

## **Are East Asian companies benefiting from Western board practices?**

*John Nowland\**

### **ABSTRACT**

Since the Asian crisis, East Asian nations have strived to introduce corporate governance codes, directing companies how to best improve their corporate governance practices. However, these codes have not been universally accepted by East Asian companies. This research examines the adoption of major board-related corporate governance recommendations by large non-financial companies in four East Asian nations and investigates whether improvements in these board governance mechanisms have been associated with increased operating performance and market value. The results indicate that family-owned companies have been least likely to improve their board governance since the crisis. Overall, faster growing, non-family owned companies with smaller boards and less concentrated ownership have been more likely to improve their board governance. Splitting of the positions of Chairman and CEO, creation of audit committees and improvements in overall board governance are found to have a positive effect on subsequent operating performance and/or firm value.

Keywords: Corporate governance, board independence, board committees, East Asia.

\* School of Economics & Finance, Queensland University of Technology, GPO Box 2434, Brisbane 4001, Australia. Ph: +61-7-3864-4241. Fax: +61-7-3864-1500. Email: [j.nowland@qut.edu.au](mailto:j.nowland@qut.edu.au)  
Thanks to helpful comments from Stephen Gray and participants at the AsianFA Doctoral Colloquium 2006.

## **Introduction**

After a prolonged period of economic prosperity, the Asian Financial Crisis of 1997-98 was a major indicator that corporate governance practices in East Asia were in need of improvement. Since then, both national and international bodies have formulated and issued corporate governance codes and best practice guidelines in an effort to restore investor confidence in the region. These corporate governance codes have consistently pushed for increased board independence, the separation of the positions of Chairman and CEO, and the creation of independent audit, nomination and remuneration committees. These mechanisms are expected to improve the corporate governance within a firm and decrease the likelihood of expropriation by corporate insiders.

The recommendations, however, are based on best practice guidelines from the US and UK, where ownership structures are diverse and boards of directors already comprise a significant proportion of independent directors. In contrast, East Asian companies have concentrated ownership and a low proportion of independent directors. This means adherence to the new recommendations will involve significant board-related changes for most companies. This paper examines whether East Asian companies have made these changes and determines the characteristics of companies that have made improvements to their board governance.

In addition, prior research has found a strong association between good governance and operating performance and firm value (Klapper and Love, 2002; Durnev and Kim, 2005; Brown and Caylor, 2005). However, there has been no direct evidence that improvements in board-related governance mechanisms are associated with better performance and higher value. This study fills this gap, by using panel data to relate changes in board governance measures to changes in operating performance and firm value. Furthermore, in contrast to recent research, which focuses on broad corporate governance issues, this study concentrates on specific and actionable board governance mechanisms. This provides East Asian companies with direct evidence as to whether there are benefits associated with improvements in these specific corporate governance mechanisms.

This study examines the largest non-financial companies across four East Asian nations and finds that companies from Hong Kong, Malaysia and Singapore, but not Taiwan, have been active in improving their board governance mechanisms. After controlling for country and firm specific characteristics, family-owned companies

were found less likely to improve their board independence, separate the positions of Chairman and CEO, and create nomination and remuneration committees. Overall, faster growing, non-family-owned companies with smaller boards and less concentrated ownership were more likely to improve their board governance.

While the results provide little evidence that improvements in individual board governance mechanisms are associated with immediate improvements in the value or performance of East Asian companies, several lagged relationships have been uncovered. Splitting of the positions of Chairman and CEO is associated with improved operating performance and increased firm value the following year. The creation of audit committees is associated with increased firm value the following year and improved overall board governance is associated with improved operating performance the following year. However, increased board independence and the creation of remuneration and nomination committees have no effect on value or performance.

## **Literature Review**

Traditionally, corporate governance was not a priority in East Asia. It was not until the Asian crisis that corporate governance was identified as an area in need of improvement. During the crisis, stock prices in the region plummeted. On average, prices dropped by over 80% in Indonesia, 70% in Malaysia, Thailand and the Philippines, 60% in South Korea, 50% in Hong Kong, 40% in Singapore and 30% in Taiwan.<sup>1</sup> Academic research has subsequently shown that countries with poorer investor protection were hit hardest during the crisis (Johnson et al., 2000) and that companies with poorer corporate governance performed worse during the crisis (Mitton, 2002; Lemmon and Lins, 2003).

Since then, an abundance of international bodies, including the World Bank, Asian Development Bank and OECD, and various national agencies have formulated and issued corporate governance codes and best practice guidelines to assist companies in improving their corporate governance practices. The codes consist of recommendations derived from US and UK best practice guidelines relating to board composition and function, directors' duties, disclosure, shareholders' and stakeholders' rights, and audit and internal control systems. However, unlike the

---

<sup>1</sup> Johnson et al. (2000) provides US-dollar adjusted stock price movements during the crisis.

Sarbanes-Oxley Act in the US, the codes in East Asia are voluntary, with companies at most having to provide explanation for any deviance from best practice guidelines.

The first question raised by this research is: Are these recommendations being adopted by East Asian companies? Palepu et al. (2002) argue that whilst most countries are now adopting Western (Anglo-Saxon) corporate governance standards, there is little evidence that these standards are being widely implemented. Claessens et al. (2000) explain that most East Asian companies have concentrated ownership structures, with control in the hands of family groups or government entities. East Asian companies are also starting from a lower corporate governance level, with lower levels of board independence and a relative scarcity of board committees. This means that companies will need to expend considerable resources to meet the recommendations. So which companies will be willing to bear the costs?

Previous research indicates that size, growth, profitability, financing needs and ownership are all related to the level of corporate governance (Klapper and Love, 2002; Durnev and Kim, 2005; Black, Jang and Kim, 2005a). Larger and more profitable companies are more likely to have the resources to spend on corporate governance outcomes. Corporate governance is likely to be more important for companies growing quickly and in need of external financing. Companies controlled by a family group are less likely to see the benefits of expenditure on corporate governance. Companies with smaller boards find it easier to agree on implementing new corporate governance measures. Also, it may be easier for companies with good corporate governance already to improve their practices. Conversely, companies with poorer governance may be catching up. Therefore, corporate governance improvements are expected to be a function of size, growth, profitability, ownership, board size and the prior standard of corporate governance.

In addition, both survey and empirical evidence indicates that investors are willing to pay more for companies with good corporate governance. Surveys conducted by McKinsey & Co. indicate that institutional investors are willing to pay an average premium of 20 percent for companies with good corporate governance (Coombes and Watson, 2000). Academic research indicates that better corporate governance has been associated with higher company valuations (La Porta et al., 2002; Klapper and Love 2002; Durnev and Kim 2005).<sup>2</sup> A similar relationship has also been

---

<sup>2</sup> In East Asia, a positive relationship between corporate governance and market valuation has been

found between corporate governance and operating measures such as return on assets and sales growth (Klapper and Love 2002; Brown and Caylor 2005; Larcker, Richardson and Tuna 2005). Individual governance attributes such as board independence and audit committee independence have also been linked to performance and value (Weir, Laing and McKnight, 2002; Hermalin and Weisbach, 2003; Black, Jang and Kim, 2006).

This implies that companies improving their corporate governance practices should also see improvements in their operating performance and market value. However, while recent research has examined the market reaction to new corporate governance regulations, no study has yet directly related improvements in individual corporate governance mechanisms to changes in both operating performance and market value.<sup>3</sup> This study intends to fill this void, by relating changes in major board-related governance mechanisms, such as board independence, the separation of the positions of chairman and CEO, and the creation and independence of audit, nomination and remuneration committees, to changes in operating performance and market value.<sup>4</sup>

The board of director's role is to provide independent monitoring of management and hold management accountable to shareholders for their actions. Boards are believed to be more effective in their monitoring if they are comprised of more independent directors. Therefore, an increase in board independence is expected to have a favorable effect on operating performance and firm value. The appointment of the CEO to the position of Chairman can lead to a concentration of power and possible conflicts of interest, resulting in a reduction in the level of monitoring. Therefore, the separation of these two positions is expected to have a favorable effect on operating performance and firm value.

In order to perform their duties more effectively, boards can delegate responsibilities to board committees. Audit committees provide shareholders with a

---

found in China, India, Indonesia, Malaysia, South Korea, Taiwan and Thailand (Black, Jang and Kim 2006; Bai et al. 2005; Campos, Newell and Wilson 2002; Nam and Nam 2004).

