Dividend Policy and Corporate Governance Quality

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Date: February 11, 2008

JEL Classification: G30, G32, G34

Keywords: dividend policy, corporate governance, agency theory, agency costs.

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Abstract

We use agency theory to explore how a firm's overall quality of corporate governance affects its dividend policy. The evidence shows a robust positive association between governance quality and dividend payouts, i.e. firms with stronger governance exhibit a higher propensity to pay dividends and pay larger dividends. The results are consistent with the notion that shareholders of firms with better governance quality are able to force managers to disgorge more cash through dividends, thereby reducing what is left for expropriation by opportunistic managers. The results remain robust even after controlling for a large number of firm characteristics such as size, profitability, leverage, growth opportunity, tax effect, firm maturity, cash availability and share repurchases. Our results are important as they show that corporate governance quality does have a palpable impact on critical corporate decisions such as dividend policy.

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I. Introduction

Since Miller and Modigliani's (1961) seminal work on dividend irrelevance, a number of theories have been advanced to relax their assumptions of perfect capital markets. One crucial theory that has been extensively examined in the literature and has received supporting evidence is agency theory. According to agency theory, dividend policy is determined by agency costs arising from the divergence of ownership and control. Dividend payouts are argued to reduce agency conflicts by reducing the amount of free cash flow, which could be used by managers for their private benefits rather than for maximizing shareholders' wealth (Grossman and Hart, 1980; Easterbrook, 1984; and Jensen, 1986; DeAngelo, DeAngelo, and Stulz, 2006). Furthermore, dividends help mitigate agency conflicts by exposing firms to more frequent monitoring by the primary capital markets as paying dividends increases the probability that new equity has to be issued more often (Easterbrook, 1984).

In this paper, we explore the role of agency costs as an explanation of dividend payouts. Corporate governance exists to provide checks and balances between shareholders and management and thus to mitigate agency problems. Hence, firms with better governance quality should incur less agency conflicts. As the overall quality of corporate governance affects the extent of agency costs and the agency costs, in turn, influence dividend payouts, we thus hypothesize that governance quality is related to dividend policy. This study provides empirical evidence on the association between aggregate governance quality and dividend payouts.

Several recent notable studies investigate how dividend payouts are affected by corporate governance (Officer, 2007; John and Knyazeva, 2006; Pan, 2007; Nielsen, 2006; and Jiraporn

and Ning, 2006). Useful though these studies may be, one critical limitation of these studies (and others in the literature) is that they do not capture the *overall* quality of corporate governance. Previous studies examine only a few selected aspects of corporate governance, such as board structure and ownership structure, or simply use a narrow governance index to represent governance quality. Because specific governance mechanisms can and do interact with each other (Agrawal and Knoeber, 1996), we argue that studying individual governance mechanisms is not adequate. It is imperative to examine how the *aggregate* quality of corporate governance influences dividend policy.

To measure the overall quality of corporate governance, we employ governance standards provided by Institutional Shareholder Services (ISS). The ISS governance standards include sixty-two factors encompassing eight corporate governance categories: audit, board of directors, charter/bylaws, director education, executive and director compensation, ownership, progressive practices, and state of incorporation. The ISS governance standards are the most all-inclusive data on corporate governance ever collected. Similar to Brown and Caylor (2006), we create the Governance score (Gov-score) by coding sixty-two governance factors as either zero or one depending on whether the firm's governance standards are minimally acceptable. The sum of each firm's sixty-two binary variables represents the governance score (Gov-Score). Brown and Caylor (2006) find that firms with better governance quality as measured by the governance score are more profitable and more valuable (higher Tobin's q). Their results imply that firms with better governance quality experience lower agency costs and, hence, exhibit better performance and higher firm value.

Based on the literature, we advance two opposing hypotheses to explain the association between overall corporate governance quality and dividend payouts. First, *the outcome*

hypothesis suggests that dividend policy is an outcome of governance quality. In firms with weak governance, opportunistic managers are able to retain more cash within the firm, making it more likely for the managers to spend cash to enhance their private benefits at the expense of shareholders. Dividend payouts are thus expected to be lower in these firms than in those with strong governance. This hypothesis predicts a positive association between dividend payouts and governance quality. By contrast, *the substitution hypothesis* argues that, to be able to raise capital in attractive terms, managers of firms with weak governance need to establish a reputation for not extracting private rent from shareholders. Paying generous dividends fulfills this need as it reduces the amount of free cash flow that remains for potential expropriation. This hypothesis thus predicts larger dividends for firms with lower governance quality, i.e. an inverse relation between governance quality and dividend payouts.

Our empirical evidence is in favor of *the outcome hypothesis.* In particular, we document a positive association between dividend payouts and corporate governance quality. In other words, firms with stronger governance are more likely to pay dividends and those that do pay them pay larger dividends. The results are robust to controlling for a large number of firm-specific variables, including firm size, leverage, profitability, growth opportunities, possible tax effect, and repurchase activity. The positive relationship between governance quality and dividend payouts is not only statistically significant but it is also economically large. For instance, as Gov-score, our measure of governance quality, rises from the first to the third quartile, the dividend payout ratio measured as dividend to net income increases by as much as 31%.

Given the results of the recent related studies, our evidence is particularly interesting. An inverse relation between dividend payouts and governance quality measured as GINDEX is

reported in several recent studies (Officer, 2007; John and Knyazeva, 2006; Pan, 2007; Nielsen, 2006; and Jiraporn and Ning, 2006). Our study offers an interesting contrast to these studies as we find a positive association with governance score and dividend payouts while a negative association if we use only Charter subindex, which is similar to GINDEX used in earlier studies. We argue that our results are distinct because, unlike other similar studies, we examine the *comprehensive* quality of corporate governance whereas most other studies concentrate on only a few aspects of corporate governance. We also show suggestive empirical evidence indicating that the results of most other studies are driven, to a considerable extent, by their use of too narrow an index to gauge corporate governance quality. In particular, when we replicate other studies by using a subset of governance index such as Charter index, we obtain results similar to those reported by other studies.

