Institutional Investors, Political Connections and Analysts Coverage in Malaysia

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Abstract

This study examines the relationship between institutional investors' ownership, political connections and analyst coverage and firms in Malaysia during the period of 1999 to 2009. Based on 940 firm-year observations, this study documents that institutional demand for information is likely to affect analyst decision on which firms to follow. This gives evidence to suggest that institutional investors play a governance role by promoting better transparency which attracts higher analyst coverage. However, we find no evidence to support that political connections affect analysts' coverage.

Key words: Institutional Investors; Analyst Coverage, Corporate Governance, Political Connections
JEL classifications: G32, G34

1.0 Introduction

Prior studies use analyst coverage to indicate the amount of private information acquired by financial analyst and considers financial analyst information as major component of a firm's information environment (Bushman *et al*., 2004). Furthermore, financial analysts, which are mainly industry specialist (Brown *et al*., 2011), play an important role as information intermediaries as they provide information concerning companies and their trends, estimates in relation to earnings and price forecasts, as well as advice in terms of buy/hold/sell recommendations (Healy and Palepu, 2001). Financial analysts produce reports on individual firm performance, including short-term forecasts of earnings, dividends or cash flows and long-term forecasts of growth. Analysts usually consider firm's strategy, accounting policies, historical financial performance and future prospects for sales and earnings growth before making recommendations (Bradshaw, 2011). Analysts' information is demanded by parties external to the firm to assist them in monitoring and valuing the firms' activities (Brown *et al*., 2011) and usually conveyed by both formal and informal means (Bradshaw, 2011).

Jensen and Meckling (1976) suggest that analysts' activities may mitigate the agency conflicts between managers and shareholders. Bushman and Smith (2001) and Healy and Palepu (2001) indicate that more analyst coverage can lead to less asymmetric information, while Brown *et al*. (2011) state that financial analysts can be effective monitors of the firms' actions.

The extant literature on analyst coverage ranges from examining determinants of analyst coverage (Bhushan, 1989; Marston, 1997), joint determination with institutional ownership (O'Brien and Bhushan, 1990; Hussain, 2000; Ackert and Athanassakos, 2003), relationship with forecast bias (Ackert and Athanassakos, 2003) market liquidity (Roulstone, 2003), examining default risk (Cheng and Subramanyam, 2008), better governance (Beekes and Brown, 2006; Yu, 2010a, 2010b) and high valuation (Chen and Steiner, 2000; Lang *et al*., 2004). The extant literature on analysts coverage also include issues on stock price synchronicity (Chan and Hameed, 2006), coverage during IPO (Hope, 2003), privatised firms (Boubakri and Bouslimi, 2010) and impact of intangible assets (Barth *et al*., 2001).

There are several studies that examine analyst coverage in Malaysia. Hope (2003) examines the factors associating in the variation of analyst coverage, especially disclosure and initial public offering. Chan and Hameed (2006) examine the relationship between stock price synchronicity and analyst coverage in emerging markets, which includes Malaysia. Yu (2010a, 2010b) examines the relationship between corporate governance and analyst following. However, these four studies were conducted using a multiple countries data set. Two studies have examined financial analysts using Malaysian data. How *et al*. (2009) examine the impact of political connections on analyst forecasts, while Ahmad Zaluki and Wan Hussin (2010) investigate the relationship between various governance mechanisms and management forecast accuracy for IPO firms in Malaysia.

Ang and Ma (2001) investigate the behaviour of financial analysts in four Asian countries, Malaysia included. They find that analysts not only failed to anticipate the weaknesses in the firms the covered before the Asian Financial Crisis, but the failed

to adjust their estimates after these markets crashed. Coen and Desfluers (2004) findings support Ang and Ma (2001), in which they find analysts issued systematically upward biased forecast. Coen *et al.* (2005) extend the work by investigating factors on financial analysts' forecasts in Asian emerging markets.

This study extends the current literature on the role of financial analyst by examining the relationship between institutional investors and analyst coverage in Malaysia. Malaysia's institutional investors are first in the limelight since the Asian Financial Crisis in 1998. They are expected to be more heavily involved in governance after the Asian financial crisis, an issue which was highlighted by the Finance Committee in Corporate Governance (FCCG). The FCCG suggested that the leading institutional investors, namely the Employees Provident Fund (EPF),[1] Permodalan Nasional Berhad (PNB),[2] Lembaga Tabung Angkatan Tentera (LTAT),[3] Social Security Organisation (SOCSO)[4] and Pilgrim Fund Board (LUTH)[5] to actively involved as monitoring mechanism and protects minority shareholders interests.

Second, Malaysia presents a unique racial-based political scene that ultimately shapes the capital market. The political environment relies upon a strong inter-racial unity between the majority Bumiputras,[6] Chinese and Indians which ultimately form the current National Front that governs Malaysia. Furthermore, this shapes the capital market that is ethnically-influenced since the introduction of National Economic Policy in 1971, primarily to eradicate wealth imbalance between the races in Malaysia. One result is that Bumiputras firms are given various forms of support ranging from financing to investment opportunities (Gomez and Jomo, 1999). The policy to support Bumiputras firms forms an important link between politics and business in Malaysia. The main drive for political connection is strong evidence on political involvement in the capital market (Johnson and Mitton, 2003; Faccio *et al*., 2006). The notion of political involvement over firms' decision making is important, especially in relation to corporate governance. These, both culture and connections form an important part on information environment. Hence, this study includes both ethnicity and political connections as part of the analysis. On-going scandal such as the National Feedlot

[1] EPF, established in 1951, is the world's first mandatory national provident fund (McKinnon, 1996; Asher, 2001; Thillainathan, 2003). As Malaysia's largest contractual savings institution, EPF is both a crucial financial intermediary, providing a key source of long-term investment capital, as well as a central pillar of the country's social policy and social security systems (McKinnon, 1996).

[2] Established in 1972, PNB is Malaysia's first unit trust ("ownership-in-trust") set up to encourage savings by Bumiputras. It started with a single unit trust called Amanah Saham Nasional (ASN) but now has multiple unit trusts that cater for all groups of people such as the youths (e.g., Amanah Saham Didik) and the non-Bumiputras (e.g., Amanah Saham Malaysia).

[3] Lembaga Tabung Angkatan Tentera, better known as LTAT, established in August 1972 by an act of Parliament. LTAT serves as a superannuation fund for the Armed Forces of Malaysia.

[4] Social Security Organisation (SOCSO) established in January 1971 by virtue of another act of Parliament through the Social Security Act 1969. SOCSO serves as an insurance scheme for all Malaysian working in either the public or the private sector.

[5] Lembaga Tabung Haji (LTH), established in 1962, aims to encourage Malaysian Moslems to save for journey to Mecca for pilgrimage. LTH's role has evolved from a mere saving depository to providing Malaysian Moslems some returns on their investment.

[6] Bumiputras (literally 'sons of soil') are defined in official Malaysian literature and government policy documents as being Malays and other indigenous ethnic groups.

Corporation provides a timely opportunity for investigation on the role of political connections in Malaysia.[7]

Malaysia is known for concentrated ownership (Claessens *et al*., 2003) and therefore not surprisingly their institutional ownership stands only at a mere 15 percent (Abdul Wahab *et al*., 2007). Shleifer and Vishny (1997) argue that institutional investors have all the resources to make informed decision. Jennings (2003) supports the argument by stating that institutional investors have the size to play a governance role. With the formation of MSWG in 2001 highlights the ability for institutional investors in Malaysia to make some 'noise' in relation to the protection of minority shareholders interest.[8] Hence, we could observe a more transparent information environment based on the demand by institutional investors. Better information environment will result in higher analyst coverage. Thus, it would be interesting to examine relationship between institutional investors and financial analysts that act as financial intermediaries in Malaysia.

