

## DIVIDEND POLICY AND CORPORATE GOVERNANCE: A RESEARCH NOTE

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### Abstract

This paper explores the relationship between a firm's dividend payment and an external perception of whether the firm exercises good corporate governance. Consistent with an agency explanation of dividend payout, we find that firms with higher corporate governance scores do pay lower dividends. The reduced cost associated with not seeking external funds as often as firms with higher dividends can be listed as a benefit for firms seeking to be known as better corporate citizens.

**Keywords:** dividend policy, corporate governance, external funds

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### Introduction

Agency problems result from the separation of ownership and control (Jensen and Meckling, 1976, Fama, 1980, Fama and Jensen, 1983). Agency conflicts between shareholders and managers can influence expected cash flows to investors and are therefore important to shareholder wealth. One mechanism often used to mediate or reduce agency costs is the payment of dividends (Jensen and Meckling, 1976; Crutchley and Hansen, 1989). Rozeff's (1982) paper provides a model of optimal dividend payout in which dividend policy can be at least partially explained by an agency cost-transaction cost tradeoff model. He suggests that the payment of dividends serves as a bonding or monitoring function whereby dividend payment sends firms into the capital markets and subsequent external scrutiny, thus reducing agency costs. Rozeff's findings are consistent with Easterbrook's (1984) position the payment of dividends and the subsequent raising of capital play a role in controlling agency costs by facilitating monitoring of firm activity and performance by the primary capital market.

Dividend policy can therefore be an important corporate governance mechanism. Good corporate governance, like dividend payments, may lower the costs of agency conflicts by reducing shareholders' monitoring and auditing costs. Corporate governance devices may also influence dividend policy. Rozeff (1982) finds that dividend policy is linked to two corporate governance mechanisms, percentage of stock held by insiders (insider ownership) and dispersion of ownership among outside stockholders (ownership concentration). He provides evidence that firms with lower levels of insider ownership and/or higher levels of ownership concentration establish

higher dividend payout ratios. Dempsey and Laber (1992) and Crutchley and Hansen (1989) find evidence consistent with Rozeff's observations.

The purpose of this paper is to further examine the link between corporate governance and dividend policy by extending a modification of Rozeff's (1982) original optimal dividend model to account for measures of corporate governance. Specifically we include a new measure for corporate governance calculated by the popular financial press to see if firms with higher levels (i.e. better) corporate governance can pay lower dividends.

### Literature Review

Rozeff's (1982) study demonstrates that dividend policy can be at least partially explained by an agency cost-transaction cost tradeoff model. In an agency framework, the payment of dividends forces the firm more frequently to the external capital markets. The firm must therefore undergo the scrutiny of the investment banking and regulatory communities to raise new capital thus eliminating much of the need for monitoring by the existing shareholders. In this framework, the payment of dividends serves as a bonding or monitoring function and thus reduces the agency costs of equity. However, in going to the external markets the firm incurs transaction costs. The optimal dividend policy is therefore one that minimizes the sum of these agency costs and transaction costs.

A number of researchers extend Rozeff's (1982) original study by adapting his model to different situations. Noronha, Shome, and Morgan (1996) extend the model and develop an agency cost framework for the simultaneous determination of dividend and capital structure policy consistent with

Easterbrook's (1984) position. Studies including Moh'd, Perry and Rimbe (1995) and Dempsey and Laber (1992) clearly show the model holds up well over time in addition to across many industry segments. Fama and French (1998) find that dividends are positively related to firm value in a study of all types of firms.

La Porta et al (2000) use measures of shareholder protection in a firm's country as a proxy for agency problems to examine the dividend policy of firms from thirty-three countries. Their study finds that average dividend payouts are higher in countries with greater levels of shareholder protection. Farinha (2003) finds a positive and significant relationship between corporate governance and dividend policy in the United Kingdom (UK). La Porta et al (2002) use data of large firms from twenty-seven countries and find evidence of higher valuation of firms in countries with better protection of minority shareholders. Drobetz et al (2004) construct a corporate governance rating for a sample of German public companies and find that firm-level corporate governance is important for explaining firm performance (measured by price-earnings and market-to-book ratios). Gompers et al. (2003) construct a corporate governance index for US firms to proxy for the level of shareholder rights. They find that firms with stronger shareholder rights have higher firm value, higher profits, higher sales growth, and lower capital expenditures. Black, Jang, and Kim (2006) rely on unique features of Korean legal rules to construct a Korean corporate governance index (KCGI) for 515 Korean companies. Their results provide evidence of a positive relationship between corporate governance and share prices in emerging markets. Using corporate governance indices from Russian firms, Black, Love, and Rachinsky (2006) find a strong correlation between governance and market value. In this study we extend the literature by providing additional evidence of the relationship between dividend payout and corporate governance of U.S. based firms.

