## The relationship between voluntary disclosure of corporate governance practices by the Hong Kong small-cap listed firms, firm value, and dividend payout

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#### Abstract

This study investigates the relationship between voluntary corporate governance disclosure and firm valuation for small-cap firms in Hong Kong. Hong Kong is a common law legal regime but is characterized by concentrated director or family ownership. Corporate governance disclosure for each firm is measured by a single score (CGscore) using a checklist based on the Appendix 23 of the Listing Rules of the Hong Kong Exchange, a regulation that became effective as of January 1<sup>st</sup>, 2005. The analysis is based on the constituent stocks of the Hang Seng Hong Kong (HK) SmallCap Index over the period 2003 to 2005.

Following La Porta *et al.* (2000a) and Mitton (2004), this study tests the outcome agency model of dividends. The reported results show that corporate governance disclosure is positively associated with firm valuation. Furthermore, firms with high level of corporate governance disclosure but low directors' ownership show the highest market valuation; whereas firms with low corporate governance disclosure and limited directors' ownership appear to have the lowest market valuation. The results further suggest that investors in Hong Kong tend to put a higher valuation on firms perceived as being more transparent in corporate governance.

The results support the outcome agency model of dividend which suggests outside investors would demand higher dividends as an additional minority protection mechanism for firms that may have either agency problems or entrenchment problems. It implies that, when outsiders are legally powerless to remove entrenched managers, they would still seek ways to enhance their protection from the potential expropriation by the predominant shareholders.

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#### 1. Introduction

A large number of countries have developed codes of corporate governance, usually in response to capital market failures (e.g. in UK, *the Cadbury Code 1992* after Maxwell, BCCI and Polly Peck; in US, *the Sarbanes-Oxley Act 2002* after Enron, Worldcom and Global Crossing; in East Asia, the overhaul of listing regulations and company laws in Thailand, South Korea, and Hong Kong after the Asian financial crisis 1997-1998).

In the case of Hong Kong, the corporate governance (CG) reform did not result directly from major company failure but came to wake after the *Cadbury Report 1992* in the UK was published. The reform commenced in 1995 when the Corporate Governance Working Group (later known as the Corporate Governance Committee (CGC)) of the then Hong Kong Society of Accounts (HKSA) compiled the first report containing 19 recommendations for improved CG standards and practices. In 1997, the CGC published the second report, which contained a survey result on the contemporary disclosure in the annual reports of listed firms on directors, shareholders and audit committees. Based on the survey result, the CGC later on issued a series of recommended guidelines: *A Guide for the Formation of Audit Committee (1997), Directors' Remuneration: Recommendations for Enhanced Transparency and Accountability (1999), Corporate Governance Disclosure in annual Reports: A Guide to Current Requirements and Recommendations for Enhancement (2001), A guide for Effective Audit Committees* 

(2002), and Corporate Governance for Public Bodies: A Basic Framework (2004). The CGC's recommended guidelines were accepted by the Stock Exchange of Hong Kong (SEHK)—later known as the Hong Kong Exchange (HKEx)—when the latter formally endorsed the establishment of audit committees as part of its *Code of Best Practice* in 1998. In January 2004, the HKEx published an exposure draft to seek market views on the timing of the proposed implementation of the *Code on Corporate Governance Practices* (the 'Code'). In November 2004, the HKEx issued a 78-page report and announced that the *Code* would become effective to all listed firms on the HKEx for accounting periods commencing on or after January 1<sup>st</sup>, 2005 (HKEx, 2004).

#### 1.1 Objectives and organisation of this study

The primary aim of this present study is to investigate whether a positive relationship exists between the voluntary disclosure of corporate governance (CG) practices by the small capitalised firms in Hong Kong and the valuation of their firms. When disclosure becomes mandatory, the companies are obliged to comply with the regulatory bodies' requirement. However, some companies opted to incorporate CG disclosure *before* the requirement became mandatory. Furthermore, some companies opted to disclose more indepth information regarding their CG practices than others. Would such differences in terms of CG disclosures benefit the firms in return, specifically, in the market valuation (proxied by *Tobin's Q*) of the firms?

This study therefore sets out to investigate whether a small-cap firm that puts more emphases on corporate governance would have a higher market valuation than other firms when they are all operating in a developed Asian economy (Hong Kong) where common law regime is administered and is characterised with high concentration of family ownership.

A secondary aim of this paper is to test the *outcome agency model of dividends* (La Porta, Lopez-de-Silanes, Shleifer and Vishny — hereafter LLSV — 2000a), which suggests that dividends can play a useful role in mitigating the conflicts between insiders (i.e., controlling shareholders) and outsiders (i.e., minority shareholders) of a firm. By paying dividends, insiders return corporate earnings to investors. Hence, they are no longer capable of using these earnings to benefit themselves. Moreover, a good investor protection environment would make asset diversion (e.g., tunnelling) legally riskier for the insiders, thereby increasing the attractiveness of dividends for them. Viewed from this perspective, dividends are an outcome of an effective system of legal protection of shareholders.

A logical extension of this outcome agency model of dividends is that in a country with good shareholder protection, shareholders who feel protected would accept low dividend payouts, and high reinvestment rates, from a company with good investment opportunities. On the other hand, if a good corporate governance firm is faced with mature or poor investment opportunities, the shareholders would expect the management to refrain from investing unprofitably. It follows that with good shareholder protection and good corporate governance, high growth companies should have significantly lower dividend payouts than low growth companies.

This study tests the above hypotheses, using a sample of small-cap Hong Kong companies, which are largely owned by insiders or members of the same family. The

results of the tests will contribute to the understanding of whether a common law regime is good enough to provide sufficient minority investors' protection from potential expropriation by the controlling owners of the firms.

#### **1.2 Literature Review on Corporate Governance**

The extant literature is replete with studies that have examined the relationship between ownership structure and firm value for US firms (e.g. Demsetz and Lehn 1985; Morck, Shleifer, and Vishny 1988; McConnell and Servaes 1990). Other research focus on non-US firms, and these are often cross-country studies. Several studies investigate how the macro corporate governance framework – the legal origin, the legislature and judicial systems, and the extent of legal enforcement on minority shareholders' protection – impacts on the firms' valuation and the capital market development (LLSV 1998; Claessens, Djankov, Fan and Lang 1999; Chang, Khanna and Palepu 2000; Lins 2003; Boubakri, Cosset and Guedhami 2005). However, the sample firms tend to be large-capitalisation (large-cap) firms and the number of sample firms per country is usually restricted.

Cross-country research has documented that an economy's legal system and its legal origin would offer different degrees of investor protection. Those economies that adopt a common law legal and jurisdiction system (such as the US and the UK) tend to offer better outside investor protection than do the countries (such as France and Germany) that adopt a civil law system (LLSV 1998; Johnson, La Porta, Lopez-de-Silanes & Shleifer 2000). Furthermore, when investor rights are extensive and well enforced by legislation and courts, investors are willing to finance firms (LLSV, 2000b). Results of a

study comprising a sample of 539 large firms from 27 developed economies reported by LLSV (2002) support the view that better investor protection is associated with higher valuation of firms (proxied by the median *Tobin's Q*). The results also show that poor shareholder protection is penalized with lower valuation. LLSV conclude that investor protection is important for financial market development.

Regarding other aspects of corporate governance other than ownership structure, the early non-US evidence tends to be focused on Japan, Germany, and the UK. (Denis and McConnell 2003, p. 11). While the UK is similar to the US in terms of diverse ownership of firms, Japan and Germany have historically been characterised with bank-centred economies and more concentration in firm ownership than the market-driven economies (the US and the UK). Moreover, Japan and Germany do not possess a common law legal origin, which is one of the cornerstone components in corporate governance in providing investor protection as proclaimed by LLSV.

Within the common law jurisdiction system, there is some empirical research on the corporate governance issues for small-capitalisation (small-cap) firms in the US (Eisenberg, Sundgren and Wells, 1998; Ang, Cole and Lin, 2000). However, little work exists in the study of small-cap firms for other countries. Eisenberg, Sundgren, and Wells (1998) find that there is an inverse relationship between board size and profitability for small- and mid-size companies in Finland. Klein, Shapiro and Young (2005) find no evidence in Canada that a total governance index affects firm performance, whilst Switzer and Kelly (2006) provide evidence to the contrary in their study of Canadian small-cap companies and report that certain governance mechanisms do impact on firm's performance as measured by *Tobin's Q*.

