individual economic, political and social organisations (Reddy & Tremaine, 1996). After western colonisation in the 1840s, New Zealand was governed by the Parliament at Westminster. A development in 1865 saw New Zealand receive limited legislative powers and then in 1931 the United Kingdom Parliament passed the Statute of Westminster which basically removed the limitations on New Zealand's (and other dominions) legislative powers (Greville, 2002). In 1947, New Zealand passed the Statute of Westminster Adoption Act and became the driver of its own legislative destiny. Despite gaining liberation from legislative dictation, New Zealand still seeks jurisprudential guidance from the UK as well as from other countries. The New Zealand Companies Act 1955 was an almost exact copy of the United Kingdom Act of 1948 but, as noted by the Law Commission (New Zealand Law Commission, 1989, p.29), the UK company law had become increasingly influenced by European law, and was considered to no longer provide an obvious model for New Zealand. For this reason, New Zealand, over the last 20 years or so, started to look further afield for legislative models, particularly in the more commercially flavoured subject areas.

Prior to 1978, securities regulation in New Zealand was relatively unsophisticated. Although a number of pieces of legislation dealt with some areas of securities law, in general, they did not have a significant impact on securities regulation in New Zealand (Fitzsimons, 1994). The collapse of some major companies in the mid-1970s raised concerns regarding investor protection in New Zealand (Fitzsimons, 1994). These companies had set up their fund-raising activities so that they were largely able to avoid existing regulations and the protections provided for the investing public by those regulations. The enactment of the Securities Act

1978 was the government's response to public pressure. The view taken by government was to improve investor protection, with the proviso that the commercial community not be burdened with excessive and inflexible regulation.

There are two parts to the Securities Act 1978. Part I of the Act deals with the establishment of the NZSC as a securities law reform body. The intention of the Act was to allow NZSC to impose liabilities on insiders of public issuers who have inside information about the public issuer and who also buy or sell securities of the public issuer. The liability extended to an insider of a public issuer who advises or encourages any person to buy or sell securities and to insiders of a public issuer who have inside information about another public issuer and who buy and sell securities in that other public issuer.[21] Part II of the Act provided substantive provisions dealing with the registering, issuing, and advertising of securities which were to be offered to the public. The Act provided protection against insider trading in terms of immediate disclosure of any securities trading by company directors and officers. However, the shortcomings of the Securities Act 1978, as noted by Lindroos and Walker (1994), was that the focus was on controlling the "activity" of raising funds from the public, rather than the "entity" which was raising funds. Also, the Act only dealt with transactions that related to the primary securities market[22] and did not control transactions involving securities once they have been issued to the public (secondary market). The gap in the regulation prompted certain types of behaviour in the secondary market which, from view of investors, was not a good characteristic of an efficient capital market such as market manipulation and insider trading.

The NZSC moved to engage in broader securities law reform issues from the date of its establishment in 1979, however, having powers only to review and comment meant that enforcement of regulation was difficult (Kavanagh, 2005). As Kavanagh (2005), a member of the NZSC, points out:

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[21] See Securities Amendment Act 1988 ss.7-14

[22] Primary securities market is the market in which securities are offered to the public for the first time. A security is defined in s 2(1) of the Act and includes shares (a form of equity security), debentures (a form of debt security), and interests in bloodstock or forestry partnerships (a form of participatory security). With the exception of certain securities referred to in ss 6 and 6A of the Securities Act 1978, the Act does not control transactions involving securities once they have issued to the public (Fitzsimons, 1994).

> *"We regularly come across dubious conduct for which there is no clear remedy, or those who are directly affected do not have the means or the motivation to take action. In these cases not only is harm done to individual issuers or investors who are directly affected, but there is a wider damage to the integrity and efficiency of the markets as a whole."*

There was also evidence of errant behaviour by directors in the boardroom. For example, the directors who destroyed the value of Air New Zealand in 2001 were still part of the board of directors after that time. There was also evidence of entrenched executives being part of boards (for example in Brierley Investment Limited and Fletcher Challenge) (Healy, 2003), and the feeling among investors was that companies had been hijacked by executives and directors (Williams, 1999). According to Godfrey and Horsely (2003), these behaviours created a perception - locally and internationally – that the New Zealand capital market had not sufficiently protected investors with appropriate reporting, compliance and governance standards.

After the October 1987 stockmarket crash, it became apparent that the corporate governance practised in New Zealand was not of the same standard as our major trading partners. In terms of guidelines or rules for companies on corporate governance, there were none. Standards of care expected by directors were only expressed at the common law level and were essentially that directors would be liable only for acts of gross negligence (Hossain et al., 2001, p. 123). The definition of what constituted an act of gross negligence was essentially left to the courts to decide. Whilst the UK, Australia and the US were observing such tenets as the inclusion of independent directors (Hossain et al., 2001), that was not the case in New Zealand. This, to some extent, started the corporate governance debate in New Zealand. In comparison, the corporate governance debate in larger economies engaged academics and regulatory authorities much earlier; the United States since the late seventies and the United Kingdom since 1992, with the issue of the Cadbury Report[23].

The economics literature supports the view that capital markets' success relies on good regulation (Diplock, 2006a). Rigorous and relevant regulation decreases the cost of equity

[23] This was a voluntary response of the British corporate community to the Maxwell affair and other abuses of corporate responsibility.

capital because there are wider shareholder bases, and regulatory-mandated transparency reduces transaction costs, thus providing incentives for further participation and therefore liquidity in the marketplace. New Zealand's restrictive regulatory environment was detrimental to the development of the capital market as it constrained financial products' innovation and discouraged savings. The narrow range of the financial products offered and the lack of protection for the minority investors were the key factors that were seen to have contributed to the slow growth of the capital market in New Zealand (Capital Market Development Taskforce Secretariat, 2009). Healy (2003) notes that the market capitalisation of the NZX was approximately 43% of the gross domestic product (GDP) in 2001 and in 2009, it is 36%. However, Australia in the same period experienced a quadrupled growth rate of 110% of the GDP. In the UK and US equity markets were approximately 190% and 120% of GDP respectively (Healy, 2003, p.213). These figures provide support for the view that New Zealand's lack of capital market regulations has not been conducive to the growth of the market. La Porta, Lopez-de-Silanes and Shleifer (2003) add that an efficient financial system will have the legal systems to support creditor rights (in particular, the rights of the minority shareholders), sound governance and effective legal enforcement mechanisms. Regulations protecting investors' interests will promote good governance and enhance investors' confidence (La Porta et al., 1997, 1998; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1999, 2000). A study undertaken by La Porta et al. (2000) show that countries that have regulations promoting investor rights tend to be positively related to financial development and hence innovation and growth.

The deregulation of the economy in 1984 increased the reliance of local companies on foreign capital for investment and growth (Brash, 1995). The perception and the mood in the New Zealand capital market was that foreign investors would invest in New Zealand if we have good governance structures in place (Diplock, 2006b). These factors also played an important role in the development of corporate governance practices in New Zealand.

A combination of the factors stated above initially led New Zealand to adopt light-handed securities regulation by international standards, which was first articulated in the Roche Report, 1991. Direct regulation of markets has been the responsibility of self-regulatory organisations such as the New Zealand Stock Exchange (NZSX) and the New Zealand Futures and Options Exchange (NZFOE). This was seen as appropriate in the context of the small and isolated New Zealand capital market and the burdens that can be imposed by

compliance costs in such a market. In the 21st century, New Zealand's light-handed regulatory approach became unsuitable as developments on the technological front made traditional boundaries borderless and securities markets global (Holland, 2007). To attract investment, and to be accepted in the international financial community, New Zealand needed to have regulation that aligned with similar jurisdictions overseas (Todd, 2007). As Kavanagh (2005) states, New Zealand markets and the New Zealand economy need to be well regarded by the international regulatory and investing community. The high profile corporate collapses in early 2001 raised international awareness of corporate governance practices which prompted practitioners and regulatory authorities in New Zealand to review their governance practices and procedures. The view taken was that given New Zealand's small and isolated capital market, as well as predominately small size of companies, it would be appropriate to adopt governance practices that would impose a low cost of compliance.

The failure of 87 finance companies (majority unlisted) between 2006 and 2008 raised further concerns about investor confidence in the New Zealand capital market and prompted New Zealand to review its securities laws. One of the recent developments includes the requirement for non-bank financial institutions to meet prudential supervisory requirements similar to registered banks, and comply with the disclosure requirements as stipulated by the Financial Advisers Act 2008 (which comes into effect in 2010).

Table 3.1 provides a list of the securities laws that have been enacted since 1978 to improve the integrity of the capital market and to improve the standard of governance practices in New Zealand companies. Guidelines for improving corporate governance practices by the NZX, IOD and NZSC are also included.

Table 3.1:
Rules, Guidelines and Legislation for Corporate Governance in New Zealand

Year	Description	Purpose in relation to corporate governance
1978	*Securities Act 1978*	• Establishes the NZSC and its powers and functions. • Sets out laws related to initial offerings of securities by "issuers", including the requirement for a prospectus, and responsibilities of directors and promoters. • Establishes the requirement for a trust deed in debt securities and collective investment schemes, and the responsibilities of trustees. • Sets out the sanctions available through the courts
1983	*Securities Regulations*	• Sets out rules in relation to registration of

Year	Description	Purpose in relation to corporate governance
	1983	prospectus, and contents of prospectus and investment statements, as well as advertisement for offer of securities. • Minimum requirements for contents of trust deeds and, in the case of "participatory securities", deeds of participation.
1988	*Securities Markets Act 1988*	• In general, the laws governing the fair operation of secondary markets for securities. • Continuous disclosure requirements on issuers about information significant to investors, and about substantial security holders. • Specific provisions and prohibiting insider trading and market manipulation. • Registration of exchanges, including the requirement for listing and conduct rules. • Recognises the general desirability of co-regulation of listed markets by the registered exchanges and the NZSC, and sets out specific rules around the provision of information by registered exchanges to the NZSC (enabling oversight by the NZSC).
1989	*Listing Rules on Corporate Governance* *NZX*	• To ensure appropriate disclosure and to set out the principles of corporate governance and accountability.
1993	*Code of Proper Practice for Directors* NZ Institute of Directors (IOD)	• Outlines the standard of conduct required of the IOD members.
1993	*The Companies Act 1993*	• Establishes the powers of the Registrar of Companies, including the power to prosecute issuers, directors and promoters for breaches of both securities and company law. • Provides investor protection on a range of issues including equal distribution of all shares, providing certain information to shareholders and banning delinquent directors.
1993	*The Financial Reporting Act 1993*	• Sets out requirement for issuers to prepare and publish financial statements in accordance with generally accepted accounting practice (GAAP).
1993	*Takeovers Act 1993*	• Encourages competition for control of companies, while ensuring fair treatment of all shareholders with substantial shareholdings.
1996	*The Investment Advisers (Disclosure)*	• Deals with the full disclosure of information.

Year	Description	Purpose in relation to corporate governance
	Act 1996	
2001	*The Takeovers Code*	• To ensure that all shareholders in a public company take part in any offer to takeover that company.
2002	*Securities Markets Amendment Act 2006*	• Provided laws for insider trading, market manipulation and new disclosure rules for investment advisers.
2004	*Promulgation of Corporate Governance recommendations* NZSC	• Aimed at tightening the existing corporate governance rules with a view to boost investor confidence and increase shareholder and stakeholder value.
2008	*The Finance Advisers Act 2008 and The Financial Service Providers (Registration and Dispute Resolution) Act 2008*	• Establishes the power of the NZSC to register and supervise financial advisers, including the requirement for a Commissioner for Financial Advisers. • Deals with the scope and depth of information given including fees and remuneration.

Source: Prada and Walter (2009);NZX (2008); Ministry of Economic Development (2009)

The next section provides an overview of the various securities regulations and corporate governance guidelines stated in Table 3.1 above and their importance in terms of developing a structure for corporate governance practices in New Zealand. The sections that follow will provide a brief discussion of the role various regulatory or investor protection bodies (namely the NZSC - securities regulator, NZX, New Zealand Institute of Chartered Accountants of New Zealand (NZICA), Institute of Directors (IOD), The New Zealand Treasury, The Reserve Bank of New Zealand (RBNZ), and New Zealand Shareholders Association) play in terms of developing a framework for corporate governance laws in New Zealand. A brief discussion of the roles that the Ministry of Economic Development, Registrar of Companies, Trustees Corporations, Commerce Commission, Serious Fraud Office, Ministry of Consumer Affairs, and Banking Ombudsman play in regard to monitoring and enforcing various securities laws in New Zealand and their relationship to the NZSC will also be provided.

3.1 SECURITIES MARKETS ACT 1988

Public outcry in regard to insider trading and poor standards of governance practices in listed companies after the stockmarket crash led to the enactment of the Securities Markets Act 1988. The aim of the Act was to allow:

- investors who have suffered loss at the hands of an insider to seek compensation;

- the right of a company to recover from an insider an amount of money where he or she traded on confidential information;
- the disqualification of an insider trader from holding office in a company, and
- the right of the court to revoke a shareholder's licence where a sharebroker traded as an insider (NZSC1988).

Following the enactment of the Securities Markets Act 1988, the NZX in 1989 published the Listing Rules on Corporate Governance practices for all publicly listed companies. This was an initial attempt to establish appropriate disclosure and a standard of principles for corporate governance practices and accountability for all listed companies in the NZX.

Although the NZX listing rules introduced in 1989 did set some ground rules for corporate governance practices, the lack of rules or guidelines that specified directors' duties meant that any breaches were difficult to prosecute. The standards of care expected by directors were only expressed at the common law level provisioned under the Companies Act 1955. In addition, the securities market statutory regulator, the NZSC, was only given a limited enforcement role - primarily through "review and comment" powers (Kavanagh, 2005). As a result, many cases of dubious practices in the securities market went unpunished as the companies and shareholders did not have the means or motivation to take action and, most importantly, there existed no clear laws against such practices. For example, although insider trading[24] was regarded as an undesirable practice in the capital markets, there were no laws that restricted such practices; such actions could not be prosecuted in a criminal environment. An example of such an occurrence is provided by Kirin Breweries, which, in 1998, used inside information to take control of Lion Nathan by overtaking Douglas Myers and his fellow directors without having to make a full bid (Godfrey & Horsely, 2003, p. 27). There were also cases of market manipulation (Mr. Hyslop's purchase of FCL shares, 1999), insider trading (McCollam Printers Limited, 1998) and investment advisers allowing illegal offers (Gideon Investments Limited and Morison Guildford & Associates Limited) (Kavanagh, 2005). These practices were harmful to the individual issuers or investors directly affected,

[24] Insider trading is recognised as a behaviour which is damaging not just to individual companies and stakeholders, but also to the efficiency and integrity of the securities market as well (Kavanagh, 2005).

and also inflicted systemic damage on the integrity and efficiency of the New Zealand capital market as a whole.

It became apparent that New Zealand's light-handed approaches to securities market regulations were no longer appropriate to maintain the integrity and efficiency of the market. Adding to these challenges were developments on the technological front that made traditional boundaries borderless and securities markets more global. This provided potential for globalised capital markets to fuel economic growth and prosperity in countries that had regulations to promote integrity and stability of the market. As Goran Persson, Sweden's Prime Minister and the then chair of OECD Ministers' Forum stated:

> *"Globalisation offers opportunity for all mankind. Our task is to seize on the potential of globalisation while combating its costs and disadvantages" (c. i. Diplock, 2005).*

To capture the opportunities in globalised capital markets, New Zealand needed regulation that promoted fairness, efficiency, transparency, and investor confidence.

In order to boost investor confidence and align New Zealand's commercial regulatory framework with international jurisdictions, New Zealand looked to its trading partners. The view taken was that regulation already in place in other jurisdictions could be modified to fit New Zealand's economic model, and could also provide an opportunity to eliminate differences that may create barriers in trade and investment (Diplock, 2005). The convergence of New Zealand's regulations with international best practice in financial reporting, corporate governance and market regulation would also enhance the reputation of New Zealand's capital markets (NZSC2002). In this regard, New Zealand in the past had tended to adopt UK legislation, but has recently adopted a more North American approach (Farrar, 2002). For example, New Zealand's Commerce Act 1986[25] and Fair Trading Act

[25] The aim of the Commerce Act is to promote competition in markets within New Zealand. It prohibits conduct that restricts competition (restrictive trade practices) and the purchase of a business's shares or assets if that purchase leads to a substantial lessening of competition in the market.

1986[26] were primarily sourced from the Australian Trade Practices Act, which in turn has been developed from US models in American antitrust laws (Greville, 2002). Greville (2002) also asserted that the Companies Act 1993 and the Consumer Guarantees Act 1994[27] were based on a Canadian model.

The Companies Act was part of a larger law reform package passed in 1993. A number of other amendments were also codified into law with the Companies Act 1993, and include the Receiverships Act, the Companies Re-Registration Act, the Financial Reporting Act and the Takeover Act. The Companies Act 1993 was an attempt to remedy the frustrations faced by the Law Commission in implementing the Companies Act 1955 which did not explicitly codify the duties of directors and were inaccessible, unclear and extremely difficult to enforce.

3.2 COMPANIES ACT 1993

The Companies Act 1993 provides investor protection on a range of issues including equal distribution of all shares, disclosure of information to shareholders and banning delinquent directors. The Companies Act 1993 provided the fundamental corporate governance framework for companies, codifying and expanding directors' duties and shareholders' rights previously exiting under common law. Most importantly, the 1993 Act expanded on the existing legislation of the time regarding the boards' duties by explicitly stating that directors' obligations are: to act in good faith (Section 131); to exercise powers for a proper purpose (Section 134); never cause or allow the business of the company to be carried out in such a way that creates a risk of serious loss to the company's creditors (Sections 135 and 136); and to exercise a duty of care – exercise care, diligence, and skill that a reasonable person would exercise in the same circumstances (Section 137). The Companies Act 1993

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[26] The Fair Trading Act was developed with the Commerce Act to encourage competition and to protect consumers from misleading and deceptive conduct and unfair trading practices. The Act applies to all aspects of the promotion and sale of goods and services - from advertising and pricing to sales techniques and finance agreements.

[27] The Consumer Guarantees Act (CGA) sets out guarantees that goods and services must meet when sold by someone in trade - that is, a retailer or service person. From 8 July 2003, the Consumer Guarantees Act also applies to electricity, gas, water, and computer software. From this date, the Consumer Guarantees Act also applies to services relating to the supply of electricity, telecommunications, gas, water, and the removal of wastewater.

also recognised the importance of the role of an independent auditor. It was specifically stated that an auditor of a company must ensure that their judgement is not impaired by reason of any relationship with or interest in the company or any of its subsidiaries. The significant development in the 1993 Act was that shareholders are able to bring direct legal action against directors for breaches of compliance.

The Act emphasised that the management of the business and affairs of the company is the responsibility of the company's board of directors, whereas, the control of a company rests with the shareholders. Central to that control is the right, conferred on the holder of a share, to a vote on all matters put to the annual meeting of the company. A special shareholders' meeting may also be called by shareholders holding at least five percent of the voting rights of a company. At annual and special meetings, shareholders are entitled to raise proposals for discussion or resolution. The Act reserves certain fundamental governance powers to the shareholders, including: appointing the directors of the company; adopting or altering the constitution of the company; appointing and removing the auditor; approving any transaction involving the acquisition or disposition of assets, the value of which is more than half the value of the company's total assets (defined as a major transaction); approving an amalgamation of the company; and putting the company into liquidation (New Zealand Parliament, 1993).

Under the Act, directors are allowed to delegate certain powers and functions, however, they are not permitted to delegate the management function itself. The Act lists certain board powers that cannot be delegated, including the power to: issue shares; make distributions and provide shareholders' discounts; offer to acquire the company's shares; make stock exchange acquisitions of the company's shares; redeem shares; provide financial assistance; and transfer shares (New Zealand Parliament, 1993).

To improve the standards of financial reporting and auditing functions in listed companies, the Financial Reporting Act (hereafter FRA) was also enacted in 1993. Under the FRA all companies and issuers (entities which issue securities to the public) are required to comply with generally accepted accounting practices (GAAP) and give a true and fair view of their financial affairs. The FRA requires companies to produce a prescribed set of financial statements within five months of their annual balance date. For listed companies these must also be audited, with directors subject to substantial penalties for non compliance. NZX Listing Rules impose shorter reporting deadlines: companies must announce annual and half

year financial results within 60 days of the end of the relevant reporting period and present annual and half year reports within three months of relevant balance dates. The FRA also established the Accounting Standards Review Board (ASRB) whose primary function is to review and approve financial reporting standards, which are standards that prescribe the content of financial statements. In particular, FRA gave a legal force to the financial reporting standards and also made it a statutory obligation for companies to provide timely financial statements. To align with international organisations, the ASRB announced on 19 December 2002 that New Zealand entities would adopt International Financial Reporting Standards (IFRS) for periods commencing 1 January 2007, with the option to adopt for the period commencing 1 January 2005. The purpose of IFRS is to make financial reporting consistent in every country. The International Organisation of Securities Commissions (IOSCO), of which New Zealand is a member, assists with the implementation of IFRS by creating a database through which members can share information and refer to any varying interpretations relating to IFRS.

Also crucial to the Companies Act 1993 is the "solvency test" which simply requires that before any distribution is made to shareholders enough assets are to be retained to allow the company to meet its obligation (Section 52(2)) (Jones, 1993). Failure to comply with the solvency test is regarded as a criminal offence which may lead to penalties of up to NZ$5000 (Section 373(1). The Act also emphasised that from 1st July 1997 there must be full disclosure of the directors' activities, business interests, names and remuneration of each director, as well as, their share dealings in the annual reports (Section 211(1)).

To assist with compliance with the Companies Act 1993 and the related laws, the NZX in 1993 provided listing rules to publicly-listed companies, particularly in relation to the conduct of directors. The NZX listing rules required listed companies to provide a statement of any corporate governance policies, practices and processes adopted or followed to be disclosed in their annual reports. The IOD in New Zealand issued a Code of Proper Practice for Directors in 1993 which were mainly best practice guidelines for corporate governance structures. The Code of Proper Practice also extended the requirements for directors to include moral and ethical responsibilities.

The Companies Act 1993 and related laws were based on overseas models where tenets of good corporate governance practices such as the separation of the CEO and chair positions, independent directors and board committees were observed. However, there was no guidance

provided under the Act to have the same practices implemented in New Zealand. The NZX listing rules (NZX Code) and the IOD's Code of Proper Practice provided guidelines based on their own view of what reflected corporate governance best practice. A summary of the elements emphasised by each code is given in Table 3.2 below.

The IOD's code tended to focus on best practice as observed in Australia, Canada, the US and the UK. On the other hand, the NZX Code offered flexibility to companies, with a comply or explain rule. In this regard, the NZX Code required all publicly listed companies to disclose how their corporate governance policies, practices and processes deviated from the NZX Code. Due to a lack of regulatory guidance in terms of what constituted good corporate governance practices, both the NZSE and the IOD developed somewhat differing views.

Table 3.2:
A Summary of Corporate Governance Guidelines Provided by Both the IOD and the NZX to its Members in 1993

	IOD Code of Proper Practice	**NZX Code**
Separation of Chairman and CEO positions	Yes	No
Definition of a Non-Executive or Independent Director	A person who is not recently employed by the company, does not represent a major shareholder or creditor of the company, is independent of management and is free from any business or other relationship that could materially interfere with the exercise of their independent judgement.	A person who is not an executive of the company. He or she must also have no material relationship with or interest (direct or indirect) in the company which could reasonably interfere with that person's ability to freely act in the best interests of the company and its shareholders. A six month cooling off period is included to recognise the period of time that must elapse before a person can be considered independent of their previous interest.
Minimum number of independent directors	Majority of the members of the board should be independent.	Two or one-third of the total number of directors, whichever is the greater. Those boards with eight members should have at least three independent directors on the board. Those having fewer than eight members or more than nine members may round down to the nearest one third.
Audit Committees	Yes, should consist of three directors all of whom, if possible, should be non-	Yes, majority of the members should be independent directors and at least one member should have an accounting or

	IOD Code of Proper Practice	NZX Code
	executive.	financial background.
Remuneration Committee	Yes, should consist of three directors all of whom, if possible, should be non-executive.	Depending on practicality and size of the company, majority of the members should be independent directors.
Nomination Committee	Yes, should comprise of the Chairman, deputy chairman and the CEO	Depending on practicality and size of the company, majority of the members should be independent directors.

Source: Institute of Directors in New Zealand (Inc) (2009); NZX (2008)

Company takeover issues were another problem area for investors in the securities market. The Takeovers Act 1993 was specifically designed to ensure that there is equal treatment of target company shareholders and to enhance informed decision-making by all parties. The Takeovers Code is administered by the Takeovers Panel, also established under the Takeovers Act 1993. The Code requires any share acquisitions in a company above a shareholding threshold of 20% to proceed only by way of a full or partial offer made on equal terms to all shareholders (unless a majority of the latter approve other terms). The Panel has extensive powers to challenge non compliance. The Panel may grant exemptions from the Code in particular situations. The Takeovers Act sets a broad objective of encouraging competition for control of companies, while ensuring fair treatment of all shareholders. The Code establishes procedural rules for takeovers, including a requirement for target company directors to obtain independent appraisal of a takeover offer and make a recommendation to their shareholders. NZX Listing Rules also set out takeover provisions for issuers that are non-code companies.

The overall intention of the Companies Act 1993 and the related laws was to make directors legally accountable for their fiduciary responsibilities. By bearing greater responsibility for managerial malfeasance and poor financial decisions, board members would have a greater incentive to prevent the mismanagement of corporate resources and managerial departure from the value maximising goal. Hartford (1994) added that the 1993 Act brought the responsibility of the directors in line with other professionals like accountants, lawyers and doctors who also operate under a threat of personal liability if they act recklessly or negligently. Some commentators view a threat of litigation to have a positive influence on board behaviour with respect to influencing company performance. There is also a possibility that a threat of litigation may force some directors either to leave or acquire skills in order to

provide services under the new laws. This may make the market for directors more efficient in New Zealand and also, directors may become more concerned about reputation signalling (Bhagat & Black, 1998; Fama, 1980; Fama & Jensen, 1983a).

3.3 CORPORATE GOVERNANCE PRINCIPLES AND GUIDELINES

Many countries including Australia, Canada, Hong Kong, the UK and the US responded to the high profile corporate debacles by enacting new laws and regulations aimed at improving corporate disclosure and governance practices. The United States took a distinctively rule-based approach regarding certain aspects of corporate governance with the adoption of the Sarbanes-Oxley Act of 2002 (Diplock, 2003) . Although New Zealand did not suffer scandals to the extent reported in larger economies, such as the US, UK and Australia, concern with poor performance (Healy, 2003) and sub-standard governance practices, were highlighted by local and international market participants (Godfrey & Horsely, 2003). There were cases of corporate collapse, namely, Equiticorp, Chase and Fortex, resulting from poor financial reporting and inadequate audit functions. There were also cases where the poor quality of corporate governance practices has been the reason for the erosion of wealth experienced by shareholders in companies, such as the Bank of New Zealand (BNZ), Air New Zealand and Brierley Investments Limited (BIL) (Healy, 2003). Poor governance practices were also exhibited in public sector entities, leading to the financial bailout of significant educational institutions such as Wairarapa Polytechnic, Wanganui Polytechnic (McKinlay, 2003), Western Institute of Technology in Taranaki (WITT) and Te Wananga o Aotearoa. There were also reported cases of poor corporate governance practices experienced in voluntary sector organisations such as the Northland Health, social services provider Te Hau Ora O Te Taitokerau and the Pipi Foundation (McKinlay, 2003). Lastly but not least, the failure of 87 finance companies between 2006 and 2008 raised further concerns for investor confidence in the New Zealand capital market. These failures and sub-standard corporate governance practices signal that urgent attention was required from policy makers should New Zealand wished to maintain integrity in the capital market.

Debate in New Zealand focused primarily on whether to adopt a flexible principle-based governance approach[28] compared to a "one size fits all" rule-based approach similar to the US. The challenge for the regulators in New Zealand was to balance investors' needs for transparency and certainty with corporate needs for minimized compliance costs (Gilbertson & Brown, 2002). The consensus was that due to the relatively small nature of the economy, many measures adopted in the US would be unsuitable in New Zealand. As a result, New Zealand adopted a more nuanced principle-based approach similar to the UK, Canada and Australia.

To harmonise corporate governance practices with trading partners and boost investor confidence the NZSC promulgated corporate governance principles for New Zealand companies. In 2004, the NZSC released a report highlighting the nine high-level statements or principles, each supported by suggestions or guidelines, as to how the Principle should be implemented. The Principles articulate: the need for ethical behaviour; the need for balance in the composition of boards; the role of effective board committees; the critical importance of integrity in reporting; the basics of good remuneration policy; the need for risk management processes; the imperative of auditor independence; the importance of constructive shareholder relations; and the potential significance of other stakeholders in a governance context (NZSC2004).

It was agreed that the corporate governance principles and guidelines would not be mandatory; however, all economic entities are required to observe the Principles to the fullest extent and only depart where they are subject to competing statutory or public policy requirements. Under the NZX Listing Rule 10.5.3(h) companies reporting on corporate governance practices are required to cover all the Principles recommended by the NZSC. Any departures must be explained to the shareholders (NZSC2004). As a result, many companies have changed their charters and altered their board structures.

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[28] Also referred as 'Codes of Best Practice' in some countries. These are 'soft law' (see Mörth, 2004) or 'soft regulation' (see Sahlin-Andersson, 2004) that are non-binding and are issued by a collective body relating to the internal governance of corporations (Weil & Manges, 2004). The first serious 'Code of Best Practice' was the Cadbury Report 1992 issued by a committee that was set up by the London Stock Exchange and the Financial Reporting Council. The precursors of the Cadbury Report were the codes issued in the USA in 1978 and Hong Kong in 1989. However, these codes were relatively general and did not receive much attention (Seidl, 2006)

According to the NZSC, the corporate governance principles and guidelines apply to all entities that have an economic impact in New Zealand or are accountable, in various ways to the public. These include issuers of securities, both listed and unlisted, state-owned enterprises, community trusts and public sector corporate entities. The corporate governance practices and guidelines proposed by the NZSC in the areas of separation of chair and CEO positions, independent directors, board committees, board remuneration and appointment of auditors are summarised in Table 3.3 below.

Table 3.3:
NZSC Principles and Guidelines for Corporate Governance Best Practices for New Zealand Business Entities, 2004

Separation of Chairman and CEO positions	Yes
Definition of a Non-Executive Independent Director	A non-executive director being formally classified as independent only where he or she does not represent a substantial shareholder and where the board is satisfied that he or she has no other or indirect interest or relationship that could reasonably influence their judgement and decision making as a director
Minimum number of independent directors	Majority of the members of the board should be non-executive and a minimum of one third should be independent directors.
Audit Committees	Yes, should consist of all non-executive directors, a majority of whom should be independent. At least one director should be a chartered accountant or have other forms of financial expertise. Chairperson of the committee should be an independent director and who is not the chairperson of the board.
Remuneration Committee	Depending on practicality and size of the company.
Nomination Committee	Depending on practicality and size of the company.

Source: New Zealand Securities Commission (2004)

The corporate governance guidelines provided by the NZSC in 2004 were not materially different from what was proposed by the NZSX code in 1993. The view taken by many was that corporate governance approaches needed to be flexible and that they also reflect on New Zealand's model of economic management. This model is simply based on the disciplines of the market, and the ability of interested parties to hold directors and managers accountable. Another reason for adopting a principle-based (comply or explain) approach to corporate governance practices in New Zealand was that a similar structure was already in place in the banking sector where the Reserve Bank laid out the corporate governance and reporting

standards for all banks, and thereafter looked largely to commercial imperatives and marketplace accountabilities to deliver stability in the banking and payments system. To quote Reserve Bank Governor Allan Bollard:

> *"Our supervisory framework is deliberately light-handed in nature, in the sense that we minimise our intrusion into the management of banks' risks and the structure of their operations. Instead, we try to foster robust self discipline in banks through the corporate governance and disclosure frameworks we have established." (c.i. Quinn, 2005, p.3)*

The NZSC saw parallels between the way the Reserve Bank provided supervision and monitoring role to registered banks and its role as a statutory regulator. In NZSC's view capital market stability and performance could be achieved by having companies with sound corporate governance structures and processes putting a strong emphasis on reporting and enabling owners to exercise ultimate control (Quinn, 2005). The shortcomings in the Securities Market Amendment Act 1988 and the Investment Adviser (Disclosure) Act 1996 were that they placed heavy reliance on private litigation to enforce the law and deter bad practices. The experiences from New Zealand and overseas showed that private litigation was not a sufficient deterrent to those who were prepared to engage in unscrupulous practices (Kavanagh, 2005). Therefore, a public action against conduct that damages the integrity of, or confidence in, the markets was needed. The passing of the Securities Markets Amendment Act 2006 was aimed at changing New Zealand's regulatory framework and bringing it closer to alignment with international expectations.

3.4 SECURITIES MARKETS AMENDMENT ACT 2006

The passing of the Crown Entities Act 2004 allowed NZX to be demutualised and become a publicly listed company. This development brings NZX in line with other stock exchanges that have been demutualised over the years[29]. The NZX adopted the Corporate Governance

[29]The Stockholm Stock Exchange was demutualised in 1993, the Helsinki Stock Exchange in 1995, the National Stock Exchange of India was created as a demutualised exchange in 1995, the Copenhagen Exchange in 1996, the Amsterdam Exchange in 1997, the Australian Exchange in 1998, the Toronto, Hong Kong, and London stock exchanges in 2000, the Bombay Stock Exchange in 2005, the New York Stock Exchange in 2007 (Aggarwal, Ferrell & Katz, 2007).

Practice Code in 2003. In terms of monitoring the behaviour of the market participants, the Securities Markets Amendment Act provided a co-regulatory arrangement between the NZX as the front-line regulator enforcing the conduct rules, and the NZSC as a statutory regulator concerned with breaches of the law. The NZSC also has the responsibility for monitoring the performance of NZX as the front-line regulator. The Securities Markets Amendment Act 2006 introduced reforms in five key areas: market manipulation; insider trading; investment adviser disclosure; substantial security disclosure; and enforcement provisions of the Securities Act.

A lack of dedicated laws against market manipulation was cited as one of the most obvious gaps found in New Zealand's securities market regulations. The Securities Markets Amendment Act 2006 included specific prohibitions against making false or misleading statements regarding listed securities, and a general prohibition against misleading or deceptive conduct in relation to securities. A more specific prohibition against disseminating false or misleading information to manipulate trading in listed securities, and causing a misleading appearance of trading in listed securities, is backed with civil and criminal liability provisions. The maximum civil penalty that can be awarded in any case is the greater of:

- The consideration for the transactions; or
- 3 times the gain made or loss avoided by the offender; or
- $1 million. (Kavanagh, 2005)

In addition, it is a formal criminal offence to knowingly engage in market manipulation, with maximum penalties of five years imprisonment and a fine of up to $300,000 for an individual, or a fine of up to $1 million for a body corporate.

The Securities Markets Amendment Act 2006 recognised that insider trading is harmful to the integrity and efficiency of the securities market as a whole and, therefore, allowed the NZSC to bring a public issuer's cause of action against an insider. It also removed the "safe-harbour" provision that was provided for directors' share trading. Directors' share trading is now required to take place at times when the market is clearly informed about the company, and when directors in question are not in possession of inside information.

Under the Securities Markets Amendment Act 2006, investment advisers are required to give clients more information upfront before giving advice or receiving any money. It also

requires disclosing all fees and other remuneration relevant to that advice or service. The NZSC is given powers to ban advertisements by investment advisers where they are deemed to be deceptive, confusing, or misleading. It also allows NZSC to order advisers to comply with their investment adviser disclosure obligations, and to issue corrective statements where they have breached the law. Serious breaches will lead to civil penalties up to a maximum of $1 million. The Securities Markets Amendment Act 2006 also gives power to the Court to freeze an investment broker's accounts or freeze a transfer of broker's funds into trust accounts. The Securities Markets Amendment Act 2006 also allows for the NZSC to apply for banning orders where an adviser has breached disclosure obligations or been convicted of a crime of dishonesty. The disclosure obligation is extended to anyone who gives investment advice as part of their business, that is, lawyers, accountants, financial planners and share brokers.

The market disclosure of substantial holdings in listed issuers is a vital element of the securities market legislation because it enhances integrity of the market by providing transparency about who has control over significant holdings. The Securities Markets Amendment Act 2006 requires all listed companies to disclose all new material information that could affect the price of their securities. The new disclosure rule also applies to the substantial security holders who hold five per cent or more of a company's shares.

The changes introduced by the Securities Markets Amendment Act 2006 are intended to improve New Zealand's capital market regulations and to bring New Zealand regulations in line with other jurisdictions and the International Organisation of Securities Commissions (IOSCO) Principles.

3.5 CORPORATE GOVERNANCE PRACTICES IN PUBLIC SECTOR CORPORATE ENTITIES

Galal, Jones, Tandon, and Vogelsang (1994), Dewenter and Malatesta (2001) and Dyck and Wruck (1999), among others, suggest that while public ownership may be inferior to private ownership, it is possible to improve performance in the public sector through properly designed organisational structures and contracts. The public sector reforms in New Zealand that began in the mid-1980s were based on this assumption. The objective of the New Zealand reforms was to improve the performance and efficiency of Government owned entities by improving their organisational design (e.g., see Spicer, Emanuel & Powell1996, for a review of the reforms). The public sector reform introduced decentralised decision

making and a culture of accountability. The change mostly was driven by the economic imperatives of the time; a shift in perspective about the role of Government in the economy; and a desire to make the State sector more responsive to ministerial demands (Schick, 1996; Scott, 2001). The strategies implemented included: State-owned enterprises (SOEs); privatisation; corporatisation; separation of functions between different agencies; the use of formal "contracts" to govern relationships between different stakeholders; and delegation of managerial responsibilities to those best placed to respond to individual issues (Cook, 2004). These shifts were initiated by the implementation of the following Acts: SOE Act 1996; State Sector Act 1988; Public Finance Act 1989; Crown Research Institutes Act 1992; and Crown Entities Act 2004. Some aspects of the reform have also been made possible by the Official Information Act 1982 and were extended in some areas through changes introduced under later legislation, particularly the Employment Contracts Act 1991 and the Fiscal Responsibility Act 1994 (Petrie & Webber, 2006). These legislative changes provided for the development and implementation of a system based on performance management (clear specification of objectives, freedom to manage and accountability), supported by institutional design issues focused on the separation of activities (Cook, 2004). More specifically, the New Public Management (NPM) model provided an emphasis on setting clear, non-conflicting goals by; giving authority to managers and boards to manage their businesses; and simplifying accountability arrangements (Scott, 2001, cited in Cook, 2004).

All these changes were predominantly based on economics theories (that is, public choice theory, agency theory and transaction cost economics) that hold a central view that 'individuals are maximisers of self-interest and if left unchecked will maximise their own personal goal." The problem for governance in public sector corporate entities arises from two sources: first, since citizens have ownership rights but no control rights, managers of public sector companies are left free to pursue goals that differ from the goals of the owner-citizen and second, due to political reasons owners (ministers) may pursue goals that maximise voter support rather than operating the company efficiently. Therefore, active political ownership may undermine profitability and cost efficiency in public sector companies. In order to mitigate these risks, corporate governance practices in the public sector need to focus on leadership, managing the environment, risk management, monitoring and legislation (Ryan and Ng, 2000, cited in Bhatta, 2003). These attributes have the potential

to emphasise good corporate governance practices and ensure bureaucrats are held accountable for their actions.

Reforms in other areas were also necessary to ensure managers were accountable for their actions. The State Sector Act 1988 brought state industrial relations and employment largely into line with the private sector. The Employment Contracts Act 1991, which applied to both the state and private sectors, allowed the introduction of significant changes in industrial relations. On top of these reforms sat the Public Finance Act 1989 which introduced new and more transparent financial reporting and management systems, as well as improved accountability mechanisms, to allow government and parliamentary monitoring. The responsibility for achieving the contracted outputs rests with the chief executive of the relevant department or agency who is accountable to the relevant minister. The State Sector Act and later the Employment Contracts Act provided the tools necessary for managing the employment dimension of the 'new' state sector. The Crown Entities Act 2004 provided a legislative clarification on the roles of the Crown companies and was one of the key initiatives designed to support the Government's goal of improving trust in government organisations.

The sections that follow provide a brief overview of the following legislation: SOE Act 1986, Crown Research Institutes Act 1992, and Crown Entities Act 2004. These Acts provide guidelines for the governance practices to be established in SOEs and Crown Research Institutes (CRIs). SOEs and CRIs are also required to comply with the Companies Act 1993 in the same way as private publicly listed companies.

3.5.1 SOE ACT 1986

The SOE Act 1986 (which became effective from September 1986) provided the basis for converting old trading departments and corporations into enterprises along private sector guidelines, so that they too are subjected to the same antitrust and company laws. A large number of departmental trading activities were restructured and established as limited liability companies owned by the Crown. A group of 14 state-owned enterprises (SOEs) was established in 1987. Changes over the years have slightly altered the number of SOEs; currently there are 17 SOEs in operation. A list of SOEs established between 1986 to 2007 is provided in Appendix A.

All SOEs are required to operate on the principles and procedures contained in the SOE Act 1986. One of the most important principles of the SOE Act is that the Board of Directors should be drawn from the private sector and the board should have complete autonomy on operational matters, such as, appointing chief executive officers and meeting performance targets (Hay, 2001, p.143). Similar to publicly listed companies in the private sector, the SOE boards are also required to report to Cabinet (owner). However, the powers of the Cabinet (owner) are limited to giving directions regarding the annual statement of intent produced by the directors, requiring dividends to be paid and appointing and removing directors (Hay, 2001, p.137). All SOEs are monitored by the State-Owned Enterprises Steering Committee and the Crown Company Monitoring Advisory Unit (CCMAU) (formerly State-owned Enterprises Unit). All SOEs are also required to prepare annual reports under the Companies Act 1993 similar to publicly listed companies in the private sector. Although the SOE Act stipulates a clear division of responsibility between the owner (minister) and the board, in practice the division is not clear and the evidence of political interference raises concerns about boards' independence. In public corporate entities, the appointment of the chair and the deputy chair is done by the shareholding minister, unlike publicly listed companies where appointment is done by the board, which raises concerns about their political affiliation to the minister. A survey of directors on boards of state-owned entities indicates that the process for selection employed by CCMAU was 'too drawn out' and did not sufficiently involve boards and their chairpersons (Norman, 2006). The feeling among board members is that a selection process based on political or diversity reasons is not focused on balancing the skills required in the boardroom for effective governance. For these reasons there is a relatively high turnover among directors, and limited engagement by these directors, in terms of assessing the long term strategy of the entities. Also, the relative youth of most of the public sector corporate entities means that there has hitherto been no stock of retired executives or past experienced directors to lead boards of these enterprises. Ensuring that boards have the correct mix of experience, skills and competencies remains central to the performance of the entities upon which the Government could draw to strengthen the technical knowledge of these boards.

3.5.2 CRI ACT 1992

A number of Crown companies were established under the Crown Research Institute Act 1992. Prior to this, Government science activities were conducted by government

departments. Most Crown companies have a founding Act that establishes their principal purpose and objectives, and principles of operation. Some principles of operation apply to all Crown companies, while others are unique to individual companies or types of companies. All Crown companies are required to report under the Crown Entities Act 2004 and Companies Act 1993. A list of Crown Research Institutes established between 1992 and 2007 is provided in Appendix B.

