

ESG SCORES AND FIRM'S PERFORMANCE IN EASTERN AND SOUTHERN EUROPE

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Abstract Sophisticated investment seems to no longer happen without considering a firm's ESG scores, ranking, or sustainable initiatives, but is this narrative of companies having a positive impact on society consistent with delivering alpha, does it translate into better firm performance? Established markets around the world benefit from numerous studies into the ESG impact on firm performance - the aim of this paper is targeted at investigating the effect of ESG scoring on a firm's performance in emerging capital markets in Eastern and Southern Europe. I conducted research from a sample of companies reporting on ESG from developing markets, with financial performance measured through ROA, ROE, Debt-to-Equity Ratio, and P/E, with panel data from 2018-2022, using STATA to run a multivariate regression to test for correlations. The results show that there is a positive statistical relationship between ESG and firm performance, but financially meaningful ESG integration in emerging markets requires more than the generalist approach to ESG issues.

Keywords:

ESG,
emerging markets,
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firm performance,
sustainability
impact

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1 Introduction

The origin of the ESG term can be traced back to the early 2000s, with the term first coined in the landmark *Who Cares Wins* report, a collaborative initiative by 23 global leading financial institutions at the invitation of the United Nations, which highlighted the importance of sustainable business practices, thus becoming the catalyst for the emergence of ESG investing (United Nations, 2004; Gillan, 2021).

Sustainable investment, or sustainable responsible investing (SRI), simply means investing without causing harm to society, and has its roots in ancient times when religious laws guided people's actions, urging them to avoid damaging and illegitimate activities (Tripathi, 2020). In pre-modern times, the Quakers movement shifted towards responsible investing by avoiding investments in armament or tobacco companies (Tripathi). ESG investing later transitioned from negative to positive screening, which involved identifying companies that have a positive impact on society and the environment (Tian, 2021; Cappucci, 2018; Landi, 2019).

ESG investing considers these factors in addition to conventional financial analysis to identify investments that align with investors' values and long-term sustainability goals, and to fund companies that are working towards a more sustainable future.

In emerging and frontier markets however, investors are not as focused on sustainability and ESG factors, in part due to operational difficulties stemming from a lack of regulatory oversight and disproportionate governance (Odell, 2016), as well as a focus on more traditional investment strategy.

Numerous studies have examined the relationship between ESG and firm performance in established markets around the world, but little research has been conducted in emerging capital markets in Eastern and Southern Europe.

This paper aims to answer the following research questions: is there a positive relationship between higher ESG scores and firm performance in emerging markets? Do higher ESG scores reflect that companies with sustainability practices are indeed returning better profits? Or are traditional ESG scores in emerging markets misleading, given the limited data available?

2 Literature Review

Scholars around the world have explored the relationship between sustainable investment and firm performance - the academic literature published over the last four decades presents enough empirical data to support a strong link between ESG factors and the positive impact they have on firm performance and a company's bottom line (Brooks, 2018; Ding, 2022; Eliwa, 2021; Grote, 2022; Ting, 2019; Yu, 2021).

Friede's (2015) study provides an extensive review of academic research on the relationship between ESG criteria and corporate financial performance (CFP), with a comprehensive analysis of over 2200 individual studies, amounting to the most exhaustive overview of the topic to date. The results show that approximately 90% of the studies find a non-negative relationship between ESG and CFP, stable over time and across different regions and asset classes, thus reinforcing the idea that higher ESG scores translate into better financial performance.

In their 2016 paper, Khan and Serafeim (2016) investigate how corporate sustainability impacts financial performance by analyzing data from 2396 firms, and discover that sustainability issues relevant to a company's operations, stakeholders, and the environment can significantly affect financial performance. The Khan study suggests that companies prioritize such issues to create value for stakeholders and improve financial performance, but the impact differs depending on the industry and specific sustainability issues.

Cappucci (2018) insists that ESG inclusion into investment strategies is not for the half-hearted, and that layering up a few sustainable principles on top of a traditional investment approach is not only unsuccessful, but unnecessarily costly for a firm, and instead presents evidence to show that a systematic and explicit framework for ESG incorporation is what ultimately increases firm performance.

Odell (2016) argues that active ownership and investors using more than an ESG quantitative scoring methodology and incorporating the more qualitative ESG aspects into their valuation models and decision-making results in higher returns and a better mitigation of risks. Odell (2016) also makes a vital distinction between CSR and ESG factors, with CSR embodying a more charitable approach, autonomous from the core commercial enterprise, whereas ESG factors translate into policies

and strategies that drive long-term value creation for the firm. Overall, Odell believes that combining material ESG factors with conventional investment due diligence can result in better investing strategies (Odell, 2016).

