

CORPORATE GOVERNANCE AND INSTITUTIONAL INVESTORS: EVIDENCE FROM MALAYSIA

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ABSTRACT

In 2001, Malaysia undertook important corporate governance reforms, which saw the integration of the Malaysian Code on Corporate Governance (MCCG) into Kuala Lumpur Stock Exchange (KLSE) Listing Rules and the establishment of the Minority Shareholder Watchdog Group (MSWG), which aims to enhance institutional investor activism. Following this development, this study investigates the relationship between corporate governance and institutional ownership in Malaysia. Our panel analysis of 434 firms listed on Bursa Malaysia during 1999–2002 finds that institutional ownership is positively and significantly related to corporate governance. However, we find that the relationship becomes less positive after 2001, suggesting that the monitoring effects of institutional ownership and corporate governance arise simultaneously and endogenously.

Keywords: institutional investors, corporate governance, corporate governance reform, MCCG, minority shareholders watchdog group

INTRODUCTION

Corporate governance is known to be an important determinant for institutional investment (Bushee, Carter & Gerakos, 2007). In addition, corporate governance has also been a component of institutional investors' reform initiatives (Karpoff, 2001, for review). Extant literature documents that institutional investors are successful in improving firms' corporate governance. For institutional investors who demand good corporate governance, an alternative approach is simply to invest in firms with existing good governance mechanisms and to avoid firms with poor governance. However, little is known on whether governance mechanisms play an important role in institutional investment (Claessens & Fan, 2002; Bushee et al., 2007).

In 2001, Malaysia's capital market experienced two events regarding corporate governance reform. The first was the introduction of the Malaysia Code on Corporate Governance (MCCG) as part of the Kuala Lumpur Stock Exchange (KLSE) Listing Rules, and the second was the establishment of the Minority Shareholder Watchdog Group (MSWG), a watchdog group primarily set up to enhance shareholder activism by institutional investors. The establishment of the corporate governance code has proven successful in improving corporate governance practices in Malaysian firms (Abdul Wahab, How & Verhoeven, 2007). Furthermore, one could argue that the introduction of MSWG could stimulate the monitoring role of institutional investors, especially the firms' corporate governance structures. Thus, the premise of this paper is a modest one. We want to examine the relationship between corporate governance and institutional ownership in Malaysia leading up to and following the 2001 reforms.

Our study contributes to the extant literature in several ways. We fill the gap by examining a firm-specific variable that influences the relationship between corporate governance and institutional investors and thus gives a better understanding of the research problem (Miller, 2004). In addition, the events that took place in 2001 provide an opportunity to examine the impact of governance action taken by a government to enhance investors' confidence.

Our evidence suggests a positive and significant relationship between institutional ownership and corporate governance. We find that on average, a one-standard-deviation increase in corporate governance will result in a 9 percent increase in institutional ownership. However, the relationship becomes less positive after the corporate governance reforms in 2001. These results provide support for the hypothesis that corporate governance influences institutional ownership. A possible explanation for the less positive relationship is that monitoring by both institutional investors and corporate governance arises simultaneously and endogenously after 2001. Theoretical research suggests that institutional investors and corporate governance could co-exist because of a needed interaction between the monitoring of managers and the adoption of 'appropriate' corporate governance structures (Hartzell & Starks, 2002).

Cornett et al. (2007) and Gompers, Ishii and Metrick (2003) show such interrelations, where the monitoring is by institutional investors and corporate governance, respectively. While monitoring by institutional investors can be beneficial (Shleifer & Vishny, 1986), it can also be costly. Free rider problems (Grossman & Hart, 1988) and liquidity issues (Maug, 1998) might arise. Similarly, the establishment of numerous corporate governance mechanisms imposes a cost to firms through reductions in future cash flows (Graves & Waddock, 1994). These cost-benefit considerations imply that the two

mechanisms, corporate governance and institutional ownership, would be employed in concert by many firms.

A unique characteristic of Malaysia that we also examine in this study is the country's large number of politically connected firms (Faccio, Masulis & McConnell, 2006).¹ This is driven mainly by the political scene in Malaysia, which is dominated by the National Front (Barisan Nasional) coalition. The National Front is in turn dominated by the United Malay National Organisation (UMNO), which has a 100 percent Bumiputera membership. This has an effect on how Malaysian firms are being run externally (based on political intervention) and internally (based on ethnicity). We find evidence to support the notion that political connection is an important determinant for institutional ownership. Our finding suggests that institutional investors are used to reduce the equity imbalance among races in Malaysia, highlighted by the introduction of New Economic Policy (NEP).

INSTITUTIONAL BACKGROUND

Institutional Investors

As of 2002, the total institutional shareholdings in Malaysia stood at about 13% of the total market capitalisation of Bursa Malaysia. This is a primary consequence of the 1970 NEP, which uses Malaysia's institutional investors as a tool to reduce equity ownership imbalance between the various ethnic groups through increasing Bumiputera equity ownership in the capital market (Gomez & Jomo, 1999; Tan, 2004).

The five largest public institutional investors, all members of MSWG, are two pension funds [Employees Provident Fund (EPF) and Lembaga Tabung Angkatan Tentera (LTAT)], an investment fund [Permodalan Nasional Berhad (PNB)], Lembaga Tabung Haji and an insurance company [National Social Security Organisation of Malaysia (PERKESO)]. Collectively, their shareholdings represent about 70 percent of total institutional shareholdings in firms listed on Bursa Malaysia's Main Board.

The Board and Investment Panel of Malaysia's major institutional investors are appointed by and report directly to the Ministry of Finance, with Bumiputeras typically holding the position of the Chair of the Board (Asher,

¹ Faccio et al. (2006) document that from 1997 to 2002, the number of politically connected firms in Malaysia was 81, second to 118 firms for the United Kingdom. Please refer to Appendix B for a complete list of politically connected firms.

2001; Norhashim & Abdul Aziz, 2005).² Coupled with the government's development goals, this seriously constrains the investment choices of Malaysia's public institutional investors (Thillainathan, 2000), which are heavily biased towards Bumiputera-run corporations (Norhashim & Abdul Aziz, 2005).

Malaysian Code on Corporate Governance

In 2001, the MCCG became an integral part of the (revamped) KLSE Listing Rules, requiring all firms to disclose the "*extent of compliance*" with the MCCG. Although compliance with *best practices* is voluntary, firms are required to state in their annual reports the extent of their compliance with an explanation for any departure. The MCCG follows the United Kingdom (UK) code, adapting the internal governance structures contained in the Code of Best Practices of the Cadbury report (1992) to suit the Malaysian context.³

The MCCG has two primary objectives. The first objective is to encourage corporate disclosure by providing investors with timely and relevant information upon which sound investment decisions can be made. The second objective is to serve as a guide to firms' boards of directors by clarifying their responsibilities and providing prescriptions to strengthen their control (MCCG, Part 1, paragraph 1.8). The MCCG also sets out myriad recommendations directed mainly at the boards of all listed firms on the KLSE. These recommendations are divided into four parts, with the first part encapsulating the *broad principles* of good corporate governance in Malaysia.

The second part sets out the *best practices* by identifying guidelines and practices in assisting firms to design and incorporate better corporate governance in their structures and processes. Part 3 consists of *exhortations to other participants* in the market, namely, investors and auditors. It briefly discusses their voluntary role and participation in enhancing the overall governance. The final part of the MCCG provides *explanatory notes and best practices*, further clarifying the extent and preferred modes of action recommended by the MCCG.