3.5.3 CROWN ENTITIES ACT 2004

Crown entity companies fall into three categories, that is: (i) Crown Research Institutes (CRIs); (ii) other Crown entity companies; and (iii) autonomous Crown entities. The Crown Entities Act 2004 provides a legislative clarification on the roles of the Crown companies and one of the key initiatives designed to support the Government's goal of improving trust in government organisations. It imposes a number of additional requirements on Crown entity companies as summarised in Table 3.4 below.

Table 3.4:
Additional Requirements Imposed by the Crown Entities Act 2004 of Crown Entity Companies

Appointment and removal of board members	• The Act sets out the criteria for the appointment of board members and lists automatic disqualification criteria, for example for undischarged bankrupts. • Responsible ministers can remove appointed members of Crown agent boards at their discretion. However, the minister must have a reason to justify such a removal from more autonomous or independent entities.
Duties of board members	• The collective and individual duties of board members of Crown entities are clearly set out in the Act. • Board members may be removed from office if the board fails to comply with its duties. An entity may also bring an action against a board member for breach of an individual duty.
Conflicts of interest	• The definition of "interested" in the Act is more detailed and extensive than in many Crown entities' enabling statutes and is not limited to pecuniary interests. This means that, for many Crown entities, what constitutes a conflict of interest under the Act will be wider than what formerly constituted a conflict of interest under their own Acts. • However, the Act also provides that the chairperson of an entity may permit an interested member to act if the chairperson considers that it is in the public interest to do

	so. Previously, for many Crown entities, this power was reserved for the responsible minister.
Whole of government directions	• The Act makes provision for the Minister of State Services and the Minister of Finance jointly to direct Crown entities to comply with specified requirements in order to both support a whole of government approach and improve public services. This is a new power of direction for most Crown entities.
Protections from liability	• Before the Act, the enabling statutes of Crown entities contained a number of different provisions for protection from liability, and some made no provision for the issue. The Act imposes a standard regime for immunity, indemnities and insurance. • Generally, board members and employees will not be personally liable provided that they act in good faith and in performance, or intended performance, of the entity's functions.
Validity of acts	• The Act provides that an act of a statutory entity is invalid if it is outside the authority of the Act or done for a purpose other than performing the entity's functions. • However, this does not prevent a third party dealing with a statutory entity from enforcing such a transaction unless the third party had known, or ought reasonably to have known that the act was invalid. The third party will have to prove that it did not have, or ought reasonably to have had, this knowledge.
Reporting obligations	• The provisions for reporting obligations came into effect from the 2006/07 financial year. • The Act requires that all Crown entities have a Statement of Intent. • Crown entities will also be obliged to disclose more non-financial performance intentions and results than are currently required.
Investment, borrowing, guarantees, indemnities and derivative transactions	• The Act places limits on a Crown entity's ability to acquire securities, borrow money, give guarantees and indemnities, and enter into derivative transactions • These provisions came into force on 1 April 2005.

(New Zealand Parliament, 2004)

3.6 CORPORATE GOVERNANCE MONITORING AGENCIES

The cornerstone of New Zealand's securities regulation since 1978 has been the disclosure of information to investors and the market. Disclosure of information focuses on the products, disclosure by substantial security holders, liability for insider trading, and disclosure by investment advisers and brokers. Regulating the standards of disclosure is the responsibility of various monitoring agencies belonging to each sector. The section below provides an explanation of the various monitoring agencies and their roles. Adoption and compliance with good governance practices by economic entities in New Zealand relies on the monitoring role of various supporting institutions. However, many regulatory bodies are involved in the regulation of New Zealand's securities market which is described as "a mishmash" and "a whole panoply of regulators" (Prada & Walter, 2009). According to Prada and Walter (2009), the involvement of various monitoring agencies relating to securities is more to do with history than due to logic or functionality.

3.6.1 NEW ZEALAND SECURITIES COMMISSION (NZSC)

Table 3.5 below provides a list of functions and powers that the NZSC has under the Securities Act 1978, the Securities Regulations 1983, the Securities Markets Act 1988 and the Financial Advisers Act 2008.

Table 3.5:
Functions and Powers of the NZSC under the Securities Act 1978, the Securities Regulations 1983, the Securities Markets Act 1988 and the Financial Advisers Act 2008

Functions	Powers
• Market surveillance (including financial reporting) • Enforcement (including investigation and prosecution) • Oversight of the New Zealand Stock Exchange (NZX) • Supervision (including powers arising under Financial Advisers Act 2008 (not yet implemented)	• To receive evidence as to securities law and practice, with power to summons people and documents and to carry out inspections. • To ban misleading and illegal offer documents and advertisements. • To enforce securities law and the law relating to insider trading and market manipulation, and disclosure by substantial security holders and investment advisers. • To enforce continuous disclosure law and to make orders requiring disclosure by issuers. • To require an exchange to provide information and assistance to the Commission. • To accept enforceable undertakings.

Functions	Powers
• Exemption and authorisation • International cooperation and recognition and • Public understanding of the law and practice of securities	• To publish reports and comments. • To make orders requiring disclosure by unregistered exchanges. • To exempt persons from compliance with provisions of the Securities Act or Regulations under the Act. • To authorise certain market participants. • To recommend law reform. • To hear appeals against certain decisions of the Registrar of Companies.

(Source: Prada & Walter, 2009)

The NZSC is an independent Crown entity in terms of the Crown Entities Act 2004. Other legislation the NZSC works with includes the Financial Reporting Act 1993, the Investment Advisers (Disclosure) Act 1996, the Securities Act (Contributory Mortgage) Regulations 1988, and the Securities (Fees) Regulations 1998. The NZSC may also consider certain matters arising under the Corporations (Investigation and Management) Act 1989 (in particular, directions to "at risk" corporations and recommendations about statutory management).

The NZSC seeks to foster capital investment in New Zealand by promoting the efficiency, integrity and cost-effective regulation of New Zealand's capital markets (Todd, 2007). This involves, among other things, regulating the standards of disclosure required of issuers. Issuers must provide investment statements to subscribers prior to issuing securities to them. Registered prospectuses must be provided to investors on request. The intent of the law is that the prospectus should contain a true and fair description of the terms of the offer of the securities, the financial position and performance of the issuer of the securities and the material interests of those who make or promote the offer.

Under the Securities Markets Amendment Act 2006 the NZSC now has extensive powers to make recommendations about securities and companies law. Under the Investment Advisers (Disclosure) Act 1996, the NZSC is also empowered to recommend to the Governor-General that regulations be introduced in respect of the disclosure requirements of investment advisers. However, the Investment Advisers (Disclosure) Act 1996 did not extend the powers

of the NZSC to be able to enforce the law. In addition, most disclosures were only mandatory, given only on request by investors.

The Financial Advisers Act 2008 and the Financial Service Providers (Registration and Dispute Resolution) Act 2008 extend the scope and depth of the information to be given to clients, especially about fees and remuneration. Under the Act, full disclosure must be made up-front by investment advisers before investment advice is given to members of the public and by investment brokers before receiving investment money from members of the public. Investment advisers' disclosure must include the following: their experience and qualifications; criminal convictions; the nature and level of fees charged; other interests and relationships (including all remuneration); and the types of securities the adviser advises on (Todd, 2007). Investment brokers' disclosure must include: criminal convictions; and procedures for dealing with investment money and investment property (Todd, 2007).

Recent reforms have given NZSC a co-regulatory role, that is, NZX as the front line regulator enforcing the conduct rules, and the NZSC as the statutory regulator concerned with breaches of the law. The NZSC is also responsible for the monitoring of the NZX's performance as the front-line regulator. By giving the NZSC the statutory regulator role, the continuous disclosure rules also have been given recognition. "Continuous disclosure" requires listed companies to immediately disclose all material information that could affect the price of their securities. There are also new disclosure obligations for directors and officers of listed companies who trade in their own company's securities. The Securities Markets Amendment Act 2006 has also given powers to the NZSC to bring civil proceedings on behalf of a public company and its shareholders. Previously any such action was left to shareholders. The benefits of NZSC bringing civil proceeding is that the individual litigant may only bear the cost of litigation to the extent of any presumed loss to that litigant but where others can show that they have also been affected may also benefit from the Court's decision without incurring any additional costs.

The disclosure of financial information under NZ GAAP (New Zealand Generally Accepted Accounting Practice), NZ IFRS (New Zealand International Financial Reporting Standards) and also the statement regarding corporate governance practices are reviewed by the NZSC on an annual basis. The NZSC publishes reports on its Financial Reporting and Surveillance Programme (FRSP). Reviewing annual reports and providing feedback raises the quality of financial reporting and enhances investors' confidence in the credibility of information

provided by issuers. The focus of the review is mainly on compliance by issuers with Financial Reporting Standards and other elements of Generally Accepted Accounting Practice (NZ GAAP). In addition, listed companies are required to report on all recommended corporate governance principles, and any departures from set guidelines must be explained to the shareholders (NZSC2004).

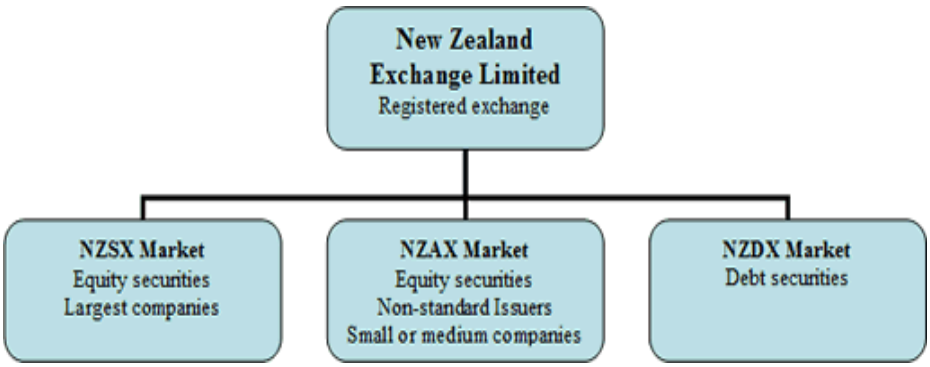
3.6.2 NEW ZEALAND STOCK EXCHANGE (NZX)

The NZX currently operates under the authority of the Sharebrokers Act Amendment 1981 which came into effect in 1983. Two sorts of rules come under the purview of the Act: (i) business rules, which govern the operations and procedures of the Exchange; and (ii) listing rules which impose requirements on companies that wish to list or remain listed – information disclosure, voting rules, takeover rules, directors' duties, and board composition, nature of business and so forth (Bowden, 1996). Under the rules of the NZX, a company must first meet the 'listing' requirements before its shares can be quoted on either the 'main board' or the 'second board'. The latter was established in November 1986, specifically for the trading of securities of smaller companies which do not qualify for listing on the main board. The key differences between listing requirements for the main board and the second board relate to the level of required issued capital, limitations on the concentration of ownership and voting rights for shareholders. In addition to the listing requirements, companies are also required to make any initial public offering of shares through the issue of a prospectus which must be approved both by the NZX and the NZSC. Currently many different types of securities[30] as well as ordinary shares are listed by the NZX. Diagram 3.1 below provides the structure of the NZX and its markets.

The New Zealand stock market has grown steadily since its inception and in May 2009 its total market capitalisation was $48.3 billion, with the NZSX being $47.8 billion of this total. The market capitalisation of the NZDX was valued at $14.5 billion. The issuers listed on the NZDX include government, banks and corporate (Prada & Walter, 2009).

[30] Includes preference shares of various kinds, equity warrants; and debt instruments such as convertible notes, capital notes, unsecured notes, debentures, equity options, instalment receipts and miscellaneous registered or bearer bonds. It also lists overseas securities, mainly equities.

Diagram 3.1: Structure of the NZX and its Markets



(Source: http://www.sec-com.govt.nz/publications/documents/nzx-2006/01.shtml)

In comparison to countries[31] in the OECD, the growth in stock market capitalisation in New Zealand has been very slow. Lack of regulation providing investor protection on one hand and a restrictive regulatory regime on the other, have been contributory factors. As a consequence, businesses and investors faced reduced choices in terms of raising capital which in turn affected the development of the capital market as well as economic development in New Zealand (Healy, 2003).

To boost confidence in the New Zealand capital markets, NZX through its listing rules, ensures that publicly listed companies do comply with good governance practice guidelines. The monitoring is effected by constant and vigilant surveillance of market activity. NZX's regulatory functions include: supervising listed issuers' (companies and other entities that issue securities) compliance with NZX Listing Rules; supervising market participants such as NZX Companies; and NZX Advisers and assisting the Securities Commission (as a co-regulator) as required under the Securities Markets Act 1988 (NZX, 2009).

As a front line regulator of its markets, NZX formulates rules and practices. These rules and practices reflect the following core principles: all shareholders should be treated fairly and equitably; listed issuers should provide full, timely and accurate disclosure information; investors and market intermediaries should be protected against systemic risk; any unfair

[31] The stock market in Australia quadrupled in size and is equal to 110 per cent of GDP, the Irish stock market grew from being less than 30% of the New Zealand market at the turn of 1990s to 300% larger in 2001. The UK and US equity markets are approximately 190 per cent and 120 per cent of GDP respectively (Healy, 2003).

share trading practices should be detected and met with effective remedies; market rules should be backed by effective mechanisms for investigation, surveillance and enforcement, with strong sanctions against deliberate breach of the rules; and the costs of regulatory compliance should be minimised without compromising achievement of the other principles (NZX, 2009).

NZX formulates the standards required of listed issuers and market participants in its Listing Rules and Participant Rules with reference to these principles. Companies that do not comply with these rules are disciplined or delisted.

3.6.3 NEW ZEALAND INSTITUTE OF CHARTERED ACCOUNTANTS (NZICA)

The ministerial committee investigating the 1987 stockmarket crash criticised the quality of the financial reporting and the level of non-compliance with accounting standards in New Zealand. The committee made a number of recommendations that included: legal backing being given to accounting standards; an Accounting Standard Review Board (ASRB) to approve accounting standards be established; and sanctions being introduced for non-compliance with standards (Deegan & Samkin, 2009).

The Financial Reporting Act 1993 (hereafter FRA) gave legislative backing for accounting standards. Section 22 of the FRA established ASRB whose main purpose was to review and where appropriate, approve financial reporting standards. The ASRB is constituted as a body corporate under the FRA and is a Crown entity under the crown Entities Act 2004.

The ASRB announced in October 2002 that effective from 2007, listed issuers would have to comply with IRFS issued by the International Accounting Standard Board (IASB). This means that the Statement of Concepts for General Purpose Accounting Reporting is replaced by the New Zealand Equivalent to the IASB Framework for the Preparation and Presentation of Financial Statements.

3.6.4 INSTITUTE OF DIRECTORS

The Institute of Directors has developed a number of best practice statements for directors called a Code of Proper Practice for Directors which covers, for example, audit committees, conflicts of interest, key competencies for non-executive directors, and overseeing financial reporting. It also provides recommendations regarding frequency of board meetings as well

as proposals for the accreditation of directors. This is important as the implementation of corporate governance principles and guidelines ultimately rests with the directors.

3.6.5 THE NEW ZEALAND TREASURY

The Treasury plays an influential role in the development of securities regulation in New Zealand. The influence of the Treasury mainly comes from its central role in the government's policy-making processes. Although Cabinet is the decision-maker on all important matters of public policy, advice for the Cabinet potentially comes from a number of sources including the Treasury.

Since the 1980s, Treasury has had a varying degree of influence on public policies with both the Labour and the National Governments. Treasury's influence on government policies means that economic theory and concepts play a part in the decision making processes (Fitzsimons, 1994). Any law reform that does not take account of economic concepts or evaluate it on economic terms is challenged by the Treasury. This was apparent in the proposals put forward by the NZSC in the 1980s which were based on legal principles and concepts rather than on economic benefits (Patterson, 1975).

3.6.6 THE RESERVE BANK OF NEW ZEALAND (RBNZ)

The Reserve Bank of New Zealand (RBNZ) established by an Act of Parliament in 1933 was endowed with the basic central bank functions of being the sole issuer of notes and coins, the government banker, and the banker of the trading banks. In 1936, the role of the RBNZ was widened to include setting reserve asset ratios for financial institutions, which later evolved into a prudential supervision role (Moore, 1992). The RBNZ is responsible for setting corporate governance and reporting standards for all banks, and thereafter looks largely to commercial imperatives and marketplace accountabilities to deliver stability in the banking and payments system.

In addition, banks are now offering a much wider range of product to customers and potential customers than what was once regarded as usual bank services. A number of these products are "securities" for the purposes of the Securities Acts. These can include, providing access to equities through sharebroking activities, the issue of debt securities, selling collective investment scheme units and life insurance issued by the bank or by organisations other than the bank itself (Abernethy, 2001). As a result financial institutions including banks and their staff are required to be familiar with the law covering the issue and sale of those products.

The powers of the RBNZ have been extended to include supervision of the non-bank financial institutions as well.

3.6.7 CROWN COMPANY MONITORING ADVISORY UNIT (CCMAU)

CCMAU, formed in 1993, was given monitoring functions in addition to the responsibility for board appointments and governance policy for Crown entities, such as, State–owned enterprises (SOEs), health-provider companies and Crown research institutes CRIs).

Table 3.6:
Competencies Required for Being Board Members in the Public Sector Corporate Entities

- An ability to add value.
- An ability to communicate clearly, orally and in writing.
- The ability to take a wide perspective on issues.
- Common sense, integrity and a strong sense of ethics.
- Organisational and strategic awareness.
- An appreciation of the role of the Crown as a shareholder.
- Knowledge of the responsibilities of a director and an ability to distinguish corporate governance from management.
- Financial literacy.
- A well-developed critical faculty.
- The confidence to ask questions.
- An ability to work in a team.

(www.ccmau.govt.nz)

The appointment of the board of directors in Crown entities including state-owned enterprises, Crown research institutes, Crown companies and other statutory entities is undertaken by the shareholding ministers with guidance from CCMAU. All board members in Crown companies are deemed to be independent and members are required to have the competencies as given in Table 3.6 above.

In general terms, everyone is eligible to be considered for appointment to a Crown company board, although the reasons outlined in section 151(2) of the Companies Act 1993, which disqualify a person from becoming a director, also apply to Crown companies. Public servants from core government departments are generally not eligible for appointment to Crown company boards, and the staff of a Crown company cannot be appointed to the board of their own organisation (although they may be appointed to subsidiary boards). In addition to having the above skills, effort is also made to include people who reflect the Government's wish that Crown company boards align with the country’s demographic make-up

(www.ccmau.govt.nz). There is a tendency for public corporate entities' boards to be more diverse than the boards of publicly listed companies. This provides an opportunity for diverse views and perspectives to be presented in meetings.

Guidelines developed by CCMAU indicate that directors in Crown companies are typically appointed for terms of up to three years (www.ccmau.govt.nz). Directors may be reappointed for a second term of up to three years and, in response to a particular need, a director may be appointed for further periods. Second and third terms are not automatic, and ministers will make their decisions based on the company's business needs, the availability of candidates for the role (including the incumbent), the incumbent's performance and the make-up of the board. A director appointed to the position of chair in the course of his or her term may be appointed for a further period. Unlike typical private sector companies where boards appoint their own chair, ministers appoint the chair and deputy chair (where there is one) of Crown company boards. There is a possibility that the chair and the deputy chair may have political affiliation and other directors appointed may have similar views on policy direction as the government. This raises concerns about the collective willingness of boards to think differently and independently.

Shareholding ministers' expectations of Crown company boards are formally outlined in the Owner's Expectations Manual (OEM). This document clarifies the environment within which the shareholder expects boards to meet their responsibilities and shareholding ministers' expectations. The OEM outlines expectations in a number of areas including board duties, reporting requirements, financial governance, and the way in which the board deals with strategic issues.

Boards of Crown companies account for their performance through a set of parameters and targets contained in:

- A Statement of Corporate Intent (SCI) for Crown research institutes and State-owned enterprises.
- A Statement of Intent (SOI) for Crown entity companies, statutory entities and council-controlled trading organisations.

The content of these documents is prescribed by the Crown companies founding legislation and by ministers' expectations. Boards prepare their SCI/SOI each year and, once accepted by shareholding ministers, are tabled in Parliament. These then become public documents.

The company's actual performance against its SCI or SOI targets is later outlined in its annual report, which is also tabled in Parliament.

Shareholding ministers are in turn accountable to Parliament for the performance of Crown companies. Parliamentary select committees review company performance, and members of the boards of Crown companies may be asked to appear before committees.

The reporting requirements for Crown companies are greater than the obligations imposed on other companies by the Companies Act 1993. For example, annual reports must include additional information and state-owned enterprises and Crown research institutes are required to provide half-yearly reports. In practice, they also provide confidential quarterly reports. Crown companies also provide ministers with their draft business/strategic plans that contain considerably more information (often commercially sensitive) than is required to be included in the SOI/SCI.

The Crown Entities Act 2004 sets a framework that is consistent for all Crown entities to follow, to improve governance and accountability of Crown entities and to achieve better integration of Crown entities with the rest of the state sector. The Act clarifies the board position in terms of the rules regarding such matters as appointment and removal, conflicts of interest, their duties, liabilities and protection from liability.

Together with the Treasury, CCMAU conducts a review of each document and reports to ministers on its overall soundness. It is not clear whether CCMAU scrutinises the corporate governance practices of public corporate entities to the same extent as the NZSC does for public companies. The NZSC evaluates the quality of governance practices of public companies against set guidelines each year and the outcomes help public companies to improve their practices each year and also help investors in deciding their investment options.

3.6.8 NEW ZEALAND SHAREHOLDERS ASSOCIATION

The existence of a weak regulatory regime in terms of investor protection and the inability of the regulator - NZSC, due to lack of funds, to embark on enforcement activities led to the establishment of the New Zealand Shareholders' Association Incorporated in May 2001. The New Zealand Shareholders Association aims to provide an effective voice for small shareholders who do not have the resources (knowledge, time and money) and/or the interest to monitor managers' actions. Since the costs of monitoring outweigh the benefits, the small shareholders tend to exit rather than voice, which leaves entrenched managers and boards free

to pursue self interest activities (Berle & Means, 1932). Furthermore, Korn/Ferry International (2000) note that no companies in New Zealand have been seriously questioned by their investors at annual general meetings on corporate governance issues. This further raises concerns about accountability, as New Zealand investors tend to be passive and do not like to draw attention to themselves during annual general meetings by raising objections or asking questions. There is also a tendency among investors to rely heavily on (and trust) internal control systems (Gunasekarage & Reed, 2008). Also there is a perception that large shareholders will do the monitoring as they have large stakes tied up in companies.

In the absence of active investor monitoring, the role the New Zealand Shareholders Association play in matters relating to the understanding and interpretation of annual reports as well as monitoring, has been beneficial to investors.

3.6.9 OTHER RELEVANT MONITORING BODIES

There are other organisations that either provide a monitoring role or assist with enforcement and prosecution. For example, the Ministry of Economic Development (MED) provides policy advice and overall monitoring of the regulatory system. The Registrar of Companies provides registration and review of prospectus and has powers to ban directors. The Trustees Corporation provides monitoring of the financial position and investment practices of the issuers on behalf of the holders of debt and collective investment scheme securities, in accordance with a published trust deed. The Serious Fraud Office has enforcement powers in relation to fraudulent offers of major securities. The Takeovers Panel provides administration of the Takeover Code and shares such information with the NZSC. The Ministry of Consumer Affairs provides information, education and policy advice to consumers and warns to the public about scams. The Banking Ombudsman deals with complaints about banks.

3.7 CONCLUSION

The focus of the securities framework since 1978 has primarily been on the disclosure of information. The emphasis is placed on the disclosure of information relevant to an investment decision, either through an offer of securities to the public or through secondary markets. An offer of securities has to meet prescriptive requirements concerning the prospectus or investment statement. Secondary markets are governed by detailed rules requiring continuous disclosure and prohibiting insider trading and market manipulation.

Although the Securities Markets Act 1988 was an improvement from the previous legislation in terms of requiring immediate disclosure of securities traded by company directors and officers, the guidance in terms of what constituted an act of gross negligence was left to the courts to decide. The cases involving insider trading and market manipulation primarily went unpunished as there were no laws against such practices. Also, a lack of cost effective remedies to enforce disclosures relating to substantial security holders, apart from the provision of costly and time consuming High Court proceedings, meant that optimal disclosures could not be obtained in a timely manner. The limited powers of the statutory regulator of the securities market, the NZSC, meant that insider trading and market manipulation activities could not be prosecuted.

Three major law reforms since 2000 have developed New Zealand's regulatory framework and brought it into closer alignment with international expectations. The first reform was the adoption of the Takeovers Code in 2000. The Takeovers Code is enforced by the Takeovers Panel, which is a separate independent agency. The second reform became effective from 2002, by demutualising the New Zealand Stock Exchange. The NZX was demutualised in 2002 after a Private Bill was passed by Parliament. The third significant reform was the Securities Markets Amendment Act 2006, which amends the Securities Act 1978 and the Securities Markets Act 1988. The new laws made important and wide-ranging changes regarding insider trading, market manipulation and disclosure rules for investment advisers.

In addition to the changes made to the securities laws to align with the trading partners, there also been changes made to improve the standard of corporate governance practised in New Zealand. All economic entities are required to observe the principles and guidelines to the fullest extent and only depart where they are subject to the competing statutory or public policy requirements. The Companies Act 1993 codified and expanded directors' duties and shareholders' rights under common law. The NZSC in 2004 provided nine high level principles and guidelines to improve the standard of statutory or public policy requirements. Companies reporting on corporate governance practices under the NZX Listing Rules are required to cover all the principles recommended by the NZSC and any departures are to be explained to shareholders.

To improve the standards of corporate governance practices in the public sector corporate entities, the CCMAU also adopted the NZSC 2004 recommendations. The Crown Entities

Act 2004 further clarifies the role of Crown Entity Companies, the role of the board and the duties of the directors under the Act.

Chapter 4 will provide the research method, framework, hypotheses and empirical models used in this study.

CHAPTER 4
RESEARCH METHODS: RESEARCH FRAMEWORK, HYPOTHESES AND EMPIRICAL MODELS

4.0 INTRODUCTION

Chapter 3 provided a background on corporate governance practices, laws and regulations in New Zealand. This chapter introduces the framework for this research, develops hypotheses, presents empirical models and describes methods for investigating the relationships between corporate governance mechanisms and company performance in New Zealand.

4.1 RESEARCH FRAMEWORK

Both normative statements and anecdotal evidence unequivocally support the view that good corporate governance practices play a significant role in improving transparency and accountability in managerial decision making (Psaros, Ingley & McCaffrey, 2007; 2009). However, research on the interaction between governance and company performance has been rather limited and the empirical evidence is mixed and inconclusive. Past studies have focused only on the specific features of corporate governance, which makes it difficult to establish an overall relationship between corporate governance and corporate financial performance (Bauer, Frijns, Otten, & Tourani-Rad, 2008). Relating corporate financial performance to a specific aspect of corporate governance may not capture the relationship unless that specific aspect is controlled for other aspects of governance (Bohren & Odegaard, 2003). To add to our understanding of the effect of governance practices on financial performance, researchers have recently suggested that there is a need to undertake research that involves a wider set of governance variables.

Past studies that reported a causal relationship between insider ownership and financial performance have failed to consider the endogeneity effect of ownership (Hu & Izumida, 2008). Endogeneity occurs when mechanisms are internally related, as when agency theory argues that outside concentration and insider holdings are substitute governance tools. Reverse causation is when financial performance drives governance, as when privately informed insiders ask for stock bonus plans before unexpectedly high earnings are reported. Recent research in governance acknowledges that there is a possibility of a reverse direction

of causality from company financial performance to ownership structure. Evidence suggests that financial performance is at least as likely to affect ownership as ownership structure is to affect financial performance (Sánchez-Ballesta & García-Meca, 2007). Many researchers including Agrawal and Knoeber (1996), Loderer and Martin (1997), Cho (1998), Demsetz and Villalonga (2001), Bhagat and Jefferis (2002) among others have considered the endogeneity and reverse causation in a governance–performance setting. Their findings differ markedly from those of single equation methods (Becht, Bolton & Roell2002). In particular, the significant relationships between governance and financial performance in single equation models often disappear. This research takes a similar view to Demsetz (1983) and Demsetz and Lehn (1985), among others, that when examining the effect of ownership structure on company financial performance, the endogeneity of ownership structure should be accounted for.

Most extant research deals with large US and UK companies that have a majority dispersed ownership structure. The top 20% of companies in the UK have 80% of their shares held by non-controlling shareholders, whereas in the US it is 90% (Kapopoulos & Lazaretou, 2007). These countries also have an active market for corporate control which plays an active role in disciplining managers' behaviour. The research findings from these large economies may not be relevant to a small country like New Zealand where there are predominately small companies, a small capital market and weak minority shareholder protection rights. The market for corporate control is not well developed and the role of the capital market in providing a monitoring role tends to be ineffective. In the absence of such mechanisms, New Zealand has tended to rely on other control mechanisms such as concentrated shareholding structures to mitigate agency costs. However, the expected effect of concentrated ownership on financial performance is unclear, as it reflects the net impact of several benefits and costs which are difficult to rank a priori. Since theory cannot specify the relative importance of these costs and benefits, the shape of the relationship between concentration and financial performance must be determined empirically (Bohren & Odegaard, 2003).

A study by Miguel, Pindado and De Da Torre (2004) focused on the governance structures of several counties (US, UK, Australia, Japan, Germany and Spain). They concluded that the relationship between governance and financial performance is significantly affected by the nature of the prevailing governance system. This, coupled with the conflicting findings (particularly for the larger UK and US markets), suggests that a study using data from a

country which differs significantly in several ways from the larger economies could add to our understanding and contribute to the growing body of work that examines this relationship.

Furthermore, corporate governance principles and guidelines have been in existence in New Zealand since 2004 and, surprisingly, little research has been undertaken on their underlying mechanisms. An understanding of the dynamics of so-called soft regulation in general is rather limited. It is difficult to ascertain whether changes to corporate governance practices in New Zealand have been made for the benefit of shareholders or simply to align with regulation changes applied in other countries.

This study extends the current literature on five different levels. First, by studying a wide range of governance variables compared to past studies, it adds to our understanding as to how different mechanisms interact with financial performance. This approach allows us to get closer to capturing the full picture and to also explore the validity of more partial approaches reported in other studies (e.g., Demsetz and Lehn (1985); Morck, Shleifer and Vishny (1988); McConnell and Servaes (1990); Gugler (2001)). Second, the effect of endogeneity and reverse causality of ownership is underexplored both empirically and theoretically. This study adopts a two stages least squares regression (2SLS) technique to control for the effect of ownership endogeneity and reverse causality on financial performance. Third, by examining the efficacy of the corporate governance practices recommended by the NZSC (soft regulation) on companies' financial performance, this study adds to the understanding of the workings of the underlying mechanisms of so-called 'soft regulations' and its effect on financial performance. The result also contributes to understanding of how good governance mechanisms work in the global economy. Four, the corporate governance disclosure approach in New Zealand encourages listed companies either to comply with all the recommended principles and guidelines or explain to the shareholders why they have deviated. The "comply or explain" policy is not mandatory; however, it allows companies to choose company-specific governance structures based on cost/benefit tradeoff. This implies that different companies and industries may adopt different governance structures. According to Gillan, Hartzell and Starks (2003) and Himmelberg, Hubbard and Palia (1999), industry and company effects are important, implying that governance structures are a function of the expected costs and benefits of different mechanisms. They report that industry specifics are a dominating factor in explaining

variation in overall governance structure. Most of the existing research supports the positive relationship between size of the company and its level of corporate governance (Drobetz, Schillhofer & Zimmermann, 2004; Guillen, 2000; Guriev, Lazareva & Rachinsky, 2003; Klapper & Love, 2003). Since governance mechanisms consume corporate resources, which are more efficiently borne by larger companies than smaller companies, suggests large companies have better governance structures. The more complicated business structure of large companies may also require better governance. Based on this finding, it is assumed that there will be company, industry and size effects on governance structures. Finally, the focus of previous studies has predominantly been on publicly listed companies; however, little effort has been devoted to understanding corporate governance practices of public sector corporate entities. In excess of $41trillion is invested in public sector corporate entities assets in New Zealand and therefore it is important to understand the nature of corporate governance practices being undertaken to ensure the investment provides maximum return for taxpayers.

Therefore, this study examines whether companies in different sectors and industries and those of different size do have different governance structures and the effect those structures have on company financial performance.

This study in particular investigates companies in three different sectors. They are:

- Companies listed on the NZX
    - Small cap companies
    - Large cap companies
- Public sector corporate entities
    - SOEs and CRIs

Companies that are listed in the main board of NZX are classified into six different sectors, which include: primary (agriculture & fishing, mining, forestry, building), energy (energy processing), goods (food, textile & apparel, intermed & durables), property, services (transport, ports, leisure & tourism, consumer, media & communication, finance & other services) and investment. In order to examine the industry effect of the corporate governance practices of different companies in different industries, a similar classification as that provided by NZX is used for publicly listed companies. For public sector corporate entities, the industry classification of SOEs and CRIs are used.

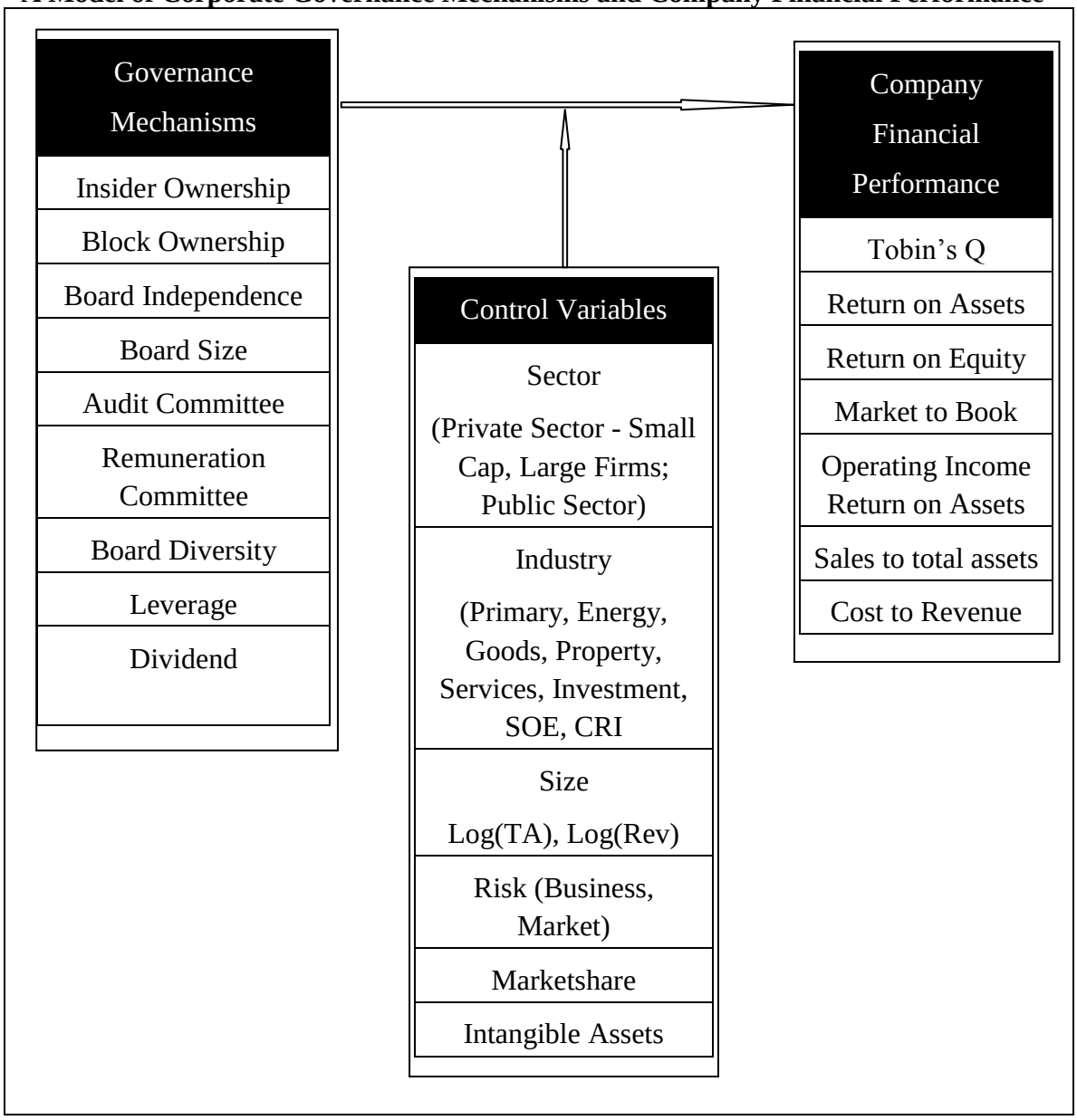
A comparative analysis of findings from a principle based framework with the findings of studies conducted under the US rule-based model contributes a more fundamental understanding of the governance-financial performance nexus. The ensuing discussion of the effects that the rule-based versus principle-based model have on financial performance from an international perspective, including the effect (if any) international financial reporting standards (IFRS) will have on such practices in the future, contributes significantly to understanding how governance contributes to value.

The findings of this study will also enable us to better understand the nature of corporate governance practices in publicly listed companies and public sector corporate entities. In particular, the similarities and differences in corporate governance practices of companies in these sectors.

4.1.1 CONCEPTUAL FRAMEWORK

Figure 4.1 presents the conceptual framework for this study. On the left hand side are the governance variables which both previous studies have indicated to be important and/or are stated in the NZSC's principles and guidelines which listed companies have to comply with. These are namely: Insider Ownership, Block Ownership, Board Independence, Board Size, Board Committees (Audit Committee and Remuneration Committee), Board Diversity, Leverage and Dividends. This is linked to company performance on the right hand side, measured by Tobin's Q, Return on Assets (ROA), and Return on Equity (ROE), Market to Book (MB), Operating Income Return on Assets (OPINC), Sales to Total Assets (S2TA) and Cost to revenue (C2REV). The link between governance characteristics and the company performance is affected by company specific variables such as size, risk, intangible assets, marketshare, industry and sector.

Figure 4.1:
A Model of Corporate Governance Mechanisms and Company Financial Performance



The next section provides theoretical and empirical links between governance mechanisms and company financial performance and develops the research hypotheses.

4.2 GOVERNANCE MECHANISMS

To address the fundamental question, whether company financial performance is driven by governance practices, this study examines the corporate governance mechanisms identified in the conceptual framework in Figure 4.1. These mechanisms are classified as internal or external to the company. Internal mechanisms include ownership by managers and the board,

independence of the board, size of the board, establishment of the board committees, board diversity and dividend policy. External examples are block ownership, and the level of debt financing (Barnhart and Rosenstein, 1998; Denis, 2001). Each of these mechanisms is discussed and relevant hypotheses developed in the following section.

4.2.1 INSIDER OWNERSHIP

Since Berle and Means (1932) and Jensen and Meckling (1976) have suggested that increasing equity ownership of corporate insiders (officers and directors) will lead to better alignment of their interests with that of outside shareholders, a number of researchers have been engaged in exploring such a link. The findings of empirical studies that link insider ownership to company financial performance are inconsistent and inconclusive. These findings can be grouped into three broad categories. One group of researchers report a positive linear relationship between insider ownership and financial performance (Elayan et al., 2003; Hossain et al., 2001; Kim et al., 1988; Mehran, 1995; Oswald & Jahera Jr., 1991; Welch, 2003) thus supporting the convergence-of-interest hypothesis, that is, equity ownership by insiders is associated with company financial performance due to lower agency costs.

Another group of researchers report the relationship between insider ownership and company financial performance to be non-monotonic (Chen et al., 1993; Griffith, 1999; McConnell & Servaes, 1990; Morck et al., 1988; Short & Keasey, 1999). Their findings support convergence-of-interest hypothesis at some low levels of insider ownership and an entrenchment hypothesis at higher levels of insider ownership. The argument for the entrenchment effect is that greater stock ownership by insiders increases the power of the internal constituency (Fama & Jensen, 1983a; McConnell & Servaes, 1990; Morck et al., 1988; Stulz, 1988), but decreases the power of the external constituency in influencing corporate financial performance. Using a quadratic relationship, Stulz (1988), McConnell and Servaes (1990), and Han and Suk (1998) reported that the insider ownership up to a maximum of 40%-50% is associated with company financial performance for the US market. Mudambi and Nicosia (1998) reported a range up to 11% for the UK market. Researchers who used cubic relationships discovered that at higher levels of insider ownership, performance increases again because of interest alignment as the manager and owner tend to be the same person. The cubic relationship was reported by Morck et al. (1988), Cho (1998), and Holderness, Kroszner and Sheehan (1999) for the US market, and by Short and Keasey

(1999) and Faccio and Lasfer (1999) for the UK market. When cubic relationships are used, the maximum point up to which insider ownership is linked to financial performance in the US is around 5%-7%, which is significantly different from the results reported using quadratic relationships. The studies that reported cubic relationships in other countries include Miguel, Pindalo and De Da Torre (2004) for Spain and Kumar (2003) for India. In a more recent study, Davies, Hillier and McColgan (2005) reported even more disturbing results for UK companies. Using a simultaneous equations framework in the presence of conflicting managerial incentives, Davies et al. (2005) reported that the relationship between managerial ownership and company value is essentially quintic (double-humped) and not just cubic as reported in Short and Keasey (1999). Collectively, these conflicting findings suggest that the debate over the precise functional form of the insider ownership–company financial performance relationship is far from conclusive.

Although these studies report inconsistent results in terms of the level of insider ownership at which convergence-of-interest and entrenchment effect becomes relevant, they do report that the relationship between Q ratio and insider ownership is non-linear, that is, within some range of insider ownership, Q ratio is positively related to insider ownership, but in other ranges, a negative relationship is found.

A third group of researchers claim that there is no relationship between insider ownership and financial performance (Demsetz, 1983; Demsetz & Lehn, 1985; Demsetz & Villalonga, 2001). They argue that insider ownership is endogenously determined and therefore cannot be a determinant of company financial performance. Their argument is based on the view that competitive capital market forces ensure that every company chooses its value maximising ownership structure. Therefore, any observed correlation of ownership and financial performance is spurious. In fact, the relationship between insider ownership and financial performance might arise due to some company characteristics that are unobservable for the econometrician. Demsetz and Lehn (1985) show that unobserved company heterogeneity (company size, volatility, return on assets, industry affiliation) are relevant explanatory variables for the ownership structure of US companies. In this regard, the literature used econometric techniques to control for endogeneity and report that company financial performance does not seem to be affected by insider ownership. Himmelberg, Hubbard and Palia (1999) using a fixed effects panel data model and instrumental variables to control for possible unobserved company heterogeneity, report that insider ownership does not affect

company financial performance to an econometrically observable extent. Loderer and Martin (1997) constructed a simultaneous equation system that handles financial performance and insider ownership as endogenous variables for a set of companies involved in acquisitions and reports that insider ownership does not have a predictive effect on financial performance in their model, but vice versa, financial performance has a negative effect on insider ownership. Cho (1998), after having replicated the results of Morck, Shleifer and Vishny, builds a simultaneous equation system consisting of three equations, where insider ownership, financial performance and investment are treated as endogenous variables and reports similar results to Loderer and Martin (1997), that is, financial performance influences ownership but not vice versa. Agrawal and Knoeber (1996) presented evidence of interdependence among seven corporate governance mechanisms, insider ownership being one of the mechanisms in a study comprising a large sample of US companies. They find the positive effect of insider ownership disappears in an integrated model, thus supporting Demsetz's theory of the optimal use of control mechanisms. In a similar study, Bhagat and Jefferis (2002) find evidence that takeover defenses, takeovers, management turnover, corporate financial performance, capital structure, and ownership structure are interrelated, suggesting such relationships should be examined using simultaneous equations. However, they do point out that such a system of equations is nontrivial and even looks less feasible for studies of non-US markets, where data availability and quality is often a serious problem (Kasener & Moldenhauer, 2008). Demsetz and Villalonga (2001) treated different dimensions of ownership as endogenous and found no relationship between insider ownership and company financial performance.