Additionally, we investigate the influence of regulation and find that the association between governance quality and dividend payouts is much weaker in regulated firms than it is in unregulated firms. It appears that regulation, by providing additional monitoring, helps alleviate agency conflicts, making dividends less necessary a mechanism for resolving agency costs.

Finally, we explore the impact of two crucial legislations, i.e. The Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) and The Sarbanes-Oxley Act of 2002 (SOX). JGTRRA reduces the maximum tax rate on dividends and therefore alleviates the tax disadvantage of dividends. By making dividends more attractive as a means of cash disbursement, this Act may affect our results. Designed to bring into closer alignment shareholders and managers' interests, SOX may influence the extent of agency conflicts and thus affect the association between governance quality and dividend policy. Our results, however, reveal that these two legislations do not seem to have a significant impact.

The evidence in our study contributes to at least two vital areas of the literature. First, we contribute to the strand of the literature that uses agency theory to explain dividend behavior (La Porta et al., 2000; Hu and Kumar, 2004; Officer, 2007; John and Knyazeva, 2006; Pan, 2007; Nielsen, 2006; and Jiraporn and Ning, 2006). Our results suggest that governance quality, which affects the severity of agency costs, is relevant to dividend policy. Second, we add to the literature in corporate governance by showing that a firm's overall quality of corporate governance has a palpable effect on critical corporate decisions such as dividend policy.

The remainder of this article is organized as follows. Section II develops the hypotheses and discusses the literature. Section III discusses the sample selection and describes the data. The empirical results are shown in Section IV. Finally, Section V offers the conclusion.

II. Hypothesis Development and Related Literature

The fundamental premise of this study is that there ought to be an economic association between corporate governance quality and dividend payouts due to their relations with agency costs. It is not theoretically obvious, however, what the exact relation should be. Prior literature suggests two possible hypotheses.

A. The Outcome Hypothesis

This hypothesis is largely based on the free cash flow hypothesis (Jensen, 1986). Managers of firms with weak governance are more likely to retain cash within the firm as it allows them to consume perquisites, engage in empire building, and invest in projects and acquisitions that may enhance their personal prestige but not necessarily provide shareholders with adequate returns. By contrast, in firms with strong governance, managers are less likely to abuse the free cash flow, thus raising the attractiveness of paying out cash to shareholders. The

expected dividend policy is thus the *outcome* of the governance regime in this view. The empirical prediction of this hypothesis is that firms with strong governance should pay larger dividends. In other words, there is expected to be a positive association between corporate governance quality and dividend payouts.

Some previous studies document empirical evidence consistent with this hypothesis. Ronneboog and Szilagyi (2006) report that firms with strong shareholders appear to force higher dividend payouts in Dutch firms. Michaely and Roberts (2006) conclude that strong governance encourages higher and more consistent payouts using data on private firms in the U.K. La Porta, Lopez-De Salinas, Shleifer, and Vishny (2000), examining over 4,000 firms in 33 countries, find strong support for the outcome model. Firms pay more dividends in countries where minority shareholder rights are better protected.

B. The Substitution Hypothesis

This view is predicated on an argument made by La Porta et al. (2000) and relies critically on the need for firms to raise money in the external capital markets, at least occasionally. To be able to raise capital in attractive terms, it may be necessary for firms to establish a reputation for not exploiting shareholders. One way to accomplish this goal is to pay dividends as dividends reduce what is left for expropriation by opportunistic managers. A favorable reputation for good treatment of shareholders is worth more for firms with weaker governance. As a result, the need for dividends to establish such a reputation is greater for such firms. On the contrary, for firms with strong governance, the need for the reputation mechanism is weaker and, hence, so is the need to pay dividends. In other words, larger dividends *substitute* for weaker governance. This view, therefore, predicts an inverse relation between corporate

governance quality and dividend payouts, i.e. firms with stronger governance pay lower dividends.

A number of recent studies provide evidence in favor of this hypothesis. Officer (2007), Pan (2007), Jiraporn and Ning (2006), and Nielsen (2007) report a negative relation between the strength of corporate governance and dividend payouts when the strength of corporate governance is measured by the Governance Index, developed by Gompers, Ishii, and Metrick (2003). John and Knyazeva (2006), using a broader index that takes into account board structure, institutional blokholding, and Gompers et al.' Index, also document a substitution effect between governance quality and dividend payouts.

III. Sample Formation and Data Description

A. Sample Selection

The original sample includes all firms reported by the Institutional Shareholder Service (ISS) from 2001 to 2004 (16,013 firm-year observations). ISS collects data on governance standards for a large number of firms (2,400+ firms in 2001 and 5,000+ firms in 2004). Then, the sample is narrowed down by eliminating firms whose financial and accounting data do not exist on COMPUSTAT.[1] The final sample consists of 5,442 firm-year observations from 2001 to 2004.

B. Corporate Governance Quality

[1] We include regulated companies such as financial and utility firms in the total sample. Removing them does not materially affect the empirical results. In a later section, we also discuss the impact of regulation on the association between governance quality and dividend payouts. Several studies exclude regulated firms from the sample. We argue that including them and examining the difference between regulated and unregulated firms allows us to gain more insight, which is precisely what we do here.

To gauge corporate governance quality, we employ year-end data on governance standards provided by the Institutional Shareholder Service (ISS). The scope of the governance data is very broad, encompassing sixty-two governance standards in eight categories as defined by ISS. The eight categories include audit issues, board structure and composition, other charter and bylaw provisions, director education, executive and director compensation, director and officer ownership, progressive practices, and laws of the state of incorporation related to takeover defenses.[2]

It is critical to note that the governance standards reported by ISS capture various dimensions of corporate governance. For instance, the Audit category includes four governance standards associated with auditor independence (composition of the audit committee, ratification at the annual meeting, consulting fees paid to auditors, and the company's policies on auditor rotation). The Charter category consists of seven governance standards related to provisions for delaying or impeding takeovers. The Board category is composed of seventeen governance standards related to the composition and other characteristics of the board. Finally, two categories, Director Education and State, each consist of only a single governance factor.