² For EPF, the investment panel is comprised of a Chairman, a representative of the Ministry of Finance, a representative of the Central bank and three individuals with expertise in finance and investment.

³ The Cadbury Report, titled *Financial Aspects of Corporate Governance*, is a report by Sir Adrian Cadbury that sets out recommendations for the arrangement of company boards and accounting systems to mitigate corporate governance risks and failures.

HYPOTHESES DEVELOPMENT

Due to the size of their investment, institutional investors are attracted to firms with good corporate governance. To the extent that corporate social disclosure is a reflection of accountability and transparency that broadens the scope of management responsibility, the literature supports a positive association between corporate governance and institutional ownership.⁴ For example, Bushee and Noe (2000) provide three important reasons for why corporate disclosure, as a dimension of corporate governance, may be an important determinant of institutional ownership. First, institutional investors may be attracted to firms with higher information disclosure if such disclosure reduces the price impact of trades. Second, institutional investors may be sensitive to corporate disclosure practices if such disclosures influence the potential for profitable trading opportunities. Third, corporate disclosure practices may be important to institutions if they rely on public disclosure for corporate governance activities.

In Graves and Waddock (1994), institutional investors perceive firms with better governance, measured by increased corporate social performance, as having lower risk. Institutional investors will invest more in firms of equal size but with better governance, earning them the same return at a lower cost. Additionally, Johnson and Greening (1999) find that pension fund ownership is positively associated with corporate social performance. They argue that the remuneration of pension fund managers is not tied to the performance of the firm, making them insensitive to short-term pressures. Similar findings are reported by Bushee and Noe (2000), who find that firms that provide more disclosure have greater institutional ownership.

Li et al. (2006) argue that the macro corporate governance environment is important in determining institutional investors' equity positions. They argue institutional monitoring should thrive where, for instance, strong shareholder rights and extensive disclosure requirements improve their ability to publicly challenge or privately pressure self-serving managers. Based on the abovementioned arguments, stated in the alternative form, the first hypothesis is as follows:

⁴ This is consistent with the view adopted by FCCG, which defines corporate governance as "...the process and structure used to direct and manage the business and affairs of the company towards enhancing business prosperity and corporate accountability with the ultimate objective of realising long-term shareholder value, whilst taking into account the interest of other stakeholders...." (FCCG, 2000, p. 52).

H₁: There is a positive relationship between corporate governance (CGOV) and institutional ownership (INSTOWN)

Graves and Waddock (1994) and Johnson and Greening (1999) find that institutional investors are positively and significantly related to firms with high levels of corporate social disclosure, suggesting that they are attracted to well-governed firms. Further evidence by Bushee et al. (2007) shows that institutional investors are 'sensitive' to firms with good governance. Based on ownership data of 19,883 non-financial firms from 45 countries, Li et al. (2006) find that differences in macro governance characteristics substantially explain cross-country variations in institutional ownership concentration.⁵

As previously stated, the year 2001 saw corporate governance reform in which MCGG became a part of the KLSE Listing Rules and MSWG was established. An obvious effect is the increase in the level of compliance required by corporate governance rules (Coglianese et al., 2004). Furthermore, past research has shown us that corporate governance may improve firm performance. Numerous studies (Gompers et al., 2003; Bebchuk, Cohen & Ferrell, 2004; Brown & Caylor, 2006) find a positive relationship between corporate governance and firm performance. On the other hand, institutional investors have the resources and expertise to promote shareholder activism (Shleifer & Vishny, 1997). Jennings (2005) further argues that institutional investors' size and presence could promote good governance.

Therefore, corporate governance reform in Malaysia could well catalyse the monitoring roles of both institutional investors and corporate governance. The arguments presented above suggest that the two monitoring agents (institutional ownership and corporate governance) could arise simultaneously. Since MCGG promotes good governance and MSWG enhances shareholder activism by institutional investors, their relationship after 2001 is ambiguous. Based on the above arguments, we posit the following hypothesis, stated in the alternative form:

H₂: There is a less positive relationship between corporate governance (CGOV) and institutional ownership (INSTOWN) after 2001.

Evidence suggests that mandatory or 'comply-or-explain' applications of corporate governance have been successful. Abdul Wahab et al. (2007) document

⁵ Li et al.'s (2006) macro governance variables are (i) anti-director index based on Pagano and Volpin (2005), (ii) multiple-class firms, (iii) enforcement index from Kaufmann, Kraay and Mastruzzi (2003), (iv) WEF minority right and disclosure, and (v) corporate and governance disclosure index based on Bushman, Piotroski and Smith (2004).

the introduction of MCGG improves firms' corporate governance mechanisms. They further document the improvement realised by investors in the form of increases in firm performance. In a similar vein, Kouwenberg (2006) finds that the establishment of corporate governance codes for Thailand-listed firms have proven successful in improving firms' governance structures.

The above hypothesis, however, assumes that institutional investors are homogenous with regard to objectives, the nature of business or relationships with their investees. In reality, institutional investors differ in various matters. Institutional investors differ in size, in which some institutional investors are large, mainly due to the amount of contributors, and the nature of the institutions themselves. In the sense, pension funds around the world are large in size. Furthermore, their size can be a factor in influencing the firms' management (Jennings, 2005).

Institutional investors do differ from one another in terms of the rules and regulations governing them. As highlighted by Thillainathan (2000), EPF investments still heavily emphasise government bonds and regulation restrictions on overseas investments. Institutional investors such as insurance firms, banks and other financial institutions do need to keep a high level of cash in their funds. As such, they are usually required to generate quick returns as opposed to long-term investments, which yield low returns over the long run. These mitigating factors thus influence how the institutional investors form a relationship with their investees.

A business relationship best illustrates how efficient or effective institutional investors monitor. A relationship that yields no pressure on investors to abide by positions taken by the firms' managements is best suited for monitoring.⁶ We argue that any form of relationship between the institutional investors and the firms will undermine the potential monitoring effectiveness of the institutional investors. Furthermore, these institutions are not subject to quick returns generated by their contributors.

DATA AND RESEARCH METHODS

This study is based on a sample of 434 companies listed on the Main Board of Bursa Malaysia from 1999 to 2002. Data on institutional ownership and corporate governance variables were hand-collected from annual reports available on the

⁶ We could not determine the exact nature of the business relationship between the firm and institutional investors. Our method is consistent with those of Brickley, Lease and Clifford (1988), Chaganti and Damanpour (1991) and Cornett et al. (2007), which only assume that such a relationship exists between the institutional investors and the firms.