Single country studies on non-US/UK firms often focus on the internal corporate governance mechanism such as the composition of the board of directors, the board size, and ownership structure. One characteristic of non-US/UK firms is that they have a higher concentration of ownership. In the case of Asian companies, ownership is either tightly held by families (Claessens, Djankov and Lang (2000) for Hong Kong; Yeh, Lee and Woidtke (2001) for Taiwan; and Joh (2003) for South Korea), closely affiliated to banks (Hoshi, Kashyap and Scharfstein (1991) for Japan), or it is controlled by the state or quasi-state institutions (Qi, Wu and Zhang, 2000; Chen, Firth, Gao and Rui, 2006 for China).

As regards corporate governance research on Asian companies which are characterised by high concentration in ownership, Chen and Jaggi (2000) find empirical evidence to support a positive relationship between the proportion of Independent Non-Executive Directors (INED) on corporate boards and the comprehensiveness of financial disclosures for the 100 largest Hong Kong firms. Mak and Yuanto (2002) also report an inverse relationship between board size and *Tobin's Q* in Singapore and Malaysia. All these economies had once been UK's colonies, and all of them have a common law legal origin. According to LLSV, common law regimes offer higher shareholder rights, creditor rights, and higher level of enforcement of investor-protection laws (LLSV, 1998, 2000b). Yet, during the 1997-1998 Asian economic crisis, there were plenty examples of expropriation of outside investors' holdings by the controlling shareholders of firms in Asian economies (see Johnson, Boone, Breach and Friedman, 2000; Mitton, 2002). Even *before* the economic crisis, empirical studies show that the controlling shareholders of Asian firms with poor internal corporate governance mechanism exploited minority shareholders in times of low profitability (Joh, 2003). Internal corporate governance mechanism at firm level does seem to be as important as, if not more important than, external mechanism at country level.

Few studies look at the burgeoning small-cap companies that are set up by the founders who would usually act as the Chairman of the Board as well as the Chief Executive Officer (CEO) of their own company. In many cases, the founder would appoint his/her family members to sit on the board or to take up responsible managerial positions inside the firm (see Mok *et al.*, 1992; Lam *et al.*, 1994; Chen and Jaggi, 2000). If these small-cap firms aspire to become mid-cap firms soon, and hopefully large-cap firms in the future, they need to make an effort in communicating to the investors—both large and small, local and overseas—that a sound CG system is well in place and implemented inside their organisations.

The remainder of this paper is organized as follows. Section 2 provides an overview of Hong Kong economy and listed companies in terms of their characteristics in corporate governance. Section 3 describes the sample collection while the variables and hypotheses are described in Section 4. Summary statistics and the empirical test results are reported in Section 5. Section 6 concludes with a summary of the findings.

#### 2. Hong Kong Capital Market and Corporate Governance

#### 2.1 Stage of development of the Hong Kong capital market

Hong Kong offers a unique example in the study of corporate governance. It is a marketdriven economy. For the 12<sup>th</sup> consecutive year in 2006, it has retained its rating as the freest economy in the world.<sup>1</sup> Not only does Hong Kong adopt an open-door policy on foreign capital movements, it is also one of the major players in the global financial markets. Hong Kong's stock market was the 8<sup>th</sup> largest in the world and the 2<sup>nd</sup> largest in Asia in terms of market capitalisation as at end May 2006.<sup>2</sup> As at end 2005, Hong Kong had a market capitalisation of US\$ 1,055 billion, slightly more than one-third of that of the London Stock Exchange. In terms of equity capital raised in 2005, Hong Kong ranked 5<sup>th</sup> in the world and 1<sup>st</sup> in Asia.<sup>3</sup> To upkeep and further promote Hong Kong as a major financial centre in Asia, the Hong Kong Special Administrative Region (HKSAR) Government has been vigilant in making the stock market more transparent and fairer to all investors, local or overseas. One of the important issues on the agenda of the HKSAR Government is to enhance the corporate governance of all the firms listed on the Stock Exchange of Hong Kong (SEHK).

#### 2.2 Development of Corporate Governance in Hong Kong

The Secretary for Financial Services and the Treasury (FSTB) pointed out in a speech in September 2003 that "...one of the FSTB's most important policy directions is to enhance the standard of corporate governance. The Corporate Governance Action Plan that I submitted to the Legislative Council in January 2003 sets out a concrete programme for the Government, the Securities and Futures Commission (SFC), and Hong Kong Exchanges and Clearing Ltd (HKEx)."<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> Index of Economic Freedom 2006, the Heritage Foundation website,

http://www.heritage.org/index/countries.cfm

<sup>&</sup>lt;sup>2</sup> World Federation of Exchanges.

<sup>&</sup>lt;sup>3</sup> Financial Services Branch, Hong Kong SAR Government (2006), Hong Kong: The Facts.

<sup>&</sup>lt;sup>4</sup> Speech by the Secretary for Financial Services and the Treasury Branch (FSTB), September 2003. The Hong Kong Exchanges and Clearing Ltd (HKEx) is the holding company that owns and operates the Stock Exchange of Hong Kong, the Hong Kong Futures Exchange, and the Hong Kong Securities Clearing. The HKEx came into being in March 2000, following the recommendations by the then Financial Secretary of the HKSAR, and became a listed company on its own stock market in June 2000.

The significance of corporate governance to the development and maintenance of a free and attractive capital market is widely acknowledged among the regulators, professional bodies, and business leaders in Hong Kong. The Securities and Futures Commission (SFC), the HKEx, and the Hong Kong Institute of Certified Public Accountants (HKICPA) all strive to foster the corporate governance standards of the listed companies. The HKEx formally adopted the recommended *Code on Corporate Governance Practices* into their listing rules as *Appendix 14* and as from January 1<sup>st</sup>, 2005, listed companies on the Hong Kong Stock Exchange and all issuers of securities were required to include a Corporate Governance (CG) Report in their annual reports. The CG report would be compiled according to *Appendix 14* and there is another *Appendix 23* on the contents of the CG Report stipulating the mandatory disclosure requirements as well as the recommended disclosures (HKEx Listing Rule, 2005).

#### 2.3 Characteristics of Hong Kong Firms

Historically, most board members of Hong Kong firms would belong to the management team or to the family that owned the firm (SEHK, 1994) and "substantial shareholders are often themselves directors" (SEHK, 1996). In 1997, a survey by the Hong Kong Society of Accountants (HKSA)— currently known as the Hong Kong Institute of Certified Public Accountants (HKICPA)— revealed that there was a significant control of listed companies in Hong Kong by one shareholder or one family group of shareholders (HKSA, 1997). Concentrated ownership by families is not unique to Hong Kong firms. In fact, it is very common in East Asian region (Luo, 2006). Claessens, Djankov and Lang report that there is extensive family control in more than half of East Asian corporations (Claessens *et al.*, 2000).

A concentration of control could lead to the suppression of minority rights by means of 'tunnelling' of company assets by the majority shareholders and raises the likelihood of crony capitalism (Claessens *et al* 2000). Yet, Hong Kong differs from other Asian economies in that it adopts an Anglo-Saxon legal and corporate governance system (LLSV, 1998; Cheung, Stouraitis and Wong, 2005). According to these studies, commonlaw economies (such as the UK, US, and Hong Kong) generally have the strongest legal protections of investors. Small minority investors can rely on the macro legal system and proper litigation procedures to provide themselves adequate protection, or redress, from the malpractices of the majority shareholders within the company.

#### **3.** Sample and Data Collection

The sample firms in this study consist of small-cap firms in Hong Kong. The Hang Seng Index (HSI) covers about 70% of the entire market capitalisation of all eligible stocks listed on the Main Board of the Stock Exchange of Hong Kong (SEHK). The Hang Seng Composite Index Series (HSCI), on the other hand, covers 90% of the market capitalisation of stocks listed on the Main Board of the SEHK. It comprised the top 200 constituent stocks by market capitalisation as at September 2005. However, some of the listed firms derive their main source of business income from mainland China instead of Hong Kong. As there may be different levels of risks associated with different geographical or political markets, there is increasing need for decomposing the HSCI into Hong Kong based- and non-Hong Kong based-indices with other sub-indices to gauge the performances of different listed firms by their main geographical source of business.

The Hang Seng Hong Kong Composite Index (HSHKCI) thus came into being to cover the constituent stocks of the HSCI which derive the majority of their sales revenue from Hong Kong or places outside mainland China. It has 3 sub-indices:

- The Hang Seng HK LargeCap Index (HSHKLI), which captures the top 15 stocks by market capitalisation in the HSHKCI;
- The Hang Seng HK MidCap Index (HSHKMI), which is made up of the 16<sup>th</sup> to 50<sup>th</sup> top stocks by market capitalisation in the HSHKCI; and
- The Hang Seng HK SmallCap Index (HSHKSI), which covers the 51<sup>st</sup> constituent stock and below in the HSHKCI by market capitalisation until the threshold of 90% was reached. As at September 2005, there were 55 stocks within this category and their classification by industry is set out in Table 1.

