

Does Ownership Concentration and Identity Matter: An Empirical Analysis of Publicly Listed Companies in New Zealand

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Abstract

Purpose – The purpose of this study is to investigate the nature of the relationship between ownership concentration, ownership identity and financial performance of publicly listed companies in New Zealand. This study also investigates whether the relationship between ownership-performance changes during the financial crisis period.

Design/method/approach – Using panel data for the publicly listed companies for the period 2003 to 2009 obtained from NZX Deep Archive and OLS regression to test the influence of ownership concentration, ownership identity on financial performance measured by Tobin’s Q, MB, ROA and ROE.

Findings – Our findings support the view that ownership concentration affects financial performance. Results show that a higher ownership concentration in listed companies in New Zealand leads to a lower market-based performance and higher accounting-based performance. We report that the ownership identity affects performance of NZX listed company. More “detached” level owners have positive effect on market-based performance but negative effect on accounting-based performance. Whereas, more “involved” level owners have negative effect on market-based performance. The evidence supports the view that the effects from the ownership identity declined during the financial crisis period due to the fact that different types of owners reduced their concentration levels, thus resulting in the

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reduction in their social influence and expertise powers.

Originality/value – Findings contributes to our understanding of the relationship between different ownership concentration and identities on financial performance. Also the corporate holdings are the most common type of investor holding in the New Zealand context.

Keywords – Ownership concentration, Owner identity, herfindahl index, Involvement, Detached

Paper type – Research paper

Does Ownership Concentration and Identity Matter: An Empirical Investigation of Publicly Listed Companies in New Zealand

1. Introduction

Using agency-theoretic viewpoint Jensen and Meckling (1976), Ross (1973) and Eisenhardt (1989) argue that different ownership structure and different roles people have in organisations are the main reasons for the existence of information asymmetry and the divergence of interest between owners and managers. In this regard, prior research has investigated: (i) the nature of agency problem that exist between the principal and the agent and (ii) whether such problems can be mitigated by giving agents some proportion of ownership in the organisation which they own. However, the level of ownership should principals give to the agents remains inconclusive. One group of researchers have found a positive linear relationship between some low levels of insider ownership and financial performance (Elayan, Lau, & Meyer, 2003; Hossain, Prevost, & Rao, 2001; Kim, Lee, & Francis, 1988; Mehran, 1995; Oswald & Jahera Jr., 1991; Welch, 2003), thus providing support to the convergence-of-interest hypothesis. Another group of researchers report the relationship between insider ownership and company financial performance is non-monotonic (Chen et al., 1993; Griffith, 1999; McConnell & Servaes, 1990; Morck, Shleifer, & Vishny, 1988; Short & Keasey, 1999), supporting convergence-of-interest hypothesis at some low levels of insider ownership and an entrenchment hypothesis at higher levels of insider ownership. The findings of these studies support the view that non-linear relationship exists between ownership and performance. However, a third group of researchers claim that there should not be any relationship between insider ownership and financial performance (Demsetz, 1983; Demsetz & Lehn, 1985; Demsetz & Villalonga, 2001). They base their argument on the view that in an efficient and competitive capital market companies choose the value maximising ownership structure. They also argue that insider ownership is endogenously determined and therefore cannot be a determinant of company financial performance. 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. Collectively, these conflicting findings suggest that the debate over the precise functional form of the insider ownership-financial performance relationship is far from being conclusive.

Some researchers argue that agency problem also arises between block shareholders and minority shareholders (Claessens, Djankov, Fan, & Lang, 2000; Dyck & Zingales, 2004; Faccio & Lang, 2002). Shleifer and Vishny (1997), and Gugler (1999) have reported that blockholders do receive private benefits at the expense of the minority shareholders. According to Claessens et al. (2000) blockholders receive private benefits through pyramidal business structures and cross-holdings across different companies.

Therefore, Cubbin and Leech (1983) argue that the degree of control (the percent of shares held by an investor) and the location of control (type of investor or investor identity) are important determinants of the ownership-performance relationship. Kang and Sorensen (1999) argue that shareholders are not always homogenous when they have different identities, and some of them obtain extra power from their identities to control companies in which they have shares in to achieve their desired goals. The level of ownership give shareholders three bases for shareholder power, which are: formal authority, social influence, and expertise (Kang and Sorensen 1999). According to Short (1994) the ownership-performance relationship may be different with different types and different levels of ownership (p.219). For example, Boone, Colombage and Gunasekarage (2011) report that companies whose blockholders are financial institutions performed better compared to their peers.

Therefore, this research investigates the nature of the relationship between ownership identity and performance of publicly listed companies in New Zealand and whether

the relationship between ownership-performance changes during the financial crisis period. In this regard three noble questions are addressed: (i) Does ownership concentration have an effect on the financial performance of the publicly listed companies? (ii) Does different ownership identities have different effects on the financial performance of publicly listed companies? (iii) Does the relationship between ownership-performance changes during the financial crisis period?

2. Literature review

Agency-theoretic literature assumes that shareholders are homogenous and their influence on company financial performance is directly proportional to the percentage of equity they hold (Shleifer & Vishny, 1986). However, this assumption has been challenged by many. For example, Kang and Sorensen (1999) argue that shareholders are not always homogenous as they have different identities and also obtain extra power from their identities to achieve their desired goals. In Kang and Sorensen's (1999) view the level of ownership give shareholders three bases of power, that is, formal authority, social influence, and expertise.

The nature of power shareholders have depends on their ownership dimension. In this regard, Mintzberg (1983) provide two dimensions of ownership, that is, concentration and involvement. Concentration refers to whether the company is closely-held or widely-held and involvement measures whether the type of ownership have the ability to influence the decision-making power of the company. Mintzberg (1983) categorises corporate ownership into four different types: (i) dispersed-detached; (ii) dispersed-involved; (iii) concentrated-detached; and (iv) concentrated-involved. Therefore, more involved and more concentrated owners will have greater influence on decision-making processes (Mintzberg, 1983). Different ownership concentration levels and owner identities give different levels of power to owners in terms of monitoring managers' actions and/or controlling the company. Based on the type of power (formal authority, social influence, expertise) shareholders have, determines the

nature of their involvement. Therefore, we argue that monitoring by different owners will lead to different results.

Formal authority or legal right (Weber, 2008) give shareholders the power to vote on ratification of appointment to the board of directors and the right to approve some major business decisions (Clark, 1986). To exercise formal authority shareholders have to hold some percent of shares in the company and based on the proportion of ownership, some also obtain active roles in the company as well. For example, large blockholders may have a seat on the board which provides them the opportunity to monitor managers' actions.

Social influence refers to the nature of interactions between owners and managers (Kang & Sorensen, 1999). From the corporate governance point of view, it is the type of interpersonal relationships that significantly affect the resource allocation decisions in organisations (Pfeffer, 1992). For example, CEOs may be able to appoint more outside directors or independent directors to the board and therefore are more likely to have golden parachutes (Wade, O'Reilly, & Chandratat, 1990). Zajac and Westphal (1995, 1996) argue that the demographic background of the directors provide a source of political power. Following this view, we postulate that different demographic background and different reputation of the shareholder provide different levels of social influence.

Expertise is about having superior knowledge about the company and the industry which allow shareholders to manage critical environmental dependencies of the company (Finkelstein, 1992). This power is specific to the shareholders and knowledgeable shareholders are the intangible assets of companies. Since all types of shareholders wants to maximise company value, shareholder expertise contributes positively towards this goal (Kang & Sorensen, 1999).