Past studies on financial analysts have shown that institutional investors is an important determinant for analyst coverage (Bhushan, 1989, O'Brien and Bhushan, 1990; Hussain, 2000; Ackert and Athanssakos, 2003). These studies, with the exception of Bhushan (1989) also argue that this relationship is an endogenous one, meaning that analyst coverage attracts high level of institutional ownership.

This paper examines the relationship between institutional ownership and analyst coverage in Malaysia for the period of 1999 to 2009. This study extends the current literature by considering a larger firm-year sample for Malaysia. Since past studies (O'Brien and Bushan, 1990; Alford and Berger, 1999; Ackert and Athanssakos, 2003; Lang *et al*., 2004) argue that the relationship is rather an endogenous; this study provides evidence by applying simultaneous equations analysis.

In addition, this study also fulfils the gap highlighted by Miller (2004) who argues that cross-sectional cross-country level analysis suffers from noisy variables and correlated omitted variables. Miller (2004) suggests that a more focused study on a particular country would allow timely and proper testing of the problem at hand. Further, by drawing data from just one country, this study is not plagued by problems commonly encountered in cross-country studies, including mismatching the measurement periods for firm-level and country-level variables, high correlations between country-level variables and the dominance of country-level variables in driving the explanatory power of the model (Miller, 2004).

Based on firm-year observations of 940 for a period of 1999 to 2009, this study finds that institutional demand for information about particular firms is more likely to affect analyst decision about which firms to follow. This also supports the corporate

[7] The National Feedlot Corporation (NFCorp) is the envisioned centre of production for beef and beef products in Malaysia. As a High Impact Project under Ninth Malaysia Plan, National Feedlot Centre project will be instrumental in attaining the 40% self-sufficiency for beef production by 2015. It has recently plagued by possible cronyism by one of the minister. The minister has since resigned and it is currently under investigation.

[8] MSWG commenced its operations in July 2001 and was funded by its founding members for a total of RM5.8 million for the initial three years, i.e., from 2001 to 2004, for start-up and development costs. The MSWG has since been funded by a capital market development fund and has received RM5.75 million from this fund (MSWG press statement, 9 January 2009).

governance argument that institutional investors will demand better and quality information, resulting in higher analyst coverage. However, this study offers no support to the argument that analysts act as information intermediaries and thus affect institutional shareholdings. This study extended the analysis by examining the heterogeneous nature of institutional investors by classifying them on the basis Malaysia's institutional investors' settings. This study finds MSWG members ownership is an important determinant for analyst coverage.

The premise for the endogenous relationship between analyst following and institutional investors is a simple one. Firms with high level of institutional investors will increase both demand and supply of analyst (O'Brien and Bhushan, 1990, Hussain, 2000; Ackert and Athanssakos, 2003). Conversely, firms with high number of analyst following them will then attract more institutional investors; in turn will increase their ownership (Hussain, 2000). From this argument alone, the relationship is a positive and an endogenous one. In addition, institutional investors have the corporate governance role, bound by fiduciary duties to contributors and public at large, to demand better and quality information from the firms they invested in. This will result in a more transparent information environment in which will result in an increase in analyst coverage.

The rest of paper is set as follows. Section 2 presents and justifies our conceptual framework, in which we included a sub-section on Malaysia's institutional investors. Section 3 explains the joint determination between analyst coverage and institutional ownership. Section 4 discusses the research methodology, while Section 5 draws the sample selection. Section 6 describes the data and Section 7 tabulates the results. Section 8 concludes the paper.

2.0 Political connections in Malaysia

The issue of political connections has been the focus of number of studies in recent years, and Malaysia is a no exception. The growth of interest on this topic has spurned largely from the work of Gomez and Jomo (1997) which investigate political linkage between firms and notable political figures in Malaysia. Since then, studies such as Johnson and Mitton (2003) on capital control, Adhikari et al. (2006) on effective tax rates, Gul (2006) on audit fees, Fraser et al. (2006) on leverage, Abdul Wahab et al. (2007) on corporate governance, Bliss and Gul (2012a, 2012b) on leverage and cost of debt respectively, utilised the availability of political connections data and provided useful insights on the role of political connections in Malaysia. Cross countries studies such as Bushman et al. (2004) and Faccio (2006) have also examine the impact of political connections in Malaysia on transparency and characteristics of connected firms respectively. Therefore, political connections in Malaysia have been well documented and thus provide an opportunity in which to study the impact of political connections on analysts' coverage.

Selznick (1949) argues that political connections exists due to uncertainty of government regulations, and leads to firms working together with the government. Theories forwarded by North (1990) and Olson (1993) suggest that connections exist as means for controlling them and requires the firms to act in congruence with government's agenda and in return these firms would get precedence over

government contract. This argument is much supported by Shleifer and Vishny (1994) as they state that politicians themselves will extract some rents generated by these connections. [9]

Salim (2006) argues that it is important to take into the equation of racial composition when dissecting the understanding on political connections. After the 1969 ethnic riots, the Malaysian government began a programme to reduce the wealth imbalance between the three ethnic groups (Adhikari et al., 2006). The main policy resides on helping the Bumiputras in terms of financing and investment opportunities (Gomez and Jomo, 1997) and to increase Bumiputras participation in the capital market.

3.0 Institutional Investors in Malaysia

The purpose of three government bodies, namely departmental agencies, statutory bodies and government owned firms, is to accelerate Bumiputras' participation in employment, education and in particular corporate stock ownership, (Gomez and Jomo, 1999). The latter was achieved through a restructuring of equity participation where foreign equity was to be reduced from 60 to 30 percent, Bumiputras' equity raised from practically zero to 30 percent, and Chinese and Indian equity maintained at 40 percent (Norhashim and Abdul Aziz, 2005). The NEP has been successful in that is has lead to a significant increase in Bumiputras' corporate ownership from 2.4 percent in 1970 to 20.3 percent in 1990 (Rasiah and Shari, 2001).

After the establishment of NEP, it is an "open secret" that Malaysia's domestic institutional investors are being used to enhance and protect the economic interests of Bumiputras. Malaysia's institutional investors are run by Bumiputras who typically hold the position of the Chair of the board of directors. Furthermore, appointments to the Investment Advisory Board are politically motivated (Norhashim and Abdul Aziz, 2005), reporting directly to the Ministry of Finance instead of the board of directors (Asher, 2001). It is worth noting that investments of domestic institutional investors (e.g., EPF and PNB) are heavily biased towards Malay-run corporations (Norhashim and Abdul Aziz, 2005). An example is the gradual takeover of Malaysian Airline System (MAS) from Naluri Berhad by two main government-run institutional investors, Kumpulan Wang Amanah Pencen (KWAP) and Bank Simpanan Nasional (BSN), in 2001. Although this may be construed as a pure political bailout, others may see this takeover as an important national obligation as there were speculations of a foreign takeover of MAS.

Foreign institutions, mainly pension funds, make up a negligible fraction (~1%) of institutional investors that participate in the Malaysian capital market. Among them

[9] I, however, would like to treat this argument carefully. An example of SapuraKencana, a firm in which one of directors is directly connected to Tun Mahathir Mohammad. SapuraKencana is one of the largest oil and gas solution providers in the world and Tun Mahathir is the adviser of Petronas Bhd. Although the direct connection is obvious, we will never know the degree of involvement of both parties. There is a possibility, albeit a strong one, that Tun Mahathir was not involved in SapuraKencana business dealings. Another example cited by Adhikari et al. (2006) is the personal involvement of Tun Mahathir on setting up Heavy Industries Corporation of Malaysia (HICOM) which was viewed as catalyst to Bumiputras shares in Malaysia's capital market.

are California Public Employees' Retirement System (CALPERS), [10] Teachers Insurance and Annuity Association - College Retirement Equities Fund (TIAA-CREF),[11] United Nation Pension Funds, and State of Ohio Retirement Scheme.

Traditionally, the Malaysian institutional investors are seen as a tool to accelerate Bumiputras share ownership and at the same time to accommodate the inadequate domestic savings to fund the local capital market. Since the Asian financial crisis of 1997, their role has changed dramatically in that they are now expected to play a much bigger role in the capital market, not only to facilitate the above objectives, but also to enhance good governance in firms.