#### [Insert Table 1]

This study focuses on the Hang Seng HK SmallCap Index constituent firms. Of these 55 constituent stocks, 7 companies are excluded from this study<sup>5</sup>. The gross number of firm-years in the sample for 2003, 2004, and 2005 is 44, 48 and 48 respectively, giving a total of 140 firm-years.

Since the *mandatory* disclosure of corporate governance practices only came into being on January 1<sup>st</sup>, 2005, any such disclosure by the listed firms in their annual reports prior to that date would be regarded as *voluntary* in the context of this study. The following sections of the companies' annual reports are screened in order to collect information regarding their CG practices:

<sup>&</sup>lt;sup>5</sup> One of the Telecommunications companies was privatised in March 2006, thus no annual report for 2005 need to be published. The company in the Energy sector was acquired for its sole enlisted status by another non-constituent stock firm with a completely different business nature (being Property Development), and was subsequently disposed by the acquiring firm in September 2004. The 5 constituent firms in the Banking, Insurance & Financial Institutions sector are subject to close monitoring and tight regulations by the HKSAR Financial Services Branch, rendering their CG systems and practices significantly different from other companies.

- 1. Directors' Report;
- 2. Corporate Governance Report (if any);
- 3. Audit Committee Report (if any);
- 4. Remuneration or Compensation Committee Report (if any);
- 5. Nomination Committee Report (if any);
- 6. Profile (or Biography) of Directors and Senior Management;
- 7. Corporate Information;
- 8. Investors' Relations (if any).

The information regarding their corporate governance is then recorded according to a checklist, which is developed according to the Code Provisions and Recommended Best Practices as stipulated in Appendix 23 of the Listing Rules. The checklist consists of 66 single-barrel questions on CG disclosure, of which 2/3 belong to Code Provisions and 1/3 belongs to Best Recommended Practices. These questions may have 3 possible answers: 'yes' if there is disclosure of such contents in the annual report, 'no' if no disclosure is found, or 'not applicable' if the question does not apply to the sample firm in case. (For example, a question may ask whether a Nomination Committee has been set up. If a company has no Nomination Committee established, then the ensuing question on the disclosure of the composition of the Nomination Committee will have a 'not applicable' answer.) One mark is given if there is a 'yes' and nil for a 'no' answer. The total score of CG disclosure — CGscore — is the sum of all 'yes' answers to be divided by the net number of relevant questions (i.e., 66 minus the number of 'not applicable' answers) and expressed in terms of percentage.

According to Appendix 23, these 66 questions can be grouped under 9 mandatory disclosure requirements/aspects and 5 categories of recommended disclosures:

#### Mandatory disclosure:

1. Corporate governance practices;

- 2. Directors' securities transactions;
- 3. Board of directors;
- 4. Chairman and chief executive officer;
- 5. Non-executive directors;
- 6. Remuneration of directors;
- 7. Nomination of directors;
- 8. Auditors' remuneration;
- 9. Audit Committee.

#### Recommended disclosure:

- 1. Share interests of senior management;
- 2. Shareholders' rights;
- 3. Investor relations;
- 4. Internal controls
- 5. Management functions.

Since the checklist is derived from the Listing Rules effective January 1<sup>st</sup>, 2005, the same checklist can reveal how well prepared and how willing these small-cap companies were to disclose their CG practices for 2003 and 2004 on a *voluntary* basis (they had been informed by the Hong Kong Stock Exchange in prior and consulted by the Hong Kong Society of Accountants in the years leading up to the formalisation of the *Code on Corporate Governance Practices*). In other words, firms were kept informed of the need to disclose their corporate governance before the regulation came into effect. However, they had freedom to choose how much to disclose, or whether to disclose at all, in their annual reports prior to their fiscal year end in 2005.

#### 4. Research Models and Variables Definitions

#### 4.1 Corporate Governance and Firm Valuation

The aim of this study is to analyse the impact of corporate governance disclosure on firm valuation. Following Morck *et al.* (1988), McConnell and Servaes (1990), Kaplan and Zingales (1997), Gompers *et al.* (2003), Cremers and Nair (2005), and Durnev and Kim (2005), firm valuation is proxied by the approximation of *Tobin's Q*, calculated as:

#### Q = (<u>Total assets + market value of equity - book value of equity - deferred tax</u>) Total assets

where Q is the estimate for Tobin's Q.

The basic model used in this study is

$$Q = \beta_0 + \beta_1 CGscore_{it} + \varepsilon_{it} \tag{1}$$

where *Q* is as defined previously and *CGscore* is the corporate governance score for firm *i* in period *t*,  $\alpha$  and  $\beta$  are parameter estimates.

This model is then extended to incorporate other aspects of a company's corporate governance, including: board size (*BoD\_Size*), independent non-executive directors as a proportion of the board members (*INED\_%*), percentage of common shares owned by directors (*Dir%Own*), and the duality of Chairperson and Chief Executive Officer (*D 2role*). They are collectively termed *CGpractices* variables and the model is given by:

$$Q = \beta_0 + \beta_1 CGscore_{it} + \sum \beta_2 CGpractices_{it} + \varepsilon_{it}$$
<sup>(2)</sup>

where all terms in the equation are as defined previously.

However, prior research suggests a number of factors, unrelated to a company's corporate governance, may also influence company valuation. The model is therefore extended to take into account various company characteristics variables (*ComCharacteristics*) such as: company size (proxied by log equity — Ln(Eqty)), the capital structure (proxied by debt/equity ratio —  $DE_ratio$ ), profitability (proxied by return on equity — ROE), sustainable income (proxied by sales — Ln(Sales), and growth potential (proxied by year-on-year sales growth — SalGrow%):

$$Q = \beta_0 + \beta_1 CGscore_{it} + \sum \beta_2 CGpractices_{it} + \sum \beta_3 ComCharacteristics_{it} + \varepsilon_{it}$$
(3)

#### 4.2 Variables Computation

Based on the information contained in the annual reports, the following *CGpractices* variables are computed from the annual reports:

- 1) CGscore: the total sum of CG disclosure, expressed as a percentage. It is also the summation of the following sub-scores:
  - a. CG\_prac: CG practices disclosure;
  - b. Dir\_trans: Directors' securities transactions disclosure;
  - c. BoD disc: Board of directors disclosure;
  - d. ChCEO\_disc: Chairman & CEO disclosure;
  - e. NED\_disc: Non-executive directors disclosure;
  - f. Rem\_disc: Remuneration of directors disclosure;
  - g. Nom\_disc: Nomination of directors disclosure;
  - h. Audfee\_disc: Auditor's remuneration disclosure;
  - i. AudCom\_disc: Audit committee disclosure;
  - j. OtherAdd\_disc: Additional disclosure on the App. 14 Code Provisions;
  - k. Rec\_Mgm-Sha: Recom. discl. on management's share interests;
  - l. Rec\_Shd-rights: Recom. discl. on shareholders' rights;
  - m. Rec\_Inv-Rel: Recom. discl. on investor relations;

| n. Rec      | _Int-Ctr :  | Recom. discl. on internal control;   |
|-------------|---|--|
| o. Rec      | _Mgm-fun:   | Recom. discl. on management functions.   |
| 2) BoD_Size | : the total num   | ber of members of the Board of Directors;  |
| 3) INED_%   | : the percentag<br>Directors;                               | ge of Independent Non-executive Directors of the Board of  |
| 4) Dir%Own  | : the percentage<br>whole (exclucaptures the<br>the ownersh | ge of ordinary shares outstanding owned by the directors as a<br>ding preference shares and options; hence the variable only<br>cash rights of the ownership rather than the control rights of<br>ip); |
| 5) D_2roles | : Duality of ro   | les played by chairman and CEO.  |

The accounting information and market data specific to these small-cap companies are collected from Datastream. They are:

| 6) MV :       | the market value of the firm's equity as at the date of the firm's release of full annual reports to the HKEx (HK\$000); |
|---------------|--|
| 7) Equity:    | the book value of equity of the firm as at last available fiscal year end date (HK\$000);                                |
| 8) Sales:     | the total sales revenue for the fiscal year (HK\$000);   |
| 9) ROE:       | the return-on-equity (%);  |
| 10) DE_ratio: | the debt-equity ratio (%);   |
| 11) DPS:      | the dividend per share (HK\$)  |
| 12) EPS:      | the earnings per share (HK\$);   |
| 13) Def tax:  | the amount of deferred taxes for the firm in the fiscal year.  |

Based on such data, the dependent variable  $Q^6$  and the following *ComCharacteristics* variables are computed:

- 14) Q: the approximation of Tobin's Q;
- 15) Ln(Eqty): the natural log of the firm's equity;
- 16) Ln(MV): the natural log of the firm's market value;

<sup>&</sup>lt;sup>6</sup> This approximation of Tobin's Q follows Kaplan and Zingales (1997), Gompers *et al.*, (2003), Cremers and Nair (2005), and Durnev and Kim (2005).