Bursa Malaysia website (www.bursamalaysia.com) and Mergent Online databases. Other information was extracted from DataStream and Institutional Broker's Estimate System (I/B/E/S) databases. This study uses period seemingly unrelated regressions (SUR) to handle both heteroscedasticity and contemporaneous correlations in each cross-section. We posit the following panel regression analysis, with the experimental variables in bold:

$$\begin{aligned} INSTOWN_{it} = & a_0 + a_1CGOV_{it} + a_2ROR_MADJ_{it} + a_3REFORM_{it} + \\ & a_4CGOV_{it} * \mathbf{REFORM}_{it} + a_5POLITIC_{it} + a_6DYIELD_{it} + \\ & a_7NUMEST_{it} + a_8TURNOVER_{it} + a_9FIRM RISK_{it} + \\ & a_{10}MANOWN_{it} + a_{11}MKTRISK_{it} + a_{12}LNASSETS_{it} + \\ & a_{13}DEBT_{it} + a_{14}INDUSTRIES_{it} + e_{it} \end{aligned}$$

Experimental Variables

The main dependent variable in this study is institutional ownership (*INSTOWN*) which is the total percentage made up of the top 5 institutional investors. Our measure is consistent with other institutional ownership studies (Hartzell & Starks, 2002; Cornett et al., 2007). Consistent with the extant literature (Brickley et al., 1988; Chaganti & Damanpour, 1991; Cornett et al., 2007), we devised variables that separate the investors according to their business relationships with the firms. We classify institutional investors that do not have any business relationship with the firms as pressure-insensitive investors (*INSENSITIVE*), while investors who do have business relationships are pressure-sensitive (*SENSITIVE*) investors. We classify institutional investors who do not fall in either group as pressure-indeterminate (*INDETERMINATE*) investors.

The main independent variable in this study is corporate governance (*CGOV*). Unlike other studies (Aik Leng, 2004; Abdul Rahman & Haniffa, 2005) that only focus on several corporate governance items such board of directors, audit committee and shareholder protection, we devised a composite measure of corporate governance that is consistent with the current literature (Gompers et al., 2003; Bebchuk et al., 2004; Brown & Caylor, 2006).

The primary measure for *CGOV* is the corporate governance index (*CGINDEX*). *CGINDEX* is constructed based on the 30 provisions of the MCCG, which we classify into two groups, as shown in Appendix A. The first group (*MCCG_PT2*) relates primarily to compliance with Part 2 of MCCG, "*best practices*". The second group (*MCCG_PT4*) relates to the disclosure of governance practices recommended in Part 4 of MCCG, "*explanatory notes*". *MCCG_PT2* and *MCCG_PT4* comprise 16 and 14 governance provisions, respectively. The approach of scoring is additive, giving a measure of *CGINDEX* for firm *i* based on an equally weighting scheme used for the two parts:

$$CGINDEX_i = \frac{MCCG_PT2_i + MCCG_PT4_i \times 100}{2},$$

where $MCCG_PT2 = \frac{1}{16} \sum_{j=1}^{16} X_j$ and $MCCG_PT4 = \frac{1}{14} \sum_{j=1}^{14} Y_j$.

Furthermore, to capture the impact corporate governance reform in 2001, we construct a dummy variable (*REFORM*) that takes a value of one for the post-2001 period and zero otherwise.

Control Variables

Firm performance is an important determinant for institutional ownership (Bushee & Goodman, 2007). Since institutional investors practice prudent man law-based investment strategies, Del Guercio (1996) suggests that they are attracted to firms with higher performance. In contrast, Woidtke (2002) suggests that institutional investors are attracted to poorly performing firms since they realise the benefits derived from institutional activism. Therefore, we predict a non-directional relationship between performance and *INSTOWN*. We use continuously compounded annual market-adjusted return (*ROR_MADJ*) as a proxy for firm performance.

We also predict a positive association between *POLITIC* and *INSTOWN*. Since large institutional investors in Malaysia (e.g., EPF, PNB) are run and managed by the government, we expect them to invest more in politically connected firms than in non-politically connected firms. We use data from three main sources to identify politically connected firms: Mohamad, Hassan and Chen (2006); Johnson and Mitton (2003); and the Khazanah Berhad website (www.khazanah.com.my). *POLITIC* takes a value of one for firms that have been identified as having some political connection and zero otherwise.

Another important determinant for institutional ownership is dividend yield (*DYIELD*). Del Guercio (1996) argues that prudent man rules for institutional investors will make them attracted to high-dividend-paying firms. Therefore, we predict a positive relationship between *DYIELD* and *INSTOWN*.

The fourth control variable for institutional ownership is the number of financial analysts following a firm (*NUMEST*) whereby a positive relationship is predicted. We expect that institutions will prefer firms followed by a larger number of analysts because of the greater amount of information and expertise available to institutional investors (O'Brien & Bhushan, 1990). Data on analyst coverage are extracted from the I/B/E/S Summary File.

Another control variable for institutional ownership is liquidity. Studies have shown that institutional investors prefer liquid stocks (Gompers & Metrick, 2001) since liquidity is likely to influence their decisions of which assets to hold or trade and may influence how assets are priced. We use trading turnover (*TURNOVER*) as a measure of liquidity and predict a positive relationship between *INSTOWN* and *TURNOVER*. Trading volume data and outstanding shares were extracted from DataStream.

Following Demsetz and Villalonga (2001), firm risk (*FIRMRISK*) is included as another control variable for institutional ownership as a measure of the risk of placing a large part of an investor's wealth in the stock of a single firm (Demsetz & Villalonga, 2001), thus making variation in firm risk cause variation in ownership structure. *FIRMRISK* is the standard error obtained from the regression used to estimate market risk (*MKTRISK*). However, higher values of *FIRMRISK* indicate better profit prospects from the use of inside information (Durnev & Kim, 2005). As this information is utilised by the managers, firms with higher *FIRMRISK* are negatively correlated with *INSTOWN*. Therefore, we predict an association between *FIRMRISK* and *INSTOWN*.

We include other control variables to capture previously documented determinants of institutional ownership. First, we control for managerial ownership (*MANOWN*) and predict a negative relationship between *MANOWN* and *INSTOWN* (Bushee et al., 2007). To control for risk, we include market risk (*MKTRISK*), measured as the beta coefficient obtained from a regression of monthly stock returns on monthly market returns using price data from 1995–2002. We include the ratio of debt to equity (*DEBT*) as a proxy for leverage and the natural logarithm of total assets (*LNASSETS*) as a proxy for firm size. Finally, we control for industry-level effects.

Descriptive Statistics

Panel A of Table 1 presents the sample firms' descriptive statistics. The mean (median) institutional ownership is 12.58 (5.654) with a maximum figure of 90.55 percent. Furthermore, *INSENSITIVE*, *SENSITIVE* and *INDETERMINATE* institutional investors hold on average 6.97, 1.19 and 4.42 percent, respectively.

Panel B of Table 1 presents descriptive statistics on corporate governance. The main measure, *CGINDEX*, has an average of 37.29, with a range between 0.00 to 79.91 percent for the period 1999–2002. The two components of *CGINDEX*, *MCCG_PT2* and *MCCG_PT4* score are on average 41.60 and 32.98 percent, respectively.

Table 1
Descriptive statistics.

INSTOWN is the percentage of the combined shareholdings of the top 5 institutional investors. *INSENSITIVE*, *SENSITIVE* and *INDETERMINATE* are the percentage shareholdings by pressure-insensitive, pressure-sensitive and pressure-indeterminate institutional investors, respectively. *CGINDEX* is a composite measure based on the Malaysian Code on Corporate Governance (MCCG). *MCCG_PT2* is a composite measure of corporate governance based on Part 2 of MCCG, which requires firms to explain and provide alternative practices adopted when departing from best practices. *MCCG_PT4* is a composite measure of corporate governance based on Part 4 of MCCG, which provides explanatory notes to the principles and best practices. *ROR_MADJ* is the continuously compounded annual market-adjusted return. *TURNOVER* is average monthly trading volume divided by total shares outstanding. *NUMEST* is the number of financial analysts following the firm. *FIRM_RISK* is the standard error of regression of market returns on firm returns. *DYIELD* is dividend per share over price per share. *ASSETS* is total assets. *DEBT* is total debt over total equity. *MANOWN* is total percentage shareholdings of the board of directors. *MKTRISK* is systematic risk (beta) obtained by regressing 5 years of monthly share returns against market returns. *POLITIC* takes the value of 1 for politically connected firms and zero otherwise.