The Finance Committee on Corporate Governance (FCCG) in Malaysia recognises that, in addition to improved disclosure practices increased shareholder activism are at the heart of establishing good corporate governance. In particular, the MCCG outlines the key role of Malaysian institutional investors in ensuring good corporate governance practices. Specifically, it states (MCCG, Part 4 paragraphs 4.80 to 4.84) that

> *"Institutional shareholders have a responsibility to make considered use of their votes"* and *"…should encourage direct contact with companies including constructive communication with both senior management and board members about performance, corporate governance and other matters affecting shareholder interest."* Further, *"when evaluating companies' governance arrangements, particularly those relating to board structure and composition, institutional investors and their advisers should give due weight to all relevant factors drawn to their attention"*.

The lead to the recommendation by FCCG of the establishment of the Minority Shareholders Watchdog Group (MSWG), whose main objective is *"to monitor and combat abuses by insiders against the minority"* (FCCG, Chapter 6 paragraph 9.1).

Recent development on the role of institutional investors in Malaysia warrants a further examination on their relationship with financial analysts. Recent evidence suggests that institutional investors are attracted to corporate governance (Abdul Wahab *et al*., 2008) and the market reaction to announcement by the MSWG regarding shareholders activism in Malaysia via media (Amer and Abdul Rahman, 2009). In addition, the 'mix' between foreign such as CALPERS and TIAA-CREF and local institutional investors which constitute several pension funds present an opportunity for an empirical examination.

4.0 Corporate Governance role of Institutional Investors

[10] The California Public Employees' Retirement System (CalPERS) provides pension fund healthcare and other retirement services for 1.4 million California public employees. As of May 2006 it owns $210 billion worth of stock, bonds, funds, and private equity. It is the largest pension fund in the United States.

[11] TIAA-CREF is one of the largest financial services firms in the United States, with some $360 billion in assets under management as of Sept. 30, 2005.

In addition, there is another argument based on good governance practices on behalf of institutional investors. Institutional investors are known to have the ability to influence firms either directly or indirectly by means of voting rights or threatening firms by selling their shares (Aggarwal *et al*., 2011). Institutional investors are expected to perform fiduciary duties (Hawley and Williams, 1997) and as part of this process, will demand more analyst report for them to assess the firm the invested in (O' Brien and Bhushan, 1990; Hussain, 2000). There has been anecdotal evidence that institutional investors used analyst reports as form of evidence. Shleifer and Vishny (1997) argue that institutional investors have the resources to demand better governance. Institutional investors have the size and capital (Jennings, 2005) to pressure the management for better governance. The role of institutional investors in Malaysia has been in the limelight since the 1998 Asian Financial Crisis. The emergence of Minority Shareholders Watchdog Group in 2001 has strengthened the institutional investors' role in protecting minority shareholders in Malaysia's capital market.

Evidence suggests that institutional investors are successful in this role. Karpoff (2001) documents numerous event-type studies where institutional investors are successful in shareholders activism, prompting firms to act in accordance with investors' needs. Further, cross-sectional studies have shown *via* firm performance (Brickley *et al*., 1988; Cornett *et al*., 2007), corporate governance (Abdul Wahab *et al*., 2007), earnings management (Chung *et al*., 2002; Koh 2003, 2007) and director remuneration (Hartzell and Starks, 2002; Almazan *et al*., 2005) that institutional investors are indeed effective monitors. Recent multi-countries study by Aggarwal *et al*. (2011) find that firm level governance is positively associated with institutional investment. Further, a survey by McCahery *et al*. (2010) finds that corporate governance is an important determinant for their investment decisions.

Abdul Wahab *et al*. (2008) find a positive relationship between institutional investors and corporate governance. Extant literature and existing evidence suggest that institutional investors could play a governance role, effectively. As such, one could foresee that the governance role by institutional investors could attract more analyst coverage since better governance signal better quality of information which enhances earnings predictability. Further, the presence of institutional investors indicates a more transparent and higher quality disclosure of information that could attract more analyst coverage. Ameer and Abdul Rahman (2009) investigate the impact of shareholders activism by MSWG on the performance of targeted firms in Malaysia.[12] They find that MSWG targeted firms earn statistically significantly higher stock returns than non targeted firms in the long run. Ameer and Abdul Rahman (2009) find that the two most important issues raised by MSWG during annual meetings are financial reporting and corporate governance. They add that specific issues regarding directors remuneration, ratification of related transactions and due diligence are of concerns for good governance.

Examining the relationship between local institutional investors and corporate governance, Chhaochharia *et al*. (2011) find that local institutional investors are effective monitor of corporate behaviour. They find that local institutional investors

[12] The connection between MSWG and minority shareholders originates from MSWG providing proxy-voting services to shareholders and raises issues on behalf of individual shareholders during annual general meetings (Ameer and Abdul Rahman, 2009).

are more effective when there is a large local concentration of longer-term dedicated investors.

4.1 Institutional Investors and Analysts coverage (more here)

Financial analyst play both monitoring and informational role (Cheng and Subramanyam, 2008). Financial analyst play a role in reducing the agency costs arising from separation of ownership and control because analyst condition managers by monitoring and publicizing managerial actions through their information search and reporting activities (Cheng and Subramanyam, 2008). In addition, analyst is as expected to serve as information intermediaries in the capital market (O'Brien and Bhushan, 1990; Schipper, 1991; Ackert and Athanssakos, 2003) and by acting so, financial analyst improve the informational efficiency of capital markets (Healy and Palepu, 2001).

4.2 Political Connections and Analysts Coverage

Extant literature suggested that political connections in an important determinant for both financial analyst (Chen *et al*., 2011) and institutional investors (Abdul Wahab *et al*., 2008). Studies have also examined the impact of political connection on analyst forecast. Chen *et al*. (2011) propose five non-mutually exclusive explanations why political connections increases information asymmetry between analyst and managers and hence making forecasting more difficult. The first argument is the complexity of income generation process created by means of political connections which create a certain level of uncertainty. Second, as argued by Bhattacharya *et al*. (2003) that political connections are often linked with greater opacity at the firm level.

Assistance from the government allows the managers for connected firms to practice certain discretion on financial disclosure. Third, connected firms are in less need of public funds (Faccio *et al*., 2006). A firm's need to access equity financing affects the level of investor demand for its earnings forecast information, which in turn affects the expected benefit of providing accurate earnings forecasts. Therefore analyst may have less incentive to forecast earnings in politically-connected firms. Fourth, Chaney *et al*. (2011) show that quality of accounting information is significantly worse for politically-connected firms. The fifth proposition is that political connections affects equity value of the firms. Based on these arguments presented above, this study predicts a negative relationship between political connections and analyst following.

This study predicts a positive relationship between political connections and institutional investors in Malaysia. The capital market in Malaysia is largely based on racial diversity, due the New Economic Policy implemented in 1970. It has several purposes, and among them to increase the Bumiputras shareholdings in the capital market. Since the main local institutional investors in Malaysia are linked to the government either directly or indirectly, it is logical to predict that the connected firms will have high level of institutional ownership.

4.3 Institutional Investors, Analysts Coverage and Political Connections

Past studies suggest that politically connected firms are plagued with transparency (Bushman et al., 2004), highly levered (Faccio, 2006, Fraser et al., 2006, Bliss and Gul, 2012a), suffers from high level of inherent risks. We predict a less positive relationship between institutional investors and analysts' coverage for politically connected firms.