17) Ln(Sales): the natural log of the firm's sales revenue;

18) SalGrow%: the growth in sales revenue over previous year (%);

- 19) DivPayout: the dividend payout ratio (= DPS\*100/EPS);
- 20) DV\_2role : the dummy variable for split roles of the Chairman and CEO (1 for separate persons, 0 for same person).

In addition to analysing the CGscore and director ownership as separate, continuous, variables, the interaction between these variables is also analysed. The firms' CGscores are ranked into 2 groups at the median: Low and High. Similarly, the Directors' ownership of shares (Dir%Own) is also classified into 3 groups: Low (0 - 24.99%), Medium (25.00 – 50.00%), and Predominant (>50.00%). The relationship between CG disclosure and director ownership is displayed in Table 2.

#### [Insert Table 2]

There are 6 CGscore-DirOwn groups (LL, LM, LP, HL, HM, and HP). In the regression, the high CGscore and low Directors' Ownership (HL) serves as the base category. Five dummy variables are then assigned to the rest of these joint groups:

- a) DV\_LL : Low CGscore and Low Dir%Own;
- b) DV LM : Low CGscore and Medium Dir%Own;
- c) DV\_LP : Low CGscore and Predominant Dir%Own;
- d) DV\_HM : High CGscore and Medium Dir%Own;
- e) DV\_HP : High CGscore and Predominant Dir%Own.

#### 4.3 Hypotheses

In a tightly family-controlled environment, outsiders expect the agency problem (Jensen and Meckling, 1976) to be less severe. However, the entrenchment problem may be paramount because minority shareholders are legally powerless to remove the controlling directors, *even within a high investor protection framework*. Investors will not pay a high price for a tightly controlled firm's stock if the firm does not implement good corporate governance, and will "discount stocks according to perceived corporate governance issues" (Claessens and Fan, 2002, p. 95). Hence, *a priori*, low CG-score firms in this study should exhibit lower Tobin's *Q* than high CG-score firms at similar insider ownership levels. Conversely, high CG-score firms should exhibit higher Tobin's *Q* across various levels of insider ownership.

#### Hypothesis 1

*Ho*: Low CG\_rank firms and high CG\_rank firms have equal Tobin's *Q*. *Ha*: Low CG\_rank firms have lower Tobin's *Q*.

Another hypothesis that is related to the outcome agency model of dividends has been proposed by LLSV (2000a). The model is based on the notion that dividends are a substitute for legal protection. A firm has the need to establish a reputation for moderation in expropriating shareholders' wealth if it desires to be able to raise external funds on attractive terms. Paying dividends is one of the ways to establish such reputation (this is the supply side of the dividends argument). LLSV point out that a good reputation for treating shareholders fairly is highly valuable for firms in countries with weak legal protection of minority shareholders' interest because the minority shareholders have nothing else to rely on. As a consequence, the need for paying dividends to establish a reputation is greatest for firms in such countries. On the demand side of the dividend payout argument, LLSV point out that investors would rather have as much dividends to be paid out as plausible than leave any undistributed dividends inside the firm. It is because the temptation is greater for managers (or insiders) to expropriate the surplus cash for their own benefits when the minority shareholders have no effective way to monitor the agents (i.e. managers), or when the minority outsiders have no legal way to have the same access to the information that the insiders may have. Therefore, LLSV argue that, *other things equal*, dividend payout ratios should be higher in countries with weak legal protection of shareholders'

By the same reasoning, it can be hypothesized that, under a strong legal investor protection regime and similar levels of agency or entrenchment problem, firms with greater corporate governance disclosure are permitted to pay out lesser dividends than firms with smaller corporate governance disclosure. Small-cap firms do not often attract international investors' or fund managers' attention; and be they highly transparent in corporate governance disclosure or less so, they share the same need to establish a reputation to treat outsiders' funds fairly. It is the outside investors who decide which firm is more trust-worthy in terms of the firm's corporate governance (CG) practices. In the absence of detailed knowledge of how the firm is being run, outsider investors will have to rely on the amount of CG disclosure to cast their vote of confidence. A firm with higher CG voluntary disclosure ranking may enhance the investors' confidence in the quality of the firm's CG practices, and thus a lower dividend payout ratio may be permitted. It follows that the high-CGscore firms group should exhibit a lower dividend payout ratio (DivPayout) than the low-CGscore firms group:

#### Hypothesis 2

*Ho*: Low CG\_rank firms and high CG\_rank firms have equal dividend payout ratios.

Ha: High CG\_rank firms have lower dividend payout ratios.

On the other hand, under the same external legal protection environment, investors would seek additional protection from potential expropriation by the predominant insider shareholders. According to the outcome agency model of dividends, outsider investors would demand higher dividend payout in such scenario where they have no legal ways to remove the entrenched, controlling shareholders. Only when the outsider investors feel satisfied and secured about their investments are in good hands would they tolerate a lower level of dividend payout. It would take place only when the outsiders' interests are in alignment with the insiders' interests or — in the case of tightly held family ownership where the principals are often the agents (i.e., the managers) themselves — when the minority investors' interests are in alignment with the management's interests. Such scenario would be the case when the insiders are neither firmly entrenched nor are they acting purely as agents for the company. It follows that, within similar grouping of CG disclosure by rank, firms that are prone to the agency problem (as proxied by 0-25% insiders' ownership) and firms that suffer from the entrenchment problem (as proxied by over 50% insiders' ownership) would exhibit higher dividend payout ratio than firms which have insiders' ownership of 25-50%:

#### Hypothesis 3

- *Ho*: Firms with different levels of insiders' ownership exhibit equal dividend payout ratios.
- *Ha*: Firms that have insiders' ownership of 25-50% exhibit the lowest dividend payout ratio.

#### 5. **Results**

#### 5.1 Descriptive statistics

The summary statistics, reported in Table 3, show that there was a clear shift in the CG disclosure of the small-cap firms in Hong Kong over the 3-year period:

#### [Insert Table 3]

The mean CG disclosure had increased from 25.72% in 2003 to 57.24% in 2005. Nevertheless, the median disclosure in 2005 was 62.71%. It indicates that not *all* companies had attained the 66% threshold (for Code Provisions). The relative frequency of disclosures is displayed in Figure 1.

#### [Insert Figure 1]

Before trimming, the minimum Q is 0.335 and the maximum 6.479 (with 1<sup>st</sup> quartile = 0.852, 3<sup>rd</sup> quartile = 1.738). To avoid undue influence from outliers on further analysis, the entire sample set (of 140 firm-years) is trimmed by removing 4 extreme outliers from the high end of the distribution of Q. After trimming, the final sample used in the study totalled 136 firm-years. The missing records on Datastream files for Dividend Per Share (DPS) due to zero earnings per share (EPS) are assigned zeros. Descriptive statistics of the trimmed sample set are given in Table 4.

#### [Insert Table 4]

The descriptive sample statistics show that most small-cap firms are closely held by the members of the board of directors. The median Dir%Own across all firm-years is

46.29%. The mean Dir%Own is 38.99%, which similarly supports the general impression of concentrated director ownership of small firms in Hong Kong.

The correlation matrix for variables in the study is given in Table 5. There is a significantly, positive correlation between Q and the CGscore, suggesting companies with good corporate governance disclosure are valued more highly than other small Hong Kong firms. Companies that split the role of CEO and Chairman are found to have higher CG disclosures, while ROE is significantly positively correlated with both the CGscore and Q. However, such univariate analysis may not be sufficient to capture the relationship between corporate governance and firm value. For example, while there is a significant positive correlation between board size and the CGscore, there is a significant negative correlation between board size and Q. It may therefore be important to control for corporate governance disclosure and corporate governance practices at the same time.

[Insert Table 5]

#### 5.2 Corporate Governance Disclosure and Firm Valuation

The results of the empirical analysis are contained in Table 6. Column 1 in Table 6 shows the variables examined in this study. Columns 2 to 6 report the results of Models 1 to 5 respectively. The *p*-values for each parameter are indicated in parentheses.

#### [Insert Table 6]

Model 1 (column 2) tests whether firms with higher corporate governance disclosure have larger market valuation. The dependent variable is Q. The independent variable is the CGscore without any control variables. The coefficient on CGscore is positive, and shows that a unit increase in the disclosure score is associated with a 0.060 percentage-

point increase in market valuation. The coefficient is statistically significant at the 10% level.

