BOARD EFFECTIVENESS: INVESTIGATING PAYMENT ASYMMETRY BETWEEN BOARD MEMBERS AND SHAREHOLDERS

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Abstract

Board members may well be responsible for dissension between themselves and shareholders since they are simultaneously the setters and receivers of both board remuneration and dividends. They may act out of their own personal interests at the expense of external shareholders. We investigate the impact of ownership structure, board structure and control deviation on *payment asymmetry*, where excessively high remuneration is paid to board members but considerably lower dividends are distributed to shareholders. We find strong evidence confirming that the smaller the shareholdings of board members and outside blockholders are, the more asymmetric the payments are. With controlling family members on the board and a higher percentage of seats held by independent board members, there is a slight reduction in the likelihood and severity of payment asymmetry. In addition, it is abundantly clear that the larger the board *seat-control deviation* is, the greater is the likelihood and severity of payment asymmetry. While prior research has primarily focused on board-manager agency issues, the board-shareholder perspective could be even more important in that it is the board that is the most directly delegated agent of shareholders, not the managers.

Keywords: board effectiveness, payment asymmetry, board compensation, ownership and board structure, control deviation

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1. Introduction

With its focus on the corporate board, this study explores one potential source of conflict between board members and external shareholders. Common sense wisdom has it that a corporate board, as the most directly delegated agent of shareholders, should not use its position of trust and confidence to further its personal interests, such as by authorizing excessive compensation for its members at the expense of shareholders. Although studies in the extant literature on the function of the board have mainly focused on how it interacts with other agents (e.g., managers and auditors) who are monitored by the board, in order to obtain a more complete picture of board effectiveness, it is simply not enough to evaluate the function of the board exclusively on how it reacts to the performance of managers and the opinions of auditors (e.g., management turnover or dismissal of auditor).[1] We take the position that investigating behaviors that are directly related to the board itself are of particular importance, especially when they pertain to decisions

[1] For example, Florou (2005) finds that effective governance increases the likelihood of the dismissal of the chairman when the chairman is involved in the appointment of a failing CEO. Klein (1998) reported that board committee structure influences firm performance. Helland and Sykuta (2005) show that boards with a higher proportion of outside directors do a better job of monitoring management. Werner, Tosi and Gomez-Mejia (2005) show that ownership structure (owner-controlled versus manager-controlled) affects pay-performance sensitivity. Carcello and Neal (2000) find that the greater the percentage of affiliated directors on the audit committee, the lower the probability that the auditor issues a going-concern report. Carcello and Neal (2003) also find that audit committees with greater independence, greater governance expertise and lower stock holdings are more effective in shielding auditors from dismissal after the issuance of new going-concern reports.

that could result in a lack of trust, if not dissension, between board members and shareholders.

Since corporate boards are responsible for making and monitoring major strategic, operational and managerial decisions (Johnson, Daily and Ellstrand 1996),[2] their performance is critical to firm success (Coles, Daniel and Naveen 2007), and in fact, their performance is considered to be at the core of corporate governance (Organization for Economic Co-operation and Development, OECD 1999, 2004).[3] To the best of our knowledge, however, only a limited number of studies has examined issues that could give rise to potential conflicts between board members and external shareholders.

To this end, we use Taiwanese listed companies as our sample and explore how board characteristics affect the likelihood and severity of payment asymmetry, as demonstrated in excessive compensation to the board and comparatively meager dividends to shareholders.[4] We first define whether board members have disproportionate compensation relative to external shareholders. In our definition, *payment asymmetry* exists when a firm's dividend payout ratio is less than the industry median and its board's remuneration is greater than the industry median. We adopt the presence of payment asymmetry as the variable of interest in this study. The observation that board members have excessive remuneration, while their shareholding counterparts receive only modest dividends suggests that the board procures a windfall at the expense of shareholders. A relatively greater discrepancy in payment asymmetry between the delegated agent, the board, and shareholders is indicative of a more severe agency problem. The fairness of resource distribution between board members and external shareholders falls into the domain of corporate governance in that without good governance, it is difficult to effectively resolve the effects of such a conflict of interest where the board's self-interests oppose their responsibility to the firm and are detrimental to outside shareholders.

For controlling owners, the most effective way to further increase and exercise their influence over decision-making is to maximize seat control. We empirically determine that a deviation between board seat control and voting rights (hereafter, *seat-control deviation*; for detailed definitions, see section 3) is significantly related to the likelihood and severity of payment asymmetry but that a deviation between voting rights and cash flow rights (hereafter, *voting deviation*), the traditional measure of deviation from the one-share-one-vote principle (La Porta, Lopez-de-Silances, Shleifer and Vishny 2002), is not. As Taiwan is governed by civil (code) law, not common law, ownership is highly concentrated, and outside investors have little protection (La Porta, Lopez-de-Silances and Shleifer 1999). Therefore, our finding vis-à-vis seat-control deviation increases our understanding of issues related to corporate governance for companies in countries with similar circumstances

To date, research on the value of corporate governance has mostly centered on the shareholder's perspective (e.g., Gompers, Ishii and Metrick 2003), the bondholder's perspective (e.g., Ashbaugh-Skaife, Collin and LaFond 2006) and the minority owner's perspective (e.g., Bates, Lemmon and Linck 2006). This study contributes to the third string of research by investigating how various characteristics of ownership and board structure could affect the relationship between internal and external shareholders.

True that there is a substantial body of research on corporate governance issues (Lin 1996) involving board members of large publicly-held companies, but with few exceptions (e.g. Dalton and Daily 2001; Hassan, Christopher and Evans 2003), the available evidence as to the extent to which board compensation policy effectively aligns board interests with shareholders' interests is largely anecdotal (Kaback 1996). To fill this gap, our empirical research investigates the phenomenon of payment asymmetry between board members and shareholders using Taiwanese listed companies as our sample due to data availability.[5] What raises considerable concern for many regulators the world over is that there are discrepancies in compensation schemes between executive and non-executive board members.

Commonly, the boards of Taiwan listed companies contain a mix of inside, outside and independent directors (Hsu and Lin 2006).[6] Based on

[2] Johnson, Daily and Ellstrand (1996) identified the agency/control role, the strategic decision and policy support role and the role of resources acquirer as the three main functions of board members.

[3] The responsibility of the corporate board is considered important by several institutes that provide corporate governance grading systems, such as the Institutional Shareholder Services, Credit Lyonnais Securities-Asia and Standard & Poor's.

[4] In Taiwan, basic corporate governance is a two-tier structure that consists of directors and supervisors, both elected by shareholders. Directors are responsible for ensuring compliance with laws and regulations, avoiding conflicts of interest and overseeing the overall management of a company's business. Supervisors are responsible for the effective monitoring of a company's board and management. We use the term "board members" to indicate both directors and supervisors.

[5] Information about board directors is publicly available in various sources, including annual reports and prospectuses provided by publicly-held companies, survey reports of Taiwanese business groups released by the China Credit Information Service, Ltd. (a private institute) and the database of Commerce Industrial Services Portal (http://gcis.nat.gov.tw/index.jsp) of the Ministry of Economic Affairs, Taiwan.

[6] Hsu and Lin (2006) conduct a series of case studies on Taiwanese business groups. They document that boards of Taiwanese companies are commonly composed of inside (executives, controlling family members, past employees or employees from affiliated companies), outside and independent bodies (as required by the Securities and

our preliminary analysis, over the 2001-2005 period, the composite ratios of board members of these Taiwan listed firms are 59%, 30.20% and 10.80% for inside, outside and independent members, respectively. With respect to the form of board remuneration, non-executive directors (i.e. outside and independent directors) normally only receive a cash package, whereas inside board members (i.e. executive directors) are eligible for an employee bonus based on earnings in addition to the cash package shared by all members.[7] As staff compensation committees are not standard to the boardrooms of Taiwanese companies, board members set their own compensation, as specified in the firms' articles of incorporation.[8] This is made more controversial by the fact that board members are also the setters of a company's dividend policy. In other words, that board members are simultaneously the setters and receivers of compensation and dividends puts the board on the spot as they confront a tradeoff between board compensation and dividends for themselves. For instance, board members with a small number of shares likely tend to favor more generous board compensation, which -- in the eyes of external shareholders -- constitutes an unfair payment. By contrast, board members with a significant proportion of shares are less likely to permit such unfair payments given that they can receive a considerable amount in dividends.

In addition to shareholdings of board members, we examine the effect of other governance variables on the likelihood and severity of payment asymmetry. These variables include the role of outside blockholders, the number of independent board members, the role of controlling family members on the board and seat-control and voting deviations. Aside from these, as control variables, we incorporate board size, institutional investor shareholdings, whether the CEO is simultaneously the chair of the board, return on assets, stock return, firm size and leverage.

