Dividend payout: Unveiling the power of Environmental, Social, and Governance (ESG) investments

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ABSTRACT

This paper explores the link between Environmental, Social, and Governance (ESG) factors and dividend policy across various regions and economic contexts. Using an international sample from developed and emerging markets for 2015 - 2021, we utilize a panel data estimation methodology with multi-way fixed effects, including time, industry, and country. We also employ Difference-in-Differences (DID) and Propensity Score Matching (PSM) methodologies. Our study finds a positive link between ESG and dividend payout ratios for firms in both developed and emerging markets, indicating the global influence of ESG. This suggests that firms investing more in ESG activities tend to pay higher dividends to shareholders. Even during the Covid-19 pandemic, our research confirms that the positive association between ESG and dividend payout ratios persists. However, it is somewhat weaker than before, highlighting the continued relevance of ESG during times of crisis. Robustness checks provide strong support for these findings.

1. Introduction

"*ESG fund managers are capitalists. They are investing to make money - they might do some good, but that good has to lead to a return."* **Michael Martin said to the Financial Times in November 2020, para. 16.**

Over the past decade, there has been a profound transformation in the pursuit of global sustainability, leading to a significant shift in corporate businesses. Firms have increasingly committed to sustainable development, as evidenced by their business activities worldwide. Firms actively seek a morally upright and environmentally sustainable approach for their long-term operations, with a growing emphasis on incorporating environmental, social, and governance factors (Chen & Xie, 2022). Consequently, these firms have directed their attention toward initiating projects centered around Environmental, Social, and Governance (ESG) standards. ESG considerations have progressively assumed a crucial role in managerial decision-making, encompassing various aspects of corporate operations, including formulating dividend payout policies.

Scholarly research, such as that conducted by Fulton et al. (2012), has demonstrated a positive correlation between Corporate Social Responsibility (CSR) and, notably, ESG factors, resulting in superior risk-adjusted returns. Similar findings have been reported by Cheung et al. (2018) and Rakotomavo (2012), indicating the increasing prominence of

sustainability in economic and financial literature. Consequently, investors gain greater confidence in firms with strong corporate governance reputations (Soppe, 2004) due to the transparent information provided, aligning with the principles of signal theory (Akerlof, 1970; Spence, 1973), which emphasizes the significance of corporate reputation in influencing investment decision-making. The dividend payout policy reflects the financial performance and value of the firm, enhancing its reputation among shareholders and increasing the demand for its shares. In the present era, investors not only aim to obtain short-term gains but also aspire to ensure the stability of future dividends. Thus, they often invest in more sustainable firms (Garavaglia et al., 2023). Several studies have explored the relationship between ESG and dividend payout policy (Ellili, 2022; Zahid et al., 2023). Most report a positive relationship between ESG and dividend payout policy, indicating that ESG significantly impacts shareholder interests and the firm's dividend payout policy.

The Covid-19 pandemic has changed the way investors and firms think about sustainability. Before the crisis, social and environmental responsibility initiatives, such as "Net Zero" or the "Fossil Fuel Divestment Movement," were not widespread or impactful (Díaz et al., 2021). Now, markets are more volatile, and investors are increasingly concerned about the long-term resilience of firms. This is why ESG standards have become a strategic and urgent global trend for private and public firms. ESG standards can help firms enhance their image and reputation, reduce costs, increase efficiency, boost revenue, strengthen customer and partner relationships, create competitive advantages, and attract capital and investment abroad (Freeman, 2010). For investors, ESG is a reliable indicator for making decisions.