Results for Model 2 are reported under column 3 in Table 6. Four more corporate governance practices variables are added into the multiple regression, to test for their relationship with Q:

- 1) Board size (BoD\_Size);
- 2) Proportion of INEDs on the board (INED\_%),
- 3) Directors' ownership of common shares (Dir%Own), and
- 4) Duality of Chairman and CEO roles (a dummy variable DV\_2role).

The *p*-value of CGscore is highly significant (p < 0.05). Board size (BoD\_Size) has a negative relation with Q and is not significant. However, the adjusted  $R^2$  shows a moderate explanatory power (5.6%) for the regression model and the value of the intercept term is highly significant at all reasonable probability levels. It indicates that there are missing variables in the model.

In Model 3, the following control variables are added into the multiple regression to test whether they can explain for the missing variables:

- 5) Ln(Sales) : the natural log of total sales proxy for earnings ability;
- 6) SalGrow% : sales growth % proxy for business potential;
- 7) ROE : return on equity proxy for profitability;
- 8) DE\_ratio : debt/equity ratio proxy for gearing;

In this regression, reported in column 4 of Table 6, the CGscore is still highly significant (p < 0.05) in explaining changes in Q. However, a firm's profitability (as proxied by ROE) and the Debt/Equity ratio (DE\_ratio) are significant in explaining the cross-sectional variations in Q. The Board size (BoD\_Size) is again negative and non-significant. The p-

value of the constant becomes insignificant. The *F*-statistics of the multiple regression is 3.75 and is highly significant (p = 0.000).

Model 4 incorporates the dummy variables of the joint groups CGscore and Dir%Own into the multiple regression to test for the relative effect of the CG\_rank-OwnGroups on the Q in comparison with the base group HL (i.e., high CG rank and low Directors' Ownership).

To investigate how the various aspects of CG affect a firm's valuation, Q is regressed on the components of CGscore and the other control variables in Model 5. The results are reported in Table 6a.

#### [Insert Table 6a]

Except for the recommended disclosure on Shareholders' Rights (Rec\_Shd-rights) and Investors' Relations (Rec\_Inv-Rel), Model 5 shows that none of the components of the CGscore have a significant *p*-value in the regression. The controlling variables that are significantly related to Q are ROE and DE\_ratio. The coefficient for the constant no longer has significant *p*-value. The *F*-statistic of the model is 2.07, which continues to be statistically highly significant (*p* = 0.005).

On the other hand, results from Model 4 show that all 5 joint groups of CG\_rank-DirOwnGroups have a negative coefficient when compared with the base group HL. This suggests that the joint combinations of CG\_rank and Dir%Own may have different impact on Q. The highest Q among the joint groups is the HL group: high ranking in CGscore and low level in Dir%Own (see Table 7). Table 7 shows that all the coefficients of firms belonging to the low CG\_rank group (LL, LM, and LP) have bigger deduction in market valuation than firms with high CG\_rank group (HL, HM, and HP). Furthermore, the group HL (high CG\_rank and low Directors' ownership) has substantially the highest average *Q*. And for all ownership categories, companies with low CG disclosures have lower median *Q*s than companies with high levels of corporate governance disclosure (Figure 2 refers).

#### [Insert Figure 2]

To further test the effects of the CGscore and Dir%Own joint grouping on Q, a nonparametric test (Kruskal-Wallis test) is run on the 6 CG\_rank-DirOwnGroups to test the following hypotheses:

 $H_0$ : There is no difference in the impact on Q among the 6 corporate governanceownership groups.

 $H_A$ : There is difference in their impact on Q.

The results are displayed in Table 8.  $H_0$  is rejected at the 1% level of significance. It follows that different groupings of CG\_rank and Dir%Own have different impact on the Q of the firms.

[Insert Table 8]

All in all, CGscore turns out to be positive in explaining Q in Models 1 to 3, and is significant throughout all 3 models.

#### 5.3 Results on Dividend Payout Ratio

According to the outcome agency model of dividends put forth by LLSV (2000a), firms operating within the same country with good shareholder protection that have good investment opportunities and growth prospects should have significantly lower dividend payouts than low growth companies. This is so because shareholders who feel protected by the external corporate governance mechanism would accept low dividend payouts, and high reinvestment rates, from a company with good investment opportunities because they know that when the company's investments pay off, they are able to extract high dividends in future.

However, in LLSV's model, concentrated ownership is not considered. In an open economy but with highly concentrated family ownership such as Hong Kong, would firms behave as predicted by the outcome agency model of dividends?

This is put to test in Model 6, displayed in Table 9, in which the Dividend Payout ratio (DivPayout) is the dependent variable. The independent variables are the disclosure score variable (CGscore), the corporate governance practices variables (BoD\_Size, INED\_%, Dir%Own, D\_2roles), and the control variables on company characteristics: Ln(Sales), SalGrow%, ROE, DE\_ratio, and Ln(Eqty). Following LLSV (2000), the growth prospects metric is proxied by the past sales growth (SalGrow%).<sup>7</sup>

#### [Insert Table 9]

<sup>&</sup>lt;sup>7</sup> LLSV(2000) use the firm's annual real sales growth rate over the 5-year period from 1989 to 1994. They also use the decile rank of the past average annual sales growth rate for each firm as a second metric.

The test results in Model 6 show that the dividend payout ratio is significantly and positively related to board size (BoD\_Size). It is also significantly but negatively related to a firm's insiders' ownership (Dir%Own), sales growth (SalGrow%), profitability (ROE), leverage (DE\_ratio) and company size (Ln\_Eqty). The corporate governance disclosure (CGscore) is not significant in explaining the dividend payout ratio.

While leverage (proxied by Debt/Equity ratio) can be regarded as an external corporate governance mechanism provided by debt holders, there are two possible views on the negative coefficients of firm size (Ln(Eqty)), sales growth (SalGrow%), and profitability (ROE) with the dividend payout. First, the small-cap firms need to retain their profits as internal capital reserve for future business development. The higher the profit, the less reliance on external borrowings, so that the small firms can grow at a faster pace. The negative coefficient on sales growth (SalGrow%) lends support to this argument as its p-value is significant.

A second view on the negative relationship of Ln(Eqty) and ROE is that external investors are willing to let firms at such early developing stage retain their profit and hence tolerate a lower dividend payout ratio. This is based on the assumption that the insiders' interests and the outsiders' interests are in alignment and that outsiders are confident that, when the reinvestments come to fruition later on, they can extract high dividends.

To test this assumption, the dividend payout ratio is regressed again with the different groupings of CG ranking and Directors' Ownership in Model 7 (Table 9 refers), using the high CG ranking and low ownership (HL) group as the base group.

As in Model 6, the highly significant independent variables in Model 7 are: BoD\_Size (positive), ROE (negative), DE\_ratio (negative), and Ln(Eqty) (negative). SalGrow% is negative and is now very significant.

Another intriguing observation is that the DV\_HM group (high CG\_rank, medium in directors' ownership) has the lowest dividend payout ratio among all the CG-rank groups. Similarly, the DV\_LM firms (low CG\_rank, medium in director ownership) have the relatively lowest coefficient within the low CG\_rank group. It suggests that in both scenarios – i.e. when firms are neither predominantly owned nor do they have low level of directors' ownership, the dividend payout ratios are lowest. Table 9a summarizes the coefficients of the dummy variables of these 6 corporate governance-ownership groups on the dividend payout ratios and Figure 3 illustrates the double V-shapes of the two groups of CG\_rank firms in terms of their coefficients of dummy variables on dividend payout.

[Insert Table 9a]

#### [Insert Figure 3]

A Kruskal-Wallis test is carried out to test the relationship between the dividend payout ratios of firms and the various groupings in CG rank and Ownership. The results are contained in Table 10.

#### [Insert Table 10]

# *H*<sub>0</sub>: *There is no difference in the impact on DivPayout among the 6 corporate governance-ownership groups.*

 $H_A$ : There is difference in their impact on DivPayout.

As the *p*-value is significant (0.026), the null hypothesis is rejected. There is significant difference in dividend payout ratios amongst the various groupings of firms with different rankings in CG score and levels of directors' ownership. Table 10a records the Z-scores of the non-parametric test of the various groupings of firms.

#### [Insert Table 10a]

It can be seen from Table 9a and Figure 3 that, firms that tend to have agency problems (i.e., low level of directors ownership) need to pay a higher dividend payout than the rest, regardless whether they rank high or low in CG disclosure. It supports LLSV's view that, even under a good investor protection legal regime, outsider investors still need assurance from the insiders that they will be treated fairly. Outsiders are only willing to allow firms to pay lesser dividends provided the agents' interest is aligned with the principal's interest, coupled with a high score in CG disclosure ranking. Conversely, if the agents' interest and the principal's interest are clearly aligned, then a high ranking in CG disclosure would serve as a 'vote of confidence' to permit lower dividend payouts from the firm. This seems to mitigate the entrenchment problem even though the firms are predominantly owned by insiders (i.e., high level of directors ownership).