As regards ownership structure, we find that, *ceteris paribus*, when board members or outside blockholders own relatively more shares, it is less likely that asymmetric payments are made. As concerns board structure, we find only weak evidence that the dominance of controlling family members on the board and that the percentage of seats held by independent board members reduce the severity of payment asymmetry. As mentioned earlier, the evidence also shows that seat-control deviation is positively related to payment asymmetry. In fact, the greater the seat-control deviation is, the more severe the problem of payment asymmetry is. In short, we find that firms with strong governance exhibit a lesser degree of payment asymmetry. To the best of our knowledge, this study is the first to demonstrate that the characteristics of ownership and board structure can affect board members' propensity to maximize their own benefits by unfairly authorizing themselves inflated payments.

The unique features of this paper are two-fold. Firstly, previous studies on the effectiveness of the board have mainly focused on how the board interacts with agents monitored by the board. In this study, we investigate the behaviors directly related to the board itself, especially board decisions with respect to payment policies that could result in dissention between board members and outside shareholders. Secondly, previous studies have only provided evidence on voting deviation, but here, we provide empirical evidence on seat-control deviation versus voting deviation for ultimate control deviation. For controlling owners, to further expand and exercise their influence over decision-making, increasing seat-control is the most effective way. We show that seat-control deviation can statistically explain payment asymmetry, while voting deviation cannot. This signifies that, compared to voting deviation, seat-control deviation is a considerably more important indicator to explain payment asymmetry between board members and shareholders.

The remainder of this paper is organized as follows. Section 2 describes the role of governance in mitigating payment asymmetry. Section 3 explains issues related to the research design. Section 4 describes the sample and presents the descriptive statistics. Section 5 reports the empirical findings, and section 6 provides the results of the sensitivity checks. Section 7 concludes the study and makes some suggestions for future research.

2. Ownership Structure, Board Structure, Control Deviation and Payment Asymmetry

Previous studies have demonstrated that ownership and board structure are important when examining agency issues involving shareholders. This section first reviews some prior findings and then develops the research hypotheses of the present study.

Ownership and board structure have been investigated in different research contexts, including firm value (Brown and Caylor 2006; Coles et al. 2007), operating performance (Bhagat and Black 2002; Fich and Shivdasani 2006), cost of capital (Anderson, Mansi and Reeb 2003), credit rating (Ashbaugh-Skaife et al. 2006), the pay-for-performance relationship (Werner, Tosi and Gomez-Mejia 2005), corporate failure (Parker, Peters and Turetsky. 2002; Lee and Yeh 2004), the informativeness of earnings (Fan and

Exchange Law of Taiwan, independent board members shall hold shares of less than 1%).

[7] Some firms specify that their executive directors are not entitled to cash package remuneration.

[8] Some firms specify a ratio that is a fixed number or a minimum or maximum ratio to distributable earnings, while others specify a ratio in the form of a range (e.g. 2~5% of earnings).

Wong 2002), dividends (Francis, Schipper and Vincent 2005) and earnings quality (Wang 2006).[9] Although empirical findings have shown that ownership and board characteristics do matter in the above contexts, it is worth noting that none of those studies has placed the board itself at front and center of their investigation. That is, studies that have primarily focused on opportunistic behaviors directly related to the board as the dependent variable have been scarce.

To be sure, board compensation is an important context in which to investigate board behaviors. While Main, Bruce and Buck (1996) and Conyon and Peck (1998) reported a significantly positive correlation between firm performance and board remuneration, this still does not exclude the possibility of payment asymmetry between board members and shareholders. In this regard, Hassan et al. (2003) note a steady growth in directors' remuneration against deteriorating return on equity, which strongly suggests that board directors' remuneration has increased at the expense of shareholders' return. In addition, as *Business Weekly* (2004) reports, for a large portion of Taiwanese listed companies, board members tend to behave indolently when it comes to receiving unusually high compensation regardless of their firm's performance.[10] Thus, board compensation, as a potential source of conflict between board members and shareholders, is worthy of investigation.

Payment asymmetry is selected as our dependent variable since total return allocated among board members and shareholders in a specific year is fixed, and the mere presence of asymmetric payments constitutes a potential point of contention between board members and shareholders. The scenario where the board sets both the board compensation and the dividend policies provides us with an ideal research setting that can shed light on factors that affect, in this case, payment asymmetry. We contend that an in-depth understanding of the rationale behind and the determinants of payment asymmetry is sure to enhance our knowledge as to the role of ownership structure and board structure.

In the following, we first discuss the role of ownership structure and then that of board structure, and in so doing, we develop relevant research hypotheses. We define measures that gauge the composition of shareholding as ownership structure variables (i.e. stocks held by board members and outside blockholders) and measures that describe the composition of boards as board structure variables (representation of independent board members and controlling family members). Finally, we discuss deviations between ownership and control and again develop relevant research hypotheses. We explain the association between the likelihood and severity of payment asymmetry and control deviations -- both seat-control deviations and voting deviations.

2.1 Ownership structure

Stocks held by board members. Two competing arguments, the entrenchment effect and the alignment effect, are conventionally adopted in research studies that explore the effects of ownership on agency problems (Shleifer and Vishny 1997). The entrenchment effect argues that large inside shareholders in firms with concentrated ownership have greater incentives to maximize their own gains at the cost of other shareholders. Against this, the alignment effect contends that large inside shareholders monitor management more thoroughly and that this carries potential benefits to all shareholders. Convincing evidence supporting both the entrenchment effect (e.g., Fama and Jensen 1983; Morck, Shleifer, and Vishny 1988; Claessens et al. 2002) and the alignment effect (e.g., Demsetz and Lehn 1985) has been well documented.

This study adopts the argument of the alignment effect to explain the relationship between board ownership structure and payment asymmetry. As a general rule, the principal and agent are different players of a game, but in our setting, the role of the board and that of shareholders could overlap a great deal depending on the number of shares held by board members. On the one hand, if fewer stocks are held by board members, a conflict in the form of payment asymmetry would be more likely to develop and would be more severe, and the reason is simple: board members would have a greater incentive to maximize their own compensation rather than increase the dividends of shareholders On the other hand, if board members are also large shareholders, it is expected that such behavior would be less likely and less severe. We maintain, therefore, that the alignment effect is much more applicable in the present study.

Though not exactly in the same setting as ours, Elson (1993) showed that firms with compensation committee members that have high equity ownership are less likely to overcompensate corporate executives; this is in line with the argument that board members with greater equity investment in the firm develop shareholder-like interest, which reduces the possibility and severity of asymmetric payments. Based on the alignment effect, we predict that the greater the number of shares held by the board is, the less tendency there is for and the less severe is payment asymmetry. Thus:

H1: The percentage of shares held by board members is negatively related to the likelihood (severity) of payment asymmetry.

Stocks held by outside blockholders. Previous research substantiates that outside blockholders play a

[9] Samples used in these studies are different. For instance, Fan and Wong (2002) investigate firms in East Asian economies. Francis, Schipper and Vincent (2005) examine dual class firms in the U.S., and Wang (2006) studies founding family ownership in U.S. companies.

[10] *Business Weekly* is a well-known financial publication with wide readership in Taiwan (http://www.businessweekly.com.tw).

positive role in corporate governance. In an extensive survey on blockholders and corporate control, for instance, Holderness (2003) points out that blockholders have the incentive and opportunity to monitor management and thus enhance a firm's expected cash flows that accrue to all shareholders. As the effectiveness of the board is critical to a firm's success (Coles et al. 2007), extending Holderness' conclusion, we expect that outside blockholders also have a strong incentive to monitor the board. Thus, to capture the monitoring power of outside blockholders, we further include the shareholding of outside blockholders. Specifically, we hypothesize that both the likelihood and severity of the board's making asymmetric payments are negatively related to the shareholdings of outside blockholders. Thus,

H2: The percentage of shares held by blockholders is negatively related to the likelihood (severity) of payment asymmetry.

2.2 Board structure

Role of independent board members. The lack of an independent voice on the board coupled with incentives for board members to operate for their own personal gains may give rise to somewhat irresponsible behavior on the part of corporate boards (Jensen and Meckling 1976; Tirole 2005).[11] On the former, the importance of board independence in corporate governance has been noted by regulators, academia and practitioners alike, but empirical evidence on the effectiveness of independent board members on firm performance, dismissal of ineligible executives and CEO compensation has been mixed. Some studies have shown that the role of independent board members is positive (e.g., Borokhovich, Parrino and Trapani 1996; Cotter, Shivdasani and Zenner 1997; Byard, Li, and Weintrop 2006),[12] while others have found no such evidence (Yermack 1996, Hermalin and Weisbach 1988, Bhagat and Black 2002). In addition, as executives or controlling owners may handpick independent board members from among their personal friends or from social networks outside, yet close to, the firm, independent board members may actually only be "independent" in name –i.e., on the "outside," not on the "inside."