<sup>3</sup> Event studies have examined the short-term market reaction to the introduction of new corporate governance regulations. On the whole, they have found a positive price reaction to new regulations in the US and Europe (Chhaochharia and Grinstein 2005; Li et al., 2004; Jain et al. 2005; Zhang 2005; Zimmermann et al., 2005; Anson and Rodriguez, 2005). Concurrent work by Black et al. (2005b) relates a broad Korean corporate governance index with market value over the years 1998-2003 and finds that corporate governance is "an important and likely casual factor in explaining firms' market values."

<sup>4</sup> These mechanisms have been selected as they are the "big ticket" items that have been consistently recommended by the codes and are measurable - data is available in all countries.

greater assurance that the firm's financial statements are credible. Remuneration committees bring transparency and credibility to the remuneration process of directors and top executives. Nomination committees determine the independence of board members and ensure the board of directors has an adequate skill set. The creation of each of these committees is expected to have a favorable effect on operating performance and firm value. Furthermore, the effectiveness of these committees is expected to be enhanced if they are comprised of a majority or solely of independent directors. Therefore an increase in committee independence is also expected to have a favorable effect on operating performance and firm value.

## **Data**

This study examines the four East Asian nations of Hong Kong, Malaysia, Singapore and Taiwan. These countries have been selected due to data availability.<sup>5</sup> The sample comprises the top 30 non-financial companies in each country with complete data for the period 1998 to 2004.<sup>6</sup> The largest companies in each country are examined as they are most likely to have the resources to improve their corporate governance practices and they are usually of the most interest to investors. Data on board and committee composition is obtained directly from company annual reports. Financial data is from Worldscope. Corporate governance codes for each country were obtained from the Asian Corporate Governance Association.

Hong Kong, Malaysia and Singapore all have English common law origins with a single-tier board structure. However, Taiwan has a German civil law origin, with boards consisting of directors and supervisors. Supervisors do not have the right to vote in board matters, but their role is to “independently” monitor company activities.<sup>7</sup> Malaysia introduced its corporate governance code in 2000, Singapore in 2001, Taiwan in 2002 and Hong Kong's original code was introduced in 1993.<sup>8</sup> Appendix A presents the board-related corporate governance recommendations in

---

<sup>5</sup> Previous literature on East Asian companies has covered at least these four countries (Johnson et al., 2000; Mitton, 2002; Lemmon and Lins, 2001). Board data from Indonesia, Philippines, South Korea and Thailand is not widely available for companies back to 1998.

<sup>6</sup> Financial companies with two-digit SIC codes 60, 61, 62, 63, 64 and 67, such as banks, insurance and financial holding companies have been excluded. Land development and investment companies (SIC code 65) have been included. At most companies can have two missing observations out of the seven year period. Where this occurs, board variables are traced back and adjusted using other information from company reports.

<sup>7</sup> In reality, supervisors are usually representatives of controlling or block shareholders. In this study supervisors have not been included as “directors” in the board governance measures.

<sup>8</sup> Hong Kong has also introduced a revised corporate governance code effective 2005.

each country at the end of 2004. Hong Kong, Malaysia and Singapore all recommend that one-third of the board of directors be independent, while Taiwan recommends at least one independent director. All countries recommend the separation of the positions of Chairman and CEO. Singapore recommends all majority independent committees. Malaysia recommends majority independent audit and nomination committees, while Hong Kong recommends a majority independent audit committee. Taiwan only recommends the creation of an audit committee and does not specify independence.

Table 1 provides descriptive statistics of the sample companies in 2004. Panel A details the main financial and ownership variables. Total Assets is measured in billions of US dollars. Tobin's Q is calculated as total assets minus the book value of equity plus the market value of equity all divided by total assets. Return on assets (ROA) and one-year sales growth (Growth) are percentages. Leverage is the ratio of debt to total assets. Board size is the number of directors on the board. Cash Rights is the percentage shareholding of the largest shareholder. Wedge is the ratio of control rights to cashflow rights of the largest shareholder following the methodology of Claessens et al. (2000). On average, companies from Hong Kong are larger and have bigger boards than those from the other countries. Taiwanese companies have lower Tobin's Q ratios, lower Cash Rights and a greater wedge between control and cashflow ownership. The shareholder column of Panel B shows that the majority of companies in Hong Kong and Taiwan have family groups as their biggest shareholders. The biggest shareholders in Malaysia are other companies and in Singapore ownership is evenly spread between government agencies and other companies. The holding column of the table shows the average and range of shareholdings in each of the groups. This shows that most of the largest shareholders in Hong Kong, Malaysia and Singapore hold well in excess of 20 percent of outstanding shares. In Taiwan, the largest shareholders hold a lower percentage of shares, but maintain control through cross-holdings and pyramidal ownership structures, as evidence by the high wedge between control and cashflow ownership in Panel A. Table 2 shows the industry composition of the sample firms. There is good variation in industry participation across the countries, with most companies coming from the consumer durables, utilities, food and tobacco, transportation and financial

(land development) sectors.<sup>9</sup>

## Methodology

As an anchor for the following analysis, the first model relates board governance to company characteristics in 1998. This identifies which types of companies had better or worse board governance at the beginning of the sample period. Previous research indicates that size, growth, profitability, ownership and board size are related to the level of corporate governance (Klapper and Love, 2002; Durnev and Kim, 2005; Black, Jang and Kim, 2005a).

$$CG_i = \alpha + \beta_1 SIZE + \beta_2 GROWTH + \beta_3 ROA + \beta_4 CASH + \beta_5 CASH2 + \beta_6 WEDGE + \beta_7 FAMILY + \beta_8 BSIZE_i + \varepsilon \quad (1)$$

Where  $CG_i$  is the corporate governance measure (board independence (BIND)<sup>10</sup>, Chairman/CEO split (CCSPLIT), existence of audit, nomination and remuneration committees (AC, NC, RC), audit committee independence (ACIND) and the overall board governance score (BOARD)<sup>11</sup>), SIZE is the natural logarithm of total assets, GROWTH is one year sales growth, ROA is return on assets, CASH is the cashflow rights of the largest shareholder, CASH2 is the squared cashflow rights of the largest shareholder, WEDGE is the ratio of control to cashflow rights of the largest shareholder, FAMILY is a dummy variable equal to one if the largest shareholder is a family group, and BSIZE is the size of the board of directors. All continuous independent variables are adjusted by the country-year average. This allows for cross-country comparison. The regressions also include country dummies to control for cross-country differences in the governance measures. Ordinary least square regressions are used for continuous dependent variables and logit regressions are used for binary dependent variables.

Next, changes in board governance measures over the sample period (1998-2004) are related to company characteristics. Size, growth, performance, ownership, board size and prior standard of board governance are all expected to be related to corporate

---

<sup>9</sup> Industry breakdown from Campbell (1996).

<sup>10</sup> Directors were only counted as independent if the company specifically highlighted the directors as “independent” in the director biography or corporate governance sections of the annual reports. Those that supposedly fulfilled independence requirements but weren’t identified as “independent” were not included. Directors were traced back through time to ensure the latest definition of independence in each country was applied to previous periods.

<sup>11</sup> The overall board governance score is computed as follows: one point for each independent director, one point for Chairman/CEO split and one point for each board committee (audit, nomination and remuneration).



governance changes. Lagged variables are used as they are more representative of the company characteristics in place when board governance changes are implemented. As the observations are pooled, continuous independent variables are adjusted by the country-year average to allow for cross-country comparison.

Here, the analysis takes two forms. First, individual characteristics are related to board governance changes by sorting the pooled observations into quintiles based on company characteristics. Average board governance changes are calculated for each quintile. Differences between the highest and lowest quintiles are then calculated. Second, a pooled model relates board governance changes to all company characteristics.

$$\Delta CG_{it} = \alpha + \beta_1 SIZE_{t-1} + \beta_2 GROWTH_{t-1} + \beta_3 ROA_{t-1} + \beta_4 CASH_{t-1} + \beta_5 CASH2_{t-1} + \beta_6 WEDGE_{t-1} + \beta_7 FAMILY_{t-1} + \beta_8 BSIZE_{t-1} + \beta_9 CG_{it-1} + \varepsilon \quad (2)$$

Where  $\Delta CG_{it}$  is the change in the corporate governance measure (BIND, CCSPLIT, AC, NC, RC, ACIND and BOARD) during period t and  $CG_{t-1}$  is the level of the corporate governance measure at time t-1. Other variables as previously defined. Ordinary least square regressions are used for continuous governance changes and logit regressions are used for binary governance changes. The regressions also include country and year dummy variables and robust standard errors.