The differences in findings reported above are that an optimal ownership structure exists for each company where financial performance is maximised. Large transaction costs prevent companies from moving to the optimal structure. When the distance away from the optimum is large, the benefits to shareholders of realigning ownership structure will exceed the transaction costs of doing so. Within the bounds of those costs, various ownership research results reflect the objective function that the company maximises in the absence of such costs. Stulz (1988) models the offsetting costs and benefits of managerial ownership. In the model company, incentive-alignment effects dominate when insider ownership is low but, as managerial ownership increases, the beneficial effect of incentive-alignment are overtaken by the cost of an increased managerial ability to pursue non-value-maximising activities. In

countries where capital markets are ineffective in providing a monitoring role, the presence of high costs makes it uneconomical for any mechanism to be used at its optimal. In such situations, shareholders being rational investors, will continuously evaluate the cost and benefits of utilising different mechanisms to maximise value. Where one mechanism may be used more, others may be used less, based on cost/benefit analysis. Also, the corporate collapses, poor company financial performance in the last decade and the recent financial crisis have indicated that managers can immune themselves from certain governance mechanisms. It is not clear whether similar situation arise in other countries where different corporate governance regimes exist.

Insider ownership is a relatively underdeveloped practice in New Zealand. However, the trend to issuing warrants and shares to senior staff is growing. The evidence available (Elayan et al., 2003; Hossain et al., 2001; Reddy et al., 2008a) supports the view that the proportion of insider ownership in New Zealand is still less than optimal. Therefore, it is assumed that any increase in insider ownership will have a positive effect on company financial performance. The small capital market practically eliminates the market for corporate control activities in New Zealand, thus allowing managers to shelter themselves from corporate control activities. In the absence of a capital market providing the monitoring role, managerial ownership incentives may align management interests closely with the shareholders thus encouraging them to consume fewer perquisites and provide vigilance so that large shareholders do not expropriate outside small shareholders' interests. Furthermore, as suggested by Kole (1995), in small cap companies the convergence-of-interest may hold for a larger range of insider ownership compared to large cap companies. Since public sector corporate entities are wholly owned by the Crown, the effect of different ownership structure is not relevant.

Therefore, the following hypotheses are postulated in regard to insider ownership:

H1a: Insider ownership is positively associated with small cap company financial performance.

H1b: Insider ownership is positively associated with large cap company financial performance.

However, Demsetz (1983), Demsetz and Lehn (1985), Demsetz and Villalonga (2001) argue that when endogeneity of insider ownership is considered, the relationship between ownership and performance will disappear. For this reason the research uses panel data as

suggested by Börsch-Supan and Köke (2002), and two stage least squares (2SLS) regression technique, suggested by Himmelberg et al. (1999) and Demsetz and Villalonga (2001), to reduce the effect of endogeneity on empirical analysis. Instrumental variables are used to control the effect of unobserved company heterogeneity on the analysis, as suggested by Demsetz and Lehn (1985) and Himmelberg et al. (1999).

Therefore, the following hypotheses are postulated in regard to the endogeneity of insider ownership:

H1c: Having taken account of endogeneity of insider ownership, there will be no statistically significant relationship between insider ownership and performance in small cap companies.

H1d: Having taken account of endogeneity of insider ownership, there will be no statistically significant relationship between insider ownership and performance in large cap companies.

4.2.2 BLOCK OWNERSHIP

A shareholding of 5% or more of a company's stock is considered a blockholding (Denis, 2001; NZSC, 2006). Blockholders may be individuals, corporations, or institutional investors. The roles that blockholders play may range from passive to very active, and the methods of those who are active range from informal conversations with management to formal proxy contests (Denis, 2001). Research provides evidence that blockholders, or their representatives, serving on boards as directors or officers, have an opportunity to influence managerial decisions (Holderness, 2003). Shleifer and Vishny (1986) provide support for the view that blockholdings are important elements for controlling agency cost. Blockholders may be motivated by the shared benefit of control as well as the private benefit of control. Shleifer and Vishny (1997) and Gugler (1999) indicate that blockholders do receive private benefits at the expense of the minority shareholders.

Morck et al. (1988) and McConnell and Servaes (1990), Fama and Jensen (1983a), and Stulz (1988) find that managers owning a large block of stock generate entrenchment problems. Greater stock ownership by managers increases the power of the internal constituency and decreases the power of the external constituency in influencing corporate financial

performance. Incentive-based compensation[32] decreases when blockholders are present, (Mehran, 1995) suggesting that insider ownership is negatively related to insider block ownership. A high level of ownership has a negative effect on company financial performance measured by the Tobin's Q as management is able to build special relationship with block investors and/or their representatives on the board, negating the positive effect on financial performance (Cornett, Marcus, Saunders & Tehranian, 2004).

The expected effect of block ownership on financial performance is unclear, as it reflects the net impact of several benefits and costs, which are difficult to rank a priori (Bohren & Odegaard, 2003). The corporate governance literature list of benefits associated with blockholding include the principal's monitoring of his/her agents (Demsetz & Lehn, 1985; Jensen & Meckling, 1976; Shleifer & Vishny, 1986), higher takeover premia (Burkart, 1995), and reduced free-riding by disperse shareholders (Shleifer & Vishny, 1986). The costs associated with blockholding include reduced market liquidity (Chordia, Subrahmanyam & Anshuman, 2001), lower diversification benefits (Demsetz & Lehn, 1985), increased majority-minority conflicts (Johnson, La Porta, Lopez-de-Silanes & Shleifer, 2000; Shleifer & Vishny, 1997), and reduced management initiative (Burkart, Gromb & Panunzi1997). Since theory cannot specify the relative importance of these costs and benefits, the shape of the relationship between concentration and financial performance must be determined empirically.

Blockholding is a common feature of the ownership structure of small and large companies in New Zealand. In small companies, the founder(s) tends to hold a large portion of the shares and, based on interest alignment, this could lead to an improvement in company financial performance. The average block ownership of 76.3% in New Zealand companies (Hossain et al., 2001) is consistent with New Zealand's weak minority shareholder rights. Also, the existence of weak regulations regarding shareholder rights allows initial owners to continue to hold large blocks of shares in companies after going public. Since blockowners hold undiversified large stakes, it is argued (consistent with the interest alignment hypothesis), that blockholders will provide a similar level of vigilance as if they owned the company themselves. Blockholding also solves the free-riding problem, making manager monitoring

[32] It represents the percentage of executive compensation that comes from new stock options, restricted stocks, and performance shares.

easier (Agrawal & Mandelker, 1990; Hill & Snell, 1988, 1989; Shleifer & Vishny, 1986). Since blockholding is an important feature of the company ownership structure in New Zealand, it is assumed that its presence will have a positive effect on company financial performance. There is no effect of outside block holding on financial performance of public sector corporate entities as they are wholly owned by the Crown.

Therefore the following hypotheses are postulated in regard to block ownership:

H2a: Blockholders will be positively associated with a small cap company's financial performance.

H2b: Blockholders will be positively associated with a large cap company's financial performance.

As per the previous discussion, endogeneity remains a concern and therefore the following hypotheses are postulated in regard to the endogeneity of block ownership:

H2c: Having taken account of endogeneity of block ownership, there will be no statistically significant relationship between block ownership and financial performance in small cap companies.

H2d: Having taken account of endogeneity of block ownership, there will be no statistically significant relationship between block ownership and financial performance in large cap companies.

4.2.3 BOARD INDEPENDENCE

The effectiveness of the board in monitoring management is associated with board independence. Fama (1980), Fama and Jensen (1983a), Weisbach (1988), Zahra and Pearce (1989), among others, suggest that board independence can be achieved by having outside unrelated (independent) directors on the board who can professionally and objectively assess managerial performance, determine their remuneration, and replace them if necessary. To improve board vigilance, Cadbury (1992) suggested that the boards of companies should be independent of management. Rhoades, Rechner and Sundamurthy (2000) suggest that non-executive/independent directors are financially independent from management which makes it easier for them to exert control over managerial self-interest and opportunism. In this regard, a number of reforms have been undertaken to promote sound corporate governance regarding board independence, which include: a majority of non-executive/independent directors on the board; standards for determining a member's independence; creating board sub-committees composed predominantly of outside directors with professional qualifications; minimising management's control over the appointment of board and

committee members; and encouraging the review of performance of the board and of each board member (Gani & Jermias, 2006). In the same vein, the NZSC (2004) recommended that all publicly listed companies should have an independent chair, the majority of their members should be non-executive/independent directors and a minimum of one-third of the members should be independent directors.

Despite the widely-held belief that board independence can lead to improved company financial performance, empirical studies examining the relationship between board independence and company financial performance have reported mixed results. A number of studies have reported evidence that board independence has a positive effect on company financial performance (Brickley & James, 1987; Brickley, Coles & Terry, 1994; Byrd & Hickman, 1992; Chung, Wright & Kedia, 2003; Hossain, Cahan & Adams, 2000; Lee, Rosenstein, Rangan & Davidson III, 1992; Rosenstein & Wyatt, 1990; Weisbach, 1988). However, a number of studies reported either a negative association between board independence and company financial performance (Agrawal & Knoeber, 1996; Bathala & Rao, 1995; Baysinger, Kosnik & Turk, 1991; Bhagat & Black, 1998; Chaganti, Mahajan & Sharma, 1985; Gunasekarage, Locke, Reddy & Scrimgeour, 2006; Hutchinson, 2002; Klein, 1998; Yermack, 1996) or board independence has no impact on financial performance (Bryd & Hickman, 1992; Chin et al., 2003; Daily & Dalton, 1992; Mace, 1986; Prevost, Rao & Hossain, 2002; Singh & Davidson III, 2003; Young, 2003).

Despite these opposing views, it is widely accepted that board effectiveness is improved by having a high proportion of outside (unrelated) directors (Mizruchi, 1983; Pfeffer & Salancik, 1978; Zahra & Pearce II, 1989). This is because outside (unrelated) directors can bring a variety of perspectives (skills, resources, experience and networking) that enhance environmental analysis and organisational problem-solving techniques (Milliken & Martins, 1996). Also, outside (unrelated) directors represent shareholder interest at the 'upper echelons' (Hambrick & Mason, 1984) of the organisations which might not be the case if the board comprised only insiders. These studies suggest that outside (unrelated) directors can be an effective mechanism to monitor managerial behaviour provided they have sufficient influence over management (Bonn, 2004).

Studies conducted by Hossain et al. (2001) and Reddy et al. (2008a) relate to this current study as they show that New Zealand companies do have a majority of non-executive/independent directors on their boards. It is argued that in a small capital market

where the market for corporate control is inactive, investors tend to rely on internal control systems, such as outside directors, on the board. Also, having only a small pool of directors from which to choose for board appointments makes it difficult for companies to attain the right mix of skills. There is a tendency for New Zealand companies to have larger boards and a high proportion of outside/independent directors compared to companies in the UK and the US (Dedman & Filatotchev, 2008). Based on these findings, it is argued that non-executive/independent directors are an instrumental mechanism for mitigating agency problems in New Zealand companies. Therefore, it is assumed that there will be a positive relationship between the proportion of non-executive/independent directors on the board and company financial performance.

Although numerous studies have examined the board independence-performance link in private sector settings, empirical studies investigating the effectiveness of board independence in public sector corporate settings are lacking. However, it is assumed that board structure matters in the public sector in the same way as it matters in the private sector. Therefore, making the board independent of management in the public sector will lead to an improvement in monitoring as well, thus improving public corporate entity financial performance.

Therefore, the following hypotheses are formulated in regard to board independence:

H3a: The proportion of non-executive/independent directors on the board is positively associated with small cap company financial performance.

H3b: The proportion of non-executive/independent directors on the board is positively associated with large cap company financial performance.

H3c: The proportion of non-executive/independent directors on the board is positively associated with public sector corporate entity financial performance.

4.2.4 BOARD SIZE

There is no one optimal 'size' for a board. However, organisational behaviour research suggests that as group sizes grow larger, total productivity exhibits diminishing returns (Hackman, 1990). Consistent with this view, Jensen (1983) suggests that a board should have a maximum of seven or eight members to function effectively. Lipton and Lorsch (1992) favour a board size of eight or nine members. In Australia, the boards of the 250 largest companies have on average 6.89 members (Psaros, 2009). From an agency perspective,

smaller boards are more likely to reach consensus and also allow members to engage in genuine debate and interaction (Firstenberg & Malkiel, 1994).

Alternatively, larger boards tend to provide an increased pool of expertise, greater management oversight, and access to a wider range of contracts and resources (Goostein, Gautam & Boeker, 1994; Psaros, 2009). However, Forbes and Milliken (1999), Yawon (2006), Pye (2000), and Mak and Kusandi (2005) argue that larger boards suffer from higher agency problems because they are difficult to coordinate and find it difficult to make value maximising strategic decisions. Consequently, they fail to implement strategies that maximise company value. Pye (2000) and Yermack (1996) argue that the additional benefits achieved by having a larger board do not exceed additional costs involved with larger boards.

Based on these conflicting views, a number of researchers have chosen to investigate whether or not board size has an effect on company financial performance. Yermack (1999) and (Guest, 2009) find an inverse relationship between board size and company financial performance as measured by Tobin's Q. Eisenberg et al. (1998) notes similar results for small and medium sized companies in Finland. Hossain et al. (2001) and Reddy et al. (2008a) report similar results for small companies in New Zealand.

It is important to note that the median board size for companies in New Zealand is eight members, which Jensen suggests to be an optimal board size for companies in the US. However, it is argued that a board size of eight members is less than optimal for companies in New Zealand. In New Zealand, there is only a small pool of directors available for companies to choose from and it may be difficult to obtain the right balance in terms of skills, expertise and environmental linkages required in the board room with a smaller board size. It is argued that to balance the skills required in the board room, New Zealand companies may require a larger board size than might otherwise be the case in larger economies. Therefore, it is assumed that board size will have a positive effect on company financial performance. The same logic extends to public sector entities.

The availability of only a small pool of directors for board appointments in New Zealand may become problematic for small cap companies in terms of attracting good directors, because of the companies' limited resources and size. Also, becoming a director for a small company may not be seen as enhancing a director's reputation in the same way joining the board of a larger company might do. In order for small cap companies to have the required level of expertise in the boardroom they may be required to have a larger board with each member

having expertise in different areas of business rather than achieving the required level of broad expertise with fewer good experienced directors. Therefore, larger board sizes may also be found in small cap companies which may have a positive effect on company financial performance.

Therefore, the following hypotheses are formulated in regard to board size:

H4a: Board size will be positively associated with small cap company financial performance.

H4b: Board size will be positively associated with large cap company financial performance.

H4c: Board size will be positively associated with public sector corporate entity financial performance.

4.2.5 BOARD DIVERSITY

Significant governance issues faced by modern corporations are board diversity and board independence (Milliken & Martins, 1996). Although there has been mixed evidence and constant debate regarding the effect of board composition (de Andres, Azofra & Lopez, 2005; Dulewicz & Herbert, 2004), diversity of board membership is still considered desirable for two important reasons. First, prior literature suggests that diversity of group membership increases discussion, the exchange of ideas and group performance (Hoffman & Maier, 1961; Knippenberg, De Dreu & Homan2004; Schippers, Hartog, Koopman & Wienk2003; Watson, Kumar & Michaelsen1993). In this case, diversity has been advocated as a means of improving organisational value and performance by providing the board with new insights and perspectives (Barnhart et al., 1994; Carter et al., 2003; Coffey & Wang, 1998; Siciliano, 1996). Second, if the function of the board is to protect the interests of the corporation's stakeholders, then it stands to reason that the board should comprise members that are representative of these stakeholders (Huse & Rindova, 2001). Therefore, board diversity is imperative for the promotion of better understanding of the market place, increased creativity, innovation and effective problem solving (Carter et al., 2003). Board diversity can also promote more effective global relationships and increase board independence because people with different gender, ethnicity or cultural backgrounds might ask questions that would not come from directors with more traditional backgrounds (Arfken et al., 2004).

Women directors are seen as a key element in providing board diversity. Taking this view, McGregor (2008) provides statistics of women on boards in different countries. For example,

in Norway the coalition government in 2002 threatened to require companies to have 40% female membership (if they did not do it voluntarily). By 2007, 37% of listed companies had female directors on their boards. In the USA, 14.8% of the Fortune 500 companies had female directors in 2007. In the UK, 11% of the FTSE 100 had female directors in 2007. In Australia, 8.7% of ASX 200 companies had female directors in 2007. In Sweden, only 2% of women are CEOs (Ripley, 2003). In Ireland, only 30% of the listed companies have women on their boards and comprise 4.3% of all board directors (Brennan & McCafferty, 1997). In New Zealand, 8.65% of NZX listed companies had female directors on their boards (McGregor, 2008; Rotherham, 2009).

While research on board diversity has been growing in recent years, most empirical research has been restricted to USA data (Hyland & Marcellino, 2002; Vafeas & Theodorou, 1998) and there is a lack of evidence regarding such practices in Australian and New Zealand companies (Psaros & Seamer, 2003). Kang, Cheng and Gray (2007) find industry type, board size, and shareholder concentration are related to board diversity and independence. They find that shareholder concentration is found to be a significant factor in determining gender diversity in Australia. Reddy et al. (2008a) find female directors have a statistically significant effect on small cap companies financial performance in New Zealand.

According to Brennan and McCafferty (1997), women on the board can increase a corporation's value because: (i) women are not part of the "old-boys" network, which allows them to be more independent; and (ii) they may have a better understanding of consumer behaviour, the needs of customers, and opportunities for companies to meet those needs.

Based on these views, it is not unreasonable to posit that board diversity will have a positive effect on financial performance.

Therefore, the following hypotheses are formulated in regard to board size:

H5a: Board diversity will be positively associated with small cap company financial performance.

H5b: Board diversity will be positively associated with large cap company financial performance.

H5c: Board diversity will be positively associated with public sector corporate entity financial performance.

4.2.6 BOARD COMMITTEES

Empirical research shows that companies with audit committee have fewer financial reporting problems (McMullen, 1996). John and Senbet (1998) report that the presence of monitoring committees (audit and nominations) is positively related to factors associated with the benefits of monitoring. Klein (2002b) shows that independent audit committees reduce the likelihood of earnings management thus improving transparency. However, Baxter (2006) finds no significant relationship between having an audit committee and financial reporting quality.

On the other hand, Main and Johnston (1998) and Weir and Laing (2000) report that the existence of a remuneration committee has a positive effect on financial performance. Klein (1998) finds evidence of a positive relationship between the presence of a remuneration committee and financial performance but notices this relationship is not highly significant.

Despite the NZSC recommendations and guidelines to incorporate board committees, very few studies, to date, focus on their relationship with company financial performance. Dalton et al. (1998) provide a similar view, that relatively little research has been undertaken in the relationship between board sub committees and financial performance. However, the international evidence suggests that it is likely that empirical research in New Zealand will find a positive link between board sub-committees and company financial performance. Reddy et al. (2008b), report a positive effect of a remuneration committee on financial performance of large companies in New Zealand. With a strong emphasis on accountability typically prevalent in the public sector, it is likely there will be a linkage between committees and financial performance as well.

Therefore, the following hypotheses are formulated in regard to board committees:

H6a: Existence of a functioning Board Audit Committee will be positively associated with small cap company financial performance.

H6b: Existence of a functioning Board Remuneration Committee will be positively associated with small cap company financial performance.

H6c: Existence of a functioning Board Audit Committee will be positively associated with large cap company financial performance.

H6d: Existence of a functioning Board Remuneration Committee will be positively associated with large cap company financial performance.

H6e: Existence of a functioning Board Audit Committee will be positively associated with public sector corporate entity financial performance.

H6f: Existence of a functioning Board Remuneration Committee will be positively associated with public sector corporate entity financial performance.

4.2.7 USE OF DEBT

Berger, Ofek, and Yarmack (1997) report that managerial entrenchment has a significant impact on capital structure. They observe a lower level of debt in companies where the CEO appears to be entrenched. They also find lower debt in companies where a CEO does not face significant monitoring, has large boards with few outside directors and no large blockholders. They report that companies significantly increase their leverage when they experience some discipline (such as a takeover attempt, involuntary CEO departure, or the arrival of outside blockholders) or receive enhanced managerial incentives through a management compensation contract. Harris and Raviv (1991) provide a comprehensive survey of the theories and relate empirical evidence on the use of debt to mitigate agency conflicts and information asymmetry. They conclude that the evidence is broadly consistent with the debt theory.

Conversely, Agrawal and Knoeber (1996) and Beiner, Drobetz, Schmid and Zimmermann (2003) find that there is no relationship between debt and company financial performance. Fama (1980) states that managers are less diversified than their shareholders, i.e., in addition to holding stock and stock options, their human capital is also specific to the company. Consequently, managers may increase leverage beyond the "optimal capital structure" to increase the voting power of their equity stakes and reduce the likelihood of a takeover and the resulting possible loss of job tenure. A relatively high debt to assets ratio may be used to make a company less attractive as a takeover target, substituting debt for the use of other takeover defence mechanisms (Agrawal & Knoeber, 1996; Begley & Feltham, 1999; Byrd & Stammerjohan, 1997; Knoeber, 1985). In summary, the above research suggests that debt may have either a positive or a negative effect on company financial performance.

Gunasekarage et al. (2006) reported that the average debt to assets ratio for large companies in New Zealand was 48% which indicates that large New Zealand companies tend to rely on debt as a source of finance, and debtholders tend to provide a source of external scrutiny which may have a positive effect on company financial performance. Small cap companies may also rely on debt as a source of funding. In New Zealand, companies have relied on debt

as a source of capital and debtholders have a tendency to safeguard their investment by monitoring company financial performance on a regular basis. Therefore, it is assumed that the use of debt will have a positive effect on company financial performance.

Being wholly owned by the Crown, public corporate entities in New Zealand do not face the same level of threat of bankruptcy as private sector companies. The existence of a perceived guarantee from the owner (government) to bail ailing entities weakens the benefits of using leverage. Also, knowing that the owner (government) will bail public entities may make the provider of funds less rigorous in terms of monitoring public entities' financial performance.

However, managers of public corporate entities still have to generate returns from debt in order to continue to be employed by the organisation. By generating reasonable return, they also enhance their reputation in the industry. Therefore, it is assumed that the use of debt will have a positive effect on public sector entities' financial performance.

Therefore, the following hypotheses are formulated in regard to debt:

H7a: Debt will be positively associated with small cap company financial performance.

H7b: Debt will be positively associated with large cap company financial performance.

H7c: Debt will be positively associated with public sector corporate entity financial performance.

4.2.8 DIVIDENDS

Rozeff (1982) reported evidence of a strong relationship between dividend payouts and a set of variables proxying for agency and transaction costs in a large sample of US companies for the period 1974 to 1980. In a cross-sectional analysis, Crutchley and Hansen (1989) show evidence of dividend policy acting as a corporate monitoring vehicle. Farinha (2003) provides empirical evidence of dividend policy reducing agency problems, either by increasing the frequency of external capital raising and associated monitoring by investment bankers and investors (Easterbrook, 1984) or by eliminating free cash-flow (Jensen1986). Based on this evidence, it is reasonable to assume that dividend payouts will have a positive effect on company financial performance.

Zeckhauser and Pound (1990) suggest (after controlling for company size and industry) that the effect of dividend policy on other governance mechanisms may be indirectly controlled. In New Zealand, it could be directly used as a mechanism to monitor manager behaviour. With a small pool of directors available for board appointments, it may become difficult for

companies to engage good directors. Also, there is a tendency in New Zealand for the same person to be sitting on many boards (overboarding) thus making it difficult to remain focused. In such circumstances, utilising dividend payouts as a means of getting capital market involvement in monitoring a manager's performance may lead to performance enhancement.

Therefore, the following hypotheses are formulated in regard to dividends:

H8a: Dividends will be positively associated with small cap company financial performance.

H8b: Dividends will be positively associated with large cap company financial performance.

H8c: Dividends will be positively associated with public sector corporate entity financial performance.

4.3 DATA AND RESEARCH METHODS

This section describes the research methods used to test the research framework and research hypotheses presented above. The sections that follow describe the methodology used for data collection, measurement of the variables, empirical models and techniques for data analysis.

4.3.1 DATA

Data for this study were obtained from NZX Deep Archive databases for the small and large cap companies listed on the New Zealand Stock Exchange (NZX). For the small cap companies, the sampling period is 1999 through to 2006. The sample companies cover all sectors of the economy: primary, energy, goods, property, services and investment. Companies that did not have all the required information were excluded from the sample. From the 880 company-year observation in the sample period, 226 company-year observations were excluded because of missing information; the remaining 562 company-year (71.3%) were included in the pooled data set for this study of small cap companies.

Data for the top 50 publicly listed companies (large cap companies) on the NZX cover the period 1999 through 2007. The top fifty companies were chosen because they constitute the NZX50 index and the findings of this study will be more readily comparable to international studies of the larger company sector in respective countries. It is to be noted that the NZX50 was introduced in New Zealand on 3 March, 2003, and prior to this date, the top 40 companies were used to determine the NZX40 index. Therefore, the sampling period 1999 to 2002 uses the top 40 companies in each year, and the years 2003 to 2007 includes the top 50

companies in each year. In total, there are 410 company-year observations included in the sample covering all sectors of the economy, including primary, energy, goods, property, service and investments. Seventy company-year observations are excluded from the sample because they did not have all the information, while the remaining 340 company-year observations (78.3% of the sample) have all the information and are included in the pooled data set for this study for large cap companies.

Data for public sector corporate entities were obtained from the annual reports of SOEs and Crown-owned companies listed in the CCMAU database for the period 2000 to 2007. In total, there are 183 entity-year observations in the sample period. Two companies' annual reports for 2007 were not available at the time of data collection. Accordingly, 181 organisations' data are included in the sample. The number of Crown companies increased during the period, from 15 in 2000 to 30 in 2007. Table 4.1 below shows the number of small cap, large cap companies and Crown entities in each year from 1999 to 2007.

Table 4.1:
Number of Listed Companies and Public Sector Entities' data included in this study each year

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007[33]	Total
Small Cap Companies	43	44	64	63	75	92	102	79	-	562
Large Cap Companies	31	33	34	36	38	38	42	43	45	340
Crown Entities	-	15	17	19	22	23	27	30	30	183

4.3.2 VARIABLES

The sections that follow describe the dependent variables and independent (explanatory) variables used in this study.

4.3.2.1 DEPENDENT VARIABLES

Tobin's Q as the financial performance measure is commonly used as a dependent variable (Agrawal & Knoeber, 1996; Chung & Pruitt, 1994; Hossain et al., 2001; Kang & Stulz, 1996;

[33] In 2007, only 28 public sector corporate entities' data was available. Two companies annual report was released at the time of data collection.

Loderer & Peyer, 2002; Perfect & Wiles, 1994; Reddy et al., 2008a). An accounting-based performance measure, return on assets (ROA), has been used by Demsetz and Villalonga (2001), Finch and Shivadasani (2006), Thomsen, Pedersen & Kvist (2006). Demsetz and Villalonga (2001) argue that both financial performance measures have pitfalls. For example, futuristic and forward-looking measure Tobin's Q is typically estimated as:

$$\text{Tobin's Q} = \frac{\text{MVE} + \text{L/T Debt} + \text{Net S/T Debt}}{\text{Total Assets}}$$

where MVE (the market value estimate) is the product of a company's share price and the common stock outstanding, L/T Debt is the book value of long term liabilities; Net S/T Debt is the book value of current liabilities less current assets. Demsetz and Villalonga (2001) argue that although the numerator of Tobin's Q partly reflects the value that investors assign to a company's intangible assets, the denominator does not include the investment the company has in intangible assets, such as reputation, brand equity and research and development. These items are simply treated as expenses. This distorts the performance comparison of companies that rely on the differing degrees of intangible capital (see Demsetz, 1979; Telser, 1969; Weiss, 1969). To overcome this problem, recent studies use the depreciated book value of tangible assets. Tobin's Q is estimated in the same way for this study.

The accounting-based performance measure, ROA is also used in this study. The accounting-based profit measure is criticised as being backward-looking and it only partially estimates future events in the form of depreciation and amortization. On the other hand, Tobin's Q is greatly influenced by a wide range of unstable factors, such as investor psychology, and market forecasts. Considering the above concerns, both measures of financial performance are used in this study.

ROA is computed by dividing net income by book value of total assets, that is:

$$\left(\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}\right)$$

The ratio of market value to book value of equity (MB) is also used in this research:

$$\text{MB} = \frac{\text{Stock Price} * \text{No. of Shares}}{\text{Total Equity (TE)}}$$

where TE is equal to net assets, that is, assets less debt (TE = A – L).

The dependent variable – Tobin's Q is commonly used in governance studies as a proxy for company performance of publicly listed companies (Agrawal & Knoeber, 1996; Bhagat & Black, 1998; Bhagat & Jefferis, 2002; Reddy et al., 2008a; Weir, Laing & McKnight, 2002; Yermack, 1996). Since Crown companies are not publicly listed, it becomes difficult to estimate the market value of their common equity. However, the commonly used accounting measures of company performance such as, Return on Assets (ROA), Return on Equity (ROE), Operating Income Return on Assets (OPROA), Total Sales to Total Assets (S2TA) and Total Cost to Net Revenue (C2REV) are appropriate choices for the dependent variable. Studies that have used a ratio of total assets to total sales, and a ratio of operating expenses to total sales as the proxy for agency costs in the private sector settings include Ang, et al. (2000), and Singh and Davidson III (2003).

These ratios are selected because they are commonly used in empirical studies that tend to focus on the stakeholder viewpoint. Public sector entities do have a stakeholder focus, so it is deemed appropriate to use measures that reflect stakeholder attributes. The dependent variables are estimated as follows:

ROA - is computed by dividing net income by book value of total assets

$$\left(\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}\right);$$

ROE - is computed by dividing net income by total shareholders' equity

$$\left(\text{ROE} = \frac{\text{Net Income}}{\text{Shareholders Equity}}\right);$$

OPROA - is computed by dividing EBITDA (earnings before interest, tax, depreciation and amortisation) by total assets $\left(\text{OPROA} = \frac{\text{EBITDA}}{\text{Total Assets}}\right)$;

S2TA - is computed by dividing net revenue by total assets

$$\left(\text{Total Assets Turnover} = \frac{\text{Net Sales}}{\text{Total Sales}}\right);$$

C2REV - is computed by dividing total costs (Net Revenue – EBITDA) by net revenue

$$\left(\text{C2REV} = \frac{\text{Revenue} - \text{EBITDA}}{\text{Net Revenue}}\right).$$

A high ratio represents a favourable financial performance apart from C2REV where a low ratio represents greater efficiency.

Since no consensus exists in the literature concerning a reliable financial performance measure, a variety of measures are used.

4.3.2.2 EXPLANATORY VARIABLES

The independent variables employed in this study are factors that are found in the literature to have an influence on company financial performance, either positively or negatively. The variables and the way they are determined in this study are given as follows: Insider ownership (MOWN) is the proportion of shares held by all members of the board of directors, including top officers of the company who are members of the board, divided by total ordinary shares outstanding. Blockholding (BOWN) is the proportion of shares held by the 20 largest shareholders of the company. Non-Executive/Independent Directors (NED) is the proportion of non-executive/independent directors on the board. According to the NZSC (2004),

> *a non-executive director is formally classified as independent only where he/she does not represent a substantial shareholder and where the board is satisfied that he/she has no other direct or indirect interest or relationship that could reasonably influence their judgement and decision making as a director.*
>
> *The boards of publicly listed companies should have a majority of non-executive directors and a minimum of one third should be independent directors. Boards taking care to meet all disclosure obligations concerning directors and their interests, include information about the directors, and identify which directors are independent (p. 11).*

Although board independence is regarded as an important element in good governance, there is a general lack of consensus in terms of what constitutes "independent". Prior to 2004, New Zealand companies reporting on directors identified directors as either "executive" and "non-executive" directors, and disclosed very little information regarding the directors to external stakeholders. This leads to inconsistencies in interpreting the definition of independence. A general lack of disclosure of such information by companies in their annual reports and in other forms of corporate communications also means these inconsistencies cannot be corrected. Empirical studies examining director independence also find it difficult to compare one company's definition of director independence to other companies. Some previous

studies have avoided the word "independence" by using "outside directors" to describe directors who are presumed to be independent from management (Ajinkya, Bhojraj & Sengupta, 2005; Hossain et al., 2001), or simply consider potential differences between "non-executive" and "executive" directors. Other studies acknowledge a director's independence when he/she is independent from senior management of the company (Anderson, Mansi & Reeb, 2004; Dulewicz & Herbert, 2004; Hooghiemstra & van Manen, 2004).

Notwithstanding the lack of consensus on the definition of outside or independent directors, it is still perhaps the most "recommended" practice of good corporate governance that corporations should, in an effort to enhance the effectiveness of the board, constitute a board with a majority of outside directors. The publication of the NZSC principles and guidelines in 2004 clarifies, to some extent, what constitutes an independent director. Consequently, there will be some consistency in the reporting of independent directors after 2004. However, there exists mixed information in the companies' annual reports prior to 2004 regarding director independence. A director may have been reported to be independent but is not, or a director may have not reported to be independent, but is. To reduce the effect of any bias arising from the inconsistent reporting of independent directors, non-executive/independent directors (NED) are used, that is, directors who are reported to be either non-executive and/or independent.

The board size (BDS) is the natural log of the total number of directors on the board. Leverage (LEV) is the proportion of debt defined as long term liabilities plus short-term liabilities divided by the total assets. Company size (Log (TA)) is the natural log of total assets which is a proxy for size. This measure is also used by Anderson and Reeb (2004). Dividend (DIV2TA) is the book value of the dividend paid by the company divided by book value of the total assets.

The NZSC recommends that publicly listed companies should establish an audit committee of the board with responsibilities to:

> *recommend the appointment of external auditors; to oversee all aspects of the entity-audit company relationship; and to promote integrity in financial reporting (p.13).*
>
> *The members of the audit committee should comprise all non-executive directors with a majority being independent directors. At least one director should be either a chartered accountant or have another form of financial expertise. The chairperson should be an independent director who is not the chairperson of the board (p. 13).*

The NZSC also recommends that listed companies should also establish remuneration committees (where necessary) to determine the appropriate remuneration structure of the chief executives, and executive and non-executive directors. To study the effect these committees have on companies' financial performance, two committee variables are created. The Audit Committee (ACOM) is set equal to "1" if companies have an audit committee; otherwise it is set equal to "0". A Remuneration Committee (RCOM) is set equal to "1" if companies have a remuneration committee; otherwise it is set equal to "0". Company level risk (FMRISK) is the standard deviation of the daily stock price of the company for the period 1999 through to 2007. BUSRISK is business level risk which is the standard deviation of the five year return on assets. To study the effect NZSC recommendations have on company financial performance, a variable AFTER2003 is created. AFTER2003 is equal to 1 if the year is after 2003; otherwise it is set equal to 0. A variable COMPLIED is created to measure the effect the NZSC recommendations has on company financial performance. COMPLIED is equal to 1 if the company complies with the NZSC recommendations (that is, has non-executive/independent directors, audit committee and remuneration committee); otherwise is equal to 0. To capture the effect of compliance after 2003 on performance, a variable ComAft is created. ComAft is the interaction between COMPLIED and AFTER2003 (ComAft = COMPLIED * AFTER2003). In practice, each company has different corporate governance structures and those structures are assumed to be similar for companies that are in the same industry. Previous studies have looked at the industry effect on company financial performance (Cho, 1998; Demsetz & Lehn, 1985; Demsetz & Villalonga, 2001). In a similar way, to study the effect corporate governance practices of different industries have on financial performance, industry dummy variables are created. NZX classifies all listed companies into six sectors; primary (agriculture & fishing, mining, forestry, and building), energy, goods (food, textile & apparel, intermed & durables), property, service (transport, port, leisure & tourism, media & communication, finance & other services) and investment. Using NZX classification, six industry dummy variables are introduced. IND1 is the dummy variable equal to 1 if the company belongs to primary, IND2 for energy, IND3 for goods, IND4 for property, IND5 for service and IND6 for investment. For public sector corporate entities, the classification of whether it is a SOE or CRI is used. Therefore, "1" is when the entity is a SOE, otherwise equal to "0".

There are a number of companies that were in the small cap list, NZX Top40 list in 1999 and SOE list in 2000 but are not in NZX small cap list in 2006 or NZX Top50 list in 2007, or are in the SOE list in 2007, thus raising concerns regarding the effect that non-surviving companies have on the results. To control the effect of non-survivorship companies on the results, a variable SURV is created which is equal to "1" if the company is continuously present in all the years of the sampling period from 1999 to 2007, otherwise it is equal to "0". The variable CSURV measures the effect on company performance of companies that survived through the sampling period and also complied with NZSC recommendations. It is calculated by multiplying COMPLIED by SURV.

To study the effect of the growth of New Zealand economy had on company financial performance, a variable RGDP is created. RGDP is the yearly real growth rate.

Table 4.2 below provides a summary of the dependent and control variables used in this research

Table 4.2:
Governance and Performance Variables

VARIABLES	MEASUREMENT TECHNIQUE
Dependent	
Tobin's Q	Ratio of MVE (market value of shareholders' equity) + (L/T Debt (book value of long term debt) + Net S/T Debt (Current Liabilities – Current Assets) to book value of total assets.
ROA	Ratio of net income to total assets.
MB	Ratio of the market value of equity to total shareholders' equity (Total Assets – Total Liabilities).
ROE	Ratio of net income to total shareholders' equity.
OPROA	Ratio of EBITDA (earnings before interest, tax, depreciation and amortisation) to total assets.
S2TA	Ratio of net revenue to total assets.
C2REV	Ratio of net revenue less EBITDA (earnings before interest, tax, depreciation and amortisation) to net revenue.
Independent (Explanatory)	
IOWN	Proportion of shares held by insider.
BOWN	Proportion of twenty top shareholding.
NED	Proportion of non-executive/independent directors on the board.

VARIABLES	MEASUREMENT TECHNIQUE
BDS	Log of board size.
FD	Proportion of female directors on the board.
ACOM	Equals to “1” if the company has audit committee, otherwise “0”.
RCOM	Equals to “1” if the company has remuneration committee, otherwise “0”.
LEV	Long term liabilities plus short-term liabilities divided by total assets.
DIV2TA	Dividend paid per year to total assets.
Control	
CR	Ratio of current assets to current liabilities.
Log(TA)	Proxy for size which is the natural log of total assets.
Log(REV)	Proxy for size which is the natural log of total revenue.
BUSRISK	Standard deviation of the 5-year return on assets.
FMRISK	Standard deviation of the daily stock price for the each year.
RGDP	Real growth rate of the gross domestic product.
AFTER2003	Equals to “1” if the year is after 2003, otherwise “0”.
COMPLIED	Equals to “1” if the company has non-executive/independent directors, audit committee and remuneration committee, otherwise “0”.
ComAft	Is the interaction between COMPLIED and AFTER2003.
SURV	Equals to ‘1” if the company survives the sample period, otherwise equal to “0”.
CSURV	Is the interaction between COMPLIED and SURV.
Intangible2ta	Totals assets less current assets and net fixed assets to total assets.
Marketshare	Total sales revenue of the company to the total sales revenue of the industry to which the company belongs.
IND1	Dummy variable equal to “1” if the company is in the primary industry, otherwise “0”.
IND2	Dummy variable equal to “1” if the company is in the energy industry, otherwise “0”.
IND3	Dummy variable equal to “1” if the company is in the goods industry, otherwise “0”.
IND4	Dummy variable equal to “1” if the company is in the property industry, otherwise “0”.
IND5	Dummy variable equal to “1” if the company is in the services industry, otherwise “0”.
IND6	Dummy variable equal to “1” if the company is in the investment industry, otherwise “0”.

VARIABLES	MEASUREMENT TECHNIQUE
IND7	Dummy variable equal to "1" if the company is also listed in other stock exchanges, otherwise "0".
INDPS	Dummy variable equal to "1" if the public sector corporate entity is an SOE, otherwise "0".

4.3.3 MODEL SPECIFICATION

4.3.3.1 MODEL SPECIFICATION FOR SMALL AND LARGE CAP COMPANIES

Most of the literature uses univariate or multivariate regression analysis to test the relationship between corporate governance factors and company financial performance. These studies consider ownership as an exogenous variable. Based on these prior studies, an ordinary least squares regression (OLS) is employed to establish if governance and control mechanisms have an effect on company financial performance. The models estimated are:

$$\begin{aligned} FP = {} & \alpha_1 + \beta_{11}IOWN + \beta_{12}BOWN + \beta_{13}NED + \beta_{14}BDS + \beta_{15}LEV + \beta_{16}DIV2TA + \beta_{17}\log(TA) \\ & + \beta_{18}ACOM + \beta_{19}RCOM + \beta_{20}FMRISK + \beta_{21}BUSRISK + \beta_{22}COMPLY + \beta_{23}IND1 \\ & + \beta_{24}IND2 + \beta_{25}IND3 + \beta_{26}IND4 + \beta_{27}IND5 + \beta_{28}IND6 + \beta_{29}IND7 + \beta_{30}SURV \\ & + \beta_{31}RGDP + e \qquad ---(1) \end{aligned}$$

$$\begin{aligned} FP = {} & \alpha_2 + \beta_{21}IOWN + \beta_{22}BOWN + \beta_{23}NED + \beta_{24}BDS + \beta_{25}LEV + \beta_{26}DIV2TA + \beta_{27}\log(TA) \\ & + \beta_{28}ACOM + \beta_{29}RCOM + \beta_{30}FMRISK + \beta_{31}BUSRISK + \beta_{34}ComAft + \beta_{35}IND1 \\ & + \beta_{36}IND2 + \beta_{37}IND3 + \beta_{38}IND4 + \beta_{39}IND5 + \beta_{40}IND6 + \beta_{40}IND7 + \beta_{41}SURV \\ & + \beta_{42}RGDP + e \qquad ---(2) \end{aligned}$$

$$\begin{aligned} FP = {} & \alpha_3 + \beta_{31}IOWN + \beta_{32}BOWN + \beta_{33}NED + \beta_{34}BDS + \beta_{35}LEV + \beta_{36}DIV2TA + \beta_{37}\log(TA) \\ & + \beta_{38}ACOM + \beta_{39}RCOM + \beta_{40}FMRISK + \beta_{41}BUSRISK + \beta_{42}ComAft + \beta_{43}IND1 \\ & + \beta_{44}IND2 + \beta_{45}IND3 + \beta_{46}IND4 + \beta_{47}IND5 + \beta_{48}IND6 + \beta_{49}IND7 + \beta_{51}LESS1 \\ & + \beta_{52}BET15 + \beta_{53}BET510 + \beta_{54}BET1020 + \beta_{55}OVER20 + e \qquad ---(3) \end{aligned}$$

where FP = Company Financial Performance measured by Tobin's Q, MB and ROA

Equation (1) determines the relationship between financial performance and governance mechanisms of companies that were continuously noncompliant with NZSC recommendations since 1999. This is undertaken for three company financial performance measures. Equation (2) determines the relationship between financial performance and governance mechanisms for companies that complied with the NZSC recommendations after 2003. This is also undertaken for three financial performance measures. Equation (3) estimates whether a piecewise linear relationship exists between insider ownership and company financial performance. This is undertaken for IOWN less than 1%, between 1% and

5%, between 5% and 10%, between 10% and 20% and over 20%. Dummy variable LESS1 is equal to 1 if IOWN is less than 1, otherwise equal to 0. Dummy variable BET15 is equal to 1 if IOWN is less than 1, otherwise equal to 0. Dummy variable BET510 is equal to 1 if IOWN is less than 1, otherwise equal to 0. Dummy variable BET1020 is equal to 1 if IOWN is less than 1, otherwise equal to 0. Dummy variable OVER20 is equal to 1 if IOWN is less than 1, otherwise equal to 0.