As for the incentives, if board members were able to have high equity investment in the firm, they could be highly influenced by potential financial gains; for this very reason, the Securities and Exchange Law of Taiwan stipulates that the maximum number of stocks held by an independent board member must be limited to one percent of the firm and that an independent board member cannot be employed by that company.[13] In other words, independent board members cannot receive an employee bonus. Except for the cash package, at most, they can receive a very small amount in dividends. Compared to the remuneration received by executive board members (usually an employee bonus plus cash package and dividends), what independent board members receive is meager; but if the board were to fail in its duties, the same legal repercussions would be imposed on all members on the board. It could be that the lack of balance between the small pecuniary reward and the heavy work load may tempt certain independent board members to pursue their own personal gains at the expense of external shareholders', and this despite the risk of facing legal repercussions and tarnishing their reputation.

Research has provided either positive or no solid results on the impact of independent board members on the effectiveness of the board and on agency costs. In this paper, we take the position that most independent board members would prefer to avoid legal repercussions and safeguard their personal reputation rather than care more about receiving a personal monetary reward. Thus, we hypothesize a negative relationship between the percentage of representation of independent board members and the likelihood and severity of payment asymmetry.

H3: The percentage of independent board members is negatively related to the likelihood (severity) of payment asymmetry.

Role of controlling family members. According to current theories and empirical research findings, family ownership possibly affects governance-related issues in two ways: the entrenchment (wealth-depriving) effect or the alignment (monitoring) effect. The alignment effect is more applicable in this setting because greater board compensation results in there being less revenue for dividends. Pertinent here is that, Wang (2006) finds evidence that the founding family is associated with higher earnings quality but states that "…it is unclear whether higher earnings quality is a result of the demand for greater earnings quality from family firms [i.e., the entrenchment effect] or a result of the supply of greater earnings quality by family firms [i.e., the alignment effect] (p.653)." If the impact of family board members is in agreement with the alignment effect in our study, then the findings in Wang (2006) can of course be interpreted as a product of the alignment effect.

[11] According to Tirole (2005 pp.30-32), the lack of independence and insufficient incentive are two of many factors that cause the ineffectiveness of the board.

[12] To be more specific, the positive effect of outside directors has been found in certain research contexts, like management turnover (Weisbach 1988; Borokhovich et al. 1996), anti-takeover provisions (Brickley, Coles and Terry 1994) and negotiations on takeover premiums (Byrd and Hickman 1992; Cotter et al. 1997).

[13] Readers are referred to "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" for detailed information on qualifications for independent board members in Taiwan. In brief, Article 2 defines the expertise requirements of independent board members, and Article 3 stipulates the conditions that disqualify would-be candidates.

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Prior studies have determined whether a company is family-owned or not based on the type of ultimate controllers, using shareholdings as the cutoff (e.g., 10% or 20%). We argue that it is the board meeting (seat control) rather than the shareholder meeting (voting control) that has the real power of control when it comes to reaching major decisions, such as those pertaining to board compensation and dividends as well as operations, investment and other financing activities. We believe that seat control is a better indicator to define whether a company is family-owned. Thus, we depart from previous studies by defining firms as family-controlled if 50 percent (or more) of the board members are members of the same family.

The reason we use a dummy variable instead of number of shares to indicate a family-controlled company is that the latter approach would give rise to the double count problem. Shares owned by a controlling family would be included in shareholdings of either board members (if the family members are on the board) or outside blockholders (if the family members are outside the board). Were we to adopt this conventional measure, it would inflate the effect of family ownership. Therefore, we adopt a dummy approach.

In that the history of the TSEC, founded in 1962, is significantly shorter than that of the NYSE, founded in 1792, it is reasonable to assume that family membership is equivalent to founding family membership in Taiwan. In fact, Hsu and Lin (2006) report that, for most Taiwanese listed companies, the controlling families are the founding families.[14] As founding family companies show greater concern about the preservation of their family name (Anderson et al. 2003), compared to their non-family-controlled counterparts, family-controlled companies are more likely to forgo short-term benefits (Wang 2006). Thus, we predict that the interests of family-controlled companies (usually also founding family companies in Taiwan) are more-closely aligned and that those companies have stronger incentives to monitor the board. To be more precise, this study hypothesizes that family-controlled firms are less likely to agree to take on the practice of making asymmetric payments. Hence, we postulate:

H4: Family-controlled companies are negatively related to the likelihood (severity) of payment asymmetry.

2.3 Separation of ownership and control

Shleifer and Vishny (1997) argued that large shareholders have incentives to maximize their own benefits even if it is at the expense of other shareholders. In this sense, it has been shown theoretically and empirically that joint ownership and control creates greater agency conflicts (e.g., Fama and Jensen 1983; Morck et al. 1988).[15] La Porta et al. (2002) and Claessens et al. (2002) show that a high deviation of cash flow right from voting right has a negative effect on firm performance and shareholder value. Those studies suggest that pyramid and cross-holding structures broaden the difference between voting right and ownership for firms in East Asian economies. Based on a sample of firms in seven East Asian economies, Fan and Wong (2002) find that the deviation of control from ownership creates agency conflicts between controlling owners and outside investors, which may well result in the controlling owners reporting favorable earnings information even when it might lack credibility. Francis, Schipper, and Vincent (2005) also find that, compared to firms with single class stocks, firms with dual class stocks with a higher separation of cash flow rights from voting right have lower earnings quality; but, there is evidence showing that dual class stocks have higher dividends informativeness.

As concerns ownership structure, it is possible to categorize a firm as a widely-held company based on an academic definition (e.g., La Porta et al. 1999; Claessens et al. 2002).[16] However, ownership structure aside, virtually every company -- publicly-held or not -- must have an authority (an individual or a group of people) that is responsible for making the final or ultimate decisions. Under the traditional definition, we might be led to the conclusion that, in widely-held companies, no one has the ultimate authority. Yet, by no means would it be reasonable to assume that there is no one to hold decision-makers accountable. Thus, this study defines this individual (or group of individuals) as the controlling owner(s). And, it is critical for controlling owners to have seat control in order to increase and exercise their influence in board decisions. The details for the identification of the controlling owners are provided in the next section.

Controlling owners have advantages in terms of obtaining information and using the resources of the firm (e.g. registrant of shareholders) to gather critical and incremental proxy votes, which leads to a further deviation between voting right and seat-control right. Seat-control deviation represents the most effective way to obtain *excess* control, which further inflates the controlling owner's power over board decisions. In other words, when voting deviation is kept constant, seat-control deviation further deteriorates the

[14] Hsu and Lin (2006) survey 14 of the top 50 Taiwanese business groups and find that there are 11 family-controlled business groups. They further show that the controlling families are all the founding families.

[15] Morck et al. (1988) report that managers' and shareholders' interests are more aligned as managerial ownership increases. They also find that managers' interests begin to diverge from shareholders' as their equity stakes continue to grow.

[16] Based on shareholdings, La Porta et al. (1999) classify ultimate owners into five types: (1) a family or an individual; (2) the State; (3) a widely-held financial institution; (4) a widely-held corporation; or (5) miscellaneous.

one-share-one-vote principle. Hence, unlike previous studies, we employ seat-control deviation in addition to voting deviation to measure the influence of controlling shareholders.

We provide guidelines as to how to calculate seat-control and voting deviations. First, assume that the voting, cash flow and seat-control rights of the controlling owner of Company A are 20%, 13% and 60% (with six out of 10 board members (60%) controlled by the controlling owner), respectively. In this case, *seat-control deviation* is 40% (i.e. 60% minus 20%), while *voting deviation* is 7% (i.e. 20% minus 13%). A higher voting deviation is indicative of a greater violation of the one-share-one-vote principle. Traditional wisdom has it that a voting deviation represents an asymmetric distribution between capital invested and power of control. Nevertheless, the actual power of the vote is exercised through the board. We believe that seat-control deviation further gauges the difference between actual (seat-control right, 60% in this example) and nominal (voting right, 20%) power exercised by the ultimate owner. More specifically, a higher seat-control deviation means that when the controlling owners have the same voting right, they have excess control beyond their ownership right by virtue of proxy votes that inflate their short-term influence. Power-inflated controlling owners are typically more focused on personal benefits, and as a consequence, they likely behave more myopically, which in this study typifies behavior associated with payment asymmetry. In sum, we posit that for boards with either higher voting or higher seat-control deviations, the board members are more inclined to make asymmetric payments.

H5: Voting deviation is positively related to the likelihood (severity) of payment asymmetry.

H6: Seat-control deviation is positively related to the likelihood (severity) of payment asymmetry.