Based on above viewpoint it is argued that shareholders with different ownership concentration and identity have different levels of formal authority, social influence

and expertise which provide them with different levels of ability to motivate and monitor managerial behavior and influence decision-making processes. Therefore, this study is investigating the effects of ownership concentration and identity on company financial performance.

2.1 Ownership identity

Herman (1981), Larner (1971), Sorenson (1996), and McEachern (1975) studied owner-controlled companies and manager-controlled companies and report that owner-controlled companies perform better. According to Jensen and Meckling (1976) manager-controlled companies have an agency problem which could be mitigated by giving agents shares in the company. Study undertaken by Morck, Shleifer and Vishny (1988) shows that insider holding between 0 and 5 percent increases performance (interest-alignment hypothesis), between 5 and 24 percent decreases performance (entrenchment hypothesis), and insider ownership above 25 percent increases performance (interest-alignment hypothesis). Gugler, Mueller and Yurtoglu (2008a) report that in the US, companies' Tobin's Q initially rose with an increase in insider ownership but fell when insider ownership exceeded 60 percent of the companies. However, Ben-Amar and Andre (2006) argue that mitigation of agency costs by giving insiders' shares may be possible only in countries where ownership dispersion exists. Furthermore, studies that investigated ownership-performance relationships focused only on the conventional separation of ownership and control concept, in reality there are many different types of ownership in existence. For example, institutional investors, corporate investors, government investors, individual investors, employee stock ownership plans and (Boone et al., 2011). These ownership types have different behavioral characteristics which provide them with different levels of involvement in companies.

Employee (insider) shares (EH) are held by the managers and other employees of the company. The employee owners can easily get extra power through their social

influence because of their long-term relationship with the company which creates powerful reputation effects (Anderson & Reeb, 2003) and have closer relationship between management and control. The high level of involvement by employees reduces the agency costs (Jensen & Meckling, 1976) on one hand, but on the other, provide managers with opportunities to extract private benefit of control (Fama & Jensen, 1983a) and as well as provide opportunity for the other employees to be appointed in management positions.

Foreign shareholders (FH) are proportion of shares held by the foreign investors. Being geographically located outside the country makes it difficult for the foreign investors to get closer to the directors and influence decision-making processes, thus giving rise to higher monitoring costs. Although this is a detached ownership structure, their experience and expertise is highly valuable for the company.

The government shares (GH) are held by the State. State ownership is an involvement ownership type because governments have power not only from the corporate legal property right point of view, but from state policy setting, implementation and reputation. However, Boycko, Shleifer and Vishny (1996) argue that in most cases the agency problem in government owned companies arises from political issues rather than managerial issues. The conflict of interest between government and other owners often arises because the State is more interested in political outcomes compared to the other owners who are more interested in the financial returns.

Corporate shares (CH) and Institutional shares (IH) are two types of legal person shares. The corporate shares are held by one company in another, and the institutional shares are held by either investment bank or institutions. The key difference is that corporate shareowners focus on both the short-term and long-term performance and therefore, play an active role in the strategic and operational plans of the company. On the other hand, institutional investors seek long-term returns and do not pay much attention to companies' short-term decision making processes. Therefore, corporate

shareholders are more involvement compared to the institutional ownership.

Nickel, Nicolitsas and Dryden (1997) studied the relationship between different types of outside ownership and company productivity after controlling for the product market competition, financial market pressure and shareholder control. They report that the dominant external shareholders have no effect on company performance, except when the dominant external shareholder is a financial institution. Chaganti and Damanpour (1991) investigated the effect of institutional investors on 40 pairs of manufacturing companies in 40 industries and report that presence of higher proportion of institutional investor leads to relatively higher ROEs. Harris and Robinson (2003) report that presence of foreign owners in companies in the UK manufacturing industry leads to an improvement in the productivity. Gursoy and Aydogan (2002) report that when compared to the family-owned companies, government-owned companies have lower accounting-based returns but higher market-based returns in Turkish listed companies. Sun, Tong and Tong (2002) report that the relationship between government owners and companies' performance follow an inverted U-shape pattern in China. Rosen and Quarrey (1987) studies employee participation in decisions when employee have ownership in companies and report that it enhances company performance. These findings suggest that ownership type and identity play an important role on company performance.

3. New Zealand Environment

The identity of the owner and the ownership structure of the publicly listed companies together with the governance mechanisms make this investigation interesting. New Zealand has a small and open economy, a mature capital market and small number of companies listed compared to the larger economies of Australia, the USA and the UK. Also size of the companies in New Zealand is much smaller which provide an environment which is significantly different from the larger economies where most of the prior studies have been undertaken. The existence of a small capital market makes

market for corporate control irrelevant and investors rely on alternative governance mechanisms such as block holding to mitigate agency costs. The evidence shows that blockholding in New Zealand has relatively remained unchanged overtime. For example, Hossain, Provost and Rao (2001) reported blockholding of 76 percent (20 largest shareholders) for the period 1991/97 and Reddy, Locke and Scrimgeour (2010) reported blockholding of 65 percent for the large companies in 1999/2007.

Furthermore, the focus of prior studies has primarily been on investigating whether insider and/or block ownership have an effect on performance. Moreover, prior researches have measured ownership level either by aggregating the percent of shares held by the largest shareholder or top-20 shareholders. No study has included the percent of shares held by top-20 shareholders as well as the identity of top-20 shareholders. Apart from blockholders, there are also other different types of owners which suggest that they may also play an important role in New Zealand context.

3.1 New Zealand Ownership Structure

Table 1 reports the ownership concentration of the publicly listed companies in New Zealand. Between 2003 and 2009, the largest shareholder held on an average 34.49% of the shares. The highest proportion of shares held by the largest shareholder was 35.31% in 2005. The second largest shareholders held on an average 10% of the shares and the highest was 10.83% in 2008. The average percent of the third and fourth largest shareholder held 5.47% and 3.5%, respectively. The fifth largest shareholder controlled on an average 2.57% of the shares. The average of total top five shareholders' holding (column 7, Table 1) is higher than 50% in all the years between 2003 and 2009. Results reported in Table 1 show that five largest shareholders have the majority control of the companies, thus holding more than 50% of the shares. It is interesting to note that blockholders holding greater than 5% of the outstanding shares usually are the top five shareholders in New Zealand.

<Insert Table 1 here>

Table 2 and Chart 1 provide an international comparison of different ownership holdings and owner identities in Australia, New Zealand, the UK, and the US. Data for Australia, UK and the US is obtained from ASX200, FTSE100 and S&P500, respectively. New Zealand data includes 80 companies listed in NZX in 2010. The mean proportion of corporate holding in New Zealand is 16.38%, and the average employee holding is 18.44%. The percent of shares held by both corporate and employees are much higher in New Zealand compared to Australia, the UK and the US. The second highest corporate holding is in Australia (9.42%) and the second highest employee holding is in the UK (3.82%). The mean proportion of foreign holding in New Zealand is 6.67%, which is similar to Australia of 6.76% and lower than the UK (11.97%) but much higher than the US (0.83%). Government holding in these four countries is very low. In New Zealand, government holding is the highest at 2.46%, and in the US is the lowest at 0.1%. However, New Zealand and the UK have the lowest proportion of institutional holding which is 4.06% and 3.53%, respectively. Institutional holding in New Zealand and the UK is less than half of that is in Australia (8.41%) and the US (9.04%). Data for the pension fund holding in New Zealand was not available; however, in other three countries it is also very low. Results reported in Table 2 indicate that the “involvement” ownership is much more popular in New Zealand than in other three countries.