To study whether the companies that complied with NZSC recommendations after 2003 improved financial performance compared to the period before 2003, a financial performance measure FPdiffAV is created. FPdiffAV for the small cap companies is the difference between average company financial performance for the periods 2004-2006 and 2001-2003. The FPdiffAV for the large cap companies is the difference between 2004-2007 and 2000-2003.

$$\begin{aligned} \text{FPdiffAV} = {} & \alpha_4 + \beta_{41}\text{IOWN} + \beta_{42}\text{BOWN} + \beta_{43}\text{NED} + \beta_{44}\text{BDS} + \beta_{45}\text{LEV} + \beta_{46}\text{DIV2TA} \\ & + \beta_{47}\log(\text{TA}) + \beta_{48}\text{ACOM} + \beta_{49}\text{RCOM} + \beta_{50}\text{FMRISK} + \beta_{51}\text{BUSRISK} \\ & + \beta_{52}\text{ComAft} + e \qquad \text{---(4)} \end{aligned}$$

4.3.3.1.1 ROBUSTNESS

Studies undertaken by Demsetz (1983), Demsetz and Lehn (1985), Himmelberg et al. (1999), Palia (2001) and Gugler and Weigand (2003) show that problems arise with OLS regression if two or more variables are jointly endogenous. They argue that both company ownership and financial performance are explained by common company characteristics, some of which are unobservable, and the omission of these unobservable characteristics in the value model leads to biased conclusions regarding the influence of ownership on value because of the relationship between the former and the omitted variables (Pindalo & de la Torre, 2009).

The panel data methodology allows control for heterogeneity through individual effect, in which the common determinants of ownership and value will be included. However, if an endogeneity problem stems from the lack of consideration of the potential inverse causality, then ownership variables will be correlated with random disturbances (i.e., $E(x_{it}. e_{it}) \neq 0$), once the individual effect has been controlled for. To control the effect of inverse causality, this study uses the 2SLS regression technique. In the first stage, ownership is determined by using OLS regression techniques, and in the second stage; values determined for ownership are used to determine financial performance. The models formulated are based on Tobin's Q,

MB and ROA as dependent variables. The following variables SIZE, LEV, Intangible2ta and Marketshare are treated as instrumental variables. Marketshare is the proxy for the company's market power in the industry, which is determined by dividing the company's sales revenue by total sales revenue for the industry in which the company belongs. Intangible2ta is the proxy for the level of intangible assets held by the company, determined by subtracting current assets and net fixed assets from total assets and dividing by total assets. The systems of equations formulated for this study is:

$$IOWN = \alpha_5 + \beta_{50}FP + \beta_{51}BOWN + \beta_{52}NED + \beta_{53}BDS + \beta_{54}LEV + \beta_{55}\log(TA) + \beta_{56}FMRISK + \beta_{57}Marketshare + \beta_{58}Intangible2ta + e \quad ---(5)$$

$$BOWN = \alpha_6 + \beta_{60}FP + \beta_{61}IOWN + \beta_{62}NED + \beta_{63}BDS + \beta_{64}LEV + \beta_{65}DIV2TA + \beta_{66}\log(TA) + \beta_{67}FMRISK + \beta_{68}BUSRISK + \beta_{69}Marketshare + \beta_{70}Intangible2ta + e \quad ---(6)$$

$$FP = \alpha_7 + \beta_{70}IOWN + \beta_{71}BOWN + \beta_{72}NED + \beta_{73}BDS + \beta_{74}LEV + \beta_{75}DIV2TA + \beta_{76}ACOM + \beta_{77}RCOM + \beta_{78}Log(TA) + \beta_{79}FMRISK + \beta_{80}BUSRISK + \beta_{81}ComAft + \beta_{82}CSURV + \beta_{83}IND1 + \beta_{84}IND2 + \beta_{85}IND3 + \beta_{86}IND4 + \beta_{87}IND5 + \beta_{88}IND6 + \beta_{89}IND7 + \beta_{90}Marketshare + \beta_{91}Intangible2ta + \beta_{92}RGDP + e \quad ---(7)$$

4.3.3.2 MODEL SPECIFICATION FOR PUBLIC SECTOR CORPORATE ENTITIES

Using panel data for the years 2000 to 2007, the Ordinary Least Squares (OLS) regression technique is used to measure the effect corporate governance mechanisms and control variables have on entity financial performance measured by ROA, ROE, OPROA, S2TA and C2REV. Börsch-Supan and Köke (2002) state that the problem of reverse causality in governance research can be resolved by panel data as it provides for instruments that are not available in cross-section data. The model being formulated is given as:

$$FP = \alpha_8 + \beta_{81}NED + \beta_{82}BDS + \beta_{83}FD + \beta_{84}ACOM + \beta_{85}RCOM + \beta_{86}LEV + \beta_{87}DIV2TA + \beta_{88}CR + \beta_{89}Log(TA) + \beta_{90}FMRISK + \beta_{91}INDPS + e \quad \text{---------- (8)}$$

Where,

FP = Entity Financial Performance measured by ROA, ROE, OPROA, S2TA, and C2REV

To study whether public sector corporate entities that complied with the NZSC recommendations after 2003 improved financial performance compared to the period before 2003, a financial performance measure DiffAvROA is created. DiffAvROA is the difference between the average ROA for the 2004-2007 and 2000-2003.

$$DiffAvROA = \alpha_9 + \beta_{91}NED + \beta_{92}BDS + \beta_{93}FD + \beta_{94}ACOM + \beta_{95}RCOM + \beta_{96}LEV + \beta_{97}DIV2TA + \beta_{98}CR + \beta_{99}Log(TA) + \beta_{100}FMRISK + \beta_{101}COMPLIED + \beta_{102}SURV + e \quad \text{---------- (9)}$$

To measure the effect of the time period when NZSC recommendations came into effect, a dummy variable AFTER2003 is used. AFTER2003 is equal to "1" if the year is after 2003, otherwise equal to "0". It is assumed that public corporate entities that have adopted the NZSC's recommendations from 2004 will have a positive effect on financial performance. Therefore, AFTER2003 will be statistically significant and positive. Also, board and performance may be explained by common entity characteristics, some of which are unobservable, and the omission of these unobservable characteristics in the value model leads to biased conclusions regarding the influence of the board on financial performance. Himmelberg, et al. (1999) argue that the existence of both intangible assets in the product market increases corporate value. Therefore, to overcome the problem of endogeneity, this study controls the effects of marketshare and intangible assets on company value.

The revised model incorporating these two variables is given as:

$$FP = \alpha_{10} + \beta_{101}NED + \beta_{102}BDS + \beta_{103}FD + \beta_{104}ACOM + \beta_{105}RCOM + \beta_{106}LEV + \beta_{107}DIV2TA + \beta_{108}CR + \beta_{109}Log(TA) + \beta_{110}FMRISK + \beta_{111}Marketshare + \beta_{112}Intangible2ta + \beta_{113}AFTER2003 + \beta_{114}SURV + \beta_{115}INDPS + e \quad \text{---------- (10)}$$

To measure the effect NZSC recommendations have on the public corporate entities performances, a dummy variable COMPLIED is used. COMPLIED is equal to "1" if public corporate entities complied with all the NZSC's recommendations (that is, have an independent chair, independent directors are on the board, board committees) otherwise equal to "0". If adopting NZSC recommendations leads to an increase in company financial performance, the coefficient of COMPLIED will be positive and significant. To determine whether the public sector corporate entities improved financial performance after complying with the NZSC recommendations is measured by the variable Comaft. Comaft is determined by multiplying COMPLIED by AFTER2003. The revised model is given as:

$$FP = \alpha_{11} + \beta_{111}NED + \beta_{112}BDS + \beta_{113}FD + \beta_{114}ACOM + \beta_{115}RCOM + \beta_{116}LEV + \beta_{117}DIV2TA + \beta_{118}CR + \beta_{119}Log(TA) + \beta_{120}FMRISK + \beta_{121}Marketshare + \beta_{122}Intangible2ta + \beta_{123}AFTER2003 + \beta_{124}SURV + \beta_{125}ComAft + \beta_{126}INDPS + e \quad \text{---------- (11)}$$

4.3.4 CHECK FOR MULTICOLLINEARITY

According to Field (2005), the variance inflation factor (VIF) indicates whether a predictor has a strong linear relationship with other predictor(s). However, there is no clear guidance provided regarding the value of the VIF that should cause concern. Myers (1990) suggests that a value of 10 is a good value at which to worry and Bowerman and O'Connell (1990) suggest that if the average VIF is greater than 1, then multicollinearity may be biasing the regression model. Also, Field suggests that tolerance statistic (which is reciprocal of VIF (1/VIF)) should not be less than 0.1 and Menard (1995) suggests that tolerance statistics should not be less than 0.2. Field also suggests that pairwise correlation above 0.8 is of concern.

To test for multicollinearity among predictor variables, both VIF and tolerance statistic will be calculated.

4.3.5 ESTIMATION OF STANDARD ERRORS

Petersen (2008) and Wooldridge (2004) provide an analysis of the impact of correlated residuals on the bias in standard errors in the panel datasets. The residuals of a given company may be correlated across years (time-series dependence) or unobserved company effect (Worldridge, 2007) and, alternatively, the residuals of a given year may be correlated across different companies (cross-sectional dependence) (Petersen, 2008).

According to Petersen, in the presence of a company effect [e.g., $\mathrm{COV}(X_{it}\varepsilon_{it}, X_{it-k}\varepsilon_{it-k}) \neq 0$], standard errors are biased when estimated by OLS. White, Newey-West (modified for panel data sets), Fama-MacBeth, or Fama-MacBeth corrected for first-order autocorrelation. The standard errors clustered by company are unbiased and produce correctly sized confidence intervals whether the company effect is permanent or temporary. The fixed effect and random effects model also produces unbiased standard errors but only when the company effect is permanent. In the presence of a time effect [e.g., $\mathrm{COV}(X_{it}\varepsilon_{it}, X_{tk}\varepsilon_{tk}) \neq 0$], Fama-MacBeth produces unbiased standard errors and correctly sized confidence intervals. Standard errors clustered by time also produce unbiased standard errors and correctly sized confidence intervals, but only when there are a sufficient number of clusters. When there are too few clusters, clustered standard errors are biased even when clustered on the correct dimension. When a company and a time effect are both present in the data, researchers can address one

parametrically (e.g., by including time dummies) and then estimate standard errors clustered on the other dimension.

When estimating the governance–performance relationship in Chapters 5, 6 and 7, OLS with fixed effects estimator including company and year fixed effects and also OLS with fixed effects estimator with clustered (Rogers) standard errors, will also be reported. When estimating the governance–performance relationship using 2SLS methodology, standard errors adjusted for clustering (Rogers's standard errors) will be reported.

4.4 SUMMARY

This chapter describes the research framework for this thesis and presents conceptual model for the empirical analysis. The governance mechanisms are described and the sample and data used in this study are also presented. Variables are also defined and a summary of variables are given. It also explores on research methods used for data analysis to test the hypotheses. Various hypotheses to be investigated are provided along with empirical models used to test the hypotheses.

Chapter 5 provides the empirical results for the relationship between corporate governance practices and financial performance of small cap companies in New Zealand

CHAPTER 5
CORPORATE GOVERNANCE PRACTICES AND FINANCIAL PERFORMANCE IN SMALL CAPITALISED COMPANIES: AN EMPIRICAL INVESTIGATION[34]

5.0 INTRODUCTION

This chapter presents the results of the empirical study of the relationship between corporate governance mechanisms and small cap company financial performance in New Zealand. A description of sample size used in this study is provided in Chapter 4, Table 4.1. Description of the governance and financial performance variables used in this chapter is provided in Chapter 4, Table 4.2. This chapter has three sections. First, a description of the sample descriptive statistics is provided. This is followed by a presentation of results from data analyses and discussion and finally, the conclusion is provided.

5.1 EMPIRICAL RESULTS

5.1.1 DESCRIPTIVE STATISTICS

The sample comprised 788 small cap companies listed on the New Zealand Stock Exchange for the period 1999 to 2006. Companies that did not have all the required information were removed from the sample and, as a result, the final sample comprised 562 company-years data or 71.3% of the companies. Table 5.1 provides the sample's descriptive statistics.

Table 5.1 provides a summary of descriptive statistics for the pooled data, including means, medians, minimum, maximum and inter-quartile ranges. The mean Tobin's Q is 1.24, with a median of 0.95. The average Tobin's Q is greater than one, which means that companies (on an average basis) have created value for the shareholders. However, the median Tobin's Q of 0.95 indicates that fifty percent of small cap companies have a Tobin's Q below 0.95, indicating destruction of shareholder value over the sampling period. The mean (median) of MB is 1.78 (1.46) and both values are above one indicating creation of shareholder value.

[34] *A version of this chapter has been published in the International Journal of Business, Governance and Ethics, 2008, vol. 4(1), pp.51-78*

The mean (median) of ROA is -10% (3%) and the mean (median) of ROE is –13% (7%). Both accounting measures of company financial performance (ROA and ROE) have negative values indicating the majority of small cap companies have destroyed shareholder value over the sampling period.

The mean proportion of insider ownership (IOWN) is 26% with a median of 14%. The 25th percentile is 1% and the 75th percentile is 50%. Reddy, et al. (2008a) studied 355 small cap companies in New Zealand between 2001–2005 and reported mean (median) IOWN of 31.3% (26.3%) and lower and upper percentiles of 6.5% and 53.1%, respectively.

Table 5.1
Descriptive Statistics

Variables	Mean	Medium	Minimum	Maximum	Inter-quartile Range
Dependent					
Q	1.24	0.95	-0.16	5.76	0.53 – 1.52
MB	1.78	1.46	-2.25	6.87	0.92 – 2.22
ROA	-0.10	0.03	-1.95	0.39	-0.08 – 0.08
ROE	-0.13	0.07	-5.24	1.80	-0.09 – 0.15
Governance					
IOWN	0.26	0.14	0.00	0.95	0.01 – 0.50
BOWN	0.71	0.75	0.06	0.98	0.60 – 0.85
NED	3.8	6	0	10	2 - 5
BDS	5.6	6	3	12	5 - 7
FD	0.25	0	0	2	0 - 1
ACOM	0.79	1	0	1	
RCOM	0.60	1	0	1	
LEV	0.49	0.40	0.00	1.38	0.21 – 0.62
DIV2TA	0.03	0.01	0.00	0.28	0.00 – 0.04
Control					
Log(TA)	4.70	4.68	2.58	5.40	4.00 – 5.40
FMRISK	0.25	0.13	0.01	2.11	0.05 – 0.30
BUSRISK	0.18	0.09	0.00	1.07	0.02 – 0.21
IND1	0.17	0	0	1	
IND2	0.04	0	0	1	
IND3	0.12	0	0	1	
IND4	0.03	0	0	1	
IND5	0.48	0	0	1	
IND6	0.15	0	0	1	

Note: For the details of the measurement methods for the variables stated above, refer to Table 4.2 in Chapter 4.

The insider holding in the larger sample is lower compared to the smaller sample size used by Reddy et al. in 2008. In the sampling period 1999-2006, 9% of the companies have zero IOWN, 8% have IOWN less than 0.01% and 9% have IOWN less than 1%. In comparison,

Bhagat and Black (1998) report a mean (median) combined top management and director stock ownership of 9% (3%) in the US. Whereas, Short and Keasey (1999) report an average IOWN of 13% for the UK. Morck et al (1988) report that 58% of companies in the US have an IOWN level of 5% or less and in the UK the equivalent figure is 48% (Short & Keasey, 1999). The figure for New Zealand is 37%. The mean (median) figures for IOWN reported for New Zealand are comparably higher to values for the US. Insider ownership is higher in New Zealand due to initial owners retaining a fraction of the shares of the company after going public and taking up officer and director positions in the company as well.

The average proportion of stock held by the 20 largest shareholders (BOWN) is 71%. The median BOWN is 75%. The inter-quartile range for BOWN is 60–85%. In the sample, 14% of the companies have BOWN less than 50%. Reddy et al. (2008b) reported mean (median) BOWN of 63% (65%) and the inter-quartile range of 47–77% for the large companies in New Zealand. The equivalent percentage for the US is only 37.66% (Demsetz & Lehn, 1985). The reason for the comparatively smaller blockholding in the US companies is attributable to the US legislation restricting equity investment by insurance companies to a maximum of 2% of assets in a single company with a cap at 20% for investment in equities (Bhabra, 2007). As a consequence, insurance companies in the US hold a smaller proportion of stock compared to New Zealand. In the absence of such restrictions, insurance companies in New Zealand have tended to hold larger stakes in companies and therefore have the potential to exert significant influence in monitoring managers (Fox & Walker, 1995a). BOWN is an important component of small company ownership structure and the BOWN ratio is slightly higher in small cap companies compared to large companies. The introduction of new legislation that restricts blockholding in New Zealand companies has not made any significant effect on the ownership structure of companies. From a corporate governance point of view, the figures for both IOWN and BOWN indicate these are mechanisms to control the agency problem in small cap companies.

The mean (median) number of non-executive/independent directors (NED) is 3.8 (6) with the narrow inter-quartile range of 2–5. The proportion of NED in small cap companies in New Zealand is 67%, whereas Switzer and Tang (2008) report 85% for the US. The outsider-dominated boards are signs of strong board independence. The typical board has 5.6 members with an inter-quartile range of 5-7 members. Switzer and Tang (2008) report that in the US board size ranges from 4 to 15 with an average of 7 or 8 directors. This figure is the widely

accepted number of directors in an effective board (Jensen, 1983). In New Zealand, the average board size is slightly less than 7 which are reflective of the size of the companies. The board seems to play an important role in mitigating agency conflicts. The minimum number of female directors on boards is 0 and the maximum is 2. This indicates that there is awareness among some shareholders about having diversity in the boardroom. This is supported by McGregor (2008), that there is a need to have more women directors in listed company boardrooms. On an average, 79% of the boards have audit committees and 60% of the boards have remuneration committees in small cap companies. Reddy et al. report that 92% of the large companies in New Zealand have audit committees and 77% have remuneration committees. This shows that small cap companies have largely complied with New Zealand Securities Commission recommendations regarding the appointment of audit and remuneration committees.

The mean (median) dividend to total assets is 3% (0%) and inter-quartile range is between 0-4%. This indicates that dividend payments in the small cap companies are at a very low level. The mean (median) leverage in small companies is 49% (40%) indicating small companies are not highly leveraged. This may be because small companies have difficulty obtaining leverage compared to large companies.

The mean (median) Log(TA) is 4.49 (4.68). The mean (median) company risk is 25% (13%). The risk in small companies is higher compared to large companies which have a mean (median) risk of 5.6% (2.8%). The mean (median) business risk is 18% (9%). Demsetz and Lehn (1985) argue that the scope for moral hazard is greater for managers of riskier companies, which means that managers have to hold a higher level of ownership stake in riskier companies to align incentives. Since managers hold non-diversified portfolios and company riskiness makes it even more costly for them to hold such portfolios. The tendency among managers is to maximise personal wealth by maximising shareholder value because they can only reduce their human capital risk at the company level.

The companies in the sample belong to six different industry types, namely: 17% primary, 4% energy, 12% goods, 3% property, 48% services and 15% investment.

5.1.2 PAIRWISE CORRELATION BETWEEN INDEPENDENT VARIABLES

A pairwise correlation matrix for the independent and control variables is provided in Table 5.2. The highest correlation is between RCOM and ACOM at 0.62. It suggests that boards

that have an audit committee are also likely to have a remuneration committee as well. The second highest correlation is between Log(TA) and BDS at 0.60. This suggests that larger companies have larger boards and vice versa. The other high correlations are between ACOM and BDS (0.43), log (TA) and ACOM (0.42), RCOM and BDS (0.41). With these exceptions, other correlations range between –0.36 and 0.37. None of the pairwise correlations between independent variables are above 0.62, indicating that the likelihood of multicollinearity issues arising in the OLS regressions is low.

5.1.3 OLS REGRESSION OF TOBIN'S Q, MB, ROA AND ROE ON OWNERSHIP AND CONTROL VARIABLES

Table 5.3 presents the OLS regression of equation 1. Columns 2, 4, 6 and 8 of Table 5.3 provide coefficients of independent variables that are used in equation 1. Table 5.3 column 2 provides coefficients of the independent variable using Tobin's Q as a dependent variable. The independent variables BOWN, LEV and DIV2TA have positive coefficients, indicating that these variables have a positive effect on companies' financial performance measured by Tobin's Q. All three of these variables are statistically significant at a 1% level. The results show that blockholders provide better monitoring of managers performance which leads to improved company financial performance. This is because blockholders hold substantial equity stakes in the company which give them the power to make management serve their interest and they also have the resources to undertake monitoring and other costly control activities compared to other types of owners. This supports the monitoring hypothesis of blockholders provided by Holderness (2003) and Shleifer and Vishny (1986). LEV has a positive effect on financial performance, indicating that lenders provide vigilance on company financial performance and have potential for mitigating the agency problem (Berger et al., 1997; Harris & Raviv, 1991). This supports Jensen (1986) hypothesis that leverage increases the risk level of the company, which requires managers to work harder to generate and pay off cash flows to the outsiders. DIV2TA also has a positive effect on financial performance, indicating that dividend payments are regarded by capital markets as better utilisation of company cash flows.

Table 5.2:
Pairwise Correlation Matrix for the Independent Variables

Note: For details regarding the measurement methods for the variables refer to Table 4.2 in Chapter 4

	IOWN	BOWN	NED	BDS	FD	ACOM	RCOM	LEV	DIV2TA	Log(TA)	FMRISK	BUSRISK
IOWN	-											
BOWN	**0.236*** (0.000)**	-										
NED	-0.043 (0.306)	-0.055 (0.192)	-									
BDS	**-0.143*** (0.000)**	**-0.085++ 0.044)**	**0.128*** (0.003)**	-								
FD	-0.077 (0.070)	-0.031 (0.459)	-0.102† (0.016)	-0.066 (0.119)	-							
ACOM	**-0.084++ (0.047)**	-0.036 (0.400)	**0.215*** (0.000)**	**0.426*** (0.000)**	-0.055 (0.192)	-						
RCOM	0.043 (0.315)	0.004 (0.928)	**0.130*** (0.006)**	**0.414*** (0.000)**	-0.034 (0.418)	**0.615*** (0.000)**	-					
LEV	-0.036 (0.389)	0.008 (0.853)	0.079 (0.061)	-0.090† (0.033)	-0.040 (0.339)	0.034 (0.421)	0.062 (0.146)	-				
DIV2TA	-0.078 (0.066)	0.034 (0.417)	-0.001 (0.982)	0.060 (0.153)	0.016 (0.711)	**0.110++ (0.009)**	**0.099† (0.021)**	**-0.134*** (0.000)**	-			
Log(TA)	**-0.107** (0.012)**	**0.131*** (0.002)**	0.047 (0.268)	**0.601*** (0.000)**	**0.101++ (0.017)**	**0.416*** (0.000)**	**0.349*** (0.000)**	**-0.162*** (0.000)**	0.009 (0.831)	-		
FMRISK	**-0.099++ (0.019)**	0.023 (0.581)	**0.109*** (0.010)**	**0.370*** (0.000)**	0.065 (0.122)	**0.177*** (0.000)**	**0.177*** (0.000)**	-0.003 (0.936)	0.008 (0.858)	0.317*** (0.000)	-	
BUSRISK	-0.074 (0.080)	**-0.104*** (0.013)**	0.081 (0.056)	**-0.267*** (0.000)**	**-0.102*** (0.010)**	**-0.169*** (0.000)**	**-0.105*** (0.013)**	0.002 (0.962)	-0.045 (0.292)	-0.403*** (0.000)	**-0.130++ (0.002)**	-

*** denotes correlation is significant at 0.01 level (2-talied); ++ denotes correlation is significant at 0.05 level (2-tailed) ; † denotes correlation is significant at 0.1 level (2-tailed)

FMRISK has a positive coefficient and is statistically significant at a 5% level, indicating that financial performance measured by Tobin's Q is positively related to the risk undertaken. This shows that managers work harder when risk levels are high because managers hold undiversified portfolios and will lose more if the company fails. These results support hypotheses H2a (Blockholding), H7a (Leverage) and H8a (Dividends).

The negative coefficient of RCOM which is statistically significant at 5% level suggests that the presence of remuneration committees has not contributed positively towards company financial performance measured by Tobin's Q. This could be because the members of the remuneration committee in small cap companies are not independent and therefore the tendency among committee members is to reward themselves. The Sheffield survey provides support to the view that managers in New Zealand are rewarded for reasons other than meeting financial performance targets (Gunasekarage & Reed, 2008; Hembry, 2008). The result is the rejection of hypothesis H6b. Among the control variables, Log(TA) has a negative coefficient, which is statistically significant at 1% level, indicating that company size has a negative effect on Tobin's Q. This is similar to findings in the US; company size and financial performance are inversely related (Fama & French, 1992).

COMPLIED has a positive coefficient and is statistically significant at the 5% level. This indicates that compliance with the NZSE 2004 recommendations has contributed positively towards company financial performance measured by Tobin's Q. The negative coefficient of SURV, which is statistically significant at 1% level, indicates that companies that survived the sampling period contributed negatively towards financial performance measured by Tobin's Q. In summary, the OLS regression results in Table 5.3 using Tobin's Q as a dependent variable support hypotheses H2a, H7a and H8a.

The OLS regression results using MB as the dependent variable found DIV2TA supporting the hypothesis (H8a). The coefficient of DIV2TA is positive and statistically significant at the 5% level, indicating that dividend payment is regarded by the market as a better utilisation of free cash flows. LEV has a negative coefficient and is statistically significant at the 1% level. This supports the findings of Byrd and Stammerjohan (1997), Knoeber (1985) that higher debt can increase the agency costs of debt. Debtholders can force smaller companies to adopt overly conservative investment strategies. Also, small companies with limited access to capital markets may face a higher cost of debt. Alternatively, managers may be using a higher debt level to increase the power of internal equity.

Table 5.3:
OLS Regression of Tobin's Q. MB, ROA and ROE on Ownership and Control Variables

	Q		MB		ROA		ROE	
		Standard Error		**Standard Error**		**Standard Error**		**Standard Error**
Const.	**1.76*** (4.15)**	0.424	**0.78*** (12.17)**	0.065	**0.22*** (3.61)**	0.061	**0.27*** (3.70)**	0.072
IOWN	-0.25 (-1.61)	0.156	0.04 (0.15)	0.239	-0.01 (-0.10)	0.047	-0.01 (-0.07)	0.173
BOWN	**1.18*** (4.59)**	0.258	0.10 (0.25)	0.402	0.03 (0.28)	0.120	0.40 (1.28)	0.315
NED	-0.11 (-0.74)	0.143	-0.20 (-0.91)	0.219	-0.06 (-1.60)	0.063	-0.29 (-1.63)	0.180
BDS	0.47 (1.27)	0.366	0.58 (0.93)	0.628	0.29 (0.61)	0.469	0.09 (0.25)	0.375
FD	0.33 (0.84)	0.388	-0.08 (-0.15)	0.501	0.11 (1.00)	0.108	0.35 (1.46)	0.236
ACOM	0.11 (0.71)	0.146	0.14 (0.63)	0.214	-0.10 (-0.51)	0.189	-0.08 (-0.50)	0.166
RCOM	**-0.51† (-2.18)**	0.233	-0.02 (-0.03)	0.474	0.07 (0.72)	0.101	-0.09 (-0.24)	0.373
LEV	**0.09*** (4.15)**	0.023	**-0.18*** (-3.87)**	0.046	-0.01 (-0.34)	0.015	**0.17++ (2.80)**	0.060
DIV2TA	**1.32++ (2.69)**	0.492	**1.81† (2.26)**	0.805	**0.87*** (6.78)**	0.124	**0.82++ (2.92)**	0.282
Log(TA)	**-0.41*** (-5.45)**	0.023	-0.17 (-1.45)	0.114	**0.08++ (2.55)**	0.031	0.13 (1.77)	0.718
FMRISK	**0.23† (2.22)**	0.102	0.12 (0.75)	0.165	0.04 (0.78)	0.048	0.01 (0.15)	0.066
BUSRISK	0.43 (1.54)	0.281	0.24 (0.61)	0.385	**-0.92++ (-2.52)**	0.366	**-0.77*** (-3.25)**	0.237
COMPLIED	**0.53† (2.24)**	0.238	-0.06 (-0.12)	0.479	-0.06 (-0.01)	0.124	0.06 (0.16)	0.405
SURV	**-0.43*** (-3.87)**	0.112	**-0.61*** (-3.90)**	0.156	0.17 (0.186)	0.092	0.08 (0.90)	0.087
RGDP	4.82 (1.02)	4.709	**1.56† (2.46)**	0.637	-4.33 (-0.01)	3.184	**1.73† (2.48)**	0.070
Industry Dummy[35]	Yes		Yes		Yes		Yes	
F	10.18 (0.000)		7.83 (0.000)		9.78 (0.000)		5.65 (0.000)	
R^2	0.21		0.11		0.23		0.17	
N	562		562		562		562	

*** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[35] OLS regression results for the industry dummy variables are reported in the Appendix C, Table 1.

The variable SURV has a negative coefficient and is statistically significant at 1% level. This indicates that companies that survived the sampling period contributed negatively towards financial performance measured by MB. The positive coefficient of RGDP indicates that the growth in the economy has contributed positively towards company financial performance measured by MB. The result is statistically significant at 10% level. This shows that the growth in New Zealand's real GDP between 1994 and 2008 has been beneficial for the listed companies. The coefficient of the IND6 is positive and statistically significant at 10% level and indicates variation in financial performance measured by MB can be explained by industry effect. This evidence supports the view that principle-based governance practices have allowed IND6 (Investment) to develop industry-specific governance structures which have contributed positively towards company financial performance measured by MB. In summary, hypothesis H8a is supported.

The OLS regression results using ROA as the dependent variable found DIV2TA supporting the hypothesis (H8a). The coefficient of DIV2TA is positive and statistically significant at 1% level. This indicates that dividend payment is regarded positively by the market. NED has a negative coefficient which indicates that non-executive/independent directors contribute negatively towards financial performance measured by ROA. Small companies which are tightly owned and controlled with non-executive independent directors providing vigilance above what has already been provided by the blockholders seem to have a negative effect on financial performance. Log(TA) is positive and statistically significant at 1% level indicating larger companies contribute positively towards financial performance measured by ROA. BUSRISK has a negative coefficient and is statistically significant at 5% level, indicating that the business risk undertaken by the company has a negative effect on financial performance. In summary, hypothesis H8a is supported.

The OLS regression results using ROE as the dependent variable found both LEV and DIV2TA supporting the hypotheses H7a and H8a. The coefficients of both the variables are positive and statistically significant at 5% level, indicating that debt and dividend payment are regarded by the market as better utilisation of free cash flows. The control variable BUSRISK has a negative coefficient and is statistically significant at 5% level, indicating that the business risk undertaken by the company has a negative effect on performance. The coefficient of RGDP is positive and statistically significant at the 10% level indicating that growth in the economy contributes positively towards company financial performance measured by ROE. In summary, hypotheses H7a and H8a are supported.

OLS results reported in Table 5.3 have tolerance ($1-R^2$) values ranging from 0.77 to 0.89 and variance inflation factor (VIF) (1/Tolerance) values ranging from 1.12 to 1.30, which are acceptable values. According to Menrad (1995), tolerance below 0.2 and VIF above 10 are worthy of concern, which needs to be further investigated. These results indicate that there is no evidence of multicollinearity in the data.

In summary, the results in Table 5.3 support hypotheses H2a (Blockholding), H7a (Leverage) and H8a (Dividends). There is evidence that compliance with the NZSC recommendations has a positive effect on financial performance measured by Tobin's Q. Also, companies that survived contributed negatively towards financial performance measured by Tobin's Q and MB.

5.1.4 OLS REGRESSION OF TOBIN'S Q, MB, ROA AND ROE ON OWNERSHIP, CONTROL AND COMPLIANCE VARIABLES

The effect of the time period after the NZSC corporate governance recommendations became effective is captured by the dummy variable AFTER2003. The effect NZSC recommendations have on companies that were always in compliance with the NZSC recommendations since 1999 is captured by the dummy variable COMPLIED. The companies that were continuously present throughout the sampling period are measured by the dummy variable SURV. The variable ComAft measures the effect of complying with the NZSC recommendations after 2003 on financial performance. ComAft is the interaction between COMPLIED and AFTER2003 (COMPLIED * AFTER2003). CSURV measures the effect of complying with the NZSC recommendations and also surviving the sampling period. CSURV is the interaction between SURV and COMPLIED (SURV * COMPLIED).

The results for equation 2 are provided in Table 5.4. The coefficients of independent variables are given in columns 2, 4, 6 and 8 and standard errors are reported in columns 3, 5, 7 and 9 of Table 5.4. The results of all variables are very similar to the results reported in Columns 2, 4, 6 and 8 of Table 5.3. However, the interesting finding reported in Table 5.4 is the coefficient of ComAft is positive for all dependent variables, suggesting it has a positive effect on financial performance. The coefficient of CSURV is negative and statistically significant at a 5% level for the dependent variables Tobin's Q and MB. The result suggests that companies that complied with the NZSC recommendations and also survived the sampling period have contributed negatively towards company financial performance measured by Tobin's Q and MB.

Table 5.4:
OLS Regression of Tobin's Q. MB, ROA and ROE on Ownership and Control Variables

	Q		MB		ROA		ROE	
		Standard Error		**Standard Error**		**Standard Error**		**Standard Error**
Const.	**0.55*** (3.03)**	0.550	**0.78*** (11.65)**	0.067	**0.22*** (3.56)**	0.063	**0.27*** (3.57)**	0.074
IOWN	-0.06† (-1.99)	0.028	0.09 (0.33)	0.285	-0.01 (-0.06)	0.061	-0.02 (-0.13)	0.196
BOWN	**1.18*** (4.95)**	0.042	0.03 (0.05)	0.554	0.09 (0.53)	0.168	0.41 (1.25)	0.330
NED	-0.09 (-0.53)	0.170	-0.17 (-0.55)	0.303	-0.12 (-1.71)	0.069	-0.29 (-1.42)	0.205
BDS	0.50 (1.05)	0.470	0.65 (0.85)	0.758	0.30 (0.63)	0.480	0.09 (0.22)	0.394
FD	0.47 (1.01)	0.466	0.14 (0.24)	0.563	0.08 (0.76)	0.112	0.32 (1.22)	0.260
ACOM	0.16 (0.88)	0.183	0.20 (0.69)	0.285	-0.10 (-0.52)	0.193	-0.09 (-0.59)	0.157
RCOM	0.22 (0.99)	0.217	0.14 (0.45)	0.300	0.01 (0.09)	0.105	-0.10 (-0.66)	0.153
LEV	**0.09++ (3.25)**	0.027	**-0.19*** (-3.35)**	0.056	-0.01 (-0.38)	0.014	**0.17++ (2.80)**	0.061
DIV2TA	**1.34++ (2.66)**	0.503	**1.86++ (2.38)**	0.782	**0.88*** (7.50)**	0.117	**0.83++ (3.03)**	0.273
Log(TA)	**-0.43*** (-4.10)**	0.149	-0.19 (-1.34)	0.145	**0.09++ (3.10)**	0.008	0.13 (1.55)	0.085
FMRISK	0.27 (1.82)	0.149	0.17 (0.84)	0.205	0.01 (0.11)	0.084	0.01 (0.07)	0.084
BUSRISK	0.41 (1.11)	0.368	0.21 (0.50)	0.426	**-0.90*** (-3.36)**	0.366	**-0.77*** (-3.09)**	0.246
ComAft	0.04 (0.28)	0.128	0.24 (1.32)	0.180	0.02 (0.49)	0.037	0.02 (0.19)	0.112
CSURV	**-0.04† (-2.13)**	0.212	**-0.57† (-2.12)**	0.268	0.19 (1.62)	0.043	0.11 (0.89)	0.120
RGDP	3.83 (0.87)	4.411	**1.61† (2.41)**	0.669	0.05 (0.08)	0.621	**-1.71† (-2.31)**	0.737
Industry Dummy[36]	Yes		Yes		Yes		Yes	
F	10.86 (0.000)		5.01 (0.000)		18.04 (0.000)		5.16 (0.000)	
R^2	0.29		0.16		0.21		0.17	
N	562		562		562		562	

*** denotes coefficient is significant at 0. 01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[36] The OLS regression results of the industry dummy variables are reported in Appendix C, Table 2.

This suggests that the companies that survived the sampling period were not valued highly by the market. The result for RGDP is similar to the results reported in Table 5.3 in that it contributes positively towards the financial performance of small cap companies. This indicates that the small cap companies did take advantage of the growth of the economy by creating value for the shareholders. The coefficient of the IND6 is positive and statistically significant at 10%. This indicates variation in financial performance measured by MB can be explained by industry effect.

In summary, the OLS regression results reported in Table 5.4 are similar to the results reported in Table 5.3, thus supporting the hypotheses relating to blockholding (H2a), leverage (H7a) and dividend payouts (H8a). Therefore, hypotheses pertaining to insider ownership (H1a), board independence (H3a), board size (H4a), board diversity (H5a), and board committees (H6a, H6b) are rejected. There is evidence that compliance with the NZSC recommendations has had a negative effect on the small companies' financial performance. There is evidence that growth in the economy has contributed positively towards financial performance measure MB. There is also evidence that the principle–based governance approach has allowed industry-specific governance structures to be developed in the investment industry (IND6) and that has contributed positively towards small company financial performance measured by MB. Also, there is consistent evidence that company size has a negative effect on financial performance measured by Tobin's Q.

5.1.5 PIECEWISE REGRESSIONS

The governance literature provides no consensus regarding the nature of the relationship between insider ownership and company financial performance. Past researchers have reported the relationship to be either linear (Elayan et al., 2003; Hossain et al., 2001; Kim et al., 1988; Welch, 2003) or non-monotonic (Davies et al., 2005; McConnell & Servaes, 1990; Morck et al., 1988). Following on this view, this study also investigates whether a piecewise linear relationship exists between insider ownership and financial performance in New Zealand, as was reported by Morck et al. (1988) and McConnell and Servaes (1990) using the US data, and Hossain et al. (2001) for New Zealand data.

The results for Equation 3 are reported in Table 5.5 showing that there is no evidence of a piecewise relationship between insider ownership and financial performance in small cap companies in New Zealand. This is because there exists no link between pay-performance in New Zealand (Gunasekarage & Reed, 2008; Hembry, 2008).

Table 5.5:
OLS Regression of Tobin's Q, MB, ROA and ROE as the Dependent variables

	Q		MB		ROA		ROE	
		Standard Error		**Standard Error**		**Standard Error**		**Standard Error**
Const.	**0.36*** (4.29)**	0.084	**0.78*** (11.25)**	0.069	**0.23*** (3.62)**	0.064	**0.24*** (3.16)**	0.076
Less1	0.18 (0.79)	0.223	0.10 (0.20)	0.335	0.01 (0.01)	0.102	-0.39 (-1.03)	0.388
BBT15	0.05 (0.24)	0.213	-0.13 (-0.39)	0.342	-0.04 (-0.62)	0.071	-0.09 (-0.42)	0.256
Bt1020	-0.01 (-0.00)	0.205	0.06 (0.17)	0.370	-0.23 (-1.09)	0.212	0.01 (0.06)	0.199
Over20	-0.08 (-0.33)	0.230	0.04 (0.12)	0.304	-0.17 (-0.20)	0.082	-0.13 (-0.58)	0.223
BOWN	**0.20*** (4.64)**	0.043	0.05 (0.08)	0.564	0.13 (0.09)	0.155	0.50 (1.28)	0.394
NED	-0.09 (-0.50)	0.172	-0.15 (-0.49)	0.301	-0.11 (-1.62)	0.069	**-0.05† (-2.01)**	0.024
BDS	0.50 (1.08)	0.466	0.65 (0.87)	0.753	0.28 (0.61)	0.455	0.16 (0.37)	0.439
FD	0.42 (0.92)	0.452	0.07 (0.13)	0.548	0.12 (0.87)	0.139	0.40 (1.26)	0.324
ACOM	0.18 (0.92)	0.191	0.21 (0.72)	0.292	-0.09 (-0.46)	0.193	-0.12 (-0.69)	0.178
RCOM	0.23 (1.04)	0.223	0.15 (0.47)	0.311	-0.03 (-0.03)	0.090	-0.14 (-0.82)	0.174
LEV	**0.08++ (2.80)**	0.029	**-0.20*** (-3.41)**	0.057	-0.01 (-0.68)	0.014	**0.19++ (2.95)**	0.064
DIV2TA	**1.25++ (2.40)**	0.521	**1.78++ (2.21)**	0.804	**0.83*** (6.96)**	0.119	**1.06++ (2.79)**	0.380
Log(TA)	**-0.46*** (-4.23)**	0.108	-0.21 (-1.37)	0.151	**0.02† (2.67)**	0.009	0.18 (1.68)	0.109
FMRISK	**0.03*** (3.60)**	0.084	0.15 (0.72)	0.211	0.04 (0.06)	0.081	0.03 (0.33)	0.092
BUSRISK	0.39 (1.06)	0.366	0.16 (0.39)	0.421	**-0.89*** (-3.58)**	0.248	**-0.72++ (-3.09)**	0.233
ComAft	0.04 (0.31)	0.132	0.23 (1.25)	0.183	0.03 (0.86)	0.040	0.02 (0.17)	0.116
CSURV	**-0.04† (-2.20)**	0.021	**-0.56† (-2.16)**	0.261	0.10 (1.65)	0.047	0.08 (0.69)	0.122
RGDP	3.80 (0.86)	4.428	**1.64† (2.44)**	0.073	0.06 (0.10)	0.622	**-1.72† (-2.33)**	0.740
Industry Dummy[37]	Yes		Yes		Yes		Yes	
F	10.06 (0.000)		4.78 (0.000)		15.27 (0.000)		5.82 (0.000)	
R^2	0.19		0.10		0.22		0.18	
N	562		562		562		562	

*** denotes coefficient is significant at 0.01 level (2-talied); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[37] The OLS regression results of the industry dummy variables are reported in Appendix D, Table 1.

A trend in New Zealand is to reward managers for reasons other than financial performance. Also, rewarding managers with shares and options is a new phenomenon in New Zealand and therefore its effect is not yet reflected in company financial performance. Consideration for squared and cubed insider ownership ($IOWN^2$, $IOWN^3$) and block ownership ($BOWN^2$, $BOWN^3$) finds no significant results. The other results in Table 5.5 are similar to the results reported in Table 5.3 and 5.4 respectively. Consistent evidence reported in Tables 5.3 and 5.4 for compliance with NZSC recommendations as indicated by the CSURV has a negative effect on financial performance when measured by the Tobin's Q and MB. Also, there that evidence the growth in the economy has contributed negatively towards company financial performance measured by ROE.