There have been some empirical studies on ESG and dividend payout policy (Bilyay-Erdogan et al., 2023; Cheung et al., 2018; Matos et al., 2020; Saldi et al., 2023). However, limited attention has been given to emerging markets despite ESG considerations in these nations. Our paper explores the link between ESG and dividend policy in different regions and economic contexts. While previous studies have focused on specific countries or areas, such as Western Europe (Bilyay-Erdogan et al., 2023), the US, China, etc. (Matos et al., 2020), we conduct a cross-sectional analysis of developed and emerging markets to capture the diversity of ESG practices and dividend policies. Additionally, we examine how the Covid-19 pandemic affects this relationship, as most existing research does not account for the impact of uncertainty and crisis on ESG and dividend decisions. To ensure the validity of our results, we use different measures of the dividend payout ratio and apply the Difference-in-Differences method (DID) combined with Propensity Score Matching (PSM) to control for confounding factors and selection bias.

2. Literature review

Researchers have shown a positive relationship between firms' ESG/CSR ratings and their financial performance and value (Gillan et al., 2021). When firms engage in ESG activities, such as environmental sustainability and responsible governance, they often experience improved cash flows, higher productivity, and better reputations (Borghesi et al., 2014; Cuadrado-Ballesteros et al., 2016; Gao & Zhang, 2015; Iliev & Roth, 2023). Chang et al. (2019) also indicate that cash holdings may induce firm value for firms with high ESG/CSR scores than those with low scores. These factors can increase profitability, giving firms more funds to distribute as dividends to shareholders.

Another argument showing the link between ESG and dividend payout is that ESG activities can reduce firms' capital costs (Eichholtz et al., 2019). Shareholders may perceive

ESG-focused companies as less risky, especially during crisis periods. Lins et al. (2017) advocate that high ESG/CSR firms have better performance than low ESG/CSR firms during the financial crisis 2008. This lower perceived risk can decrease the required return on equity, reducing the cost of capital. Lower financing costs can free up additional funds that firms can use to pay dividends to shareholders.

Gillan et al. (2021) argue that ESG activities can create firm value by maximizing shareholder utility. Some shareholders may place a premium on owning shares in companies prioritizing environmental and social responsibility. With increasing investors favoring green and socially responsible investments, firms with strong ESG/CSR profiles may have a competitive advantage. Investors prefer to allocate their funds to these "green" firms, potentially leading to a lower cost of capital for them (Frydman & Wang, 2020; Joliet & Titova, 2018). Due to information asymmetry in the capital market, firms might obtain the support of stakeholders by disclosing high-quality ESG information (Chen & Xie, 2022). Even if the cash flows of ESG-focused firms are similar to non-ESG firms, these shareholders derive additional satisfaction from knowing their investments align with their values. As a result, such firms may be more inclined to distribute dividends to shareholders who value their ESG initiatives.

Moreover, the free cash flow theory proposed by Jensen (1986) and the signaling theory of dividends, as outlined by Bhattacharya (1979), suggest that firms committed to Corporate Social Responsibility (CSR) are inclined to pay higher dividends. This is consistent with the findings of Dai et al. (2022), which show that Sovereign Wealth Funds (SWFs) value ESG as a key factor in their investment decisions. As a result, firms with higher ESG scores tend to be more attractive to SWFs due to their ability to meet stakeholder expectations while responsibly managing sustainability-related expenditures.

Although there are some research papers on ESG and dividend policy, there are still inconsistent results (Bilyay-Erdogan et al., 2023). While firms implementing ESG standards appear to be sending a positive signal to investors, there is concern about whether ESG firms will face short-term challenges and how it will affect investors' interests. This creates two different viewpoints based on two theories. First, the stakeholder theory (Freeman & McVea, 2005) proposes that successful firms can align the interests of all stakeholders and thus are sustainable. They prioritize not only shareholder wealth maximization but also the interests of the firm's other stakeholders. Stakeholder theory challenges the dominance of shareholder supremacy theory by asserting that only companies that prioritize the interests of all stakeholders can achieve sustainable development (Chen & Xie, 2022). According to Heal (2005), engaging in ESG activities can lead to positive stakeholder relationships and improved management and asset allocation efficiency. These benefits can ultimately result in increased earnings with lower income risk for investors. As a result, firms may be able to pay out higher dividends, as Cheung et al. (2018) noted. Matos et al. (2020) conducted a study using data from Stoxx Euro 600 firms from 2000 to 2019 to analyze the relationship between ESG scores and corporate dividend policy in Europe. Their findings demonstrate that sustainable firms exhibit higher dividend payouts in developed markets, particularly in the European Union, where ESG standards are highly prioritized. Rita and Lucas (2020) sought to broaden the research on ESG standards in various economies by using panel data from 320 top 10 emerging markets listed firms over 05 years (2015 - 2019), confirming that ESG still positively impacts dividend sustainability.