## Data and Methodology

The sample of stocks represents all firm-year observations among S&P 500 firms that pay dividends for the four years from 2003-2006. We are interested in this time period because it is ex-post tax law changes affecting dividends. The S&P 500 is chosen to avoid any issues with firms having little analyst coverage or for which there might not be publicly available S&P and Industry Corporate Governance Quotients (CGQ's) from ISS. This data selection also helps avoid the problem of earlier ISS data being associated with larger firms prior to 2003 (Aggarwal and Williamson, 2006).

Among the S&P500, 541 firm-year observations either did not pay dividends, or had no information

available for dividend yield through Compustat<sup>23</sup>. Further firm data sample reductions were made for the following reasons; missing beta (6), missing revenue observations (21), no IBES five-year averages (24), no data on common shareholders (30), lack of inside information data (201), and missing institutional ownership data (15). This left a sample size of 1404 firm-year observations before eliminating the highly regulated firms.

Highly regulated firms already have an external monitoring source that should improve corporate governance. Aggarwal and Williamson (2006) find statistically significantly higher governance scores for these sectors (lower for banks), relative to other industries, which would generally make finding significance associated with our CGQInd variable more difficult. Reductions for highly regulated firms included; utility firms (37), oil and gas firms (135), and finally financial services type firms which eliminated another 272 firm-year observations. These reductions leave a final total of 932 firm-year data points for which the regressions are performed.

Subsequently, the data set is tested both as a full set and as quartiles<sup>24</sup>. The quartiles are formed utilizing the CGQ S&P 500 ratings from highest to lowest. The middle quartiles are listed as HighMid and LowMid, representing the second and third quartiles from the top. Following the model similar to that used by Rozeff (1982), we employ a multivariate model with dividend yield (DY) as the dependent variable, and a set of independent variables found to be significant in previous research. This model allows us to determine whether the new Corporate Governance Quotient variables are important in explaining whether higher governance can substitute for dividends as a bonding mechanism.

$$DY = BETA + REV5 + FUTEARN + INSIDE + INSTIT + CMSHARE + CGQS\&P + CGQInd + \epsilon \quad (1)$$

**DY -dividend yield** is the year end total dividends divided by the year end stock market price according to Compustat. Previous research (Casey, Smith and Puleo, 2007) has shown that the specification of multivariate models is much better when dividend yield is used instead of dividend payout.

**CGQS\_P** is the Corporate Governance Quotient as calculated by Institutional Shareholder Services, forth hence ISS, utilizing 64 different measures of governance (Aggarwal and Williamson, 2006). This variable represents how the corporate governance of the firm compares to that of other firms in the S&P 500 index. The ISS measure is different than the Investor Responsibility Research Center (IRRC) used

<sup>23</sup> It is worth noting that ISS does not cover firms located outside the U.S. This would exclude some S&P 500 firms like Tyco and Ingersoll-Rand.

<sup>24</sup> Previous corporate governance research subdivides their data sets, including Aggarwal and Williamson (2006) and Gompers, Ishii, and Metrick (2003).

in previous U.S. research<sup>25</sup>. Previous research also suggests the ISS standards of governance are more rigorous than others and as such might impact inferences, especially for weaker governance firms (Aggarwal and Williamson, 2006). Higher corporate governance could serve as a bonding mechanism allowing firms to substitute governance in lieu of a dividend payout, thereby yielding an expected negative sign for the coefficient estimate.

**CGQInd** is the Industry Corporate Governance Quotient as given by ISS in Yahoo Finance. Aggarwal and Williamson (2006) find statistically significant cross-sectional differences for firms in the same industry. CGQInd tests how the corporate governance of S&P 500 firms, relative to other firms in their own industry, might impact this substitution effect of governance for dividends. Like the CGQS\_P quotient, the sign on the coefficient estimate is expected to be negative.

All of the remaining variables are collected from Compustat.

**BETA** is a measure of risk and investors selecting higher beta stocks are likely to be pursuing higher capital gains and lower dividend payout. As such we would expect beta and dividend to be negatively correlated.