Similar to Brown and Caylor (2006), we construct an index for each firm by assigning one point for each governance standard that is satisfied. We label this index "Gov-score". We ascertain whether a specific governance standard is met using the minimum standard provided in the ISS Corporate Governance: Best Practices User Guide and Glossary (2003).

[2] The sixty-two governance standards and their eight categories are shown in the Appendix.

Gov-score is a better measure of corporate governance quality than the Governance Index, developed by Gompers et al. (2003) for several reasons.[3] First, the ISS data are available for a much larger number of firms in more recent years. Second, the ISS data are available annually, rather than biannually. Third, the ISS data are much broader, and still encompass about half of the standards incorporated into the Gompers Index. Finally, the ISS data include five of the six standards that are identified as most relevant for firm value (Bebchuk, Cohen, and Ferrell, 2005).

C. Dividend Measures

Our study investigates both the propensity for a firm to pay dividends and the dividend payout ratio. It can be argued that examining the propensity to pay dividends may yield a more robust conclusion because an analysis of the payout ratio requires a model for estimating the "optimal" payout ratio for a given firm. Such a model does not appear to have been well developed in the literature. Focusing on the propensity to pay dividends thus allows us to sidestep any potential bias introduced by using an imprecise model for the optimal dividend payout (Pan, 2006; Officer, 2007).

In any event, like John and Knyazeva (2006), we also explore the impact of governance quality on the dividend payout ratio. We employ three alternative measures of the payout ratio; the ratio of dividend to total assets, the ratio of dividend to sales and the ratio of dividend to net income. Because the dividend payout ratio cannot be below zero, we treat it as a censored variable.

[3] This index has been widely employed in a large number of recent studies. For instance, the Governance Index has been related to capital structure (Jiraporn and Gleason, 2007), to the cost of debt financing (Klock, Mansi, and Maxwell, 2005), to the cost of bank loans (Chava, Dierker, and Livdan, 2005), to the cost of equity (Huang, 2005), and to corporate diversification (Jiraporn, Kim, Davidson, and Singh, 2006).

D. Descriptive Statistics

Table 1 shows the summary statistics for selected firm characteristics. We show the mean, median, standard deviation and the 25th and the 75th percentiles. Table 1 also shows the descriptive statistics for Gov-score and its eight components. Several prior studies find that firms that pay dividends and those that do not may have different fundamental characteristics (Fama and French, 2001; DeAngelo, DeAngelo, and Stulz, 2006). As a result, Table 2 displays the descriptive statistics by whether the firm is a dividend payer or a non-payer.

IV: Empirical Results

A. Univariate Analysis and Correlations

We divide the full sample into two groups. The first group contains firms with Gov-score higher than the median. We classify this group of firms as having strong governance. The other group includes firms with Gov-score lower than the median. We regard these firms as having weak governance. Table 3 Panel A displays the univariate statistics for three dividend payout ratios and the proportion of dividend-paying firms.

Regardless of which dividend measure we look at, it is clear that firms with strong governance pay larger dividends than those with weak governance. The t-statistics are all significant. We also examine the proportion of dividend-paying firms and find that 54.8% of firms in the strong-governance group pay dividends (of any size) whereas only 38.8% of firms in the weak-governance group are dividend payers. The results of these preliminary tests appear to lend support to the outcome hypothesis, which predicts that firms with better governance quality pays larger dividends than those with poorer governance quality.

In addition, we compute the correlation coefficients between Gov-score and the three measures of dividend payouts. Table 3 Panel B shows the results. The correlation coefficients are all positive and significant, again, consistent with the prediction of the outcome hypothesis. It is premature, nevertheless, to draw conclusive inferences as it is necessary to control for other firm-specific characteristics that may affect dividend payouts. Therefore, we conduct a multivariate regression analysis in the following section.

Finally, we show the results graphically by plotting dividend yield vs. Gov-score in Figure 1 and Figure 2. A casual observation would suggest a positive association between dividend payouts and Gov-score, which is consistent with the results of the univariate analysis.

B. Regression Analysis

To gain further insights, we perform a regression analysis where we control for a large number of previously identified factors that impact dividend payouts. We control for firm size by including the natural logarithm of total assets. Leverage also influences dividend policy both because of its role in mitigating agency costs and because of debt covenants on dividends imposed by debtholders. Our proxy for leverage is the ratio of total debt to total assets. Profitability is reported to affect dividend payouts (DeAngelo and DeAngelo, 1990; DeAngelo, DeAngelo, and Skinner, 1992). We thus control for profitability using the ratio of EBITDA to total assets.[4] In addition, growth has been found to have an impact on dividend policy (Rozeff, 1982). We use the ratio of capital expenditures to total assets to capture growth opportunities. To account for the tax efficiency of dividends, we also include the ratio of income taxes to EBIT as

[4] EBITDA represents earnings before interest, taxes, depreciation and amortization.

a control variable (John and Knyazeva, 2006).[5] DeAngelo, DeAngelo, and Stulz (2005) document that the ratio of earned/contributed capital mix is a significant determinant of dividend payouts. Their evidence is consistent with the conjecture that mature firms, where most of the capital is earned rather than contributed, pay larger dividends. As a result, we include the ratio of retained earnings to total equity as a control variable. We take into account the availability of cash by including the ratio of cash and marketable securities to the net of total assets. Finally, with the growing importance and popularity of share repurchases, we include share repurchase variables to control for this alternative means of cash distribution.[6]

The results of the regression analysis are shown in Table 4. Model 1 is a logistic regression where the dependent variable is a dichotomous variable equal to one if the firm pays dividends (of any size) and zero if the firm does not. We seek to determine in Model 1 how the overall quality of corporate governance influences the propensity for firms to pay dividends. The variable of interest is the natural logarithm of Gov-score.[7] The coefficient of this variable is positive and significant, suggesting that firms with better governance quality exhibit a higher probability to pay dividends. This result is in agreement with the outcome hypothesis, where stockholders of firms with strong governance force managers to disgorge cash in the form of dividends, thereby reducing the probability for managers to abuse the free cash flow.

