DOES SOCIAL RESPONSIBILITY IMPACT DIVIDEND PAYOUT? EVIDENCE FROM PUBLIC INSURANCE COMPANIES

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ABSTRACT

This study uses a modified version of Rozeff's (1982) transaction cost-agency cost tradeoff model to test the relation between dividend payment and a firm's environment, social and governance (ESG) ratings for insurance companies. Studying a regulated industry enables us to determine whether regulation replaces the need to pay dividends to convey information to investors. OLS regression results indicate that the social rating (SOC) is the sole significant ESG explanatory variable that affects dividend payout policy. Overall, our findings indicate that insurance firms consider social ratings in establishing their dividend policy. Specifically, given the sign of the relationship, insurance companies with better social responsibility ratings pay higher dividends. This finding could be the result of regulatory scrutiny faced by insurance firms, which affirms the need to subject the firm to the external scrutiny of the financial markets. This paper is the first paper to date that evaluates whether a relationship exists between insurance company dividend policy and proxies for environmental impact, social responsibility and corporate governance.

INTRODUCTION

One of the most important financial decisions that a firm's managers face is the dividend payout decision. Despite years of research, much of what drives dividend policy remains unclear. Black's (1976) dividend puzzle conclusion still holds today. The finance literature postulates several dividend payment theories including the Miller and Modigliani's (1961) dividend payout irrelevance proposition, Rozeff's (1982) agency cost/transaction cost payout model, and dividend signaling (Bhattacharya, 1979; Miller & Rock, 1985).

Survey evidence provides additional information on dividend payment from a management perspective. Brav et al. (2005) survey 384 financial executives and determine that they believe the dividend payout decision is as critical as the firm's investment decision. These financial executives show little support for most of the academic theories of dividend payment. However, these executives do exhibit a belief that institutional investors are largely indifferent between payout methods, which gives the firm greater flexibility in the dividend decision. These managers

therefore favor share repurchases since repurchase gives the firm greater financial flexibility relative to dividend payment.

It is also possible that management practices and preferences evolve over time. Given that possibility there are two recent trends identified by Casey et al. (2018) that could impact the dividend decision. First, the technology capabilities and the accessibility of information likely reduces problems with information asymmetry. The Internet allows any investor to access firm-specific data and information that may drive the buy-sell decision. An unprecedented amount of data is now collected, stored, communicated, and even generated over social media and various commercial websites and then accessed and disseminated via the Internet. The data explosion has drawn attention to the ways that information utilization and analytics affect the firm. Recent studies provide a theoretical framework and evidence that limited attention can affect asset pricing statics as well as dynamics (e.g., Hirshleifer & Teoh, 2003; Da et al., 2011).

The second trend that may impact dividend payout is the socially responsible investing movement. According to Casey et al. (2018), many investors are interested in socially responsible investing. These investors cast their dollar votes accordingly and reward firms that possess the desired socially responsible characteristics and punish firms that are not good corporate stewards.

Given the emergence of these trends, we propose a novel and direct measure of investor attention using sustainability indexes in Yahoo! Finance. We use a modified version of Rozeff's (1982) transaction cost-agency cost tradeoff model and test the relation between dividend payment and a firm's environment, social and governance (ESG) ratings for insurance companies. Studying a regulated industry enables us to determine whether regulation replaces the need to pay dividends to convey information to investors.

We use ESG ratings information as a measure of investor attention for several reasons. First, Internet users commonly use finance websites to collect information, and Yahoo! Finance continues to be the favorite. Yahoo! Finance was named the No. 1 site "favored by Republicans 18 or older with annual household incomes of $100,000 or more" by Newsmax (Grigonis, 2014). Second, the global financial community is increasingly becoming aware that environmental and social issues can lead to consequences such as negative publicity, threats to operating licenses, costly litigation, and unforeseen expenditures. Negative impacts can, in turn, increase risks and make it more difficult and costly to raise external funds. Sustainalytics' ESG Ratings measure how well companies proactively manage the environmental, social and governance issues (ESG) that are the most material to their business and provide an assessment of companies' ability to mitigate ESG risks.

In this study we focus on publicly-traded insurance companies. This focus allows us to evaluate whether firms in regulated industries use dividend policy to convey environmental and sustainability information. The remainder of the paper is organized as follows. Section II contains a review of the literature, Section III presents the model and data source, Section IV contains a presentation of the results, and Section V summarizes the research conclusions.

