

# DOES ESG PERFORMANCE AFFECT DIVIDEND PAYOUTS? EMPIRICAL EVIDENCE FROM EUROPEAN COUNTRIES

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**Abstract:** The main objective of this paper is to fill an identified research gap by examining the relationship between environmental, social and governance (ESG) performance and dividend payouts. We use a panel regression model based on data from companies on the Stoxx Europe 600 Index in 2010-2022. The model incorporates sustainability variables, such as environmental, social and governance pillar scores, alongside the ESG controversies score. The aggregated ESG score has a statistically significant and positive influence on the dividend payout ratio (DPR). When examining particular pillar scores, the impact of the social pillar is both significant and positive, whereas the effects of the other pillars are insignificant. The effect of the ESG controversies score on the DPR is statistically significant and negative. The incorporation of this score into the model does not change the effect of the social pillar score, although it changes the effect of the aggregated ESG score.

**Keywords:** corporate sustainability, dividend payouts, ESG controversies score, ESG scores, European companies

## INTRODUCTION

The holistic business models for corporate sustainability (Elkington, 1997; Jonker & Witte, 2006), often grounded in the Triple Bottom Line (TBL) approach, aim to illustrate how companies transform their environmental, social, and governance (ESG) initiatives into benefits for shareholders, employees, customers, suppliers, local communities, and overall corporate financial performance, highlighting the existence of their positive relationship (Perrini et al. 2011; Kantabutra & Ketprapakorn 2020). The positive link between corporate sustainability performance (CSP) and corporate financial performance (CFP) was confirmed by various empirical studies (Ziegler et al., 2007; Wagner, 2010; Soana, 2011; Barnett & Salomon, 2012; Przychodzeń, 2013; Nollet et al., 2016; Tuppura et al., 2016; Xiao et al., 2018; Nizam et al., 2019; Jha & Rangarajan, 2020; Matuszewska-Pierzynka, 2021; Behl et al., 2022; Douissa & Azrak, 2022). Although there is extensive empirical research on the CSP-CFP link, it typically examines how ESG performance influences a company's profitability and market value (e.g., Gillan et al., 2021), putting aside a direct financial benefit of corporate sustainability i.e. dividend payouts.

The relationship between corporate sustainability performance and dividend payouts can be understood through core business theories such as agency theory, signaling theory, and stakeholder theory. Agency theory (Jensen & Meckling, 1976) suggests that conflicts arise when the goals of managers and shareholders are not aligned, especially in companies with substantial free cash flows. These cash flows might tempt managers to overinvest in ESG activities, potentially reducing shareholder value (Jensen, 1986). To mitigate this overinvestment and prevent agency conflict, dividends are used (Driver et al., 2020; Hu et al., 2020; Salvi et al., 2024). Matos et al. (2020) demonstrated that companies with high ESG scores are expected to distribute substantial dividends to avoid excessive investment in ESG initiatives. With respect to signaling theory and the informational role of dividends, numerous studies have indicated that dividends reduce information asymmetry by serving as a positive signal (Miller & Rock, 1985; Lin et al., 2017; Alaeto, 2020; Kim et al., 2021; Che & Fuller, 2020; Lin & Lee, 2021; Agarwal & Chakraverty, 2023; Zhao, 2023). However, findings on the relationship between ESG initiatives and dividend signaling are varied. For example, Ellili (2022) suggested that ESG practices and dividends can act as substitutes, while Benlemlih (2019) stressed the importance of balancing the interests of shareholders and other

stakeholders. Thus, socially responsible companies may issue dividends to send a positive signal, demonstrating their commitment to considering the interests of all stakeholders (Benlemlih, 2019; Matos et al., 2020; Salvi et al., 2024).

This perspective is consistent with the third theoretical framework, stakeholder theory (Freeman et al., 2010), which suggests that managers should equitably distribute wealth among all stakeholder groups (Samet & Jarboui, 2017). However, Matos et al. (2020) contended that equitable wealth distribution can have mixed effects. On one hand, it might reduce dividends for shareholders. On the other hand, companies that embrace ESG initiatives can benefit from favorable perceptions among various stakeholders, particularly creditors, which can lead to preferential treatment and potentially lower financing costs. As a result, more funds may become available for dividend payouts.