	Mean	Median	Maximum	Minimum	Std. Dev.
Panel A: Institutional Ownership					
<i>INSTOWN</i>	12.579	5.654	90.553	0.000	18.159
<i>INSENSITIVE</i>	6.972	2.047	78.566	0.000	13.364
<i>SENSITIVE</i>	1.191	0.000	74.254	0.000	3.963
<i>INDETERMINATE</i>	4.416	0.000	75.269	0.000	10.825
Panel B: Corporate Governance					
<i>CGINDEX</i>	37.291	36.161	79.911	0.000	18.511
<i>MCCG_PT2</i>	41.600	31.250	87.500	0.000	19.836
<i>MCCG_PT4</i>	32.982	35.714	78.571	0.000	19.344
Panel C: Firm Characteristics					
<i>ROR_MADJ</i>	-9.395	-7.655	164.524	-149.394	34.979
<i>TURNOVER</i>	0.484	0.186	16.845	0.000	0.940
<i>NUMEST</i>	1.729	0.000	29.000	0.000	5.220
<i>FIRM_RISK</i>	0.133	0.127	0.665	0.038	0.047
<i>DYIELD</i>	2.268	1.570	38.480	0.000	2.726
<i>ASSETS (million)</i>	2960.000	581.000	150000.000	3.626	10400.000
<i>DEBT</i>	0.477	0.286	8.718	-6.338	0.845
<i>MANOWN</i>	7.366	0.413	78.256	0.000	14.151
<i>MKTRISK</i>	1.126	1.128	3.045	0.126	0.355
<i>POLITIC</i>	0.219	0.000	1.000	0.000	0.413

During the sample period, firms experience a negative *ROR_MADJ* of -9.39 percent, largely due to the aftermath of the Asian financial crisis. In addition, firms average a *TURNOVER* value of 0.48, suggesting that shares are illiquid. Firms are at least being followed by 1.7 analysts and on average experience a 2.27 dividend yield. Furthermore, firms average 7.37 percent of direct managerial shareholdings.

RESULTS

Univariate

Table 2 provides the Pearson and Spearman rank correlations between the variables used in the regressions. We observe a significant and positive relationship between *INSTOWN* and measures of *CGOV* (*CGINDEX*, *MCCG_PT2*, *MCCG_PT4*). Furthermore, we find evidence at a univariate level that the number of *INSENSITIVE* investors is positively and significantly correlated with measures of corporate governance. There lacks similar evidence in the case of *SENSITIVE* and *INDETERMINATE* investors. This provides initial evidence suggesting corporate governance does matter for institutional investors, especially for insensitive investors.

Table 3 presents univariate analysis testing the differences in mean and median between periods before and after 2001. Panel A of Table 3 suggests that institutional shareholdings do not increase substantially over the two periods. Panel B of Table 3 provides evidence for various measures of corporate governance. Our univariate analysis finds significant differences in mean (median) for measures of corporate governance between the periods before and after 2001. As shown in Panel C of Table 3, we observed significant differences between the two periods for *ROR_MADJ*, *TURNOVER*, *FIRMRIK*, *DYIELD*, *DEBT* and *MANOWN*.

Multivariate

Univariate regressions (1–3) of Table 4 document that *INSTOWN* is positively and significantly related to all of the various measures of corporate governance (*CGOV*). However, we could not find support that *ROR_MADJ* and *REFORM* are important determinants for *INSTOWN*. Regression 7 of Table 4 shows the positive relationship between *INSTOWN* and *CGINDEX*, which remains positive after controlling all other determinants for institutional ownership. Our analysis suggest that a one-standard-deviation increase in *CGINDEX* increases *INSTOWN* by 9.07 (18.511*0.490) percent. Results from regressions 8 to 11 suggest that *INSTOWN* is positively and significantly related to all other *CGOV*. Our findings suggest that institutional ownership is on average attracted to firms that disclose more of their governance practices (*MCCG_PT4*).

We find a less positive relationship between post-reform corporate governance (*CGINDEX*REFORM*) and *INSTOWN*, suggesting that post-reform corporate governance might arise simultaneously and endogenously with institutional ownership. This provides support that both corporate governance and institutional ownership are useful agents for reducing agency problems in

Table 2

Correlation matrix.

Pearson (in shaded area) and Spearman Rank correlations are reported in the table. *INSTOWN* is the percentage of the combined shareholdings of the top 5 institutional investors. *INSENSITIVE*, *SENSITIVE* and *INDETERMINATE* are the percentage shareholdings by pressure-insensitive, pressure-sensitive and pressure-indeterminate institutional investors, respectively. *CGINDEX* is a composite measure based on the Malaysian Code on Corporate Governance (MCCG). *MCCG_PT2* is a composite measure of corporate governance based on Part 2 of MCCG, which requires firms to explain and provide alternative practices adopted when departing from best practices. *MCCG_PT4* is a composite measure of corporate governance based on Part 4 of MCCG, which provides explanatory notes to the principles and best practices. *ROR_MADJ* is the continuously compounded annual market-adjusted return. *TURNOVER* is average monthly trading volume divided by total shares outstanding. *NUMEST* is the number of financial analysts following the firm. *FIRMRIISK* is the standard error of regression of market returns on firm returns. *DYIELD* is dividend per share over price per share. *ASSETS* is total assets. *DEBT* is total debt over total equity. *MANOWN* is total percentage shareholdings of the board of directors. *MKTRISK* is systematic risk (beta) obtained by regressing 5 years of monthly share returns against market returns. * and ** denote significance at the 5% and 1% level respectively.

	INSTOWN	INSENSITIVE	SENSITIVE	INDETERMINATE	CGINDEX	MCCG_PT2	MCCG_PT4
<i>INSTOWN</i>	1	0.769(**)	0.247(**)	0.638(**)	0.071(**)	0.062(*)	0.071(**)
<i>INSENSITIVE</i>	0.770(**)	1	-0.026	0.046	0.080(**)	0.074(**)	0.078(**)
<i>SENSITIVE</i>	0.403(**)	0.207(**)	1	0.089(**)	0.011	0.016	0.004
<i>INDETERMINATE</i>	0.648(**)	0.272(**)	0.158(**)	1	0.014	0.006	0.021
<i>CGINDEX</i>	0.081(**)	0.101(**)	0.019	0.041	1	0.946(**)	0.944(**)
<i>MCCG_PT2</i>	0.072(**)	0.083(**)	0.014	0.038	0.908(**)	1	0.787(**)
<i>MCCG_PT4</i>	0.075(**)	0.094(**)	0.017	0.046	0.956(**)	0.780(**)	1
<i>ROR_MADJ</i>	0.008	0.047	-0.031	0.008	0.132(**)	0.111(**)	0.137(**)
<i>TURNOVER</i>	-0.178(**)	-0.093(**)	-0.022	-0.164(**)	-0.300(**)	-0.257(**)	-0.313(**)
<i>NUMEST</i>	0.179(**)	0.241(**)	0.123(**)	0.051(*)	0.054(*)	0.062(*)	0.047
<i>FIRMRIISK</i>	-0.288(**)	-0.312(**)	-0.106(**)	-0.240(**)	-0.066(**)	-0.045	-0.077(**)
<i>DYIELD</i>	0.224(**)	0.169(**)	0.147(**)	0.212(**)	0.095(**)	0.085(**)	0.104(**)
<i>ASSETS</i>	0.185(**)	0.271(**)	0.188(**)	0.063(*)	-0.035	-0.061(*)	-0.027
<i>DEBT</i>	0.025	0.020	0.032	0.030	-0.057(*)	-0.025	-0.066(**)
<i>MANOWN</i>	-0.220(**)	-0.246(**)	-0.076(**)	-0.104(**)	0.005	-0.011	0.012
<i>MKTRISK</i>	-0.124(**)	-0.065(**)	-0.081(**)	-0.145(**)	-0.007	-0.019	-0.011