5.1.6 OLS REGRESSION OF THE DIFFERENCE IN TOBIN'S Q (BETWEEN 2003 AND 2006) ON OWNERSHIP AND CONTROL VARIABLES

Table 5.6 reports the regression results of Equation 4 provided in Chapter 4. The dependent variable AvQ(2003) is the average Tobin's Q for the years 2001-2003 which is regressed on the company data for 2003. The dependent variable AvQ(2007) is the average Tobin's Q for the years 2004-2006 which is regressed on the company data for 2006. The dependent variable FPdiffAV is the difference between AvQ(2006) and AvQ(2003). The variable FPdiffAV measures whether companies that complied with the NZSC recommendations create value in 2006 compared to the companies in 2003. The AvQ(2003) is 1.24, AvQ(2006) is 1.31 and FPdiffAV is 0.07. Since the value of FPdiffAV is greater than zero and is positive, this signifies that companies in 2006 (on an average basis) created more value compared to companies in 2003.

The results reported in column 6 of Table 5.6 show that the CSURV has a positive coefficient and is statistically significant at the 5% level. This indicates that companies that complied with the NZSC recommendations and also survived through the sampling period improved company financial performance in 2006 compared to 2003. It can be concluded that compliance with the NZSC recommendations has contributed positively towards company financial performance in 2006. This indicates that between the period 2004 to 2005 the small cap companies incurred costs to set up good governance structures and benefits are slowly starting to show in 2006.

Table 5.6:
OLS Regression Estimates Using AvQ(2003), AvQ(2006) and FPdiffAV as the Dependent variables

	AvQ(2003)		AvQ(2006)		FPdiffAV	
		Standard Error		**Standard Error**		**Standard Error**
Const.	**0.46†** **(2.59)**	0.185	**1.00***** **(5.27)**	0.191	1.99 (1.55)	1.286
IOWN	0.62 (1.05)	0.595	-0.46 (-1.06)	0.438	0.02 (0.04)	0.571
BOWN	1.87 (1.63)	1.144	0.34 (0.06)	0.682	-0.06 (-0.07)	0.890
NED	-0.51 (-1.08)	0.467	-0.35 (-0.65)	0.536	**-1.42†** **(-2.03)**	0.699
BDS	0.48 (0.46)	1.043	-0.15 (-0.14)	1.022	0.68 0.51)	1.333
FD	-0.60 (-1.05)	0.573	1.02 (0.98)	1.038	**2.57†** **(1.96)**	1.353
ACOM	0.59 (1.30)	0.452	**-1.74++** **(-3.59)**	0.486	**-1.27†** **(-2.00)**	0.633
RCOM	-0.10 (-0.23)	0.438	-0.17 (-0.46)	0.367	**-1.06†** **(-2.23)**	0.478
LEV	0.12 (1.67)	0.074	-0.08 (-0.19)	0.424	0.37 (0.66)	0.533
DIV2TA	-2.96 (-1.87)	1.582	3.03 (0.78)	3.868	1.64 (0.33)	5.045
Log(TA)	-0.13 (-0.57)	0.235	**-0.42†** **(-2.33)**	0.180	-0.172 (-0.73)	0.235
FMRISK	**0.66†** **(2.30)**	0.243	**0.76†** **(2.23)**	0.344	**0.90†** **(1.99)**	0.449
BUSRISK	**0.60†** **(1.97)**	0.600	0.14 (0.26)	0.518	0.79 (1.17)	0.675
CSURV	-0.42 (-0.88)	0.475	-0.04 (-0.14)	0.315	**1.12++** **(2.74)**	0.410
F	1.93 (0.006)		4.07 (0.005)		2.08 (0.070)	
R^2	0.47		0.49		0.49	
N	44		44		44	

*** denotes coefficient is significant at 0.01 level (2-talied); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

The positive coefficient of FD indicates that gender diversity has a positive effect on performance. The result for FD is statistically significant at the 10% level. This finding supports the view that gender diversity in the boardroom increases the likelihood of discussions and debates which otherwise would not have been initiated if the board were comprised only of the traditional "old-boys network". There is evidence that establishment of

board committees (Audit and Remuneration) may have been costly for the small cap companies and therefore has a negative effect on company financial performance.

5.1.7 ROBUSTNESS

The test for the consistency of the OLS regression was undertaken by Wu-Hausman F test and the results reported in Tables 5.7(a) and 5.7(b) for $E(x_{it}. e_{it}) \neq 0$). They show that p-values are high and the regressor insider ownership is not exogenous. Therefore, the null hypothesis that an OLS regression is consistent is rejected. Therefore, the analysis uses 2SLS regression with instrumental variables (IV) to overcome the problem of endogeneity of insider ownership. Himmelberg et al. (1999) indicate that omission of intangible assets and market power makes insider ownership an endogenous variable in the value model, since the correlations between the error term and the ownership variable will exist (i.e. $E(x_{it}.u_t \neq 0)$. The existence of high intangible assets and competitive advantage in the product market increases corporate value and leads to higher levels of insider ownership so as to align incentives and to control for managerial discretion. To overcome the problem of endogeneity of insider ownership, this study controls for the effect intangible assets, marketshare, size, leverage and business risk have on ownership. Size is the natural log of total revenue. The panel data methodology controls heterogeneity through individual effect where the common determinants of ownership and value will be included. However, if an endogeneity problem stems from the lack of consideration of the potential inverse causality, then ownership variables will be correlated with random disturbances (ie, $E(x_{it}. e_{it}) \neq 0$), once the individual effect has been controlled for. To control for the effect of inverse causality, this study uses a 2SLS regression technique. In the first stage, ownership is determined by using the OLS regression technique and in the second stage, values determined for ownership are used to determine performance. The econometric models formulated use Tobin's Q, MB and ROA as dependent variables. The following variables Log(REV), LEV, Intangible2ta, Marketshare, and BUSRISK are treated as instrumental variables. The test for the validity of the instrumental variables is reported in Table 5.7 (c). The F statistic has a value of 6.59 which is greater than the critical value of rejection at the 5% nominal Wald Test which equals to 5.44[38], showing that instruments are valid and therefore reject the null hypothesis that instruments are weak. Because there is only one endogenous regressor in the model, the

[38] Refer to Appendix E, Table 2 for the detailed results for the validity of the instrumental variables used.

minimum eigenvalue is equal to the F statistic reported above. The test for the overidentifying restrictions for the excluded variables shows that the instruments are valid. The p-values are high, accepting the null hypothesis, and indicating that instruments are valid. This provides evidence that the effect of the unobservable values in the model have been captured by these variables, therefore rejecting the hypothesis that E(xit.ut ≠ 0). The argument by Demsetz and Lehn that insider ownership does not affect financial performance is supported.

Gugler and Weigand (2003) add that ownership concentration is also a relevant feature of the ownership structure that causes endogeneity. In this regard a similar test to that undertaken for the insider ownership was also undertaken for block ownership. The Wu-Hausman F test results reported in Tables 5.8(a) and 5.8(b) for $E(x_{it}. e_{it}) \neq 0$) show that p-values are high, and the regressor block ownership is not exogenous. Therefore, the analysis rejects the null hypothesis that OLS regression is consistent. Therefore, 2SLS regression is used with same instrumental variables as described for insider ownership to overcome the problem of endogeneity of block ownership.

The results for validity of the instrumental variables (Marketshare, intangibles2ta, Log(REV), LEV and BUSRISK) are reported in the Table 5.8c. The results show that the F statistic has a value of 7.05 which is greater than the critical value of rejection of a 5% nominal Wald Test equal to 4.84[39], showing that instruments are valid and therefore rejecting the null hypothesis that instruments are weak. The test for the overidentifying restrictions for the excluded variables shows that the instruments are valid. The p-values for both Sargan and Basmann Chi^2 statistics are high, accepting the null hypothesis, and indicating that instruments are valid. This provides evidence that the effect of the unobservable values in the model have been captured by these variables, therefore rejecting the hypothesis that $E(x_{it}.u_t \neq 0)$. The argument by Demsetz and Lehn that ownership does not affect performance is supported.

5.1.8 OLS AND 2SLS REGRESSION RESULTS

The results of the OLS (Equations 5, 6) and 2SLS (Equation 7) regression are presented in Tables 5.7 and 5.8. Tables 5.7(a) and (b) show OLS and 2SLS regression results for IOWN. The OLS regression for IOWN shows consistent results across all four performance measures

[39] Refer to Appendix G, Table 1 for the detailed results for the test for the validity of the instrumental variables used.

(Q, MB, ROA and ROE), that is, BOWN and Marketshare have positive coefficients and are statistically significant at 1% level. The coefficient of Log(REV) is negative but not statistically significant. Insider ownership is inversely related to size (Log(REV), indicating that the fraction of shares held by insiders tends to decline as the company increases in size. This indicates that insider own a lower proportion of shares in comparison to the total number of share outstanding. BDS and BUSRISK has negative coefficient and are statistically significant at 5% level. The possible explanation for this result is that the initial owner retains the majority of the shares after the company has gone public and also takes a board position. This increases insider ownership. However, as the company matures, more and more non-executive/independent directors are recruited who have a small fraction of shares awarded through performance incentive schemes, thus giving an inverse relationship between board size and insider ownership. The negative coefficient of BUSRISK indicates that managers are taking higher risks at an operational level but shareholders are not being compensated for the risks being undertaken.

When insider ownership is considered to be endogenous, variable IOWN* (predicted values IOWN) is not statistically significant across all financial performance measures. The coefficients of 2SLS regression for the independent variables are listed in columns 4 and 8 of Tables 5.7(a) and 5.7(b), respectively. The coefficients of the variables BOWN and DIV2TA are positive and are statistically significant at a 1% level. This confirms the earlier results reported in Tables 5.3, 5.4 and 5.5 that presence of blockholding and dividend payouts leads to an improvement in company financial performance. The negative coefficient of NED and CSURV shows that compliance with NZSC recommendations has increased costs which have a negative effect on company financial performance of small cap companies in New Zealand. The negative coefficient of BDS, which is statistically significant at 5% level, indicates that large boards have a negative effect on small companies' financial performance measured by Tobin's Q and MB.

The results in Tables 5.7(a) and (b) do not support the view that insider ownership has had a positive effect on company financial performance measured by the dependent variables Q, MB, ROA and ROE. In summary, the findings support the view that there is no link between insider ownership and financial performance in New Zealand small cap companies because chief executives in New Zealand are awarded performance payments for reasons other than meeting performance targets (Gunasekarage & Reed, 2008; Hembry, 2008).

Table 5.7(a) :
OLS and 2SLS Regression Results

	IOWN (using OLS)	Standard Error	Q (using 2SLS)	Standard Error	IOWN (using OLS)	Standard Error	MB (using 2SLS)	Standard Error
Const.	**0.33++ (3.81)**	0.087	**1.11++ (2.40)**	0.461	**0.21*** (3.55)**	0.087	**0.27*** (3.62)**	0.075
Q	-0.10 (-1.15)	0.011						0.335
MB					0.01 (0.36)	0.007		
IOWN*			0.10 (0.50)	0.177			0.14 (0.55)	0.257
BOWN	**0.34*** (5.33)**	0.064	**0.55† (2.14)**	0.255	**0.33*** (5.22)**	0.064	**0.15† (2.79**	0.041
NED	0.01 (0.32)	0.040	0.03 (0.18)	0.167	0.02 (0.38)	0.040	-0.18 (-0.76)	0.242
BDS	**-0.29++ (-3.04)**	0.097	**-0.94++ (-2.43)**	0.388	**-0.30++ (-3.07)**	0.967	**-0.16† (-2.56)**	0.063
FD			-0.11 (-0.26)	0.398			-0.04 (-0.07)	0.579)
ACOM			-0.05 (-0.33)	0.156			0.03 (0.15)	0.227
RCOM			0.11 (0.67)	0.170			0.07 (0.31)	0.248
LEV	-0.01 (-0.10)	0.017			-0.00 (-0.08)	0.017		
DIV2TA			**1.23*** (4.62)**	0.266			**2.31*** (3.42)**	0.676
Log (REV)	-0.020 (-1.47)	0.141			-0.02 (-1.31)			
FM RISK			**0.26++ (2.98)**	0.086			**0.26++ (2.99)**	0.089
BUS RISK	**-0.11† (-2.50)**	0.052			**-0.12++ (-2.23)**	0.052		
ComAft			0.05 (0.36)	0.134			0.23 (1.18)	0.195
CSURV			-0.27 (-1.42)	0.134			-0.03 (-1.15)	0.195
RGDP			0.51 (0.59)	0.859			0.50 (0.59)	0.858
Mkt share	**0.21++ (2.95)**	0.069			**0.21++ (3.05)**	0.069		
Intangible 2ta	-0.00 (-0.05)	0.012			-0.00 (-0.03)	0.012		
Industry Dummy[40]			Yes				Yes	
F	7.09 (0.000)		3.76 (0.000)		6.72 (0.000)		3.80 (0.000)	
Test E(xit.eit) ± 0			F(1, 539) = 0.30 Prob > F = 0.5726				F(1, 539) = 0.96 Prob > F = 0.3276	
R^2	0.11		0.11		.10		0.11	
N	562		562		562		562	

IOWN* denote predicted values, *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[40] The OLS regression results of the industry dummy variables are reported in Appendix D Table 2.

Table 5.7(b):
OLS and 2SLS Regression Results

	IOWN (using OLS)	Standard Error	ROA (using 2SLS)	Standard Error	IOWN (using OLS)	Standard Error	ROE (using 2SLS)	Standard Error
Const.	**0.32*** (3.65)**	0.086	**0.27*** (3.64**	0.075	**0.38*** (3.58)**	0.086	**0.26*** (3.93)**	0.482
ROA	0.10 (0.11)	0.019						
ROE					-0.01 (-0.65)	0.010		
IOWN*			0.01 (0.10)	0.105			-0.01 (-0.06)	0.185
BOWN	**0.33*** (5.20)**	0.064	**0.32++ (2.11)**	0.157	**0.34*** (5.25)**	0.064	0.06 (1.50)	0.267
NED	0.01 (0.37)	0.040	**-0.06++ (-2.84)**	0.021	0.01 (0.34)	0.040	**-0.07† (-2.32)**	0.175
BDS	**-0.30++ (-3.07)**	0.097	**0.32++ (2.56)**	0.064	**-0.29++ (-3.03)**	0.097	0.47 (1.16)	0.407
FD			0.42 (1.71)	0.236			0.57 (1.37)	0.417
ACOM			-0.01 (-0.13)	0.093			0.09 (0.57)	0.163
RCOM			0.05 (0.45)	0.101			-0.06 (-0.35)	0.178
LEV	-0.02 (-0.13)	0.017			-0.00 (-0.03)	0.017		
DIV2TA			**0.68++ (2.95)**	0.210			**0.52† (2.19)**	0.237
Log (REV)	-0.02 (-1.30)	0.013			-0.02 (-1.31)	0.053		
FM RISK			0.09 (1.28)	0.069			0.03 (0.24)	0.143
BUS RISK	**-0.11† (-2.08)**	0.054			**-0.12† (-2.31)**	0.053		
ComAft			0.01 (0.14)	0.079			0.03 (0.22)	0.140
CSURV			-0.00 (-0.01)	0.080			-0.02 (-0.13)	0.140
RGDP			-3.69 (-1.18)	3.137			**-1.53† (-2.00)**	0.762
Mkt share	**0.21++ (3.04)**	0.069			**0.21++ (3.04)**	0.069		
Intangible 2ta	-0.00 (-0.02)	0.012			-0.00 (-0.01)	0.011		
Industry Dummy[41]			Yes				Yes	
F	6.64 (0.000)		5.45 (0.000)		6.69 (0.000)		4.02 (0.000)	
Test $E(x_{it}-e_{it}) \pm 0$			F(1,539) = 0.05 Prob > F = 0.8195				F(1,539) = 0.07 Prob > F = 0.7962	
R^2	0.10		0.12		.10		0.13	
N	562		562		562		562	

IOWN* denote predicted values, *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[41] The OLS regression results of the industry variables are reported in Appendix E, Table 1.

The coefficients of the independent variables for the OLS (Equation 6) regression for BOWN are given below in columns 2 and 6 of Tables 5.8(a) and 5.8(b), respectively. The results are consistent across all four financial performance measures (Q, MB, ROA and ROE). The positive coefficient of IOWN indicates that insider ownership contributes positively towards blockholding. This could be the result of blockholders taking board positions. The result is statistically significant at a 1% level. The positive coefficient of Log(REV) indicates that size is positively associated with blockholding. The result is statistically significant at a 1% level. The negative coefficient of BDS across all financial performance measures suggests that large board size in small cap companies contributes negatively towards blockholding. The result is statistically significant at 1%.

The results of 2SLS (Equation 7) regression are given in columns 4 and 8 of Tables 5.8(a) and 5.8(b). When block ownership is considered to be endogenous, the 2SLS results show consistent results across all four performance measures, that is, Q, MB, ROA and ROE. The ownership variables BOWN* and IOWN are statistically insignificant across all financial performance measures. The results for validity of the instrumental variables (Marketshare, intangibles2ta, Log(REV), LEV and BUSRISK) used are given in the Table 5.8c. The results in Table 5.8(a) and (b) also show that the coefficient of independent variable DIV2TA is positive for all financial performance measures but are statistically significant for Q and ROA only. The negative coefficient of BDS suggests that larger board size in small cap companies has a negative effect on company financial performance measured by Tobin's Q.

In summary, the OLS and 2SLS regression of the two ownership variables (IOWN and BOWN) shows inconsistent results while insider ownership shows consistent findings. The effect of insider ownership on financial performance is insignificant, supporting the findings of the survey undertaken by Sheffield in 2007, that there is no link between pay and performance in New Zealand. However, the OLS and 2SLS regressions for blockholding show inconsistent results. The OLS results show that blockholding contributes positively toward company financial performance measured by Tobin's Q, therefore it can be regarded as an effective mechanism to mitigate agency problems in small cap companies in New Zealand. However, 2SLS regressions results in Table 5.8 show that when endogeneity of block ownership is considered, the effect of blockholding on financial performance is not significant. This supports the findings of Demsetz (1983), Demsetz and Lehn (1985), Himmelberg et al. (1999) and Demsetz and Villalonga (2001). There is evidence that the variation in performance is explained by variables other than ownership. The results are

consistent across different financial performance measures (Q, MB, ROA and ROE) and also for OLS and 2SLS regressions. The results show that DIV2TA have a positive effect on financial performance. The negative and statistically significant coefficient of CSURV supports the view that compliance with NZSC recommendations has been costly for small cap companies and therefore has a negative effect on financial performance. The results also show that the companies that complied with NZSC recommendations after 2003 have a positive effect on financial performance. However, the result is not statistically significant. The evidence also supports the view that the principle-based governance approach has allowed industry-specific governance structures to be developed in the investment industry (IND6) which has a positive effect on financial performance measured by MB.

Both OLS and 2SLS provide consistent results that board independence is not an optimal mechanism for dealing with the agency problem in small cap companies in New Zealand. The BDS has a negative coefficient and is statistically significant for the financial performance measure Tobin's Q. This indicates that large boards are an ineffective mechanism for monitoring managers' performance and achieving long term strategic goals in small cap companies.

The findings do not support results reported by Morck et al.(1988), McConnell and Servaes (1990) and Short and Keasey (1999), indicating that there is a piecewise linear relationship between insider ownership and financial performance. Overall, the results support the view that compliance with NZSC recommendations has had a negative effect on financial performance of small cap companies. The results also support the view that variation in company financial performance is explained by factors other than ownership.

Table 5.8(a):
OLS and 2SLS Regression Results

	BOWN (using OLS)	Standard Error	Q (using 2SLS)	Standard Error	BOWN (using OLS)	Standard Error	MB (using 2SLS)	Standard Error
Const.	**0.64*** (12.66)**	0.050	0.38*** (5.60)	0.069	**0.69*** (14.05)**	0.049	0.79*** (14.81)	0.054
Q	**0.02*** (3.53)**	0.007						0.335
MB					-0.01 (-0.76)	0.005		
IOWN	**0.14*** (5.33)**	0.027	-0.06 (-0.34)	0.171	**0.14*** (5.22)**	0.027	0.14 (0.58)	0.247
BOWN*			0.06 (0.23)	0.271			0.08 (0.20)	0.388
NED	-0.02 (-0.70)	0.026	-0.00 (-0.01)	0.166	-0.02 (-0.86)	0.026	-0.16 (-0.65)	0.239
BDS	**-0.25*** (-4.02)**	0.062	**-1.04++ (-2.67)**	0.389	**-0.25*** (-3.98)**	0.063	0.44 (0.82)	0.537
FD			-0.20 (-0.50)	0.401			-0.01 (-0.02)	0.578
ACOM			-0.07 (-0.48)	0.157			0.04 (0.18)	0.227
RCOM			0.12 (0.69)	0.171			0.08 (0.32)	0.248
LEV	-0.01 (-1.33)	0.011			-0.00 (-0.08)	0.017		
DIV2TA			**1.54++ (3.30)**	0.467			**2.30*** (3.40)**	0.676
Log (REV)	**0.05*** (5.63)**	0.008			-0.02 (-1.33)	0.011		
FM RISK			**0.27*** (3.93)**	0.087			0.12 (0.61)	0.198
BUS RISK	-0.05 (-1.32)	0.034			-0.03 (-0.99)	0.034		
ComAft			0.04 (0.30)	0.134			0.24 (1.22)	0.194
CSURV			-0.22 (-1.61)	0.134			**-0.49++ (-2.54)**	0.195
RGDP			2.47 (0.47)	5.296			**1.48† (2.19)**	0.676
Mkt share	-0.03 (-0.77)	0.045			-0.05 (-1.04)	0.046		
Intangible2ta	-0.00 (-0.31)	0.007			-0.03 (-0.38)	0.008		
Industry Dummy[42]			Yes				Yes	
F	9.53 (0.000)		3.28 (0.000)		8.03 (0.000)		2.73 (0.000)	
Test $E(x_{it}.e_{it}) \pm 0$			F1,539) = 0.03 Prob > F = 0.8721				F(1,539) = 0.06 Prob> F = 0.8140	
R^2	0.14		0.07		.12		0.08	
N	562		562		562		562	

BOWN* denote predicted values, *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[42] The OLS regression results for the industry dummy variables are reported in Appendix F, Table 1.

Table 5.8(b):
OLS and 2SLS Regression Results

	BOWN (using OLS)	Standard Error	ROA (using 2SLS)	Standard Error	BOWN (using OLS)	Standard Error	ROE (using 2SLS)	Standard Error
Const.	**0.69*** (14.10)**	0.048	**0.16++ (2.93)**	0.053	**0.69*** (14.26)**	0.048	**0.32*** (5.23)**	0.060
ROA	0.01 (0.63)	0.012						
ROE					0.04 (0.92)	0.007		
IOWN	0.14^{++} (5.20)	0.027	0.12 (1.18)	0.102	**0.14*** (5.25)**	0.027	0.06 (0.31)	0.180
BOWN*			0.05 (0.29)	0.160			0.09 (0.32)	0.281
NED	-0.02 (-0.78)	0.026	**-0.26^{++} (-2.59)**	0.099	-0.02 (-0.75)	0.026	-0.36† (-2.06)	0.175
BDS	**-0.25*** (-4.03)**	0.063	**0.96*** (4.15)**	0.232	**-0.26*** (-4.07)**	0.063	0.37 (0.91)	0.410
FD			0.41 (1.71)	0.238			0.51 (1.23)	0.420
ACOM			-0.01 (-0.08)	0.093			0.09 (0.54)	0.164
RCOM			0.04 (0.43)	0.102			-0.06 (-0.35)	0.180
LEV	-0.01 (-1.19)	0.011			-0.02 (-1.56)	0.011		
DIV2TA			**0.86^{++} (3.08)**	0.278			**0.51† (2.16)**	0.237
Log (REV)	**0.04*** (5.04)**	0.009			**0.04*** (5.07)**	0.009		
FM RISK			0.04 (0.45)	0.079			0.06 (0.42)	0.144
BUS RISK	-0.03 (-0.78)	0.009			-0.02 (-0.56)	0.035		
ComAft			0.00 (0.04)	0.080			0.02 (0.12)	0.141
CSURV			0.00 (0.04)	0.080			0.01 (0.09)	0.141
RGDP			-3.62 (-1.15)	3.146			**-1.53† (-2.00)**	0.763
Mkt share	-0.04 (-0.97)	0.046			-0.05 (-1.00)	0.046		
Intangible 2ta	-0.00 (-0.39)	0.008			-0.00 (-0.41)	0.008		
Industry Dummy[43]			Yes				Yes	
F	8.01 (0.000)		5.92 (0.000)		8.52 (0.000)		4.47 (0.000)	
Test $E(x_{it}.e_{it}) \pm 0$			F1,539) = 0.03 Prob > F = 0.9353				F(1,539) = 0.06 Prob> F = 0.6782	
R2	0.12		0.14		.12		0.10	
N	562		562		562		562	

BOWN* denote predicted values, *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[43] The OLS regression results of the industry dummy variables are reported in Appendix E, Table 2.

5.2 CONCLUSION

This chapter explored the governance-performance relationship in small cap companies. Four important questions are addressed: (i) Whether small cap companies have complied with the NZSC recommendations? (ii) Did compliance with the NZSC recommendations after 2003 lead to an improvement in small cap companies' financial performance? (iii) Whether small cap companies that were always in compliance the NZSC recommendations since 1999 have better financial performance than companies that were not in compliance? (iv) Can the differences in small cap companies' financial performance be explained by the differences in governance practices in different industries?

The governance factors, viz, non-executive directors and board committees recommended by the NZSC in 2004 are of particular interest.

The findings reveal that small cap companies in New Zealand, in general, have complied with the Securities Commission's guidelines. The findings indicate that small cap companies in New Zealand have good governance practices, such as non-executive/independent directors and board committees dating from 1999. Results show that board independence does not have any significant effect on company financial performance across all financial performance measures. This finding is consistent with studies conducted in the US, which follows a rule-based governance system. Further, this finding is consistent with findings reported by Agrawal and Knoeber (1996); Bhagat and Black (1998); Yermack (1996); Klein (1998), Baxter (2006) and Reddy et al. (2008a).

The results show (Table 5.4) that compliance by small cap companies with NZSC recommendations since 1999 has a positive effect on financial performance when measured by Tobin's Q. The result for the small cap companies that complied with the NZSC recommendations after 2003 has a positive coefficient across all financial performance measures but is not statistically significant (Table 5.5 and 5.6). The reason could be that the costs of establishing good governance structures recommended by the NZSC in 2004 has been high and small cap companies have not fully recovered the costs within the time period 2004-2006 when the data was collected for this study. The companies that survived since 1999 and complied with the NZSC recommendations had a negative effect on financial performance when measured by Tobin's Q and MB (Table 5.4 and 5.5). This shows that small cap companies already had good monitoring mechanisms in place and NZSC recommendations have just increased the costs of compliance. This is supported by the results

reported in Table 5.6 which show that small cap company compliance with NZSC recommendations has had a negative effect on financial performance as reported in 2006.

The results show that board committees (ACOM and RCOM) have a negative effect on small cap company financial performance. This indicates that board committees have added more to costs than to the benefits for small cap companies. The results for non-executive/independent directors and board committees indicate that small cap companies have simply complied with the NZSC recommendations to avoid the market disciplining them for not complying rather than establishing company-specific or industry-specific governance structures. This is supported by the results of the industry dummy variables. There is evidence that the principle-based governance recommendations have allowed small cap companies in the investment industry (IND6) to adopt company-specific governance measures only (Table 5.4 and 5.5). This is not surprising as most blockholders tend to belong to finance/investment companies. This result is not consistent for all industries, indicating that investors have not valued companies belonging to those industries highly for having improved governance practices as recommended by the NZSC.

The empirical results do indicate that leverage and dividend payouts can be utilised to minimise agency problems in an efficient manner. This result is consistent across different sectors, that is, small cap, large cap and public sector (refer to Chapter 6 for large companies and Chapter 7 for public sector entities).

The OLS regression results show that blockholding is contributing positively towards shareholder value. In small cap companies a large part of blockholders' wealth is invested in the company and therefore blockholders have a far greater incentive to control management behaviour. As a result, every shareholder benefits from this situation. However, the 2SLS results in Table 5.8 show when endogeneity of block ownership is considered, the results for block ownership becomes insignificant. This study supports the proposition postulated by Demsetz (1983), Demsetz and Lehn (1985), Demsetz and Villalonga (2001) and Himmelberg et al. (1999) that ownership concentration does not have an influence on company value and that companies choose the form of ownership that minimises agency costs.

Results show that insider ownership is not an optimal mechanism for controlling agency costs in New Zealand small cap companies (Table 5.7). This result supports the proposition by Davis et al. (2006) that there exists no link between pay-performance in New Zealand

companies, indicating there will be no relationship between insider ownership and financial performance.

The results show that small cap company size is inversely related to financial performance, providing support for the view that the size of small cap companies is increased by managers to derive personal benefits rather than to increase shareholder value. The results show that board gender diversity has a positive effect on financial performance and therefore provide support for diversity in the boardroom.

The findings strongly support the view that compliance with NZSC recommendations adds costs which has a negative effect on small cap companies' financial performance. The question left unanswered is why the empirical results for the NZSC recommendations of having non-executive/independent directors and board committees do not appear to be statistically significantly related to small cap company financial performance. The reason could be that non-executive/independent directors and blockholders are substitute governance mechanisms. Since blockholders are already providing the level of vigilance required by small cap companies, resulting in positive financial performance, the roles of non-executive independent directors and board committees tend to be less important. Alternatively, non-executive/independent directors and board committees may be appointed to fulfil the NZSC recommendations and may lack knowledge about the company/industry and therefore add no value to the company.

CHAPTER 6
CORPORATE GOVERNANCE PRACTICES AND FINANCIAL PERFORMANCE IN LARGE CAP COMPANIES: AN EMPIRICAL INVESTIGATION[44]

6.0 INTRODUCTION

This chapter presents the results of the empirical study of the relationship between corporate governance mechanisms and large company performance in New Zealand. A description of sample size used in this study is provided in Chapter 4, Table 4.1. Description of the governance and performance variables used is provided in Chapter 4, Table 4.2. This chapter has three sections. First, a description of the sample descriptive statistics is provided. This is followed by a presentation of results from data analyses and discussion and finally, conclusion is provided.

6.1 EMPIRICAL RESULTS

6.1.1 DESCRIPTIVE STATISTICS

The sample comprised 410 large companies listed on the New Zealand Stock Exchange for the period 1999 to 2007. Companies that did not have all the required information were removed from the sample and, as a result, the final sample comprised 340 company-years data or 78.3% of the companies. Table 6.1 provides the sample descriptive statistics.

Table 6.1 provides a summary of the sample descriptive statistics for the pooled data. The mean Tobin's Q ratio is 3.26, with a median of 1.83. A Tobin's Q ratio greater than one is favourable, indicating that the large cap companies did create value for their shareholders. The mean MB is 0.50 and median is 0.45 indicating that the market value of companies' shares is 50% less than the book value of companies' equity. The mean of ROA ratio is 2.84 with a median of 1.85, indicating that large companies on average have generated a positive return on total assets employed. The mean (median) of the ROE ratio is 0.13(0.11) indicating that large companies on average have generated a positive return on shareholders' funds. The mean proportion of managerial ownership (IOWN) is 12% but the median is only 1%. In the

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sample, 6.8% of large cap companies have insider ownership equal to zero, 43.4% of the companies have at least 1% insider ownership, 14.4% of the companies have insider ownership between 1% and 5%, 5% of the companies have insider ownership between 5% and 10%, 7.4% of the companies have insider ownership between 10% and 20%, and 22.6% of the companies have insider ownership greater than 20%. Overall, 50.3% of the large cap companies in New Zealand have insider ownership less than 1% and 64.7% of the large cap companies have insider ownership less than 5%. Morck et al (1988) report that 58% of companies in the US have an IOWN level of 5% or less and in the UK, the equivalent figure is 48% (Short & Keasey, 1999). This shows that New Zealand has a larger proportion of companies with insider ownership of less than 5% compared to the US and the UK.

Table 6.1:
Descriptive Statistics

Variables	Mean	Median	Minimum	Maximum	Inter-quartile Range
Dependent					
Q	3.26	1.83	-0.21	40.48	1.09 – 3.78
MB	0.50	0.45	0.02	1.43	0.33 – 0.64
ROA	2.84	1.85	0.05	25.62	1.12 – 3.34
ROE	0.13	0.11	-0.36	0.54	0.07 – 0.22
Governance					
IOWN	0.12	0.01	0.00	1.00	0.00 – 0.16
BOWN	0.62	0.65	0.05	0.95	0.47 – 0.77
NED	0.76	0.80	0.00	1.00	0.64 – 0.88
BDS	6.98	7.00	3	13	6 – 8
FD	0.08	0	0	3	
ACOM	0.96	1.00	0	1	
RCOM	0.78	1.00	0	1	
LEV	0.47	0.44	-2.04	0.98	0.32 – 0.63
DIV2TA	0.06	0.04	0.00	1.00	0.02 – 0.06
Control					
Log(TA)	5.85	5.75	4.44	8.59	5.26 – 6.29
FMRISK	0.68	0.35	0.02	5.21	0.18 – 0.79
BUSRISK	0.92	0.48	0	6.746	0.19 – 1.15
IND1	0.16	0.00			
IND2	0.08	0.00			
IND3	0.21	0.00			
IND4	0.13	0.00			
IND5	0.37	0.00			
IND6	0.03	0.00			
IND7	0.03	0.00			

Notes: For details regarding the measurement of the variables given above refer to Table 4.2 in Chapter 4.

Hossain et al. (2001) studied 633 companies of different sizes and reported mean (median) managerial ownership for the period 1991/97 of 6.8% (0.6%) and lower and upper quartiles of 0.1 % and 5% respectively. The current figures suggest that managerial ownership in large companies has increased slightly over the years. According to Hembry (2008), the trend is growing as more companies are linking managerial remuneration with company financial performance. Gugler, Mueller and Yurtoglu (2008) reported an average insider ownership of 22% for US companies which is considerably higher than the 10.6% figure reported by Morck, Shleifer and Vishny (1988) and Han and Suk (1998). The reason for reporting a larger insider ownership in the US data is because Gugler at al. used a much larger sample size than Morck at al. Also, the sample had many smaller companies where insiders have a tendency to hold higher stakes. In comparison to the US, the average insider ownership in large companies in New Zealand is similar.

The mean (median) proportion of stock held by the 20 largest shareholders (BOWN) is 62% (65%). The inter-quartile range for BOWN is 47%-77%. In the sample, 1.2% of the large cap companies have 20 large shareholders holding less than 10% of the shares in the company, 1.9% of the companies have holding between 10% and 20%, 26.1% of the companies have shareholding between 20% and 50%, 51.5% of the companies have 20 large shareholdings of between 50% and 80% of the company and 20.3% of the companies have 20 large shareholdings of more than 80% of the company. Hossain et al. report a mean (median) BOWN of 76.3% (78.3%) and inter-quartile range of 68.7%-87.3%. Chen, Blenman and Chen (2008) report that 60% of stocks are held by five largest shareholders which are institutions. Although block ownership in New Zealand has declined from an average of 76.3% during 1991/97 period to 62% in 1999/07, it is still relatively high. In comparison to economies with similar financial systems where the fraction of shares held by non-controlling shareholder is 80% and 90% for the top 20 US and UK companies, respectively (Kapopoulas & Lazaretou, 2007), New Zealand is relatively low. The US legislation restricts equity investment by insurance companies to a maximum of 2% of assets in a single company with a cap at 20% for investment in equities (Bhabra, 2007). As a consequence, insurance companies in the US hold a smaller proportion of stock in comparison to New Zealand. In the absence of such restrictions, insurance companies in New Zealand have tended to hold larger stakes in companies and therefore have the potential to exert significant influence in monitoring managers (Fox & Walker, 1995a).

A high level of blockholding in New Zealand companies suggests that there is a need to protect minority shareholder rights. European evidence suggests that blockholders have a tendency to expropriate minority shareholders (Gugler, 1999; Shleifer & Vishny, 1997). Cornett, et al. (2004) provide evidence that management has a tendency to build special relationships with blockholders and/or their representative on the board, thus negating the positive effect of blockholding on financial performance. A strong minority shareholder will safeguard management interest which may increase liquidity in the stock market (Healy, 2003). In summary, there is evidence that large New Zealand companies increasingly use incentive-based mechanisms (such as stock ownership) to motivate managers and directors to manage agency conflicts. Since BOWN is relatively high, suggesting IOWN is not a strong mechanism in itself to deal with agency problems in large companies in New Zealand.

The mean (median) proportion of non-executive/independent directors is 76% (80%) with an inter-quartile range of 64%-88%. The typical (median) board has seven directors with a fairly narrow inter-quartile range of six to eight which is similar to Fox (1996b) who notes that board size declined in New Zealand from seven members in 1970 to six members in 1983. The median non-executive/independent directors and size of the board remains relatively constant through the periods 1991/97 and 1999/07. This indicates that the size of boards of large companies in New Zealand is appropriate for the company size and the role board plays in terms of managing agency conflict. On average, 96% of the companies have an audit committee and 78% have a remuneration committee. A high percentage of the large companies have board committees, recognising the important role they play in mitigating agency conflict. This is supported by the fact that the NZSC recommendations regarding board committees came into effect after 2003; the results show that large companies have had board committees since 1999. In 1999, (on average) 86% of the companies in the sample had audit committees and 64% had a remuneration committee. In 2006, 95% of companies had an audit committee and 91% had a remuneration committee. There is evidence of gender diversity in the boards of large companies in New Zealand; 48% of the boards had at least one female director. The number of female directors on the boards ranged from zero to three.

The mean (median) leverage is 47% (44%). The leverage increased from 40.5% in 1991/97 to 47% in 1999/07. A simple T-test shows that the mean of leverage is significantly different for the period 1999/07 compared to the period 1991/97. The result is statistically significant at both 1% and 5% confidence levels. An increase in leverage shows that debt is the major source of finance for large companies and therefore a sizable proportion of the cash flows are

used to service debt. The mean (median) dividend to total assets is 6% (4%) with an inter-quartile range of 2%-6%, indicating that dividend payout is not high in large companies. This may be attributable to the fact that large companies are not making high profits and/or the small nature of the New Zealand capital market makes it difficult to raise capital and therefore profit is usually retained for future investment purposes. The mean (median) Log(TA) is 5.85 (5.75). The mean (median) company level risk is 0.68 (0.35) and the inter-quartile range 0.18-0.79. The mean (median) business level risk is 0.92 (0.48) and the inter-quartile range 0.19 to 1.15.

On average, 16% of the companies in the sample belong to primary industry, 8% energy, 21% goods, 13% property, 37% service, 3% investment and 3% overseas. This provides an opportunity to study whether there are differences in the nature of corporate governance practices in different industries in New Zealand.

6.1.2 PAIRWISE CORRELATION BETWEEN INDEPENDENT VARIABLES

A pairwise correlation matrix for independent and control variables is provided in Table 6.2. The highest correlation is between Log(TA) and RCOM at 0.78. This suggests that large companies tend to have remuneration committees. The other high correlations are between Log(TA) and LEV (0.51) indicating large companies tend to have more debt. With these exceptions, other correlations range between –0.40 and 0.41. None of the pairwise correlations between independent variables are above 0.78, indicating a low likelihood of multicollinearity issues arising in the OLS regressions.

Table 6.2:
Pairwise Correlation Matrix for Independent Variables

	IOWN	BOWN	NED	BDS	FD	ACOM	RCOM	LEV	DIV2TA	Log(TA)	FMRISK	BUSRISK
IOWN	-											
BOWN	**0.216*** (0.000)**	-										
NED	-0.014 (0.793)	-0.050 (0.358)	-									
BDS	0.051 (0.345)	**0.309*** 0.000**	-0.007 (0.904)	-								
FD	**-0.125++ (0.021)**	0.097 (0.073)	**0.108++ (0.047)**	**0.114† (0.035)**	-							
ACOM	**--0.165*** (0.002)**	**-0.045++ (0.041)**	0.047 (0.386)	**0.133++ (0.014)**	0.053 (0.331)	-						
RCOM	0.034 (0.533)	0.029 (0.594)	0.068 (0.209)	**0.408*** (0.000)**	**0.191*** (0.000)**	**0.264*** (0.000)**	-					
LEV	0.015 (0.787)	-0.051 (0.345)	**0.144*** (0.008)**	**0.207*** (0.000)**	**0.280*** (0.000)**	**0.108++ (0.046)**	**0.277*** (0.000)**	-				
DIV2TA	0.032 (0.558)	-0.019 (0.732)	-0.069 (0.207)	0.008 (0.878)	0.044 (0.415)	-0.044 (0.420)	**0.113++ (0.037)**	**-0.180*** (0.001)**	-			
Log(TA)	**-0.294*** (0.000)**	**0.174*** (0.001)**	**0.190*** (0.000)**	**0.360*** (0.000)**	**0.299*** (0.000)**	**0.144*** (0.000)**	0.780 (0.142)	**0.512*** (0.000)**	**-0.243*** (0.000)**	-		
FMRISK	-0.016 (0.774)	**0.196*** (0.000)**	**0.172*** (0.002)**	**0.313*** (0.000)**	**0.144*** (0.008)**	0.057 (0.298)	**0.289*** (0.000)**	**0.201*** (0.000)**	0.075 (0.170)	**0.359*** (0.000)**	-	
BUSRISK	0.020 (0.714)	-0.052 (0.339)	0.047 (0.338)	0.081 (0.137)	0.023 (0.680)	0.023 (0.682)	0.085 (0.117)	**0.152*** (0.005)**	0.054 (0.322)	**0.155*** (0.002)**	0.105 (0.053)	-

** denotes correlation is significant at 0.01 level (2-tailed); ++ denotes correlation is significant at 0.05 level (2-tailed); † denotes correlation is significant at 0.1 level (2-tailed)

6.1.3 OLS REGRESSION OF TOBIN'S Q, MB, ROA AND ROE ON OWNERSHIP AND CONTROL VARIABLES

Table 6.3 presents the OLS regression of Equation 1. Columns 2, 4, 6 and 8 of Table 6.3 provide coefficients of independent variables that are used in Equation 1. Table 6.3, column 2 provides coefficients of the independent variables using Tobin's Q as a dependent variable. The independent variables BOWN, FD and DIV2TA have positive coefficients, indicating that these variables have a positive effect on companies' financial performance measured by Tobin's Q. All of these variables are statistically significant at the 1% level. This evidence supports the view that blockholders are better monitors of managers' performance, which has a positive effect on financial performance measured by Tobin's Q. Female directors on the board (diversity) are seen to have a positive effect on financial performance. DIV2TA also has a positive effect on financial performance measured by Tobin's Q, indicating that the payment of dividends is regarded by the capital market to be better utilisation of company cash flows. The positive coefficient of BUSRISK suggests that shareholders have been compensated for the business risk undertaken by the company. The result is statistically significant at the 5% level.

A negative coefficient of Log(TA), which is statistically significant at a 1% level, indicates that size has a negative effect on Tobin's Q. The coefficients of three industry dummy variables are negative and statistically significant at a 10% level. This indicates that governance practices in IND1 (primary), IND2 (energy) and IND6 (investment) contribute negatively towards Tobin's Q. The coefficient of the RGDP (real annual GDP) is negative and statistically significant at 5% level, indicating that growth in the New Zealand economy during the period 1999-2007 contributed negatively towards Tobin's Q. This may be the case because growth in the New Zealand economy was largely attributable to agricultural exports and the same growth was not experienced by the others sectors in the economy. The variable COMPLIED has a negative coefficient but is not statistically significant.