LITERATURE REVIEW

Academic research continues to focus on the dividend decision given the lack of consensus regarding reasons for dividend payment. No matter how those theoretical and empirical theories differ, survey research shows that corporate managers believe in the existence of an optimal level of dividends (e.g., Baker et al., 1985). Rozeff's (1982) study maintains firms adopt a dividend policy that minimizes their overall costs. Firms issue dividends to ensure market participants that the firm's management makes decisions consistent with their goals. However, entering the external capital markets incurs costs. If dividend payment did not convey relevant information that reduces agency costs (Jensen & Meckling, 1976), the firm and shareholders would be better served to retain those dividends and use the cash for positive NPV capital budgeting projects. Firms balance the benefits of dividend payment (providing information to stakeholders) with the cost of dividend payment and the cost of issuing new debt or equity. Rozeff (1982) explains this relationship with an agency cost-transaction cost tradeoff model that postulates firms adopt a dividend payout policy that minimizes overall costs.

Adaptations of Rozeff's (1982) model are widely used in the finance literature. For example, Noronha et al. (1996) studies the linkage between capital structure and dividend policy. Their study shows that managers often simultaneously determine both dividend policy and capital structure. Casey et al. (1999) investigated the relationship between payout policy and changes in the tax law using a modified Rozeff model. Their study, consistent with Moh'd et al. (1995) and Dempsey and Laber (1992), also notes an industry difference exists with regard to payout policy.

Studies that apply variations of Rozeff's (1982) model to various industries include Dickens et al. (2003, banking), Casey and Theis (1997, oil and gas), and Casey et al. (2018, utilities). Findings vary across industries, but the models all show a relationship between dividend policy and managerial decisions.

A few studies evaluate the relationship between corporate governance and dividend payout. Puleo et al. (2009), in their focus on the insurance industry, find that regulation reduces the need to pay dividends. Managers can retain the cash used to pay dividends and forego subjecting the firm to the scrutiny of the external capital markets. They conclude that regulators appear to perform that function to the satisfaction of market participants. Smith et al. (2008) finds that firms in non-regulated industries that have higher corporate governance quotients (i.e., better corporate citizens) pay lower dividends. It appears firms recognized externally as better stewards can reduce dividend payment.

Research on dividend policy by insurers has been quite limited. For example, according to Harrington (1981) insurers change dividends slowly in relation to earnings changes. Other studies show life insurers prefer higher dividend yields due to taxes (Chen, 1990) and insurance regulation reduces the need for dividend payment (Puleo et al., 2009).

Different from industrial firms, banks and other financial institutions, insurance companies are subject to different levels of regulations due to risk management issues, incomplete information disclosures, and the insurers' duty to the society. Regulations also vary among insurers according

to their line of business and location. In addition, the financial statements of insurers do not disclose complete information about the market value of some assets. For these reasons, investors may rely heavily on other signals. Publicly traded insurers have a financial responsibility to both policyholders and stockholders. Insurers must also fulfill their duty to society, which means they should avoid causing any public harm.

For these reasons we believe that insurance companies will be more sensitive to environmental, social and governance issues (ESG). A higher ESG rating signals greater social responsibility and therefore better firm image for insurance companies. Better firm image and reputation of insurance companies could help reduce their external funding costs and show that insurance companies are more policyholder friendly and more likely to accept greater social responsibility. We expect firms with higher ESG ratings, i.e., better "ability to mitigate ESG risks," to pay higher dividends. However, Casey et al. (2018) find no relation between corporate dividend policy and ESG factors for utilities firms. In contrast, Casey et al. (2019) find a positive relationship between controversy and dividend payment in the oil and gas industry. To date, these are the only two studies that utilize this sustainability data.

In this study we test whether proactively managing their environmental, social and governance issues, especially social responsibility or stewardship, could help explain insurers' dividend payout policy.