In this study, we aim to answer two questions: (1) whether ESG standards positively impact the dividend payout ratio, with any differences between emerging and developed markets, and (2) whether ESG mitigates the negative impact of Covid-19 on the dividend payout ratio.

3. Sample, models, and methodology

3.1. Sample

This study utilizes a sample of listed firms from multiple markets. We have selected firms operating in the Energy, Materials, and Industry sectors based on the Global Industry Classification Standard (GICS). These industries have been chosen due to their environmentally sensitive nature and consistent demonstration of superior environmental performance, even when controlling for factors such as firm size and country of origin. This approach allows us to more accurately assess the influence of Environmental, Social, and Governance (ESG) factors on business operations. The selected industries play a crucial role in driving economic growth. The financial data utilized in our analysis has been sourced from Refinitiv Eikon Datasets. We have constructed a balanced panel dataset consisting of 570 firms from developed markets (such as the USA, UK, France, Germany, Spain, Netherlands, Singapore, Japan, Korea, Australia, etc.) and 164 firms from emerging markets (including China, India, Brazil, Turkey, Indonesia, etc.), arranged by Morgan Stanley Capital International (MSCI). The dataset spans 07 years, from 2015 to 2021, resulting in 5,138 firm-year observations (see Appendix A - online version). To minimize the impact of outliers, some firm-year observation variables have been "winsorized" at the top and bottom 1% levels. Our sample may have specific limitations, such as industry bias, regional constraints, or insufficient continuous or unpublished data for some countries (e.g., Vietnam - our home country).

3.2. Models and methodology

In this paper, we examine three main research questions: (1) whether ESG has a positive impact on firms' dividends, (2) whether the Covid-19 pandemic influences firms' dividends and how it interacts with ESG; and (3) whether the low or high ESG scores influence firms' dividends.

First, we use panel data analysis to examine the impacts of Environmental, Social, and Governance (ESG) on the Dividend Payout (DIV) through the following basic equations:

$$DIV_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \varphi V_{i,t} + \delta_t + \alpha_i + \mu_{i,t} \quad (1)$$

Where *i* refers to firm and *t* refers to periods; δ_t is the error term in correlation to time-specific effects; α_i is the error term associated with firm-specific effects, which include unobservable firm-specific characteristics and $\mu_{i,t}$ is the random error term.

The DIV variable represents the dividend payout ratio, which is used as the dependent variable in our analysis. It is calculated by dividing cash dividends by total assets (Benlemlih, 2019; Cheung et al., 2018; Ellili, 2022; Zahid et al., 2023). Utilizing this variable ensures an unbiased and consistent measure of corporate dividend payouts, accounting for factors such as manipulation of financial statements or stock market shocks and strategies (Sheikh et al., 2022).

The key variable in our study is the Environmental, Social, and Governance score (ESG), which is represented by the natural logarithm of the ESG score, as suggested in previous research (Bilyay-Erdogan et al., 2023; Matos et al., 2020; Niccolo et al., 2020; Zahid et al., 2023). The ESG score variable is obtained from the Refinitiv Eikon Datasets and is an annual

aggregate. It serves as a sustainability index that encompasses three dimensions: Environmental score (E), Social score (S), and Governance score (G). These scores are calculated based on financial and non-financial metrics extracted from firm disclosures, ranging from 0 to 100. By including the three ESG pillars in an integrated report and aligning them with the firm's overall strategy, the ESG score conveys that the firm is undertaking essential measures to enhance its long-term sustainability and financial performance. We expect the coefficient on ESG to be positive and statistically significant.