(continued on next page)

Table 2 (Continued)

	ROR_MADJ	TURNOVER	NUMEST	FIRMRISK	DYIELD	ASSETS	DEBT	MANOWN	MKTRISK
<i>INSTOWN</i>	0.010	-0.145(**)	0.108(**)	-0.191(**)	0.099(**)	0.065(*)	0.018	-0.186(**)	-0.070(**)
<i>INSENSITIVE</i>	0.028	-0.100(**)	0.087(**)	-0.160(**)	0.017	0.122(**)	0.019	-0.167(**)	0.009
<i>SENSITIVE</i>	-0.030	-0.037	0.028	0.019	0.060(*)	-0.027	0.005	-0.058(*)	-0.061(*)
<i>INDETERMINATE</i>	-0.008	-0.106(**)	0.062(*)	-0.131(**)	0.125(**)	-0.031	0.004	-0.083(**)	-0.108(**)
<i>CGINDEX</i>	0.108(**)	-0.222(**)	0.023	-0.056(*)	0.094(**)	0.000	0.004	-0.009	-0.005
<i>MCCG_PT2</i>	0.087(**)	-0.188(**)	0.026	-0.039	0.068(**)	-0.016	-0.005	0.002	-0.004
<i>MCCG_PT4</i>	0.118(**)	-0.232(**)	0.018	-0.067(**)	0.111(**)	0.016	0.012	-0.019	-0.005
<i>ROR_MADJ</i>	1	0.014	0.031	-0.024	0.009	0.035	0.007	-0.006	-0.016
<i>TURNOVER</i>	-0.034	1	0.003	0.158(**)	-0.114(**)	-0.056(*)	0.008	0.038	0.122(**)
<i>NUMEST</i>	0.026	0.018	1	-0.136(**)	0.076(**)	0.023	0.004	-0.050(*)	-0.015
<i>FIRMRISK</i>	-0.034	0.286(**)	-0.161(**)	1	-0.229(**)	-0.125(**)	-0.051(*)	0.195(**)	0.364(**)
<i>DYIELD</i>	0.017	-0.207(**)	0.152(**)	-0.436(**)	1	0.024	0.039	-0.024	-0.275(**)
<i>ASSETS</i>	0.044	-0.026	0.157(**)	-0.300(**)	0.122(**)	1	0.013	-0.012	-0.064(*)
<i>DEBT</i>	-0.016	0.055(*)	0.008	0.071(**)	-0.154(**)	0.208(**)	1	0.004	-0.023
<i>MANOWN</i>	-0.025	0.057(*)	-0.021	0.129(**)	0.018	-0.125(**)	-0.059(*)	1	0.066(**)
<i>MKTRISK</i>	-0.014	0.312(**)	-0.072(**)	0.524(**)	-0.402(**)	-0.088(**)	0.091(**)	0.057(*)	1

Table 3

Univariate analysis of differences in institutional ownership, corporate governance and firm characteristics in the pre- and post-reform periods.

INSTOWN is the percentage of the combined shareholdings of the top 5 institutional investors. *INSENSITIVE*, *SENSITIVE* and *INDETERMINATE* are the percentage shareholdings by pressure-insensitive, pressure-sensitive and pressure-indeterminate institutional investors, respectively. *CGINDEX* is a composite measure based on the Malaysian Code on Corporate Governance (MCCG). *MCCG_PT2* is a composite measure of corporate governance based on Part 2 of MCCG, which requires firms to explain and provide alternative practices adopted when departing from best practices. *MCCG_PT4* is a composite measure of corporate governance based on Part 4 of MCCG, which provides explanatory notes to the principles and best practices. *ROR_MADJ* is the continuously compounded annual market-adjusted return. *TURNOVER* is average monthly trading volume divided by total shares outstanding. *NUMEST* is the number of financial analysts following the firm. *FIRMRIK* is the standard error of regression of market returns on firm returns. *DYIELD* is dividend per share over price per share. *ASSETS* is total assets. *DEBT* is total debt over total equity. *MANOWN* is total percentage shareholdings of the board of directors. *MKTRISK* is systematic risk (beta) obtained by regressing 5 years of monthly share returns against market returns. *POLITIC* takes the value of 1 for politically connected firms and zero otherwise. Significant p-values are in bolds. The figures in parentheses denote Chi-square statistics.

	Mean 1999–2000	Median (n = 715)	Mean 2001–2002	Median (n = 863)	t-test (p-value)	Mann-Whitney (p-value)
Panel A: Institutional Ownership						
<i>INSTOWN</i>	12.484	5.622	12.653	5.684	0.857	0.431
<i>INSENSITIVE</i>	6.934	2.073	7.001	2.026	0.923	0.158
<i>SENSITIVE</i>	1.127	0.000	1.241	0.000	0.578	0.521
<i>INDETERMINATE</i>	4.423	0.000	4.411	0.000	0.983	0.422
Panel B: Corporate Governance						
<i>CGINDEX</i>	19.675	19.643	50.668	53.125	0.000	0.000
<i>MCCG_PT2</i>	25.471	25.000	53.848	56.250	0.000	0.000
<i>MCCG_PT4</i>	13.879	14.286	47.488	50.000	0.000	0.000
Panel C: Firm Characteristics						
<i>ROR_MADJ</i>	-15.138	-15.304	-4.809	-3.771	0.000	0.000
<i>TURNOVER</i>	0.750	0.371	0.264	0.112	0.000	0.000
<i>NUMEST</i>	1.836	0.000	1.641	0.000	0.459	0.176
<i>FIRMRIK</i>	0.137	0.130	0.130	0.125	0.006	0.004
<i>DYIELD</i>	1.936	1.240	2.543	2.040	0.000	0.000
<i>ASSETS (million)</i>	3030	622.0	2890	513.0	0.793	0.018
<i>DEBT</i>	0.584	0.313	0.388	0.259	0.000	0.001
<i>MANOWN</i>	6.795	0.280	7.840	0.594	0.145	0.000
<i>MKTRISK</i>	1.144	1.141	1.111	1.115	0.061	0.070
<i>POLITIC</i>	0.236	0.000	0.204	0.000	(0.121)	(0.121)

Table 4

Determinants of institutional ownership.