Taking into account these fundamental theories, we aim to investigate the relationship between corporate sustainability performance and dividend payouts by empirical verification of following research hypotheses:

*H1: The relationship between the aggregated ESG score and the dividend payout ratio is positive;*

*H2: The relationship between the environmental pillar score and the dividend payout ratio is positive;*

*H3: The relationship between the social pillar score and the dividend payout ratio is positive;*

*H4: The relationship between the governance pillar score and the dividend payout ratio is positive.*

The literature review identified only a few studies (Benlemlih, 2019; Casey et al., 2020; Bilyay-Erdogan et al., 2023; Matuszewska-Pierzynka et al., 2023) that employed the ESG controversies score as a primary variable in determining dividend policy. Matuszewska-Pierzynka et al. (2023) found a significant and positive effect of the ESG controversies score on the likelihood of paying stable dividends. However, other studies examining the relationship between ESG controversies and dividend payouts have produced inconsistent results. Casey et al. (2020) reported no significant impact of a controversy rating on dividends. Benlemlih (2019) found that companies involved in controversial activities, such as those in the military and alcohol industries, tend to pay lower dividends. In contrast, Bilyay-Erdogan et al. (2023) observed that a higher ESG controversy score negatively affects dividend payments, as controversial activities can harm a company's market valuation. To compensate for this decrease in market value, companies may increase dividend payouts to satisfy shareholders. Therefore, we propose the last hypothesis:

*H5: The relationship between the ESG controversies score and the dividend payout ratio is negative.*

To test these hypotheses, a panel regression model was applied on European firms listed on the Stoxx Europe 600 Index in the period from 2010 to 2022. The comprehensive model integrated sustainability variables encompassing environmental, social, and governance pillars, alongside the ESG controversies score, which reflects environmental, social, and governance risks announced in global media. Financial and sustainability data was sourced from the London Stock Exchange Group (LSEG) Eikon database, previously known as Refinitiv.

The findings from the estimation indicate that the combined ESG score exerts a statistically significant and positive impact on the dividend payout ratio (DPR). Upon closer examination of individual pillar scores, the social pillar demonstrates a significant and positive effect, while the remaining pillars show insignificant effects. Conversely, the ESG controversies score exhibits a statistically significant and negative influence on the DPR. Interestingly, integrating this score into the model doesn't alter the effect of the social pillar score, but it does affect the impact of the combined ESG score.

## **METHODOLOGY**

The research hypotheses were tested using data between 2010 and 2022. The study sample consists of 403 non-financial firms from the European Union (EU) listed on the Stoxx Europe 600 Index. Initially, 600 companies were considered for inclusion in the sample. However, one company was not identifiable in the LSEG Eikon database, which was the primary data source for financial metrics and sustainability scores. Subsequently, 186 enterprises were excluded from the sample. This exclusion comprised 109 firms operating within the financial sector, 55 companies located outside the EU, and 22 enterprises lacking ESG data for each year within the study period. Additionally, ten companies were further excluded due to incomplete data, precluding any year from being included in the estimation process. The final research sample consists of unbalanced panel data from 403 companies, totaling 3,836 firm-year observations.

To verify the research hypotheses, we employ the panel regression approach. The general panel model is given by the following formula:

$$Dividend_{i,t} = \alpha_0 + \alpha_1 Return_{i,t-1} + \alpha_2 Liquidity_{i,t-1} + \alpha_3 Debt_{i,t-1} + \alpha_4 Growth_{i,t-1} + \alpha_5 Size_{i,t-1} + \alpha_6 Sector_{i,t} + \alpha_7 Year_{i,t} + \alpha_8 ESG\_Country_{i,t-1} + \beta X_{i,t-1} + \varepsilon_{i,t}$$

where:

$Dividend_{i,t}$  – dividend payout ratio of the  $i$ -th company in year  $t$ ;

$Return_{i,t-1}$  – return on assets of the  $i$ -th company in year  $t-1$ ;

$Liquidity_{i,t-1}$  – current ratio of the  $i$ -th company in year  $t-1$ ;

$Debt_{i,t-1}$  – leverage ratio of the  $i$ -th company in year  $t-1$ ;

$Growth_{i,t-1}$  – growth opportunities measured by market-to-book value ratio of the  $i$ -th company in year  $t-1$ ;

$Size_{i,t-1}$  – size measured by the value of total assets of the  $i$ -th company in year  $t-1$ ;