[5] In the U.S., the tax efficiency of dividends comes in three ways (Pan, 2007). First, individual dividend incomes are taxed twice, once at the corporate level and one more time at the personal level. Second, investors can choose when to realize capital gains and are required to pay taxes only when they do so. They do not have such a choice for dividend payouts. Third, until the end of 2002, the tax rates on individual dividend income had been higher than that on capital gains. This disadvantage disappears with the enactment of the U.S. Job and Growth Tax Relief Reconciliation Act of 2003, which was made retroactive since January 2003.

[6] Repurchase activity is measured as in Dittmar (2000) using COMPUSTAT item 115 adjusted for the change in common and preferred stock.

[7] Following Chung, Elder, and Kim (2007), we use the log form to reduce the potential impact of outliers. Using the raw score produces similar results.

Moreover, we investigate the impact of governance quality on the magnitude of dividend payouts. As dividends cannot be below zero, we employ a Tobit regression analysis to account for the censored dependent variable. Three alternative measures of dividend payouts are examined; dividend/total assets, dividend/sales, and dividend/net income. In Table 4, Models 2, 3 and 4 show the results of the Tobit regressions with the three dividend ratios. The results in all three models indicate that Gov-score is positively associated with dividend payouts. Firms with stronger governance pay dividends more generously than do those with poorer governance, again, lending support to the outcome hypothesis.

It is critical to note that our empirical results offer a sharp and interesting contrast to those in several recent studies. Officer (2007), John and Knyazeva (2006), Pan (2007), Nielsen (2006), and Jiraporn and Ning (2006) show that firms with stronger governance are less likely to pay dividends, a finding in support of the substitution hypothesis. Our results, by contrast, indicate the opposite, i.e. firms with better governance quality exhibit a higher propensity to distribute dividends. We argue that our conclusion is more relevant. A crucial weakness of the other studies lies in their use of the Governance Index (Gompers et al., 2003) to represent governance quality. Our method, on the contrary, employs a much more comprehensive metric that covers various facets of corporate governance and hence offers an important advantage over the other studies. In any case, we attempt to reconcile our results with those of the previous studies in the following section.

C. Analysis of the Sub-Governance Categories

Gov-score consists of eight governance categories, including board quality, audit quality, charter/bylaws, anti-takeover provision (i.e., state of incorporation), director and executive

compensation, ownership, progressive practices, and director education. Because corporate governance is complex and diverse, we hypothesize that certain aspects of governance may have more influence on dividend payouts than others. As a consequence, we investigate the impact of each individual governance category on dividend payouts.

Table 5 presents the results of a regression analysis where we examine each governance category individually. Model 1 represents a logistic regression, where the dependent variable is a dichotomous variable indicating whether or not the firm pays dividends. The independent variables include the eight categories of governance that constitute Gov-score and the control variables used in Table 4. For conciseness, we show only the coefficients of the governance categories and omit those of the control variables. Model 2 is a Tobit regression where the dependent variable is the ratio of dividends to total assets. Using any other dividend ratio does not affect the results materially. We thus show only the regression using this ratio.

One important observation about the regression results in Table 5 is that the coefficient of Charter is negative and highly significant in both Model 1 and Model 2. Charter is the category that is most closely related to the Governance Index developed by Gompers et al. (2003). Each of the seven standards in Charter also appears in the Governance Index. Thus, the negative association between Charter and dividend payouts is indeed consistent with the results of several previous studies (Officer, 2007; Pan, 2007; Nielsen, 2006; and Jiraporn and Ning, 2006). This finding suggests that, when we examine a narrow subset of Gov-score, we too find evidence showing a substitution effect between the strength of governance and dividend payouts. Our study thus appears to represent an improvement over the previous studies because we take into account a much wider range of corporate governance.

The results in Table 5 also show that Ownership is positively related to dividend payouts. A divergence of ownership and control is the genesis of an agency conflict. It appears that firms where ownership structure allows a better alignment between shareholders and managers' interests are more likely to pay dividends. This finding is in agreement with the outcome hypothesis. Additionally, we also find that Compensation exhibits a positive coefficient. Firms with a better compensation practice, i.e. compensation structure that promotes a convergence of interests between shareholders and managers, show a stronger propensity to pay dividends, again, supporting the outcome hypothesis.

It comes as no surprise that State does not show a significant coefficient. This category of Gov-score consists of just a single governance standard. For most firms, this governance standard is not met. State represents whether the firm is incorporated in a state without any anti-takeover provisions. In 2004, fewer than 4% of firms satisfied this standard. This governance category is therefore unlikely to explain much variation in dividend payouts. Similarly, Boards and Progressive are found to have an insignificant impact on dividend payouts. The other categories of Gov-score, such as Audit and Director Education, show more ambiguous results as they show significant coefficients in Model 1 but insignificant coefficients in Model 2. Therefore, we are not able to draw strong inferences about these two categories.

D. Governance Quality and the Choice between Dividends and Repurchases

Dividends and repurchases are similar in the sense that both of them entail cash disbursement. Recently, repurchases have become much more common and have replaced dividends in many firms. One key distinction between dividends and repurchases, nevertheless, lies in the fact that repurchases are much more discretionary cash distributions relative to

dividends. Prior research shows a strong negative market response to dividend cuts and omissions. Accordingly, dividends significantly constrain managers through the high cost of dividend reduction or discontinuation, making dividends a more effective pre-commitment mechanism in the presence of an agency conflict (John and Knyazeva, 2006). By contrast, the flexibility associated with repurchases gives managers much more discretion, thereby diminishing their effectiveness in alleviating the agency conflict.