<Insert Table 2 here>

<Insert Chart 1 here>

Table 3 report the percent of shares held by each ownership type in different sectors in NZX for 2010. The institutional investors have the most balanced portfolio as they have invested in all six sectors. The highest holding is in the energy sector (6.75%) and the lowest is in investment companies (2.18%). However, government hold shares only in the services sector in New Zealand (5.85%). Foreign investors tends to invest more in the investment sector (17.73%) and least in the property sector (2.25%),

which is not surprising as the information pertaining to the economy and investment sector are more readily available compared to the others sectors. Employees own largest shares in the service sector (24.53%), followed by goods sector (22.47%), and investment sector (19.45%). The plausible reason for employees investing highly in these three sectors is that their motivation is highly connected to the companies' profits. Corporate holding is highest in the energy sector (43%). Moreover, corporate holding is higher than 10% in all six sectors which indicate that corporate ownership type is the most popular and important type of ownership in New Zealand.

<Insert Table 3 here>

Table 4 report the ownership percent by owner identity and size of companies based on companies total assets. Total assets of the companies are divided in four segments: LARGE, Medium1, Medium2, and SMALL. LARGE refers to companies that have total assets greater than and equal to \$1 billion; Medium1 refers to companies that have total assets greater than equal to \$200 million and less than \$1billion, Medium2 refers to companies that have total assets greater than equal to \$50million and less than \$200million; and SMALL refers to companies that have total assets less than \$50 million. Results reported in Table 5 show that different owner types have different interests in different size companies.

The basic consensus is that smaller size companies have greater risks and ownership patterns of institutional investors show that their investment declines as the company size gets smaller. Institutional investors hold 9.64% shares in large companies, but it dramatically declines to mere 1.21% in small size companies. This is not surprising as institutional investors are known for seeking long-term returns and have low risk-bearing capability. The most striking result is that government holding in large companies in New Zealand is nil compared to other countries. It is because government-owned companies are not publicly listed in New Zealand. Another plausible reason is that New Zealand government invests only in the service sector

(ports) in New Zealand which is medium sized. Foreign holdings are highly concentrated both in large companies (10.09%) and small size companies (10.86%). Findings show that there are two distinct types of foreign investors existing in New Zealand, that is, one seeking long-run returns and low risk, and other seeking risky investments. It is interesting to note that employee holding declines as the company size gets larger, which ranges from 30.59% in small companies to 0.64% in large companies. This is not surprising as investors need a lot more funds to hold block shares in large sized companies.

<Insert Table 4 here>

Chart2 report the time series comparison of ownership percent and identity of the 40 selected NZX companies for the period 2003 to 2009. Chart2 show that institutional holding, employee holding, and corporate holding declined between the period 2003 and 2004, but foreign holding increased a little during the same period following similar trend to that of the GDP growth rate (RGDP) of New Zealand. After 2004, foreign holding, employee holding and corporate holding followed similar trend to that of the RGDP, they all declined in 2005 and rebounded back a little in 2006.

Percent of shares held by all investors declined in 2007, even though the RGDP increased slightly. This implies that investors did expect the worst possible outcome from the financial crisis and therefore, kept their confidence at low levels. This result show that investors maintained lower level of interest in controlling publicly listed companies in New Zealand. Even though New Zealand economy did experience major setback since 2008, the results reported in Chart2 show that investors did increase their level of investment simply to regain the control which they lost earlier. Above findings show that investors not only focus on the recent economic environment but also on their confidence level of future situation. Furthermore, institutional investors has been steadiest over the period because they seek long-run returns and short-term effects have less influence on their investment patterns in

comparison to employee and corporate type investors.

<Insert Chart2 here>

4. Data and Methodology

Data for this research was obtained from DataStream and NZX Deep Archive. First an unbalanced panel data for the period 2003 to 2010 was developed which included 650 company-years observations. To maintain exactitude, a balanced panel data was developed to observe both the time and cross section effects. Unfortunately, the average life-cycle of the listed companies in New Zealand in the past 11 years (1999 to 2009) has been approximately five years, that means there are a number of companies have missing data. After removing companies that did not survive the sampling period, balanced panel contained 280 company-year observations having 40 listed companies survive between 2003 and 2009.

In addition, 80 company's data for 2010 is also use to obtain descriptive statistics which provide most recent statistical information regarding ownership structures of publicly listed companies in New Zealand.

4.1 Dependent variables

Following Reddy et al. (2010) this study also uses Tobin's Q, market-to-book value ratio (MB), return on assets (ROA), and return on equity (ROE) as dependent variables. Tobin's Q has also been used by Morck, et al. (1988), Kang and Stulz (1996), Gugler, Mueller and Yurtoglu (2008b). The MB value ratio has been used by Shleifer and Vishny (1986), to investigate whether the market to book value increases when presence of large shareholders helps to reduce the free-rider problem by small investors. ROA has been used by Demsetz and Villalonga (2001), Finch and Shivadasani (2006). ROE is an additional dependent variable used to measure performance especially when companies have higher level of liabilities in comparison to equities making ROAs and ROEs to differ significantly.

4.2 Independent variables

The independent variables and control variable used this study is similar to that used by Demsetz and Lehn (1985) and Xu and Wang (1999).

Ownership concentration (CON) measured by two variables, that is, TOP5 and H1. Our statistical work relies heavily on the cumulative percentage of shares owned by the five largest shareholders (TOP5) and the approximation of the Herfindahl index (HI).

$$\text{TOP5} = \frac{\text{Number of shares held by five largest shareholders}}{\text{Total outstanding number of shares}} * 100\%$$

$$\begin{aligned} \text{HI} = & (\% \text{ of shares held by largest shareholder})^2 \\ & + (\% \text{ of shares held by second largest shareholder})^2 \\ & + \dots + (\% \text{ of shares held by fifth largest shareholder})^2 \end{aligned}$$

Following Demsetz and Lehn (1985), we also take a logistic transformation of both TOP5 and H1 to convert an bounded variable into an unbounded one. Therefore, LT5 is determined as LOG(TOP5) and LH1 as LOG(H1)

Following and also extending the method used by Xu and Wang's (1999) , that is, we use five variables to measure the ownership identity (OWN), that is: EH is the percentage of total outstanding shares held by employees, FH is the percentage of shares held by foreign investors (who is not a New Zealand citizen and not a New Zealand resident), CH is the percentage of shares held by corporate investors (non-financial companies), and IH is the percentage of shares held by investment companies or institutional investors (institutions, banks or other financial companies). Government and pension funds have been ignored because of insufficient information provided. The formula that determines each type of ownership is as follows:

$$\frac{\text{total number of outstanding shares hold by each identity}}{\text{total number of shares outstanding}}$$

To determine the effect of financial crisis on performance, a time (TIME) dummy variable used which is equal to "1" if the year is after 2007, otherwise it is equal to

“0”. To control for the size effect we use log of total assets (SIZE) as the proxy size. Leverage (LEV) of the company is measured by the ratio of total liabilities to total assets, and the firm level risk (FMRISK) is measured as the standard deviation of daily stock price.