DATA AND METHODOLOGY

This study obtains current 2018 data from Yahoo! Finance for firms in the insurance industry. The initial sample contained 37 U.S. - based publicly-traded firms in general, life, health, supplemental, and workers' compensation insurance industries. Of these 37 insurance firms, only 26 firms have sustainability data available. Two additional firms were eliminated from the sample due to missing variables such as institutional ownership and insider ownership. Using a final sample of 24 firms we estimate a version of Rozeff's (1982) agency cost-transaction cost tradeoff model using two different dependent variables, dividend payout and dividend yield. Dempsey and Laber (1992), Casey et al. (1999), and Rao and White (1994) all use Rozeff's original model, or a variation of Rozeff's model, as follows:

$$Payout_j = \alpha + \sum B_i X_{ij} + \varepsilon,$$

$$Yield_i = \alpha + \sum B_i X_{ij} + \varepsilon,$$

Where:

Payout = current dividend payout ratio

Yield = forward dividend yield

X_{ij} represents each independent variable i, for each firm j. These variables are:

Insider = percentage of equity held by insiders,

Institution = percentage of equity held by institutions,

Beta = firm's beta,

Debt = firm's use of leverage (total liabilities/total assets),

Growth = forecast growth rate in revenues for coming year,

ESG = total ESG rating computed by Sustainalytics (Combined Environment, Social, & Governance)

Cont = controversy level computed.

Additionally, we subdivide the ESG rating into its components of Environmental rating (ENV), Social rating (SOC) and Governance rating (GOV) according to the Yahoo! Finance. ESG rating values range between 1-100 and are computed using a proprietary balanced scorecard system.

Sustainalytics data also includes a controversy rating. Firms are rated based on recent controversies that involve the firm. Cont, or the controversy rating computed by Sustainalytics, can assume a value between 1 and 5. A value of 5 denotes the most serious controversies that could negatively impact stakeholders, the environment, or the firm's operations. For our data sample, we have more than 90% insurance companies with a score of 2.

Justification for the other included control variables follows:

Insider, or the percentage of equity held by insiders, is commonly inversely related to dividend payout. Insiders have more information about the firm and therefore do not need dividend distributions to force the firm to the external markets. When insiders need cash, they can simply sell equity and during most tax regimes pay a lower capital gains tax rate.

Beta, the firm's beta computed and reported by Yahoo! finance, serves as a measure of market risk. Investors willing to accept higher levels of risk typically prefer firms reinvest earnings instead of paying cash dividend. For this reason, beta and dividend payout are typically inversely related.

Debt represents the firm's use of leverage. We compute debt by dividing total liabilities by total assets. As debt increases firms may opt to retain funds for debt service in lieu of paying out cash dividends. In contrast, a counterargument suggests that firms paying higher dividends could be forced to incur more debt due to dividend cash outflows limiting capital availability. Therefore, debt could have either a positive or a negative sign.

Growth, or the forecast growth rate in revenues for coming year, is used to proxy the firm's need for cash in the future. Higher growth rates indicate higher cash needs to support that growth. Therefore, we expect to see a negative relationship between growth rates and dividend payout as firms retain cash to fund growth.

RESULTS

Table 1 contains descriptive statistics for the variables included in the study. A glance at this table shows a wide variation in most of the variables. For example, payout ratio ranges from 0 to 78.40%, indicating a large variation in dividend policy among the 26 firms. Beta ranges from 0.21 to 2.18, implying big differences in response to volatility of the stock market. Large ranges also exist for Insider holdings (0.04 to 81.90%), institution holdings (0.00 to 100.78%), and expected revenue growth (-3.30 to 20.90%). The results reflect the heterogeneity in many business aspects of insurance firms.

TABLE 1. DESCRIPTIVE STATISTICS

Variable	Mean	Standard Deviation	Minimum	Maximum
Payout	24.92	20.37	0.00	78.40
Yield	2.15	1.11	0.00	3.80
Beta	0.93	0.40	0.21	2.18
Debt	0.72	0.21	0.03	0.95
Insider	6.25	18.25	0.04	81.90
Institution	77.96	22.52	0.00	100.78
Growth	7.65	6.35	-3.30	20.90
ESG	56.73	7.23	45.00	73.00
ENV	56.15	13.23	35.00	80.00
SOC	57.65	7.78	38.00	69.00
GOV	57.69	9.15	44.00	77.00
Cont	2.08	0.63	0.00	3.00

Payout = current dividend payout ratio
Yield = forward dividend yield
Insider = percentage of equity held by insiders,
Institution = percentage of equity held by institutions,
Beta = firm's beta,
Debt = firm's use of leverage (total liabilities/total assets),
Growth = forecast growth rate in revenues for coming year,
ESG = total ESG rating computed by Sustainalytics (Combined Environment, Social, & Governance)
Cont = controversy level computed by Sustainalytics,
ENV = environmental rating computed by Sustainalytics
SOC = social rating computed by Sustainalytics
GOV = governance rating computed by Sustainalytics

The similar variability is also observed in the measures of different aspects of corporate governance and stewardship, ESG and its three components, ENV, SOL, and GOV. The variations in these variables range from 35 to 80. Other variables are more stable. For example, controversy

level (Cont) has a standard deviation of 0.63 and a range of 0 to 3.0; and the forward dividend yield stays in a relatively narrow range (0 to 3.8%) with a mean of 2.15%.