In this section, we investigate how governance quality influences the choice between dividends and repurchases. In firms with weak governance, managers may eschew paying dividends in favor of repurchases because they can exercise more discretion over repurchase decisions. This result would be consistent with the outcome hypothesis. On the contrary, in firms with poor governance quality, mangers may prefer dividends over repurchases because dividends constitute a strong governance mechanism and send a stronger signal to the capital markets that managers do not expropriate from shareholders (and because dividends reduce what is left for expropriation). This result would be consistent with the substitution hypothesis.

Like John and Knyazeva (2006), we run a regression analysis that takes into consideration the choice between dividends and repurchases. The results are shown in Table 6. Model 1 compares firms that pay dividends and may or may not use repurchases with those that use repurchases only. Model 2 contrasts firms that both pay dividends and use repurchases with those that use repurchases only. Finally, Model 3 examines firms that pay dividends only with those that use repurchases only. Gov-score does not show a significant coefficient in any model in Table 6, implying that the overall quality of corporate governance does not affect payout choices between dividends and repurchases.

Our null results are distinct from those in John and Knyazeva (2006) as they report that stronger governance is associated with a stronger propensity for dividends over repurchases. John and Knyazeva (2006), however, measure the quality of corporate governance by looking at three factors, i.e. boards, institutional blockholding, and Gompers et al.'s Index (GINDEX). Thus, although their measure of governance quality is better than using only Gompers et al.'s Index, it is still vastly narrower and heavily depends on GINDEX. As shown in previous section, our evidence allows for a much more robust conclusion regarding the impact of "overall" governance quality on payout choices.

E. Potential Impact of Regulation

Regulated firms are likely subject to less agency costs for regulators deprive managers of a certain degree of managerial discretion. Thus, managers of regulated firms should be less able to reap private benefits at the expense of shareholders (Booth, Cornett, and Tehranian, 2002; Kole and Lehn, 1997). Such a diminution of agency costs in regulated firms may have implications for the association between governance quality and dividend policy. We thus examine the possible impact of regulation in this section.

We follow the customs in the literature and regard financial and utility firms as regulated companies.[8] The rest of the sample firms are considered unregulated. Our total sample consists of 4,505 observation from unregulated firms and 874 from regulated companies. First, we separately replicate the regression analysis conducted earlier on the two groups of companies (results not shown but available upon request). For both groups, the coefficient of Gov-score is

[8] SIC codes 6000-6999 for financial firms and 4900-4900 for utility firms.

positive and significant, suggesting that the positive association between governance quality and dividend payouts exists in both regulated and unregulated firms.

Second, to ascertain whether the impact of governance quality varies significantly between regulated and unregulated firms, we construct an interaction variable by multiplying Gov-score by a dichotomous variable indicating whether or not a firm is regulated. The logistic regression results demonstrate that this interaction term produces a negative and significant coefficient. It appears that the relation between governance quality and dividend payouts is much weaker in regulated firms than it is in unregulated firms. This result makes a great deal of sense as regulated firms likely suffer less agency costs, making dividends less necessary as a mechanism for combating agency problems.

F. Possible Impact of The Dividend Tax Cut and The Sarbanes-Oxley Act (SOX)

Congress enacted two crucial legislations that may affect the role of dividends in alleviating agency costs. First, The Jobs and Growth Tax Relief Reconciliation Act was signed into law on May 28, 2003. This Act reduced the maximum tax rate on capital gains from 20% to 15% and the maximum tax rate on dividends from 38.1% to 15%. These tax rate changes not only reduced the tax rates on equity income, but also resulted in equal tax rates on dividends and capital gains for the first time since 1990. This law reduces the tax disadvantage of dividends, making cash distribution via dividends more attractive. Therefore, this law could have pertinent implications for our study.

Second, The Sarbanes-Oxley Act was enacted on July 30, 2002 as a consequence of Congressional hearing conducted since the first admissions of fraudulent behavior made by Enron. President George W. Bush characterized this Act as “the most far-reaching reforms of

American business practices since the time of Franklin D. Roosevelt."[9] The Act introduces new provisions for management, directors, auditors and analysts, and significantly raises criminal penalties for securities fraud, for destroying, altering or fabricating records in federal investigations or any scheme or attempt to defraud shareholders. Evidently, this Act is intended to hold managers more accountable to shareholders. The increased accountability should bring manager and shareholder interests in better alignment, thereby alleviating agency costs. It is conceivable that this diminution of agency problems may affect managers' decisions to pay dividends.

To investigate the impact of these two legislations on the association between governance quality and dividend policy, we create a dichotomous variable taking the value of one for observations after 2002 and zero before 2002.[10] Then, we interact this variable with Gov-score. The coefficient of this variable should reveal the relative impact of governance quality on dividend payouts prior and subsequent to the enactment of the two legislations. The regression results show that this interaction term does not exhibit a significant coefficient, suggesting that the two legislations do not materially affect the relation between governance quality and dividend policy (results not shown but available upon request).

Perhaps, the two legislations had opposing effects on dividends. Therefore, the net effect is not significant. The Dividend Tax Cut may have made dividends more attractive. By contrast, SOX may have reduced agency costs and rendered the agency role of dividends less necessary. It would be ideal to isolate the impact of each law on dividends. Nevertheless, given our annual

[9] Elizabeth Bumiller, "Bush Signs Bill aimed at Fraud in Corporations," N.Y. Times, July 31, 2002.
[10] It is difficult to pinpoint when the effect of the two legislations began. As our sample period goes from 2001 to 2004, we argue that the impact of the two legislations should be felt in the second half of our sample period if it is significant.

data and the fact that the two laws were passed so close to each other, it is not possible to do so. We do suggest, however, that this issue may constitute a fruitful area of research down the road.