V denotes a vector of firm-level control variables that potentially affect firms' dividends as recommended by prior research (Benlemlih, 2019; Bilyay-Erdogan et al., 2023; Ellili, 2022; Saeed & Zamir, 2021; Zahid et al., 2023). The Weighted Average Cost of Capital (WACC) plays a crucial role in the decision-making process of business executives. It serves as an important metric for investors when considering investment opportunities. Therefore, we will include WACC as a controlled variable in our study, encompassing all sources of capital, including equity, preferred stock, and the firm's debt (Cheng et al., 2023). To account for the influence of firm size on dividend payout policy, we will control for firm Size (SIZE). Previous research has indicated a positive correlation between firm size and dividend payouts (Benlemlih, 2019). Firm Size (SIZE) will be calculated using the natural logarithm of total assets. Considering the impact of limited investment opportunities, firms often distribute dividends to shareholders, while undervalued stocks may lead to stock repurchases (Andriosopoulos & Lasfer, 2015). Therefore, we will include the capital expenditure to fixed assets ratio (CAPEX) as a controlled variable, calculated by dividing capital expenditure by total assets. Leverage has been found to restrict firm payouts, affecting dividend payout ratios and emphasizing the need for leverage management (DeAngelo et al., 2006). Hence, we will include the leverage ratio (LEV) as a controlled variable, calculated by dividing total debt by total assets.

To capture the influence of excess cash on dividend policy, we will control for the firm's cash holdings (CASH) and cash flow from operating activities (CFO). These variables have been extensively studied and shown to impact dividend payout policy (Acharya et al., 2013; Almeida et al., 2004; Bates et al., 2009; Dittmar et al., 2003; Habib & Hasan, 2017; Harford et al., 2014). Cash holdings will be measured using the cash-to-total assets ratio, and the operating cash flow will be calculated by dividing CFO by total assets. Lastly, to capture the profits for firm shareholders, we will include the Return on Equity (ROE) as a measure (Barros et al., 2023). By incorporating these controlled variables into our analysis, we aim to provide a comprehensive understanding of the factors influencing dividend payouts in our study.

Table 1

Variable Definitions

Variables	Definitions	Sources
Dependent variable		
DIV	Divide the cash dividend by the total assets at time t to calculate the dividend payout ratio	Calculations based on data from Refinitiv
Key independent variables		
ESG	The ESG total score can be measured using the natural logarithm at time t	Calculations based on data from Refinitiv

Variables	Definitions	Sources
Control variables		
WACC	Calculated using all sources of capital, including equity stock, preferred stock, and debt at time t, with each category of capital being weighted proportionally	Calculations based on data from Refinitiv
SIZE	Measured by the natural logarithm of the total assets of the firm at time t	As above
CAPEX	The efficiency of using capital on assets of the firm at time t	As above
LEV	Measure the capacity and manage by total debt on total assets owned by the firm at time t	As above
CASH	The cash ratio measures the ratio of cash holdings to total assets at time t	As above
CFO	Calculated by the firm's cash flow from operating activities to total assets at time t	As above
ROE	Express the earnings power and efficient capital of the firm by measuring net income on equity at time t	As above

Note. Author's work

We utilize a panel data estimation methodology with multi-way fixed effects. This includes incorporating time, industry, and country fixed effects. To address heteroscedasticity and clustering of observations, we employ robust standard errors at the firm level, following (Petersen, 2009). To further reinforce the argument regarding the advantages of firms with high ESG scores, we employed the Difference-in-Differences (DID) and Propensity Score Matching (PSM) methodologies. These approaches were used to assess the impact of the Covid-19 pandemic on dividend distributions, specifically within firms that possess the highest ESG scores. By utilizing a combined DID and PSM model, we could compare the treatment group (comprising high ESG-scoring firms) with the control group (consisting of lower ESG-scoring firms) to estimate the pandemic's influence on dividend ratios.