INSTOWN is the percentage of the combined shareholdings of the top 5 institutional investors. *CGINDEX* is a composite measure based on the Malaysian Code on Corporate Governance (MCCG). *MCCG_PT2* is a composite measure of corporate governance based on Part 2 of MCCG, which requires firms to explain and provide alternative practices adopted when departing from best practices. *MCCG_PT4* is a composite measure of corporate governance based on Part 4 of MCCG, which provides explanatory notes to the principles and best practices. *QUALITY* and *QUANTITY* are respectively the quality and quantity of governance provisions based on MCCG. *ROR_MADJ* is the continuously compounded annual market-adjusted return. *TURNOVER* is average monthly trading volume divided by total shares outstanding. *NUMEST* is the number of financial analysts following the firm. *FIRMRIISK* is the standard error of regression of market returns on firm returns. *DYIELD* is dividend per share over price per share. *ASSETS* is total assets. *DEBT* is total debt over total equity. *MANOWN* is total percentage shareholdings of the board of directors. *MKTRISK* is systematic risk (beta) obtained by regressing 5 years of monthly share returns against market returns. *POLITIC* takes the value of 1 for politically connected firms and zero otherwise. *t* statistics are italicised. *, ** and *** denote 10%, 5% and 1% significance level respectively.

Dependent Variable	<i>INSTOWN</i>											
	1	2	3	4	5	6	7	8	9	10	11	
<i>CGINDEX</i>	0.061 2.909***					0.464 3.660***	0.490 3.978***					
<i>MCCG_PT2</i>		0.052 2.346**						0.206 1.962*				
<i>MCCG_PT4</i>			0.057 2.883***						0.345 3.903***			
<i>ROR_MADJ</i>				0.006 <i>0.448</i>		0.006 <i>0.430</i>	0.003 <i>0.198</i>	0.002 <i>0.124</i>	0.002 <i>0.171</i>	0.002 <i>0.173</i>	0.003 <i>0.255</i>	
<i>REFORM</i>					0.169 <i>0.292</i>	0.516 <i>0.147</i>	1.111 <i>0.323</i>	-1.286 <i>-0.407</i>	-2.845 <i>-0.866</i>	-6.265 <i>-1.370</i>	-2.195 <i>-0.814</i>	
<i>CGINDEX*REFORM</i>						-0.319 -2.475**	-0.340 -2.711***					
<i>MCCG_PT2*REFORM</i>								-0.103 <i>-0.992</i>				
<i>MCCG_PT4*REFORM</i>									-0.204			
<i>POLITIC</i>						4.769 2.489**	3.769 1.928*	3.768 1.912*	3.609 1.843*	3.674 1.855*	3.507 1.789*	
<i>DYIELD</i>						0.357 <i>1.484</i>	0.348 <i>1.475</i>	0.357 <i>1.504</i>	0.336 <i>1.424</i>	0.348 <i>1.465</i>	0.356 <i>1.503</i>	
<i>NUMEST</i>						0.156 <i>1.060</i>	0.131 <i>0.914</i>	0.140 <i>0.966</i>	0.151 <i>1.046</i>	0.162 <i>1.108</i>	0.162 <i>1.127</i>	

(continued on next page)

Table 4 (continued)

Dependent Variable	INSTOWN										
	1	2	3	4	5	6	7	8	9	10	11
<i>TURNOVER</i>						-2.192	-2.840	-2.900	-2.846	-2.948	-2.870
						-3.275***	-3.720***	-3.771***	-3.723***	-3.810***	-3.744***
<i>FIRM RISK</i>						-55.481	-27.383	-28.179	-26.662	-28.387	-26.692
						-3.309***	-1.501	-1.533	-1.459	-1.556	-1.475
<i>MANOWN</i>							-0.185	-0.185	-0.183	-0.185	-0.185
							-3.652***	-3.615***	-3.600***	-3.608***	-3.628***
<i>MKTRISK</i>							-0.952	-0.694	-1.021	-0.440	-0.652
							-0.405	-0.293	-0.434	-0.186	-0.277
<i>LNASSETS</i>							0.725	0.786	0.688	0.795	0.717
							1.341	1.444	1.269	1.469	1.338
<i>DEBT</i>							0.348	0.222	0.437	-0.032	0.130
							0.421	0.267	0.529	-0.045	0.181
<i>CONSTANT</i>	10.297	10.407	10.695	12.654	12.484	10.496	-13.499	-10.256	-8.092	-6.732	-8.512
	9.232***	8.504***	10.414***	15.470***	14.387***	2.889***	-1.066	-0.799	-0.646	-0.513	-0.685
Industry fixed	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.003	0.003	0.003	-0.001	-0.001	0.074	0.120	0.111	0.117	0.110	0.120
Cross sections	436	436	436	436	437	434	434	434	434	435	435
Total observations	1506	1506	1506	1492	1522	1472	1470	1470	1470	1482	1482

Malaysian firms. Similar to the finding in regression 7, we find *INSTOWN* negatively and significantly related to *MCCG_PT4* after 2001, suggesting that the role of corporate governance arose simultaneously with institutional ownership after the reforms.

As predicted, we find that firms that are politically connected attract higher institutional ownership. This finding supports the notion that institutional investors' funds are 'tunnelled' to firms that closely connected to the government, either directly or indirectly. One could argue that institutional investors are being utilised to promote cronyism, and on the other hand it can be seen as mere fulfilment of the NEP process of reducing the wealth imbalance between races in Malaysia.

Contrary to past evidence, we find negative relationship between *TURNOVER* and *INSTOWN*, suggesting preferential treatment for illiquid shares. We find no evidence that a relationship exists between *NUMEST* and *INSTOWN*. Furthermore, we find a negative relationship between *FIRM RISK* and *INSTOWN*, suggesting that institutional ownership does not prefer firms that might utilise inside information for their own profit. Furthermore, we could not find evidence that institutional investors are attracted to firms with higher *DYIELD*.

Institutional investors heterogeneity

Table 5 presents results of when we consider investors' heterogeneity as dependent variables. We find that only *INSENSITIVE* is positively and significantly related to *CGINDEX*. Similar to findings in Table 4, *INSENSITIVE* investors less positively weigh corporate governance after 2001, suggesting that the role of these investors might arise simultaneously and endogenously with corporate governance. Most importantly, results suggest that corporate governance does influence institutional ownership.

Table 5
Determinants of institutional ownership using types of institutional investors as dependent variables.

	<i>INSENSITIVE</i>	<i>SENSITIVE</i>	<i>INDETERMINATE</i>
	1	2	3
<i>CGINDEX</i>	0.417	-0.006	0.079
	4.452***	-0.229	<i>1.042</i>
<i>ROR_MADJ</i>	0.010	-0.004	-0.003
	<i>1.013</i>	-1.255	-0.423
<i>REFORM</i>	0.604	0.283	0.224
	<i>0.235</i>	<i>0.368</i>	<i>0.107</i>
<i>CGINDEX*REFORM</i>	-0.280	0.003	-0.063
	-2.954***	<i>0.106</i>	-0.814
<i>POLITIC</i>	4.914	-0.531	-0.613
	3.302***	-1.230	-0.516
<i>DYIELD</i>	-0.028	0.083	0.293
	-0.156	<i>1.559</i>	2.037**
<i>NUMEST</i>	0.042	0.030	0.059
	<i>0.385</i>	<i>0.976</i>	<i>0.675</i>
<i>TURNOVER</i>	-1.710	-0.070	-1.059
	-2.936***	-0.430	-2.303**
<i>FIRMRIISK</i>	-26.486	10.735	-11.631
	-1.927*	2.523**	-1.043
<i>MANOWN</i>	-0.115	-0.021	-0.049
	-3.001***	-1.841*	-1.582
<i>MKTRISK</i>	2.553	-1.110	-2.395
	<i>1.433</i>	-2.103**	-1.676*
<i>LNASSETS</i>	0.761	0.114	-0.150
	1.853*	<i>0.946</i>	-0.457
<i>DEBT</i>	-0.890	0.578	0.659
	-1.419	3.299***	<i>1.316</i>
<i>CONSTANT</i>	-19.744	-0.953	7.197
	-2.053**	-0.338	<i>0.935</i>
Industry fixed	Yes	Yes	Yes
Adjusted R-squared	0.113	0.054	0.053
Cross sections	434	434	434
Total observations	1470	1470	1470