5.0 Research Design

Since the relationship between institutional ownership and analyst coverage is an endogenous one, this study therefore adopts the equation model.

$$NUMEST_{it} = a_0CONSTANT_{it} + a_1INSTOWN_{it} + a_2MKTCAP_{it} + a_2BODIND_{it} + a_3DUALITY_{it} + a_4MANOWN_{it} + a_5POLCON_{it} + a_6FE_{it} + a_7XLIST_{it} + a_8I/P_{it} + INDUSTRIES + PERIOD + error_{it} + POLCON*INSTOWN$$

(Equation 1)

5.1 Experimental variables

The first experimental variable is the natural log transformation of number of analyst following a firm (*LNNUMEST*). The data for *LNNUMEST* is gathered from the I/B/E/S database. The second experimental variable is the top five institutional investors' ownership (*INSTOWN*) in a firm, whereby the data is hand collected from annual reports. My choice of *INSTOWN* is similar to Hartzell and Starks (2002) and Abdul Wahab *et al*. (2008). Unlike other studies (e.g. O'Brien and Bhushan, 1990; Hussain, 2000; Ackert and Athanssakos, 2003), this study does not use changes in the variables since the changes are very minimal over the years. Since the Minority Shareholders Watchdog Group (MSWG) are founded by four members; PNB, LTAT, LUTH and SOCSO, this study created another variable, *MSWG* that constitute the cumulative shareholdings of these four institutional investors. In addition, this study singled out *EPF* as another institutional investor since *EPF* is the largest pension fund in the country. Furthermore, it carries fiduciary duties to the contributors and subject to active monitoring role on behalf of the contributors. The third variable, *OTHERS* consists cumulative institutional shareholdings that do not fall into either *MSWG* or *EPF*. The third choice of variable is political connections which take a value of 1 if the firm is identified as politically connected with a politician if at least one of its large shareholders, or top officers is a member of parliament, a minister or is closely related to top politician or a party (Faccio, 2006). The source of political connections data is from Johnson and Mitton (2003) list. In addition, this study classifies listed firms under the Khazanah Berhad as politically connected firms. Furthermore, this study extends the list by including new connected firms from Gul *et al*. (2010). Please see Appendix B for list of politically connected firms.

5.2 Control Variables

5.2.1 Earning Surprise (FE)

This study predicts a positive relationship between analyst forecast accuracy and analyst coverage. Lang and Lundholm (1996) include the earnings surprise to control for the fact that forecast characteristics are likely to be affected by the magnitude of the earnings information being disclosed. Similar to Lang and Lundholm (1996), Lang *et al*. (2004) and Yu (2010), this study predicts a negative relationship between earning surprise and analyst coverage. Earning surprise is proxied by the absolute value of difference between forecast and actual earnings scaled by absolute value of share price.

5.2.2 Cross Listing (XLIST)

Firms listed abroad are often perceived as better quality firms. As such, these firms are likely to receive more analyst coverage (Chen and Steiner, 2000). This study predicts a positive relationship between firms that cross listed abroad with analyst coverage. This study assigned a dummy variable that takes a value of 1 if the firm is listed either in the U.S, the U.K or Taiwan. Please see Appendix A for list of cross listed firms.

5.2.3 Inverse of price (I/P)

Brennan and Hughes (1991) develop a theoretical model with empirical support for an inverse relationship between share price and analyst coverage. They argue that stock splits reduce the relative share price and at the same time stock splits signal a brighter future for firms which attract more analysts.

5.2.4 Firm size (MKTCAP)

Financial analysts tend to follow larger firms. Ackert and Athanassakos (2003) argue that analyst have incentives to follow larger firms since these firms have the potential to generate greater business transactions and it is practical to do so (Bradshaw, 2011). This study predicts a positive relationship between firm size, measured by natural log transformation of market capitalisation (*MKTCAP*) and *LNNUMEST*.

5.2.5 Corporate governance (CGOV)

Studies have shown that relationships exist between corporate governance and analyst following (Yu, 2010) and institutional ownership (Abdul Wahab *et al*., 2008; Aggrawal *et al*., 2011). The relationship between corporate governance and analyst following is an ambiguous one (Healy and Palepu, 2001). Argument for a positive relationship between corporate governance and analyst following resides on the premise that good governance promotes high level of disclosure (Fan and Wong, 2002), and thus with high quality information provided by the firms improve the

predictability of earnings. The availability and high quality of the firm-disclosed information lowers on analyst' costs of providing earnings forecast and improve forecast accuracy, which gives analyst more incentive to follow a particular firm (Yu, 2010). Conversely, Healy and Palepu (2001) and Jiraporn and Kim (2008) regard analyst' coverage as substitute to corporate governance. In this case, analysts act as information provider, as opposed to information intermediaries. They argue that good governance which in turns disclosed high quality information lessens the usefulness of the analyst report, and therefore attracts fewer analysts. Based on these arguments, this study predicts an association between corporate governance and analyst following.

This study utilises two corporate governance variables that reflect on board structure. The first governance variable is the separation of CEO and Chairman (*DUALITY*) while the second variable is the level of board independence (*BODIND*) whereby positive relationships are predicted between the governance variables and *INSTOWN* and *LNNUMEST*.

5.2.6 Managerial ownership (MANOWN)

Moyer *et al*. (1989) argue that the greater the separation of ownership and control in a firm, the greater is the potential for expropriation by managers and non-value maximising behaviour by the management. The higher the managerial or insider ownership will then increase the cost to management of behaviour inconsistent with maximising the value of equity. As such, this creates uncertainty and increases the cost of monitoring by analyst. Therefore, this study predict a negative relationship between managerial ownership (*MANOWN*) and analyst' coverage.

5.2.7 Industry Classifications (INDUSTRY Dummies)

A number of studies (Bhushan, 1989; Moyer *et al*., 1989; O'Brien and Bhushan, 1990, Marston, 1997; Hussain, 2000) include dummy variables for a variety of individual industry sectors. Moyer *et al*. (1989) argue that some industries are affected by regulatory bodies or legal regulations and constraints. Moyer *et al*. (1989) argue that it is possible that the regulatory bodies which oversee these sectors or industries reduce investors' demand for external financial analysis by acting as substitute to monitoring.

5.2.8 Years (PERIOD Dummies)

To control for unobserved effect occurred during the sample period, this study includes year dummies in both equations.

6.0 Sample Selection

My sample includes all Malaysia publicly listed firms. This study includes firms that have detailed information on institutional ownership which are hand collected from annual reports that are downloaded from Bursa Malaysia website and Mergent Online database for the period 1999 to 2009. From the same source (annual reports), I hand collected other variables that could not be obtained from databases such as managerial

ownership (*MANOWN*), Bumiputras directors (*BUMI*) and various governance variables. Other firms' specific information collected from Compustat Global and missing information are extracted from annual reports. The initial sample comprises 5546 firm-year observations, in which comprise only non-financial firms. Data for the analyst coverage are obtained from I/B/E/S database. The initial firm-year observation for analyst data was 1434 for the period of 1999-2009. After combining the available data from both the institutional ownership and analyst information, the final sample for this study is 940.

7.0 Data Description

In Panel A of Table 1, The average number of financial analyst following a firm (*NUMEST*) is 6.217 which is similar with How *et al*. (2009) and Yu (2010a,b) findings, but differ from Hope (2003) examination on analyst coverage during IPO. Institutional ownership (*INSTOWN*) is 16.884 percent with a range of between zero to a high 94.371 percent. This figure experiences a slight jump from Abdul Wahab *et al*. (2007) findings. However, this slight increase might be due to the sample firms, since only firms that falls under the I/B/E/S databases are included. *EPF* averages 6.669 percent while *MSWG* stands at 5.317 percent. The remaining 4.898 percent of shareholdings consist of other institutional investors such as state-owned funds, financial institutions (mostly insurance firms), trust funds, and foreign institutional investors. From the sample firms, 28.2 percent are considered politically-connected.

Panel B of Table 1 presents the descriptive statistics for control variables. The mean market capitalisation (*MKTCAP*) for sample firms is 2433 million. The forecast bias, (*FE*) averages at 0.678 and ranges between nil to 20.023. Only a mere 6.3 percent of sample firms are cross listed overseas (i.e. in the U.S, U.K and Taiwan). The inverse of share price averages 0.629.