$Sector_{i,t}$  – a binary variable that equals 1 if the sector in year  $t$  in which the  $i$ -th company mainly operates is technology, and 0 otherwise;

$Year_{i,t}$  – a binary variable that equals 1 if the  $DPR$  of the  $i$ -th company in year  $t$  is from the period between 2016 and 2022, and 0 otherwise;

$ESG\_Country_{i,t-1}$  – a binary variable that equals 1 if the overall sustainability score of the country of origin of the  $i$ -th company in year  $t-1$  is higher than the third quartile of all ESG scores at the country level, and 0 otherwise;

$X_{i,t-1}$  – a vector that represents the sustainability performance of the  $i$ -th company in year  $t-1$  and varies depending on the ESG scores considered in particular model specifications;

$\varepsilon_{i,t}$  – a random component.

Depending on the model specification, vector  $X$  can consist of:

$ESG\_Score_{i,t-1}$  – the aggregated sustainability score of the  $i$ -th company in year  $t-1$ ;

$E\_Score_{i,t-1}$  – the environmental pillar score of the  $i$ -th company in year  $t-1$ ;

$S\_Score_{i,t-1}$  – the social pillar score of the  $i$ -th company in year  $t-1$ ;

$G\_Score_{i,t-1}$  – the governance pillar score of the  $i$ -th company in year  $t-1$ ;

$CONT\_Score_{i,t-1}$  – the ESG controversies score of the  $i$ -th company in year  $t-1$ .

In estimating 17 model specifications, we applied panel data for 403 European companies listed on the Stoxx Europe 600 Index in the 13-year period. Subsequently, the pooled ordinary least squares (OLS) model was employed. The decision to opt for the pooled OLS model over the random-effects model or fixed-effects model was informed by the outcomes of both the F test and the Hausman test. Across all model specifications, the p-values of the F test are above 0.05, while the p-values of the Hausman test do not exceed 0.05.

## FINDINGS

The first model specification examines the impact of aggregated ESG performance on the amount of dividend payout. The coefficient for  $ESG\_Score$  is positive ( $\beta_1=0.722$ ) and statistically significant at 10%. Thus, an improvement in the overall ESG score leads to higher dividend payouts. The next three specifications reveal the separate effects of particular sustainability dimensions on the dividend payout ratio. The coefficients for all particular pillar scores are positive, but only  $S\_Score$  is statistically significant (Specification 3). Furthermore,  $S\_Score$  remains significant and positive when all particular pillar scores are considered together in one model (Specification 8) as well as in pairs (Specifications 5 and 7) (see table 1).

When  $CONT\_Score$  is introduced into the model, the coefficient for  $ESG\_Score$  becomes insignificant. It suggests that the ESG controversies score is more crucial for stakeholders than the basic ESG score. This is because it offers more detailed insights into a company's exposure to risks across environmental, social, and governance dimensions, thereby reducing information asymmetry. The  $CONT\_Score$  is consistently negative and significant in all model specifications, with values ranging between -0.599 and -0.560. The relationship between ESG controversies and the dividend amount is negative because mitigating risks in sustainability dimensions or taking actions to reduce their effects requires financial expenditures, which may lead to the necessity of reducing dividend payments. The only particular pillar score that is statistically significant in these model specifications is, once again,  $S\_Score$ . The coefficient for the social pillar score is positive (see table 2).