#### 5.4 Issue of Endogeneity

Similar to most corporate governance research, the interpretation of the regression results in this study is subject to the problems of reversed causality and omitted variables. Mitton (2004) suggests one possible solution in disentangling the endogeneity issue is to identify a variable that is correlated with the key independent variable (i.e., corporate governance disclosure in this study) but is otherwise uncorrelated with the dependent variable (e.g., market valuation or dividend payout ratios in this study). This may help to determine the causality flow direction.

In the present study, the directors' ownership of the Hong Kong small-cap firms can be regarded as uncorrelated with the level of corporate governance disclosure (correlation is -0.109, *p*-value 0.205) because most Hong Kong firms have concentrated ownership anyway. It is found in this study that the ownership level, when joined with the firm's corporate governance disclosure ranking, will have an impact on the firm's market valuation and dividend payout ratio policy.

Model 8 shows the CGscore as the dependent variable. CGscore is regressed on a number of explanatory variables including a firm's valuation Q and its dividend payout. Although the firm's market valuation Q is found to be significant in explaining the variations of CGscore, it is hard to conceive a firm could have determined its own valuation Q at will. By making a mix of sound investment and/or borrowing decisions, a firm may impact on its market valuation but cannot determine the level of its own valuation which is, more appropriately, determined by the market instead.

#### [Insert Table 11]

On the other hand, a firm's dividend payout ratio does not seem to have any significant causation effect on its CGscore as shown in Model 8 in Table 11. This argument is also strengthened by the fact that firms in Hong Kong were *voluntary* to comply with the disclosure regulations before and up to 2005. They could choose to disclose the extensiveness of their firms' governance. In other words, the disclosure can be regarded as an exogenous variable in this study.

Model 8 shows that the DivPayout is not significant in determining the CGscore of the firms. Rather, it's the characteristics of the firm such as BoD\_Size, INED\_%, Dir%Own, DV\_2role, ROE, DE\_ratio, and Ln(Eqty) that are significant in causing the changes in CGscore. Also, the constant term is negative but significant and the *F*-statistic is 4.96 which is highly significant.

#### 6. Summary and conclusion

This study investigates the relationship between voluntary corporate governance disclosure and firm valuation under a common law legal regime but with concentrated ownership by the directors or family members. The corporate governance disclosure is measured by the score (CGscore) in a checklist based on the Appendix 23 of the Listing Rules of the Hong Kong Exchange, a regulation that became effective as of January 1<sup>st</sup>, 2005. The samples are small-cap firms which are the constituent stocks of the Hang Seng HK SmallCap Index. The period under study is from 2003 to 2005.

The relation of the CGscore with the firm's valuation, proxied by Q, is firstly investigated. Also, following LLSV (2000a) and Mitton (2004), the outcome agency model of dividends is put to test, using the small-cap firms in Hong Kong as the samples. Multiple regressions and non-parametric tests are conducted to examine the relationship between CGscore and the firm's valuation, and between CGscore and the firm's dividend payout ratio. Empirical tests findings show that CGscore can positively and significantly affect Q. Furthermore, firms that are high in corporate governance ranking but low in directors' ownership show the highest Q; whereas firms in low corporate governance ranking and predominantly owned by directors show the lowest Q. Moreover, firms with higher CGscores have higher market values than firms with lower CGscores across all levels of directors' ownership. Investors in Hong Kong tend to reward more transparent firms with higher valuation.

Secondly, the outcome agency model of dividend put forth by LLSV (2000a) is examined by regressing the dividend payout ratio (DivPayout) on CGscore and the controlling variables. When the corporate governance disclosure level is low, firms that have either low level of directors' ownership (0-25%), or predominant level of directors' ownership (>50%), tend to have higher dividend payout ratios than other firms. The results support the LLSV's hypothesis in a way that outside investors would demand higher dividends as an additional minority protection mechanism for firms that may have either agency problems or entrenchment problems. This mechanism is employed even in a market such as Hong Kong — which already enjoys a high level of investors' protection (LLSV, 1998) but suffers a high concentration of ownership by families (Claessens *et al.*, 2000). This suggests that when outsiders are legally powerless to remove entrenched managers, they would still seek ways to enhance their protection from potential expropriation by the predominant shareholders.

-- End --

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#### <u>Table 1</u> Constituent stocks of Hang Seng HK Smallcap Index by industry.

|   | Industries                          | No.of firms |
|---|-------------------------------------|-------------|
| 0 | Banking, Insurance & Financial Inst | 5           |
| 0 | Catering & restaurants              | 1           |
| 0 | Conglomerate                        | 1           |
| 0 | Energy                              | 1           |
| 0 | Engineering & Industrial            | 4           |
| 0 | Food Manufacturing                  | 2           |
| 0 | Financial Services                  | 2           |
| 0 | Gambling & Entertainment            | 2           |
| 0 | Hotel & Tourism                     | 4           |
| 0 | Manufacturing                       | 12          |
| 0 | Media & Press                       | 3           |
| 0 | Property Development                | 9           |
| 0 | Retailing                           | 3           |
| 0 | Telecommunications                  | 3           |
| 0 | Transportation                      | 3           |
|   |                                     | 55          |
|   |                                     | ==          |

#### Table 2

#### Contingency table of CG\_rank and DirOwnGrp.

CG\_rank is the corporate governance score (CGscore) ranked as Low (below median) and High (above median). DirOwnGrp is the percentage of directors' ownership (Dir%Own) of common shares classified as Low, Medium, and Predominant. See the criteria for ranking the CGscore and classifying the Dir%Own below.

|         | Dire |        |             |       |
|---------|------|--------|-------------|-------|
| CG_rank | Low  | Medium | Predominant | Total |
| Low     | 18   | 22     | 28          | 68    |
| High    | 23   | 14     | 31          | 68    |
| Total   | 41   | 36     | 59          | 136   |

#### Criteria for classification:

#### a) CG\_rank:

Low :  $= \frac{CGscore}{\langle 31.68 \rangle}$  (median) High:  $\rangle 31.68$ 

#### b) DirOwnGrp:

|              |        | Di | r%Own   |
|--------------|--------|----|---------|
| Low:         | 0%     | -  | 24.99%  |
| Medium:      | 25.00% | -  | 50.00%  |
| Controlling: | 50.01% | ar | nd over |

#### <u>Table 3</u>

Summary statistics of CGscore by Year. CGscore is the corporate governance score based on a sample size of 136 due to 4 largest outliers in Q are trimmed (Q > 4.00). (See definition in Section 4.2.

#### **Descriptive Statistics: CGscore**

| Variable<br>CGscore | 3-years                | Total<br>Count<br>136      | Mean<br>39.94          | StDev<br>20.28         | Minimum<br>12.12          | Median<br>31.68          | Maximum<br>89.83          |
|---------------------|------------------------|----------------------------|------------------------|------------------------|---------------------------|--------------------------|---------------------------|
| Variable<br>CGscore | Fis Yr<br>2003<br>2004 | Total<br>Count<br>43<br>46 | Mean<br>25.72<br>35.55 | StDev<br>8.11<br>16.80 | Minimum<br>15.38<br>12.12 | Median<br>24.19<br>30.51 | Maximum<br>52.46<br>78.69 |
|                     | 2005                   | 47                         | 57.24                  | 18.90                  | 20.00                     | 62.71                    | 89.83                     |

#### Table 4 Descriptive Statistics

Based on sample with the largest 4 outliers of Q trimmed. All variables are defined in Section 4.2.

|                      | Total |        |        |         |        |         |
|----------------------|-------|--------|--------|---------|--------|---------|
| Variable             | Count | Mean   | StDev  | Minimum | Median | Maximum |
| Q                    | 136   | 1.3517 | 0.7527 | 0.3353  | 1.1362 | 3.8879  |
| CGscore              | 136   | 39.94  | 20.28  | 12.12   | 31.68  | 89.83   |
| BoD Size             | 136   | 9.610  | 2.597  | 4.000   | 10.000 | 18.000  |
| Dir <sup>%</sup> Own | 136   | 38.99  | 25.71  | 0.000   | 46.29  | 75.03   |
| DV 2role             | 136   | 0.4779 | 0.5014 | 0.000   | 0.000  | 1.000   |
| Ln(Sales)            | 136   | 21.483 | 0.947  | 18.500  | 21.491 | 24.394  |
| SalGrow%             | 136   | 31.95  | 96.52  | -83.28  | 10.99  | 799.35  |
| ROE                  | 136   | 16.70  | 18.93  | -12.60  | 12.65  | 130.52  |
| DE ratio             | 136   | 0.2986 | 0.3969 | 0.000   | 0.1785 | 2.6200  |
| Ln(Eqty)             | 136   | 22.040 | 0.762  | 20.124  | 21.940 | 24.207  |
| DivPayout            | 136   | 42.48  | 30.06  | 0.000   | 41.31  | 110.00  |
|                      |       |        |        |         |        |         |