TABLE 2. CORRELATION MATRIX OF VARIABLES
(obs=24)

	Payout	Yield	Beta	Debt	Insider	Institution	Growth	ESG	ENV	SOC	GOV
Payout	1.000										
Yield	0.480**	1.000									
Beta	-0.342*	0.208	1.000								
Debt	-0.090	0.082	0.367*	1.000							
Insider	0.295	0.303	-0.156	0.044	1.000						
Institution	-0.330	-0.458**	0.126	0.170	-0.863**	1.000					
Growth	-0.013	-0.171	0.246	-0.037	-0.130	0.261	1.000				
ESG	0.320	0.289	0.224	0.071	-0.025	-0.185	0.143	1.000			
ENV	0.076	-0.078	0.240	0.051	-0.044	-0.004	0.457**	0.844***	1.000		
SOC	0.478**	0.670***	0.012	0.253	0.163	-0.313	-0.377*	0.443**	0.003	1.000	
GOV	0.204	0.012	0.118	-0.189	-0.148	-0.076	0.173	0.855***	0.772***	0.047	1.000
Cont	0.021	-0.506**	-0.107	-0.069	-0.055	0.091	0.379*	0.296	0.538***	-0.363*	0.443**

$^{*}\ p < 0.10, \quad ^{**}\ p < 0.05, \ ^{***}\ p < 0.01$

Payout = current dividend payout ratio
Yield = forward dividend yield
Insider = percentage of equity held by insiders,
Institution = percentage of equity held by institutions,
Beta = firm's beta,
Debt = firm's use of leverage (total liabilities/total assets),
Growth = forecast growth rate in revenues for coming year,
ESG = total ESG rating computed by Sustainalytics (Combined Environment, Social, & Governance)
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SOC = social rating computed by Sustainalytics
GOV = governance rating computed by Sustainalytics

There are some significant correlations of Payout with Yield, Beta, and SOC, respectively, as well as Yield with Institution, SOC, and Cont, respectively (Table 2). However, this study finds no significant correlations between dividend-related variables (Payout and Yield) and most of control variables, such as Debt, Insider, Growth, ESG, ENV, and GOV. Not surprisingly, ESG enjoys the strong correlations with its three components, ENV, SOC, and GOV. The positive correlation between ENV and GOV is significant as well. The result may reflect the fact that insurance firms are sensitive to environment regulations. Cont has significant correlations with all three social responsibility variables, ENV, SOC, and GOV.

The similar variability is also observed in the measures of different aspects of corporate governance and stewardship, ESG and its three components, ENV, SOL, and GOV. The variations in these variables range from 35 to 80. Other variables are more stable. For example, controversy level (Cont) has a standard deviation of 0.63 and a range of 0 to 3.0; and the forward dividend yield stays in a relatively narrow range (0 to 3.8%) with a mean of 2.15%

The results of the principal component analysis indicate no serious multicollinearity in the regression models used in this study. The only exception is a strong linear relation between ENV and GOV. The results are not reported, but available upon request.

TABLE 3-A

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Payout	Payout	Payout	Payout	Payout	Payout	Payout
Insider	0.276	0.269	0.236	0.259	0.230	0.192	0.191
	(0.227)	(0.214)	(0.199)	(0.217)	(0.204)	(0.201)	(0.194)
Beta	-15.48	-19.67*	-17.71*	-22.41*	-15.34	-16.15	-13.67
	(11.30)	(10.90)	(9.673)	(11.57)	(10.72)	(10.72)	(10.33)
Debt	-4.773	-2.911	-4.108	-1.232	-7.283	-13.77	-15.59
	(21.69)	(20.49)	(20.92)	(20.83)	(22.08)	(21.23)	(18.76)
Growth	0.115	0.00841	1.492*	0.292	1.455*	1.075	1.324
	(0.729)	(0.690)	(0.833)	(0.788)	(0.854)	(0.774)	(0.824)
ESG		1.019*		1.175*			
		(0.557)		(0.598)			
ENV			-0.495		-0.567		-0.284
			(0.520)		(0.546)		(0.385)
SOC			1.618***		1.769***	1.682**	1.883***
			(0.552)		(0.623)	(0.619)	(0.595)
GOV			0.705		0.594	0.0131	
			(0.761)		(0.801)	(0.575)	
Cont				-5.669	4.517	2.618	5.936
				(7.294)	(7.920)	(7.725)	(7.577)
cons	40.99**	-13.95	-73.55*	-11.74	-80.68*	-61.32	-65.70
	(16.72)	(33.92)	(40.76)	(34.42)	(43.49)	(39.37)	(37.97)
N	24	24	24	24	24	24	24
adj. R^2	0.027	0.134	0.315	0.115	0.285	0.281	0.305