Table 2

Descriptive Statistics

		Variables								
		DIV	ESG	WACC	SIZE	CAPEX	LEV	CASH	CFO	ROE
Total Sample	**Obs.**	5,138	5,138	5,138	5,138	5,138	5,138	5,138	5,138	5,138
	Mean	0.0265	3.8692	0.2347	22.7400	0.0441	0.2577	0.1228	0.1140	0.0941
	Std. Dev.	0.0268	0.5091	0.0600	1.3289	0.0339	0.1499	0.1592	0.0873	0.0581
	Min.	0.000	1.8662	0.0573	19.6371	0.0028	0.000	-0.4226	0.0015	-0.0459
	Max.	0.1536	4.4872	0.3785	26.0909	0.1802	0.6242	0.7949	0.4056	0.2893

		Variables								
Developed Markets	**Obs.**	4,039	4,039	4,039	4,039	4,039	4,039	4,039	4,039	4,039
	Mean	0.0258	3.8686	0.2401	22.6635	0.0442	0.2539	0.1050	0.0948	0.1232
	Std. Dev.	0.0249	0.5251	0.0573	1.3139	0.0344	0.1445	0.0837	0.0549	0.1616
	Min.	0.000	1.8317	0.0700	19.5925	0.0029	0.000	0.0012	-0.0396	-0.4486
	Max.	0.1435	4.4911	0.3831	25.7400	0.1861	0.6055	0.3970	0.2750	0.7948
Emerging Markets	**Obs.**	1,099	1,099	1,099	1,099	1,099	1,099	1,099	1,099	1,099
	Mean	0.0298	3.8713	0.2152	23.014	0.0438	0.2728	0.1475	0.0921	0.1211
	Std. Dev.	0.0354	0.4456	0.0658	1.3419	0.0320	0.1699	0.0925	0.0702	0.1524
	Min.	0.000	2.0595	0.0360	19.7120	0.0022	0.000	0.0155	-0.0659	-0.3546
	Max.	0.2066	4.4461	0.3538	26.4801	0.1510	0.7078	0.4391	0.3635	0.8111

Note. Author's work

Table 2 provides the summary statistics of our sample, including the number of observations, the mean and standard deviation, and the minimum and maximum values for each variable in our dataset. The mean dividend payout ratio is 2.65 percent, which exceeds the average dividend payout ratio in developed markets (2.58%) but falls below that in emerging markets (2.98%). This discrepancy reflects the different development goals and orientations of each country group and variations in firms' business and investment activities. The sample exhibits a relatively high degree of variation in dividend payouts, indicating diverse dividend policies and business strategies. The ESG score has a moderate mean of 3.87 and a standard deviation 0.51. No significant differences are observed between developed and emerging markets. Pearson and Spearman correlation tests are employed to analyze the relationships among the variables. The correlation coefficients exhibit small absolute values, all below 0.8. Moreover, the Variance Inflation Factors (VIF) scores range between 1.01 and 1.26, with a mean of 1.16, indicating the absence of multicollinearity concerns in our study. This report does not include the correlation table, but the authors can provide it upon request.

4. Results and discussions

The regression results from Table 3 reveal a positive correlation between ESG and dividend payout, observed in developed and emerging markets. The coefficients of the ESG variables are positive in all three regressions, and they are statistically significant (p-value < 0.1). This supports the hypothesis that emphasizing ESG standards can positively impact dividend payout policy. These findings align with previous research conducted by Matos et al. (2020), Rita and Lucas (2020), Starks et al. (2017), Velte (2017), and Zahid et al. (2023). Firms prioritizing sustainability gain a competitive advantage (Ioannou & Serafeim, 2019). Embracing ESG principles not only enhances sustainability but also reduces expenses. For instance, environmental standards enable firms to avoid costly carbon credits when engaging in international trade. Integrating ESG practices is essential for navigating the global landscape, addressing social and ecological challenges, and driving financial success. As a result, there has been an increase in cash inflow to firms, and Aydoğmuş et al. (2022) demonstrate a positive and notably significant correlation between ESG scores and profitability.