G. Possible Endogeneity

We argue that the quality of corporate governance affects dividend payouts. A similar argument is made by several previous studies (Officer, 2007; John and Knyazeva, 2006; Pan, 2007; Nielsen, 2006; and Jiraporn and Ning, 2006). It might be possible, however, that corporate governance and dividend policy are endogeneously determined. If so, dividend payouts might influence the quality of corporate governance and vice versa. It is not clear, nevertheless, why that would be the case. There is no theoretical model or empirical evidence in the literature in support of this argument.

In any event, we attempt to address this potential endogeneity bias by using instrumental variables. The literature provides very little guidance as to what should be used as instrumental variable. There is no theoretical model for the determinants of governance quality. We use three instrumental variables. First, we use a dummy variable that is equal to one if the firm is listed on the NYSE, zero otherwise. We posit that, due to strict requirements from NYSE, governance quality of firms listed on NYSE should be higher than those not listed there. Second, we use a dummy variable that is set to one if the observation is after 2002 (after Sarbanes-Oxley was enacted), zero otherwise. We assume that governance quality should improve after 2002 due to the numerous mandated changes imposed by Sarbanes-Oxley. Finally, we use the effective spread, which measures a stock's liquidity. There is evidence that governance quality is associated with liquidity (Chung, Elder, and Kim, 2007).

The results based on our instrumental approach are consistent, i.e., higher governance quality is associated with larger dividend payouts (results not shown but available upon request). It is often difficult to eliminate endogeneity completely. Our tests, however, should provide a certain degree of comfort that endogeneity is unlikely.

V. Conclusion

We use agency theory to explain the association between dividend policy and the overall quality of corporate governance. The empirical evidence demonstrates a positive relation, i.e. firms with better governance quality exhibit a stronger propensity to pay dividends and those that pay dividends pay larger dividends. This evidence is in agreement with the prediction of the outcome hypothesis, where shareholders of firms with stronger governance are able to force managers to disgorge more cash, thereby diminishing the likelihood of expropriation by opportunistic managers.

Because corporate governance is complex and diverse, we hypothesize that certain aspects of governance may have more influence on dividend payouts than others. As a consequence, we investigate the impact of each individual eight governance category on dividend payouts. It is important to point out that our results are distinct from those in previous studies, primarily measure governance quality using a narrower index. Our metric of governance quality encompasses sixty-four aspects of corporate governance and appears to be the most comprehensive in the literature. Hence, our results are more relevant to the question how the "overall" quality of corporate governance affects dividend decisions. We also reconcile our results with those in other studies by showing that the results of other studies are largely driven

by a narrow index that mainly focuses on anti-takeover provisions. When a wider set of governance mechanisms are included, the results are much more consistent with our argument. Our results are important as they demonstrate that a firm's aggregate quality of corporate governance does have a material impact on crucial corporate decisions such as dividend policy.

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Table 1: Descriptive Statistics

This table summarizes the firm characteristics and corporate governance variables for the sample of 5,442 firm-year observations from 2001 to 2004. In panel A, firm characteristics and stock information are collected from COMPUSTAT and CRSP. Panel B shows corporate governance information which is from the Institutional Shareholder Service (ISS) database. Gov-score is the sum of each firm's sixty-two binary governance factors. ISS-score is calculated by ISS database. We report mean, median, standard deviation, 25th quartile, and 75th quartile of each variable in the sample firms.

Panel A. Firm Characteristics

	Mean	Median	Standard Deviation	25th	75th
Total Assets ($ millions)	5977	737	33788	221.8	2689.4
Leverage (Total debt /Total Assets)	20.61%	18.45%	18.45%	3.21%	32.67%
EBITDA/Total Assets	12.90%	10.11%	11.65%	5.84%	16.53%
Capital Expenditure /Total Assets	7.23%	3.34%	16.00%	1.64%	6.74%
Income Tax/ Operating Profit	26.13%	24.30%	312.26%	9.40%	45.14%
Retained Earnings / Total Equity	27.70%	53.11%	379.93%	19.19%	83.40%
Retained Earnings / Total Assets	17.24%	22.20%	68.49%	7.14%	42.16%
ROA	6.53%	5.22%	6.97%	2.76%	8.93%
Firm Age	20.55	14.0	18.04	8.0	31.0
Cash/Net Assets	22.594%	8.081%	40.228%	2.370%	25.380%
Percentage of Spread	1.371%	0.410%	2.113%	0.159%	1.610%
Percentage of Effective Spread	0.914%	0.270%	1.345%	0.105%	1.179%

Panel B. Corporate Governance Characteristics

	Mean	Median	Standard Deviation	25th	75th
Gov_score	57.75	58.65	13.04	48.15	67.30
iss_total	23.68	23.00	6.69	18.00	29.00
Board	9.46	9.00	2.83	7.00	12.00
Audit	2.08	2.00	1.19	1.00	3.00
Charter	2.31	2.00	1.45	1.00	3.00
State	0.03	-	0.17	-	-
Ownership	1.96	2.00	0.91	1.00	2.00
Compensation	6.15	6.00	1.27	5.00	7.00
Progress	1.67	-	2.12	-	3.00
Director Education	0.01	-	0.11	-	-