4.3 Model

This study examine the nature of the relationship between firm performance variables (PER) and ownership variables and checks whether this relationship is significant. Four dependent variables (Q, MB, ROA, ROE), and two main type of independent variables (CON, OWN) are used to estimate the model using ordinary least squares (OLS) regression. The regressions models used are as follows:

$$PER_{it} = \beta_1 + \beta_2 TIME_{it} + \beta_3 LEV + \beta_4 SIZE_{it} + \beta_5 FMRISK + \beta_6 CON_{it} + \varepsilon \quad \dots\dots\dots 1$$

$$PER_{it} = \beta_1 + \beta_2 TIME_{it} + \beta_3 LEV + \beta_4 SIZE_{it} + \beta_5 FMRISK + \beta_6 OWN_{it} + \varepsilon \quad \dots\dots\dots 2$$

Where PER = either Tobin's Q, MB, ROA or ROE

CON = TOP5 and H1

OWN = EH, FH, CH, IH

i = denote a cross-sectional observation

t = denote time

β_6 = positive and statistically significant means that the effects from ownership have a positive effect on performance variable.

ε = error term.

To test the effect of financial crisis we divide our sample into two-time period segments, that is, BEFORE and AFTER crisis. BEFORE is the period between 2003-2006 and AFTER is the period after 2007. We use Tobin's Q as the dependent variable, and ownership identity as independent variable. The regressions model is as follow:

$$Q_{it} = \beta_1 + \beta_2 LEV + \beta_3 SIZE_{it} + \beta_4 FMRISK + \beta_5 OWN_{it} + \varepsilon \quad \dots\dots\dots 3$$

A summary of dependent and control variables used in this study and their method of measurement is provided in Table 5.

<Insert Table 5 here>

5. Empirical result

5.1 Descriptive statistics

Table 6 provides a summary of the descriptive statistics for the dependent and control variables used in this study. The average (median) Tobin's Q is 2.06 (1.25) indicating companies did create values for the shareholders' and the company has good expectations for future performance. The mean (median) MB is 2.52 (1.78) indicating that companies' have very good market value. The average (median) ROA is negative, which is -0.02 (0.05) and the minimum is -4.32. The negative values for ROA indicate that companies have not used utilised fixed assets of the companies in an efficient manner to generate enough revenue. The mean (median) of ROE is a little higher than ROA, which is 0.01 (0.09). This indicates that companies have efficiently used the funds provided by the shareholders which resulted in a small positive return compared to the use of total assets of the companies. Since median of both ROA and ROE are much lower than their means indicate that majority of the companies have very low performance which is not surprising given that there was global financial crisis after 2007.

The mean (median) HI is 0.2 (0.13) and the mean (median) proportion of shares held by five largest shareholders (TOP5) is 0.56 (0.56), which is considered to be very high indicting more than half of the shares are controlled by five largest shareholders. The maximum TOP5 is 98% and the minimum is 12%, indicating that companies in New Zealand are closely-held rather than widely-held.

The mean of IH is 0.03, FH and CH both have mean of 0.06, whereas mean of EH is

the highest at 0.09. These results indicate that employee investors held the biggest part of New Zealand market, and the institutions held the smallest. The mean of LEV is 0.44 which is not considered to be very high, but the maximum is greater than 1 thus indicating total liabilities in the companies are greater than the total assets. The mean of SIZE is 5.31 with the median of 5.41. The mean of FMRISK is 0.33 with the median of 0.25.

The results reported in Table 6 show that 17.5% of companies belong to primary industry, 37.5% services, 12.5% investment, 7.5% energy, 17.5% goods, 5% property, and 2.5% are companies which are also listed in overseas stock exchanges.

<Insert Table 6 here>

5.2 *Correlation test*

Table 7 report the bivariate correlation matrix for the independent variables. The correlation between LT5 and LH1 is the highest at 0.92 which is not surprising as the top five shareholders also have most concentrated shareholding as well. Apart from this result, rest of correlations ranges between 0.35 (between FH and IH) and 0.01 (FH and SIZE).

<Insert Table 7 here>

5.3 *OLS regression of performance to ownership concentration (CON)*

Table 8 report the OLS regression results for Equation 1. Dependent variables are listed in column 1 of Table 8 and columns 2, 3, 4, 5, 6, and 7 provide coefficients of the independent variables with corresponding t-statistics are reported in brackets. Rows 2 and 3 provide the regression results when Tobin's Q is used as the dependent variable and CON is determined by either LHI or TOP5, respectively. Both TIME and SIZE have a negative coefficient which is statistically significant at 1% level, indicating that the size of the publicly listed companies are not at an optimal level and also company performance is adversely affected by the financial crisis. The

coefficient of FMRISK is positive and statistically significant at 1% level, indicate that listed companies that experienced high volatility in stock prices contributed positively towards performance measured by Tobin's Q. Since the coefficient of LT5 is negative and statistically significant at 10% level indicate that the monitoring provided by top five shareholders to some extent sheltered the companies from adverse financial effects.

Rows 3 to 4 provide coefficients of independent variables including ownership concentration (LH1 and LT5) and MB used as the dependent variable. SIZE has a negative coefficient and is statistically significant at 5% level indicating company size is not at optimal level. LEV has positive coefficient which is statistically at 10% level, indicating that companies with higher total debt to total assets ratio contributes positively towards MB. This supports the view that bondholders provide vigilance which contributes positively towards performance. Since the coefficients of the ownership concentration variables (LH1 and LT5) are not significant indicate that the relationship between ownership concentration and performance is not clear.

Rows 5 to 6 provide results for the both CON variables (LH1 and LT5) and dependent variable ROA. Coefficient of both CON variables are positive and are statistically significant at 10% level indicate that a higher ownership concentration levels leads to a higher accounting performance measured by ROA. Since coefficient of SIZE is positive and statistically significant at 1% level indicate that the large companies in New Zealand have better accounting performance compared to small.

Row 7 to 8 does not provide any significant results for the ownership concentration variables (LH1 and LT5) when used ROE as dependent variable. The results for SIZE confirms the results obtained for ROA as dependent variable, that is, size also have a positive effect on performance measured by ROE.

In summary, results show companies with higher ownership concentration levels have lower Tobin's Q and higher ROA and larger size companies have lower Tobin's Q and

lower market to book value but higher accounting based performance. Higher concentrated ownership (blockholders) has more formal authority and they hold enough shares to obtain active roles in the company. The powers that blockholders have in these companies are very high and their opinion has a significant effect on the managers' activities. At the same time, it is likely that the rights of the minority shareholders could to be comprised.

<Insert Table 8 here>

5.4 OLS regression results for performance and ownership identity

Table 9 report the OLS regression results of the performance and ownership identity for Equation 2. Table 9, column 1 lists the dependent variables used in the regression and the independent variables are provided in column headings which include four ownership identity variables (OWN), that is, institutional holding (IH), foreign holding (FH), employee holding (EH), and corporate holding (CH).

Model 1 uses Tobin's Q as dependent and ownership identity as independent variables. The coefficient of IH is positive and statistically significant at 5% level indicates that holding by institutional investors leads to an improved financial performance measured by Tobin's Q. However, coefficient of CH is negative is statistically significant at 10% level indicate that corporate investors invested in companies that resulted in negative returns. Results for the SIZE, TIME and FMRISK are similar to that reported in Table 8.