Table 3

ESG Performance and Dividend Payout Ratio

Dependent Variable: DIV	Model (1) All Sample	Model (1) Developed Markets	Model (1) Emerging Markets
ESG	0.0033***	0.0021*	0.0051*
	(0.0013)	(0.0011)	(0.0027)
WACC	0.0241	0.1173	-0.0606
	(0.1300)	(0.1106)	(0.4445)
SIZE	-0.0038***	-0.0028***	-0.0066*
	(0.0014)	(0.0011)	(0.0034)
CAPEX	0.0587***	0.0767***	0.1205***
	(0.0131)	(0.0120)	(0.0346)
LEV	-0.0574***	-0.0514***	-0.0538***
	(0.0051)	(0.0040)	(0.0127)
CASH	-0.0251***	-0.0077	-0.0409***
	(0.0063)	(0.0054)	(0.0135)
CFO	0.108***	0.0453***	0.0828***
	(0.0070)	(0.0066)	(0.0158)
ROE	0.0024***	0.0093***	0.0245***
	(0.0007)	(0.0020)	(0.0057)
Constant	0.0999***	0.0581*	0.180
	(0.0415)	(0.0342)	(0.1207)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes
Obs.	5,138	4,039	1,099
Firms	734	577	157
R-squared	0.7063	0.7071	0.7370
F-statistic	73.22***	52.10***	198.15***

Notes. The numbers in parentheses are firm-level clustered standard errors. 1%, 5%, 10% significance levels are denoted by ***, **, and * respectively. Author's work

When investors, especially risk-averse investors, gain confidence in a firm with a high ESG score, it indicates that they can safely invest in these firms, as their assets are secure and their working capital is stable (Chen & Yang, 2020; Wang & Chen, 2017). Firms with strong ESG performance tend to provide more transparent and clear information. They are committed to fulfilling their social responsibilities and demonstrate long-term growth potential, which helps mitigate environmental risks and other significant risks associated with initial investments (Lin, 2016) while reducing underperformance in investments (Hail et al., 2014). Consequently, the firm's performance aligns with investors' investment preferences. In addition, according to Cao et al. (2023), even when considering the ESG factor, investors still prefer such stocks, even if they result in negative returns. This implies that investors prioritize a firm's underlying value and sustainable profitability over high short-term profitability but a lower ESG score.

In addition, the statistical evidence from Table 3 reveals differences in the relationship between ESG and dividends across country groups. Specifically, the coefficient is more significant for emerging markets than developed markets, indicating a more substantial impact of ESG in emerging markets. This finding is important as the relationship between dividend payout ratio and ESG has rarely been studied in the context of developed and emerging markets. Possible reasons for these differences may include variations in the maturity and popularity of the ESG sustainability concept, the ability to address environmental, social, and governance risks, the level of ESG monitoring and implementation, or the extent of ESG research (Li et al., 2021).

The level of interest in ESG scores tends to be lower in emerging markets compared to developed markets (Miras-Rodríguez et al., 2018), and the pressure for disclosing information regarding social responsibility is not as significant in emerging markets (Ali et al., 2017). Therefore, firms in emerging markets that demonstrate self-discipline and prioritize investors' interests can more prominently showcase the differences in results. Supporting this argument, Ali et al. (2017) suggest that ESG performance is also influenced by the strength of the national legal system, as indicated by the substitution effect. Emerging markets with weak protectionism and unstable policies may exhibit more excellent ESG performance to address potential conflicts between investors and stakeholders. Differences in institutional context and firm profiles can also contribute to such variations (Garcia et al., 2017).