The average proportion of independent directors (*BODIND*) on the board is 36.580, which represents that at least one third of the board is consists of independent directors. 64.8 percent of the sample firms separate the CEO and Chairman functions (*DUALITY*). Direct shareholdings of managerial ownership only average 5.505 percent with a maximum of 95.726 percent.

{Table 1 here}

8.0 Results

8.1 Univariate

Table 2 provides both Pearson and Spearman-rank correlations between variables. As expected, at univariate level, the correlation between *INSTOWN* and *LNNUMEST* is at 0.192 ($p<0.01$) and 0.234 ($p<0.01$) for Pearson and Spearman-rank correlations respectively. This finding gives initial support to the positive relationships between institutional investors and analyst coverage. The correlations between firm size (*MKTCAP*) and the variables (*INSTOWN* and LN*NUMEST*) are positive and significant suggesting that more analysts tend to follow larger firms while institutional investors invest at larger firms too. The correlations also demonstrate those instruments for *LNNUMEST*, forecast bias (*FE*), cross listing (*XLIST*) and the inverse

of share price (*I/P*) are significant. Another notable mention regarding correlation, the study finds positive and significant correlations between politically-connected firms and *INSTOWN* and *LNNUMEST*.

{Table 2 here}

We extend the analysis by investigating the differences in mean and median for the test variables between politically-connected and non-connected firms presented in Table 3. Panel A of Table 3 suggests politically-connected firms (POLCON) have significantly more analysts following them as relative to non-connected firms. In addition, POLCON have significantly higher institutional shareholdings, with the exception of MSWG which is only registered a significant difference for median ($p<0.01$). In Panel B of Table 3, we find POLCON is significantly larger as opposed to non-connected firms. However, POLCON firms have lower direct managerial shareholdings and lower level of board independence.

{Table 3 here}

We extend the univariate test by examining the differences in mean and median between sample firms that are equal or below the median value of *NUMEST* (from table 1; *med=3.00*) and above the median value, tabulated in Table 4. Results find that firms above the median value of *NUMEST* have higher institutional ownership (*INSTOWN*), larger in size (*MKTCAP*), are more politically connected (*POLCON*), more listed overseas (*XLIST*). However, these firms have significantly lower direct managerial ownership (*MANOWN*). Findings presented on Table 2 and Table 3 gives initial support that a significant relationship does exists between institutional ownership (*INSTOWN*) and analyst coverage (*LNNUMEST*).

{Table 4 here}

8.2 Multivariate Analyses

Table 5 tabulates the regressions results for the main model. Column 1 of Table 1 presents the result regressing *LNNUMEST* against a set of control variables. We find positive and significant relationships between firm size (*MKTCAP*), *I/P* and *LNNUMEST*. In addition, we find a negative and significant relationship between earnings surprises (FE) with *LNNUMEST* (-0.063, $t=-3.681$, $p<0.001$). Column 2 of Table 5 presents the results when we include the two experimental variables; *POLCON* and *INSTOWN* in the regression. We find a positive and significant relationship between *INSTOWN* and *LNNUMEST* (0.004, $t=1.713$, $p<0.10$). We find a negative but insignificant relationship between *POLCON* and *LNNUMEST* even at the 10 percent level. Our result differs with Chen et al. (2011) and Yu (2010). Column 3 of Table 5 includes an interaction term (*INSTOWN*POLCON*) in which we find a positive coefficient (0.082) but insignificant.

{Table 5 here}

8.3 Further analyses

We extend the analysis by considering institutional investors heterogeneity. Institutional investors are known to be different in their goals, aim and ways in achieving that goal (Brickley *et al*., 1988, Bushee *et al*., 2002). We classify the institutional investors according to the Malaysia institutional settings. The first classification is MSWG which consists of their four founding members' ownership. They are Armed Forces Fund Board (*Lembaga Tabung Angkatan Tentera*), National Equity Corporation (*Permodalan Nasional Berhad*), Social Security Organisation (*Pertubuhan Keselamatan Sosial*) and Pilgrimage Board (*Lembaga Tabung Haji*). Since MSWG is expected to perform active monitoring on behalf of minority shareholders, this study predicts a positive relationship between *MSWG* and *LNNUMEST*.

The second group is Employees Provident Fund (EPF) while the third group forms the institutional investors that do not fall into either of the above classification mentioned earlier. This study singled out EPF since it is the largest pension fund in Malaysia. EPF has the size in terms of capital to heavily influence the capital market and governance structure. Since all employees and employers are subject to some portion of contribution to EPF which is governed by law, EPF also has fiduciary duties to act on the best interest of the contributors and community as a whole. Hence, this study predicts a positive relationship between *EPF* and *LNNUMEST*. The third group (*OTHERS*) which constitute the remaining institutional investors are expected to have little influence on analyst coverage and thus, this study predicts an association between *OTHERS* and *LNNUMEST*.

Table 6 tabulates the results when this study categorised the institutional ownership into *EPF, MSWG* and *OTHERS*. Column 1, 3 and 5 of Table 6 tabulates the result for *EPF, MSWG* and *OTHERS* respectively while column 2,4 and 6 include the interaction terms with *POLCON* in the regressions. We find a positive and significant relationship between *EPF* and *LNNUMEST* as presented in column 2 of Table 6. We further find a negative and significant relationship between *POLCON* and *LNNUMEST* (-.206, t=-1.653, p<0.10). Similarly, we find a positive but insignificant relationship between the various interaction terms with LNNUMEST.

Evidence suggests that institutional investors' heterogeneity is important, in relation to financial analysts. Mintchik *et al*. (2011) investigates the relationship between institutional investors which are classified by their investment horizon and properties of analysts forecast. Following the institutional investors classification by Bushee (1998), they find that transient investors are indeed drawn to firms with lower forecast errors and increase (decrease) their shareholdings when forecast errors decrease (increase).[13]

{Table 6 here}

[13] Bushee (1998) employs trading behaviour to assign institutional investors into three distinct groups. The first is transient investors which are institutions with high portfolio turnover and high diversification. The second group is dedicated investors which are institutions that are characterised by low portfolio turnover and concentrated ownership. The final group, quasi-indexer are characterised by diversified portfolio and low portfolio turnover.

8.4 Robustness: Joint determination

Financial analyst play both monitoring and informational role (Cheng and Subramanyam, 2008). Financial analyst play a role in reducing the agency costs arising from separation of ownership and control because analyst condition managers by monitoring and publicizing managerial actions through their information search and reporting activities (Cheng and Subramanyam, 2008). In addition, analyst is as expected to serve as information intermediaries in the capital market (O'Brien and Bhushan, 1990; Schipper, 1991; Ackert and Athanssakos, 2003) and by acting so, financial analyst improve the informational efficiency of capital markets (Healy and Palepu, 2001).

O'Brien and Bhushan (1990) argue that analyst' decisions to follow firms and financial institutions' decisions to invest in the same firms are jointly determined through demand and supply considerations of brokerages (which employ analyst) and institutions. On the one hand analysts are motivated to follow firms with large institutional holdings because institutions are willing to pay for their services.

On the other hand institutions are attracted by the marketing of brokerages' services and therefore are likely to invest more heavily in firms that are followed extensively by analysts (O'Brien and Bhushan, 1990; Hussain, 2000). Bhushan (1989) finds that the number of financial analyst following a firm is related to institutional holdings and argues that the number of institutions holding a firm's shares impacts the demand and supply of analyst following the firm. If institutional investors employ outside analyst to procure information about a firm, demand for analyst' services will increase with the number of institutional investors. In addition, because analyst attempt to generate transactions business (Schipper, 1991), the supply of analyst following a firm is likely to be large when the number of institutional investors is high. We employ the following instruments to control for possible endogeneity between LNNUMEST and INSTOWN.

$$INSTOWN_{it} = b_0 CONSTANT_{it} + b_1 NUMEST_{it+} + b_2 MKTCAP_{it} + b_3 BODIND_{it} + b_4 DUALITY_{it} + b_5 MANOWN_{it} + b_6 POLCON_{it} + \mathbf{b_7 BUMI_{it}} + \mathbf{b_8 STROA_{it}} + INDUSTRIES + PERIOD + error_{it}$$

8.5 Instruments for Institutional Investors

8.5.1 Bumiputras directors (BUMI)

One of the reasons for establishing institutional investors is to promote savings and enhance of equity shareholdings of Bumiputras in Malaysia due to the New Economic Policy implemented in 1969. Therefore the presence of Bumiputras directors on the board is an important determinant for institutional shareholdings. As such, this study predicts a positive relationship between the proportion of Bumiputras directors (*BUMI*) and institutional investors' shareholdings (*INSTOWN*).