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Payout = current dividend payout ratio
Yield = forward dividend yield
Insider = percentage of equity held by insiders,
Institution = percentage of equity held by institutions,
Beta = firm's beta,
Debt = firm's use of leverage (total liabilities/total assets),
Growth = forecast growth rate in revenues for coming year,
ESG = total ESG rating computed by Sustainalytics (Combined Environment, Social, & Governance)
Cont = controversy level computed by Sustainalytics,

ENV = environmental rating computed by Sustainalytics
SOC = social rating computed by Sustainalytics
GOV = governance rating computed by Sustainalytics

The focus of our regression analysis is on the impacts of social responsibility variables, i.e., ESG, ENV, SOC, and GOV, on dividend policy proxied with dividend payout ratio and dividend yield. Previous studies provide evidence that insider stock holdings are a significant variable in the formation of dividend payout policy (e.g., Rozeff, 1982; Jensen et al., 1992) and institutional holdings also cause firms to change their payout policy (Grinstein & Michaely, 2005). Therefore, these two variables are used as control variables, in addition to Beta, Debt, Growth, and Cont, in regression models. Due to the high negative correlation between Insider and Institution, the two variables are separately included in different models.

Table 3-A contains results of seven different OLS regression models with a dependent variable of Payout. Results of Model (1) that includes only five control variables as independent variables suggest that none of those variables play significant roles in explaining variation of dividend payout policy. The adjusted R^2 value is only 2.7%. It is not a surprise given the fact that the insurance companies are highly regulated, and their operation is relatively stable. With the addition of ESG, the adjusted R^2 value increases to 13.4% in Model (2) and coefficient of ESG, 1.019, is both economically and statistically significant at 10%. A high ESG score is associated with a high payout ratio, implying that insurance companies with better ability to mitigate their ESG risks tend to pay more dividends to their stockholders. That is, insurance companies that proactively manage issues most material to their business to mitigate their ESG risks may reduce reserves, operating costs, and other expenses, and eventually pay more dividends to their shareholders. This result still holds when the controversy level, Cont, is added into Model (4). However, the coefficient of Cont is not significant even though more than 90% of the sample had a controversy level of "2."

ESG rating is further divided into ENV, SOC, and GOV. We then substitute ESG with these three independent social responsibility variables in regression models. Results of Model (3) in Table 3-A suggest that the substitution considerably boosts robustness of the model evidenced by a jump in the adjusted R^2 from 13.4% to 31.5%. The most significant variable is SOC with a coefficient of 1.618, which is statistically significant at the 1% level. SOC measures how well firms proactively manage social issues most material to their business and assesses firms' ability to mitigate social risks. The result evidently suggests a significant positive relationship between mitigating social risk and dividend payout ratios in insurance companies. Other social responsibility variables do not have significant impact on Payout. The addition of Cont does not alter the above results in Models (3) through (5). Due to the strong linear relation between ENV and GOV, they are separately used in Models (6) and (7). Results are basically the same as that of Models (3) and (5), SOC is the only economically and statistically significant social responsibility variable in explaining changes in dividend payout ratios. All other variables including the intercepts of Models (6) and (7) are statistically insignificant, which indicates the models are well specified.

Because of the significant correlation between Insider and Institution (Table 2), Insider is replaced with Institution in all seven regression models (Table 3-B). Results remain essentially the same in

that SOC is the only statistically significant social responsibility variable in explaining alterations in Payout.