To further support the argument on the benefits of high ESG-scoring firms, we utilized the Difference-in-Differences (DID) and Propensity Score Matching (PSM) methods to analyze the impact of Covid-19 on dividends, specifically for firms with the highest ESG scores. The combined DID and PSM model allowed us to compare the treatment group (high ESG-scoring firms) with the control group (lower ESG-scoring firms) to estimate the effect of the pandemic on dividend ratios. By accounting for other external factors, the findings shed light on the stability and adaptability of firms with strong ESG standards in maintaining dividend policies during challenging times.

$$DIV_{i,t} = \beta_0 + \beta_1 HIGH_i + \beta_2 COVID19_t + \beta_3 HIGH_i.COVID19_t + \varphi V_{i,t} + \delta_t + \alpha_i + \mu_{i,t} \quad (2)$$

HIGH is a dummy variable that equals 1 if the firm is in the top 25% of firms with the highest ESG scores in the sample; otherwise, it is 0.

Table 6

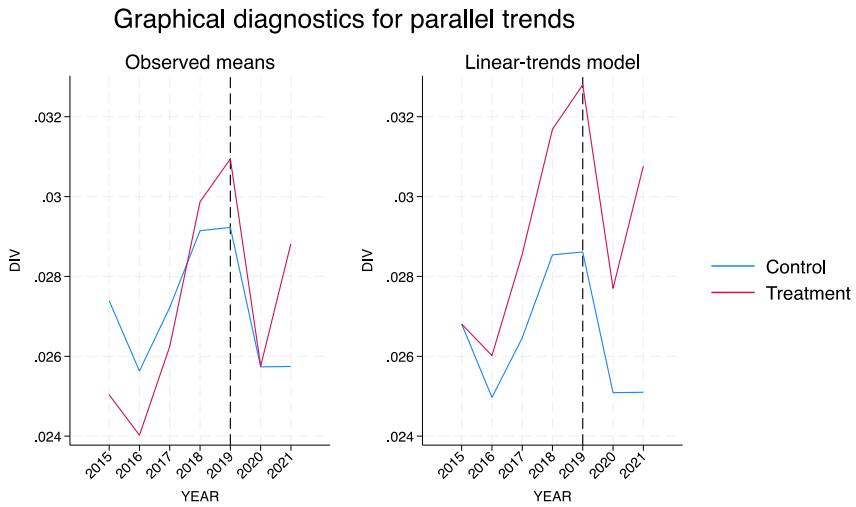
High ESG Firms with Difference-in-differences Method

Dependent Variable: DIV	Model (5)
HIGH	-0.0001
	(0.0011)
Covid-19	-0.0030***
	(0.0010)
HIGH x Covid-19	0.0036**
	(0.0018)
WACC	-0.0387***
	(0.0057)
SIZE	-0.0029***
	(0.0003)
CAPEX	-0.0707***
	(0.0106)
LEV	-0.0173***
	(0.0027)
CASH	0.0051
	(0.0044)
CFO	0.2415***
	(0.0065)
ROE	0.057***
	(0.0008)
Constant	0.0746***
	(0.0072)
Year fixed effects	Yes
Industry fixed effects	Yes
Country fixed effects	Yes
Obs.	5,138
Firms	734
R-squared	0.3163
F-statistic	215.56***

Notes. The numbers in parentheses are firm-level clustered standard errors. 1%, 5%, 10% significance levels are denoted by ***, **, and * respectively. Author's work

Figure 1

Trends in Dividends of Treated and Control Groups



Note. Author's work

The results from Table 6 show a positive correlation between the HIGH x Covid-19 variable and dividends for firms with high ESG scores. This suggests that these firms experienced favorable dividend outcomes during the Covid-19 years due to their strong ESG performance, which enhanced resilience and investor confidence. On the other hand, the Covid-19 variable negatively correlates with dividends across the entire sample, indicating that the pandemic had a detrimental impact on dividend payouts, regardless of ESG scores. Firms adopted cash-conserving measures, including dividend reductions, to ensure financial stability during the crisis.

We conducted additional estimations using alternative measures for the dependent variables in our base model. Specifically, we substituted the primary dependent variable with the ratio of dividends to ownership equity (Benlemlih, 2019; Zahid et al., 2023). The results of these estimations revealed a notable and positive influence of ESG performance on the dividend payout ratio. The findings from Table 7 reinforce and corroborate our primary results, providing further credibility to the significance of the relationship between ESG and dividend policy. Therefore, the robustness tests support our key findings' empirical validity and reliability.