Kotsantonis (2019) expresses skepticism about just how precisely ESG data reflects firm performance, claiming that data inconsistency in how different companies report poses an incredible challenge in measuring ESG investment and performance. For more context, Kotsantonis used a randomized selection of 50 Fortune 500 companies and manually collected information on how they report on a specific sustainability issue (employee health and safety) and found over 20 different reporting styles, with distinct terminology and units of measure. Given the complicated reality of ESG data providers using different industry classifications, building their individual models for scoring and applying different methodologies to interpret the identical publicly available data, Kotsantonis encourages data providers to establish best practices and become more transparent about their methodologies and the trustworthiness of their data (Kotsantonis, 2019).

Mobius (2021) argues that in emerging markets, off-the-shelf ESG solutions such as ESG ratings are no replacement for deep research and expertise in the company's industry and sector in which it operates, with ESG ratings seen as backward-looking and failing to provide investors with that needed competitive edge.

Jain (2019) finds no significant differentiation in performance between financially established and sustainable indices and advises investors on how to gain more insight by considering both indices types when structuring their portfolios, with a hedging and diversification strategy in mind.

3 Methodology

To investigate the relationship between ESG scores and firm performance, we posed two main research questions to explore if sustainable business activities contribute to better company performance and if the limited data available in European emerging markets negatively impacts observed correlations.

Our study aimed to analyze the correlation between ESG scores and financial metrics (ROA, ROE, P/E, Debt-to-Equity), with a focus on individual ESG pillars to determine which factor drives financial performance. Using Refinitiv Eikon

Screeener database, I gathered data for 2706 listed companies from 18 emerging markets in Eastern and Southern Europe for the period of 2018-2022. Out of the 2706, only 73 companies reported ESG scores, and we used the three separate ESG pillars as independent variables to identify key drivers of financial performance.

We analyzed 5-year panel data from listed companies in emerging Eastern and Southern European markets to assess the link between ESG factors and firm performance. All the panel data was extracted from financial annual statements downloaded from Refinitiv Eikon. We ran a STATA regression analysis, considering winsorized independent variables (including ESG Score, E Pillar Score, S Pillar Score, and G Pillar Score calculated by Refinitiv Eikon) and dependent variables (ROA, ROE, P/E, and Debt-to-Equity) while controlling for Total Assets (natural logarithm) and the time dimension. Companies without an ESG score or with missing data were excluded from the sample, leaving firms from 8 countries: Cyprus, Czech Republic, Gibraltar, Greece, Hungary, Malta, Romania, and Slovenia.

4 Results

Table 1 provides an overview of the variables ROA, ROE, P/E, ESG Score, E Score, G Score, S Score, and Total Assets. We ran multiple regressions to test for correlations between ROA, ROE and ESG Scores (consolidated and individually), with Debt/Equity used as a control variable (Table 2).

Table 1: Descriptive statistics and data visualization

Variable	Obs	Mean	Std. dev.	Min	Max
Return on Assets	182	.0599027	.0549828	.0008681	.2486204
Return on Equity	182	.1540089	.1053267	.0063114	.4722753
Price/Earnings	182	14.82887	9.980482	1.867327	37.01501
ESG Score	182	50.88476	18.9186	5.121528	85.15359
Env. Score	182	41.87206	25.85827	0	90.9751
Social Score	182	53.04013	23.69585	2.711288	97.146
Governance Score	182	57.80342	29.25279	4.135611	146.1973
Total Assets	182	8.024446	1.771755	4.519275	11.33807

Table 2: Regression Results: Correlation test between Return on Assets & ESG

Source	SS	df	MS	Number of obs	=	182
				F(3, 178)	=	23.93
Model	.157275042	3	.052425014	Prob > F	=	0.0000
Residual	.389906879	178	.002190488	R-squared	=	0.2874
				Adj R-squared	=	0.2754
Total	.547181921	181	.003023105	Root MSE	=	.0468

Return on Assets	Coefficient	Std. err.	t	P>t	[95% conf. interval]	
ESG Score	.0000135	.0002364	0.06	0.955	-.000453	.0004799
Total Assets	-.015918	.0025285	-6.30	0.000	-.0209078	-.0109283
Debt/Equity	-.0156208	.0049957	-3.13	0.002	-.0254792	-.0057623
_cons	.1975541	.016727	11.81	0.000	.1645453	.2305629

The correlation coefficient (r) of 0.16 indicates a weak positive correlation between the ESG Score and Total Assets. This means that as the ESG score increases, Total Assets tend to increase slightly as well, but the relationship is not very strong. The t -value of 0.06 also suggests that the relationship between ESG score and Total Assets is not statistically significant.