8.5.2 Earnings Volatility (STROA)

This study predicts a negative relationship between earnings volatility *(STROA)* and institutional ownership *(INSTOWN).* Since institutional investors are subject to prudence investment, they are likely to avoid firms with high level of uncertainty. This study used standard deviation on return on assets, calculated over the period of 5 years as proxy for earnings volatility.

8.5.3 Control variables for INSTOWN

Further, institutional investors have higher shareholdings in larger firms. This study also predicts a positive relationship between *MKTCAP* and *INSTOWN*.

This study predicts a positive relationship between corporate governance and institutional ownership.[14] 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. Chung and Zhang (2011) argue that institutional investors prefer firms with better governance structure for fiduciary responsibilities, lower monitoring costs and liquidity reasons. They find results consistent with what they have conjectured with fraction of shares own by institutional investors' increases with two composite measures constructed based on 50 individual measures for Institutional Shareholders Services (ISS).

The relationship between managerial ownership (*MANOWN*) and *INSTOWN* is rather a mechanical one. An increase of managerial ownership will result in decrease in institutional ownership. Therefore, this study predicts a negative relationship between *MANOWN* and *INSTOWN*.

8.6 A note on validity of instruments[15]

Using a simultaneous equation approach with a three-stage-least squares (*3SLS*) estimation; we apply the following steps suggested by Larcker and Rusticus (2010) to test for possible endogeneity in our system of equations. First, we examine the strength of the instruments used in each equation by conducting partial R^2 and F statistics based on the first stage regression.[16] Then we examine the validity of the

[14] For the sake of brevity, this study treats corporate governance variables as exogenous variables.
[15] For the sake of brevity, the results are not tabulated, but can be obtain from the author.
[16] We employ the F statistics benchmark figure suggested by Stock *et al.* (2002) which are: 1= 8.96, 2 =11.59, 3 =12.83, 5 = 15.09, and 10 = 20.88.

instrument by computing the over identification statistics.[17] The over identification statistic is chi-square distributed with degrees of freedom equal to the difference between the number of instruments and the number of endogenous variables. If the chi-square statistic is not significant then the instrumental variables are well identified and our system of equations is well defined. Finally, we run the Hausman test to test for possible endogeneity between the variables.

The partial *F* statistics are 12.193 and 7.163 for *NUMEST* and *INSTOWN* respectively. The results suggest that the instruments for *NUMEST* are strong, but weak for *INSTOWN*. The over identification tests suggest the instruments used for *NUMEST* and *INSTOWN* are identified. However, the simple Hausman test only finds that the endogeneity only exists in the *NUMEST* equation, not *INSTOWN*. From this analysis, the *3SLS* results are indeed reliable.

9.0 Conclusion

This study investigates the relationship between institutional investors, analysts' coverage and political connections. We predict a positive relationship between institutional investors' shareholdings and analysts' coverage while a negative relationship is posited between political connections and analysts' coverage. We find a positive and significant relationship between institutional ownership and analysts coverage, and the results remain significant after we control for possible endogeneity. We find no support that a negative relationship between political connections and analysts coverage.

[17] The Sargan statistics can be obtained by a regression of the second-stage residuals on *all* exogenous variables. If the instruments are valid, the coefficients on the instruments should be close to zero. The formal test is based on the R^2 from this model being close to zero. In particular, $(n\text{-}m)*R^2$ is distributed χ^2 with K-L degrees of freedom, where K is the number of exogenous variables *unique* to the first-stage and L is the number of endogenous explanatory variables. "*n*" is the number of observations while *m* is the number of variables in the OLS regression. It is very important to note that this test requires that at least one of the instruments is valid (i.e., exogenous).

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Appendix A: List of Cross Listed Firms

1	BANDAR RAYA DEVELOPMENTS BHD [S]
2	BERJAYA CORPORATION BHD
3	BOUSTEAD HOLDINGS BHD
4	GENTING BHD
5	GENTING MALAYSIA BHD
6	KUALA LUMPUR KEPONG BHD [S]
7	KULIM (M) BHD [S]
8	LION CORPORATION BHD [S]
9	MALAYAN BANKING BHD
10	MBF HOLDINGS BHD
11	PATIMAS COMPUTERS BHD [S]
12	SIME DARBY BHD [S]
13	TANJONG PUBLIC LIMITED COMPANY
14	TENAGA NASIONAL BHD [S]
15	TOP GLOVE CORPORATION BHD [S]
16	YTL CORPORATION BHD [S]
17	AMSTEEL CORP BHD

Appendix B: List of Politically Connected Firms

1	AFFIN HOLDINGS BHD	35	PADIBERAS NASIONAL BHD [S]
2	AHMAD ZAKI RESOURCES BHD [S]	36	PETRONAS GAS BHD [S]
3	BANDAR RAYA DEVELOPMENTS BHD [S]	37	PHARMANIAGA BHD [S]
4	BERJAYA CORPORATION BHD	38	PROTON HOLDINGS BHD
5	BERJAYA LAND BHD	39	RANHILL BHD [S]
6	BERJAYA SPORTS TOTO BHD	40	SIME DARBY BHD [S]
7	BIMB HOLDINGS BHD [S]	41	STAR PUBLICATIONS (M) BHD [S]
8	BOUSTEAD HOLDINGS BHD	42	TANJONG PUBLIC LIMITED COMPANY
9	CAHYA MATA SARAWAK BHD [S]	43	TELEKOM MALAYSIA BHD [S]
10	CYCLE & CARRIAGE BINTANG BHD [S]	44	TENAGA NASIONAL BHD [S]
11	DIGI.COM BHD [S]	45	TRANSMILE GROUP BHD [S]
12	DRB-HICOM BHD	46	UMW HOLDINGS BHD [S]
13	EDARAN OTOMOBIL NASIONAL BHD [S]	47	UNITED PLANTATIONS BHD [S]
14	FABER GROUP BHD	48	YTL CORPORATION BHD [S]
15	GOH BAN HUAT BHD [S]	49	YTL POWER INTERNATIONAL BHD [S]
16	GOLDEN PLUS HOLDINGS BHD	50	ARAB-MALAYSIAN CORP
17	GUOCOLAND (MALAYSIA) BHD	51	CAMERLIN GROUP
18	HO HUP CONSTRUCTION COMPANY BHD [S]	52	CEMENT INDS.OF MALAYSIA
19	HONG LEONG BANK BHD	53	COMMERCE ASSET-HLDG.
20	HONG LEONG FINANCIAL GROUP BHD	54	GOLDEN HOPE PLTN.
21	HONG LEONG INDUSTRIES BHD [S]	55	KEDAH CEMENT HOLDINGS BHD
22	HUME INDUSTRIES (M) BHD [S]	56	KUMPULAN GUTHRIE
23	IJM CORPORATION BHD [S]	57	LEISURE MANAGEMENT BHD
24	JAYA TIASA HOLDINGS BHD [S]	58	MAGNUM
25	LAND & GENERAL BHD	59	MALAKOFF
26	LANDMARKS BHD	60	MALAYSIA INTL.SHIPPING
27	LION CORPORATION BHD [S]	61	METACORP
28	MALAYAN BANKING BHD	62	METROPLEX
29	MALAYSIA AIRPORT HOLDINGS BHD	63	NALURI
30	MALAYSIAN AIRLINE SYSTEM BHD	64	NANYANG PRESS HDG.
31	MTD CAPITAL BHD [S]	65	OYL INDUSTRIES
32	MULPHA INTERNATIONAL BHD	66	PHILLEO ALLIED BHD
33	MULTI-PURPOSE HOLDINGS BHD	67	THE NEW STRAITS TIMES PRESS (M) BHD
34	NCB HOLDINGS BHD [S]		