Table 6.3, column 4 provides coefficients of independent variables for equation 1 using MB as a dependent variable. The variables BOWN, FD, LEV and DIV2TA have positive coefficients and all are statistically significant at 1% level, apart from FD which is significant at a 5% level. The results indicate that blockholding, gender diversity, leverage and dividend payouts contribute positively towards company financial performance measured by MB. Company size (log (TA)) also has a negative coefficient, significant at 1% level. This

confirms earlier findings that size is not optimal for large companies in New Zealand. The coefficient of the RGDP (real annual GDP) is negative and is also statistically significant at a 5% level. This result indicate that economic growth experienced in New Zealand between the period 1999 and 2007 have not been captured by large companies. The coefficient of RGDP is negative indicating economic growth has contributed negatively towards large companies' financial performance measured by Tobin's Q and MB. This is not surprising as industry effect also shows that companies belonging to primary, energy and investment sectors have contributed negatively towards large companies' financial performance measured by Tobin's Q and MB. A plausible reason could be that growth was experienced in certain sectors only and also, increased competition in sectors may have affected their financial performance as well.

Table 6.3, column 6 provides coefficients of independent variables for Equation 1 using ROA as a dependent variable. The results are similar to columns 2 and 3. The coefficients of FD and DIV2TA are positive and statistically significant at a 5% and 1% level, respectively. However, coefficient of LEV is negative and is statistically significant at a 1% level. The coefficient of the company size (Log(TA)) is negative and is statistically significant at a 1% level.

Table 6.3, column 8 provides coefficients of independent variables for Equation 1 using ROE as a dependent variable. The results are similar to columns 2, 4 and 6, however, only DIV2TA has a positive coefficient and is statistically significant at a 5% level. None of the results are statistically significant.

Table 6.3 shows consistent results for all three financial performance measures (Q, MB, ROA) in Equation 1, that is, BOWN, FD, LEV and DIV2TA variables contribute positively towards company financial performance, whereas, Log (TA) contributes negatively towards financial performance. There is evidence of negative industry and economy growth effect on company financial performance. In summary, only hypotheses H2b, H5b, H7b and H8b are supported whilst other hypotheses are rejected.

OLS results in Table 6.3 show that the tolerance ($1-R^2$) range from 0.49 to 0.83 and variance inflation factor (VIF) (1/Tolerance) range from 1.20 to 2.04 are within acceptable limits. According to Menard (1995), tolerance below 0.2 and VIF above 10 are worthy of concern, which need to be investigated. This result indicates that there is no evidence of multicollinearity in the data.

Table 6.3:
OLS Regression of Tobin's Q. MB, ROA and ROE on Ownership and Control Variables

	Q		MB		ROA		ROE	
		Standard Error		**Standard Error**		**Standard Error**		**Standard Error**
Const.	**1.35*** (7.71)**	0.160	**0.89*** (5.24)**	0.169	**0.07*** (4.22)**	0.017	**0.53*** (9.59)**	0.053
IOWN	0.06 (0.70)	0.063	-0.11 (-1.77)	0.006	-0.01 (-0.39)	0.047	0.01 (0.62)	0.020
BOWN	**0.19++ (2.59)**	0.065	**0.23*** (3.70)**	0.063	0.01 (1.41)	0.006	-0.01 (-0.63)	0.021
NED	-0.08 (-1.22)	0.068	-0.03 (-0.48)	0.061	-0.01 (-1.47)	0.007	-0.01 (-0.22)	0.022
BDS	-0.17 (-1.29)	0.131	-0.16 (-1.26)	0.126	0.01 (0.09)	0.013	0.01 (0.10)	0.041
FD	**0.43*** (3.33)**	0.130	**0.25† (1.98)**	0.126	**0.04++ (2.74)**	0.012	0.04 (0.44)	0.041
ACOM	0.04 (0.55)	0.073	0.04 (0.51)	0.070	0.01 (0.64)	0.007	0.01 (0.44)	0.023
RCOM	0.21 (1.52)	0.140	0.18 (1.33)	0.135	0.02 (1.77)	0.014	0.01 (0.09)	0.044
LEV	0.06 (1.14)	0.054	**0.23*** (4.34)**	0.052	**-0.02*** (-3.34)**	0.005	-0.01 (-0.23)	0.017
DIV2TA	**1.17++ (2.76)**	0.429	**1.54*** (3.75)**	0.410	**0.29*** (6.97)**	0.042	**1.58++ (3.37)**	0.486
Log(TA)	**-0.13*** (-5.94)**	0.023	**-0.10*** (-4.60)**	0.021	**-0.01*** (-3.85)**	0.002	-0.01 (-0.88)	0.007
FMRISK	0.04 (0.49)	0.083	0.14 (1.72)	0.080	0.01 (1.28)	0.008	0.02 (0.80)	0.026
BUSRISK	**0.22++ (2.35)**	0.067	0.07 (1.11)	0.065	-0.01 (-1.09)	0.007	-0.02 (0.80)	0.021
COMPLIED	-0.05 (-0.34)	0.140	-0.09 (-0.69)	0.135	-0.03 (-1.89)	0.014	-0.01 (-0.19)	0.044
SURV	-0.05 (-0.38)	0.036	-0.03 (-0.79)	0.035	-0.01 (-0.86)	0.004	-0.01 (-0.67)	0.011
RGDP	**-3.69++ (-2.94)**	1.249	**-2.91++ (-2.44)**	0.1.194	-0.04 (-0.29)	0.122	0.35 (0.63)	0.391
Industry Dummy[45]	Yes		Yes		Yes		Yes	
F	16.79 (0.000)		11.12 (0.000)		14.93 (0.000)		4.57 (0.013)	
R^2	0.51		0.41		0.48		0.17	
N	340		340		340		340	

*** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[45] The OLS regression results of the industry dummy variables are reported in Appendix H, Table 1.

6.1.4 OLS REGRESSION OF TOBIN'S Q, MB, ROA AND ROE ON OWNERSHIP, CONTROL AND COMPLIANCE VARIABLES

The effect of the time period after the NZSC corporate governance recommendations became effective is captured by the dummy variable AFTER2003. To capture the effect of the NZSC recommendation on companies that were always in compliance with the NZSC recommendations the dummy variable COMPLIED was also used. The companies that were continuously present throughout the sampling period are measured by the dummy variable SURV. ComAft is the interaction term that measures the effect on performance of complying with NZSC recommendations after 2003. ComAft is calculated by multiplying COMPLIED by AFTER2003. CSURV is the interaction term that measures the effect of complying with NZSC recommendations and also surviving the sampling period. CSURV is calculated by multiplying COMPLIED by SURV.

The results of Equation 2 are provided in Table 6.4. The results of all other variables reported in Table 6.4 are very similar to the results provided in columns 2, 4, 6 and 8 of Table 6.3. However, ComAft has a positive coefficient and is statistically significant at the 5% level, providing evidence that company financial performance is positively associated with NZSC compliance after 2003. The negative coefficient of the variable Complied (Table 6.3) indicate that the companies that were always in compliance with NZSC guidelines since 1999 have had a negative effect on financial performance and this is statistically significant at a 1% confidence level. This suggests that the time period before 2004 had a negative effect on financial performance but the years after 2004 had a positive effect on financial performance. This evidence supports the view that the promulgation of the NZSC recommendations has a positive effect on company financial performance measured by Tobin's Q, MB, ROA and ROE. The companies that survived being top of the NZX listings since 1999 did not show significant results. Also, the coefficient of CSURV is negative but statistically insignificant. The results indicate that the differences in company financial performance can be explained by the differences in governance practices of different industries. The negative coefficient of all industry dummy variables (apart from IND3) indicates that the costs of compliance with NZSC recommendations in these industries has been high and therefore have a negative effect on financial performance measured by Tobin's Q.

The negative coefficient of CSURV indicates that the companies that complied with the NZSC recommendations and survived the sampling period had incurred high costs to comply, which had a negative effect on financial performance.

Table 6.4:
OLS Regression of Tobin's Q. MB, ROA and ROE on Ownership and Control Variables

	Q		MB		ROA		ROE	
		Standard Error		**Standard Error**		**Standard Error**		**Standard Error**
Const.	**1.28*** (7.46)**	0.171	**0.82*** (5.02)**	0.164	**0.07*** (4.15)**	0.017	**0.52*** (9.44)**	0.055
IOWN	0.07 (1.07)	0.062	-0.11 (-1.80)	0.060	-0.01 (-0.23)	0.006	0.01 (0.63)	0.020
BOWN	**0.13++ (2.02)**	0.064	**0.22++ (3.50)**	0.062	0.01 (0.99)	0.006	-0.02 (-0.79)	0.020
NED	-0.05 (-0.79)	0.068	0.01 (0.06)	0.066	-0.01 (-1.27)	0.007	0.00 (0.09)	0.022
BDS	-0.17 (-1.31)	0.128	-0.15 (-1.25)	0.123	-0.00 (-0.14)	0.013	0.01 (0.12)	0.041
FD	**0.43++ (3.39)**	0.127	**0.25† (2.05)**	0.121	**0.03† (2.56)**	0.013	0.04 (0.95)	0.041
ACOM	0.01 (0.12)	0.063	-0.02 (-0.38)	0.060	-0.03 (-0.51)	0.006	0.02 (0.11)	0.020
RCOM	**0.19*** (3.64)**	0.051	**0.09† (1.97)**	0.051	0.04 (0.60)	0.005	-0.01 (-0.16)	0.017
LEV	0.05 (0.92)	0.054	**0.23*** (4.53)**	0.051	**-0.02*** (-3.39)**	0.005	-0.01 (-0.19)	0.017
DIV2TA	**1.07++ (2.55)**	0.418	**1.38++ (3.45)**	0.401	**0.29*** (7.04)**	0.042	**1.44++ (3.12)**	0.413
Log(TA)	**-0.14*** (-6.10)**	0.022	**-0.11*** (-4.97)**	0.021	**-0.05*** (-3.78)**	0.002	**-0.05† (-1.99)**	0.025
FMRISK	0.03 (0.36)	0.081	0.13 (1.74)	0.078	0.01 (1.20)	0.008	0.02 (0.80)	0.026
BUSRISK	**0.24*** (3.58)**	0.067	0.12 (1.84)	0.064	-0.00 (-0.54)	0.007	-0.02 (-0.74)	0.021
ComAft	**0.09*** (3.48)**	0.026	**0.11*** (4.33)**	0.025	**0.01† (2.55)**	0.003	**0.08++ (2.70)**	0.029
CSURV	-0.05 (-1.32)	0.037	-0.02 (-0.56)	0.036	-0.01 (-1.47)	0.004	-0.01 (-0.45)	0.012
RGDP	-1.19 (-0.86)	1.372	-0.15 (-0.11)	1.314	0.15 (1.10)	0.137	0.75 (1.71)	0.439
Industry Dummy[46]	Yes		Yes		Yes		Yes	
F	17.46 (0.000)		12.17 (0.000)		14.77 (0.000)		2.22 (0.002)	
R^2	0.54		0.45		0.49		0.13	
N	340		340		340		340	

*** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[46] The OLS regression results of the industry dummy variables are reported in Appendix H, Table 2.

Alternatively, these companies already had good monitoring mechanisms in place and compliance with the NZSC recommendations was not highly valued by the market.

In summary, the OLS regression supports the hypothesis that blockholding (BOWN), R\remuneration committee (RCOM), gender diversity (FD), dividend payouts (DIV2TA) and complying with the NZSC recommendations after 2003 do have a positive effect on company financial performance. Therefore the hypotheses regarding blockholding (H2b), gender diversity (H5b), remuneration committee (H6d) and dividend payout (H8b) are supported. However, the hypotheses regarding insider ownership (H1b), board independence (H3b), board size (H4b), audit committee (H6c), and leverage (H7b) are not supported. The Sheffield survey shows that managers in New Zealand are often rewarded for reasons other than meeting performance targets, which points to insider ownership not being linked to company financial performance in New Zealand (Gunasekarage & Reed, 2008; Hembry, 2008). There is evidence that governance practices in certain industries (IND1, IND2, IND3 and IND6) have contributed negatively towards large cap companies' financial performance measured by Tobin's Q. There is evidence that governance practices in IND5 have contributed positively towards financial performance measured by Tobin's Q. This evidence supports the view that the principle-based governance approach has allowed industry-specific governance structures to be developed. However, the results show that the industry-specific governance structures have both positive and negative effects on financial performance measured by Tobin's Q. There is consistent evidence of company size having a negative effect on financial performance.

The next stage of the analysis looks at whether there is any evidence of a piecewise relationship between insider ownership and company financial performance, similar to the studies of Morck et al. (1988) and McConnell and Servaes (1990).

6.1.5 PIECEWISE REGRESSIONS

In a recent survey, Denis and McConnell (2003) show that there is no consensus about the linearity of the relationship between ownership structure and financial performance. However, past studies have reported the relationship to be either linear (Elayan et al., 2003; Hossain et al., 2001; Kim et al., 1988; Welch, 2003) or non-monotonic (Davies et al., 2005; McConnell & Servaes, 1990; Morck et al., 1988). Following on this view, this study also investigates whether a piecewise linear relationship exists between insider ownership and financial performance in New Zealand as was reported by Morck et al. (1988) and

McConnell and Servaes (1990) using the US data and Hossain et al. (2001) for New Zealand data. The results of Equation 3 are reported in Table 6.5 and show that there is no evidence of a piecewise relationship between insider ownership in large companies in New Zealand and financial performance. However, the coefficient of OVER20 (insiders holding over 20% shares in the company) is positive and statistically significant at 10% level. This result indicates that insider owners with large blockholdings provide better monitoring which has a positive effect on financial performance, measured by MB.

Similar to Morck at al. it was investigated whether a quadratic relationship exists between ownership and performance. The results of squared and cubed IOWN ($IOWN^2$, $IOWN^3$) and squared and cubed BOWN ($BOWN^2$, $BOWN^3$) were insignificant. In summary, the results of the OLS regression in Tables 6.3, 6.4 and 6.5 provide consistent evidence that insider ownership is not an effective mechanism to control managerial behaviour in large New Zealand companies. This is not surprising, as Hembry (2008) reports that there is no link between pay and performance in New Zealand.

The other results in Table 6.5 are similar to the results reported in Tables 6.3 and 6.4. There is consistent evidence that BOWN, FD, DIV2TA and compliance with NZSC recommendations after 2003 have had a positive effect on financial performance. There is evidence that having remuneration committees has also been beneficial in terms of aligning performance of management and has a positive effect on company financial performance measured by Tobin's Q. Also, there is evidence that leverage has a positive effect on financial performance measured by MB and ROE. However, companies that were present in all the years since 1999 and also complied with NZSC recommendations did not exhibit a positive effect on their financial performance associated with CSURV. There is also consistent evidence of company size (Log(TA)) having a negative effect on performance company financial performance.

Table 6.5:
Piecewise Regression: OLS Regression of Tobin's Q, MB, ROA and ROE on Ownership and Control Variables

	Q		MB		ROA		ROE	
		Standard Error		**Standard Error**		**Standard Error**		**Standard Error**
Const.	**1.13*** (75.66)**	0.199	**0.76*** (4.05)**	0.188	**0.08*** (4.15)**	0.020	0.34 (1.54)	0.221
IOWN	-0.01 (-1.05)	0.098	**-0.24++ (-2.58)**	0.093	-0.02 (-1.86)	0.010	-0.01 (-0.15)	0.109
LESS1	0.01 (0.11)	0.093	0.12 (1.38)	0.088	-0.01 (-1.54)	0.009	-0.04 (-0.40)	0.104
BT15	-0.03 (-0.31)	0.092	0.07 (0.79)	0.087	-0.01 (-1.69)	0.009	-0.06 (-0.56)	0.102
BT510	0.03 (0.29)	0.107	0.07 (0.65)	0.101	-0.02 (-1.69)	0.011	-0.11 (-0.93)	0.119
BT1020	0.06 (0.63)	0.096	0.09 (0.96)	0.091	-0.01 (-0.76)	0.010	-0.04 (-0.36)	0.107
OVER20	0.10 (1.05)	0.096	**0.19† (2.05)**	0.090	-0.00 (-0.33)	0.009	-0.03 (-0.27)	0.079
BOWN	**0.18++ (2.59)**	0.071	**0.23++ (3.43)**	0.067	0.01 (0.59)	0.007	-0.05 (-0.67)	0.020
NED	-0.04 (-0.61)	0.069	0.01 (0.15)	0.066	-0.01 (-0.93)	0.007	-0.01 (-0.09)	0.077
BDS	-0.21 (-1.56)	0.132	-0.20 (-1.58)	0.125	0.02 (0.21)	0.013	0.06 (0.39)	0.146
FD	**0.41*** (3.11)**	0.131	0.20 (1.65)	0.124	**0.03++ (2.54)**	0.012	0.20 (1.37)	0.145
ACOM	0.01 (0.12)	0.063	-0.01 (-0.20)	0.060	-0.02 (-0.33)	0.006	0.01 (0.13)	0.070
RCOM	**0.20*** (3.67)**	0.055	0.09 (1.70)	0.051	0.04 (0.76)	0.005	-0.01 (-0.23)	0.060
LEV	0.05 (0.94)	0.054	**0.23*** (4.42)**	0.051	**-0.02*** (-3.67)**	0.005	0.07 (1.14)	0.060
DIV2TA	**1.00++ (2.37)**	0.423	**1.38*** (3.45)**	0.400	**0.29*** (6.89)**	0.042	**1.43++ (3.05)**	0.493
Log(TA)	**-0.13*** (-5.55)**	0.024	**-0.11*** (-5.02)**	0.022	**-0.01*** (-3.54)**	0.002	**-0.05† (-2.05)**	0.026
FMRISK	0.02 (0.28)	0.083	0.13 (1.71)	0.078	0.01 (1.47)	0.008	0.07 (0.85)	0.092
BUSRISK	**0.26*** (3.79)**	0.068	**0.14† (2.20)**	0.064	-0.01 (-0.35)	0.007	-0.03 (-0.46)	0.075
ComAft	**0.10*** (3.53)**	0.027	**0.12*** (4.52)**	0.025	**0.01++ (2.75)**	0.002	**0.08++ (2.85)**	0.029
CSURV	-0.05 (-1.20)	0.039	-0.03 (-0.74)	0.036	-0.01 (-1.76)	0.004	-0.03 (-0.70)	0.043
RGDP	-1.09 (-0.79)	1.381	-0.28 (-0.21)	1.304	0.14 (1.05)	0.136	1.87 (1.22)	1.530
Industry Dummy[47]	Yes		Yes		Yes		Yes	
F	14.21 (0.000)		10.48 (0.000)		12.47 (0.000)		1.85 (0.008)	
R^2	0.54		0.47		0.51		0.14	
N	340		340		340		340	

*** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[47] The OLS regression results of the industry dummy variables are reported in Appendix I, Table 1.

6.1.6 OLS REGRESSION OF THE DIFFERENCE IN TOBIN'S Q (BETWEEN 2003 AND 2007) ON OWNERSHIP AND CONTROL VARIABLES

Table 6.6 shows the regression results for Equation 4. The dependent variable for 2003 is the average of Tobin's Q for the years 2000 to 2003 which was regressed on company data for 2003. The dependent variable for 2007 is the average of the Tobin's Q for the year 2004 to 2007 which was regressed on company data for 2007. The dependent variable DiffAvQ is the difference between AvQ(2007) and AvQ(2003). DiffAvQ measures whether the companies that complied with NZSC recommendations in 2007 created positive value compared to the companies in 2003. The average of AvQ(2003) is 2.49 and for AvQ(2007) is 3.58 and for DiffAvQ it is 1.09. Since DiffAvQ is positive it shows that companies in 2007, on average, have created more value than in 2003.

The results in columns 4 and 6 of Table 6.6 suggest that only RCOM has a positive coefficient which is statistically significant at 5% confidence level. The results for the variable FMRISK is positive and significant at 1% confidence level, thus indicate that shareholder value was created by taking extra risk. The results show that an increase in company value in 2007 has been influenced by the establishment of remuneration committees and also taking risk. Therefore, remuneration committee is seen to be an important mechanism for reducing agency cost related to setting managers' remuneration in large companies in New Zealand.

Table 6.6:
OLS Regression Estimates Using AvQ(2003), AvQ2007 and FPdiffAV as the Dependent Variables

	AvQ(2003)		AvQ(2007)		FPdiffAV	
		Standard Error		**Standard Error**		**Standard Error**
Const.	0.35 (0.62	0.560	**1.83***** **(4.82)**	0.385	**2.25***** **(3.04)**	0.753
IOWN	0.45 (1.80)	0.247	0.11 (0.44)	0.247	-1.07 (-1.80)	0.356
BOWN	0.19 (0.79)	0.243	-0.09 (-0.43)	0.231	-0.07 (-0.15)	0.406
NED	-0.12 (-0.59)	0.240	0.28 (1.19)	0.236	-0.58 (-1.63)	0.365
BDS	0.19 (0.40)	0.260	-0.35 (-0.76)	0.465	-0.75 (-0.97)	0.77
FD	0.21 (0.39)	0.548	**1.45**** **(2.62)**	0.551	0.46 (0.56)	0.802
ACOM	0.14 (0.76)	0.190	-0.31 (-1.04)	0.437	-0.09 (-1.08)	0.237
RCOM	0.24 (1.06)	0.227	**0.42**** **(2.71)**	0.157	**0.48**** **(2.01)**	0.297
LEV	0.14 (0.55)	0.256	0.19 (0.60)	0.322	0.22 (0.46)	0.480
DIV2TA	**3.41++** **(3.83)**	0.890	0.06 (0.22)	0.287	0.16 (0.67)	0.254
Log(TA)	-0.10 (-0.99	0.090	**-0.32***** **(-5.16)**	0.041	**-2.14***** **(-2.33)**	0.081
FMRISK	0.01 (0.12)	0.060	**0.18***** **(4.41)**	0.040	**0.32***** **(3.52)**	0.065
BUSRISK	**1.06***** **(3.45)**	0.768	-11.23 (-1.41)	0.816	-1.58 (-0.61)	0.089
CSURV	-0.40 (-0.20)	0.478	-0.01 (-0.07)	0.119	0.02 (0.45)	0.176
F	4.12 (0.001)		8.81 (0.000)		1.56 (0.155)	
Adj. R^2 ($R^{2)}$	0.53 (0.69)		0.60 (0.73)		0.16 (0.30)	
N	38		38		38	

*** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

6.1.7 ROBUSTNESS

The test for the consistency of the OLS regression for large cap companies was undertaken by Wu-Hausman F test, similar to the method reported for small cap companies in Chapter 5

(refer to pages 147-149). The results reported in Tables 6.7(a) and 6.7(b) for the test E(xit.eit) ≠ 0 has high p-values, suggesting the regressor insider ownership is not exogenous. Therefore, the analysis rejects the null hypothesis that OLS regression is consistent. To overcome the effect of endogeneity of the insider ownership the 2SLS regression method with instrumental variables is employed. Studies undertaken by Demsetz (1983), Demsetz and Lehn (1985), Himmelberg et al. (1999), Palia (2001) and Gugler and Weigand (2003) show that problems arise with OLS regression if two or more variables are jointly endogenous. They argue that company ownership and financial performance are explained by common company characteristics, some of which are unobservable, and the omission of these unobservable characteristics in the value model leads to biased conclusions regarding the influence of ownership on value because of the relationship between the former and the omitted variables (Pindado & de la Torre, 2009). Himmelberg et al. argue that the existence of intangible assets and competitive advantage in the product market increases corporate value, and leads to higher levels of insider ownership so as to align incentives and to control for managerial discretion. Therefore, omission of intangible assets and market power makes insider ownership an endogenous variable in the value model, since the correlations between the error term and the ownership variable will exist (i.e. $E(x_{it}.u_t \neq 0)$.

Himmelberg et al. (1999) also argue that if size and leverage are omitted from the value model, ownership will be endogenous because both have a negative influence on ownership. In fact, size is negatively related to ownership because the larger the company, the larger the capital resources that will be required to own a given fraction of the company (Demsetz & Lehn, 1985). Moreover, the negative effect of debt on ownership is the result of the higher risk associated to a given stake in a more leveraged company, and of the natural risk aversion of owners' need for more capital resources (Demsetz & Lehn, 1985; Stulz, 1988). Similar to Himmelberg et al. the problem of endogeneity of insider ownership in large cap companies is controlled by treating intangible assets, marketshare, Log(REV), leverage and business risk as instrumental variables. The panel data methodology allows control for heterogeneity through the individual effect, in which the common determinant of ownership and value is included. However, if an endogeneity problem stems from the lack of consideration of the potential inverse causality, then ownership variables will be correlated with random disturbances (i.e., $E(x_{it}. e_{it}) \neq 0$), once the individual effect has been controlled for. The test for $E(x_{it}.u_{it}) \neq 0$ for the validity of the instrumental variables is reported in Table 6.7 (c). The F statistic has a value of 5.83 which is greater than the critical value of rejection of a 5%

nominal Wald Test which equals to 4.84[48], showing that the instruments are valid and therefore rejecting the null hypothesis that instruments are weak. The test for the overidentifying restrictions for the excluded variables shows that the instruments are valid. The p-values for both Sargan and Basmann Chi^2 statistics are high, therefore accepting the null hypothesis, and indicating that instruments are valid. This provides evidence that the effect of the unobservable values in the model have been captured by the instrumental variables, therefore rejecting the hypothesis that $E(x_{it}.u_t \neq 0)$. The argument by Demsetz and Lehn that insider ownership does not affect financial performance is supported.

As with the insider ownership case, Gugler and Weigand (2003) suggest that ownership concentration is also a relevant feature of the ownership structure that causes endogeneity. Therefore, a similar test to that described above was undertaken for block ownership. The Wu-Hausman F test results reported in Tables 6.8(a) and 6.8(b) for $E(x_{it}. e_{it}) \neq 0)$ shows that p-values are high, and the regressor block ownership is not exogenous. Therefore, the analysis rejects the null hypothesis that OLS regression is consistent. Therefore, 2SLS regression is used with the same instrumental variables as described for insider ownership to overcome the problem of endogeneity of block ownership.

The results for the validity of the instrumental variables (Marketshare, intangibles2ta, Log(REV), LEV and BUSRISK) are given in the Table 6.8c. The results show that the F statistic has a value of 9.68 which is greater than the critical value of rejection of a 5% nominal Wald Test equal to 4.84[49], showing that instruments are valid and therefore rejecting the null hypothesis that instruments are weak. The test for the overidentifying restrictions for the excluded variables shows that the instruments are valid. The p-values for both Sargan and Basmann Chi^2 statistic are high, sustaining the null hypothesis, and indicating that instruments are valid. This provides evidence that the effect of the unobservable values in the model have been captured by the instrumental variables, therefore rejecting the hypothesis that $E(x_{it}.u_t \neq 0)$. This provides evidence that the effect of the unobservable values in the model have been captured by these variables, therefore rejecting the hypothesis that $E(x_{it}.u_t \neq 0)$. The argument by Demsetz and Lehn that block ownership does not affect performance is supported.

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[48] Refer to Appendix K, Table 1 for the details of the test for the validity of the instrumental variables used.

[49] Refer to Appendix M, Table 1 for the details of the test for the validity of the instrumental variables used

6.1.8 OLS AND 2SLS REGRESSION RESULTS

The results of the OLS and 2SLS regression are presented in Tables 6.7 and 6.8. Table 6.7 shows OLS and 2SLS regression results for IOWN. The OLS regression for IOWN shows consistent results across all four financial performance measures (Q, MB, ROA and ROE), that is, BOWN, LEV and BUSRISK have positive coefficients and are statistically significant at 5% level. This supports the view that the presence of blockholders leads to higher insider ownership. This could be the case when initial owners take board roles or the blockholder representatives take board positions. The positive coefficient of LEV suggests that debtholders have incentive to monitor management and therefore, agree to policies that reward company insiders with share bonuses to encourage them to work in the interest of the company. This supports the findings of Crutchley and Hansen (1989) that leverage and insider ownership are jointly determined. The positive coefficient of BUSRISK suggests that there is a positive link between risk and company financial performance. The coefficient of Log(REV) is negative and is statistically significant at 1% level. This suggests that insider ownership is inversely related to sales, that is, the fraction of shares owned by insiders is small compared to total shares issued.

When insider ownership is considered to be endogenous, variable IOWN* (predicted values of IOWN) is not statistically significant across all financial performance measures. The coefficients of 2SLS regression for the independent variables are reported in columns 4 and 8 of Tables 6.7(a) and 6.7(b), respectively. Only coefficients of the variables BOWN, RCOM, DIV2TA and Comaft are positive and are statistically significant at 5% level. This confirms the findings reported in Tables 6.3, 6.4, and 6.5 that the presence of blockholding, a remuneration committee, dividend payouts and compliance with NZSC recommendations leads to an improvement in large cap company financial performance. The results indicate that BOWN, RCOM and DIV2TA are effective mechanisms in controlling agency costs in large companies in New Zealand. The negative coefficient of BDS suggests that board size is not optimal in large companies in New Zealand. The average board size of seven members is regarded to be optimal for companies in the US, however, in New Zealand, companies are much smaller and a board size smaller than seven could be optimal. The negative coefficients of the industry dummy variables IND2, IND3 and IND6 suggest that the variation in company financial performance can be explained by the variation in corporate practices across different industries. Based on the results reported in Tables 6.7(a) and 6.7(b), only hypotheses H1d, H6d, and H8b are supported.

Table 6.7(a):
OLS and 2SLS Regression Results

	IOWN (using OLS)	Standard Error	Q (using 2SLS)	Standard Error	IOWN (using OLS)	Standard Error	MB (using 2SLS)	Standard Error
Const.	0.11 (0.96)	0.110	**0.78*** (4.73)**	0.166	0.18 (1.68)	0.109	**0.50++ (3.23)**	0.154
Q	**0.13++ (3.18)**	0.042						0.335
MB					0.02 (0.39)	0.048		
IOWN*			-0.00 (-0.02)	0.065			-0.03 (-0.57)	0.059
BOWN	**0.27++ (4.21)**	0.064	**0.21++ (3.09)**	0.068	**0.28*** (4.36)**	0.065	**0.19+ (2.90)**	0.065
NED	0.03 (0.52)	0.063	-0.11 (-1.48)	0.073	0.01 (0.21)	0.063	-0.03 (-0.46)	0.068
BDS	0.10 (0.81)	0.121	**-0.48*** (-3.77)**	0.127	0.11 (0.86)	0.123	**-0.36++ (-3.01)**	0.119
FD			0.14 (1.05)	0.130			0.17 (1.38)	0.120
ACOM			-0.00 (-0.02)	0.067			0.01 (0.07)	0.063
RCOM			**0.17++ (3.09)**	0.056			**0.12† (2.30)**	0.052
LEV	**0.11† (2.22)**	0.048			**0.10† (2.07)**	0.050		
DIV2TA			**1.72*** (4.12)**	0.430			**1.62*** (4.09)**	0.396
Log (REV)	**-0.07*** (-3.66)**	0.020			**-0.08*** (-3.86)**	0.020		
FM RISK			-0.03 (-0.35)	0.081			0.09 (1.15)	0.075
BUS RISK	**0.14++ (2.35)**	0.061			**0.19++ (3.08)**	0.061		
ComAft			**0.07++ (2.35)**	0.028			**0.09++ (3.48)**	0.026
CSURV			-0.03 (-0.86)	0.040			-0.04 (-1.01)	0.037
RGDP			-0.35 (-0.23)	1.481			0.47 (0.35)	1.367
Market share	-0.01 (-0.31)	0.021			-0.01 (-0.51)	0.012		
Intangible 2ta	-0.02 (-0.42)	0.038			0.01 (0.23)	0.039		
Industry Dummy[50]			Yes				Yes	
F	5.78 (0.000)		14.53 (0.000)		4.54 (0.000)		11.42 (0.000)	
Test $E(x_{it}.e_{it}) \neq 0$)			F(1, 539)=0.40 Prob>F = 0.0695				F(1, 539)= 0.32 Prob>F = 0.5724	
R^2	0.14		0.45		.11		0.39	
N	562		562		562		562	

IOWN* denote predicted values, *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1level (2-tailed). Standard errors are also provided for each variable.

[50] The OLS regression results of the industry dummy variables are reported in Appendix I, Table 2.

Table 6.7(b):
OLS and 2SLS Regression Results

	IOWN (using OLS)	Standard Error	ROA (using 2SLS)	Standard Error	IOWN (using OLS)	Standard Error	ROE (using 2SLS)	Standard Error
Const.	0.14 (1.22)	0.111	0.03 (0.89)	0.016	0.10 (0.70)	0.178	**0.49*** (9.81)**	0.049
ROA	**0.90† (1.98)**	0.457						
ROE					0.17 (0.95)	0.178		
IOWN*			-0.01 (-0.53)	0.006			-0.00 (-0.05)	0.019
BOWN	**0.29*** (4.47)**	0.064	**0.01† (1.95)**	0.007	**0.29*** (4.46)**	0.064	-0.01 (-0.60)	0.020
NED	0.03 (0.54)	0.064	-0.01 (-1.62)	0.007	0.01 (0.22)	0.063	0.00 (0.01)	0.022
BDS	0.11 (0.90)	0.122	-0.02 (-1.79)	0.012	0.10 (0.84))	0.123	-0.01 (-0.36)	0.038
FD			0.01 (0.30)	0.013			0.02 (0.46)	0.038
ACOM			-0.01 (-1.02)	0.007			-0.01 (-0.20)	0.020
RCOM			0.00 (0.46)	0.006			-0.00 (-0.11)	0.017
LEV	**0.14++ (2.69)**	0.051			**0.11† (2.20)**	0.049		
DIV2TA			**0.38*** (8.89)**	0.043			0.25† (2.36)	0.008
Log (REV)	**-0.08*** (-3.94)**	0.020			**-0.08*** (-3.82)**	0.020		
FM RISK			-0.01 (-0.40)	0.008			0.01 (0.24)	0.024
BUS RISK	**0.18++ (3.07)**	0.060			**0.19++ (3.18)**	0.060		
ComAft			**0.01† (2.24)**	0.003			**0.02† (2.36)**	0.008
CSURV			-0.01 (-1.54)	0.004			-0.01 (-0.51)	0.012
RGDP			0.18 (1.26)	0.146			0.78 (1.78)	0.438
Market share	-0.01 (-0.47)	0.012			-0.01 (-0.57)	0.012		
Intangible 2ta	0.01 (0.34)	0.038			0.01 (0.25)	0.039		
Industry Dummy[51]			Yes				Yes	
F	5.01 (0.000)		12.49 (0.000)		4.63 (0.000)		0.98 (0.4870)	
R^2	0.12		0.41		0.11		0.06	
Test $E(x_{it}, e_{it}) \neq 0$)			F(1, 321) = 0.28 Prob>F = 0.5961				F(1, 321) = 0.00 Prob>F = 0.9640	
N	340		340		340		340	

IOWN* denote predicted values, *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[51] The OLS regression results of the industry dummy variables are reported in Appendix J, Table 1.

In summary, the findings support the Sheffield survey undertaken in 2007 that there is no link between insider ownership and financial performance in New Zealand because chief executives in New Zealand are awarded performance payments for reasons other than meeting financial performance targets (Hembry, 2008).

The coefficients of the independent variables for the OLS regression for BOWN are given in columns 2 and 6 of Tables 6.8(a) and 6.8(b). The results are consistent across all four financial performance measures (Q, MB, ROA and ROE). The results for the variables IOWN, BDS, and Log(REV) are statistically significant and the positive coefficient of variables suggests the presence of these variables leads to a higher level of blockholding in large companies in New Zealand. The positive coefficient of the variable IOWN indicates that insider ownership contributes positively towards blockholding. This could be the result of initial owners holding large block of shares after the company goes public and also taking up board positions, thus supporting the relationship between insider ownership and blockholding. The result is statistically significant at a 1% level. The positive coefficient of BDS indicates that large board size is positively associated with higher level of blockholding. This could be the result of outside blockholders or their representative taking board positions, thus supporting the board size and blockholding relationship. The result is statistically significant at a 1% level. The positive coefficient of Log(REV) suggests that high level of sales is positively associated with higher level of blockholding. The result is statistically significant at the 1% level.

In summary, the OLS and 2SLS regression of the two ownership variables (IOWN and BOWN) show consistent results across all financial performance measures. The effect of insider ownership on financial performance is insignificant, supporting the findings of the survey undertaken by Sheffield in 2007, that there is no link between pay and financial performance in New Zealand. This supports the findings of Demsetz (1983), Demsetz and Lehn (1985), Himmelberg et al. (1999) and Demsetz and Villalonga (2001), that company financial performance is better explained by governance mechanisms other than insider ownership. However, the OLS and 2SLS regressions for blockholding show consistent results. Both OLS (Tables 6.3 and 6.4) and 2SLS regression results (Table 6.7(a) show that blockholding contributes positively towards company financial performance measured by Tobin's Q, and MB , and therefore can be regarded as an effective mechanism to mitigate agency problems in large companies in New Zealand. Table 6.7(b) also show that

blockholding contributes positively to financial performance measured by ROA, however, this result is significant only at 10 percent level only. This results does not support the findings of Demsetz (1983), Demsetz and Lehn (1985), Himmelberg et al. (1999) and Demsetz and Villalonga (2001). The findings for BOWN support the view that blockholders are vigilant in monitoring agency costs in large publicly listed companies in New Zealand, and therefore higher levels of blockholding lead to improved company financial performance measured by Tobin's Q, MB, and ROA. The results are consistent across different financial performance measures (Q, MB, and ROA) and also for OLS (for financial performance measured by Tobin's Q and MB only) and 2SLS regressions. The results show that RCOM, DIV2TA have a positive effect on financial performance. The results also suggest that the large companies that complied with NZSC recommendations after 2003 experienced a positive effect on financial performance.

Both OLS and 2SLS results reveal that board independence is not an optimal mechanism in dealing with the agency problem in large companies in New Zealand. The BDS has a negative coefficient and is statistically significant for the financial performance measures Tobin's Q and MB. This indicates that large boards have been ineffective in monitoring manager performance and achieving long-term strategic goals.

The findings provided in Table 6.5 do not support Morck et al. (1988), McConnell and Servaes (1990) and Short and Keasey (1999) indicating that there is a piecewise linear relationship between insider ownership and financial performance in New Zealand large companies. Overall, the results support the view that compliance with NZSC recommendations has had a positive effect on performance of large publicly listed companies. The results support the view that variation in company financial performance is explained by factors other than insider ownership.

Table 6.8(a):
OLS and 2SLS Regression Results

	BOWN (using OLS)	Standard Error	Q (using 2SLS)	Standard Error	BOWN (using OLS)	Standard Error	MB (using 2SLS)	Standard Error
Const.	0.01 (0.12)	0.093	**0.84*** (5.21)**	0.161	0.01 (0.05)	0.091	**0.57*** (3.75)**	0.152
Q	0.03 (0.78)	0.036						
MB					0.07 (1.83)	0.039		
IOWN*	**0.19*** (4.21)**	0.045	**0.23*** (3.83)**	0.059	**0.19*** (4.36)**	0.044	0.06 (1.05)	0.056
BOWN			0.16† (2.10)	0.077			0.12 (1.58)	0.073
NED	-0.06 (-1.14)	0.053	-0.12 (-1.60)	0.073	-0.06 (-1.16)	0.052	-0.04 (-0.62)	0.069
BDS	**0.35++ (3.06)**	0.100	**-0.41++ (-3.30)**	0.123	**0.30++ (3.02)**	0.100	**-0.28++ (-2.43)**	0.116
FD			0.02 (1.58)	0.128			0.20 (1.63)	0.121
ACOM			0.04 (0.59)	0.066			0.02 (0.25)	0.062
RCOM			**0.19++ (3.51)**	0.055			**0.12† (2.35)**	0.052
LEV	**-0.18*** (-4.40)**	0.017			**-0.19*** (-4.67)**	0.040		
DIV2TA			**1.94*** (4.58)**	0.423			**1.70*** (4.25)**	0.400
Log (REV)	**0.08*** (4.90)**	0.017			**0.08*** (4.87)**	0.017		
FM RISK			-0.01 (-0.15)	0.079			0.11 (1.48)	0.075
BUS RISK	0.02 (0.47)	0.052			0.02 (0.39)	0.051		
ComAft			**0.07++ (2.40)**	0.028			**0.09++ (3.51)**	0.026
CSURV			-0.06 (-1.46)	0.039			-0.05 (-1.27)	0.037
RGDP			-0.45 (-0.31	1.455			0.35 (0.25)	1.375
Market share	**-0.02† (-2.27)**	0.010			**-0.02† (-2.11)**	0.010		
Intangible 2ta	-0.06 (-1.73)	0.033			-0.05 (-1.51)	0.032		
Industry Dummy[52]			Yes				Yes	
F	10.74 (0.000)		15.68 (0.000)		11.13 (0.000)		11.03 (0.000)	
Test $E(x_{it}. e_{it}) \neq 0$)			F(1, 321) = 4.40 Prob>F = 0.0567				F(1, 321)= 2.48 Prob>F = 0.1160	
R^2	0.23		0.45		.24		0.38	
N	340		340		562		340	

BOWN* denote predicted values, *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[52] The OLS regression results of the industry dummy variables are reported in Appendix L, Table 1.

Table 6.8(b):
OLS and 2SLS Regression Results

	BOWN (using OLS)	Standard Error	ROA (using 2SLS)	Standard Error	BOWN (using OLS)	Standard Error	ROE (using 2SLS)	Standard Error
Const.	0.04 (0.45)	0.093	**0.04† (2.23)**	0.016	0.09 (0.73)	0.119	**0.48*** (9.84)**	0.048
ROA	-0.24 (-0.62)	0.384						
ROE					-0.11 (-0.75)	0.148		
IOWN	**0.20++ (4.47)**	0.045	0.01 (0.78)	0.066	**0.20*** (4.46)**	0.044	0.01 (0.76)	0.018
BOWN*			0.01 (1.08)	0.008			0.01 (0.10)	0.023
NED	-0.07 (-1.32)	0.053	-0.01 (-1.71)	0.007	-0.07 (-1.25)	0.053	0.00 (0.04)	0.021
BDS	**0.31++ (3.06)**	1.010	-0.01 (-1.41)	0.012	**0.31++ (3.09)**	0.100	-0.02 (-0.58)	0.037
FD			0.01 (0.49)	0.013			0.02 (0.48)	0.039
ACOM			-0.01 (-0.85)	0.007			-0.00 (-0.01)	0.020
RCOM			0.00 (0.52)	0.006			0.00 (0.04)	0.017
LEV	**-0.19*** (-4.39)**	0.042			**-0.18*** (-4.60)**	0.040		
DIV2TA			**0.38*** (9.02)**	0.042			**0.26† (2.05)**	0.127
Log (REV)	**0.08*** (4.90)**	0.017			**0.08*** (4.83)**	0.017		
FM RISK			-0.00 (-0.19)	0.008			0.02 (0.10)	0.024
BUS RISK	0.03 (0.67)	0.051			0.02 (0.64)	0.051		
ComAft			**0.01† (2.24)**	0.003			**0.02† (2.34)**	0.008
CSURV			-0.01 (-1.75)	0.004			-0.01 (-0.58)	0.012
RGDP			0.18 (1.20)	0.143			0.80 (1.83)	0.438
Market share	**-0.0† (-2.36)**	0.010			**-0.02† (-2.32)**	0.011		
Intangible 2ta	-0.05 (-1.63)	0.032			-0.05 (-1.63)	0.032		
Industry Dummy[53]			Yes				Yes	
F	10.71 (0.000)		12.32 (0.000)		10.73 (0.000)		1.99 (0.0530)	
R2	0.23		0.41		.23		0.06	
Test E(xit. eit) ≠ 0)			F(1, 321) = 1.17 Prob>F = 0.2795				F(1, 321) = 0.01 Prob>F = 0.97170	
N	340		562		562		562	

BOWN* denote predicted values, *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

[53] The OLS regression results of the industry dummy variables are reported in Appendix, Table 2.