3. Definition of the Variables and Research Design

3.1 Measurement of the Dependent Variables: UFDM and UFRK

To measure payment asymmetry, we let the dummy variable *UFDM* take the value of one if a firm's dividend payout ratio is less than its industry median and its board's remuneration (scaled by net earnings) is greater than its industry median, and zero otherwise. Therefore, *UFDM* = 1 is a sign of payment asymmetry. In the development of *UFDM*, we focus on nonfinancial companies with positive earnings that pay both board compensation and dividends.[17]

Next, we explain *UFRK*, the variable ranking the severity of payment asymmetry. If *UFDM* has a value of zero, then *UFRK* is equal to zero. By contrast, if *UFDM* has a value of one, then the following four steps are taken to define *UFRK*. First, for this sub-group, we categorize the observations on the basis of board compensation level (scaled by net earnings) into ascending quintile rank, each with a given value from 1 to 5 (Q1_Board ~ Q5_Board). The higher the given value, the *higher* the board compensation level of the firm. Second, following the same approach, we classify the observations on the basis of dividend payout ratio into descending quintile rank, each with a given value from 1 to 5 (Q1_Dividend ~ Q5_Dividend). The higher the given value, the *lower* the dividend payout ratio of the firm. Third, we multiply Qi_Board by Qj_Dividend (where i and j = 1,…, 5) to determine their multipliers. Finally, we rank these multipliers and form deciles to obtain the value of *UFRK*. Firms in the top decile (decile 1) have the lowest severity of payment asymmetry (*UFRK* =1), while firms in the bottom decile (decile 10) have the highest severity of payment asymmetry (*UFRK* =10). In other words, the higher the *UFRK*, the more severe payment asymmetry is. To sum up, *UFDM* = 0 indicates that *UFRK* = 0. However, if *UFDM* = 1, then *UFRK* has a range from one to ten.

Although an increase in either index Qi_Board or index Qj_Dividend increases the severity of payment asymmetry, it is reasonable to assume that the incremental effect of unfair board compensation (dividend), Qi_Board (Qj_Dividend), is much more severe for a dividend status (board compensation) at a much more unfair level. For example, when we take the first derivative of (Qi_Board × Qj_Dividend) with respect to Qi_Board, the result of Qj_Dividend implies that the more severe the status of Qj_Dividend is, the greater is the negative impact of Qi_Board on payment asymmetry.[18]

[17] There are two additional scenarios for payment, namely (1) firms with a net loss pay the board compensation but no dividends; and (2) firms with positive earnings pay the board compensation but no dividends. The former is excluded because it is reasonable to compensate board members even if the company is experiencing a net loss. As for the latter, that firms with positive earnings do not pay any dividends may be due to their intention to retain their capital to take advantage of future investment opportunities, which is expected to bring them future growth.

[18] This note provides a numerical example that compares two approaches, namely that which involves multiplication versus that with addition. Suppose that Qi_Board = 1 and Qj_Dividend = 3 (i.e., its product 3 = 1 × 3). With a one-unit increase in Qi_Board (i.e., from 1 to 2), the increased product is 3 (new product 6 = 2 × 3). If the status of Qj_Dividend is changed from 3 to 4 and Qi_Board remains 1, then its product changes to 4 (1 × 4). A one-unit increase in Qi_Board (i.e., from 1 to 2) produces 8 (2 × 4); then, the increased product becomes 4 (from 4 to 8). For the same incremental Qi_Board (from 1 to 2), the incremental effect on payment asymmetry is 3 (when Qj_Dividend = 3), which is lower than 4 (when Qj_Dividend = 4). When the approach with addition, i.e., Qi_Board + Qj_Dividend, is adopted, the incremental effect of Qi_Board on payment asymmetry is independent with the level of Qj_Dividend. In our numeric example, the marginal effect equals one. Our main findings are qualitatively unchanged if the approach with addition is

3.2 Measurement of the Independent and Control Variables

In this section, we explain the factors related to the likelihood and severity of payment asymmetry. It is our expectation that a relatively higher shareholding of either board members (*BDSH*) or outside blockholders (*BLKSH*), and a relatively higher percentage of board seats held by either independent board members (*INDST*) or a controlling family (*FMDM*) reduce the likelihood and severity of payment asymmetry. We also predict that firms with a greater voting deviation (*VMCF*) or seat-control deviation (*STMV*) have an increased likelihood and severity of payment asymmetry.

To be specific, *BDSH* and *BLKSH* represent the percentage of shares held by board members and outside blockholders, respectively. We define outside blockholders as non-board members and non-executive shareholders whose shareholdings are either in the top 10 or over 5%. When 50% (or above) of the board members are all from a specific family, we define such companies as controlling families. *FMDM*, a dummy variable, indicates whether a company has a controlling family on the board (one for controlling family, and zero otherwise).

From the ultimate controller's perspective, the variable *VMCF* measures the difference between voting right and cash flow right, while *STMV* measures the difference between the seat-control right and voting right of the controlling owners. Two steps are taken to identify the ultimate controller: (1) The largest shareholder (family members, if any, are included) is identified based on shares owned. The largest owner is defined as the largest shareholder and his family members (if any). (2) It is determined whether the largest owner is on the board. Two scenarios may evolve. If the largest owner is on the board and also serves as chair of the board or CEO, then this individual is defined as the ultimate controller. However, if the largest owner is on the board but serves neither as chair of the board nor as CEO, then the chair of the board (family members, if any, are included) is defined as the ultimate controller. Seat-control, traced at the ultimate controller level, is then calculated. Seat control includes the ultimate controller's family members, managers of the firm and its affiliated companies as well as representatives of other family-invested businesses, if any.[19] Voting deviation and seat-control deviation both at the ultimate controller level are also calculated.[20]

Additional explanatory variables are added to our models based on a survey of prior research related to corporate governance. While many studies find that firm value decreases as board size increases (e.g. Yermack 1996; Eisenberg, Sundgren and Wells 1998), Coles et al. (2007) document that larger firms, diversified firms and firms that rely more on debt financing benefit from having larger boards. We include board size (*BDSZ*) to control for its potential effects on governance. Having the double role of CEO and chair of the board (*DUAL*) is included because in the framework of the agency theory, a CEO with this dual role can exercise significant control over board decisions (Fama and Jensen 1983). In addition, the percentage of shares held by domestic (*INST*) and that by foreign (*FINST*) institutional investors are included to control for their monitoring effect on board effectiveness (Almazan, Hartzell and Starks 2005).[21] The percentage of executives on the board (*MGST*) is included to control for managers' influence in board decisions (Lasfer 2006).[22] Finally, it is a common practice in Taiwan that board members take a personal loan from a bank and use shares of the firm as collateral. It is required that additional collateral be deposited in a bank whenever there is a margin between the amount of the loan taken and the market value of the stocks pledged should there be a drop in the price of the stocks.[23] As the variation in the stock price is associated with the financial burden faced by board members who pledged the stocks, the desire to report favorable earnings in support of the price of the stocks, or to approve an excessively high level of board remuneration to relieve a portion of their financial burden likely weakens the monitoring function of the board. The percentage of shares pledged by board members (*PLDG*), used as a proxy variable for the financial burden faced by board members, is also incorporated to control for a possibly weakened monitoring effect.[24]

used.

[19] The names of family members, managers and representatives are all available in company financial statements.

[20] The calculation of voting rights is in accordance with La Porta et al. (1998).

[21] Almazan, Hartzell, and Starks (2005) examine the role of active institutional investors on monitoring costs in the context of executive compensation.

[22] It is suggested that managers, through their shareholdings, entrench their position, thereby reducing the monitoring power of the board. Almazan, Hartzell and Starks (2005) examine the relationship between board structure and managerial ownership. Since the focus of this study is on the board and managerial holdings, if managers are also board members, their shareholdings are included in shareholdings by board members. We adopt the percentage of representation of managers on the board rather than shareholdings to capture the essence of this effect.

[23] In the opposite scenario, if the stock price goes up, the bank either refunds some portion of the margin or allows the individuals who pledged the stocks to borrow more money within the range of the refundable margin.

[24] A listed firm is required to file a report with the Taiwan Stock Exchange Corporation (TSEC) and Gretai Securities Market (GTSM) when its board members take a loan from a bank and use the shares of the firm as collateral. In addition, the percentage of shares pledged must be disclosed in a firm's annual report. The TSEC and GTSM in Taiwan are analogous to the NYSE and NASDAQ in the U.S.

3.3 Research Design

We employ two measures to capture payment asymmetry between board compensation and outside investors' dividends. The variable *UFDM*, a dummy variable, measures the likelihood of there being payment asymmetry, while the variable *UFRK* gauges the severity of payment asymmetry based on a 0-10 scale. Using *UFDM* (*UFRK*) as the independent variable, we employ the Probit (Tobit) model to serve our research purposes. Since *UFDM* is an indicator variable, we use the Probit regression model to estimate the factors affecting the likelihood of payment asymmetry. But because several values of *UFRK* equal zero, it is more appropriate to use the Tobit specification in our analysis of factors affecting the severity of payment asymmetry (Greene 2003).[25]

To investigate the effect of ownership and board structure on the likelihood and severity of payment asymmetry, we employ equation (1) which represents our basic regression model. The dependent variable *Y* represents *UFDM* or *UFRK* in the Probit or Tobit model, respectively.

$$Y = \alpha_0 + \beta_1 BDSH + \beta_2 BLKSH + \beta_3 INDST + \beta_4 FMDM + \beta_5 VMCF + \beta_6 STMV + \beta_7 BDSZ + \beta_8 DUAL + \beta_9 INST + \beta_{10} FINST + \beta_{11} MGST + \beta_{12} PLDG + \varepsilon \quad (1)$$

where:

Y	=	*UFDM* (the likelihood) or *UFRK* (the severity) of payment asymmetry;
BDSH	=	percentage of shares held by board members;
BLKSH	=	percentage of shares held by outside blockholders;
INDST	=	percentage of independent members on the board;
FMDM	=	one if the firm is a family-controlled firm, and zero otherwise;
VMCF	=	voting deviation, measured by voting right minus cash flow right;
STMV	=	seat-control deviation, measured by seat control right minus voting right;
BDSZ	=	number of board members;
DUAL	=	one if the CEO simultaneously serves as chair of the board, and zero otherwise;
INST	=	percentage of shares held by domestic financial institutional investors;
FINST	=	percentage of shares held by foreign financial institutional investors;
MGST	=	percentage of executives on the board; and
PLDG	=	percentage of shares pledged by board members.