The third model then relates changes in corporate governance measures to changes in market value and firm performance.<sup>12</sup> Corporate governance improvements are expected to increase firm performance and value. Both current and lagged corporate governance changes are included in the model to account for the potentially contemporaneous and lagged effects of corporate governance changes on firm value and performance.

$$\Delta VOI_{it} = \alpha + \beta_1 \Delta CG_{it} + \beta_2 \Delta CG_{it-1} + \sum_{i=1}^n \delta_i \Delta CONTROL_{it} + \phi \Delta VOI_{it-1} + \varepsilon \quad (3)$$

Where  $\Delta VOI_{it}$  is the change in the variable of interest (Tobin's Q (TQ) is the proxy for firm value and ROA and GROWTH are the proxies for firm performance) during period t,  $\Delta CG_{it}$  is the change in the corporate governance measure (BIND, CCSPLIT, AC, NC, RC, ACIND and BOARD) during period t,  $\Delta CG_{it-1}$  is the change in the corporate governance measure during the previous period,  $\Delta CONTROL_{it}$  are changes

---

<sup>12</sup> Change analysis has the potential to overcome a weakness of cross-sectional studies (correlated omitted variable problems) by assuming that any undocumented factors determining these variables are constant over time.

in standard control variables including SIZE, leverage (LEV), CASH, WEDGE, BSIZE, and regression specific control variables including ROA, GROWTH and TQ during period  $t$ , and  $\Delta VOI_{t-1}$  is the change in the variable of interest during the previous period.<sup>13</sup> The regressions include fixed firm and period effects and robust standard errors.

## Results & Discussion

Table 3 presents the average board governance measures of sample companies in each country from 1998 to 2004. Panel A shows that board independence has increased for all countries since 1998, with the average company in Singapore having a majority independent board by 2004. Companies from Hong Kong and Malaysia have increased their board independence to over 30 percent on average, but Taiwan still has low levels of board independence. A total of 62 companies improved their board independence and 23 reduced their board independence over the period. Panel B shows how the separation of the positions of Chairman and CEO has evolved over the period. There is evidence of small upward and downward changes in the separation of the positions in Singapore and Taiwan, but only Malaysia and Hong Kong have seen an upward trend in the splitting of these two key positions over the period. In all, seven companies split the Chairman and CEO positions over the period and three combined the positions.

Panels C, D and E show the existence of audit, remuneration and nomination committees across the period. By 2004, nearly all companies had established audit committees, with the exception being companies from Taiwan.<sup>14</sup> Remuneration and nomination committees have become increasingly popular over the period, being most prolific in Singapore, Malaysia and then Hong Kong, and least prolific in Taiwan. Panel F shows changes in audit committee independence over the period. Most companies have either created majority independent audit committees or maintained majority independent audit committees since 1998, with the exception of Malaysia, where nine companies have reduced their audit committee independence. Singapore

---

<sup>13</sup> Proxies and controls identified from previous research: Yermack (1996), Joh (2000), Yeh, Lee and Woidtke (2001), Claessens et al. (2002), Lins (2003), Doidge et al. (2004), Brown and Caylor (2005), Larcker et al. (2005).

<sup>14</sup> Most companies in Taiwan report that their supervisors perform a similar function to an audit committee.

has seen a large upward trend in audit committee independence over the period.<sup>15</sup>

Panel G presents the results for the overall board governance score. This is computed as follows: one point for each independent director, one point for Chairman/CEO split and one point for each board committee (audit, nomination and remuneration). Overall, Singapore has seen the largest board governance improvements, followed by Hong Kong and Malaysia, and Taiwan has seen the least improvements. In total, 82 companies improved their board governance and three companies saw their board governance deteriorate between 1998 and 2004.<sup>16</sup>

Table 4 reports the determinants of board governance in 1998. This provides an anchor for the following analysis by indicating which types of companies already had strong board governance in 1998. The results indicate that bigger companies had higher board independence and stronger overall board governance, but were less likely to have established an audit committee. Family-owned companies had lower board independence, lower overall board governance and were less likely to have established an audit committee. The higher the cashflow rights of the largest shareholder the higher the independence of the audit committee. The greater the control/cashflow rights wedge of the largest shareholder the less likely the positions of Chairman and CEO were split. Bigger boards had lower board independence, were more likely to have the positions of Chairman and CEO split and had better overall board governance. No results were possible for nomination committees as only one company in the sample had a nomination committee in 1998. This preliminary analysis indicates that by 1998 larger companies had already established stronger board governance and that family-owned companies were already lagging behind.

Table 5 then relates changes in board governance measures over the sample period (1998-2004) to individual company characteristics. The table presents the difference and significance between the highest and lowest quintiles for SIZE, GROWTH, ROA, CASH and BSIZE. For the family ownership dummy variable (FAMILY), the difference is between family-owned and non-family owned companies. The results indicate that smaller companies were more likely to improve their audit committee independence. Faster growing companies were more likely to establish a

---

<sup>15</sup> This study hasn't presented changes in remuneration and nomination committee independence over the period as there have been few changes to report.

<sup>16</sup> The three companies that saw their overall board governance deteriorate from 1998-2004 saw a one point drop in their overall board governance score. This was due to a reduction in the number of independent directors or the combining of the positions of Chairman and CEO.

nomination committee and improve overall board governance. More profitable companies were more likely to create audit committees and improve audit committee independence. The higher the cashflow rights of the largest shareholder the less likely a remuneration committee would be established and overall board governance would be improved. Smaller boards were more likely to improve board independence and overall board governance. Family-owned companies were less likely to increase board independence, split the positions of Chairman and CEO, create nomination and remuneration committees and improve overall board governance.

Table 6 reports the results for the second model, which relates board governance changes to all company characteristics. The first regression shows that changes in board independence are positively related to firm size and negatively related to the cashflow ownership of the largest shareholder, family ownership, board size and prior level of board independence. The second regression finds that splitting of the positions of Chairman and CEO is negatively related to family ownership. The third regression shows that the creation of an audit committee is positively related to size and profitability and negatively related to board size. The fourth and fifth regressions find that the creation of nomination and remuneration committees are negatively related to family ownership. The sixth regression shows that changes in audit committee independence are negatively related to the cashflow ownership of the largest shareholder and the prior level of audit committee independence. The final regression shows that an improvement in overall board governance is positively related to firm size and growth and negatively related to the cashflow ownership of the largest shareholder, family ownership, board size and the prior level of board governance.

Overall, a number of conclusions can be drawn from these results. First, companies that started the period with worse board governance are catching up to those with better board governance practices. Therefore, it does appear that corporate governance codes have enticed the average firm to improve their board governance. Second, companies with large family shareholders started with worse board governance and were less likely to improve their board governance over the period. This could mean that family-owned companies are intentionally not improving their board governance to retain private benefits of control or that board governance is less important in family-owned companies because there are alternate mechanisms in place that satisfy shareholders. Nonetheless, it indicates that corporate governance

code recommendations have been least effective in improving board governance in family-owned companies. Third, faster growing companies with smaller boards and lower cashflow ownership were more likely to improve their overall board governance. Faster growing companies are more likely to need financing from external stakeholders, where improved board governance enhances transparency and credibility. Smaller boards may find it easier to agree on implementing board governance improvements than larger boards. Lower cashflow ownership indicates less concentrated ownership, which could mean less resistance from owners in implementing board governance changes.

The next stage relates changes in board governance measures to changes in firm value and operating performance. Table 7 reports the results for the model relating changes in Tobin's Q to changes in the board governance measures. After controlling for other factors affecting a change in the Tobin's Q ratio, a significant positive association is found between the creation of remuneration committees and firm value. Significant negative associations are found between increased audit committee independence and an improvement in overall board governance and firm value. This indicates that remuneration committees are created during a year of good stock market performance and that increased audit committee independence and improvements in overall board governance are undertaken during a year of poor stock market performance. Positive lagged relationships are found between the splitting of the position of Chairman/CEO and the creation of audit committees and firm value. This indicates that splitting the two key leadership positions and the creation of audit committees are followed by a period of share price growth.