6.2 CONCLUSION

This chapter explored the efficacy of principle-based corporate governance practices on large cap company financial performance, as measured by Tobin's Q, market to book (MB), return on assets (ROA) and return on equity (ROE). Four important questions were addressed: (i) Whether large cap companies have complied with the NZSC recommendations? (ii) Did compliance with the NZSC recommendations after 2003 lead to an improvement in large cap companies' financial performance? (iii) Whether large cap companies that were always in compliance with NZSC recommendations from 1999 have better financial performance compared to the companies that were not in compliance? (iv) Can the differences in company financial performance be explained by the differences in governance practices in different industries?

The governance factors, viz, non-executive directors and board committees recommended by the NZSC in 2004 are of particular interest. The findings reveal that large cap companies in New Zealand, in general, have complied with the Securities Commission's guidelines. The findings indicate that large companies in New Zealand have good governance practices, such as non-executive/independent directors and board committees, dating from 1999. Results show that board independence, board size and audit committees do not have any significant effect on large cap company financial performance across all financial performance measures. These findings are similar to the findings reported for the small cap companies in Chapter 5.

The results show (Table 6.4) that the large cap companies that complied with the NZSC recommendations after 2003 have improved financial performance. The presence of a remuneration committee has a positive effect on company financial performance measured by Q and MB (Tables 6.4 and 6.6). The results show that the compliance with NZSC recommendations from 1999 had a negative effect on all financial performance measures of large cap companies. Also, the results show that surviving the sampling period and compliance with NZSC recommendations had a negative effect on all financial performance measures of large cap companies (Tables 6.4 and 6.5). Although many large cap companies already had good governance practices, recommended by NZSC since 1999, the above results show that the market was not aware of such practices and did not take into account such practices when valuing those companies' shares. Since the NZSC recommendations were published well after 2003 through NZX listings rules, the NZSC website and other media, the

results show that the market did consider such practices when valuing the shares of the large cap companies.

The empirical results indicate that other governance mechanisms rather than insider ownership can be utilised to minimise agency problems in an efficient manner, viz blockholding, dividend payouts and remuneration committees. Business risk is positively associated with company financial performance. Since managers' skills are specific to the company, they will lose more if the company were to fail, and that gives incentive to managers to work harder to ensure higher risks are rewarded with higher returns.

Results show that blockholding contributes positively towards shareholder value. The size of the company is inversely related to company financial performance, indicating managers have increased company size for personal benefits rather than to increase shareholder value. The results for leverage reported in Tables 6.3, 6.3 and 6.5 are mixed. The results show that leverage is positively associated with the financial performance measure MB and negatively associated with the financial performance measure ROA. Both results are statistically significant at a 1% level. The results indicate that the market values the monitoring benefits provided by the debtholders, whereas the result of the accounting performance measure reflects the cost of debt servicing which outweighs any monitoring benefit that it provides.

The findings strongly support the view that company financial performance is strongly associated with compliance with NZSC recommendations after 2003, indicating performance did improve after the new mandatory requirements were introduced. This supports the view that NZSC recommendations have a positive influence on company financial performance measured by Tobin's Q, MB and ROA. The results also show that the presence of remuneration committee and board diversity has a positive effect on financial performance of large cap companies. Results also support that blockholding and dividend payouts contribute positively towards company financial performance.

The question left unanswered is why the empirical results for the NZSC recommendations to have non-executive/independent directors and audit committees do not have a positive effect on large cap company financial performance? The reason could be that the non-executive/independent directors and blockholding are substitute governance mechanisms. Since blockholders are already providing the level of vigilance required by the market, the role non-executive/independent directors play in monitoring is not regarded highly by the market. The audit committees are also seen to be adding to the costs of compliance rather

than adding to company financial performance. Alternatively, it could be non-executive/independent directors and audit committees are appointed to fulfil the NZSC recommendations and they add no value to large cap companies' financial performance.

Lastly, jurisdictions around the world are adopting the International Financial Reporting Standards (IFRS). In New Zealand, the Accounting Standards Review Board (ASRB) in December 2002 determined that entities required to comply with NZ GAAP under the Financial Reporting Act 1993 would be required to apply NZ IFRS in the preparation of their financial statements for periods commencing on or after January 2007, with the option to apply from reporting periods beginning on or after 1 January 2005. NZSC (2008) provides evidence that a number of companies that have balance dates from 31 March 2006 to 30 September 2006, have complied with the NZ IFRS and others have complied with the NZ GAAP. Compliance with NZ IFRS will have an impact on the way financial data is collated and reported. The effect on data collected on the change in reporting requirements from NZ GAAP to NZ IFRS is difficult to determine. Therefore, readers should apply discretion when trying to duplicate or extend this study. There is a discontinuity in the data series relating to the introduction of IFRS.

CHAPTER 7
CORPORATE GOVERNANCE PRACTICES AND FINANCIAL PERFORMANCE IN PUBLIC SECTOR CORPORATE ENTITIES: AN EMPIRICAL INVESTIGATION[54]

7.0 INTRODUCTION

This chapter presents the results of the empirical study of the relationship between corporate governance mechanisms and public sector corporate entities financial performance in New Zealand. A description of the sample size used in this study is provided in Chapter 4, Table 4.1. A description of the governance and financial performance variables used is provided in Chapter 4, Table 4.2. This chapter has three sections. First, a description of the sample descriptive statistics is provided. This is followed by a presentation of results from data analyses and discussion and finally, the conclusion is provided.

7.1 EMPIRICAL RESULTS

7.1.1 DESCRIPTIVE STATISTICS

The sample comprised 183 entities, two entities that did not have all the required information were removed, and a total of 181 entity-years data are included in the sample. However, the number of Crown corporate entities increased during the sampling period from 15 in 2000 to 30 in 2007. Table 4.1 (Chapter 4) shows that the number of entities available each year is not consistent across the sampling period. Previous research suggests that if all companies' data are not included in the historical research, it may cause survivorship bias (Kothari, Shanken & Sloan1995). To capture the effect of an increase in the number of Crown entities on the empirical results, a dummy variable SURV is used. SURV is equal to "1" if the entities data is available for all the years from 2000 to 2007, otherwise equal to "0".

A summary of sample size used in this study is provided in Table 7.1. It shows that approximately $36 billion of taxpayers' funds are invested in the assets of Crown entities and therefore it is important to utilise these assets efficiently. Table 7.2 presents a summary of

[54] A version of this chapter is under review in the Governance: An International Journal of Policy, Administration, and Institutions.

descriptive statistics for the panel data, including means, medians, minimum, maximum, and inter-quartile ranges.

Table 7.1:
Sample Size of Public Sector Corporate Entities

Year	Sample Size	Size of Companies in Terms of Total Assets ($000)
2000	15	9,394,578
2001	17	9,989,651
2002	19	10,240,896
2003	22	13,017,895
2004	23	13,896,581
2005	27	17,545,963
2006	30	21,220,520
2007	28	35,157,710
Total	181	116,567,213

Table 7.2:
Descriptive Statistics for the Pooled Sample of Public Sector Corporate Entities

Variables	**Mean**	**Median**	**Minimum**	**Maximum**	**Inter-quartile Range**
Dependent					
ROA	0.094	0.045	-0.162	2.384	0.019 – 0.076
ROE	0.271	0.076	-0.319	13.637	0.033 – 0.149
S2TA	0.190	0.132	-0.161	2.454	0.082 – 0.267
OPROA	1.127	1.034	0.021	11.934	0.455 – 1.362
C2REV	0.840	0.854	0.099	2.951	0.769 – 0.900
Governance					
NED	7.03	7	4	10	6 – 8
BDS	7.05	7	4	10	6 – 8
FD	2.26	2	0	5	2 – 3
ACOM	0.76	1	0	1	
RCOM	0.62	1	0	1	
LEV	0.390	0.345	-0.540	0.950	0.240 – 0.520
DIV2TA	0.046	0.006	0.000	1.292	0.000 – 0.520
CR	1.719	1.200	0.094	42.860	0.882 – 1.728
Control					
Log(TA)	5.193	5.002	4.027	7.031	4.534 – 5.880
FMRISK	0.060	0.035	0.002	0.583	0.017 – 0.058
INDPS	0.63	1	0	1	

Notes: For details regarding the methods used to measure the variables stated above, refer to Table 4.2 in Chapter 4.

The mean (median) ROA is 9.4% (4.5%) and the mean (median) ROE is 27.1% (7.6%). The mean (median) OPROA is 19% (13.2%). The mean (median) S2TA is 1.13% (1.03%). All

the dependent variables have positive values, showing that public corporate entities are generating a positive return on the investment made and this distribution is skewed to the right because the mean is much larger than the median. The mean (median) of C2REV is 0.84 (0.85). This shows that operating costs are 84% of the revenue and on average Crown entities contribute 16 cents towards operating profit. The average (median) board size is 7.05 (7) and the inter-quartile range is 6 to 8 members. This is consistent with the average board size of the publicly listed small cap and large companies on the New Zealand Stock Exchange (NZX) (Reddy et al., 2008a, 2008b).

The size of boards in the publicly listed companies ranges from 3 to 13, whereas in the public corporate entities, it ranges from 4 to 10. MacCarthaigh (2009) reports a similar board size for the public sector corporate entities in Ireland.

The average (median) number of female directors on the board is 2.26 (2) with an inter-quartile range of 2 to 3 members. The results obtained from CCMAU show that public sector boards have both gender and ethnic diversity (CCMAU, 2009). On average, 76% of the boards have an audit committee (ACOM) and 62% have a remuneration committee (RCOM). This shows that the majority of public sector corporate entities in New Zealand have complied with the NZSC's recommendations for good governance practices. On average, 63% of the companies in the sample are SOEs and the remaining 37% are Crown companies. Leverage (LEV) is a proxy for measuring the level of commitment provided by bondholders. The average (median) ratio was 0.39 (0.35). This shows that on average, public corporate entities borrow 39 cents in every dollar of assets. The mean (median) DIV2TA ratio is 0.05 (0.01), indicating that public corporate entities pay on average a dividend of five cents on every dollar of assets they hold. The current ratio (CR) is a proxy for measuring the level of commitment provided by the suppliers, employees, and short-term creditors. The short term liquidity ratio is a measure of organisations meeting their commitments. The average (median) current ratio is 1.7 (1.2). This shows that public corporate entities are able to meet their short term commitments. The mean (median) Log(TA) is 5.19 (5). The operational risk faced by public corporate entities on average (median) is around 6% (3.5%).

7.2.2 AVERAGE STATISTICS AND PAIRWISE CORRELATION BETWEEN INDEPENDENT VARIABLES

Table 7.3 provides cross-section average statistics for the dependent and independent variables for the period 2000 to 2007. On average, the number of board members in public sector corporate entities increased from 6.75 in 2000 to 7.14 in 2007. The number of female directors on the boards also increased from 1.56 in 2000 to 2.39 in 2007. The number of entities that have an audit committee increased from 56% in 2007 to 79% in 2007 and remuneration committees increased from 44% in 2000 to 68% in 2007. The averages of the variables BDS and NED are the same, indicating that all board members for the public sector corporate entities are appointed outside the public sector and have no prior affiliation with the respective public sector corporate entity to which they are appointed. However, there are concerns that directors in public sector corporate entities are appointed more for political or diversity reasons rather than balancing the skills required for effective governance (Norman, 2006). According to Norman (2006) the appointment process has created a culture of a high turnover of directors and limited engagement by directors in terms of assessing long-term strategy.

Table 7.3:
Cross-section Average Statistics of Public Sector Corporate Entities

	2000	2001	2002	2003	2004	2005	2006	2007
ROA	0.10	0.06	0.06	0.17	0.11	0.10	0.11	0.08
ROE	0.24	0.10	0.10	0.73	0.32	0.31	0.26	0.20
OPROA	0.18	0.16	0.17	0.26	0.21	0.19	0.21	0.17
S2TA	0.99	0.98	1.11	1.57	1.09	1.21	1.15	0.35
NED	6.75	6.88	7.00	6.95	7.04	7.11	7.10	7.14
BDS	6.75	6.88	7.11	6.95	7.04	7.11	7.10	7.14
FD	1.56	2.00	2.32	2.23	2.30	2.37	2.50	2.39
CR	1.57	1.62	1.05	1.18	1.24	2.95	1.83	1.79
LEV	0.41	0.39	0.38	0.44	0.40	0.40	0.37	0.37
DIV2TA	0.04	0.03	0.06	0.03	0.02	0.09	0.07	0.55
Log(TA)	5.24	5.25	5.16	5.17	5.19	5.13	5.13	5.30
ACOM	0.56	0.65	0.74	0.73	0.83	0.85	0.80	0.79
RCOM	0.44	0.53	0.58	0.55	0.70	0.70	0.67	0.68
FMRISK	0.04	0.04	0.04	0.06	0.06	0.07	0.08	0.08
INDPS	0.63	0.59	0.58	0.64	0.65	0.67	0.63	0.61

Notes: For details regarding the methods used to measure the variables stated above, refer to Table 4.2 in Chapter 4.

A pairwise correlation matrix for the independent variables is provided in Table 7.4. The highest correlations are between RCOM and ACOM at 0.72, indicating that those entities with a remuneration committee also tend to have an audit committee. The correlation between INDPS and Log(TA) at 0.54 indicates that size is specific to industry. The correlation between Log(TA) and BDS is 0.53, indicating that large companies tends to have larger boards. The correlation between FMRISK and DIV2TA is 0.44, which indicates that as the risk level of the company increases so do the dividend payouts. The correlation between FMRISK and BDS is 0.41. This indicates that as the risk level of the entity increases so does the board size. Apart from these exceptions, other correlations range between the absolute values of 0.01 to 0.32.

Table 7.4:
Pairwise Correlation Matrix for the Independent Variables

	NED	BDS	ACOM	RCOM	FD	CR	LEV	DIV2TA	Log(TA)	FMRISK	INDPS
NED	-										
BDS	-0.024 (0.751)	-									
ACOM	0.077 (0.305)	-0.118 (0.114)	-								
RCOM	0.049 (0.513)	**0.316*** **(0.000)**	**0.209*** **(0.000)**	-							
FD	0.097 (0.194)	**0.259*** **(0.001)**	**0.184*** **(0.013)**	**0.721*** **(0.000)**	-						
CR	-0.019 (0.797)	-0.107 (0.155)	0.021 (0.776)	-0.118 (0.115)	-0.081 (0.280)	-					
LEV	0.010 (0.892)	**0.169++** **(0.024)**	0.067 (0.374)	**0.240*** **(0.003)**	0.072 (0.337)	**-0.225*** **(0.002)**	-				
DIV2TA	0.015 (0.894)	**-0.189*** **(0.000)**	**0.185*** **(0.013)**	0.050 (0.504)	0.026 (0.730)	-0.072 (0.332)	**0.185*** **(0.013)**	-			
Log(TA)	-0.123 (0.101)	**0.529*** **(0.000)**	**0.161†** **(0.031)**	**0.368*** **(0.000)**	**0.330*** **(0.000)**	-0.137 (0.068)	**0.177++** **(0.017)**	-0.113 (0.131)	-		
FMRISK	-0.056 (0.458)	**-0.406*** **(0.000)**	0.106 (0.156)	-0.079 (0.302)	-0.048 (0.521)	0.069 (0.360)	0.050 (0.507)	**0.442*** **(0.000)**	-0.131 (0.081)	-	
INDPS	-0.098 (0.110)	**0.208*** **(0.000)**	-0.038 (0.610)	**0.177++** **(0.017)**	0.126 (0.093)	0.004 (0.962)	**0.312*** **(0.000)**	**0.158++** **(0.034)**	**0.537*** **(0.000)**	0.009 (0.903)	-

Notes: For details regarding the methods used to measure the variables stated above, refer to Table 4.2 in Chapter 4. *** denotes correlation is significant at 0.01 level (2-tailed); ++ denotes correlation is significant at 0.05 level (2-tailed).

7.2.3 OLS REGRESSION OF ROA, ROE S2TA, OPROA AND C2REV ON GOVERNANCE AND CONTROL VARIABLES

Table 7.5 reports the results of the OLS regression between the dependent variables (ROA, ROE, OPROA, S2TA and C2REV) and the independent variables. The results show that LEV, DIV2TA, FMRISK and INDPS have positive coefficients, indicating their use increases financial performance measured by ROA, ROE, OPROA, S2TA and C2REV. The results are statistically significant at a 5% level. Leverage is seen to create positive value for public sector corporate entities. Using leverage encourages managers of public sector corporate entities to work harder to generate and pay off the entities' cash flows to the outside investors. It also allows managers' performance to be monitored by the external parties. Dividends are seen to create positive value for public sector corporate entities. Requiring entities to make regular dividend payments encourages better utilisation of the free cash flows. Also the positive coefficient of FMRISK which is statistically significant at a 5% level indicates that entities have created value by taking additional operational risks. The results for the dependent variable C2REV show that higher operational risks contribute towards higher cost efficiency and the efficiency which is attributable to SOEs only.

The positive coefficient of INDPS indicates that an industry effect is present and positive performance is related only to SOEs. This evidence provides support for the view that a principle-based governance approach has allowed industry-specific governance structures to be developed and such structures are having a positive effect on entities' financial performance across all financial performance measures.

The negative coefficient of Log(TA) indicates that larger entities have a negative effect on performance measured by ROA, ROE, OPROA and S2TA. The results are statistically significant at a 1% for OPROA and S2TA, 5% level for ROA and 10% level for ROE.. This may be the case because the government's focus is on delivering social objectives such as creating employment, which may require keeping the size of the entity large when that is not optimal. However, the result for Log(TA) is consistent for all sectors (small cap and large cap companies, as well as public sector corporate entities) indicating size has a negative effect on financial performance. This indicates that public sector corporate entities in New Zealand are not at their optimal size. The result of RCOM is interesting as it has a positive coefficient and is

statistically significant at 1% level. This shows that the presence of remuneration committees does have a positive effect on financial performance measured by S2TA. This result is interesting as New Public Management (NPM) recognises that incentives are an important means of changing behaviours and formation of a remuneration committee is a reflection of this view. The result for RCOM is consistent with the results for small cap companies (Chapter 5) and large cap companies (Chapter 6) showing that remuneration committees have a positive effect on financial performance.

The negative coefficient of CR indicates that entities have not utilised current resources in an efficient manner. The results are statistically significant at a 10% level. The results for CR show that public sector corporate entities could better utilise current resources and better manage relationships with stakeholders.

The results of the efficiency measure (C2REV) are similar to other entity financial performance measures. A negative and statistically significant coefficient for BDS shows that a large board size reduces agency costs. The non-executive/independent directors on public sector corporate entities' boards are providing the required level of monitoring of managers' behaviour which is leading to improved financial performance. A negative coefficient of FMRISK, which is statistically significant, suggests that agency costs can be reduced by taking higher risks. A negative coefficient of INDPS, which is statistically significant at a 5% level, suggests that cost reduction is specific to certain industries only. In summary, the above results provide support to hypotheses H4c (Board size), H6f (Remuneration Committee), H7c (Leverage), and H8c (Dividends).

Table 7.5:
OLS Regression of ROA ROE, S2TA, OPROA and C2REV as the Dependent Variables and Governance and Control Variables

	ROA		ROE		OPROA		S2TA		C2REV	
		Standard Error		Standard Error		Standard Error		Standard Error		Standard Error
Const.	-0.23 (-1.37)	0.166	-0.33 (-0.98)	0.334	0.19 (0.95)	0.196	**1.19++ (2.82)**	0.423	0.19 (0.95)	0.203)
NED	0.27 (1.70)	0.156	0.45 (1.42)	0.318	0.03 (0.13)	0.186)	-0.31 (-0.77)	0.403	0.21 (1.06)	0.193
BDS	0.06 (0.31)	0.050	-0.06 (-0.62)	0.102	0.06 (1.00)	0.059	0.21 (1.64)	0.129	**-0.14† (-2.32)**	0.062
FD	-0.02 (-0.55)	0.027	-0.06 (-1.13)	0.054	-0.02 (-0.78)	0.032	-0.05 (-0.80)	0.068	0.01 (0.25)	0.032
ACOM	-0.00 (-0.04)	0.009	0.00 (0.05)	0.957	-0.01 (-0.23)	0.012	-0.04 (-1.48)	0.025	-0.02 (-1.69)	0.012
RCOM	0.00 (0.04)	0.008	0.01 (0.42)	0.017	0.02 (1.48)	0.010	**0.10*** (4.78)**	0.021	0.02 (1.46)	0.010
LEV	**0.03† (2.15)**	0.014	**0.13*** (4.34)**	0.029	0.02 (1.27)	0.017	**0.11++ (2.96)**	0.037	0.03 (1.38)	0.018
DIV2TA	**0.15† (1.99)**	0.078	**0.45++ (2.89)**	0.157	**0.17† (1.95)**	0.092	**0.82*** (4.12)**	0.198	0.18 (1.84)	0.095
CR	**-0.03† (-1.95)**	0.017	**-0.08† (-2.27)**	0.035	**-0.07++ (-3.35)**	0.021	**-0.10† (-2.15)**	0.044	**0.07++ (3.22)**	0.021
Log(TA)	**-0.01++ (-2.68)**	0.005	**-0.02† (2.28)**	0.011	**-0.05*** (-7.45)**	0.006	**-0.17*** (-12.19)**	0.013	-0.01 (-0.55)	0.006
FM RISK	**1.46*** (15.86)**	0.092	**2.73++ (14.66)**	0.186	**1.26*** (11.54)**	0.109	**1.07*** (4.52)**	0.236	**-0.69*** (-6.06)**	0.113
Complied	**0.00 (0.04)**	0.009	**0.00 (0.14)**	0.019	**-0.00 (-0.10)**	0.011	**-0.021 (-1.77)**	0.012	**-0.03 (-1.38)**	0.025
INDPS	**0.03*** (4.07)**	0.007	**0.06++ (3.96)**	0.015	**0.05*** (5.91)**	0.008	**0.05++ (2.52)**	0.019	**-0.03++ (-2.79)**	0.009
F	41.66 (0.000)		43.44 (0.000)		31.24 (0.000)		32.70 (0.000)		6.95 (0.000)	
Adj. R^2 ($R^{2)}$	0.71 (0.73)		0.72 (0.74)		0.65 (0.67)		0.66 (0.68)		0.27 (0.30)	
N	181		181		181		181		181	

Notes: For details regarding the methods used to measure the variables stated above, refer to Table 4.2 in Chapter 4. *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

7.2.4 TEST FOR MULTICOLINEARITY

Table 7.6 provides values for the VIF and tolerance statistics for Equation 8 and it is apparent that none of the values are of concern. Also, the pairwise correlation for the independent variables provided in Table 7.4 show that none of the values are above 0.8. Therefore, it is concluded that multicollinearity is not an issue for the models estimated.

Table 7.6:
OLS Regression Results of Dependent and Independent Variables

		Standard	Collinearity Statistics	
	ROA	**Error**	Tolerance	VIF
Const.	-0.23 (-1.37)	0.166		
NED	0.27 (1.70)	0.156	0.951	1.051
BDS	0.06 (0.31)	0.050	0.575	1.738
FD	-0.02 (-0.55)	0.027	0.861	1.162
ACOM	-0.00 (-0.04)	0.009	0.423	2.366
RCOM	0.00 (0.04)	0.008	0.446	2.244
LEV	**0.03†** **(2.15)**	0.014	0.699	1.430
DIV2TA	**0.15†** **(1.99)**	0.078	0.718	1.393
CR	**-0.03†** **(-1.95)**	0.017	0.694	1.440
Log(TA)	**0.01++** **(-2.68)**	0.005	0.428	2.338
RMRISK	**1.46***** **(15.86)**	0.092	0.705	1.419
INDPS	**0.03***** **(4.07)**	0.007	0.570	1.736
F-Value (p-value)	41.66 (0.000)			
Adj. R^2 (R^2)	0.71 (0.73)			
N	181			

Notes: For details regarding the methods used to measure the variables stated above, refer to Table 4.2 in Chapter 4. *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

7.2.6 OLS REGRESSION OF THE DIFFERENCE IN ROA (BETWEEN 2003 AND 2007) ON GOVERNANCE AND CONTROL VARIABLES

Table 7.7 reports the regression results of Equation 10. The dependent variable AvROA2003 is the average ROA for the years 2000 to 2003 which is regressed on the entities' data for 2003. The dependent variable AvROA2007 is the average ROA for the years 2004 to 2007, which is regressed on the entities' data for 2007. DiffAvROA is the difference in the entities' performance between 2003 and 2007. It is determined by subtracting AvROA2007 from AvROA2003 (DiffAvROA = AvROA2007 – AvROA2003). DiffAvROA measures whether public sector corporate entities that complied with the NZSC recommendations in 2007 created positive value compared to the companies in 2003.

The AvROA2003 is 0.06, AvROA2007 is 0.11 and DiffAvROA is 0.06. Since DiffAvROA is positive, it indicates that entities in 2007, on average, created more value measured by ROA than in 2003. The results in columns 4 and 6 of Table 7.7 show that FMRISK has a positive value and is statistically significant at a 5% level. The results indicate that an increase in entities' value in 2007 is largely attributed to the risk undertaken at the operational level. By taking higher a level of risk, managers were able to create a higher value for the public sector corporate entities.

Table 7.7:
OLS regression Results Using Average ROA 2003 (AvROA2003), Average ROA 2007 (AvROA2007) and DiffAvROA as the Dependent Variables

	AvROA 2003	Standard Error	AvROA 2007	Standard Error	DiffAv ROA	Standard Error
Constant	0.32 (0.84)	0.385	0.17 (0.45)	0.383	-0.23 (-0.57)	0.398
NED	0.04 (0.58)	0.061	-0.31 (-0.80)	0.391	0.08 (0.19)	0.406
BDS	-0.65 (-0.69)	0.947	0.12 (1.22)	0.099	0.08 (0.76)	0.103
FD	-0.03 (-1.07)	0.031	0.01 (0.10)	0.059	0.01 (0.02)	0.061
ACOM	-0.01 (-1.35)	0.012	-0.05 (-1.20)	0.038	-0.01 (-0.26)	0.039
RCOM	0.01 (0.17)	0.009	0.03 (0.93)	0.033	0.01 (0.19)	0.035
LEV	-0.01 (-0.45)	0.017	0.06 (1.62)	0.037	0.01 (0.37)	0.038
DIV2TA	**0.34++** **(4.78)**	0.072	**0.43+** **(2.51)**	0.171	-0.12 (-0.68)	0.178
CR	0.03 (0.50)	0.007	0.00 (-0.45)	0.004	0.00 (-0.64)	0.004
Log(TA)	0.01 (0.06)	0.006	0.02 (0.22)	0.009	0.01 (1.21)	0.010
FMRISK	-0.02 (-0.13)	0.148	**0.45++** **(6.95)**	0.065	**0.45++** **(6.69)**	0.067
COMPLIED			-0.03 (-1.46)	0.023	-0.02 (-0.87)	0.023
SURV			0.04 (0.68)	0.022	-0.01 (-0.54)	0.022
F-value **(p-value)**	5.06 (0.009)		5.72 (0.002)		5.73 (0.004)	
Adj. R^2 **(R^2)**	0.67 (0.84)		0.71 (0.86)		0.71 (0.86)	
N	21		26		26	

Notes: For details regarding the methods used to measure the variables stated above, refer to Table 4.2 in Chapter 4. *** Statistical significance at 0.01 level (2-tailed), ++ Statistical significance at 0.05 level (2-tailed), † Statistical significance at 0.1 level (2-tailed)

7.2.5 OLS REGRESSION FOR DEPENDENT AND INDEPENDENT VARIABLES (WITH FOUR ADDITIONAL VARIABLES, THAT IS, INTANGIBLE2TA, MARKETSHARE, AFTER2003 AND SURV)

Results in Table 7.8 show that increasing the number of independent variables (Marketshare, Intangible2ta, AFTER2003 and SURV) has improved the predictive power of the model. In all the cases, adjusted R squared increased compared to the results reported in Table 7.5. The other results provided in Table 7.8 are very similar to results provided in Table 7.5. The results show that LEV, FMRISK, Marketshare, SURV and INDPS have positive coefficients, indicating that their use increases financial performance as measured by ROA, ROE, OPROA and S2TA. The results are statistically significant at the 5% level. The results show that the use of leverage creates positive value for the entity. The results are interesting for Marketshare, indicating higher levels of market power have a positive effect on value. The positive coefficient of FMRISK shows that the entities have created value from taking additional operational risks. The positive coefficient of SURV indicates that the entities that survived the sampling period contributed positively towards financial performance measured by ROA, ROE, OPROA and S2TA. However, the positive coefficient of INDPS indicates that the industry effect is present and that positive financial performance is related to SOEs only. The positive coefficient of Intangible2ta indicates that a higher level of intangible assets leads to a positive effect on entities' financial performance. However, Intangible2ta is only statistically significant for the financial performance measures ROE and C2REV.

The negative coefficient of Log(TA) indicates that increased organisation size has a negative effect on financial performance measured by ROA, ROE, OPROA and S2TA. The results are statistically significant at a 1% level. The negative coefficient of AFTER2003 indicates that since 2003 entities have not created value. The results are statistically significant at the 10% level. This is of concern because it was assumed that implementing NZSC's recommendations would improve governance and also lead to higher financial performance. The reason for the negative coefficient could be that public sector corporate entities have incurred higher costs of restructuring and implementing NZSC recommendations, which have had a negative effect on financial performance. Therefore, the beneficial effects of complying with NZSC

recommendations has been not been reflected in the financial performance of the entities. The negative coefficient of CR, which is statistically significant at a 10% level, indicates that entities have not utilised the current resources in an efficient manner.

The result for RCOM is interesting as it has a positive coefficient that is statistically significant for the organisations' performance measure. This shows that the presence of a remuneration committee does have a positive effect on financial performance measured by S2TA.

The results for the efficiency measure (C2REV) are similar to other entity financial performance measures. A negative and statistically significant coefficient of BDS shows that a large board size reduces agency costs. A negative coefficient for ACOM suggests that the audit committee has potential to mitigate agency costs in public sector corporate entities. The coefficient of FMRISK is statistically significant and negative, suggesting that agency costs can be reduced by taking higher risks. The positive coefficient of CR indicates that current assets are not utilised in an efficient manner and lead to cost inefficiencies. The positive coefficient for Intangible2ta that is statistically significant indicates that entities have not used intangible assets efficiently, which increases costs. A negative coefficient of INDPS, which is statistically significant at a 10% level, suggests that cost reduction is specific to SOEs only.

In summary, the above results provide support to hypotheses H4c (Board Size), H6e (Audit Committee), H6f (Remuneration Committee), H7c (Leverage), and H8c (Dividends). There is evidence that additional variables Marketshare, Intangible2ta, AFTER2003 and SURV have improved the predictive power of the model. The adjusted R squared improved for all financial performance measures. The result for SURV is interesting as it provides evidence that the entities that survived the sampling period contributed positively towards financial performance. The result is consistent for all financial performance measures. The result for AFTER2003 shows that the period after 2003 has not contributed positively towards the entities' financial performance. A plausible explanation is that entities who comply with the NZSC recommendations have had to set up structures which have added more to costs than to benefits.

Table 7.8:
OLS Regression of ROA ROE, S2TA, OPROA and C2REV as the Dependent Variables and Four Additional Governance and Control Variables

	ROA		ROE		OPROA		S2TA		C2REV	
		Standard Error		Standard Error		Standard Error		Standard Error		Standard Error
Const.	-0.10 (-0.71)	0.146	-0.06 (-0.19)	0.305	0.29 (1.69)	0.171	**1.73*** (5.20)**	0.333	0.31 (1.64)	0.189
NED	0.21 (1.54)	0.136	0.34 (1.18)	0.285	-0.04 (-0.22)	0.159	-0.53 (-1.71)	0.311	0.18 (1.04)	0.177
BDS	-0.02 (-0.43)	0.045	-0.14 (-1.53)	0.094	0.03 (0.58)	0.053	0.09 (0.85)	0.103	**-0.18++ (-3.10)**	0.059
FD	0.03 (1.01)	0.025	0.01 (0.13)	0.052	0.03 (1.05)	0.029	-0.03 (-0.44)	0.057	-0.04 (-1.20)	0.032
ACOM	0.01 (1.14)	0.009	0.02 (1.10)	0.018	0.01 (0.83)	0.010	-0.01 (-0.38)	0.019	**-0.02† (-1.99)**	0.011
RCOM	-0.01 (-1.35)	0.008	-0.02 (-0.973)	0.016	0.01 (0.68)	0.009	**0.06++ (3.32)**	0.017	0.01 (0.67)	0.010
LEV	**0.03† (2.12)**	0.013	**0.11*** (4.042)**	0.027	0.03 (1.65)	0.015	**0.11*** (3.67)**	0.030	0.01 (0.55)	0.017
DIV 2TA	-0.01 (-0.14)	0.072	0.16 (1.04)	0.150	-0.01 (-0.161)	0.084	0.28 (1.73)	0.163	**0.19† (2.02)**	0.093
CR	-0.02 (-1.00)	0.016	-0.05 (-1.49)	0.333	**-0.05++ (-2.56)**	0.018	**-0.08++ (-2.30)**	0.036	**0.05† (2.43)**	0.020
Log (TA)	**-0.04*** (-6.36)**	0.006	**-0.07*** (-5.39)**	0.012	**-0.07*** (10.51)**	0.007	**-0.25*** (-19.09)**	0.013	-0.01 (-0.604)	0.007
FM RISK	**1.61*** (17.39)**	0.093	**2.82*** (14.54)**	0.193	**1.55*** (14.36)**	0.108	**1.48*** (7.03)**	0.211	**-1.04*** (-8.68)**	0.120
Market share	**1.54*** (3.79)**	0.407	**3.05*** (3.59)**	0.849	**1.28++ (2.71)**	0.474	**7.98*** (8.62)**	0.926	**1.24† (2.36)**	0.526
Intangible2ta	0.03 (1.76)	0.016	**0.11++ (3.203)**	0.033	-0.00 (-0.04)	0.018	0.01 (0.29)	0.036	**0.07† (3.23)**	0.020
AFTER 2003	**-0.01† (-2.06)**	0.005	**-0.02† (-2.09)**	0.011	-0.01 (-1.42)	0.006	**-0.02† (-2.05)**	0.012	0.01 (0.68)	0.007
SURV	**0.04*** (4.49)**	0.008	**0.05++ (2.89)**	0.016	**0.06*** (6.04)**	0.009	**0.06++ (3.34)**	0.018	**-0.05*** (-4.71)**	0.010
INDPS	**0.07*** (7.42)**	0.009	**0.12*** (6.53)**	0.018	**0.09*** (8.83)**	0.010	**0.19*** (9.42)**	0.020	**-0.02† (-2.16)**	0.011
F	36.22 (0.000)		43.19 (0.000)		36.22 (0.000)		48.77 (0.000)		8.71 (0.000)	
Adj. R^2 ($R^{2)}$	0.75 (0.77)		0.78 (0.80)		0.75 (0.77)		0.80 (0.82)		0.39 (0.44)	
N	181		181		181		181		181	

Notes: For details regarding the methods used to measure the variables stated above, refer to Table 4.2 in Chapter 4. *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

7.2.6 OLS REGRESSION FOR DEPENDENT AND INDEPENDENT VARIABLES (WITH TWO NEW VARIABLES, THAT IS, COMAFT AND CSURV)

Table 7.9 provides results for two additional variables compared to Table 7.8, that is, ComAft and CSURV. ComAft captures the effect of compliance with the NZSC recommendations after 2003 on entities' financial performance. CSURV measures the effect of surviving the sampling period and also complying with the NZSC recommendations on financial performance.

The coefficient of ComAft is negative and statistically significant; indicating that compliance with the NZSC's recommendations after 2003 has a negative effect on entity financial performance measured by ROA and ROE. The reason could be that the cost of compliance is high or entity operational costs are too high at the outset. As indicated earlier, public sector entities' size is not optimal. Alternatively, public sector organisations have to meet government's social objectives, which may allow them to operate at sub-optimal level. The coefficient of CSURV is positive indicating that survival through the sampling period and compliance with NZSC recommendations has a positive effect on entity performance measured by ROA, ROE, OPROA and S2TA. However, the results for CSURV are not statistically significant.

The results show that LEV, FMRISK, Marketshare, and IND have positive coefficients, indicating their use increases entity financial performance, as measured by ROA, ROE, OPROA and S2TA. The results are statistically significant at a 5% level or less. The coefficients of CR and Log(TA) are negative and are statistically significant at the 1% or less level. The coefficient of the variable ComAft is negative and is also statistically significant indicating that compliance with NZSC's recommendations has not created value. The results of NED, FD and ACOM are not statistically significant. However, the result of RCOM has a positive coefficient that is statistically significant for the entities' financial performance measured by S2TA. The results of the efficiency measure (C2REV) are similar to other financial performance measures. A negative and statistically significant result for BDS, ACOM, FMRISK and INDPS shows that their use reduces agency costs in public corporate entities. In summary, the above results also provide support to hypotheses H4c (Board size), H6e (Audit Committee), H6f (Remuneration Committee), H7c (Leverage), and H8c (Dividend). The result for ComAft provides support for the view

that compliance with the NZSC recommendations has added more to costs than to the benefits.

Table 7.9:
OLS Regression of ROA ROE, S2TA, OPROA and C2REV as the Dependent Variables and Governance and Two Additional Control Variables

	ROA		ROE		OPROA		S2TA		C2REV	
		Standard Error		Standard Error		Standard Error		Standard Error		Standard Error
Const.	-0.06 (-0.39)	0.158	-0.01 (0.98)	0.319	0.36 (1.89)	0.191	**1.79*** (5.08)**	0.353	0.25 (1.13)	0.204
NED	0.19 (1.28)	0.147	0.30 (1.03)	0.296	-0.07 (-0.38)	0.178	-0.56 (-1.69)	0.328	0.20 1.05)	0.190
BDS	-0.01 (-0.08)	0.049	-0.12 (-1.20)	0.099	0.05 (0.78)	0.059	0.11 (0.97)	0.110	**-0.19++ (-2.91)**	0.064
FD	-0.01 (-0.37)	0.026	-0.05 (-0.89)	0.053	-0.02 (-0.56)	0.032	-0.10 (-1.67)	0.059	0.01 (0.19)	0.034
ACOM	0.01 (0.44)	0.012	0.02 (0.85)	0.024	-0.01 (-0.52)	0.014	-0.01 (-0.27)	0.026	-0.01 (-0.51)	0.015
RCOM	-0.01 (-1.36)	0.008	-0.02 (-1.01)	0.016	0.01 (0.47)	0.010	**0.06++ (3.04)**	0.018	0.01 (0.78)	0.011
LEV	**0.03† (2.00)**	0.014	**0.11*** (3.91)**	0.028	0.03 (1.53)	0.017	**0.11++ (3.45)**	0.031	0.01 (0.52)	0.018
DIV2TA	0.04 (0.54)	0.077	0.24 (1.52)	0.155	0.05 (0.58)	0.093	**0.38† (2.23)**	0.172	0.13 (1.33)	0.099
CR	-0.03 (-1.85)	0.016	**-0.07† (-2.14)**	0.033	**-0.07++ (-3.45)**	0.020	**-0.11++ (-3.05)**	0.037	**0.07++ (3.29)**	0.021
Log (TA)	**-0.04*** (-5.60)**	0.006	**-0.06*** (-4.91)**	0.013	**-0.07*** (-9.01)**	0.008	**-0.25*** (-17.25)**	0.014	-0.01 (-0.79)	0.008
FM RISK	**1.48*** (15.28)**	0.097	**2.62*** (13.38)**	0.196	**1.37*** (11.70)**	0.117	**1.22*** (5.64)**	0.217	**0.88++ (6.69)**	0.126
Market share	**2.02*** (4.72)**	0.428	**3.78*** (4.38)**	0.864	**1.93*** (3.73)**	0.518	**8.92*** (9.33)**	0.957	0.67 (1.20)	0.555
Intangible2ta	**0.03 (1.54)**	0.017	**0.10++ (3.01)**	0.034	-0.03 (-0.15)	0.020	0.01 (0.17)	0.038	**0.07++ (3.12)**	0.022
ComAft	**-0.01++ (-2.12)**	0.006	**-0.03† (-2.11)**	0.013	-0.01 (-1.31)	0.008	-0.02 (-1.71)	0.014	0.01 (0.18)	0.008
CSURV	0.01 (0.95)	0.010	0.01 (0.33)	0.019	0.02 (1.83)	0.012	0.00 (0.15)	0.021	-0.02 (-1.23)	0.012
INDPS	**0.06*** (6.67)**	0.006	**0.12*** (6.07)**	0.019	**0.09*** (7.71)**	0.012	**0.18*** (8.55)**	0.021	-0.02 (-1.83)	0.012
F	38.02 (0.000)		39.55 (0.000)		27.22 (0.000)		43.11 (0.000)		6.16 (0.000)	
Adj. R^2 ($R^{2)}$	0.76 (0.78)		0.76 (0.78)		0.69 (0.71)		0.78 (0.80)		0.30 (0.36)	
N	181		181		181		181		181	

Notes: For details regarding the methods used to measure the variables stated above, refer to Table 4.2 in Chapter 4. *** denotes coefficient is significant at 0.01 level (2-tailed); ++ denotes coefficient is significant at 0.05 level (2-tailed); † denotes coefficient is significant at 0.1 level (2-tailed). Standard errors are also provided for each variable.

7.3 CONCLUSION

The results highlight the governance mechanisms that have potential to provide effective monitoring of agents in public sector settings. A number of mechanisms were examined including board independence, board size, board diversity, board committees (Audit and Remuneration), leverage, dividends, current ratio, industry, year, compliance and survivorship.

Four important questions were addressed: (i) Whether public sector corporate entities have complied with the NZSC recommendations? (ii) Did compliance with the NZSC recommendations after 2003 lead to an improvement in public sector corporate entities' financial performance? (iii) Whether public sector corporate entities that were always in compliance with NZSC recommendations from 2000 have better financial performance compared to the entities that were not in compliance? (iv) Can the differences in entity financial performance be explained by the differences in governance practices in different industries?

The findings indicate that public sector corporate entities have universally adopted Securities Commission recommendations to establish subcommittees for audit and remuneration, and to have a majority of independent directors on the board which, on average, has seven members. Seventy six percent of the entities in the sample have audit committees and sixty seven percent have a remuneration committee.

The results reported in Tables 7.5, 7.8 and 7.9 shows that leverage has a positive effect on financial performance and is statistically significant. By allowing public sector corporate entities to borrow money rather than relying on taxpayer funds has had a positive effect on entities' financial performance. Also, this allows public sector corporate entities' performance to be monitored by the external parties similar to the private sector companies. Results also show that existence of a remuneration committee has a positive effect on financial performance when measured by S2TA. Having a remuneration committee allows managers' performance in public sector corporate entities to be set along similar guidelines to their private sector counterparts. Results show that dividend payouts contribute positively towards the financial performance of entities.

Board size and audit committees have a positive effect on reducing agency costs when measured by C2REV. However, results show that ACOM (audit committee) is not statistically significant for other financial performance measures because the New Zealand Audit Office is responsible for providing an independent review of financial accounts for public sector corporate entities, and therefore the role an audit committee performs is not seen to be important in public sector corporate entities.

Results also show that business risk and industry have a positive effect on financial performance and therefore can be used as a mechanism to reduce agency costs in public sector corporate entities. This result indicates that managers tend to work harder when entities take higher risks because their skills are specific to the entity and they could lose more if the entity were to fail. Also, governance practices in SOEs have a positive effect on financial performance. This result is similar to the results reported in Chapter 5 (small cap companies) and Chapter 6 (large cap companies) that a principle-based governance approach has allowed different industries to develop industry-specific governance structures. However, this evidence is relevant to certain industries only. The results for entity size are consistent across all financial performance measures and show a negative effect. Therefore, size having negative effect on financial performance is consistent for all sectors, that is, small and large cap companies and public sector corporate entities.