Except for *FMDM* and *DUAL*, which are dummy variables, the remaining independent variables in equation (1) are all in percentage form. Based on our hypotheses, we predict the signs of the coefficients of *BDSH*, *BLKSH*, *INDST* and *FMDM* (β_1 to β_4) are negative and that those of *VMCF* and *STMV* (β_5 and β_6) are positive. For the Probit (Tobit) analysis in equation (1), a positive coefficient indicates that its corresponding variable is positively related to the likelihood (severity) of payment asymmetry.

4. Sample and Descriptive Statistics

We consider that there is payment asymmetry in a firm if that firm has positive earnings and fully meets three conditions: (1) the dividend payout ratio is greater than zero; (2) the dividend payout ratio is less than the firm's industry median; and (3) the total compensation of the board members, scaled by net earnings, is greater than the firm's industry median.

Table 1 presents the outcomes of the sample selection procedure and the yearly distribution of Taiwanese listed companies over the 1997-2005 period. The original total number of observations is 10,306, but after we exclude firms in the banking and financial industries, firms with insufficient data on the corporate governance variables and firms that experienced a net loss and distributed no dividends, the final sample consists of 5,457 observations. Upon further analysis, in the final sample, there are 1,368 observations of firms that satisfy our definition of firms with payment asymmetry. The 1,368 observations (i.e., *UFDM* = 1) are then ranked from one to ten (i.e., *UFRK* = 1,⋯, 10) to determine the severity of payment asymmetry.

(Table 1 around here)

The descriptive statistics for the explanatory variables in the analysis are reported in Table 2, where column A (*UFDM* = 1) shows the group with payment asymmetry (*N* = 1,368) and column B (*UFDM* = 0) shows its counterpart without payment asymmetry (*N* = 4,089). In Panel A (B), the basic statistics of the continuous (dichotomous) variables are shown. The average (median) *BDSH* is 26.71% (24.15%) for the *UFDM* = 1 sample and 30.58% (27.47%) for the *UFDM* = 0 sample. The univariate comparison shows that the mean (median) difference -3.87% (-3.32%) is significant at the p<0.01 (0.01) level. Since both the mean and the medium percentage of shares held by board members in column A are significantly lower than those in column B, H1 holds. This implies that higher stock ownership by board members decreases the possibility of payment asymmetry.

The mean of *BLKSH* is 14.68% for the *UFDM* = 1 sample and 15.65% for the *UFDM* = 0 sample. Compared to the group with payment asymmetry, the group with no payment asymmetry, i.e., the *UFDM* = 0 sample, has statistically greater *BLKSH* (p-value < 0.01). This is fully consistent with H2. As regards the median, the results are qualitatively similar. The difference in *INDST* between the two samples is insignificant. That is, we find no evidence to support H3. As firms in the *UFDM* = 1 sample have a significantly lower percentage (49% vs. 55%; Panel B)

[25] We also employ the ordinary least squared and ordered Probit regression models to explore the association between *UFRK* and the variables of interest. Our findings remain qualitatively unchanged.

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for *FMDM* (p-value < 0.01), H4 is supported; that is, having controlling family members on the board diminishes the likelihood of payment asymmetry. We next discuss the effect of voting and seat-control deviations on the likelihood of payment asymmetry, i.e., H5 and H6. With respect to voting deviation (*VMCF*), we find mixed evidence from the mean and median tests. Comparing the means, we find that the higher the *VMCF*, the less likelihood there is of payment asymmetry (5.62% vs. 6.86%). However, from the median test, we obtain the opposite finding (1.82% vs. 1.47%). On account of the contradictory results, we cannot confirm whether or not H5 holds. Turning to seat-control deviation (*STMV*), we note the results of the mean (30.86% vs. 27.08%) and median (29.41% vs. 25.77%) tests are significant, which fully supports H6. More specifically, there is less likelihood of payment asymmetry for firms with less deviation in seat-control. To sum up, based on our univariate test results, except for H3 and H5, all of our hypotheses are supported. Finally, we briefly report the two-group comparisons using our control variables. In terms of the means but not the medians of *BDSZ* and *PLDG*, firms with payment asymmetry tend to have a larger board size (*BDSZ*) and a higher percentage of stocks pledged by board members (*PLDG*). The differences between the two groups in terms of *INST*, *FINST* and *MGST* are insignificant.

Table 3 provides the correlation matrix for the variables investigated with *UFDM* (shown in Panel A) and *UFRK* (shown in Panel B) as the dependent variables. The upper half on the right of the matrix reports the Spearman correlation coefficients, while the lower half on the left of the matrix reports the Pearson correlation coefficients. Consistent with the descriptive statistics in Table 3, both the Spearman and Pearson correlation results (in Panel A) indicate that the variable *UFDM* is significantly positively associated with *STMV*, *BDSZ* and *PLDG*. In comparison, the variable *UFDM* is significantly negatively correlated with *BDSH*, *BLKSH*, *FMDM* and *DUAL*. Regarding *VMCF*, while the Pearson correlation reveals a negative relation to *UFDM*, the Spearman correlation shows no association. The same conclusions apply for the variable *UFRK* (in Panel B).

It is important to note that the results in Tables 2 and 3 provide solid evidence that the likelihood of payment asymmetry is significantly associated with a lower percentage of shares held by board members and outside blockholders. Equally important, a greater likelihood of payment asymmetry is characterized by a higher seat-control deviation. More than this, in firms with controlling family members on their board, it is evidently less likely that there is payment asymmetry. These univariate test results show that all our hypotheses are supported, except for H3 and H5.

5. Regression Results

Our regression tests are derived from models that represent the likelihood and severity of payment asymmetry as a function of the characteristics of ownership and board structure. As mentioned earlier, to test the relations between these characteristics and the likelihood of payment asymmetry (*UFDM*), we employ a Probit model. But for the test of the severity of payment asymmetry (*UFRK*), we adopt a Tobit model. The *UFDM*-column in Table 4 presents the results from our Probit regression model. The model adequately distinguishes the binary outcome (Chi-squared = 124.25, p-value < 0.01), and it achieves an unreported overall fit of 75% (with 0.5 as the cutoff). Consistent with H1, we find significance in the predicted direction at p-value < 0.01 for the coefficient of *BDSH*. Thus, a higher percentage of shares held by board members diminishes the possibility of payment asymmetry.

On the role of outside blockholders, the coefficient of *BLKSH*, as expected, is significantly and negatively related to *UFDM* at the <0.01 level. We therefore again find evidence in support of H2 that posits that a higher percentage of outside blockholders is negatively related to a greater likelihood of payment asymmetry. However, *INDST* is not found to be a significant predictor, which is inconsistent with H3. This finding does not allow us to conclude that a higher number of independent board members reduces the possibility of payment asymmetry. The negative coefficient of *FMDM* is significant (p-value < 0.01) and in the expected direction, thus fully supporting H4 that having controlling family members on the board reduces the likelihood of payment asymmetry.

The tests of H5 and H6 examine how control deviation affects payment asymmetry. With voting deviation used to measure the entrenchment effect, the insignificant coefficient of *VMCF* indicates that this traditional measure, widely used in prior studies, is not related to the likelihood of payment asymmetry. However, when seat-control deviation is used, the results are consistent with our initial prediction that greater seat-control deviation increases the possibility of payment asymmetry. Therefore, in stark contrast to voting deviation, seat-control deviation does indeed explain the likelihood of payment asymmetry.

Regarding the severity of payment asymmetry, the overall model fit of the Tobit model is significant (Chi-squared = 119.79, p-value < 0.01). The *UFRK*-column in Table 4 further shows that the severity of payment asymmetry is significantly and negatively associated with *BDSH*, *BLKSH* and *FMDM* with p<0.01. Combining the results in the *UFDM* and *UFRK* columns, we find that the percentage of shares held by board members and outside blockholders as well as having controlling family members on the board all decrease not only the likelihood of payment asymmetry but also its severity. The variable *INDST* has no effect on payment asymmetry. Apart from that, the coefficient of *VMCF* is insignificant at the conventional level, while that of *STMV* is significantly and positively related to *UFRK* with p<0.10. In sum, we find evidence to support H1, H2, H4 and H6, but

again not H3 and H5.