Table 3: Regression Results: Correlation test between Return on Assets & Env. Score

Source	SS	df	MS	Number of obs	=	182
				F(3, 178)	=	23.94
Model	.157322035	3	.052440678	Prob > F	=	0.0000
Residual	.389859886	178	.002190224	R-squared	=	0.2875
				Adj R-squared	=	0.2755
Total	.547181921	181	.003023105	Root MSE	=	.0468

Return on Assets	Coefficient	Std. err.	t	P>t	[95% conf. interval]	
Env. Score	.0000259	.0001647	0.16	0.875	-.0002991	.0003509
Total Assets	-.0160454	.0024061	-6.67	0.000	-.0207936	-.0112972
Debt/Equity	-.0156735	.0050071	-3.13	0.002	-.0255543	-.0057926
_cons	.198213	.0173022	11.46	0.000	.164069	.2323569

Table 4: Regression Results: Correlation test between Return on Assets & Social Score

Source	SS	df	MS	Number of obs	=	182
				F(3, 178)	=	24.09
Model	.158012687	3	.052670896	Prob > F	=	0.0000
Residual	.389169234	178	.002186344	R-squared	=	0.2888
				Adj R-squared	=	0.2768
Total	.547181921	181	.003023105	Root MSE	=	.04676

Return on Assets	Coefficient	Std. err.	t	P>t	[95% conf. interval]	
Social Score	.0001083	.0001856	0.58	0.560	-.000258	.0004747
Total Assets	-.0167045	.0024737	-6.75	0.000	-.021586	-.011823
Debt/Equity	-.0161186	.005061	-3.18	0.002	-.0261058	-.0061314
_cons	.1991412	.0169215	11.77	0.000	.1657486	.2325337

The t-value of 0.58 indicates that the coefficient for the Social Score variable is not statistically significant. This means that the estimated relationship between the Social Score and Total Assets is likely due to chance variation and is not strong enough to be considered a true relationship. The R-squared value of 0.2888 suggests that only about 29% of the variation in total assets can be explained by the variation in the Social Score variable. The adjusted R-squared value of 0.2768 is slightly lower and considers the number of variables in the model.

Table 5. Regression Results: Correlation test between Return on Assets & Governance Score

Source	SS	df	MS	Number of obs	=	182
				F(3, 178)	=	24.10
Model	.158068473	3	.052689491	Prob > F	=	0.0000
Residual	.389113448	178	.002186031	R-squared	=	0.2889
				Adj R-squared	=	0.2769
Total	.547181921	181	.003023105	Root MSE	=	.04676

Return on Assets	Coefficient	Std. err.	t	P>t	[95% conf. interval]	
Governance Score	.0000727	.0001202	0.61	0.546	-.0001645	.0003099
Total Assets	-.0159889	.001983	-8.06	0.000	-.0199021	-.0120758
Debt/Equity	-.015411	.0049941	-3.09	0.002	-.0252664	-.0055557
_cons	.1944609	.0174266	11.16	0.000	.1600716	.2288502

The t-value of 0.61 indicates that the coefficient for the Governance Score variable in a regression analysis is not statistically significant. This means that the estimated relationship between the Governance score and Total Assets is likely due to chance variation and is not strong enough to be considered a true relationship.

5 Discussion

The regression analysis suggests a weak and potentially insignificant positive association between the ESG Score and ROA. This finding implies the possibility of additional unaccounted factors that may exert a more substantial influence on ROA. The t-value of 0.06 suggests that the coefficient estimate does not significantly deviate from zero, indicating that the relationship between ESG Score and ROA may not achieve statistical significance at the conventional 0.05 level. Additionally,

the R-squared value of 0.2874 denotes that approximately 28.74% of the variation in ROA can be explained by the variation in ESG Score, revealing that the ESG Score's impact on ROA is not markedly robust, and other determinants likely also contribute to ROA.

The present study is subject to certain limitations, including a relatively low number of companies reporting on ESG scores in Eastern and Southern Europe, which is further compounded by the lack of available data over the selected 5-year period. Despite these limitations, the study provides valuable insights that can inform future research on the relationship between ESG and financial performance. As ESG reporting becomes increasingly mandated by legislation and market participants demand greater consistency and transparency in ESG data, new studies may emerge that are better equipped to analyze the specific ESG pillars that are most relevant to improved profitability. Policy makers can also leverage this knowledge to identify gaps in ESG reporting and draft regulations that target these missing data. Additionally, listed company decision-makers may be incentivized to incorporate more sustainable practices into their performance strategies if such practices lead to improved financial performance and greater investor preference.

6 Conclusion

This is a first attempt at drawing an impactful correlation between ESG factors and firm performance, with a focus on emerging European markets. The promise of ESG factors being the catalyst for a safer, more just world and a healthier planet while stimulating capital markets around the world to reward sustainable investments and enterprises is ever so appealing, but there is much work left to do. At this inflection point in time, most studies show that there is a positive ESG impact on capital markets, but emerging markets need to catch up, there is a dire need for standardization of how ESG information is reported and interpreted, and as Serafeim (2018) highlighted, it would be naïve of us to believe that the private sector, at company level, is and will be able to solve all the common good troubles we are facing.

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