Table 1: Descriptive Statistics (1999-2009)

	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
Panel A: Experimental Variables						
LOG(NUMEST)	1.176	1.099	3.434	0.000	1.145	940
NUMEST	6.217	3.000	31.000	1.000	7.185	940
INSTOWN_NEW	16.884	11.710	94.371	0.000	18.203	940
INSTOWN_EPF	5.317	3.322	84.554	0.000	6.647	940
INSTOWN_MSWG	6.669	2.276	75.956	0.000	12.051	940
INSTOWN_OTHERS	4.898	0.738	74.464	0.000	11.931	940
POLCON	0.282	0.000	1.000	0.000	0.450	940
Panel B: Control Variables						
MKT_CAP2	20.363	20.236	24.993	15.075	1.480	940
MKT_CAP	2.433E+09	6.141E+08	7.151E+10	3.524E+06	6.251E+09	940
ABS_FE_EPS	0.678	0.168	20.023	0.000	1.781	940
CROSS_LIST	0.063	0.000	1.000	0.000	0.243	940
INV_PRICE	0.629	0.418	6.897	0.025	0.696	940
BOD_IND2	36.580	33.333	85.714	0.000	17.464	940
DUALITY	0.648	1.000	1.000	0.000	0.478	940
MANOWN	5.505	0.203	95.726	0.000	12.712	940

INSTOWN is top five institutional investors ownership. *NUMEST* is the number of analyst following a firm while *LNNUMEST* is the log transformation of *NUMEST*. *MKTCAP** is market capitalisation while *MKTCAP* is the natural log transformation of *MKTCAP**. *BODIND* is the proportion of independent directors on the board. *DUALITY* takes the value of 1 if the firm separates the CEO and Chairman function. *MANOWN* is direct managerial shareholdings while *POLCON* is an indicator variable that takes the value of 1 if the firm is politically-connected. *FE* is the absolute forecast error scaled by absolute share price. *XLIST* takes the value of 1 if the firm is cross listed in the U.S, U.K or Taiwan. *I/P* is the inverse of share price. *BUMI* is the proportion of Bumiputras directors on the board and *STROA* is the standard deviation of return on assets for five years.

Table 2: Correlation Matrix (1999-2009, n=940)

	LNNUMEST	*INSTOWN*	*POLCON*	*MKTCAP*	*FE*	*XLIST*	*I/P*	*BODIND*	*DUALITY*	*MANOWN*
LNNUMEST	*1.000*	0.234***	0.223***	0.583***	-0.311***	0.132***	-0.210***	-0.013	0.064*	-0.134***
INSTOWN	*0.192***	1.000	0.145***	0.229***	-0.043	0.087***	-0.069**	-0.012	0.029	-0.172***
POLCON	*0.234***	*0.234***	1.000	0.395***	-0.001	0.072**	-0.132***	-0.089***	0.102***	-0.266***
MKTCAP	*0.579***	*0.256***	*0.393***	1.000	-0.272***	0.201***	-0.376***	-0.049	0.059*	-0.287***
FE	*-0.172***	*-0.038*	*-0.021*	*-0.158***	1.000	0.031	0.114***	0.080**	0.041	0.000
XLIST	*0.139***	*0.128***	*0.072***	*0.252***	*0.027*	1.000	-0.220***	-0.009	-0.056*	-0.043
I/P	*-0.200***	*-0.088***	*-0.119***	*-0.344***	*0.025*	*-0.108***	1.000	0.064**	-0.099***	0.072**
BODIND	*-0.017*	*0.005*	*-0.091***	*-0.040*	*0.078***	*0.010*	*0.064***	1.000	-0.085***	-0.001
DUALITY	*0.062**	*0.098***	*0.102***	*0.060***	*0.049*	*-0.056**	*-0.120***	*-0.072***	1.000	-0.203***
MANOWN	*-0.148***	*-0.116***	*-0.184***	*-0.237***	*0.078***	*-0.001*	*0.041*	*0.051*	*-0.134***	1.000

Pearson correlations are italicised. *INSTOWN* is top five institutional investors ownership. *LNNUMEST* is the log transformation of number of analysts following a firm. *MKTCAP* is market capitalisation while. *BODIND* is the proportion of independent directors on the board. *DUALITY* takes the value of 1 if the firm separates the CEO and Chairman function. *MANOWN* is direct managerial shareholdings while *POLCON* is an indicator variable that takes the value of 1 if the firm is politically-connected. *FE* is the absolute forecast error scaled by absolute share price. *XLIST* takes the value of 1 if the firm is cross listed in the U.S, U.K or Taiwan. *I/P* is the inverse of share price. *BUMI* is the proportion of Bumiputras directors on the board and *STROA* is the standard deviation of return on assets for five years. *, ** and *** represent 10, 5 and 1 percent significant values respectively.

Table 3: Test of Differences between Politically and Non-Politically connected firms (1999-2009, n=940)

	Polcon=1 (n=265)		Polcon=0 (n=675)			
	Mean	Median	Mean	Median	t-test p-value	Mann-Whitney p-value
Panel A: Experimental Variables						
LNNUMEST	1.600	1.946	1.009	0.693	**0.000**	**0.000**
NUMEST	9.087	7.000	5.090	2.000	**0.000**	**0.000**
INSTOWN_NEW	23.686	14.231	14.214	10.743	**0.000**	**0.000**
INSTOWN_EPF	6.643	5.748	4.797	2.756	**0.000**	**0.000**
INSTOWN_MSWG	7.197	1.240	6.462	2.565	0.269	**0.005**
INSTOWN_OTHERS	9.846	2.383	2.955	0.432	**0.000**	**0.000**
Panel B: Control Variables						
MKT_CAP2	21.291	21.217	19.999	19.919	**0.000**	**0.000**
MKT_CAP	4.984E+09	1.639E+09	1.432E+09	4.475E+08	**0.000**	**0.000**
ABS_FE_EPS	0.618	0.169	0.702	0.168	0.508	0.971
CROSS_LIST	0.091	0.000	0.052	0.000	**0.072**	**0.072**
INV_PRICE	0.498	0.338	0.680	0.451	**0.000**	**0.000**
BOD_IND2	34.054	33.333	37.571	37.500	**0.006**	**0.010**
DUALITY	0.725	1.000	0.618	1.000	**0.002**	**0.002**
MANOWN	1.800	0.019	6.959	0.415	**0.000**	**0.000**

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Table 4: Tests of Differences between Firms below or equal to median value and above the median value of analysts' coverage

	Numest below or equal to median (n=525)		Numest above the median (n=415)			
	Mean	Median	Mean	Median	t-test p-value	Mann-Whitney p-value
Panel A: Experimental Variables						
LNNUMEST	0.264	0.000	2.329	2.303	**0.000**	**0.000**
NUMEST	1.430	1.000	12.272	10.000	**0.000**	**0.000**
INSTOWN_NEW	13.899	8.763	20.660	15.113	**0.000**	**0.000**
INSTOWN_EPF	3.880	1.952	7.136	6.045	**0.000**	**0.000**
INSTOWN_MSWG	6.507	2.064	6.874	2.607	0.517	0.218
INSTOWN_OTHERS	3.513	0.267	6.650	1.622	**0.000**	**0.000**
POLCON	0.210	0.000	0.373	0.000	**0.000**	**0.000**
Panel B: Control Variables						
MKT_CAP2	19.717	19.619	21.181	21.115	**0.000**	**0.000**
MKT_CAP	1.148E+09	3.314E+08	4.058E+09	1.479E+09	**0.000**	**0.000**
ABS_FE_EPS	0.934	0.250	0.354	0.101	**0.000**	**0.000**
CROSS_LIST	0.042	0.000	0.089	0.000	**0.007**	**0.005**
INV_PRICE	0.744	0.477	0.483	0.345	**0.000**	**0.000**
BOD_IND2	36.885	33.333	36.193	36.364	0.612	0.985
DUALITY	0.623	1.000	0.680	1.000	**0.079**	**0.080**
MANOWN	6.988	0.291	3.629	0.147	**0.000**	**0.003**