TABLE 3-B

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Payout	Payout	Payout	Payout	Payout	Payout	Payout
Institution	-0.283	-0.216	-0.148	-0.205	-0.142	-0.122	-0.128
	(0.186)	(0.185)	(0.173)	(0.188)	(0.177)	(0.175)	(0.172)
Beta	-17.82	-21.32*	-19.18*	-23.93*	-16.79	-17.31	-15.29
	(10.94)	(10.83)	(9.794)	(11.51)	(10.90)	(10.83)	(10.34)
Debt	3.807	3.936	-0.510	5.251	-3.860	-10.21	-10.68
	(21.53)	(20.83)	(22.09)	(21.16)	(23.37)	(22.21)	(19.50)
Growth	0.341	0.185	1.551*	0.451	1.510*	1.158	1.403
	(0.737)	(0.720)	(0.856)	(0.811)	(0.878)	(0.785)	(0.838)
ESG		0.874		1.034			
		(0.576)		(0.621)			
ENV			-0.434		-0.506		-0.293
			(0.525)		(0.551)		(0.390)
SOC			1.584**		1.738**	1.661**	1.826***
			(0.580)		(0.655)	(0.646)	(0.622)
GOV			0.554		0.446	-0.0594	
			(0.756)		(0.797)	(0.573)	
Cont				-5.505	4.493	2.760	5.599
				(7.356)	(8.091)	(7.828)	(7.675)
cons	58.98**	8.113	-54.80	9.116	-62.64	-47.52	-52.67
	(19.29)	(38.38)	(44.82)	(38.88)	(47.94)	(44.80)	(43.54)
N	24	24	24	24	24	24	24
adj. R^2	0.065	0.125	0.288	0.103	0.256	0.263	0.287

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Payout = current dividend payout ratio
Yield = forward dividend yield
Insider = percentage of equity held by insiders,
Institution = percentage of equity held by institutions,
Beta = firm's beta,
Debt = firm's use of leverage (total liabilities/total assets),
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SOC = social rating computed by Sustainalytics

GOV = governance rating computed by Sustainalytics

For robustness check, the forward dividend yield is used as the proxy of dividend policy in the seven regression models and the results are reported in Tables 4-A and B. Different from the results in Table 3-A, we find that ESG does not have a significant impact on the forward dividend yield in Model (2) in Table 4-A. Another difference is that there is a significant negative effect of Institution on Yield, but the significance fades in models (6) and (7) in Table 4-B. Once again, SOC is the only economically and statistically significant variable in explaining changes in the forward dividend yield. In addition, the adjusted R^2 in Models (6) and (7) is about 40%.

TABLE 4-A

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Yield	Yield	Yield	Yield	Yield	Yield	Yield
Insider	0.0192	0.0190	0.0166	0.0163	0.0167	0.0149	0.0144
	(0.0125)	(0.0123)	(0.0100)	(0.0107)	(0.0104)	(0.0102)	(0.0101)
Beta	0.884	0.674	0.771	0.283	0.706	0.651	0.845
	(0.627)	(0.634)	(0.497)	(0.571)	(0.573)	(0.570)	(0.556)
Debt	-0.378	-0.208	-0.625	-0.277	-0.537	-0.829	-1.139
	(1.187)	(1.170)	(1.068)	(1.015)	(1.155)	(1.115)	(0.985)
Growth	-0.0391	-0.0456	0.0148	-0.0131	0.0158	-0.00269	0.000957
	(0.0403)	(0.0398)	(0.0380)	(0.0368)	(0.0395)	(0.0346)	(0.0366)
ESG		0.0479		0.0636*			
		(0.0363)		(0.0321)			
ENV			-0.0292		-0.0276		-0.00845
			(0.0267)		(0.0282)		(0.0206)
SOC			0.105***		0.0974**	0.0903**	0.106**
			(0.0279)		(0.0413)	(0.0406)	(0.0404)
GOV			0.0374		0.0405	0.0134	
			(0.0375)		(0.0406)	(0.0297)	
Cont				-1.164**	-0.175	-0.318	0.0346
				(0.454)	(0.690)	(0.673)	(0.657)
cons	1.780*	-0.874	-5.004**	0.925	-4.469	-3.322	-3.707
	(0.914)	(2.201)	(2.323)	(2.034)	(3.192)	(2.966)	(3.099)
N	23	23	23	23	23	23	23
adj. R^2	0.023	0.062	0.416	0.294	0.377	0.379	0.377