Table 2. Univariate tests by Dividend Payers vs. Non-Payers

	Non-Payers			Dividend Payers			
	Obs	Mean	Median	Obs	Mean	Median	Statistics
Total Assets	2860	1,411.25	395.18	2519	11,161.53	1,879.07	10.03***
Leverage	2860	18.20%	13.23%	2519	23.35%	23.00%	10.39***
EBITDA/Total Assets	2860	11.77%	9.25%	2519	14.19%	10.86%	7.54***
Cap.Exp/TA	2860	7.54%	3.06%	2519	6.88%	3.53%	-15.56***
Income Tax/ Oper. Profit	2860	28.04%	25.95%	2519	23.95%	22.91%	-0.46
Retained Earnings/Total Equity	2821	-16.18%	36.47%	2488	77.45%	74.10%	9.49***
RE/Total Assets	2821	4.27%	17.37%	2488	31.94%	28.49%	15.76***
ROA	2860	7.18%	5.63%	2519	5.80%	4.89%	-7.32***
Firm Age	2843	12.71	10.00	2505	29.46	29.00	36.9***
Cash/Net Assets	2860	30.35%	13.32%	2519	13.78%	5.28%	-15.79***
Pct. Spread	2860	1.96%	0.89%	2519	0.70%	0.21%	-23.64***
Pct. Effective	2860	1.30%	0.61%	2519	0.47%	0.14%	-24.53***
Gov_score	2860	55.38	55.50	2519	60.44	61.60	14.20***
iss_total	2859	22.99	22.00	2508	24.46	24.00	6.35***
Board	2859	9.29	9.00	2508	9.66	9.00	4.75***
Audit	2859	2.13	2.00	2508	2.02	2.00	-3.26***
Charter	2859	2.47	2.00	2508	2.13	2.00	-8.55***
State	2859	0.04	-	2508	0.02	-	-3.67***
Ownership	2859	1.76	2.00	2508	2.18	2.00	17.23***
Compensation	2859	5.98	6.00	2508	6.35	6.00	10.50***
Progress	2859	1.32	-	2508	2.08	1.00	13.19***
Director Education	2859	0.01	-	2508	0.02	-	3.88***
NYSE	2860	0.40	-	2519	0.80	1.00	33.16***

*, **, *** represents statistical significance at the 10, 5, and 1% levels, respectively.

Table 3: Dividend Characteristics and Correlation Analysis

Panel A: Univariate Statistics

	Full Sample	**High Governance Score**	**Low Governance Score**	**Difference (t-statistic)**
Dividend/Total Assets	.010069	0.0117	0.0085	4.55***
Dividend/Sales	.01666	0.0188	0.0145	2.95***
Dividend/Net Income	.207684	0.3124	0.1028	1.88*
Proportion of Dividend-Paying Firms	0 .4683	0.548	0.388	-
N	5,379	2,691	2,688	-

Panel B: Correlation Coefficients

	Div./TA (p-value)	Div./Sales (p-value)	Div./NI (p-value)	Div. Dummy (p-value)
Governance Score	0.0719*** (< .001)	0.0414*** (< .001)	0.0256* (0.060)	0.1935*** (0.000)

*, **, *** represents statistical significance at the 10, 5, and 1% levels, respectively.

Table 4: Dividend Payouts and Corporate Governance

This table reports the result of logit and tobit regression models. We report the marginal effects or the elasticities and their standard errors after estimation. For the logistic model, we calculate the marginal effects or elasticities at the means of the independent variables using the prediction. Standard errors adjusted for clustering by firms and t-statistics are reported in the parenthesis.

	Logit	Tobit	Tobit	Tobit
	Model 1 (Z-statistics)	Model 2 (t-statistics)	Model 3 (t-statistics)	Model 4 (t-statistics)
Dependent Variable	Div. Dummy	Div/TA	Div/Sales	Div/NI
Ln (Governance Score)	0.1110**	0.0127***	0.0153*	0.9275*
	(2.14)	(2.61)	(1.79)	(1.66)
Ln (Total Assets)	0.1063***	0.0041***	0.0082***	0.5137***
	(12.86)	(6.54)	(8.00)	(3.45)
Leverage	-0.0586	-0.0112*	0.0007	-0.1058
	(-0.67)	(-1.71)	(0.05)	(-0.21)
EBITDA/Total Assets (Profitability)	0.3328***	0.0664***	0.2919***	2.1518**
	(2.80)	(4.28)	(5.33)	(2.20)
RND/Total Assets (Growth Opportunities)	-1.5026***	-0.1267***	-0.2437***	-15.8567**
	(-5.26)	(-4.23)	(-4.67)	(-2.42)
Income Taxes/EBIT	-0.0018	-0.0000	-0.0002	0.0010
	(-0.75)	(-0.27)	(-0.74)	(0.09)
Retained Earnings/Total Equity (RE/TE)	0.1841***	-0.0049	-0.0983**	0.3944
	(3.81)	(-0.25)	(-2.00)	(1.47)
Cash Holdings (Cash/TA)	-0.1186**	0.0047***	0.0046***	0.2380**
	(-2.17)	(3.75)	(3.42)	(2.29)
Repurchase Dummy	-0.6687**	-0.0033	-0.0193**	-0.7344*
	(-2.17)	(-0.88)	(-2.28)	(-1.93)
Year Dummies	Included	Included	Included	Included
Pseudo R^2	0.2000	2.409	-0.8148	0.024

*, **, *** represents statistical significance at the 10, 5, and 1% levels, respectively.

Table 5: Dividend Payouts and Categories of Corporate Governance

This table reports the result of logit regression models. The dependent variable is dividend dummy variable. We report the marginal effects or the elasticities and their standard errors after estimation. We calculate the marginal effects or elasticities at the means of the independent variables using the prediction. Standard errors adjusted for clustering by firms and t-statistics are reported in the parenthesis.

	Logit	Tobit
	Model 1 (Z-statistics)	Model 2 (t-statistics)
Dependent Variable	Div. Dummy	Div./TA
Board	0.0162 (0.83)	0.0007 (1.66)
Audit	-0.1083** (-2.28)	-0.0015 (-1.56)
Charter	-0.0762*** (-3.35)	-0.0010** (-2.04)
State	-0.0516 (-0.26)	-0.0061 (-1.46)
Ownership	0.1451*** (3.49)	0.0016* (1.87)
Compensation	0.1283*** (4.00)	0.0040*** (6.06)
Progressive	0.0295 (1.19)	0.006 (1.08)
Director Education	0.6665** (2.11)	0.0062 (1.08)
Control Variables	Included	Included
Pseudo R^2	0.2043	-0.1421

*, **, *** represents statistical significance at the 10, 5, and 1% levels, respectively.