Model 2 uses MB as the dependent variable. The coefficient of ownership identity is only statistically significant for EH at 1% level. Other results for the independent variables are similar to that reported in Table 8.

Model 3 uses ROA as dependent variable. The coefficient of IH is negative and statistically significant at 5% level; indicate that investment holding has a negative effect on ROA. Model 4 uses ROE as dependent variable and there are no significant results for the ownership identity variables and performance.

In summary, results show that higher investment holding increases performance measured by Tobin's Q and decreases accounting-based performance measured by ROA. The plausible reason could be that less "involvement" owners have less power and have less interest in controlling decision-making processes, therefore, pay less attention on day-to-day operations of the companies but focus more on the long-term growth. For example, institutional investors focus on the future returns or long run returns which is reflected by Tobin's Q. Proportion of employee holding increasing MB indicating employee holding in company that has higher market performance. Corporate holding decreases Tobin's Q.

<Insert Table 9 here>

5.4 OLS Regression Results for Performance and ownership identity during financial crisis

Tables 10 and 11 report the OLS regression results for Equation 3 using Tobin's as dependent variable and ownership identity (OWN) in different time period as the independent variable, that is, before or after financial crisis. In Table 10, coefficients of two ownership identity variables IH and FH are positive and statistically significant at 1% and 5% levels, respectively. This result indicates that in post financial crisis period both institutional and foreigner holding resulted in positive performance. However, holding by corporates resulted in negative performance.

In Table 11, coefficient of IH is positive and statistically significant at 10% level, indicate that institutional holders invested in companies that could sustain short-term shocks such as those arising from the global financial crisis.

Results suggest that less "involvement" holdings had a positive performance measured by Tobin's Q. On the other hand, the results suggest that more "involvement" investors did not pay much attention to short-term performance and therefore, experienced more negative performance. The results reported in Table 11 show that during the financial crisis the effects of ownership identity on performance declined

and all different types of holding reduced their shareholding proportion and therefore, lost some power of control.

<Insert Table 10 here>

<Insert Table 11 here>

6 Conclusion

This study models different ownership concentration and identities to investigate the nature of the relationship between ownership identity and performance of publicly listed companies in New Zealand and whether the relationship between ownership-performance changes during the financial crisis. In regard to the question addressed, we report the following findings:

1. Our findings support the view that ownership concentration affects performance. However, our results for New Zealand are quite different to that reported for Turkey (Gursoy & Aydogan, 2002) and China (Xu & Wang, 1999). Results show that a higher ownership concentration in listed companies in New Zealand leads to a lower market-based performance and higher accounting-based performance.
2. We report that the ownership identity affects performance of NZX listed companies. More “detached” level owners have positive effect on market-based performance but negative effect on accounting-based performance. Whereas, more “involved” level owners have negative effect on market-based performance.
3. The relationship between ownership identity and performance changes during economic shocks, such as, the financial crisis. The results show that less “involved” holdings leads to higher performance in New Zealand market. During financial crisis, the evidence supports the view that effects from the ownership identity declined due to the fact that different types of owners reduced their concentration level resulting in the reduction in their social influence and expertise powers.

We divided the ownership using the two-dimension theory provided by Mintzberg (1983) and this paper firstly put the ownership structure into two parts, the ownership

concentration and ownership identity. The ownership identities considered in this paper include the employee, foreign investor, corporate investor, and institution investor. However, government and pension funds are too small and therefore were ignored.

We found that the average holding of the largest shareholders in New Zealand market is 34.49% and five largest shareholders holding in excess of 50% of the shares, therefore have absolute control of company. The average proportion of corporate holding and the average employee holding are much higher in New Zealand compared to that in Australia, the UK and the US, indicating the “involvement” ownership is much more popular in New Zealand context.

The institutional investor hold the most balanced portfolio and foreign investors tends to invest more in the industry they can easily get the key information, such as investment companies. Employee holding is largest in goods, investment, and services sectors, whereas corporates controlling energy industry and is also the most popular ownership types in New Zealand.

Evidence show that institutional investors prefer investment in large size companies, while employee investors prefer in small size companies. Two kinds of foreign investor exist in New Zealand market, that is, one seeking long-run returns and low risk; others more interested in risky investment.

The empirical results provide support to the view that higher ownership concentration level companies have lower Tobin's Q and higher accounting-based performance. This evidence is contrary to the findings reported in other market. Plausible reason could be that the higher ownership concentration has more formal authority; the block shareholders holding enough percent of shares can obtain some active roles in the company. The power of blockholders in these companies should be very high, and their opinions should be highly affecting the managers' activities. At the same time the rights of the minority shareholders tends to weaker. In the sample period, block

shareholders pay more attention to accounting-based performance rather than market-based performance. This is not surprising as market activities gets low, investors barely make decent profit from the market, therefore rely on profits from the operations to boost their return resulting in higher dividends payouts.

Moreover, findings support the view that institutional ownership increases Tobin's Q ratio and decreases ROA, whereas corporate holding decreases Tobin's Q. This result indicate that the "detached" owners have positive effects on market performance but negative effect on accounting performance whereas, "involved" level owners have negative effects on market performance. This finding indicates that the "detached" level owners have less power in seeking the short-run profit and therefore, focus less interest on operational matters but more on long-term growth of the company.

Finally, we caution readers regarding generalizing the findings of this study as the sample size used is small and the study focuses specifically to New Zealand environment. However, the issues raised could be adopted for future studies.

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Table 1
% of shares controlled by the top 5 shareholders

Year	TOP1	TOP2	TOP3	TOP4	TOP5	Total
2003	34.32%	9.97%	6.47%	4.85%	3.01%	58.62%
	0.2292	0.0676	0.0607	0.0668	0.0624	
2004	34.90%	9.52%	5.25%	3.01%	2.32%	54.99%
	0.2283	0.0667	0.0454	0.0221	0.0194	
2005	35.31%	9.41%	5.38%	3.17%	2.30%	55.56%
	0.2438	0.0717	0.0475	0.0217	0.0176	
2006	35.07%	10.21%	5.19%	3.32%	2.32%	56.10%
	0.2430	0.0737	0.0461	0.0225	0.0171	
2007	34.86%	10.33%	5.05%	3.21%	2.48%	55.93%
	0.2406	0.0707	0.0306	0.0209	0.0183	
2008	32.95%	10.83%	5.17%	3.30%	2.67%	54.91%
	0.2471	0.0720	0.0320	0.0200	0.0185	
2009	34.02%	10.23%	5.79%	3.63%	2.91%	56.58%
	0.2456	0.0701	0.0379	0.0237	0.0221	
Average	34.49%	10.07%	5.47%	3.50%	2.57%	56.10%

(Note: Percent of shares held by each ownership identity type is equal to total shares held by each ownership identity type divided by total shares outstanding. Standard deviations is reported in red)

Table 2
A comparison of ownership of common stock

	AU	UK	US	NZ
CH	9.46	5.09	0.86	16.38
	15.35	14.68	5.66	23.72
EH	3.67	3.82	1.37	18.44
	10.83	12.49	4.97	24.86
FH	6.76	11.97	0.83	6.67
	12.78	17.52	4.38	16.70
GH	0.42	1.55	0.10	2.46
	3.67	8.26	1.15	12.76
IH	8.41	3.53	9.08	4.06
	10.33	5.34	8.22	7.05
Pension fund	0.07	0.24	0.13	0.00
	0.92	1.94	2.28	0.00
Total strategic held	22.24	15.02	11.73	41.43
	19.15	19.85	10.81	26.62
No of Companies	199	102	500	81