Finally, we briefly document the findings on the control variables in this study. The significantly positive coefficient of *BDSZ* in the Probit (Tobit) model indicates that board size, measured in terms of the number of board members, increases the possibility (severity) of payment asymmetry. Perhaps somewhat contrary to conventional wisdom, the significantly negative coefficient of *DUAL* in the Probit (Tobit) model indicates that when there is a CEO who also serves as chair of the board, there is a decreased possibility (severity) of payment asymmetry. The reason for this may be that for a company with *DUAL* = 1, in a normal situation, the CEO must own enough shares to ensure that he is elected both chair of the board and CEO. We conjecture that for a CEO who is also a large shareholder, it is not in his best interests to make asymmetric payments. In addition, a CEO is normally entitled to an employee bonus, which is usually substantial, and therefore, he may be less concerned about board compensation. The variables *PLDG*, *INST* and *MGST* are not found to be significant. As regards *FINST*, it does not significantly explain the likelihood of payment asymmetry, but it can explain its severity.

6. Further Analysis

Based on prior research, it is clear that firm performance and firm characteristics could affect payment decisions (e.g., CEO compensation) made by the board; thus, we add return on assets, market return, firm size and leverage in our further analysis. In addition, we conduct a nonlinearity check.

Table 5 gives the results after the effects of accounting-based and market-based firm performance as well as the basic firm characteristics on payment asymmetry are controlled for. To be more precise, we incorporate yearly industry-median-adjusted return on assets (*ROA*) and market-adjusted return (*RET*), firm size (*SIZE*) and leverage ratio (*LEV*) in equation (1) as additional control variables. For the reason that well-performing firms may provide their board members with a higher monetary reward, we add *ROA* and *RET* into equation (1). Regarding *SIZE* and *LEV*, because firms smaller in size have lower political costs (Watts and Zimmerman 1986) and firms with greater leverage tend to have less free cash flow and are more influenced by debt covenants constraining their dividend payout ratios (Fenn and Liang 2001), we expect they have an increased likelihood of payment asymmetry. More specifically, we expect that *SIZE* and *LEV* have negative and positive signs, respectively.

Table 5 reports the results of the sensitivity checks. We find that the coefficients of *BDSH*, *BLKSH* and *STMV* are consistent with those in Table 4; therefore, H1, H2 and H6 hold. As for H4 which is supported in Table 4, the significance level of the coefficients of *FMDM* in Table 5 (-0.071 for the Probit and -0.536 for the Tobit models) is reduced to the one-tailed level (p-value < 0.10). However, for H3 which is not supported in Table 4, the coefficients of *INDST* in Table 5 (-0.003 for the Probit and -0.015 for the Tobit models) show that they are significant at the one-tailed level (p-value < 0.10). We still find no evidence to confirm that there is an association between *VMCF* and payment asymmetry. When the results in Tables 4 and 5 are combined, there is strong evidence in support of H1, H2 and H6, only weak evidence in favor of H3 and H4, but no evidence in support of H5.

With respect to the control variables, we find that the coefficients of *MGST* (-0.374 for the Probit and -2.833 for the Tobit models) are significant at the two-tailed level (p-value <0.10). One possible reason that higher *MGST* (the seat percentage of executives on the board) decreases the likelihood of payment asymmetry is perhaps that executives are entitled to receive a bonus and are therefore less concerned about board compensation. As for the newly-added control variables, *ROA*, *RET*, *SIZE* and *LEV*, the accounting-based performance, *ROA*, is significantly associated with the likelihood and severity of payment asymmetry, but the market-based performance, *RET*, has no incremental explanatory power. Finally, as shown in Table 5, political cost, proxied by *SIZE*, and debt covenant, proxied by *LEV*, are significantly related to payment asymmetry.

On the question of potential nonlinearity problems, Anderson et al. (2003) document a nonlinear relation between ownership and firm performance, and Wang (2006) reports the same finding but with a focus on earnings quality. To ensure that our findings are not subject to nonlinearity issues, we further examine whether the relations between payment asymmetry and the variables of interests in this study are nonlinear. We use a dummy variable approach to solve this issue.

Using *BDSH* as an example, we first equally divide the observations into *High*, *Median* and *Low*, i.e. into three sub-samples based on the shareholdings of board members. Second, we generate two dummy variables, *BDSH_Low* and *BDSH_High*. *BDSH_Low* equals one if that observation falls into the lowest sub-sample (i.e., the *Low* sub-group), and zero otherwise. Similarly, *BDSH_High* equals one if that observation falls into the highest sub-sample (i.e., the *High* sub-group), and zero otherwise. This means we adopt the *Middle* sub-group as the benchmark to conduct the nonlinearity check. The direction of the coefficient of *BDSH_Low* (*BDSH_High*) indicates the difference between the lowest (highest) sub-group and the middle sub-group with regard to the effect of board member shareholding on payment asymmetry.

In addition, in cases where the coefficients of *BDSH_Low* and *BDSH_High* are significant and their signs are in the same direction, it indicates that the relationship between *BDSH* and payment asymmetry is nonlinear. Based on the same reasoning, *BLKSH_High* and *BLKSH_Low* (*STMV_High* and

STMV_Low) are further derived from *BLKSH* (*STMV*).

In the case of *FMDM*, we further divide the sample into three sub-groups, and we assign firms with *FMDM* = 0 to the *FMDM_Low* sub-group and those with *FMDM* = 1 into the *FMDM_High* and *FMDM_Middle* sub-groups on the basis of the median percentage of controlling family members on the board. As regards our major finding, since *INDST* and *VMCF* are not related to payment asymmetry, we conduct no further analysis. Therefore, following the dummy variable approach, we use the following regression model to explore the potential nonlinearity effect on payment asymmetry.

$$Y = \alpha_0 + \beta_1 BDSH\_Low + \beta_2 BDSH\_High + \beta_3 BLKSH\_Low + \beta_4 BLKSH\_High + \beta_5 INDST + \beta_6 FMDM\_Low + \beta_7 FMDM\_High + \beta_8 VMCF + \beta_9 STMV\_Low + \beta_{10} STMV\_High + \beta_{11} BDSZ + \beta_{12} DUAL + \beta_{13} INST + \beta_{14} FINST + \beta_{15} MGST + \beta_{16} PLDG + \beta_{17} ROA + \beta_{18} RET + \beta_{19} SIZE + \beta_{20} LEV + \varepsilon \quad (2)$$

Table 6 presents the results of the nonlinearity tests. When the coefficients of the variables with the subscript *Low* or *High* have opposite directions, it is indicative of a linear relation. When the coefficients are both significant and in the same direction, there is a potential nonlinearity problem. As shown in Table 6, for each variable, the coefficients attached to *Low* and *High* are either in opposite directions (i.e. *BDSH* and *STMV*) or in the same direction without simultaneous significance (i.e. *BLKSH* and *FMDM*). Hence, we conclude that our findings do not have the potential nonlinearity problem.[26]

Finally, our non-tabulated results show that our main conclusions are qualitatively unchanged when we include those firms with net earnings that do not pay dividends.

7. Conclusions

On the heels of the OECD's plea for corporate boards to be responsible for aligning key executive and board remuneration with the longer-term interests of their company and its shareholders (OECD 2004), this study examines how *ownership structure*, *board structure* and *deviation between ownership and control* affect the fairness of payments between board members and shareholders. By examining issues that pertain to payment asymmetry, this study contributes to the line of research on board effectiveness in the context of minority shareholders. We construct six research hypotheses related to the determinants of payment asymmetry.

Three major findings emerge from our analysis. First, we determine how ownership structure affects payment asymmetry. Admittedly, there is a tradeoff between board remuneration and dividends (if the board member is also a large shareholder), but given that the total amount of payment available for distribution is fixed, we find that the smaller the monetary reward received by shareholders in the form of dividends, the greater is the severity of payment asymmetry. More specifically, we find compelling evidence to support our first hypothesis that the percentage of shares held by board members is negatively associated with the likelihood and severity of payment asymmetry. Looking at the role of outside blockholders, we also find substantive evidence in support of the second hypothesis that larger shareholding by outside blockholders diminishes the likelihood and severity of payment asymmetry.

Second, we determine how board structure affects payment asymmetry, the basis of our third and fourth hypotheses. We only find weak evidence that independent board members and having controlling family members on the board help reduce payment asymmetry.

Finally, we investigate whether or not deviation between ownership and control affects payment asymmetry. Our fifth hypothesis postulates that the conventional measure, voting deviation, affects payment asymmetry, and our sixth hypothesis contends that it is the new measure, seat-control deviation, that affects payment asymmetry. What our empirical results confirm is worth noting: although the conventional measure does not have the ability to explain payment asymmetry, there is no question that the new measure, seat-control deviation, does have the explanatory power.