Table 8 presents the results for the model relating changes in return on assets (ROA) to changes in the board governance measures. After controlling for other factors affecting a change in ROA, a significant negative relationship is found between the creation of audit committees and operating performance. This indicates that audit committees are more likely to be created during a year of poor operating performance. A positive lagged relationship is found between splitting of the positions of Chairman and CEO and improvements in overall board governance and operating performance. This indicates that improvements in board governance, especially the splitting of the Chairman/CEO position, are followed by a period of improved operating performance.

Table 9 reports the results for the model relating changes in sales growth to

changes in the board governance measures. After controlling for other factors affecting a change in growth, a significant positive relationship is found between the creation of remuneration committees and sales growth and a significant negative relationship is found between the creation of audit committees and sales growth. This indicates that remuneration committees are more likely to be created during a year of strong sales growth and audit committees are more likely to be created during a year of poor sales growth. A negative lagged relationship is found between audit committee independence and sales growth. This indicates that improvements in audit committee independence are followed by a period of lower sales growth.

Put together, the results of Tables 7-9 indicate the following. First, the splitting of the positions of Chairman and CEO has no immediate impact on performance or value but is associated with improved operating performance and increased firm value the following year. Second, audit committees are created during a year of poor operating performance and poor sales growth. The company then exhibits strong growth in market value the following year. Third, remuneration committees are created during years of strong growth and positive share price performance. Fourth, the independence of audit committees is improved during a period of poor stock market performance and is followed by a year of lower sales growth. Finally, overall board governance is more likely to be improved during a period of poor stock market performance and is followed by a year of improved operating performance.

A number of implications can be drawn from these results. First, even though all corporate governance codes recommend that the positions of Chairman and CEO be split, only 80 percent of companies in the sample have done so. Those that split the positions during the sample period have seen a positive effect on their performance and value. Hopefully, this will entice the others to follow suit. Two, companies seem to create board committees at opportunistic times. Remuneration committees are created during good times, possibly to validate an increase in compensation. Audit committees are created during poor times, possibly to convince shareholders that there are no irreversible problems. Third, improvements in overall board governance seem to have no immediate effect on firm value and performance, but are associated with improved operating performance the following period. Therefore, while there is no direct evidence that investors are willing to immediately pay more for companies that improve their board governance, companies that improve their board governance do seem to subsequently operate more efficiently and this may be rewarded with

increased market valuations.

### **Extensions**

Companies that are cross-listed on foreign exchanges may have adopted corporate governance mechanisms specified by the host exchange. A listing on a US exchange, for example, usually requires adoption of US governance practices, although some companies are given exemptions if such practices do not conform to their home market regulations. To determine whether cross-listed companies have been more likely to improve their board governance a dummy variable equal to one if the company is cross-listed on a foreign exchange (US or European) was added to models one and two. The results (unreported) show that there are no significant differences between cross-listed and non-cross-listed companies. This is consistent with Davis and Marquis (2005), who find that companies cross-listed in the US are unlikely to adopt US-style governance practices.

Large block shareholders may also play a role in corporate governance outcomes (Lins, 2003). The presence of a significant block shareholder could force companies to improve their governance practices. To control for this models one and two were rerun with a dummy variable equal to one if the company had at least one block shareholder with a holding of 5 percent or more. The results (unreported) were consistent with those reported earlier and the dummy variable was never significant. This indicates that block shareholders do not significantly influence the board governance practices of companies in East Asia.

### **Conclusions**

This paper examines which East Asian companies have improved their board-related corporate governance measures in the years since the Asian crisis and whether these improvements have been associated with better operating performance and increased market value. Unlike previous research, the focus of this study is on individual board governance measures and not a broad corporate governance index. While a broad corporate governance index is a wider measure of firm governance quality, it does not provide identifiable and actionable ways for companies to improve their corporate governance. This research provides East Asian companies with direct evidence as to whether there are benefits associated with improvements in specific board governance measures.

The results can be summarized as follows. By 1998, larger companies had already established stronger board governance and family-owned companies were already lagging behind. Over the period 1998 to 2004, companies from Hong Kong, Malaysia and Singapore, but not Taiwan, have been active in improving their board governance measures. After controlling for country and firm specific characteristics, family-owned companies were found less likely to improve their board independence, separate the positions of Chairman and CEO, and create nomination and remuneration committees. Overall, faster growing, non-family-owned companies with smaller boards and less concentrated ownership were more likely to improve their board governance.

While the results provide little evidence that improvements in individual board governance mechanisms are associated with immediate improvements in the value or performance of East Asian companies, several lagged relationships have been uncovered. Splitting of the positions of Chairman and CEO is associated with improved operating performance and increased firm value the following year. The creation of audit committees is associated with increased firm value the following year and improved overall board governance is associated with improved operating performance the following year. However, increased board independence and the creation of remuneration and nomination committees have no effect on value or performance.

There are a number of implications of these results. First, companies that started the period with worse board governance are catching up to those with better board governance practices. Therefore, it does appear that corporate governance codes have enticed the average firm to improve their board governance. However, there does seem to be cultural or institutional factors in Taiwan that are keeping Taiwanese companies from significantly improving their board governance. Second, companies with large family shareholders started with worse board governance and were less likely to improve their board governance over the period. This could mean that family-owned companies are intentionally not improving their board governance to retain private benefits of control or that board governance is less important in family-owned companies because there are alternate mechanisms in place that satisfy shareholders. Nonetheless, it indicates that corporate governance code recommendations have been less effective in improving board governance in family-owned companies.



Third, even though all corporate governance codes recommend that the positions of Chairman and CEO be split, only 80 percent of companies in the sample have done so. Those that split the positions during the sample period have seen a positive effect on their performance and value. Hopefully, this will entice the others to follow suit. Finally, improvements in overall board governance seem to have no immediate effect on the value and performance of East Asian companies, but are associated with improved operating performance the following period. Therefore, while there is no direct evidence that investors are willing to immediately pay more for companies that improve their board governance, East Asian companies that improve their board governance do seem to subsequently operate more efficiently and this may be rewarded with increased market valuations.

#### **Appendix A – Board-Related Corporate Governance Code Recommendations**

Board-related corporate governance code recommendations in each country at the end of 2004. Data sourced from corporate governance codes, listing requirements and other regulations for each country on the Asian Corporate Governance Association website. Board size and independence in Taiwan does not include supervisors.

	Hong Kong	Malaysia	Singapore	Taiwan
Board Independence	1/3	1/3	1/3	>=1 director
Chairman/CEO separation	Yes	Yes	Yes	Yes
Audit committee	Majority independent	Majority independent	Majority independent	Yes
Nomination committee	Yes	Majority independent	Majority independent	-
Remuneration committee	Yes	Yes	Majority independent	-

## References

- Anson, S. and E.F. Rodriguez (2005) "Wealth effects associated with the compliance with the code of best practice: the Spanish experience", SSRN working paper.
- Bai, C.E., Q. Liu, J. Lu, F.M. Song and J. Zhang (2005) "Corporate governance and market valuation in China" SSRN working paper.
- Black, B., H. Jang and W. Kim (2005a) "Predicting firms' corporate governance choices: Evidence from Korea", *Journal of Corporate Finance*, forthcoming.
- Black, B., W. Kim, H. Jang and K.S. Park (2005b) "Does corporate governance predict firms' market values? Time series evidence from Korea", SSRN working paper.
- Black, B., H. Jang and W. Kim (2006) "Does corporate governance predict firms' market values? Evidence from Korea", *Journal of Law, Economics & Organisation*, forthcoming.
- Brown, L. and M. Caylor (2005) "Corporate governance and firm performance", SSRN working paper.
- Campbell, J. (1996) "Understanding risk and return", *Journal of Political Economy*, 104, 298 - 345.
- Campos, C., R. Newell, and G. Wilson (2002) "Corporate governance develops in emerging markets." *McKinsey on Finance (Winter)*, 15-18.
- Chhaochhaira, V. and Y. Grinstein (2005) "Corporate governance and firm value: the impact of the 2002 governance rules", SSRN working paper.
- Claessens, S., S. Djankov, J. Fan & L. Lang (2002) "Disentangling the Incentive and Entrenchment Effects of Large Shareholdings" *Journal of Finance*, 57, 2741 - 2771.
- Claessens, S., S. Djankov and L. Lang (2000) "The separation of ownership and control in East Asian corporations", *Journal of Financial Economics*, 58, 81-112.
- Coombes, P. and M. Watson (2000) "Three surveys on corporate governance", *The McKinsey Quarterly*, 4, 74-77.
- Davis, G. and C. Marquis (2005) "The globalization of stock markets and convergence in corporate governance", SSRN working paper.
- Doidge, C., G.A. Karolyi and R. Stulz (2004) "Why do countries matter so much for corporate governance?", SSRN working paper.
- Durnev, A. and E. H. Kim (2005) "To steal or not to steal: firm attributes, legal environment, and valuation", *Journal of Finance*, 60, 1461 - 1493.
- Hermalin, B.E. and M. Weisbach (2003) "Boards of directors as an endogenously determined institution: A survey of the economic literature", *Economic Policy Review*, Federal Reserve Bank of New York, April issue, 7-26.
- Jain, P.K. and Z. Rezaee (2005) "The Sarbanes-Oxley Act of 2002 and security market behavior", SSRN working paper.
- Joh, S.W. (2000) "Control, ownership, and firm performance: The case of Korea", World Conference Econometric Society, Seattle.
- Johnson, S., P. Boone, A. Breach and E. Friedman (2000), "Corporate governance and the Asian financial crisis", *Journal of Financial Economics*, 58, 141 - 186.
- Klapper, L. and I. Love (2002), "Corporate governance, investor protection and performance in emerging markets", *World Bank Research Paper* 2818.
- Klein, A. (1998) "Firm performance and board committee structure", *Journal of Law and Economics*, 41, 275-299.
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. Vishny (2002), "Investor protection and corporate valuation", *Journal of Finance*, 57, 1147 - 1170.