(Note: Ownership variables in Table 2 are : CH-percentage by corporate holding; EH-percentage by employee holding; FH-percentage by foreign holding; GH-percentage by government holding; IH-percentage by investment company holding; pension fund-percentage by pension fund holding; total strategic held = total percentage of all these identified owners. Standard deviations is reported in red)

Chart 1:
A comparison of ownership of common stock
% in 2010

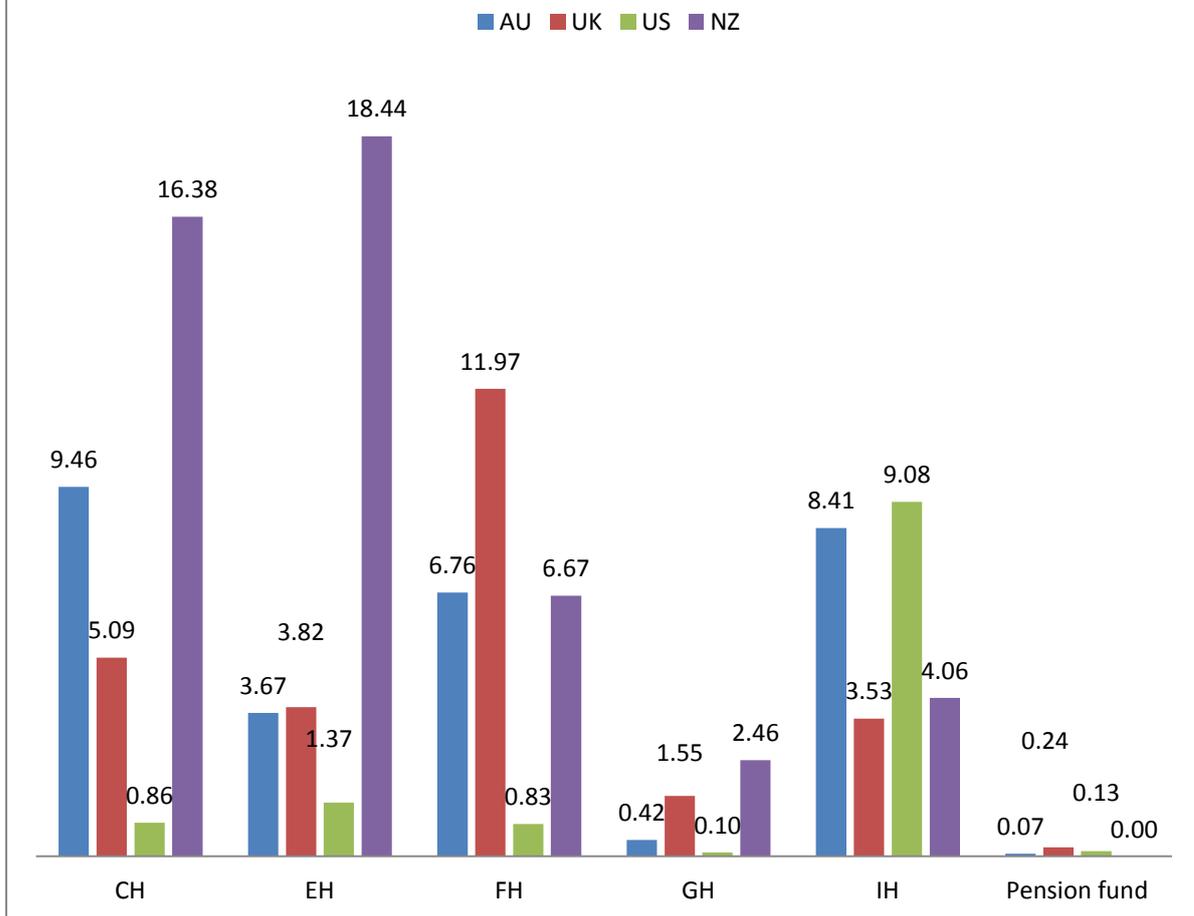


Table 3
Ownership structure by sector in 2010

	IH	GH	FH	EH	CH	NO.
energy	6.75%	0.00%	6.75%	5.00%	43.00%	4
	0.1350	0.0000	0.1350	0.0627	0.3898	
goods	4.33%	0.00%	3.93%	22.47%	13.00%	15
	0.0631	0.0000	0.0851	0.2816	0.1534	
investment	2.18%	0.00%	17.73%	19.45%	14.09%	11
	0.0724	0.0000	0.3459	0.2772	0.2977	
primary	3.33%	0.00%	4.17%	0.50%	18.08%	12
	0.0604	0.0000	0.0625	0.0173	0.2205	
property	6.50%	0.00%	2.25%	0.00%	12.50%	4
	0.0819	0.0000	0.0450	0.0000	0.0835	
services	4.32%	5.85%	5.88%	24.53%	15.82%	34
	0.0701	0.1934	0.1417	0.2391	0.2418	

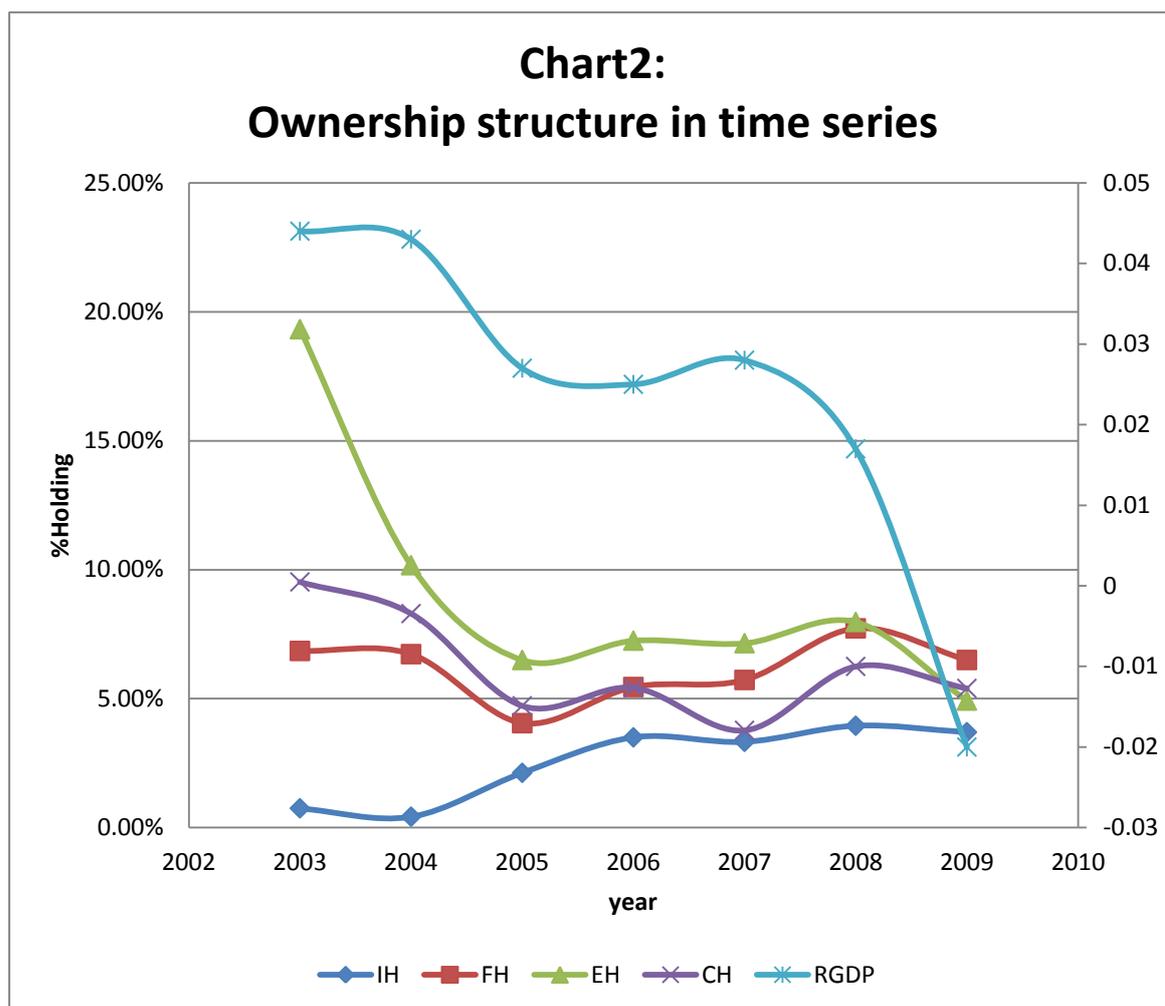
(Note: Ownership information was obtained from the NZX Deep Archive for the year 2010 . Numbers of companies included in the sample are given in column 7. Standard deviations is reported in red)