Notes: *INSENSITIVE*, *SENSITIVE* and *INDETERMINATE* are the percentage shareholdings by pressure-insensitive, pressure-sensitive and pressure-indeterminate institutional investors, respectively. *CGINDEX* is a composite measure based on the Malaysian Code on Corporate Governance (MCCG). *ROR_MADJ* is the continuously compounded annual market-adjusted return. *TURNOVER* is average monthly trading volume divided by total shares outstanding. *NUMEST* is the number of financial analysts following the firm. *FIRMRIISK* is the standard error of regression of market returns on firm returns. *DYIELD* is dividend per share over price per share. *ASSETS* is total assets. *DEBT* is total debt over total equity. *MANOWN* is total percentage shareholdings of the board of directors. *MKTRISK* is systematic risk (beta) obtained by regressing 5 years of monthly share returns against market returns. *POLITIC* takes the value of 1 for politically connected firms and zero otherwise. T-statistics are italicised. *, ** and *** denote 10%, 5% and 1% significance level respectively.

CONCLUSION

The recent corporate governance reforms, which involved the incorporation of MCCG as part of Bursa Malaysia Listing Requirements and the establishment of MSWG, provide the main motivation for examining the relationship between corporate governance and institutional investors. This study finds evidence that a positive relationship exists between corporate governance and institutional ownership. However, the relationship becomes less positive for the period after 2001, suggesting that the monitoring role of both corporate governance and institutional investors could arise simultaneously and endogenously. Furthermore, we find evidence that corporate governance influences pressure-insensitive investors, though the relationship becomes less positive after the reform. Our findings do suggest that the reform was indeed successful in catalysing the role of institutional investors and MCCG. Since we argue that the relationship could arise simultaneously and endogenously, an examination of such a relationship using various econometric techniques is much warranted for further research.

REFERENCES

- Abdul Rahman, R., & Haniffa, R. M. (2005). The effect of role duality on corporate performance in Malaysia. *Corporate Ownership and Control*, 2(2), 40–49.
- Abdul Wahab, E. A., How, J., & Verhoeven, P. (2007). The impact of the Malaysian code on corporate governance: Compliance, institutional investors and stock performance. *Journal of Contemporary Accounting & Economics*, 3(2), 106–129.
- Aik Leng, A. C. (2004). The impact of corporate governance practices on firms' financial performance: Evidence from Malaysian companies. *ASEAN Economic Bulletin*, 21(3), 308–318.
- Asher, M. G. (2001). Pension reform, capital markets and corporate governance in Malaysia. *Journal of Financial Regulation and Compliance*, 9(1), 30–37.
- Bebchuk, L. A., Cohen, A., & Ferrell, A. (2004). What matters in corporate governance? *Harvard Law School, Working Paper Series*, 491.
- Brickley, J. A., Lease, R. C., & Clifford W. S. J. (1988). Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics*, 20, 267–291.
- Brown, L. D., & Caylor, M. L. (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy*, 25(4), 409–434.
- Bushee, B., Carter, M. E., & Gerakos, J. (2007). Institutional investor preferences for corporate governance mechanisms. *Wharton Financial Institutions Center Working Paper Series*.
- Bushee, B. J., & Goodman, T. H. (2007). Which institutional investors trade based on private information about earnings and returns? *Journal of Accounting Research*, 45(2), 289–321.
- Bushee, B., & Noe, C. (2000). Corporate Disclosure practices, institutional investors and stock return volatility. *Journal of Accounting Research*, 38(Suppl.), 171–202.

- Bushman, R., Piotroski, K., & Smith, A. (2004). What determines corporate transparency? *Journal of Accounting Research*, 42(2), 207–252.
- Cadbury Committee. (1992). Report of the committee on the financial aspects of corporate governance. Gee, London.
- Chaganti, R., & Damanpour, F. (1991). Institutional ownership, capital structure and firm performance. *Strategic Management Journal*, 12(7), 479–491.
- Claessens, S., & Fan, J. P. H. (2002). Corporate governance in Asia: A survey. *International Review of Finance*, 3(2), 77–103.
- Coglianesi, C., Thomas J. Healey, Elizabeth K. Keating, & Michael, M. L. (2004). The role of government in corporate governance. *NYU Journal of Law & Business*, 1(233), 101–120.
- Cornett, M. M., Marcus, A. J., Saunders, A., & Tehranian, H. (2007). The impact of institutional ownership on corporate operating performance. *Journal of Banking & Finance*, 31(6), 1771–1794.
- Del Guercio, D. (1996). The distorting effect of the prudent-man laws on institutional equity investments. *Journal of Financial Economics*, 40(1), 31–62.
- Demsetz, H., & Villalonga, B. (2001). Ownership structure and corporate performance. *Journal of Corporate Finance*, 7(3), 209–233.
- Durnev, A., & Kim, E. H. (2005). To steal or not to steal: firm attributes, legal environment, and valuation. *Journal of Finance*, 60(3), 1461–1493.
- Faccio, M., Masulis, R., & McConnell, J. J. (2006). Political connections and corporate bailouts. *Journal of Finance*, 61(6), 2597–2635.
- Finance Committee on Corporate Governance (FCCG). (2000). *Malaysian Code on Corporate Governance 2000*. Kuala Lumpur: Ministry of Finance, Malaysia.
- Gomez, E. T., & Jomo, K. S. (1999). *Malaysia's Political Economy: Politics, Patronage and Profits*. Cambridge: Cambridge University Press.
- Gompers, P. A., Ishii, J. L., & Metrick, A. (2003). Corporate governance and equity prices. *Quarterly Journal of Economics*, 118(1), 107–155.
- Gompers, P. A., & Metrick, A. (2001). Institutional investors and equity prices. *Quarterly Journal of Economics*, 116(1), February, 229–259.
- Graves, S. B., & Waddock, S. A. (1994). Institutional owners and corporate social performance. *Academy Management Journal*, 37(4), 1034–1046.
- Grossman, S. J., & Hart, O. D. (1988). One share-one vote and the market for corporate control. *Journal of Financial Economics*, 20, 175–202.
- Hartzell, J. C., & Starks, L. T. (2002). Institutional investors and executive compensation. *Journal of Finance*, 58(6), 2351–2374.
- Jennings, W. W. (2005). Further evidence on institutional ownership and corporate value. *Advances in Financial Economics*, 11, 167–207.
- Johnson, R. A., & Greening, D. W. (1999). The effects of corporate governance and institutional ownership types on corporate social performance. *Academy Management Journal*, 42(5), 564–576.
- Johnson, S., & Mitton, T. (2003). Cronyism and capital controls: Evidence from Malaysia. *Journal of Financial Economics*, 67(2), 351–382.
- Karpoff, J. M. (2001). The impact of shareholder activism on target companies: A survey of empirical findings. *University of Washington Working Paper Series*.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2003). Governance matters III: Governance indicators for 1996–2002. *The World Bank Working Paper Series*.