To check for robustness, we perform additional sensitivity tests, which include incorporating accounting- and market-based performance as well as several firm characteristics into our basic model. We also conduct a test of nonlinearity. The results of these additional analyses fully support the conclusions discussed above.

Our study contributes to the extant literature on the effectiveness of boards. We formally document factors affecting payment asymmetry, one of the core governance principles underscored by the OECD (1999, 2004). Prior literature has mainly focused on how the board interacts with other agents (e.g., executives and auditors), while ignoring the board *per se*. This paper is unique in large measure because it investigates a situation in which the self-interests of the board predominate, with the consequence that the board's behavior could become a source of dissention between board members and shareholders.

One caveat must be taken into consideration when interpreting the results of this study. Although some important implications concerning board effectiveness emerge from our findings, on account of expected institutional differences across countries, caution should be taken before making any generalizations based on our conclusions. To cite a few examples, La Porta et al. (1999, 2000, 2002) document cross-country differences in legal institutions and investor protection, and Shleifer and

[26] We also perform the Ramsey regression specification error test (RESET) on equation (2). The purpose of the RESET is to detect omitted variables and incorrect functional forms, and the results suggest that our linear model is adequate.

Wolfenzon (2002) identify differences in investor protection and in equity markets. Moreover, there are reportedly differences with respect to earnings management (Leuz, Nanda and Wysocki 2003) as well as disclosure incentives and their effects on the cost of capital (Francis, Khurana and Pereira 2005) around the world.

In light of such differences, in future research, it would be valuable to re-examine issues surrounding payment asymmetry in a cross-country context. And, it would be equally enlightening to examine the economic consequences of payment asymmetry, such as the effects on the cost of capital and the impact on analyst ratings.

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Appendices

Table1. Sample Selection and Distribution by Year (1997-2005)

Selection procedures	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total
Original sample	999	1,089	1,131	1,163	1,176	1,187	1,188	1,188	1,185	10,306
Less:										
banking & financial industries	(21)	(24)	(25)	(27)	(31)	(41)	(42)	(42)	(41)	(294)

missing data on governance variables	(408)	(416)	(371)	(333)	(262)	(104)	(34)	0	0	(1928)
firms with net loss	(60)	(144)	(149)	(179)	(260)	(246)	(206)	(243)	(298)	(1785)
firms with net income but pay no dividends	(76)	(58)	(83)	(96)	(96)	(121)	(130)	(95)	(87)	(842)
Final sample	434	447	503	528	527	675	776	808	759	5,457
Fair payment sample										
DIV > MDIV	212	218	248	258	258	333	385	400	375	2,687
DIV ≤ MDIV & CMP < MCMP	104	101	117	140	134	173	211	220	202	1,402
Total	316	319	365	398	392	506	596	620	577	4,089
Unfair payment sample										
DIV≤ MDIV & CMP ≥ MCMP	118	128	138	130	135	169	180	188	182	1,368

Notes: Sample is firms with dividend payout ratios more than zero.

DIV = the dividend payout ratio;
MDIV = industry median of DIV;
CMP = total compensation of board members scaled by net earnings; and
MCMP = industry median of CMP.

Table 2. Descriptive Statistics

Panel A: Continuous variables

	A: UFDM =1 (N= 1,368)			B: UFDM = 0 (N= 4,089)			difference	
variable	mean	median	std. dev.	mean	median	std. dev.	mean	median
BDSH	26.71	24.15	13.80	30.58	27.47	16.06	-3.87***	-3.32***
BLKSH	14.68	13.72	9.98	15.65	14.29	11.50	-0.96***	-0.57***
INDST	8.30	0.00	14.07	8.70	0.00	14.93	-0.39	0.00
VMCF	5.62	1.82	9.41	6.86	1.47	11.81	-1.25***	0.35***
STMV	30.86	29.41	21.77	27.08	25.77	24.01	3.78***	3.64***
BDSZ	9.88	9.00	3.71	9.44	9.00	3.14	0.44***	0.00
PLDG	9.52	0.00	17.13	8.50	0.00	17.40	1.01**	0.00
INST	1.54	0.00	3.51	1.56	0.00	3.65	-0.02	0.00
FINST	0.07	0.00	0.54	0.10	0.00	0.93	-0.03	0.00
MGST	0.13	0.10	0.13	0.13	0.10	0.13	0.00	0.00

Panel B: Dichotomous variables

	A: UFDM =1 (N= 1,368)	B: UFDM = 0 (N= 4,089)	difference
variable	mean	mean	χ^2
FMDM	49%	55%	11.42***
DUAL	27%	30%	5.17**

Notes:
*, ** and ***: significant at the 0.10, 0.05 and 0.10 level using a two-tailed test
Variable definitions:
BDSH = board member shareholding %;
BLKSH = outside blockholder shareholding %;
INDST = % of independent board member;
FMDM = one if the firm is a family-controlled firm, and zero otherwise;
VMCF = voting right minus cash flow right;
STMV = seat control right minus voting right;
BDSZ = board size in seat number;
DUAL = whether the CEO serves as chair of the board;
INST: = % of stock by domestic financial institutes;
FINST = % of stock by foreign financial institutes;
MGST = % of executive members on the board; and
PLDG = % of stock pledged by board members.

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Table 3. Correlation Matrix

Panel A: UFDM on the corporate governance variables studied

	UFRK	*BDSH*	*BLKSH*	*INDST*	*FMDM*	*VMCF*	*STMV*	*BDSZ*	*DUAL*	*INST*	*FINST*	*MGST*	*PLDG*
UFRK	1.00	-0.10***	-0.02*	0.00	-0.05***	0.01	0.08***	0.05***	-0.03**	-0.02	-0.03***	0.01	0.05***
BDSH	-0.09***	1.00	-0.21***	-0.03***	0.05***	0.20***	-0.43***	0.01	-0.03**	-0.15***	-0.14***	-0.02	-0.25***
BLKSH	-0.03***	-0.25***	1.00	0.22***	-0.03**	-0.12***	-0.20***	-0.09***	0.03**	0.00	-0.02	-0.02*	-0.08***
INDST	0.01	-0.03***	0.20***	1.00	-0.12***	-0.05***	-0.37***	0.09***	0.07***	0.08***	-0.07***	-0.06***	-0.28***
FMDM	-0.06***	0.07***	-0.02*	-0.12***	1.00	-0.14***	0.34***	-0.15***	-0.06***	0.06***	0.11***	-0.31***	0.09***
VMCF	-0.04***	0.42***	-0.15***	-0.03***	0.00	1.00	0.05***	0.15***	-0.12***	0.03**	-0.01	0.50***	-0.05***
STMV	0.04***	-0.44***	-0.23***	-0.39***	0.35***	-0.09***	1.00	-0.06***	-0.07***	0.15***	0.20***	0.18***	0.33***
BDSZ	0.05***	0.01	-0.11***	-0.04***	-0.13***	0.10***	-0.01	1.00	-0.16***	0.21***	0.03**	-0.07***	0.07***
DUAL	-0.02	-0.05***	0.03**	0.07***	-0.06***	-0.15***	-0.07***	-0.17***	1.00	-0.06***	-0.05***	0.05***	-0.09***
INST	0.00	0.00	0.01	0.04***	0.00	0.00	0.04***	0.15***	-0.03***	1.00	0.23***	-0.04***	0.15***
FINST	-0.02	-0.06***	0.01	-0.03***	0.03**	-0.02	0.09***	0.02	-0.01	0.02*	1.00	-0.00	0.16***
MGST	0.00	-0.04***	-0.03***	-0.08***	-0.30***	0.24***	0.20***	-0.09***	0.05***	-0.07***	0.02	1.00	-0.05***
PLDG	0.02	-0.21***	-0.04***	-0.20***	0.11***	-0.08***	0.28***	0.01	-0.07***	0.00	0.07***	-0.07***	1.00

Table 3 (continued)