- Larcker, D., S. Richardson and I. Tuna (2005) "How important is corporate governance?", SSRN working paper.
- Lehn, K., S. Patro and M. Zhao (2005) "Governance indices and valuation multiples: Which causes which?" SSRN working paper.
- Lemmon, M. and K. Lins (2003), "Ownership structure and firm value: Evidence from the East Asian financial crisis", *Journal of Finance*, 58, 1445 - 1468.
- Li, H., M. Pincus and S.O. Rego (2004) "Market reaction to events surrounding the Sarbanes-Oxley Act of 2002", SSRN working paper.
- Liang, N., and J. Li (1999) "Board structure and firm performance: New evidence from China's private firms", China Center for Economic Research working paper.
- Linck, J.S., J. Netter and T. Yang (2005) "Effects and unintended consequences of the Sarbanes-Oxley Act on corporate boards", SSRN working paper.
- Lins, K. (2003), "Equity ownership and firm value in emerging markets", *Journal of Financial and Quantitative Analysis*, 38, 159 - 85.
- Mak, Y.T. and Y. Kusnadi (2005) "Size really matters: Further evidence on the negative relationship between board size and firm value", *Pacific-Basin Finance Journal*, 13-3, 301-318.
- Mak, Y.T., J.M. Sequeira and M.C. Yeo (2003) "Stock market reactions to board appointments", SSRN working paper.
- Mitton, T. (2002), "A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis", *Journal of Financial Economics*, 64, 215 - 241.
- Nam, S.W., and I.C. Nam (2004) "Corporate governance in Asia" Asian Development Bank Institute publication.
- Palepu, K., T. Khanna and J. Kogan (2002) "Globalisation and similarities in corporate governance: A cross-country analysis", Harvard Business School working paper 02-041.
- Weir, C.M., D. Laing and P.J. McKnight (2002) "Internal and external governance mechanisms: their impact on the performance of large UK public companies", *Journal of Business Finance and Accounting*, 29, 579-611.
- Yeh, Y.H., T.S. Lee and T. Woidtke (2001) "Family control and corporate governance: Evidence for Taiwan," *International Review of Finance*, 2, 21-48.
- Yermack, D. (1996) "Higher valuation of companies with a small board of directors", *Journal of Financial Economics*, 40, 185-211.
- Zhang, I.X. (2005) "Economic consequences of the Sarbanes-Oxley Act of 2002", SSRN working paper.
- Zimmerman, J., I. Goncharov and J. Werner (2005) "Does compliance with the German corporate governance code have an impact on stock valuation? An empirical analysis", SSRN working paper.

**Table 1 – Descriptive Statistics**

**Panel A – Financial and Ownership Variables**

Descriptive statistics of sample companies for the year 2004. Total Assets are in billions of US dollars. Tobin's Q is calculated as total assets less the book value of equity plus the market value of equity all divided by total assets. ROA is return on assets. Growth is one year sales growth. Leverage is the ratio of debt to total assets. Board size is the number of directors on the board. Cash Rights is the percentage shareholding of the largest shareholder. Wedge is the ratio of control rights to cashflow rights of the largest shareholder (Claessens et al., 2000). ROA and Growth are percentages. Data sourced from Worldscope and company annual reports.

	Hong Kong					Malaysia					Singapore					Taiwan				
	Avg	Med	Min	Max	Std	Avg	Med	Min	Max	Std	Avg	Med	Min	Max	Std	Avg	Med	Min	Max	Std
<b>Total Assets</b>	10.90	5.98	0.64	81.81	16.24	2.08	1.14	0.32	9.86	2.27	2.26	0.83	0.09	21.48	4.38	4.57	3.90	1.06	15.66	3.34
<b>Tobin's Q</b>	1.72	1.20	0.69	5.37	1.14	1.80	1.49	0.79	8.12	1.43	1.62	1.57	0.70	3.07	0.59	1.38	1.32	0.87	2.55	0.35
<b>ROA</b>	8.98	6.76	-0.26	35.42	7.59	10.72	9.03	2.64	47.24	8.41	16.27	11.41	-0.18	152.34	26.56	9.88	8.44	-0.37	22.97	6.06
<b>Growth</b>	11.34	9.25	-3.94	44.31	11.20	12.49	10.00	-6.49	69.70	15.70	19.08	10.78	-25.24	163.93	36.73	13.44	7.64	-7.06	78.57	16.18
<b>Leverage</b>	0.21	0.20	0.00	0.66	0.16	0.22	0.19	0.00	0.65	0.17	0.18	0.17	0.00	0.41	0.13	0.26	0.27	0.02	0.51	0.14
<b>Board Size</b>	13.00	13.00	4.00	21.00	3.83	8.90	9.00	5.00	13.00	2.02	8.93	9.00	5.00	13.00	1.95	9.67	9.00	5.00	19.00	3.39
<b>Cash Rights</b>	0.44	0.38	0.20	0.76	0.17	0.44	0.43	0.09	0.76	0.17	0.42	0.45	0.05	0.87	0.22	0.16	0.11	0.02	0.56	0.15
<b>Wedge</b>	1.06	1.00	1.00	1.79	0.20	1.07	1.00	1.00	1.83	0.23	1.06	1.00	1.00	1.86	0.19	1.48	1.00	1.00	3.76	0.81

### Panel B – Largest Owners of Sample Companies

Breakdown of the largest shareholders of the sample companies in each country in 2004. The Shareholder column shows the percentage of sample companies' largest shareholders that are families, companies, governments or others (individuals or groups not associated with founding families). Holding includes the average percentage shareholding and the range of percentage shareholdings within these groups. Shareholdings are based on cashflow rights ownership, which is the percentage of outstanding shares held by the largest shareholder. Data sourced from company annual reports.

	Hong Kong		Malaysia		Singapore		Taiwan	
	Shareholder	Holding	Shareholder	Holding	Shareholder	Holding	Shareholder	Holding
<b>Family</b>	43%	44% (20 – 75%)	17%	44% (30 – 57%)	17%	38% (21 – 63%)	63%	17% (2 – 56%)
<b>Company</b>	33%	45% (29 – 67%)	53%	42% (9 – 72%)	33%	43% (5 – 87%)	17%	19% (4 – 45%)
<b>Government</b>	7%	76% (75 – 76%)	20%	55% (28 – 76%)	37%	48% (32 – 64%)	7%	30% (23 – 36%)
<b>Other</b>	17%	28% (20 – 37%)	10%	36% (12 – 54%)	13%	30% (19 – 58%)	13%	4% (2 – 6%)

**Table 2 – Industry Breakdown of Sample Companies**

Industry breakdown of sample companies in 2004. Within the financial sector banking, insurance and financial holding companies (SIC codes 60, 61, 62, 63, 64, 67) have been excluded, but land development and investment companies (SIC code 65) have been included. Industry codes sourced from Worldscope.