#### Table 5

#### Correlations

Based on sample with the largest 4 outlier Qs trimmed. All variables are defined in Section 4.2.

|           | Q               | CGscore         | BoD_Size        | INED_%          | Dir%Own         | DV_2role        | Ln(Sales)       | SalGrow%        | ROE             | DE_ratio        | Ln (Eqty)       |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| CGscore   | 0.161<br>0.061  |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| BoD_Size  | -0.153<br>0.075 | 0.179<br>0.037  |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| INED_%    | 0.114<br>0.188  | 0.109<br>0.206  | -0.497<br>0.000 |                 |                 |                 |                 |                 |                 |                 |                 |
| Dir%Own   | -0.092<br>0.287 | -0.109<br>0.205 | -0.020<br>0.813 | 0.021<br>0.811  |                 |                 |                 |                 |                 |                 |                 |
| DV_2role  | -0.131<br>0.129 | 0.346<br>0.000  | 0.235<br>0.006  | -0.058<br>0.500 | 0.069<br>0.424  |                 |                 |                 |                 |                 |                 |
| Ln(Sales) | 0.037<br>0.672  | 0.090<br>0.298  | -0.021<br>0.811 | -0.072<br>0.403 | 0.048<br>0.581  | 0.043<br>0.615  |                 |                 |                 |                 |                 |
| SalGrow%  | 0.104<br>0.229  | 0.102<br>0.239  | -0.108<br>0.212 | 0.094<br>0.274  | -0.108<br>0.209 | -0.003<br>0.972 | 0.015<br>0.862  |                 |                 |                 |                 |
| ROE       | 0.271<br>0.001  | 0.263<br>0.002  | 0.017<br>0.844  | 0.119<br>0.171  | 0.143<br>0.098  | 0.017<br>0.848  | 0.246<br>0.004  | 0.099<br>0.255  |                 |                 |                 |
| DE_ratio  | -0.196<br>0.022 | 0.120<br>0.164  | 0.096<br>0.265  | -0.091<br>0.290 | 0.230<br>0.007  | 0.034<br>0.697  | 0.072<br>0.403  | 0.096<br>0.264  | 0.244<br>0.004  |                 |                 |
| Ln(Eqty)  | -0.509<br>0.000 | 0.057<br>0.513  | 0.257<br>0.003  | -0.207<br>0.015 | -0.048<br>0.577 | 0.015<br>0.865  | 0.173<br>0.044  | -0.065<br>0.449 | -0.033<br>0.704 | 0.113<br>0.190  |                 |
| DivPayout | 0.138<br>0.109  | -0.051<br>0.559 | 0.096<br>0.269  | -0.069<br>0.427 | -0.203<br>0.018 | -0.037<br>0.671 | -0.112<br>0.196 | -0.202<br>0.019 | -0.269          | -0.338<br>0.000 | -0.277<br>0.001 |

Cell Contents: Pearson correlation P-Value

# <u>Table 6</u> Summary table showing the coefficients and the *p*-values (in bracket) of the five

**regression models.** The dependent variable is *Q*. Based on samples with the largest 4 outlier *Qs* trimmed. All variables are defined in Section 4.2. *P*-values less than 0.10 are stated in bold.

|                      |         | Mode    | 1       |         |          |
|----------------------|---------|---------|---------|---------|----------|
| Variables            | 1       | 2       | 3       | 4       | 5        |
| Constant             | 1.1128  | 1.6179  | 2.4120  | 3.067   | 1.993    |
|                      | (0.000) | (0.000) | (0.118) | (0.050) | (0.282)  |
| CGscore              | 0.0598  | 0.0090  | 0.0073  | n.a.    | See      |
|                      | (0.061) | (0.010) | (0.036) |         | Table 6a |
| BoD_Size             |         | -0.0455 | -0.0454 | -0.0492 | -0.0361  |
|                      |         | (0.124) | (0.110) | (0.084) | (0.237)  |
| INED_%               |         | 0.0000  | -0.0040 | -0.0047 | -0.0060  |
|                      |         | (1.000) | (0.505) | (0.429) | (0.357)  |
| Dir%Own              |         | -0.0017 | -0.0009 | n.a.    | n.a.     |
|                      |         | (0.506) | (0.705) |         |          |
| DV_2role             |         | -0.2611 | -0.2393 | -0.2074 | -0.3697  |
|                      |         | (0.059) | (0.071) | (0.109) | (0.647)  |
| Ln(Sales)            |         |         | -0.0322 | -0.0315 | -0.0015  |
|                      |         |         | (0.631) | (0.639) | (0.984)  |
| SalGrow%             |         |         | 0.0005  | 0.0005  | 0.0007   |
|                      |         |         | (0.414) | (0.482) | (0.297)  |
| ROE                  |         |         | 0.0123  | 0.0131  | 0.0116   |
|                      |         |         | (0.001) | (0.000) | (0.010)  |
| DE ratio             |         |         | -0.5320 | -0.5067 | -0.4855  |
|                      |         |         | (0.002) | (0.004) | (0.010)  |
| DV LL                |         |         |         | -0.5981 | -0.4500  |
|                      |         |         |         | (0.009) | (0.209)  |
| DV_LM                |         |         |         | -0.5494 | -0.4392  |
|                      |         |         |         | (0.011) | (0.220)  |
| DV_LP                |         |         |         | -0.4853 | -0.3949  |
|                      |         |         |         | (0.018) | (0.243)  |
| DV_HL                |         |         |         | n.a.    | n.a.     |
| DV HM                |         |         |         | -0.3283 | -0.4110  |
| _                    |         |         |         | (0.202) | (0.184)  |
| DV_HP                |         |         |         | -0.3848 | -0.3533  |
|                      |         |         |         | (0.050) | (0.172)  |
| Observations         | 136     | 136     | 134     | 134     | 134      |
| Adj R <sup>2</sup> % | 1.9     | 5.6     | 15.6    | 16.6    | 17.7     |
|                      |         |         |         |         |          |
| F-test               | 3.57    | 2.61    | 3.75    | 3.23    | 2.07     |
| (p-value)            | (0.061) | (0.028) | (0.000) | (0.000) | (0.005)  |

### <u>Table 6a</u>

# Summary table showing the coefficients and p-values (in brackets) of the components of CGscore in regression Model 5. The dependent variable of

the regression is Q. Based on sample with the largest 4 outlier Qs trimmed. All variables are defined in Section 4.2. P-values less than 0.10 are stated in bold.

| Variables             |         |
|-----------------------|---------|
| (p-value in brackets) | Model 5 |
| CG prac               | 0.1029  |
|                       | (0.137) |
| Dir trans             | 0.0624  |
| _                     | (0.289) |
| BoD_dis               | 0.0626  |
|                       | (0.292) |
| ChCEO_disc            | 0.0217  |
|                       | (0.964) |
| NED disc              | 0.0917  |
| _                     | (0.317) |
| Rem disc              | -0.0090 |
|                       | (0.721) |
| Nom_disc              | -0.0211 |
|                       | (0.478) |
| Audfee_disc           | -0.0418 |
|                       | (0.757) |
| AudCom_disc           | 0.0215  |
|                       | (0.652) |
| OtherAdd_disc         | -0.1050 |
|                       | (0.235) |
| Rec_Mgm-Sha           | -0.1738 |
|                       | (0.540) |
| Rec_Shd-rights        | 0.1614  |
|                       | (0.017) |
| Rec_Inv-Rel           | -0.1161 |
|                       | (0.045) |
| Rec_Int-Ctr           | -0.0315 |
|                       | (0.399) |
| Rec_Mgt-fun           | 0.0607  |
|                       | (0.662) |

#### <u>Table 7</u>

#### Coefficients of the dummy variables of CG\_rank-DirOwnGroup firms on Q

CG\_rank is the corporate governance score ranked as Low (below median) and High (above median). DirOwnGrp is the percentage of directors' ownership (Dir%Own) of common shares classified as Low, Medium, and Predominant. See the criteria for ranking the CGscore and classifying the Dir%Own in Table 2. The group of High-CG\_rank-and-Low-DirOwnGrp (HL) is the base group for comparison of coefficients.

|         | Level of Directors' Ownership<br>(DirOwnGrp) |         |             |  |  |  |
|---------|--|---------|-------------|--|--|--|
| CG_rank | Low  | Medium  | Predominant |  |  |  |
| Low     | -0.5981                                      | -0.5494 | -0.4853     |  |  |  |
| High    | 0.0000                                       | -0.3283 | -0.3848     |  |  |  |

#### Table 8

#### Kruskal-Wallis Test: Q versus CG\_rank-OwnGrp.

CG\_rank-OwnGrp is the grouping of 2 variables: CG\_rank and DirOwnGrp. See Table 2 for classification criteria. All variables are defined in Section 4.2.