Panel B: UFRK on the corporate governance variables studied

	UFRK	*BDSH*	*BLKSH*	*INDST*	*FMDM*	*VMCF*	*STMV*	*BDSZ*	*DUAL*	*INST*	*FINST*	*MGST*	*PLDG*
UFRK	1.00	-0.10***	-0.02*	0.00	-0.05***	0.01	0.07***	0.05***	-0.03**	-0.02	-0.03***	0.00	0.05***
BDSH	-0.09***	1.00	-0.21***	-0.03***	0.05***	0.19***	-0.43***	0.01	-0.03**	-0.15***	-0.14***	-0.02	-0.25***
BLKSH	-0.03**	-0.25***	1.00	0.22***	-0.03**	-0.11***	-0.20***	-0.08***	0.03**	0.00	-0.018	-0.02*	-0.08***
INDST	0.01	-0.03**	0.20***	1.00	-0.12***	-0.05***	-0.37***	0.09***	0.07***	0.08***	-0.07***	-0.06***	-0.28***
FMDM	-0.06***	0.07***	-0.02*	-0.12***	1.00	-0.14***	0.34***	-0.15***	-0.06***	0.06***	0.11***	-0.31***	0.09***
VMCF	-0.04***	0.42***	-0.15***	-0.03*	0.00	1.00	0.05***	0.15***	-0.12***	0.03**	-0.0103	0.49***	-0.05***
STMV	0.04***	-0.44***	-0.23***	-0.39***	0.35***	-0.09***	1.00	-0.06***	-0.07***	0.15***	0.20***	0.18***	0.33***
BDSZ	0.05***	0.01	-0.11***	-0.04***	-0.13***	0.10***	-0.01	1.00	-0.16***	0.21***	0.03**	-0.07***	0.07***
DUAL	-0.02	-0.05***	0.03**	0.07***	-0.06***	-0.15***	-0.07***	-0.17***	1.00	-0.07***	-0.05***	0.05***	-0.09***
INST	-0.00	-0.00	0.01	0.04***	0.00	0.00	0.04***	0.15***	-0.03***	1.00	0.23***	-0.04	0.15***
FINST	-0.02	-0.06***	0.01	-0.03***	0.03**	-0.02	0.09***	0.02	-0.01	0.02	1.00	-0.00	0.16***
MGST	0.00	-0.04***	-0.03***	-0.08***	-0.30***	0.24***	0.20***	-0.09***	0.05***	-0.07***	0.02	1.00	-0.05***
PLDG	0.02	-0.21***	-0.04***	-0.20***	0.11***	-0.08***	0.28***	0.01	-0.07***	0.00	0.07***	-0.07***	1.00

Notes:

The lower (upper) half on the left (right) of the matrix reports the Pearson (Spearman) correlation coefficients.

*, ** and***: significant at the 0.10, 0.05 and 0.10 level using a two-tailed test

Variable definitions:

UFDM: a dummy variable equals 1 if there is payment asymmetry in the firm, and 0 otherwise; *UFRK*: the severity of payment asymmetry; *BDSH*: board member shareholding %; *BLKSH*: outside blockholder shareholding %; *INDST*: % of independent director; *FMDM*: one if the firm is a family-controlled firm, and zero otherwise; *VMCF*: voting right minus cash flow right; *STMV*: seat control right minus voting right; *BDSZ*: board size in seat number; *DUAL*: whether the CEO serves as chair of the board; *INST*: % of stock by domestic financial institutes; *FINST*: % of stock by foreign financial institutes; *MGST*: % of executive members on the board; and *PLDG*: % of stock pledged by directors.

Table 4. Empirical Results for Payment Asymmetry (N=5,457)

Variables	predicted sign	Depend variable: UFDM (Probit model)		Depend variable: UFRK (Tobit model)	
		coefficient	*p*-value	coefficient	*p*-value
Constant	?	-0.403	0.000	-2.882	0.001
BDSH	–	-0.009	0.000	-0.066	0.000
BLKSH	–	-0.006	0.002	-0.045	0.002
INDST	–	0.001	0.702	0.007	0.493
FMDM	–	-0.157	0.001	-1.166	0.001
VMCF	+	-0.002	0.264	-0.014	0.352
STMV	+	0.003	0.045	0.016	0.093
BDSZ	?	0.017	0.003	0.118	0.004
DUAL	?	-0.096	0.024	-0.603	0.051
INST	?	-0.004	0.493	-0.029	0.458
FINST	?	-0.048	0.113	-0.395	0.082
MGST	?	-0.218	0.198	-1.481	0.226
PLDG	?	-0.000	0.720	-0.002	0.769
		LR χ^2 (12) =124.25		LR χ^2 (12) = 119.79	
		p-value (χ^2) =0.000		*p*-value (χ^2) = 0.000	

Notes: all *p*-values are two-tailed.
Variable definitions:
UFDM = a dummy variable equals 1 if there is payment asymmetry in the firm, and 0 otherwise;
UFRK = the severity of payment asymmetry;
BDSH = board member shareholding %;
BLKSH = outside blockholder shareholding %;
INDST = % of independent director;
FMDM = one if the firm is a family-controlled firm, and zero otherwise;
VMCF = voting right minus cash flow right;
STMV = seat control right minus voting right;
BDSZ = board size in seat number;
DUAL = whether the CEO serves as chair of the board;
INST: = % of stock by domestic financial institutes;
FINST = % of stock by foreign financial institutes;
MGST = % of executive members on the board; and
PLDG = % of stock pledged by board members.

Table 5. Control for Firm Performance and Firm Characteristics

variables	predicted sign	Depend variable: UFDM		Depend variable: UFRK	
		coefficient	*p*-value	coefficient	*p*-value
constant	?	1.462	0.000	10.707	0.000
BDSH	–	-0.013	0.000	-0.090	0.000
BLKSH	–	-0.008	0.000	-0.059	0.000
INDST	–	-0.003	0.129	-0.015	0.199
VMCF	+	0.001	0.755	0.006	0.761
STMV	+	0.004	0.004	0.031	0.004
FMDM	–	-0.071	0.190	-0.536	0.156
BDSZ	?	0.029	0.000	0.203	0.000
PLDG	?	0.001	0.450	0.006	0.491
DUAL	?	-0.125	0.010	-0.813	0.016
INST	?	-0.002	0.796	-0.015	0.730
FINST	?	-0.029	0.330	-0.229	0.288
MGST	?	-0.374	0.052	-2.833	0.034
ROA	?	0.014	0.002	0.095	0.002
RET	?	0.000	0.348	0.003	0.257
SIZE	?	-0.146	0.000	-1.066	0.000
LEV	?	0.005	0.001	0.043	0.000
		LR χ^2 (16) =156.01		LR χ^2 (16) = 162.66	
		p-value (χ^2) =0.000		*p*-value (χ^2) =0.000	

Notes: all *p*-values are two-tailed.
Variable definitions:
UFDM = a dummy variable equals 1 if there is payment asymmetry in the firm, and 0 otherwise;

UFRK = the severity of payment asymmetry;
BDSH = board member shareholding %;
BLKSH = outside blockholder shareholding %;
INDST = % of independent director;
FMDM = one if the firm is a family-controlled firm, and zero otherwise;
VMCF = voting right minus cash flow right;
STMV = seat control right minus voting right;
BDSZ = board size in seat number;
DUAL = whether the CEO serves as chair of the board;
INST: = % of stock by domestic financial institutes;
FINST = % of stock by foreign financial institutes;
MGST = % of executive members on the board; and
PLDG = % of stock pledged by board members.
ROA = industry-median-adjusted return on assets;
RET = market-adjusted return;
SIZE = natural log of total assets (in thousand); and
LEV = total debts divided by average total assets.

Table 6. Nonlinearity Checks

	Probit: UFDM		Tobit: UFRK	
variables	coefficient	*p*-value	coefficient	*p*-value
constant	0.872	0.004	6.290	0.003
BDSH_Low	0.160	0.001	1.109	0.002
BDSH_High	-0.229	0.000	-1.293	0.002
BLKSH_Low	-0.017	0.729	-0.083	0.812
BLKSH_High	-0.113	0.033	-0.673	0.067
INDST	-0.003	0.053	-0.019	0.099
VMCF	0.000	0.892	-0.005	0.766
STMV_Low	-0.120	0.036	-1.037	0.010
STMV_High	0.107	0.066	0.979	0.015
FMDM_Low	-0.039	0.491	-0.065	0.869
FMDM_High	-0.224	0.000	-1.582	0.000
BDSZ	0.027	0.000	0.189	0.000
DUAL	-0.117	0.015	-0.748	0.026
INST	-0.002	0.750	-0.020	0.635
FINST	-0.031	0.295	-0.245	0.254
MGST	-0.411	0.041	-3.461	0.013
PLDG	0.002	0.154	0.012	0.176
ROA	0.013	0.004	0.088	0.004
RET	0.000	0.276	0.003	0.196
SIZE	-0.118	0.000	-0.872	0.000
LEV	0.004	0.019	0.033	0.003
	LR χ^2 (20) =144.56		LR χ^2 (20) = 147.00	
	p-value (χ^2) =0.000		*p*-value (χ^2) =0.000	

Notes: all *p*-values are two-tailed.
Variable definitions:
BDSH_Low = one if *BDSH* falls into the lowest one-third, and zero otherwise;
BDSH_High = one if *BDSH* falls into the highest one-third, and zero otherwise;
BLKSH_Low = one if *BLKSH* falls into the lowest one-third, and zero otherwise;
BLKSH_High = one if *BLKSH* falls into the highest one-third, and zero otherwise;
STMV_Low = one if *STMV* falls into the lowest one-third, and zero otherwise;
STMV_High = one if *STMV* falls into the highest one-third, and zero otherwise;
FMDM_Low = one if *FMDM* = 0, and zero otherwise; and
FMMV_High = one if *FMDM* = 1 and its *FMDM* is larger than the median of *FMDM*, and zero otherwise.
See Table 5 for the definitions of other variables.