Table 4

Ownership structure by firm size in 2010

	IH	GH	FH	EH	CH	NO.
LARGE	9.64%	0.00%	10.09%	0.64%	22.91%	11
	0.0964	0.0000	0.1081	0.0211	0.3012	
Medium1	5.05%	2.57%	1.14%	10.86%	16.05%	21
	0.0505	0.1178	0.0362	0.2079	0.2289	
Medium 2	4.32%	4.16%	4.74%	15.21%	13.32%	19
	0.0432	0.1812	0.0818	0.2521	0.1895	
SMALL	1.21%	2.28%	10.86%	30.59%	16.72%	29
	0.0121	0.1226	0.2556	0.2388	0.2540	

Note: The data for the company's total assets was obtained from the NZX Deep Achieve, for 2010. Companies total assets was divided into four segments, that is: LARGE- companies with totals assets greater than equal to \$1billion; Medium 1 - companies having totals assets greater than equal to \$200million and less than 1billion; Medium 2 - companies with total assets greater than equal to \$50 million and less than \$200 million; and SMALL companies with total assets less than \$50 million . Standard deviations are reported in red.



Note: RGDP is the GDP nature growth rate of New Zealand, which in the secondary Y-axis. Ownership data include 40 NZX listed companies

Table 5:
A Summary of Dependent and Control variables used

Dependent variables	
Tobin's Q	$((\text{Stock price} * \text{No. of shares outstanding}) + \text{Long term debt} + \text{Short term debt}) / \text{Total Assets}$
MB	$((\text{Stock price} * \text{No. of shares outstanding}) / \text{Total Equity})$
ROA	Net Income/ Total Assets
ROE	Net Income/Total Equity
Control variables	
Ownership Concentration (CON): TOP5	No. of shares held top five shareholders/Total shares outstanding
Ownership Concentration (CON): H1	$(\% \text{ of shares held by largest shareholder})^2 + (\% \text{ of shares held by second largest shareholder})^2 + \dots + (\% \text{ of shares held by fifth largest shareholder})^2$
Ownership Identity (OWN): EH	$(\text{No. of shares held by Employees}) / \text{Total Shares Outstanding}$
Ownership Identity (OWN): FH	$(\text{No. of shares held by Foreign Investors}) / \text{Total Shares Outstanding}$
Ownership Identity (OWN): CH	$(\text{No. of shares held by Corporate Investors}) / \text{Total Shares Outstanding}$
Ownership Identity (OWN): IH	$(\text{No. of shares held by Institutional Investors}) / \text{Total Shares Outstanding}$
TIME	Dummy equal to "1" if year is after 2007, otherwise "0"
LEV	Long term liabilities/Total assets
SIZE	Natural log of Total assets
FMRISK	Standard deviation of the daily stock returns for the year

Table 6: Descriptive Statistics

	Mean	Media	Kurtosis	Skewness	Range	Min	Max	No.
Q	2.06	1.25	18.02	3.64	21.76	-0.25	21.51	280
MB	2.52	1.78	26.10	4.36	27.62	-2.82	24.81	280
ROA	-0.02	0.05	75.12	-7.45	4.69	-4.32	0.37	280
ROE	0.01	0.09	52.62	-0.67	13.19	-6.44	6.75	280
HI	0.20	0.13	-0.18	1.00	0.68	0.00	0.68	280
TOP5	0.56	0.56	-1.09	-0.02	0.86	0.12	0.98	280
IH	0.03	0.00	16.82	3.74	0.55	0.00	0.55	280
FH	0.06	0.00	6.53	2.50	0.70	0.00	0.70	280
EH	0.09	0.00	5.02	2.40	0.80	0.00	0.80	280
CH	0.06	0.00	7.01	2.77	0.78	0.00	0.78	280
LEV	0.44	0.43	0.11	0.40	1.32	0.00	1.32	280
SIZE	5.31	5.41	-0.01	-0.62	4.25	2.66	6.92	280
FMRISK	0.33	0.25	47.96	5.10	4.33	0.01	4.33	280

Table 7
Correlations of the control variables

	SIZE	LEV	FMRISK	LHI	LT5	IH	FH	EH	CH
SIZE	1.0000								
LEV	0.3470*** (0.000)	1.0000							
FMRISK	0.3151*** (0.000)	0.0934 (0.119)	1.0000						
LHI	0.0883 (0.141)	-0.2646*** (0.000)	-0.0292 (0.627)	1.0000					
LT5	0.1002* (0.094)	-0.2476*** (0.000)	0.0122 (0.838)	0.9151*** (0.000)	1.0000				
IH	0.2262*** (0.000)	0.1284** (0.032)	0.1714** (0.004)	-0.1307** (0.029)	-0.1424** (0.017)	1.0000			
FH	-0.0067 (0.912)	0.0987* (0.099)	-0.0098 (0.870)	0.0327 (0.586)	0.0195 (0.745)	0.3506*** (0.000)	1.0000		
EH	-0.1434** (0.016)	0.1096* (0.067)	-0.0898 (0.134)	0.0624 (0.298)	0.0432 (0.472)	-0.1029* (0.086)	-0.1049* (0.079)	1.0000	
CH	-0.0481 (0.422)	-0.0898 (0.134)	-0.0184 (0.759)	0.2349*** (0.000)	0.2485*** (0.000)	-0.1085* (0.069)	0.2404*** (0.000)	-0.0760 (0.205)	1.0000