<b>Industry</b>	<b>Hong Kong</b>	<b>Malaysia</b>	<b>Singapore</b>	<b>Taiwan</b>	<b>Total</b>
Oil	0	1	1	0	<b>2</b>
Consumer Durables	2	3	10	10	<b>25</b>
Basic Industry	1	1	3	4	<b>9</b>
Food & Tobacco	2	6	1	2	<b>11</b>
Construction	1	3	0	3	<b>7</b>
Capital Goods	1	2	1	5	<b>9</b>
Transportation	2	2	4	3	<b>11</b>
Textiles & Trade	4	1	2	1	<b>8</b>
Services	0	1	3	1	<b>5</b>
Leisure	0	4	3	0	<b>7</b>
Utilities	7	5	2	1	<b>15</b>
Financial (land dev.)	10	1	0	0	<b>11</b>
<b>Total</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>120</b>

**Table 3 – Board Governance Measures 1998-2004****Panel A – Board Independence (BIND)**

Average proportion of independent directors on the board of directors of companies in each country. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

	1998	1999	2000	2001	2002	2003	2004	+	-
<b>Hong Kong</b>	0.28	0.28	0.29	0.29	0.31	0.31	0.33	16	13
<b>Malaysia</b>	0.33	0.33	0.33	0.33	0.36	0.39	0.41	24	4
<b>Singapore</b>	0.46	0.46	0.48	0.48	0.53	0.54	0.53	18	6
<b>Taiwan</b>	0.00	0.00	0.01	0.01	0.01	0.02	0.03	4	0

**Panel B – Chairman/CEO Separation (CCSPLIT)**

Proportion of companies in each country with the positions of Chairman and CEO separated. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

	1998	1999	2000	2001	2002	2003	2004	+	-
<b>Hong Kong</b>	0.67	0.67	0.67	0.63	0.63	0.77	0.80	4	0
<b>Malaysia</b>	0.73	0.73	0.73	0.73	0.83	0.83	0.80	2	0
<b>Singapore</b>	0.83	0.83	0.83	0.80	0.80	0.77	0.80	1	2
<b>Taiwan</b>	0.87	0.87	0.77	0.83	0.80	0.83	0.83	0	1

**Panel C – Audit Committee (AC)**

Proportion of companies in each country with an audit committee. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

	1998	1999	2000	2001	2002	2003	2004	+	-
<b>Hong Kong</b>	0.57	0.93	0.93	0.97	0.97	1.00	1.00	13	0
<b>Malaysia</b>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	0
<b>Singapore</b>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	0
<b>Taiwan</b>	0.00	0.00	0.00	0.00	0.03	0.07	0.07	2	0

**Panel D – Remuneration Committee (RC)**

Proportion of companies in each country with a remuneration committee. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

	1998	1999	2000	2001	2002	2003	2004	+	-
<b>Hong Kong</b>	0.10	0.10	0.13	0.17	0.17	0.40	0.53	13	0
<b>Malaysia</b>	0.10	0.10	0.23	0.50	0.63	0.63	0.63	16	0
<b>Singapore</b>	0.50	0.53	0.60	0.77	0.90	0.97	0.97	14	0
<b>Taiwan</b>	0.00	0.00	0.00	0.00	0.00	0.03	0.03	1	0

**Panel E – Nomination Committee (NC)**

Proportion of companies in each country with a nomination committee. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

	1998	1999	2000	2001	2002	2003	2004	+	-
<b>Hong Kong</b>	0.00	0.00	0.03	0.10	0.10	0.27	0.30	9	0
<b>Malaysia</b>	0.00	0.00	0.07	0.47	0.63	0.63	0.63	19	0
<b>Singapore</b>	0.03	0.03	0.07	0.37	0.83	0.97	0.97	28	0
<b>Taiwan</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0

**Panel F – Audit Committee Independence (ACIND)**

Average proportion of independent directors on the audit committees of companies in each country. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

	1998	1999	2000	2001	2002	2003	2004	+	-
<b>Hong Kong</b>	0.81	0.84	0.85	0.87	0.86	0.85	0.85	4	1
<b>Malaysia</b>	0.70	0.70	0.69	0.65	0.64	0.71	0.71	15	9
<b>Singapore</b>	0.79	0.79	0.79	0.82	0.89	0.92	0.92	16	0
<b>Taiwan</b>	n/a	n/a	n/a	n/a	0.75	0.75	0.75	0	0

**Panel G – Overall Board Governance (BOARD)**

Average overall board governance score of companies in each country. Includes one point for each independent director, Chairman/CEO split, and the existence of audit, remuneration and nomination committees. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

	1998	1999	2000	2001	2002	2003	2004	+	-
<b>Hong Kong</b>	4.73	5.10	5.33	5.50	5.63	6.20	6.63	22	1
<b>Malaysia</b>	4.73	4.73	4.97	5.70	6.43	6.60	6.67	27	1
<b>Singapore</b>	6.30	6.20	6.60	7.27	8.23	8.50	8.63	28	0
<b>Taiwan</b>	0.87	0.87	0.80	0.87	0.93	1.07	1.20	5	1



**Table 4 –Determinants of Board Governance in 1998**

Regressions relate board governance mechanisms - board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND), overall board governance score (BOARD) - in 1998 to the following variables – the natural logarithm of total assets in US dollars (SIZE), one year sales growth (GROWTH), return on assets (ROA), cashflow rights of largest shareholder (CASH), the squared cashflow rights of the largest shareholder (CASH2), control rights of largest shareholder divided by the cashflow rights of largest shareholder (WEDGE), dummy variable equal to one if the largest shareholder is a family group (FAMILY) and size of the board of directors (BSIZE). All continuous independent variables are adjusted by the country-year average. The regressions also include country dummies to control for cross-country differences in governance measures. OLS regressions were used for continuous dependent variables and logit models were used for binary dependent variables. Data sourced from Worldscope and company annual reports. As only one nomination committee existed in 1998, analysis is not possible.

	BIND	CCSPLIT	AC	NC	RC	ACIND	BOARD
c	0.2869 (0.00)	0.6256 (0.21)	0.8901 (0.01)	n/a	-3.0552 (0.00)	0.8564 (0.00)	4.8441 (0.00)
SIZE	0.0389 (0.00)	-0.0727 (0.73)	-0.1202 (0.54)	n/a	0.2746 (0.33)	0.0040 (0.84)	0.4503 (0.00)
GROWTH	-0.0005 (0.28)	0.0012 (0.93)	0.0010 (0.93)	n/a	0.0141 (0.33)	-0.0006 (0.64)	-0.0068 (0.29)
ROA	0.0002 (0.89)	0.0011 (0.97)	-0.0023 (0.93)	n/a	0.0035 (0.94)	-0.0027 (0.35)	0.0120 (0.44)
CASH	-0.0821 (0.14)	-2.1248 (0.23)	0.5252 (0.70)	n/a	-0.3749 (0.82)	0.3277 (0.02)	-0.2394 (0.75)
CASH2	0.3840 (0.10)	4.2350 (0.52)	7.9910 (0.22)	n/a	9.9889 (0.13)	-0.8260 (0.12)	3.5946 (0.26)
WEDGE	-0.0415 (0.84)	-1.8558 (0.00)	0.3703 (0.44)	n/a	-0.3528 (0.77)	0.0759 (0.50)	-0.4516 (0.12)
FAMILY	-0.0415 (0.05)	-0.0932 (0.87)	-1.5491 (0.00)	n/a	-0.9956 (0.28)	-0.0773 (0.17)	-0.5259 (0.06)
BSIZE	-0.0092 (0.01)	0.1644 (0.09)	0.1177 (0.12)	n/a	0.0871 (0.54)	0.0038 (0.70)	0.1164 (0.01)
Adj/Pseudo-R2	0.7776	0.1412	0.1159	n/a	0.2818	0.2149	0.7379

**Table 5 – Company Characteristics and Changes in Board Governance**

Companies sorted into quintiles based on adjusted company characteristics (SIZE, GROWTH, ROA, CASH and BSIZE). Variables are adjusted by the country-year average. Average change in board governance variable is then calculated for each quintile. Table presents the differences between the highest quintile (Q1) and the lowest quintile (Q5). As FAMILY is a dummy variable the difference is between family-owned and non-family-owned companies. P-values are presented in parentheses. Board governance variables include changes in board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND) and overall board governance score (BOARD) over the period 1998-2004. Adjusted company characteristics are the natural logarithm of total assets in US dollars (SIZE), one year sales growth (GROWTH), return on assets (ROA), cashflow rights of largest shareholder (CASH), a dummy variable equal to one if the largest shareholder is a family group (FAMILY) and size of the board of directors (BSIZE). Data sourced from Worldscope and company annual reports.