The result for the variable SURV is interesting as it indicates that entities that survived the sampling period tend to have a statistically superior performance (Table 7.8). A significant number of entities in the sample either did not have all the required information available or were not established and this tends to have had a bearing on the results obtained. The result of the variable AFTER2003 is interesting as well as it shows that the variable is statistically significant and has a negative effect on the financial performance of entities (Table 7.8). One possible explanation is that public sector corporate entities have incurred high costs in setting up structures in order to comply with the NZSC guidelines. The effect of compliance on the financial performance of entities measured by ROA, ROE, OPROA and S2TA has been negligible. This is supported by the result of ComAft, which has a negative coefficient and is statistically significant at a 5% level (Table 7.9). This indicates that compliance with NZSC recommendations after 2003 has had a negative effect on financial

performance measured by ROA and ROE. The results (Table 7.7) show that an increase in the financial performance of public sector corporate entities in 2007 is better explained by the level of risk (FMRISK) undertaken rather than compliance with the NZSC recommendations, such as, NED or board committees.

In summary, there is strong evidence to support the view that public sector corporate entities have adopted the corporate governance guidelines that were introduced by the NZSC in 2004. The presence of an audit and a remuneration committee has a positive effect on the financial performance of the entity measured by C2REV and S2TA, respectively. Also, the results for BDS show that larger boards tend to have a positive effect on financial performance measured by C2REV. The results support the use of leverage and dividends as governance mechanisms to control agency problems in public sector corporate entities. Leverage and dividends have positive effects on the financial performance the entities. Compliance with NZSC recommendations after 2003 has had a negative effect on the financial performance of the entities.

Finally, it is noted that the results are timely given the current government in New Zealand has directed public sector business to improve financial performance. The extent to which CCMAU and policy units can work on governance issues to lift performance will extend our knowledge of the standard of governance practised in public sector corporate entities in New Zealand and provide future research opportunities.

CHAPTER 8
SUMMARY AND CONCLUSION

8.0 INTRODUCTION

This chapter provides a summary of findings of the empirical studies reported in Chapters 5, 6 and 7 regarding corporate governance practices and financial performance of publicly listed companies and public sector corporate entities in New Zealand. Relevant conclusions that have policy implications for governance practices and reform in New Zealand are noted. Consideration is given to the contribution of this research. Finally, the chapter concludes with comments concerning possible future directions for governance research.

8.1 FOCUS OF THIS STUDY

Research in corporate governance was motivated by renewed public interest after high profile corporate failures and scandals[55] occurred internationally. There were strong calls for greater accountability and transparency concerning the way corporations are controlled and managed. In response, a range of laws impacting corporate governance were passed in several countries. In recent years, there has been a strong trend towards the adoption of 'soft laws' (Mörth, 2004) or 'soft regulations' (Sahlin-Andersson, 2004) in the form of codes/principles and guidelines. The codes/principles and guidelines are basically 'a non-binding set of principles, standards or best practices, issued by a collective body and relate to the internal governance of corporations' (Weil & Manges, 2003). The view taken was that the codes/principles-based governance approaches allow companies and/or industries to develop governance structures that are specific to their context.

[55] Examples of international high profile corporate failures scandals include Adelphia (US), Enron (US), Tyco (US), WorldCom (US), BBCI (UK), British & Commonwealth (UK), Maxwell (UK), Mirror Group (UK), Polly Peck (UK), Holzmann (Germany), Metallgesellschaft (Germany), Bayerische Hypo – and Vereinsbank (Germany), OneTel (Australia), HIH (Australia), Ansett (Australia), Parmalat (Italy), to mention a few.

To improve the standard of governance practised in New Zealand, the NZSC in 2004 issued nine high-level statements or principles, each supported by suggestions or guidelines as to how the principles should be implemented. It was assumed that the adoption of principles and guidelines would result in good governance practices leading to improved financial performance. It was recognised that the board of directors is an important internal governance mechanism and can play a more proactive part in discharging a fiduciary role for improving company financial performance. In this regard, the NZSC recommendations focused on making boards more independent of management by having an independent chair, non-executive/independent directors and non-executive/independent directors as members of board committees, such as, audit, remuneration and nomination.

This thesis first reports on an investigation into whether corporate governance practices recommended by the NZSC in 2004 have been adopted by small cap companies, large cap companies and public sector corporate entities in New Zealand. Second, an examination of whether compliance with the NZSC recommendations has improved company financial performance is undertaken. Third, the issue of whether differences in company financial performance can be explained by differences in governance practices of different industries is investigated. The governance factors, viz, non-executive/independent directors and board committees recommended by the NZSC in 2004 are of particular interest in this regard.

This research also examines other governance mechanisms that prior research has found to be important for mitigating the agency problem. These mechanisms include insider ownership, block ownership, board size, board gender diversity, leverage, and dividends policy. Also investigated are the moderating effects of company size, industries, risks (business and market), economic growth rate and unobserved company characteristics (such as intangible assets to total assets and marketshare) on company financial performance.

The data for the small and large cap companies are obtained from NZX Deep Archive. The sampling period for the small cap companies is 1999 to 2006 whereas the large cap companies are 1999 to 2007. The data for public sector corporate entities are obtained from the entities' annual reports for the period 2000 to 2007. Ordinary Least Squares (OLS) regression techniques on pooled data are used to test the hypotheses.

Importantly, tests for multicollinearity indicate no concern regarding the data. The two stage least squares (2SLS) regression technique is used to control for the effect of endogeneity and reverse causality of ownership on company financial performance.

8.2 SUMMARY OF EMPIRICAL RESULTS

The findings reveal that small cap companies, large cap companies and public sector corporate entities, in general, have complied with the NZSC's guidelines. The findings also indicate that publicly listed companies and public sector corporate entities have good governance practices such as non-executive/independent directors and board committees dating from 1999 and 2000, respectively. The empirical examination of the hypotheses developed from the conceptual framework presented in this thesis reveal mixed results.

8.2.1 COMPLIANCE AND FINANCIAL PERFORMANCE

The empirical results (Table 6.4) show that compliance with NZSC recommendations after 2003 has a positive effect on the financial performance of large cap companies. This finding is consistent for all financial performance measures of large cap companies. This evidence provides support for the view that compliance with the NZSC recommendation has improved the standard of governance practised in large cap companies leading to an improvement in financial performance.

However, the results for small cap companies and public sector corporate entities are not supported. The results show the coefficient of the variable ComAft for small cap companies (Table 5.4) are positive but not statistically significant. Also, with NZSC recommendations since 1999 had a positive effect on small cap companies' financial performance as measured by Tobin's Q. This finding suggests that small cap companies that were always in compliance were easily able to adapt to the NZSC recommendations without having to incur a high level of costs to set up new structures to meet compliance requirements. Since post-compliance company data were available for the period 2004-2007, results suggest that companies that complied after 2003 had to incur costs for setting up new structures and were not able to fully recover those costs within the period for which data was available.

The results for public sector corporate entities (Table 7.9) show that compliance with the NZSC recommendations after 2003 has had a negative effect on financial

performance measured by ROA and ROE. The results also show that the entities that were always in compliance with the NZSC recommendations since 2000 (Table 7.5) experienced a negligible effect on financial performance. This result is not surprising because the public sector is inherently inefficient (Bhatta, 2003) and many public sector corporate entities are underperforming relative to comparable private sector companies (Weldon, 2007). For this reason, compliance with the NZSC recommendations has not shown any beneficial effect on financial performance. Also, public sector corporate entities incurred a high restructuring costs in addition to costs incurred for establishing principle-based governance structures to support the NZSC recommendations. The results indicate that the beneficial effect of improved governance practices of public corporate entities has not been sufficient to outweigh the costs of implementing such structures.

8.2.2 INDEPENDENT DIRECTORS, BOARD COMMITTEES AND FINANCIAL PERFORMANCE

To make the board independent of management, the NZSC recommended that a majority of directors should be non-executive and a minimum of one third should be independent. In addition, boards are required to have an audit committee, whose members should be non-executive and independent directors with the majority being independent. Large boards are also required to have both remuneration and nomination committees.

Results show that board independence does not have a significant effect on financial performance across all sectors and for all financial performance measures. This finding is consistent with studies conducted in the US by Agrawal and Knoeber (1996); Bhagat and Black (1998); Yermack (1996); Klein (1998), Baxter (2006), which follows a rule-based governance system. Research findings in the US indicate there may be a substitution effect between block ownership and board independence (Agrawal & Knoeber, 1996; Rediker & Seth, 1995). This shows that the level of direct monitoring provided by blockholders tends to outweigh the level of monitoring provided by independent directors. Results indicate (Tables 5.2 and 6.2) that block ownership and board independence are negatively correlated, providing support for a substitution effect between block ownership and board independence in New Zealand similar to the US experience. This result supports the view that owners have simply

complied with the NZSC recommendations by appointing non-executive/independent directors on boards rather than requiring them to provide active monitoring.

Since directors for public sector corporate entities are appointed for political and diversity reasons, in addition to promoting board effectiveness, this raises further concerns regarding the selection criteria used by CCMAU for board appointments. The current process for selecting board members may contribute to the poor financial performance experienced by the majority of public sector corporate entities.

Results show that audit committees do not have a statistically significant effect on the financial performance of small cap companies, large cap companies and public sector corporate entities. Baxter (2006) suggests that the presence of audit committees may have led to an improvement in the quality of financial reporting. The NZSC reports do provide support for the view that there has been an improvement in the quality of financial reporting by small cap and large cap companies (NZSC2007). However, requiring a majority of the members of an audit committee to be independent imposes an extra cost burden on small cap companies, large cap companies and public sector corporate entities, especially in an environment where the pool of directors available for board appointments is only small. For this reason the beneficial effect of an audit committee is not fully reflected in the results.

Results show that remuneration committees do have a statistically significant effect on the financial performance of small cap companies, large cap companies and public sector corporate entities. These finding supports those reported by Main and Johnston (1998), Weir and Laing (2000) and Klein (2002b). The concerns surrounding whether boards have been setting appropriate performance-related compensation has been widely debated in the popular media and by academics. This finding provides support for the view that remuneration committees, whose members are mainly independent directors, are vigilant in setting compensation that is acceptable to the shareholders.

8.2.3 BOARD SIZE, BOARD DIVERSITY AND FINANCIAL PERFORMANCE

Results show that board size does not have a statistically significant effect on the financial performance of small cap and large cap companies. This raises the question of whether an average board size of approximately seven members is appropriate for publicly listed companies in New Zealand. However, results for public sector

corporate entities indicate that board size is positively related to reducing agency costs measured by C2REV. This finding supports the view that an average board size of seven members is appropriate for public sector corporate entities.

Results also show that board (gender) diversity has a statistically significant effect on the financial performance of large cap companies. There is also evidence that board (gender) diversity has contributed positively towards an improvement in financial performance of small cap companies in 2007 (Table 5. 6). This findings supports the earlier findings reported by Burke (2000a) and Reddy et al. (2008a). However, descriptive statistics (Table 5.1 and 6.1) show that the number of female directors on boards of small cap and large cap companies range from 0 to 2 which is regarded as low level. Based on this finding it would be appropriate for small cap and large cap companies to increase board diversity to improve their financial performance.

However, results show that board gender diversity is not significantly related to financial performance in public sector corporate entities. This is not surprising if members of public sector boards are appointed for political and diversity reasons rather than being able to contribute to policies and long-term strategy issues.

8.2.4 INSIDER OWNERSHIP AND FINANCIAL PERFORMANCE

Descriptive statistics (Tables 5.1 and 6.1) suggest that the majority of listed companies in New Zealand have some sort of insider ownership structure in place. Table 8.1 below provides a summary of insider ownership statistics for small cap and large cap companies. Results provided in Chapters 5 and 6 show that insider ownership has no effect on the financial performance of small cap and large cap companies.

Table 8.1:
A Summary of Insider Ownership Statistics

% of Insider Ownership	% of Small Cap Companies	% of Large Cap Companies
0%	9.1	6.8
Between 0% and1%	17.6	43.4
Between 1% and 5%	11.4	14.4
Between 5% and 10%	8.9	5.4
Between 10% and 20%	10.9	7.4
Over 20%	42.6	22.6

Some researchers have reported that the relationship between insider ownership and financial performance is non-linear (Chen et al., 1993; Griffith, 1999; McConnell & Servaes, 1990; Morck et al., 1988; Short & Keasey, 1999). Results of the piecewise regression for insider ownership reported in Table 5.5 (small cap companies) and Table 6.5 (large cap companies) show that there is no evidence of a non-linear relationship between insider ownership and financial performance in listed companies in New Zealand. Empirical findings (Tables 5.7(a) & 5.7(b) and Tables 6.7(a) and 6.7 (b)) also support the view that there is no evidence of endogeneity associated with insider ownership of small cap and large cap companies.

These finding provide support for the views espoused by Hembry (2008), Gunasekarage and Reed (2008) and Davis et al. (2006) that there exists no link between pay and corporate financial performance in New Zealand. This is consistent with the view that there will be no relationship between insider ownership and financial performance. The evidence provides support for the view that other mechanisms may be utilised to align shareholders' and managers' interests rather than giving managers' equity stakes in companies. By utilising other governance mechanisms shareholders may be able to effectively align their interests with those of managers.

8.2.5 BLOCK OWNERSHIP AND FINANCIAL PERFORMANCE

Descriptive statistics (Tables 5.1 and 6.1) suggest that block ownership is an important feature of the ownership structure of small cap and large cap companies in New Zealand. Table 8.2 below provides a summary of the block ownership statistics for small cap and large cap companies.

Table 8.2:
A Summary of Block Ownership Statistics

% of Block ownership	% of Small Cap Companies	% of Large cap Companies
Between 0% and10%	0.14	0.0
Between 10% and 20%	0.7	0.3
Between 20% and 50%	12.5	28.3
Over 50%	85.4	71.4

Results reported in Chapters 5 and 6 show that block ownership has a positive effect on small cap and large cap companies' financial performance. The descriptive statistics provided in Table 8.2 above show that 97% of companies have blockholding of 20% or more. These numbers provide support for the view that blockholders with large stakes are more effective in mitigating agency costs because it is easier for a few shareholders to monitor management than when ownership is dispersed. The test results (Tables 5.8(a) and 5.8(b) and Tables 6.8(a) and 6.8(b)) support the view that there is no evidence of endogeneity associated with block ownership in small cap and large cap companies.

8.2.6 LEVERAGE, DIVIDENDS AND FINANCIAL PERFORMANCE

Results show that leverage and dividends contribute positively towards financial performance of small cap and large companies as well as for public sector corporate entities. This suggests that both leverage and dividends are effective mechanisms for minimising agency costs in small cap and large cap companies and public sector corporate entities.

8.2.7 MODERATING EFFECTS OF CONTROL VARIABLES ON FINACIAL PERFORMANCE

A number of control variables are used in this thesis including Log(TA), FMRISK, BUSRISK, RGDP, IND, Marketshare and Intangible2ta. The results show that size has a negative effect on financial performance of small cap and large cap companies and public sector corporate entities. The results for the business (operational level) risk shows it has a positive effect on financial performance of large cap companies and public sector corporate entities. Business risk has a negative effect on financial performance of small cap companies. However, results of market risk (FMRISK) show that it has a positive effect on financial performance of small cap companies only.

Results for RGDP show that growth of the New Zealand economy contributes positively towards financial performance of small cap companies whereas growth of the economy has a negative effect on the financial performance of large cap companies. However, growth was experienced in certain sectors of the economy only and the results show that companies belonging to those sectors may have only

benefited. Results for the industry dummy variables are interesting as they show that the governance practices in certain industries may be able to explain the differences in financial performance of companies in those industries. Governance practices of small cap companies belonging to the finance/investment sector (IND6) contribute positively towards financial performance measured by MB. Also governance practices of SOEs contribute positively towards all financial performance measures. However, results show that governance practices of large cap companies belonging to goods (IND2) and investment (IND6) sectors have contributed negatively towards financial performance measured by Tobin's Q. This result is not attributable to all industries. This supports the view that some companies may have simply complied with the NZSC recommendations with an assumption they will be disciplined by the market if they do not do so. Therefore, such practices have contributed more towards costs rather than improving financial performance.

Table 8.3 below provides a summary of the hypotheses that have been supported by this thesis and those that have not supported.

Table 8.3:
A Summary of Hypotheses that has been Supported by this Thesis

Hypothesis	Small Cap Companies	Large Cap Companies	Public Sector Corporate Entities
Insider Ownership	No	No	NA
Endogeneity of Insider Ownership	Yes	Yes	NA
Block Ownership	Yes	Yes	NA
Endogeneity of Block Ownership	Yes	Yes	NA
Board Independence	No	No	No
Board Size	No	No	Yes (for C2REV only)
Board Diversity	Yes (for 2007 only)	Yes	No
Audit Committee	No	No	Yes (For S2TA only)
Remuneration Committee	Yes (for Q only)	Yes (for Q and MB only)	Yes (for all)
Leverage	Yes (for Q only)	Yes (for MB only)	Yes (all)
Dividends	Yes (all)	Yes (all)	Yes (all)

Note: Yes represents hypothesis is supported; No represent hypothesis is rejected; NA represent not applicable.

8.3 CONTRIBUTIONS

The major contributions to new knowledge and deeper understanding of issues concerning prior research fall into three categories.

First, the relationship between governance and performance has previously been considered in relation to companies listed on the stock exchange, is now known to be applicable to Crown companies and State Owned Enterprises. This is of considerable importance, not only in terms of offering support for more market oriented reforms in the public sector, but even more so it also provides a more robust approach to addressing stakeholder interests. A parallel development of governance arrangements in both the private and the public sector reflects that good governance is an intrinsic part of the organisational infrastructure of the country. Adoption of current corporate governance practices across the board allows public and private sector entities to learn from each other sharing the best practices in each sector and helping to improve performance and value for the nation. This type systemic development provide valuable insights relative to the full spectrum of governance arrangements and the understanding of the corresponding impact on outcomes and the facilitation of policy development that are beneficial for all economic entities.

Second, it is now known that the difference between voluntary acceptances of guidelines in a principle-based approach is similar to the outcomes under a rule-based regulatory regime. This debunks the mythology in favour of one framework over another and focuses attention on minimising the costs to achieve the gains available. The high level of anticipatory implementation of best practice and then rapid adoption of the promulgated guidelines is important. Potentially, it reflects a New Zealand psyche but more likely it is seen as directors moving to promote shareholder interests. Whilst the 'comply or explain' provision allows companies to disclose relevant and quality information, it also encourages new forms of stakeholder engagement. Therefore the onus, under the principle-based approach shifts to companies not only providing timely disclosures but also to increasing the quality and range of disclosures. By taking responsibility at the company-level for the disclosure leads to some extent to an improvement in corporate moral and ethical attitude allowing managers to think about issues at hand.

Third, it is now known that the wholesale adoption rather than tailored options available while costing shareholders money provides a level of uniformity across governance regimes. Prior expectations may well have been that companies would have looked for the lowest level of compliance required rather than moving rapidly to a uniform highest required level. The gap between current practice and the desired standard of governance is a reflection of the lack of understanding of the environment in which companies operate relating to both the internal and external, and the impact the environment has on governance frameworks. A better understanding of the environment and integration of governance, strategy and operations should lead to enhanced practices in the future.

8.4 POLICY IMPLICATIONS

The findings of this thesis have policy implications in New Zealand for publicly listed companies and public sector corporate entities.

Existing guidelines encourage development of industry-specific approaches. Evidence shows that companies in certain industries have developed industry-specific governance structures while others have simply complied with NZSC recommendations. One explanation for this outcome could be that it is too costly for one company to develop alternative approaches hence most have chosen to comply rather than adapt.

Appropriate support for companies and industries to develop governance structures that are reflective of their specific characteristics will lead to better governance practices in the future and minimise compliance costs. In addition, clarity from the market regulator on what constitutes a good rationale for industry-specific guidelines will facilitate more confidence in the adaptation process.

To improve accountability and transparency of managerial decision making to shareholders, the NZSC recommended that boards should be comprised of non-executive and independent directors and have audit committees whose members should be independent. Similarly it is recommended that large boards should also have remuneration and nomination committees. However, the availability of a small pool of directors for board positions in publicly listed companies has created three different types of problems: (i) difficulty in finding directors who are totally

independent; (ii) the creation of an "overboarding problem" where some directors sit on too many different companies' boards; and (iii) the appointment of independent directors who lack appropriate skills.

Information and education is required for both companies and investors regarding the workings of principle-based guidelines. Training of would-be directors on directorship processes and the review of director remuneration to reflect risks and responsibilities has the potential to improve the supply of more skilled independent directors. One of the NZX listing requirements of companies is that they comply with NZSC recommendations, but the cost of compliance appears in several instances to have outweighed the benefits. There is evidence that most of the compliance costs incurred by companies stem from the confusion in understanding the workings of the 'comply or explain rule' and the fear of discipline processes.

The bias towards diversity and political affiliation in the selection process of board members in public sector corporate entities tends to affect board performance and financial performance. Important areas for the future reform of public sector boards should include: (i) an increased emphasis on selecting board members based on skills required; (ii) increased board autonomy to deliver on entities' agreed outcomes as set out in the SOIs; (iii) ability to set the long term strategic plan; and (iv) increased tenure for members serving on public sector boards. Addressing these issues will lead to an improvement in the application of principle-based governance approaches.

8.5 FUTURE DIRECTIONS FOR RESEARCH

This research could be extended in various dimensions and some possible directions are identified below.

Firstly, the focus of this thesis was on the NZSC recommendations and the effect compliance has had on the financial performance of publicly listed companies and public sector corporate entities. Since the NZSC recommended that principle-based governance approaches could be adopted by all economic entities in New Zealand, future research could extend the agency theory and empirical models developed in this thesis to other sectors which have not drawn much attention from governance researchers to date. Focusing future research on family-owned companies, not-for-profit organisations, those registered with the Charities Commission, charitable trusts,

co-operatives and indigenous organisations such as mandated iwi organisations will add to the body of knowledge regarding: (i) the nature of governance practices in these organisations; (ii) the effects such practices have on mitigating agency costs in those organisations; and (iii) the effects such practices have on financial performance.

Secondly, undertaking similar studies overseas in such countries as Australia and the Pacific Islands will contribute to our understanding of the workings of governance practices in environments that are similar to New Zealand. In addition similar country studies will highlight any similarities and differences in practices.

Thirdly, the understanding of the inner workings of the boards could be explored by undertaking a case study approach. The case study approach would enable the capturing of shifting ideas, paradigms, social norms and mode of thinking emerging in specific social and historical contexts.

Fourthly, further study could examine evidence of whether board members are acting or have acted ethically and morally in their decision making. Boards need to consider principles, values, duties and norms when making decisions and on a normative basis, companies stand to lose considerably if they engage in unethical practices.

8.6 CONCLUDING REMARKS

Economic entities are a country's foundation, as their success is instrumental in determining standards of living, employment, education and health. The governance of such entities is acknowledged as an important key to their success. The NZSC recommendations played an important role in setting guidelines aimed at ensuring world best governance standards in terms of efficiency, transparency and investor confidence. This thesis (i) confirms that the standard of corporate governance practised in New Zealand is similar to that practised in other developed countries; (ii) acknowledges that the application of principle-based governance approaches in the New Zealand context is effective and efficient; (iii) observes that similar governance mechanisms are applied despite differences in the environment between large and small economies; (iv) substantiates the appropriate application of agency theory to public sector corporate entities; and (v) highlights the importance of board diversity.

Therefore this research offers insights to policy makers around the world who are interested in adopting similar corporate governance practices. Within New Zealand,

the working of the principle-based type of regulations is better informed. The theoretical framework, models and the research findings provided in the thesis will stimulate future scholars, practitioners and regulators alike.

There are gains to be made to shareholders from improved governance practices. Future reform including appropriate sectoral reform will increase these benefits for both companies and the wider economy.

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APPENDICES

APPENDIX A
Table 1: A list of SOEs as at July 2008

SOEs	When Established	Established Under		
		SOE Act 1986 (√)	SOE Amendment ACT 2004 (√)	Established under Companies Act 1993 (√)
AgriQuality Ltd	Established in 1998. Merged with ASURE NZ Ltd in October 2005	√	√	√
Airways Corporation of NZ Ltd	Established in 1987	√	√	√
ACP	Was established as a Crown-owned company in 1991. Became a SOE in 2005. Not subject to Ombudsmen Act 1975		√	√
Asure New Zealand Ltd		√	√	√
AsureQuality NZ Ltd	AgriQuality Ltd and Asure NZ Ltd merged in 2005		√	√
ECNZ	Residual entity. In 1999, its operating assets were transferred into three new SOEs, that is, Genesis Power Ltd, Meridian Energy Ltd and Mighty River Power Ltd.	√	√	√
Genesis Power Ltd	Established in 1998	√	√	√
Landcorp Farming Ltd	Established in 1987	√	√	√
Learning Media Ltd	Initially incorporated as a Crown-owned company in 1993 pursuant to the Education Act 1989. Became a SOE in 2005.		√	√
Meridian	Established in 1999	√	√	√
Metservice	Established in 1992	√	√	√
Mighty River Power	Established in 1999	√	√	√
NZ Post Ltd	Established in 1987	√	√	√
ONTRACK (NZ Railways Corporation)	Statutory corporation pursuant to the New Zealand Railways Corporation Act 1981	√	√	√

Quotable Value	Was originally established as a Crown-owned company in 1998. Became a SOE in 2005		√	√
Solid Energy	Established in 1987	√	√	√
Timberlands	Established in 1990	√	√	√
Transpower	Established in 1994	√	√	√
Kordia	Established in 2006		√	√

(Source: www.comu.govt.nz; www.ssc.govt.nz)

Appendix B

Table 1: Crown Companies as at July 2008

Crown Entity Companies:	Established under the Crown Research Institutes Act 1992	Established Under Crown Entities Act 2004 (√)	Established under Companies Act 1993 (√)
(i). Crown Research Institutes (CRIs)			
Ag Research Ltd	√	√	√
NZ Institute of Crop & Food Research Ltd	√	√	√
Institute of Environmental Science & Research Ltd (ESR)	√		√
Institute of Geological & Nuclear Sciences Ltd (GNS)	√	√	√
Horticulture & Food Research Institute of NZ Ltd (HortResearch)	√	√	√
Industrial Research Ltd (IRL)	√	√	√
Landcare Research NZ Ltd (Landcare)	√	√	√
National Institute of Water & Atmospheric Research Ltd	√		√
NZ Forest Research Institute Ltd (SCION)	√	√	√
(ii). Other Crown Entity Companies			
NZ Venture Investment Fund Ltd (NZVIF)	Established in 2002	√	√
Radio NZ Ltd (RNZ)	Radio NZ Act 1995	√	√
TVNZ	TVNZ Act 2003	√	√
Research and Education Advanced Network NZ Ltd (REANNZ)	Public Finance Act 1989 and Established as a Crown-owned company in 2004	√	√
(iii). Autonomous Crown Entities			
Public Trust	Public Trust Act 2001	√	
NZ Lotteries Commission (NZLC)	Gambling Act 2003	√	

(Source: www.comu.govt.nz)

APPENDIX C

Table 1: OLS Results for the Industry Dummy Variables Used in Table 5.3

	Q	MB	ROA	ROE		Q	MB	ROA
		Standard Error		Standard Error			Standard Error	
IND1	-0.04 (-0.31)	0.126	0.03 (0.80)	0.036	0.04 (1.26)	0.033	0.15 (1.27)	0.119
IND2	0.14 (1.05)	0.132	0.08 (1.74)	0.045	0.12 (0.95)	0.127	0.05 (1.03)	0.049
IND3	0.26 (1.49)	0.174	0.04 (1.74)	0.084	0.10 (1.77)	0.057	0.19 (1.67)	0.114
IND5	0.15 (1.35)	0.109	0.04 (1.27)	0.034	-0.01 (-0.12)	0.059	0.09 (1.12	0.082
IND6	0.29 (1.76)	0.167	**0.07†** **(1.99)**	0.038	-0.06 (-0.61)	0.094	-0.36 (-0.79)	0.460

Table 2: OLS Results for the Industry Dummy Variables Used in Table 5.4

	Q	MB	ROA	ROE		Q	MB	ROA
		Standard Error		Standard Error			Standard Error	
IND1	-0.12 (-0.76)	0.156	0.33 (0.64)	0.036	0.04 (1.43)	0.033	0.17 (1.11)	0.155
IND2	0.01 (0.05)	0.138	0.07 (1.58)	0.044	0.17 (1.23)	0.139	0.30 (1.68)	0.177
IND3	0.15 (0.52)	0.290	0.06 (0.46)	0.038	0.14 (1.74)	0.080	0.22 (1.43)	0.156
IND5	0.07 (0.48)	0.136	0.04 (1.06)	0.034	0.02 (0.39)	0.059	0.11 (1.03)	0.108
IND6	0.21 (1.09)	0.204	**0.07†** **(1.95)**	0.038	-0.02 (-0.25)	0.090	-0.58 (-2.52)	0.229

APPENDIX D

Table 1: OLS Results for the Industry Dummy Variables Used in Table 5.5

	Q		MB		ROA		ROE	
		Standard Error		**Standard Error**		**Standard Error**		**Standard Error**
IND1	-0.15 (-0.97)	0.151	0.07 (1.52)	0.036	0.04 (1.31)	0.083	0.24 (1.20)	0.203
IND2	0.01 (0.09)	0.136	0.30 (1.02)	0.290	0.20 (1.15)	0.170	0.29 (1.58)	0.181
IND3	0.16 (0.54)	0.289	0.06 (1.47)	0.038	0.14 (1.66)	0.085	0.23 (1.22)	0.189
IND5	0.07 (0.50)	0.130	0.04 (1.10)	0.034	0.02 (0.41)	0.060	0.12 (0.83)	0.147
IND6	0.24 (1.19)	0.202	**0.07†** **(1.95)**	0.038	-0.04 (-0.45)	0.083	-0.57 (-2.32)	0.243

Table 2: OLS 2SLS Results for the Industry Dummy Variables Used in Table 5.7(a)

	IOWN (using OLS)	**Standard Error**	**Q (using 2SLS)**	**Standard Error**	**IOWN (using OLS)**	**Standard Error**	**MB (using 2SLS)**	**Standard Error**
IND1			0.14 (0.54)	0.262			0.01 (0.13)	0.381
IND3			0.37 (1.35)	0.272			-0.09 (-0.23)	0.394
IND4			-0.23 (-0.67)	0.345			0.04 (0.83)	0.56
IND5			0.25 (1.01)	0.243			-0.31 (-0.89)	0.354
IND6			0.56 (1.73)	0.270			-0.01 (-0.01)	0.392

APPENDIX E

Table 1: OLS 2SLS Results for the Industry Dummy Variables Used in Table 5.7(b)

	IOWN (using OLS)	**Standard Error**	**Q (using 2SLS)**	**Standard Error**	**IOWN (using OLS)**	**Standard Error**	**MB (using 2SLS)**	**Standard Error**
IND1			-0.09 (-0.61)	0.156			-0.16 (-0.58)	0.274
IND2								
IND3			0.01 (0.08)	0.162			-0.08 (-0.30)	0.285
IND4			0.04 (0.18)	0.205			-0.09 (-0.26)	0.362
IND5			-0.11 (-0.78)	0.145			0.16 (0.62)	0.255
IND6			-0.28 (-1.78)	0.160			**-1.01*** (-3.58)**	0.283

Table 2: Results of the Test for the Validity of the Instrumental Variables Used When IOWN is Endogenous

F(5, 535) = 6.59209 Prob > F = 0.00					
First-stage regression summary statistics					
Variable	R^2	Adj. R^2	Partial R^2	F(4, 535)	Prob > F
IOWN	0.1967	0.1651	0.047	6.59209	0.000
Minimum eigenvalue statistics = 6.59209					
Critical Values Ho: Instruments are weak	# of endogenous regressors: 1 # of excluded instruments: 5				
	5%	10%	20%	30%	
2SLS relative bias	16.85	10.27	6.71	5.34	
	5%	10%	20%	30%	
2SLS size of nominal 5% Wald Test	24.58	13.96	10.26	8.31	
LIML size of nominal 5% Wald Test	5.44	3.87	3.30	2.98	
Test of overidentifying restrictions:					
Sargan (Score) Chi2(3)	1.78054 (p = 0.6192)				
Basmann Chi2(3)	1.7157 (p = 0.6334)				

APPENDIX F

Table 1: OLS 2SLS Results for the Industry Dummy Variables Used in Table 5.8(a)

	IOWN (using OLS)	Standard Error	Q (using 2SLS)	Standard Error	IOWN (using OLS)	Standard Error	MB (using 2SLS)	Standard Error
IND1			0.12 (0.546)	0.264			-0.78 (-1.04)	0.034
IND2								
IND3			0.34 (1.25)	0.273			-0.07 (-0.18)	0.395
IND4			-0.25 (-0.72)	0.347			-1.27 (-1.53)	0.044
IND5			0.26 (1.05)	0.245			-0.32 (-0.89)	0.355
IND6			0.52 (1.41)	0.271			0.01 (0.03)	0.393

Table 2: OLS 2SLS Results for the Industry Dummy Variables Used in Table 5.8(b)

	IOWN (using OLS)	Standard Error	Q (using 2SLS)	Standard Error	IOWN (using OLS)	Standard Error	MB (using 2SLS)	Standard Error
IND1			-0.09 (-0.56)	0.156			-0.16 (-0.59)	0.276
IND2								
IND3			-0.00 (-0.01)	0.162			-0.12 (-0.41)	0.286
IND4			0.03 (0.17)	0.206			-0.10 (-0.28	0.364
IND5			-0.09 (-0.65)	0.145			-0.13 (-0.51)	0.257
IND6			-0.28 (-1.74)	0.161			**-1.03*** (-3.62)**	0.285

APPENDIX G

Table 1: Results of the test for the validity of the instrumental variables used when BOWN is endogenous

F(5, 535) = 7.0479 Prob > F = 0.000					
First-stage regression summary statistics					
Variable	R^2	Adj. R^2	Partial R^2	F(4, 535)	Prob > F
IOWN	0.1768	0.1466	0.0618	7.0479	0.000
Minimum eigenvalue statistics = 6.59209					
Critical Values Ho: Instruments are weak	# of endogenous regressors: 1 # of excluded instruments: 5				
	5%	10%	20%	30%	
2SLS relative bias	18.37	10.83	6.77	5.25	
	5%	10%	20%	30%	
2SLS size of nominal 5% Wald Test	26.87	15.09	10.98	8.84	
LIML size of nominal 5% Wald Test	4.84	3.56	3.05	2.77	
Test of overidentifying restrictions:					
Sargan (Score) Chi2(3)	1.00338 (p = 0.9093)				
Basmann Chi2(3)	0.96548 (p = 0.9150)				

APPENDIX H

Table 1: OLS Results for the Industry Dummy Variables Used in Table 6.3

	Q	MB	ROA	ROE		Q	MB	ROA
		Standard Error		Standard Error			Standard Error	
IND1	**-0.16**† **(-2.12)**	0.061	-0.02 (-0.26)	0.072	0.00 (0.05)	0.007	-0.02 (-0.66)	0.023
IND2	**-0.19**† **(-2.30)**	0.082	-0.05 (-0.68)	0.080	-0.01 (-0.56)	0.008	-0.02 (-0.70)	0.026
IND3	-0.02 (-0.22)	0.074	0.07 (0.96)	0.072	0.01 (1.83)	0.007	-0.01 (-0.38)	0.024
IND4	-0.16 (-1.78)	0.087	-0.04 (-0.51)	0.084	0.00 (0.06)	0.009	-0.02 (-0.69)	0.028
IND5	-0.12 (-1.69)	0.069	0.07 (1.11)	0.067	0.00 (0.43)	0.007	-0.02 (-0.74)	0.022
IND6	**-0.27**† **(-2.56)**	0.105	-0.16 (-1.55)	0.101	0.01 (0.65)	0.010	-0.01 (-0.36)	0.033

Table 2: OLS Results for the Industry Dummy Variables Used in Table 6.4

	Q	MB	ROA	ROE		Q	MB	ROA
		Standard Error		Standard Error			Standard Error	
IND1	**-0.17**† **(-2.35)**	0.073	-0.03 (-0.40)	0.070	-0.00 (-0.10)	0.007	-0.02 (-0.75)	0.023
IND2	**-0.21**++ **(-2.57)**	0.081	-0.07 (-0.87)	0.078	-0.01 (-0.72)	0.008	-0.02 (-0.82)	0.026
IND3	-0.04 (-0.56)	0.074	0.05 (0.76)	0.071	0.01 (1.58)	0.007	-0.01 (-0.53)	0.023
IND4	**-0.18**† **(-2.06)**	0.085	-0.06 (-0.75)	0.082	-0.00 (-0.08)	0.008	-0.02 (-0.83)	0.027
IND5	**0.21**† **(1.92)**	0.068	0.07 (1.04)	0.065	0.02 (0.35)	0.007	-0.02 (-0.80)	0.022
IND6	**-0.27**++ **(-2.67)**	0.103	-0.16 (-1.64)	0.098	0.01 (0.62)	0.010	-0.01 (-0.39)	0.033

APPENDIX I

Table 1: OLS Results for the Industry Dummy Variables Used in Table 6.5

	Q		MB		ROA		ROE	
		Standard Error		**Standard Error**		**Standard Error**		**Standard Error**
IND1	-0.07 (-0.91)	0.071	-0.01 (-0.17)	0.067	-0.00 (-0.05)	0.007	-0.04 (-0.47)	0.078
IND2	-0.14 (-1.71)	0.080	-0.06 (-0.18)	0.076	-0.01 (-0.82)	0.008	-0.07 (-0.78)	0.089
IND3	0.04 (0.48)	0.075	0.05 (0.72)	0.071	0.01 (1.29)	0.007	-0.02 (-0.14)	0.083
IND4	-0.08 (-0.98)	0.084	-0.07 (-0.78)	0.079	-0.00 (-0.05)	0.008	-0.07 (-0.74)	0.093
IND5	-0.05 (-0.76)	0.066	0.07 (1.18)	0.062	0.02 (0.33)	0.006	-0.02 (-0.33)	0.073
IND6	**-0.21† (-2.03)**	0.102	**-0.19† (-2.02)**	0.096	0.01 (0.73)	0.010	-0.01 (-0.13)	0.113

Table 2: OLS 2SLS Results for the Industry Dummy Variables Used in Table 6.7(a)

	IOWN (using OLS)	**Standard Error**	**Q (using 2SLS)**	**Standard Error**	**IOWN (using OLS)**	**Standard Error**	**MB (using 2SLS)**	**Standard Error**
IND1			-0.11 (-1.38)	0.079			-0.04 (-0.52)	0.072
IND2			**-0.27++ (-3.11)**	0.087			-0.14 (-1.80)	0.080
IND3			0.10 (1.25)	0.079			0.10 (1.36)	0.073
IND4			**-0.21† (-2.26)**	0.091			-0.11 (-1.37)	0.084
IND5			-0.12 (-1.57)	0.073			0.08 (1.01)	0.067
IND6			**-0.34++ (-3.06)**	0.110			**-0.24† (-2.33)**	0.101

APPENDIX J

Table 1: OLS 2SLS Results for the Industry Dummy Variables Used in Table 6.7(b)

	IOWN (using OLS)	**Standard Error**	**Q (using 2SLS)**	**Standard Error**	**IOWN (using OLS)**	**Standard Error**	**MB (using 2SLS)**	**Standard Error**
IND1			0.01 (1.11)	0.008			-0.01 (-0.31)	0.023
IND2			-0.01 (-0.74)	0.009			-0.02 (-0.69)	0.026
IND3			**0.02† (2.74)**	0.008			-0.00 (-0.02)	0.024
IND4			0.01 (0.46)	0.009			-0.02 (-0.58)	0.027
IND5			0.01 (0.67)	0.007			-0.01 (-0.51)	0.021
IND6			0.01 (0.86)	0.011			-0.01 (-0.23)	0.032

APPENDIX K

Table 1: Results of the test for the validity of the instrumental variables used when IOWN is endogenous

F(5, 316) = 5.83325 Prob > F = 0.00					
First-stage regression summary statistics					
Variable	R^2	Adj. R^2	Partial R^2	F(4, 535)	Prob > F
IOWN	0.3169	0.2695	0.0843	5.83325	0.000
Minimum eigenvalue statistics = 5.83325					
Critical Values Ho: Instruments are weak	# of endogenous regressors: 1 # of excluded instruments: 5				
	5%	10%	20%	30%	
2SLS relative bias	18.37	10.83	6.77	5.25	
	5%	10%	20%	30%	
2SLS size of nominal 5% Wald Test	26.87	15.09	10.98	8.84	
LIML size of nominal 5% Wald Test	4.84	3.56	3.05	2.77	
Test of overidentifying restrictions:					
Sargan (Score) Chi2(4)	3.26588 (p = 0.5144)				
Basmann Chi2(4)	3.07448 (p = 0.5454)				

APPENDIX L

Table 1: OLS 2SLS Results for the Industry Dummy Variables Used in Table 6.8(a)

	IOWN (using OLS)	Standard Error	Q (using 2SLS)	Standard Error	IOWN (using OLS)	Standard Error	MB (using 2SLS)	Standard Error
IND1			**-0.16†** **(-2.04)**	0.078			-0.07 (-0.93)	0.073
IND2			**-0.32++** **(-3.74)**	0.085			**-0.17†** **(-2.06)**	0.080
IND3			0.03 (0.34)	0.079			0.06 (0.84)	0.075
IND4			**-0.24++** **(-2.73)**	0.089			-0.15 (-1.76)	0.084
IND5			**-0.15†** **(-2.13)**	0.072			0.04 (0.64)	0.068
IND6			**-0.35++** **(-3.22)**	0.108			**-0.25†** **(-2.42)**	0.102

Table 2: OLS 2SLS Results for the Industry Dummy Variables Used in Table 6.8(b)

	IOWN (using OLS)	Standard Error	Q (using 2SLS)	Standard Error	IOWN (using OLS)	Standard Error	MB (using 2SLS)	Standard Error
IND1			0.01 (0.78)	0.008			-0.01 (-0.29)	0.023
IND2			-0.01 (-0.97)	0.009			-0.02 (-0.75)	0.026
IND3			**0.02†** **(2.31)**	0.008			-0.01 (-0.07)	0.024
IND4			0.00 (0.19)	0.009			0.01 (-0.48)	0.027
IND5			0.00 (0.39)	0.007			-0.01 (-0.48)	0.021
IND6			0.01 (0.80)	0.010			-0.01 (-0.21)	0.032

APPENDIX M

Table 1: Results of the test for the validity of the instrumental variables used when BOWN is endogenous

F(5, 316) = 9.68 Prob > F = 0.000					
First-stage regression summary statistics					
Variable	R^2	Adj. R^2	Partial R^2	F(4, 535)	Prob > F
IOWN	0.4070	0.3638	0.1328	9.67795	0.000
Minimum eigenvalue statistics = 9.67795					
Critical Values Ho: Instruments are weak	# of endogenous regressors: 1 # of excluded instruments: 5				
	5%	10%	20%	30%	
2SLS relative bias	18.37	10.83	6.77	5.25	
	5%	10%	20%	30%	
2SLS size of nominal 5% Wald Test	26.87	15.09	10.98	8.84	
LIML size of nominal 5% Wald Test	4.84	3.56	3.05	2.77	
Test of overidentifying restrictions:					
Sargan (Score) Chi2(4)	6.40827 (p = 0.1707)				
Basmann Chi2(4)	6.407033 (p = 0.1940)				