**REV5** is a five-year total percentage change in revenue growth found by taking the end of year sales in year five and subtracting it from the time period zero sales, then dividing by the year zero sales. Higher revenue growth is correlated with higher cash flow needs of a business. This would typically lead to lower free cash flow and therefore a lower possibility that these free cash flows would then be unwisely used by management. We would therefore expect the coefficient estimate to be negative.

**FUTEARN** is an estimate of the future five-year median growth rate in earnings per share based on IBES or analysts estimates. Higher future growth in earnings per share could strain a business to provide the cash flow to support it, thereby limiting excess free cash flow. Cremers and Nair (2004) also note that firms with stronger shareholder rights also tend to earn higher accounting profitability. We would therefore expect the coefficient estimate associated with this variable to be negative.

**INSIDE** is the percentage of the total outstanding shares owned by top management. Previous research has shown that higher inside ownership binds managers to the future results financially, thereby limiting the perquisites and poor management of excess cash flow. This would give an expected negative sign on the coefficient estimate for this variable.

**COMMSHR** is the natural logarithm of the total common shareholders found in Compustat. Using the natural log accounts for scale differences associated

with a large variation in the number of shareholders. Rozeff's (1982) study finds that a larger number of shareholders tend to be consistent with more unbiased oversight. Previous studies have shown this variable to have a negative sign on the coefficient estimate.

## Results

The summary results for the full data set show many things we would expect; a beta near one, dividend yield slightly less than two percent, and past and future revenue/earnings growth rates that per year are nearly the same.

### [Insert Table 1 about here]

The difference between the CGQ scores for the S&P 500 and Industries is large. In many respects, this finding would be expected. Most of the firms in the S&P 500 are large and dominate the industries they are in. Hence, larger firms beget better corporate governance.

When the quartiles are formed, we see many fairly monotonic relationships from higher to lower corporate governance, including: an increasing growth rate, decreasing Industry CGQ, decreasing dividend yield and increasing level of insider ownership. We compare only the CGQS\_P correlation matrices due to the lack of strong significance among other factors. The correlation between the S&P 500 CGQ and the Industry CGQ changes drastically between the quartiles. While it is highly correlated for the highest and lowest groups, it is virtually uncorrelated for the other two quartiles. The two most similar quartiles are probably the highest and lowest CGQS\_P.

### [Insert Table 2 about here]

The multivariate model for the full data set shows that all variables are statistically significant with an adjusted  $R^2$  of 0.2078. Consistent with Rozeff (1982), we find that all the variables are significant at the 5% level or better, including the new CGQ variables. All of the variables had the expected sign, except for that of the CGQS\_P variable. In this case, it suggests that firms with higher CGQ ratings relative to the S&P 500 tend to also have higher dividend yields.

### [Insert Table 3 about here]

When we break down the data into quartiles we find that for those with the highest CGQS\_P, the sign on this variable is highly significant and of the correct sign. As well, the adjusted  $R^2$  of the model is more than twice as high as that for the entire data set at .4631. As we move down the through the levels of S&P 500 CGQ we find models that lose significance rapidly, both for the independent variables and for the model  $R^2$  overall.

<sup>25</sup> While it was a different measure, the correlation between the two averages is approximately .70 (Aggarwal and Williamson, 2006).

## Conclusions

Overall we do find that the market does appear to be willing to substitute stronger corporate governance as a bonding mechanism in lieu of dividends. Note that firms in the highest quartile, representing firms with the best corporate governance scores, are able to pay out less in dividends. When looking at the bottom 50% of firms relative to their CGQ, we also see that there appears to be no significant relationship between dividend payout and corporate governance measures. While additional research needs to fully address this topic, it appears that better governed firms can elect to pay out fewer dividends and forego the cost associated with raising that fraction funds in the external markets.

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## Appendices

**Table 1. Summary Statistics**

These are the summary statistics for the regression model variables. CGQS\_P and CGQInd are the variables associated with the corporate governance score for each firm, relative to others in the S&P and Industries according to ISS. All the remaining variables are as reported by Compustat. Beta is the relationship between the stock price movement and its index. REV5 is the total growth in revenue per share for the previous 5 years. Dividend Yield is the dividend for the fiscal year end divided by the end of year stock price. IBES5AVG is the five year forward looking average according the analysts. INSIDE is the inside ownership as a percentage of the shares outstanding. CSLN is the natural log of the number of common shareholders at the end of each company fiscal year end.