Characteristic		$\Delta$ BIND	$\Delta$ CCSPLIT	$\Delta$ AC	$\Delta$ NC	$\Delta$ RC	$\Delta$ ACIND	$\Delta$ BOARD
SIZE <sub>t-1</sub>	High – low p-value	0.0005 (0.95)	0.0000 (1.00)	0.0069 (0.72)	-0.0139 (0.63)	-0.0139 (0.59)	-0.0239 (0.09)	0.0764 (0.51)
GROWTH <sub>t-1</sub>	High – low p-value	0.0076 (0.18)	-0.0069 (0.77)	0.0208 (0.26)	0.0625 (0.02)	0.0278 (0.25)	0.0153 (0.37)	0.2014 (0.02)
ROA <sub>t-1</sub>	High – low p-value	0.0083 (0.15)	0.0000 (1.00)	0.0278 (0.05)	0.0208 (0.59)	0.0000 (0.83)	0.0286 (0.06)	0.1319 (0.18)
CASH <sub>t-1</sub>	High – low p-value	-0.0057 (0.28)	0.0208 (0.18)	-0.0139 (0.31)	-0.0347 (0.28)	-0.0625 (0.05)	-0.0163 (0.22)	-0.1875 (0.04)
FAMILY <sub>t-1</sub>	Yes – No p-value	-0.0069 (0.04)	-0.0207 (0.05)	0.0036 (0.75)	-0.0732 (0.00)	-0.0472 (0.00)	0.0072 (0.53)	-0.2180 (0.00)
BSIZE <sub>t-1</sub>	High – low p-value	-0.0143 (0.02)	-0.0208 (0.32)	-0.0208 (0.30)	-0.0069 (0.78)	0.0208 (0.41)	-0.0097 (0.57)	-0.2431 (0.01)

**Table 6 – Regressions of Changes in Board Governance on Company Characteristics**

Regressions relate changes in board governance mechanisms - board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND) and the overall board governance score (BOARD) - over the period 1998-2004 to the following adjusted lagged variables – the natural logarithm of total assets in US dollars (SIZE), one year sales growth (GROWTH), return on assets (ROA), cashflow rights of largest shareholder (CASH), the squared cashflow rights of the largest shareholder (CASH2), control rights of largest shareholder divided by the cashflow rights of largest shareholder (WEDGE), a dummy variable equal to one if the largest shareholder is a family group (FAMILY), size of the board of directors (BSIZE) and the lagged level of the dependent variable. All continuous independent variables are adjusted by the country-year average. Regressions also include country and year dummy variables. OLS regressions were used for continuous dependent variables and logit models were used for binary dependent variables. Regressions include White standard error correction. Data sourced from Worldscope and company annual reports.

	$\Delta$ BIND	$\Delta$ CCSPLIT	$\Delta$ AC	$\Delta$ NC	$\Delta$ RC	$\Delta$ ACIND	$\Delta$ BOARD
c	0.0430 (0.00)	-1.1299 (0.10)	-3.7453 (0.00)	-3.4107 (0.00)	-2.2325 (0.00)	0.2354 (0.00)	1.020 (0.00)
SIZE <sub>t-1</sub>	0.0069 (0.02)	-0.0375 (0.87)	0.4375 (0.08)	-0.0864 (0.55)	-0.0421 (0.79)	-0.0005 (0.86)	0.1401 (0.00)
GROWTH <sub>t-1</sub>	0.0000 (0.36)	0.0002 (0.99)	-0.0002 (0.80)	0.0003 (0.86)	0.0000 (0.97)	0.0000 (0.47)	0.0004 (0.00)
ROA <sub>t-1</sub>	0.0002 (0.43)	-0.0100 (0.71)	0.0399 (0.07)	-0.0196 (0.35)	-0.0091 (0.64)	0.0000 (0.95)	0.0009 (0.81)
CASH <sub>t-1</sub>	-0.0353 (0.04)	0.9755 (0.48)	-3.6411 (0.11)	-0.8750 (0.25)	-1.5768 (0.12)	-0.0415 (0.01)	-0.7565 (0.04)
CASH2 <sub>t-1</sub>	0.0936 (0.26)	-6.8639 (0.28)	-14.4057 (0.19)	1.8737 (0.59)	-5.2080 (0.28)	0.1468 (0.12)	1.7343 (0.21)
WEDGE <sub>t-1</sub>	-0.0006 (0.67)	0.3244 (0.57)	-1.2204 (0.40)	0.1089 (0.82)	0.0571 (0.93)	-0.0155 (0.38)	-0.0542 (0.36)
FAMILY <sub>t-1</sub>	-0.0094 (0.03)	-0.9291 (0.10)	0.3586 (0.52)	-0.8156 (0.05)	-0.6686 (0.10)	-0.0018 (0.91)	-0.2111 (0.00)
BSIZE <sub>t-1</sub>	-0.0025 (0.00)	-0.1155 (0.28)	-0.2420 (0.04)	-0.0700 (0.34)	0.0178 (0.80)	-0.0006 (0.75)	-0.0253 (0.00)
Lagged level of dependent variable	-0.1171 (0.00)	n/a	n/a	n/a	n/a	-0.2711 (0.00)	-0.1214 (0.00)
Adj/Psuedo-R2	0.0785	0.0483	0.0994	0.1087	0.0828	0.1755	0.1200

**Table 7 – Changes in Board Governance Measures Related to Changes in Value (TQ)**

Regressions relate changes in Tobin's Q (TQ) over the period 1998-2004 to changes in the following variables – board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND), overall board governance score (BOARD), natural logarithm of total assets in US dollars (SIZE), one year sales growth (GROWTH), return on assets (ROA), leverage (LEV), cashflow rights of largest shareholder (CASH), control rights of largest shareholder divided by the cashflow rights of largest shareholder (WEDGE), size of the board of directors (BSIZE) and the lagged dependent variable. The regressions include fixed cross-sectional and period effects and White standard error correction. Data sourced from Worldscope and company annual reports.

	$\Delta TQ$	$\Delta TQ$	$\Delta TQ$	$\Delta TQ$	$\Delta TQ$	$\Delta TQ$	$\Delta TQ$
<i>Where:</i>	$(\Delta CG = \Delta BIND)$	$(\Delta CG = \Delta CCSPLIT)$	$(\Delta CG = \Delta AC)$	$(\Delta CG = \Delta NC)$	$(\Delta CG = \Delta RC)$	$(\Delta CG = \Delta ACIND)$	$(\Delta CG = \Delta BOARD)$
c	-0.0482 (0.03)	-0.0572 (0.00)	-0.0625 (0.00)	-0.0368 (0.28)	-0.0596 (0.00)	0.0199 (0.12)	-0.0439 (0.10)
$\Delta CG$	-0.3482 (0.14)	0.0695 (0.73)	0.1847 (0.43)	-0.1412 (0.23)	0.0661 (0.03)	-0.4208 (0.10)	-0.0261 (0.04)
$\Delta CG_{t-1}$	-0.2020 (0.70)	0.1573 (0.08)	0.2071 (0.00)	-0.0371 (0.79)	-0.0099 (0.94)	-0.0684 (0.53)	-0.0059 (0.88)
$\Delta SIZE$	-0.5204 (0.01)	-0.4996 (0.01)	-0.5006 (0.01)	-0.5282 (0.01)	-0.5038 (0.01)	-0.5094 (0.00)	0.5259 (0.01)
$\Delta GROWTH$	0.0010 (0.00)	0.0010 (0.00)	0.0011 (0.00)	0.0010 (0.00)	0.0010 (0.00)	0.0015 (0.00)	0.0011 (0.00)
$\Delta ROA$	-0.0040 (0.46)	-0.0040 (0.45)	-0.0042 (0.43)	-0.0038 (0.47)	-0.0040 (0.46)	-0.0010 (0.81)	-0.0039 (0.47)
$\Delta LEV$	-0.4029 (0.00)	-0.4326 (0.00)	-0.4314 (0.00)	-0.3844 (0.01)	-0.4364 (0.00)	-0.2957 (0.14)	-0.3798 (0.00)
$\Delta CASH$	-0.3784 (0.61)	-0.3070 (0.66)	-0.3931 (0.58)	-0.3681 (0.62)	-0.3613 (0.62)	-0.6708 (0.39)	-0.3768 (0.61)
$\Delta WEDGE$	-0.2314 (0.34)	-0.2377 (0.32)	-0.2336 (0.34)	-0.2478 (0.29)	-0.2296 (0.34)	-0.0356 (0.97)	-0.2394 (0.30)
$\Delta BSIZE$	0.0195 (0.15)	0.0188 (0.18)	0.0200 (0.15)	0.0202 (0.16)	0.0182 (0.22)	0.0113 (0.26)	0.0275 (0.05)
$\Delta TQ_{t-1}$	-0.3799 (0.00)	-0.3829 (0.00)	-0.3795 (0.00)	-0.3813 (0.00)	-0.3807 (0.00)	-0.2470 (0.00)	-0.3800 (0.00)
Adj-R2	0.4917	0.4924	0.4931	0.4937	0.4917	0.4603	0.4918