**Table 1. Estimation results of panel regression models without the ESG controversies score**

Variables	Model specifications							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Intercept</i>	-71.423 (0.714)	-93.789 (-0.489)	-65.150 (-0.347)	-120.272 (-0.653)	-67.743 (-0.351)	-93.766 (-0.488)	-65.015 (-0.349)	-67.547 (0.724)
<i>Return</i>	-2.586*** (-4.087)	-2.560*** (-4.058)	-2.554*** (-4.041)	-2.563*** (-4.039)	-2.553*** (-4.025)	-2.564*** (-4.052)	-2.552*** (-4.014)	-2.552*** (-4.002)
<i>Liquidity</i>	5.264 (1.053)	5.208 (1.039)	5.293 (1.058)	4.815 (0.956)	5.247 (1.047)	5.165 (1.031)	5.306 (1.061)	5.259 (1.049)
<i>Debt</i>	0.002 (0.064)	0.003 (0.086)	0.002 (0.064)	0.002 (0.071)	0.002 (0.062)	0.003 (0.081)	0.002 (0.065)	0.002 (0.063)
<i>Growth</i>	0.860*** (3.656)	0.864*** (3.592)	0.862*** (3.574)	0.856*** (3.578)	0.861*** (3.555)	0.863*** (3.605)	0.862*** (3.567)	0.861*** (3.548)
<i>Size</i>	5.067 (0.573)	7.096 (0.836)	4.843 (0.590)	8.775 (1.054)	5.021 (0.583)	6.965 (0.787)	4.874 (0.576)	5.040 (0.574)
<i>Sector</i>	-18.285** (-2.448)	-17.521** (-2.465)	-21.170** (-2.513)	-17.844** (-2.428)	-21.481*** (-2.712)	-17.388** (-2.467)	-21.260** (-2.520)	-21.547*** (-2.710)
<i>Year</i>	6.982 (0.383)	11.172 (0.650)	5.963 (0.343)	11.363 (0.602)	5.843 (0.340)	10.615 (0.560)	6.088 (0.327)	5.953 (0.322)
<i>ESG_Country</i>	-36.220** (-2.102)	-36.204** (-2.102)	-35.754** (-2.121)	-38.768** (-2.316)	-36.068** (-2.096)	-36.464** (-2.203)	-35.681** (-2.204)	-35.997** (-2.187)
<i>ESG_Score</i>	0.722* (1.843)	-	-	-	-	-	-	-
<i>E_Score</i>	-	0.304 (1.094)	-	-	-0.063 (-0.286)	0.286 (1.000)	-	-0.061 (-0.277)
<i>S_Score</i>	-	-	0.677** (2.099)	-	0.718*** (2.716)	-	0.685* (1.948)	0.723** (2.454)
<i>G_Score</i>	-	-	-	0.138 (0.447)	-	0.076 (0.243)	-0.025 (-0.074)	-0.021 (-0.062)
F test (p-value)	0.942 (0.785)	0.942 (0.782)	0.943 (0.778)	0.942 (0.784)	0.943 (0.779)	0.942 (0.783)	0.943 (0.777)	0.943 (0.779)
Hausman test (p-value)	41.325 (0.000)	41.457 (0.000)	41.404 (0.000)	42.146 (0.000)	42.280 (0.000)	42.458 (0.000)	43.435 (0.000)	44.249 (0.000)
F(k, n-1) (p-value)	3.984 (0.000)	4.304 (0.000)	4.242 (0.000)	4.785 (0.000)	3.839 (0.000)	4.520 (0.000)	4.662 (0.000)	4.248 (0.000)

Note: \*, \*\*, \*\*\* denote statistical significance at the 10%, 5%, and 1% level, respectively; the results of the t-Student test are given in parentheses.