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Table 5: Regressions Results (1999-2009, n=940)

$NUMEST_{it} = a_0 CONSTANT_{it} + a_1 INSTOWN_{it} + a_2 MKTCAP_{it} + a_2 BODIND_{it} + a_3 DUALITY_{it} + a_4 MANOWN_{it} + a_5 POLCON_{it} + a_6 FE_{it} + a_7 XLIST_{it} + a_8 I/P_{it} + INDUSTRIES + PERIOD + error_{it}$

Variable	Expected Direction	Coefficient 1	Coefficient 2	Coefficient 3
C		-8.853	-8.978	-8.968
		-11.405***	***-11.205******	***-11.122******
INSTOWN_NEW			0.004	0.004
			1.713*	*1.166*
POLCON			-0.091	-0.097
			-0.890	*-0.759*
*INSTOWN_NEW*POLCON*				0.000
				0.082
MKT_CAP2		0.463	0.464	0.464
		14.913***	***14.124******	***14.094******
ABS_FE_EPS		-0.063	-0.062	-0.062
		-3.681***	***-3.605******	***-3.605******
CROSS_LIST		0.021	-0.008	-0.009
		0.113	*-0.043*	*-0.047*
INV_PRICE		0.089	0.091	0.091
		1.661*	***1.704****	***1.696****
BOD_IND2		0.002	0.002	0.002
		1.049	*0.904*	*0.907*
DUALITY		0.022	0.014	0.014
		0.279	*0.180*	*0.179*
MANOWN		-0.001	-0.001	-0.001
		-0.231	*-0.228*	*-0.230*
Industry fixed (dummy variables)		Yes	Yes	Yes
Period fixed (dummy variables)		Yes	Yes	Yes
Adjusted R-squared		0.388	0.391	0.390
F-statistic		***22.268******	***21.072******	***20.371******
Redundant Fixed Effects Tests				
Period F		***4.720******	***4.496******	***4.491******

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Table 6: Regressions Results for Different types of Institutional Investors (1999-2009, n=940)

Variable	Coefficient 1	Coefficient 2	Coefficient 3	Coefficient 4	Coefficient 5	Coefficient 6
C	-8.575	-8.549	-8.995	-8.988	-8.992	-8.902
	-10.818*	***-10.765****	***-11.152****	***-11.090****	***-11.172****	***-11.008****
INSTOWN_EPF	0.026	0.021				
	4.646*	***3.429****				
INSTOWN_MSWG			0.000	-0.001		
			-0.104	*-0.133*		
INSTOWN_OTHERS					0.001	-0.002
					0.328	*-0.367*
POLCON	-0.091	-0.206	-0.070	-0.074	-0.075	-0.099
	-0.925	***-1.653****	*-0.692*	*-0.672*	*-0.733*	*-0.912*
*INSTOWN_EPF*POLCON*		0.019				
		1.437				
*INSTOWN_MSWG*POLCON*				0.001		
				0.082		
*INSTOWN_OTHERS*POLCON*						0.005
						0.693
MKT_CAP2	0.449	0.448	0.470	0.470	0.469	0.467
	13.827*	***13.808****	***14.347****	***14.314****	***14.188****	***14.122****
ABS_FE_EPS	-0.063	-0.062	-0.063	-0.063	-0.062	-0.063
	-3.763*	***-3.688****	***-3.653****	***-3.653****	***-3.638****	***-3.666****
CROSS_LIST	0.030	0.006	0.020	0.019	0.014	0.018
	0.168	*0.036*	*0.109*	*0.107*	*0.078*	*0.097*
INV_PRICE	0.091	0.088	0.092	0.092	0.092	0.090
	1.719*	***1.656****	***1.713****	***1.706****	***1.709****	***1.682****
BOD_IND2	0.002	0.002	0.002	0.002	0.002	0.002
	0.865	*0.831*	*0.996*	*0.999*	*0.985*	*0.996*
DUALITY	0.005	0.005	0.026	0.026	0.024	0.025
	0.068	*0.068*	*0.327*	*0.325*	*0.304*	*0.311*
MANOWN	0.000	0.000	-0.001	-0.001	-0.001	-0.001
	-0.012	*-0.100*	*-0.312*	*-0.311*	*-0.306*	*-0.310*
Industry Fixed (dummy variables)	Yes	Yes	Yes	Yes	Yes	Yes
Period fixed (dummy variables)	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.407	0.409	0.387	0.387	0.387	0.387
F-statistic	***22.506****	***21.932****	***20.790****	***20.098****	***20.800****	***20.152****
Period F	***4.756****	***4.661****	***4.780****	***4.775****	***4.755****	***4.823****

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Table 7: Simultaneous Equations for Various Classifications of Institutional Investors (1999-2009, n=940)

	OLS	3SLS	OLS	3SLS
	1	2	3	4
C	-8.978	-8.859	-8.968	-9.789
	-11.205*	***-10.001****	***-11.122****	***-9.612****
INSTOWN_NEW	0.004	0.024	0.004	0.038
	1.713*	***1.969****	*1.166*	***1.774****
POLCON	-0.091	-0.190	-0.097	0.386
	-0.890	*-1.508*	*-0.759*	*1.168*
*POLCON*INSTOWN_NEW*			0.000	-0.032
			0.082	*-1.565*
MKT_CAP2	0.464	0.432	0.464	0.456
	14.124*	***10.445****	***14.094****	***12.325****
ABS_FE_EPS	-0.062	-0.056	-0.062	-0.055
	-3.605*	***-3.020****	***-3.605****	***-2.872****
CROSS_LIST	-0.008	-0.139	-0.009	-0.056
	-0.043	*-0.642*	*-0.047*	*-0.273*
INV_PRICE	0.091	0.087	0.091	0.119
	1.704*	*1.518*	***1.696****	***1.949****
BOD_IND2	0.002	0.001	0.002	0.000
	0.904	*0.395*	*0.907*	*0.091*
DUALITY	0.014	-0.043	0.014	-0.029
	0.180	*-0.462*	*0.179*	*-0.314*
MANOWN	-0.001	0.001	-0.001	0.001
	-0.228	*0.164*	*-0.230*	*0.291*
Industry fixed (dummy variables)	Yes	Yes	Yes	Yes
Period fixed (dummy variables)	Yes	Yes	Yes	Yes
Adjusted R-squared	0.391	0.307	0.390	0.270
F-statistic	***21.072****	***32.000****	***20.371****	***33.000****

INSTOWN is top five institutional investors ownership. *NUMEST* is the number of analyst following a firm while *LNNUMEST* is the log transformation of *NUMEST*. *MKTCAP* is the natural log transformation of market capitalisation. *BODIND* is the proportion of independent directors on the board. *DUALITY* takes the value of 1 if the firm separates the CEO and Chairman function. *MANOWN* is direct managerial shareholdings while *POLCON* is an indicator variable that takes the value of 1 if the firm is politically-connected. *FE* is the absolute forecast error scaled by absolute share price. *XLIST* takes the value of 1 if the firm is cross listed in the U.S, U.K or Taiwan. *I/P* is the inverse of share price. *BUMI* is the proportion of Bumiputras directors on the board and *STROA* is the standard deviation of return on assets for five years. *, ** and *** represent 10, 5 and 1 percent significant values respectively.