	Full Set	Highest	HighMid	LowMid	Lowest
CGQS_P	53.93	89.05	69.59	44.24	13.53
CGQIND	85.96	97.93	92.74	86.01	66.69
BETA	0.99	0.99	0.88	1.10	0.97
REV5	56.31	40.69	52.16	63.39	67.86
DY	1.76	1.95	2.02	1.63	1.50
IBES5AVG	12.09	11.03	11.46	12.99	12.80
INSIDE	4.47	3.10	3.43	4.19	7.11
COMMSHR	3.02	3.59	3.13	2.60	2.74

**Table 2. Correlation Matrix**

This table provides the correlations between all variables included in the model, across the various quartiles and for the full data set. For brevity, only the correlations for the CGQS\_P are compared. CGQS\_P and CGQInd are the variables associated with the corporate governance score for each firm, relative to others in the S&P and Industries according to ISS. All the remaining variables are as reported by Compustat. Beta is the relationship between the stock price movement and its index. REV5 is the total growth in revenue per share for the previous 5 years. IBES5AVG is the five year forward looking average according the analysts. INSIDE is the inside ownership as a percentage of the shares outstanding. CSLN is the natural log of the number of common shareholders at the end of each company fiscal year end.

Variable	Full Set	Highest	HighMid	LowMid	Lowest
	CGQS_P	CGQS_P	CGQS_P	CGQS_P	CGQS_P
CGQS_P	1	1	1	1	1
CGQIND	0.770987	0.3823518	0.0565081	0.1751554	0.750106
BETA	-0.02433	-0.0064627	-0.0027457	0.1810537	-0.06853
REV5	-0.11247	0.1720085	-0.0170992	0.0819211	0.215296
IBES5AVG	0.113598	-0.1935044	-0.0946209	0.0349013	0.062161
INSIDE	-0.1339	0.1015654	0.2641513	0.0384611	0.211415
CSLN	-0.1534	0.0363835	0.1734289	-0.042646	-0.27336
C	0.131513	0.2360076	-0.2111585	0.0277466	0.162951

**Table 3. Dividend Yield Regressions by Quartile**

These are the results from a multivariate regression with dividend yield as the dependent variable. CGQS\_P and CGQInd are the variables associated with the corporate governance score for each firm, relative to others in the S&P and Industries according to ISS. All the remaining variables are as reported by Compustat. Beta is the relationship between the stock price movement and its index. REV5 is the total growth in revenue per share for the previous 5 years. IBES5AVG is the five year forward looking average according the analysts. INSIDE is the inside ownership as a percentage of the shares outstanding. CSLN is the natural log of the number of common shareholders at the end of each company fiscal year end.

Variable	Full Data Set		CGQ Highest		CGQ HighMid		CGQ LowMid		CGQ Lowest		
	Coeff	Prob.	Coeff	Prob	Coeff	Prob	Coeff	Prob	Coeff	Prob	
CGQS_P	0.006	0.016 **	-0.029	0.009 ***	0.026	0.084 *	0.015	0.219	0.021	0.179	
CGQIND	-0.012	0.008 ***	-0.081	0.002 ***	-0.020	0.056 *	-0.008	0.456	-0.009	0.257	
BETA	-0.202	0.021 **	-0.435	0.002 ***	0.232	0.251	-0.326	0.061 *	0.147	0.394	
REV5	-0.002	0.020 **	-0.006	0.000 ***	0.000	0.899	-0.001	0.524	-0.002	0.068 *	
IBES5AVG	-0.129	0.000 ***	-0.116	0.000 ***	-0.334	0.000 *	-0.169	0.000 *	-0.022	0.219	
INSIDE	-0.017	0.000 ***	0.003	0.689	0.009	0.429	-0.025	0.002 ***	-0.012	0.109	
CSLN	0.104	0.000 ***	0.399	0.000 ***	0.030	0.540	0.076	0.291	0.120	0.030 *	
C	4.059	0.000	12.971	0.000 ***	5.543	0.000	4.197	0.000	1.839	0.001	
R-squared	21.37%		47.93%		45.82%		24.63%		8.71%		
Adjusted R-squared	20.78%		46.31%		44.14%		22.30%		5.88%		
N	932		233		233		233		233		
***	1%										
**	5%										
*	10%										