- Kouwenberg, R. R. (2006). Does voluntary corporate governance code adoption increase firm value in emerging markets? Evidence from Thailand. *Mahidol University Working Paper Series*.
- Li, D., Moshirian, F., Pham, P. K., & Zein, J. (2006). When financial institutions are large shareholders: The role of macro corporate governance environments. *Journal of Finance*, 61(6), 2975–3007.
- Maug, E. (1998). Large shareholders as monitors: Is there a trade-off between liquidity and control? *Journal of Finance*, 53(1), 65–98.
- Miller, G. S. (2004). Discussion of what determines corporate transparency? *Journal of Accounting Research*, 42(2), 253–268.
- Mohamad, S., Hassan, T., & Chen, C. M. (2006). *Impact of Political-Business Relationship: Ownership Patterns and Corporate Performance in Malaysia*. Paper presented at the 2006 Asian Finance Association Conference.
- Norhashim, M., & Abdul Aziz, K. (2005). Smart partnership or cronyism? A Malaysian perspective. *The International Journal of Sociology and Social Policy*, 25(8), 31–48.
- O'Brien, P. C., & Bhushan, R. (1990). Analyst following and institutional ownership. *Journal of Accounting Research*, 28(3), 55–76.
- Ow-Yong, K., & Kooi Guan, C. (2000). Corporate governance codes: A comparison between Malaysia and the UK. *Corporate Governance: An International Review*, 8(2), 125–132.
- Pagano, M., & Volpin, P. F. (2005). Political economy of corporate governance. *American Economic Review*, 95, 1005–1030.
- Shleifer, A., & Vishny, R. (1986). Large shareholders and corporate control. *Journal of Political Economy*, 94(3), 1018–1094.
- _____. (1997). A survey of corporate governance. *Journal of Finance*, 52(2), 737–775.
- Tan, M. G.-S. (2004, July 10–13). *Ownership Concentration, Board Concentration and Performance in Malaysia*. Paper presented at the 16th Asian Finance Association Conference, Asian Finance Association, Kuala Lumpur, Malaysia.
- Thillainathan, R. (2000, August 14–15). *The Employees Provident Fund of Malaysia: Asset allocation, Investment Strategy and Governance Issues Revisited*. Paper presented at the Pension Fund Management, Kuala Lumpur, Malaysia.
- Woidtke, T. (2002). Agents watching agents?: Evidence from pension fund ownership and firm value. *Journal of Financial Economics*, 63(1), 99–131.

APPENDIX

Appendix A: Individual Components of CGINDEX

CGINDEX is the composite measure of corporate governance based on the MCCG. *MCCG_PT2* is a composite measure of corporate governance index based on Part 2 of MCCG, which requires firms to explain and provide alternative practices adopted when departing from best practices. *MCCG_PT4* is a composite measure of corporate governance index based on Part 4 of MCCG, which provides further best practices and explanatory notes for the principles and best practices set out in Parts 1 and 2. *QUALITY* and *QUANTITY* are the quality and quantity of governance provisions based on MCCG, respectively. Companies are not required to explain any departures from best practices set out in Part 4. *BOARD* is board of director and composition, *AUD_ACC* is accountability and audit, and *SHA* is shareholder protection and communication.

1999–2002				
MCCG_PT2	PROVISIONS	REFERENCES	QUALITY	QUANTITY
<i>BOD_001</i>	Does the company split the Chairman and CEO/Managing Director posts?	Section AA, Paragraph II	X	
<i>BOD_002</i>	Does the company comply with MCCG recommendation on the proportion of independent directors on the board?	Section AA, Paragraph III	X	
<i>BOD_003</i>	Is the frequency of board of directors' meetings disclosed?	Section AA, Paragraph XIV		X
<i>NOM_001</i>	Does the company have a nomination committee?	Section AA, Paragraph VIII	X	
<i>NOM_004</i>	Are the majority of directors on the nomination committee independent?	Section AA, Paragraph VIII	X	
<i>NOM_003</i>	Does the CEO not sit on the nomination committee?	Section AA, Paragraph VIII	X	
<i>NOM_008</i>	Does the company disclose recommendations made by the nomination committee?	Section AA, Paragraph VIII		X
<i>NOM_009</i>	Does the company disclose methods of board appointments?	Section AA, Paragraph X		X
<i>REM_001</i>	Does the company have a remuneration committee?	Section AA, Paragraph XXIV	X	
<i>REM_002</i>	Is the list of remuneration committee members disclosed?	Section AA, Paragraph XXIV		X
<i>REM_003</i>	Does the CEO not sit on the remuneration committee?	Section AA, Paragraph XXIV	X	
<i>REM_004</i>	Are the majority of directors on the remuneration committee independent?	Section AA, Paragraph XXIV	X	
<i>REM_009</i>	Does the company disclose recommendations made by the remuneration committee?	Section AA, Paragraph XXIV		X
<i>AA_001</i>	Are the majority of directors on the audit committee independent?	Section BB, Paragraph I	X	
<i>AA_002</i>	Does the company disclose activities carried out by the audit committee?	Section BB, Paragraph II		X
<i>AA_003</i>	Does the company disclose a statement on internal control?	Section BB, Paragraph VII		X

(continued on next page)

Appendix (continued)

<i>MCCG_PT4</i>	PROVISIONS	REFERENCES	QUALITY	QUANTITY
<i>BOD_007</i>	Does the company disclose relationships that directors have with the company or other board members?	Section AA, Paragraph 4.23		X
<i>BOD_008</i>	Does the company disclose delegation and separation of duties among directors?	Section AA, Paragraph 4.19 & Paragraph 4.20		X
<i>BOD_009</i>	Does the company disclose current appointments of directors?	Section AA, Paragraph 4.42		X
<i>BOD_010</i>	Does the company disclose directors' experience and education backgrounds?	Section AA, Paragraph 4.22		X
<i>NOM_002</i>	Is the list of the nomination committee members disclosed?	Section AA, Paragraph 4.34		X
<i>NOM_005</i>	Is the frequency of nomination committee meetings disclosed?	Section AA, Paragraph 4.34		X
<i>REM_008</i>	Does the company disclose directors' remuneration?	Section B, Paragraph 4.6		X
<i>REM_008A</i>	Does the company disclose components of the remuneration scheme of directors?	Section B, Paragraph 4.8		X
<i>REM_008B</i>	Does the company disclose details of individual remuneration scheme of directors?	Section B, Paragraph 4.10		X
<i>SHA_001</i>	Does the company disclose affiliations with major shareholders?	Section CC, Paragraph 4.70		X
<i>SHA_001A</i>	Does the company disclose material contracts with major shareholders?	Section CC, Paragraph 4.69–4.78		X
<i>SHA_001B</i>	Does the company disclose board appointments?	Section CC, Paragraph 4.70		X
<i>SHA_002</i>	Does the company disclose investor relations?	Section BB, Paragraph 4.80		X
<i>AA_005</i>	Does the company disclose individual members' attendance at audit committee meetings?	Section BB, Paragraph 4.64		X