*** denote significance at 1% level, ** denote significance at 5% level, * denote significance at 10% level,

Table 8

	Intercept	time	DTA	SIZE	FMRISK	LHI	LT5	Adjusted R-squared	Prob(F-statistic)
Q	4.58*** (4.99)	-0.97*** (-3.27)	0.04 (0.05)	-0.53*** (-2.99)	1.34*** (3.19)	-0.25 (-0.25)		0.09	0.00
Q	4.82*** (5.72)	-0.95*** (-3.16)	-0.15 (-0.21)	-0.50** (-2.84)	1.35*** (3.23)		-0.57* (-1.77)	0.09	0.00
MB	11.60** (2.55)	1.47 (0.98)	6.32* (1.74)	-2.10** (-2.40)	0.11 (0.05)	0.71 (0.51)		0.01	0.15
MB	10.77** (2.57)	1.44 (0.96)	6.16* (1.70)	-2.08** (-2.38)	0.05 (0.03)		0.63 (0.39)	0.01	0.15
ROA	-0.68*** (-5.43)	-0.02 (-0.59)	0.01 (0.11)	0.13*** (5.55)	0.09* (1.62)	0.07* (1.91)		0.16	0.00
ROA	-0.77*** (-6.60)	-0.03 (-0.67)	0.00 (0.03)	0.14*** (5.62)	0.09 (1.53)		0.08* (1.71)	0.15	0.00
ROE	-0.79*** (-3.01)	-0.06 (-0.66)	0.32 (1.53)	0.14** (2.80)	0.09 (0.75)	0.10 (1.20)		0.05	0.00
ROE	-0.90*** (-3.72)	-0.06 (-0.71)	0.31 (1.51)	0.14** (2.83)	0.08 (0.69)		0.11 (1.15)	0.05	0.00

Note: Figures in parentheses are t statistics, * Significant different from zero at the 10% level using the t-test, ** Significant different from zero at the 5% level using the t-test, *** Significant different from zero at the 1% level using the t-test

Table 9

Dependent variable	Intercept	TIME	LEV	SIZE	FMRISK	IH	FH	EH	CH	Adjusted R2	Prob (F-stat)
(1) Q	5.21***	-1.07***	0.18	-0.62***	1.24**	5.17**				0.10	0.0000
	(6.16)	(-3.54)	(0.26)	(-3.60)	(2.97)	(2.41)					
	4.86***	-0.98***	0.20	-0.56***	1.36***		0.65			0.08	0.0000
	(5.72)	(-3.23)	(0.29)	(-3.22)	(3.26)		(0.53)				
	5.10***	-1.01***	0.38	-0.59***	1.34***			-0.81		0.09	0.0000
	(5.89)	(-3.33)	(0.54)	(-3.38)	(3.20)			(-1.03)			
(2) MB	5.07***	-1.00***	0.16	-0.56***	1.36**				-1.63*	0.09	0.0000
	(5.99)	(-3.31)	(0.23)	(-3.280)	(3.260)				(-1.71)		
	11.00**\	1.37	5.67*	-2.07**	-0.09	5.27				0.01	0.1475
	(2.60)	(0.91)	(1.68)	(-2.40)	(-0.04)	(0.49)					
	10.82**	1.47	5.85	-2.02**	0.03		-2.06			0.01	0.1544
	(2.57)	(0.98)	(1.69)	(-2.36)	(0.01)		(-0.34)				
(3) ROA	7.72*	2.07	3.69	-1.56**	0.40			12.11***		0.05	0.0033
	(1.83)	(1.39)	(1.07)	(-1.83)	(0.20)			(3.15)			
	10.98**	1.42	5.59	-2.02**	0.02				-2.76	0.01	0.1425
	(2.60)	(0.95)	(1.62)	(-2.36)	(0.01)				(-0.58)		
	-0.81***	-0.01	-0.04	0.15***	0.10*	-0.59**				0.16	0.0000
	(-6.94)	(-0.340)	(-0.44)	(6.32)	(1.72)	(-1.98)					
(3) ROA	-0.78***	-0.03	-0.05	0.14***	0.09		0.07			0.15	0.0000
	(-6.68)	(-0.60)	(-0.56)	(6.07)	(1.48)		(0.42)				
	-0.77***	-0.03	-0.04	0.14***	0.08			-0.04			
	(-6.41)	(-0.64)	(-0.43)	(5.90)	(1.45)			(-0.40)		0.15	0.0000

Table 9 Cont'd

	-0.80***	-0.02	-0.04	0.14***	0.09			0.20	0.15	0.0000
	(-6.83)	(-0.53)	(-0.41)	(6.10)	(1.50)			(1.51)		
(4) ROE	-0.95***	-0.05	0.25	0.16***	0.09	-0.53			0.05	0.0017
	(-3.87)	(-0.55)	(1.24)	(3.22)	(0.77)	(-0.86)				
	-0.94***	-0.06	0.21	0.16***	0.08		0.46		0.05	0.0011
	(-3.89)	(-0.70)	(1.07)	(3.18)	(0.67)		(1.31)			
	-0.84***	-0.07	0.29	0.14**	0.07			-0.31	0.05	0.0010
	(-3.39)	(-0.84)	(1.45)	(2.86)	(0.59)			(-1.37)		
	-0.95***	-0.05	0.26	0.16***	0.08			0.33	0.05	0.0012
	(-3.90)	(-0.61)	(1.29)	(3.140)	(0.68)			(1.20)		

Note: Figures in parentheses are t-statistics, *** Significant different from zero at the 1% level, ** Significant different from zero at the 5% level, * Significant different from zero at the 10% level

Table 10

Q	C	DTA	SIZE	FMRISK	IH	FH	EH	CH	Adjusted R ²	Prob (F-stat)
2003-2006	4.50	-1.12	-0.42	1.37	12.56***				0.08	0.002208
	(1.32)	(-1.17)	(-0.29)	(0.55)	(4.36)					
	3.81	-0.77	-0.30	1.54		0.92**			0.03	0.067723
	(1.35)	(-1.20)	(-0.29)	(0.56)		(2.09)				
	4.06	-0.60	-0.33	1.52			-0.55		0.03	0.067124
	(1.380)	(-1.21)	(-0.33)	(0.56)			(-1.19)			
4.27	-0.81	-0.33	1.53					-2.59**	0.05	0.017368
	(1.34)	(-1.18)	(-0.29)	(0.55)				(-1.75)		

Note: Figures in parentheses are t-statistics, *** Significant different from zero at the 1% level, ** Significant different from zero at the 5% level, * Significant different from zero at the 10% level

Table 11

Q	C	DTA	SIZE	FMRISK	IH	FH	EH	CH	Adjusted R ²	Prob (F-stat)
2007-2009	4.65 (0.92)	0.95 (0.67)	-0.72 (0.18)	0.43 (0.64)	2.27* (1.80)				0.11	0.001505
	4.54 (0.93)	0.90 (0.68)	-0.70 (-0.18)	0.57 (0.63)		0.68 (1.18)			0.10	0.002627
	4.72 (0.93)	1.12 (0.690)	-0.73 (-0.18)	0.53 (0.63)			-1.14 (-0.86)		0.11	0.001393
	4.56 (0.93)	0.94 (0.68)	-0.70 (-0.180)	0.58 (0.63)				0.20 (1.06)	0.10	0.003002

Note: Figures in parentheses are t-statistics, *** Significant different from zero at the 1% level, ** Significant different from zero at the 5% level, * Significant different from zero at the 10% level