Reference: own calculations

**Table 2. Estimation results of panel regression models with the ESG controversies score**

Variables	Model specifications								
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
<i>Intercept</i>	66.035 (0.455)	54.597 (0.380)	76.106 (0.541)	31.292 (0.247)	73.279 (0.500)	54.691 (0.393)	78.654 (0.581)	76.084 (0.540)	31.419 (0.246)
<i>Return</i>	-2.614*** (-4.151)	-2.594*** (-4.134)	-2.587*** (-4.121)	-2.593*** (-4.101)	-2.586*** (-4.104)	-2.594*** (-4.113)	-2.582*** (-4.079)	-2.581*** (-4.066)	-2.590*** (-4.119)
<i>Liquidity</i>	4.930 (1.009)	4.874 (0.996)	4.975 (1.019)	4.547 (0.925)	4.921 (1.005)	4.876 (0.997)	5.019 (1.029)	4.971 (1.016)	4.559 (0.927)
<i>Debt</i>	0.004 (0.131)	0.005 (0.154)	0.004 (0.132)	0.005 (0.144)	0.004 (0.129)	0.005 (0.152)	0.004 (0.135)	0.004 (0.133)	0.005 (0.149)
<i>Growth</i>	0.840*** (3.584)	0.843*** (3.527)	0.842*** (3.515)	0.833*** (3.501)	0.841*** (3.494)	0.843*** (3.525)	0.842*** (3.492)	0.841*** (3.473)	0.836*** (3.489)
<i>Size</i>	1.493 (0.198)	2.992 (0.421)	1.030 (0.149)	4.649 (0.699)	1.226 (0.167)	2.997 (0.408)	1.093 (0.155)	1.263 (0.170)	4.783 (0.807)
<i>Sector</i>	-18.330** (-2.452)	-17.667** (-2.486)	-20.963** (-2.481)	-18.103** (-2.464)	-21.314*** (-2.682)	-17.675** (-2.509)	-21.324** (-2.523)	-21.617*** (-2.710)	-18.217** (-2.426)
<i>Year</i>	7.700 (0.416)	11.276 (0.656)	6.493 (0.369)	12.011 (0.628)	6.358 (0.366)	11.307 (0.588)	7.003 (0.368)	6.865 (0.365)	12.438 (0.742)
<i>ESG_Country</i>	-34.569** (-2.097)	-34.419** (-2.090)	-34.004** (-2.113)	-36.533** (-2.324)	-34.358** (-2.087)	-34.403** (-2.205)	-33.687** (-2.208)	-34.009** (-2.190)	-36.433** (-2.253)
<i>ESG_Score</i>	0.620 (1.537)	–	–	–	–	–	–	–	–
<i>E_Score</i>	–	0.266 (0.949)	–	–	-0.071 (-0.321)	0.267 (0.933)	–	-0.062 (-0.281)	–
<i>S_Score</i>	–	–	0.616* (1.916)	–	0.662** (2.557)	–	0.648* (1.864)	0.687** (2.383)	–
<i>G_Score</i>	–	–	–	0.052 (0.154)	–	-0.004 (-0.013)	-0.099 (-0.277)	-0.095 (-0.266)	–
<i>CONT_Score</i>	-0.560* (-1.950)	-0.589** (-2.078)	-0.567** (-2.019)	-0.594** (-1.966)	-0.567** (-2.017)	-0.589* (-1.951)	-0.575* (-1.921)	-0.575* (-1.921)	-0.599** (-2.125)
F test (p-value)	0.944 (0.777)	0.944 (0.775)	0.945 (0.771)	0.944 (0.775)	0.945 (0.772)	0.944 (0.775)	0.945 (0.769)	0.945 (0.770)	0.944 (0.774)
Hausman test (p-value)	41.864 (0.000)	41.973 (0.000)	41.929 (0.000)	42.750 (0.000)	42.819 (0.000)	43.040 (0.000)	43.986 (0.000)	44.806 (0.000)	41.549 (0.000)
F(k, n-1) (p-value)	3.587 (0.000)	3.894 (0.000)	3.853 (0.000)	4.534 (0.000)	3.522 (0.000)	4.225 (0.000)	4.362 (0.000)	4.042 (0.000)	3.909 (0.000)

Note: \*\*, \*\*\* denote statistical significance at the 10%, 5%, and 1% level, respectively; the results of the t-Student test are given in parentheses.

Reference: own calculations

## CONCLUSIONS

Our research gives four main conclusions:

- the aggregated ESG score has a statistically significant and positive impact on the dividend payout ratio (*DPR*), but only when considered in the model specification without the controversies ESG score (*CONT\_Score*);
- the impact of the social pillar is both significant and positive, whereas the effects of the other pillars are insignificant;
- the effect of *CONT\_Score* on *DPR* is statistically significant and negative;
- including *CONT\_Score* in the model specifications does not affect the impact of the social pillar score on *DPR*.

Since not all sustainability variables revealed statistical significance, only the third and fifth research hypotheses can be confirmed.

The results indicate that managers ought to place a heightened emphasis on addressing controversies within ESG dimensions, particularly within the realm of social sustainability dimension, which includes workforce practices, community engagement, human rights, and product responsibility. Moreover, CSP, presented by independent rating agencies through ESG scores, should be transparently disclosed to bridge the information gap between the company and its stakeholders. Of particular importance is the controversy ESG score, which is significant in our research and reflects the risk of controversies regarding the ESG dimensions of corporate sustainability.

The novel contribution of this paper lies in the exploration of the relationship between ESG performance and dividend payouts, an area not extensively investigated in previous studies, particularly concerning a company's controversial ESG actions. Future research should consider CSP from the perspective of ESG controversies, as they are significant for dividend policy.

The main limitation of our study is the composition of the research sample, which mainly comprises companies from EU countries with high sustainability levels. Thus, further research on the link between ESG performance and dividend policy should include extended representation of companies from Central and Eastern Europe and compare the results between higher and lower sustainability countries.

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