#### Kruskal-Wallis Test: Q versus CGrank\_OwnGrp

Kruskal-Wallis Test on Q

| CGrank_OwnGrp<br>HL<br>HM<br>HP<br>LL | N<br>23<br>14<br>31<br>18 | Median<br>1.536<br>1.053<br>1.112<br>1.107 | Ave Rank<br>97.6<br>63.8<br>64.8<br>65.2 | Z<br>3.88<br>-0.47<br>-0.59<br>-0.39 |
|---------------------------------------|---------------------------|--|--|--------------------------------------|
| LM<br>LP<br>Overall                   | 22<br>28<br>136           | 1.004<br>1.042                             | 58.0<br>61.4<br>68 5                     | -1.36<br>-1.07                       |
| OVELULL                               | T 2 0                     |  | 00.5                                     |                                      |

H = 15.57 DF = 5 P = 0.008

#### Table 8a

#### Z-scores of the various groupings' H statistics of the Kruskal-Wallis Test

CG rank is the corporate governance score ranked as Low (below median) and High (above median). DirOwnGrp is the percentage of directors' ownership (Dir%Own) of common shares classified as Low, Medium, and Predominant. See the criteria for ranking the CGscore and classifying the Dir%Own in Table 2.

|         | Level of Directors' Ownership<br>(DirOwnGrp) |        |             |
|---------|--|--------|-------------|
| CG_rank | Low  | Medium | Predominant |
| Low     | -0.39  | -1.36  | -1.07       |
| High    | 3.88   | -0.47  | -0.59       |

# Table 9 Summary table showing the coefficients and the *p*-values (in bracket) of

**regression models 6 and 7.** The dependent variable is DivPayout. Based on sample with the largest 4 outlier *Qs* trimmed. All variables are defined in Section 4.2. *P*-values less than 0.10 are stated in bold.

|                      | Model    |         |
|----------------------|----------|---------|
| Variables            | 6        | 7       |
| Constant             | 311.39   | 308.98  |
|                      | (0.000)  | (0.000) |
| CGscore              | 0.0683   | n.a.    |
|                      | (0.598)  |         |
| BoD Size             | 2.0460   | 2.0560  |
| _                    | (0.060)  | (0.056) |
| INED %               | -0.0848  | -0.0573 |
| —                    | (0.707)  | (0.795) |
| Dir%Own              | -0.1717  |         |
|                      | (0.069)  | n.a.    |
| DV 2role             | -4.0020  | -1.168  |
|                      | (0.419)  | (0.806) |
| In (Sales)           | 1 0580   | 1 3/50  |
| LII (Sales)          | (0, 681) | (0 594) |
| SalGrows             | -0.0569  | -0.068  |
| Salgiowo             | (0, 019) | (0,005) |
| ROF                  | -0.3292  |         |
| IOL                  | (0.015)  | (0.017) |
| DE ratio             | -16 049  | _12 172 |
| DE_IALIO             | -10.040  | -13.172 |
|                      | (0.012)  | (0.039) |
| Ln(Eqty)             | -13.171  | -13.054 |
|                      | (0.000)  | (0.000) |
| DV_LL                |          | -5.317  |
| DII IN               |          | (0.532) |
| DV_LM                |          | -21.276 |
|                      |          |         |
| DV_Tb                |          | -10./3/ |
| D11 111              |          | (0.154) |
| DV_HL                |          | na      |
| ру нм                |          | -25 493 |
|                      |          | (0,008) |
| DV HP                |          | -20.116 |
| ~ · _ · · ·          |          | (0.006) |
| Observations         | 134      | 134     |
| 1.0001.0010110       |          |         |
| Adj R <sup>2</sup> % | 24.2     | 27.9    |
| _                    |          |         |
| F-test               | 5.29     | 5.00    |
| (p-value)            | (0.000)  | (0.000) |

#### <u>Table 9a</u> Coefficients of the dummy variables of CG\_rank-DirOwnGroup firms on

**DivPayout.** CG\_rank is the corporate governance score ranked as Low (below median) and High (above median). DirOwnGrp is the percentage of directors' ownership (Dir%Own) of common shares classified as Low, Medium, and Predominant. See the criteria for ranking the CGscore and classifying the Dir%Own in Table 2. The group of High-CG\_rank-and-Low-DirOwnGrp (HL) is the base group for comparison of coefficients.

|         | Level of Directors' Ownership<br>(DirOwnGrp) |         |             |
|---------|--|---------|-------------|
| CG_rank | Low  | Medium  | Predominant |
| Low     | -5.317                                       | -21.276 | -10.737     |
| High    | 0.000  | -25.493 | -20.116     |

#### Table 10

**Kruskal-Wallis Test: DivPayout versus CGrkOwnGrp.** DivPayout is the dividend payout ratio %. CGrkOwnGrp is the grouping of 2 variables: CG\_rank and DirOwnGrp. See Table 2 for classification criteria. All variables are defined in Section 4.2.

| CGrank OwnGrp                | Ν   | Median    | Ave Rank     | Z      |       |
|------------------------------|-----|-----------|--------------|--------|-------|
| HL -                         | 23  | 43.01     | 85.0         | 2.20   |       |
| HM                           | 14  | 14.33     | 42.2         | -2.64  |       |
| HP                           | 31  | 33.33     | 62.2         | -1.01  |       |
| LL                           | 18  | 39.39     | 77.4         | 1.03   |       |
| LM                           | 22  | 41.01     | 63.3         | -0.67  |       |
| LP                           | 28  | 50.00     | 73.5         | 0.75   |       |
| Overall                      | 136 |           | 68.5         |        |       |
| H = 12.78 DF<br>H = 12.81 DF | = 5 | P = 0.026 | )<br>(adiust | od for | tice  |
| H = 12.81 DF                 | = 5 | P = 0.025 | ) (adjust    | ed ior | ties) |

#### <u>Table 10a</u>

#### Z-scores of the H-Statistics of the dummy variables of CG\_rank-DirOwnGroup

**firms on DivPayout.** CG\_rank is the corporate governance score ranked as Low (below median) and High (above median). DirOwnGrp is the percentage of directors' ownership (Dir%Own) of common shares classified as Low, Medium, and Predominant. See the criteria for ranking the CGscore and classifying the Dir%Own in Table 2.

|         | Level of Directors' Ownership<br>(DirOwnGrp) |        |             |
|---------|--|--------|-------------|
| CG_rank | Low  | Medium | Predominant |
| Low     | 1.03   | -0.67  | 0.75        |
| High    | 2.20   | -2.64  | -1.01       |

# Table 11 Summary table showing the coefficients and the *p*-values (in bracket) of

regression model 8. The dependent variable is CGscore. Based on sample with the largest 4 outlier Qs trimmed. All variables are defined in Section 4.2. P-values less than 0.10 are stated in bold.

|                         | Model             |
|-------------------------|-------------------|
|                         |                   |
| Variables               | 8                 |
| Constant                | 110 00            |
| Constant                | (0.069)           |
| Q                       | 7.136             |
|                         | (0.007)           |
| DivPayout               | 0.3154<br>(0.605) |
| BoD Size                | 1.4511            |
| _                       | (0.049)           |
| INED_%                  | 0.3822            |
|                         | (0.012)           |
| Dir%Own                 | -0.1130           |
|                         | (0.078)           |
| DV_2role                | 14.188            |
|                         | (0.000)           |
| Ln(Sales)               | 0.409             |
|                         | (0.815)           |
| SalGrow%                | 0.0105            |
|                         | (0.529)           |
| ROE                     | 0.1598            |
|                         | (0.098)           |
| DE_ratio                | 7.679             |
|                         | (0.087)           |
| Ln(Eqty)                | 4.787             |
|                         | (0.069)           |
| Observations            | 134               |
| Adj R <sup>2</sup> %    | 18.9              |
| F-tost                  | 1 96              |
| r = cesc<br>(n = value) | (0,000)           |
| (p varue)               |                   |

#### Figure 1



#### Relative Frequency of CGscore 2003-2005 (N=140)

■ Yr 2003 ■ Yr 2004 ■ Yr 2005

Figure 2 A line chart showing the coefficients of dummy variables of DirOwnGrp on Q



Figure 3 A line chart showing the coefficients of dummy variables of DirOwnGrp on Dividend Payout