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Payout = current dividend payout ratio
Yield = forward dividend yield
Insider = percentage of equity held by insiders,
Institution = percentage of equity held by institutions,
Beta = firm's beta,
Debt = firm's use of leverage (total liabilities/total assets),

Growth = forecast growth rate in revenues for coming year,
ESG = total ESG rating computed by Sustainalytics (Combined Environment, Social, & Governance)
Cont = controversy level computed by Sustainalytics,
ENV = environmental rating computed by Sustainalytics
SOC = social rating computed by Sustainalytics
GOV = governance rating computed by Sustainalytics

TABLE 4-B

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Yield	Yield	Yield	Yield	Yield	Yield	Yield
Institution	-0.023**	-0.021*	-0.015*	-0.017*	-0.015*	-0.014	-0.015
	(0.010)	(0.010)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Beta	0.707	0.562	0.657	0.211	0.594	0.554	0.720
	(0.581)	(0.602)	(0.487)	(0.550)	(0.564)	(0.559)	(0.536)
Debt	0.299	0.372	-0.193	0.205	-0.108	-0.400	-0.614
	(1.132)	(1.138)	(1.093)	(1.005)	(1.181)	(1.130)	(0.994)
Growth	-0.020	-0.027	0.023	-0.001	0.024	0.006	0.012
	(0.039)	(0.040)	(0.038)	(0.037)	(0.040)	(0.035)	(0.037)
ESG		0.034		0.051			
		(0.036)		(0.032)			
ENV			-0.027		-0.025		-0.010
			(0.026)		(0.028)		(0.020)
SOC			0.096**		0.089**	0.082*	0.096**
			(0.029)		(0.042)	(0.041)	(0.040)
GOV			0.029		0.032	0.008	
			(0.036)		(0.039)	(0.029)	
Cont				-1.085**	-0.168	-0.302	0.00188
				(0.448)	(0.681)	(0.661)	(0.641)
cons	3.166***	1.182	-3.118	2.467	-2.598	-1.659	-2.061
	(1.004)	(2.315)	(2.450)	(2.109)	(3.294)	(3.111)	(3.192)
N	23	23	23	23	23	23	23
adj. R^2	0.140	0.136	0.430	0.328	0.392	0.399	0.406

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Payout = current dividend payout ratio
Yield = forward dividend yield
Insider = percentage of equity held by insiders,
Institution = percentage of equity held by institutions,
Beta = firm's beta,
Debt = firm's use of leverage (total liabilities/total assets),
Growth = forecast growth rate in revenues for coming year,

ESG = total ESG rating computed by Sustainalytics (Combined Environment, Social, & Governance)
Cont = controversy level computed by Sustainalytics,
ENV = environmental rating computed by Sustainalytics
SOC = social rating computed by Sustainalytics
GOV = governance rating computed by Sustainalytics

CONCLUSIONS

We provide evidence that SOC is an important determinant of dividend payout policy for public insurance companies. Our findings are robust when we use either dividend payout ratio or forward dividend yield as proxy for the dividend payout policy for those listed insurance companies. None of the control variables such as Insider, Institution, Beta, Debt, and Growth are statistically significant, which could be explained by the highly regulated and relatively stable nature of insurance companies. Actually, SOC is the only significant explanatory variable in explaining the formation of dividend payout policy, which implies that insurance companies with better social responsibility ratings pay higher dividends. While none of the other two ESG variables, i.e., ENV and GOV, are significant it is worth noting that ENV is always negative and ESG is always positive. With only one exception, GOV is positive but not significant. Controversy is inconsistently signed and not significant.

Overall, we provide evidence that insurance firms consider social ratings when establishing their dividend policy. It could be that regulatory scrutiny faced by insurance firms affirms the need to subject the firm to the external scrutiny of the financial markets.

Future research needs to be conducted to investigate the relationship between corporate governance and social responsibility on the firm. Specifically, does social responsibility measured by these metrics affect insurance firms in other ways? We also intend to investigate these relationships for mutual and private insurance companies.

REFERENCES

Baker, H. K., Farrelly, G. E., & Edelman, R. B. (1985). A survey of management views on dividend policy. *Financial Management*, 78-84.

Bhattacharya, S. (1979). Imperfect information, dividend policy, and 'the bird in the hand fallacy. *Bell Journal of Economics, 10,* 259-270.

Black, F. (1976). The dividend puzzle. *Journal of Portfolio Management, 2*(2), 5-8.

Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout Policy in the 21st Century. *Journal of Financial Economics, 77*(3), 483-527.

Casey, K. M., Anderson, D. C., Mesak, H. I., & Dickens, R. N. (1999). Examining the impact of the 1986 tax reform act on corporate dividend policy: A new methodology. *Financial Review, 34*(3), 33-46.

Casey, K. M., Casey, K., Jr., & He, L. T. (2018). Does social responsibility reduce agency costs in public utilities? Evidence from dividend payout. *Oil, Gas and Energy Quarterly*, *67*(2), 321-329.

Casey, K. M., Ellis, M. E., & Casey, K., Jr. (2019). Does good stewardship reduce agency costs in the oil and gas industry? Evidence from dividend policy. *Oil, Gas and Energy Quarterly*, *67*(3), 491-498.

Casey, K. M., & Theis, J. D. (1997). A note on the determinants of cash flow dividend payout in the petroleum industry. *Journal of Energy Finance and Development, 2*(2), 239-248.

Casey, M., Smith, F., & Puleo, V. (2010). A note on the impact of corporate governance on dividend policy in the oil and gas industry. *Oil, Gas, and Energy Quarterly, 58*(3), 503-510.

Chen, C. Y. (1990). Risk-preferences and tax-induced dividend clienteles: Evidence from the insurance industry. *Journal of Risk and Insurance*, 199-219.

Da, Z., Engelberg, J., & Gao, P. (2011). Search of attention. *The Journal of Finance*, *66*(5), 1461-1499.

Dempsey, S., & Laber, G. (1992). Effects of agency and transaction costs on dividend payout ratios: Further evidence of the agency-transaction cost hypothesis. *The Journal of Financial Research*, *15*, 3-13.

Dickens, R. N., Casey, K. M., & Newman, J. A. (2003). Bank dividend policy: Explanatory factors. *Quarterly Journal of Business and Economics*, *41*, 3-12.

Grigonis, R. (2014, January 30). *Newsmax List: 25 Top Business and Financial Websites for Republicans Making $100,000+*. Newsmax. https://www.newsmax.com/TheWire/newsmax-list-top-business-financial/2014/01/30/id/549961/

Grinstein, Y., & Michaely, R. (2005). Institutional holdings and payout policy. *The Journal of Finance, 60*(3), 1389-1426.

Harrington, S. E. (1981). Stock life insurer shareholder dividend policy and holding company affiliation. *Journal of Risk and Insurance*, 550-576.

Hirshleifer, D., & Teoh, S. H. (2003). Limited attention, information disclosure, and financial reporting. *Journal of Accounting and Economics*, *36*(1-3), 337-386.

Jensen, M., & Meckling, W. (1976). Theory of the firm: Management behavior, agency costs and ownership structure. *Journal of Financial Economics, 76*, 305-360.

Jensen, G. R., Solberg, D. P., & Zorn, T. S. (1992). Simultaneous determination of insider ownership, debt, and dividend policies. *Journal of Financial and Quantitative Analysis*, *27*(2), 247-263.

Miller, M. H., & Rock, K. (1985). Dividend policy under asymmetric information. *Journal of Finance*, *40*, 1031-1051.

Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business, 34*(4), 411-433.

Moh'd, M. A., Perry, L. G., & Rimbey, J. N. (1995), An investigation of the dynamic relationship between agency theory and dividend policy. *Financial Review, 30*, 367-385. https://doi.org/10.1111/j.1540-6288.1995.tb00837.x

Noronha, G. M., Shome, D. K., & Morgan, G. E. (1996). The monitoring rationale for dividends and the interaction of capital structure and dividend decisions. *Journal of Banking and Finance*, *20*, 439-454.

Puleo, V. A., Smith, F. S., & Casey, K. M. (2009). Insurance company dividend decisions: Evidence on the role of corporate governance and regulation. *Managerial Finance, 35*(6), 493 - 500.

Rao, R. K. S., & White, S. A. (1994). The dividend payouts of private firms: Evidence from tax court decisions. *The Journal of Financial Research, 17*, 449-464.

Rozeff, M. (1982). Growth, beta, and agency costs as determinants of dividend payout ratios. *The Journal of Financial Research, 5*, 249-259.

Smith, F., Puleo, V., & Casey, M. (2008). Dividend policy and corporate governance: A research note. *Corporate Ownership & Control Journal, 5*(3), 220-224.

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