Table 7

Robustness Test for Models (1) and (2): Alternative Proxy for Dividend Payouts

	Model (1) Dependent Variable: DIVE			**Model (2) Dependent Variable: DIVE**		
	All Sample	**Developed Markets**	**Emerging Markets**	**All Sample**	**Developed Markets**	**Emerging Markets**
ESG	0.0055***	0.0043***	0.0084**	0.0058**	0.0043**	0.0024**
	(0.0016)	(0.0018)	(0.0041)	(0.0014)	(0.0019)	(0.0042)
Covid-19	-	-	-	-0.0146**	-0.0083	-0.0563**

	Model (1) Dependent Variable: DIVE			**Model (2) Dependent Variable: DIVE**		
	All Sample	**Developed Markets**	**Emerging Markets**	**All Sample**	**Developed Markets**	**Emerging Markets**
				(0.0067)	(0.0065)	(0.0242)
ESG x Covid-19	-	-	-	0.0035**	0.0021	0.0132**
				(0.0014)	(0.0016)	(0.0060)
WACC	-0.0735	-0.0600	-0.1418	-0.0852	-0.0673	-0.1828
	(0.1656)	(0.1576)	(0.6777)	(0.1656)	(0.1577)	(0.6767)
SIZE	-0.0070***	-0.0065***	-0.0106**	-0.0068***	-0.0067***	-0.0085
	(0.0017)	(0.0017)	(0.0051)	(0.0018)	(0.0018)	(0.0054)
CAPEX	0.0724***	0.0702***	0.0899***	0.0725***	0.0710***	0.0849*
	(0.0168)	(0.0170)	(0.0476)	(0.0168)	(0.0171)	(0.0476)
LEV	-0.0129**	-0.0156***	-0.0012	-0.0124***	-0.0154**	0.0037
	(0.0065)	(0.0066)	(0.0186)	(0.0065)	(0.0066)	(0.0186)
CASH	-0.0351***	-0.0186**	-0.0846***	-0.0345***	-0.0190**	-0.0810***
	(0.0080)	(0.0085)	(0.0202)	(0.0081)	(0.0086)	(0.0202)
CFO	0.134***	0.1093***	0.1922***	0.1334***	0.1084***	0.1925***
	(0.0089)	(0.0095)	(0.0218)	(0.0089)	(0.0095)	(0.0218)
ROE	0.0044***	0.0032***	0.0152***	0.0044***	0.0032***	0.0148***
	(0.0009)	(0.0009)	(0.0038)	(0.0009)	(0.0009)	(0.0038)
Constant	0.182***	0.1719***	0.2734	0.1804***	0.1786***	0.2305
	(0.0530)	(0.0521)	(0.1831)	(0.0553)	(0.0547)	(0.1185)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	5,138	4,039	1,099	5,138	4,039	1,099
Firms	734	577	157	734	577	157
R-squared	0.7200	0.7098	0.7100	0.7204	0.7415	0.7433
F-statistic	47.14***	30.59***	24.64***	38.21***	17.24***	14.50***

Note. The numbers in parentheses are firm-level clustered standard errors. 1%, 5%, 10% significance levels are denoted by ***, **, and * respectively. Author's work

5. Concluding remarks

Our paper demonstrates that Environmental, Social, and Governance (ESG) standards positively influence dividend payouts. Additionally, the study examines the relationship between ESG and dividend payouts during the Covid-19 pandemic, revealing a continued positive correlation between ESG and dividend payout policies. However, the impact of ESG on dividend payouts during the pandemic was not as strong as under normal circumstances. All results are robust and hold when alternative measures of dividend payouts are used. In conclusion, integrating ESG and dividend payout policies offers advantages for investors. However, caution should be exercised when applying the findings of this study to firms outside the researched industry group. We encourage future studies to expand the scope, enhancing the generalizability of results and ensuring greater accuracy in global practices.

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All authors declare that they have no conflict of interest.

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