Table 6: Corporate Governance and Payout Choices (Dividends vs. Repurchases)

	Model 1 (Wald-statistics)	Model 2 (Wald-statistics)	Model 3 (Wald-statistics)
Dependent Variable	DIV vs REP ONLY	DIV & REP Vs REP ONLY	DIV ONLY Vs REP ONLY
Ln (Governance Score)	0.035 (0.64)	0.033 (0.46)	0.064 (0.89)
Ln (Total Assets)	0.077*** (9.82)	0.114*** (10.52)	0.065*** (6.13)
Leverage	0.012 (0.13)	-0.127 (-1.14)	0.137 (1.25)
EBITDA/Total Assets (Profitability)	0.217** (2.03)	-0.024 (-0.15)	0.404*** (3.17)
Cap. Exp./Total Assets (Growth Opportunities)	-1.597*** (-5.78)	-1.354*** (-3.91)	-2.278*** (-5.14)
Income Taxes/EBIT	-0.002 (-0.79)	-0.002 (-0.77)	-0.002 (-0.17)
Retained Earnings/Total Equity (RE/TE)	0.102*** (2.99)	0.143*** (3.15)	0.077** (2.37)
Cash Holdings (Cash/TA) (RE/TE)	-0.144*** (-2.62)	-0.173** (-2.26)	-0.225* (-1.89)
Year Dummies	Included	Included	Included
Pseudo R^2	0.151	0.181	0.142

*, **, *** represents statistical significance at the 10, 5, and 1% levels, respectively.

Figure 1.

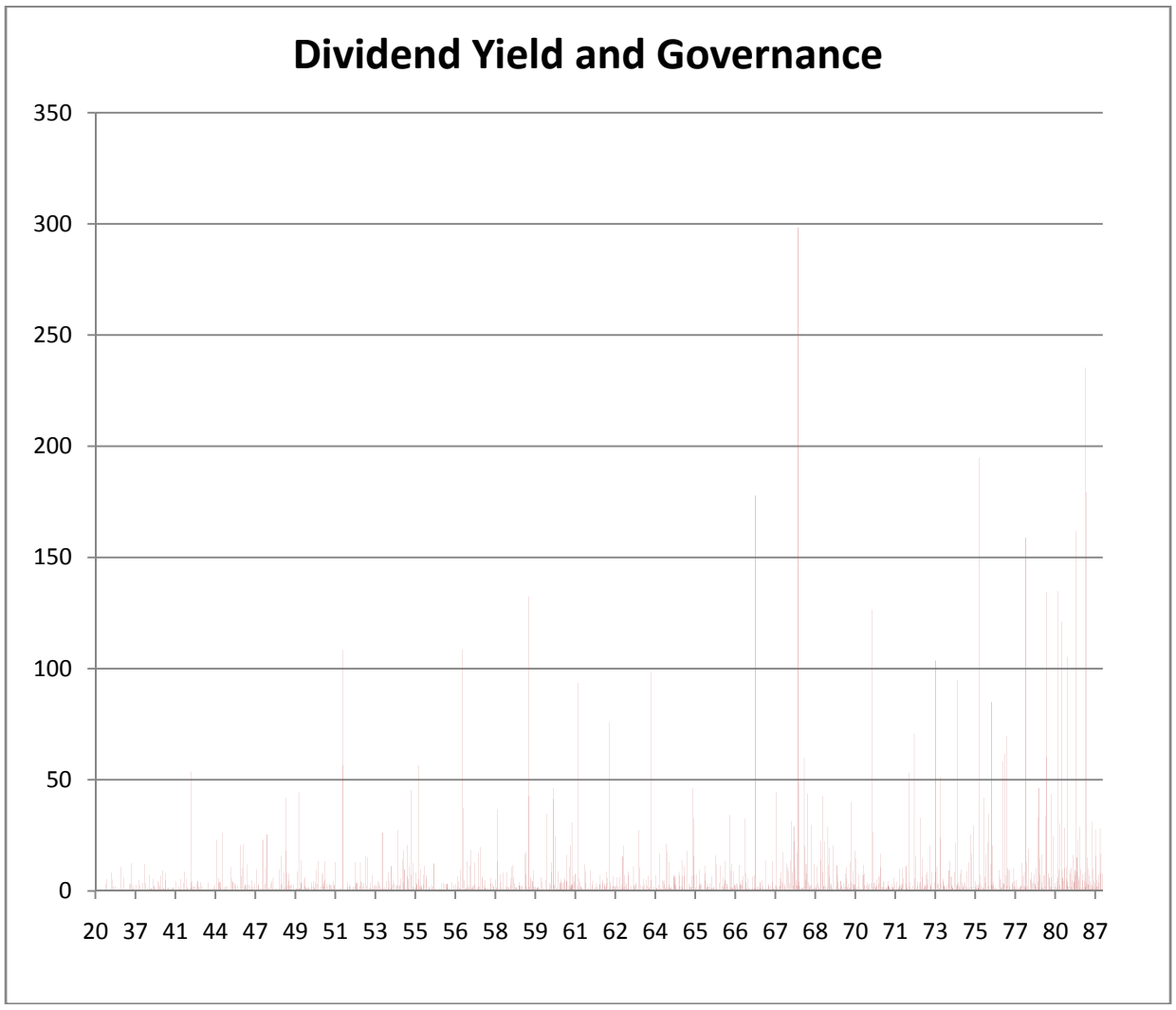
Dividend Yield and Governance
350
300
250
200
150
100
50
0
20 37 41 44 47 49 51 53 55 56 58 59 61 62 64 65 66 67 68 70 71 73 75 77 80 87

Figure 2. Dividend Yield and Corporate Governance