**Table 8 – Changes in Board Governance Measures Related to Changes in Performance (ROA)**

Regressions relate changes in return on assets (ROA) over the period 1998-2004 to changes in the following variables – board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND), overall board governance score (BOARD), natural logarithm of total assets in US dollars (SIZE), one year sales growth (GROWTH), leverage (LEV), cashflow rights of largest shareholder (CASH), control rights of largest shareholder divided by the cashflow rights of largest shareholder (WEDGE), size of the board of directors (BSIZE) and the lagged dependent variable. The regressions include fixed cross-sectional and period effects and White standard error correction. Data sourced from Worldscope and company annual reports.

	$\Delta ROA$	$\Delta ROA$	$\Delta ROA$	$\Delta ROA$	$\Delta ROA$	$\Delta ROA$	$\Delta ROA$
<i>Where:</i>	$(\Delta CG = \Delta BIND)$	$(\Delta CG = \Delta CCSPLIT)$	$(\Delta CG = \Delta AC)$	$(\Delta CG = \Delta NC)$	$(\Delta CG = \Delta RC)$	$(\Delta CG = \Delta ACIND)$	$(\Delta CG = \Delta BOARD)$
c	-1.7649 (0.00)	-1.8553 (0.00)	-1.7798 (0.00)	-1.9344 (0.00)	-1.9538 (0.00)	-1.1493 (0.18)	-2.0791 (0.00)
$\Delta CG$	-3.9546 (0.52)	-0.2434 (0.86)	-8.7562 (0.00)	0.3776 (0.79)	0.9773 (0.12)	1.0743 (0.46)	0.1859 (0.64)
$\Delta CG_{t-1}$	-3.0133 (0.72)	1.7176 (0.05)	0.7979 (0.64)	0.5553 (0.32)	0.4410 (0.74)	1.1855 (0.62)	0.5556 (0.06)
$\Delta SIZE$	20.3722 (0.00)	20.5406 (0.00)	20.2382 (0.00)	20.5606 (0.00)	20.5904 (0.00)	18.3917 (0.07)	20.6907 (0.00)
$\Delta GROWTH$	0.0327 (0.00)	0.0325 (0.00)	0.0318 (0.00)	0.0326 (0.00)	0.0325 (0.00)	0.0297 (0.00)	0.0327 (0.00)
$\Delta LEV$	-28.4024 (0.00)	-28.7780 (0.00)	-28.4552 (0.00)	-28.4329 (0.00)	-28.7167 (0.00)	-28.4689 (0.04)	-28.1551 (0.00)
$\Delta CASH$	-3.9452 (0.45)	-3.4531 (0.48)	-2.6859 (0.58)	-3.5661 (0.48)	-3.7759 (0.44)	-2.6257 (0.65)	-3.7902 (0.44)
$\Delta WEDGE$	-11.7218 (0.09)	-11.8093 (0.08)	-11.7237 (0.09)	-11.7898 (0.08)	-11.8294 (0.07)	-59.8712 (0.25)	-12.0674 (0.07)
$\Delta BSIZE$	0.4556 (0.23)	0.4578 (0.24)	0.4671 (0.22)	0.4419 (0.23)	0.4316 (0.26)	0.1940 (0.44)	0.4287 (0.08)
$\Delta ROA_{t-1}$	-0.3650 (0.00)	-0.3653 (0.00)	-0.3702 (0.00)	-0.3652 (0.00)	-0.3658 (0.00)	-0.3510 (0.00)	-0.3631 (0.00)
Adj-R2	0.5810	0.5815	0.5850	0.5808	0.5811	0.5465	0.5822

**Table 9 – Changes in Board Governance Measures Related to Changes in Sales Growth (GROWTH)**

Regressions relate changes in sales growth (GROWTH) over the period 1998-2004 to changes in the following variables – board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND), overall board governance score (BOARD), natural logarithm of total assets in US dollars (SIZE), return on assets (ROA), leverage (LEV), cashflow rights of largest shareholder (CASH), control rights of largest shareholder divided by the cashflow rights of largest shareholder (WEDGE), size of the board of directors (BSIZE) and the lagged dependent variable. The regressions include fixed cross-sectional and period effects and White standard error correction. Data sourced from Worldscope and company annual reports.

	$\Delta$ GROWTH	$\Delta$ GROWTH	$\Delta$ GROWTH	$\Delta$ GROWTH	$\Delta$ GROWTH	$\Delta$ GROWTH	$\Delta$ GROWTH
<i>Where:</i>	$(\Delta CG = \Delta BIND)$	$(\Delta CG = \Delta CCSPLIT)$	$(\Delta CG = \Delta AC)$	$(\Delta CG = \Delta NC)$	$(\Delta CG = \Delta RC)$	$(\Delta CG = \Delta ACIND)$	$(\Delta CG = \Delta BOARD)$
c	-10.4321 (0.20)	-11.2281 (0.10)	-8.5246 (0.22)	-13.4857 (0.02)	-14.3372 (0.02)	-3.9776 (0.38)	-12.4244 (0.04)
$\Delta$ CG	36.1544 (0.42)	53.9810 (0.14)	-89.8219 (0.00)	21.1342 (0.17)	31.8109 (0.08)	1.5177 (0.95)	10.1965 (0.15)
$\Delta$ CG <sub>t-1</sub>	-9.5989 (0.80)	57.1208 (0.17)	-26.7682 (0.11)	11.4424 (0.47)	21.6481 (0.26)	-56.3905 (0.01)	-3.6293 (0.62)
$\Delta$ SIZE	48.3511 (0.54)	52.9820 (0.47)	45.3954 (0.55)	52.4141 (0.48)	52.4608 (0.49)	-43.1716 (0.45)	53.0578 (0.48)
$\Delta$ ROA	4.2267 (0.00)	4.1219 (0.00)	4.1854 (0.00)	4.1711 (0.00)	4.1417 (0.00)	4.2707 (0.00)	4.1985 (0.00)
$\Delta$ LEV	-140.8186 (0.01)	-142.5676 (0.01)	-135.9507 (0.01)	-140.9227 (0.01)	-144.6314 (0.00)	-115.9720 (0.18)	-154.9893 (0.00)
$\Delta$ CASH	74.3717 (0.34)	82.2454 (0.25)	82.7507 (0.29)	75.0605 (0.31)	66.2018 (0.40)	78.1238 (0.26)	81.8150 (0.27)
$\Delta$ WEDGE	30.8381 (0.60)	30.2173 (0.60)	31.4033 (0.58)	33.0019 (0.54)	27.5386 (0.60)	103.9809 (0.64)	37.3175 (0.47)
$\Delta$ BSIZE	-5.6276 (0.20)	-5.8958 (0.16)	-5.5357 (0.17)	-5.7726 (0.18)	-6.1191 (0.15)	-5.2328 (0.32)	-9.2404 (0.05)
$\Delta$ GROWTH <sub>t-1</sub>	-0.3199 (0.14)	-0.3228 (0.13)	-0.3199 (0.15)	-0.3223 (0.14)	-0.3224 (0.14)	-0.3020 (0.18)	-0.3200 (0.14)
Adj-R2	0.6262	0.6327	0.6288	0.6276	0.6295	0.6266	0.6297