



Funding information: Not applicable. **Conflicts of interests:** None. **Ethical considerations:** The Author assures of no violations of publication ethics and takes full responsibility for the content of the publication.

RELATIONSHIP BETWEEN ESG SCORES AND NET PROFIT GROWTH IN THE LIGHT OF FACTORS DETERMINING IT

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<https://doi.org/10.18778/2391-6478.2.46.04>

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ABSTRACT

The purpose of the article. The aim of the article is to analyze the growth of net profits in the context of factors influencing it, taking into account ESG strategy implemented by companies.

Methodology. In the research, data from 238 matured, European companies, covering the period from 2013 to 2023, was analyzed. OLS models were tested, taking into account heteroscedasticity correction.

Results of the research. As a result of the research, it was found that the profitability of assets and their size have a positive impact on the increase in net profits of the surveyed enterprises, but ESG has a negative influence on this increase, with environmental and social scores being statistically significant, while governance does not significantly affect the increase in profits, and therefore value creation.

Keywords: ESG Scores, ESG Pillars, Profitability, Net Profit Growth.

JEL Class: G10, G15, G30, G32, Q56.

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The Relationship Between ESG Scores and Net Profit Growth in the Light of Factors Determining It

Enhanced net profits directly translate into an increased enterprise value, a primary objective for any business. Comprehending the causal link between ESG characteristics and financial outcomes is crucial for validating the efficacy of ESG investing. Shifts in a company's ESG profile can serve as valuable financial indicators. Moreover, ESG ratings can be effectively integrated with political benchmarks and financial analyzes.

Three primary channels transmit the influence of ESG information on company valuations and performance: cash flow, risk, and valuation (Giese et al., 2019). The Cash Flow Channel: High ESG scores are associated with lower perceived risk, leading to decreased capital costs, higher valuations, and improved financial performance. Improved ESG conditions directly benefit company cash flows, positively impacting overall performance. Stakeholder attitudes significantly influence cash flows. Positive stakeholder sentiment, driven by strong ESG performance, mitigates cash flow risk. However, excessive ESG expenditures, particularly in developing countries, may deter investors (Gregory, 2022; Dash & Sethi, 2024; Cheng & Feng, 2023). The Risk Channel: High ESG ratings indicate better risk management across various dimensions, including systemic, regulatory, supply chain, product, technology, litigation, reputational, and physical risks (Starks, 2009). While operational risks are commonly addressed in research, ESG considerations encompass a broader spectrum of risks. Companies with strong ESG scores exhibit lower stock price volatility, suggesting a reduced specific risk. However, negative ESG news can significantly impact firm volatility (Sabbaghi, 2022; Bax et al., 2023). The Valuation Channel: High ESG scores lead to higher valuations due to lower capital costs. Reduced risks enable companies to secure cheaper debt and equity financing. Increased transparency in internal processes and management, driven by strong ESG practices, enhances investor confidence (Shad et al., 2020; Ramirez et al., 2022). While some studies suggest that ESG expenditures can increase costs and reduce a company value (Chen et al., 2023), the overall impact on valuation is generally positive. The relationship between ESG reporting and financial performance is complex and subject to ongoing debate. While some argue that the relationship is not causal or that ESG research methodologies have limitations, there's growing consensus on the importance of ESG considerations for businesses. Stakeholders, including investors, consumers, employees, and governments, increasingly prioritize ESG factors. This growing demand necessitates a comprehensive understanding of the interplay between ESG and financial performance for both investors and companies.

This article examines the increase in a firm value resulting from profitability growth, analyzed through an ESG lens. A key factor influencing profitability and, consequently, a firm value, is the cash conversion cycle. This cycle reflects the efficiency of converting assets into cash. Key components include a current ratio, total asset turnover, net profit margin, and sales. Effective cash conversion cycle management ensures a rapid conversion of assets into cash, consistent sales growth with controlled costs,

and improved net profit margins, all indicative of strong operational efficiency (Chang, 2018; Doğan & Kevser, 2020). Investors typically expect high total asset turnover and net profit margins, while favoring lower current ratios and current liabilities to inventory ratios. High current ratios may indicate excessive idle assets, potentially hindering profitability. Similarly, high current liabilities to inventory ratios suggest high dependence on suppliers, increasing the risk of delayed payments and potential disruption to operations. The effect of firm size on profitability is debated. While larger companies enjoy greater revenue opportunities, they also incur higher costs, potentially limiting profit growth. Ultimately, a well-managed cash conversion cycle, driven by efficient operations and effective financial management, is crucial for maximizing firm value and achieving sustainable growth. This article aims to investigate the factors influencing profit growth, with a specific focus on the impact of Environmental, Social, and Governance (ESG) policies. The study seeks to empirically test the hypothesis that strong ESG performance contributes to increased profit growth. By examining both overall ESG scores and the individual contributions of environmental, social, and governance factors, this research aims to advance the understanding of the relationship between ESG and financial performance. The article consists of an introduction, literature review, description of data and research methods, research results, discussion and conclusions.

Literature Review

The literature on profit growth and the impact of ESG policy on the value determined by a profit growth, among others, continues to develop. Kalsum (2023) analyzed factors influencing the increase in profits in banking sector on the Indonesia Stock Exchange in 2015–2020. It was found that Net Interest Margin has a significant positive impact on earnings growth and banks that manage their interest-bearing assets efficiently and generate higher net interest margins achieve a greater profit growth. ROA has a significant positive impact on earnings growth. The higher the ROA, the greater the company's efficiency in generating profits using its assets, which translates into a higher profit growth (Kalsum, 2023).

Andriani and Setiawati (2024) used data from the annual financial statements of 30 selected companies in Indonesia. They found that CR has a positive impact on earnings growth. A high CR means a stable financial situation of the company and the ability to effectively manage finances, which translates into better risk management and investment decisions. Total Asset Turnover showed a negative impact on earnings growth. This suggests that merely improving the efficiency of using assets to generate sales does not always translate into a proportional increase in profits. It is possible that companies use low prices to increase sales, which reduces profit margins. Sales growth has a direct and positive impact on profit growth. Increasing sales without a proportional increase in operating costs leads to an increase in net profit. Additionally, sales growth's long-term impact on profit growth comes from building customer loyalty and increasing market share. The analysis showed a negative impact of

company size on profit growth. Large companies may have higher operating costs due to their scale, which can limit profit growth. Factors having no significant influence in that research include Inventory coverage ratio and Net Profit Margin (NPM) (Andriani & Setiawati, 2024).

Endri et al. (2020) analyzed factors influencing the growth of profits of companies from the food and beverage sector listed on the Indonesia Stock Exchange (IDX) in 2014–2018. They found that the higher the Total Asset Turnover ratio, the more effectively the company's assets are used to generate sales, which translates into higher profits. Moreover, a high net profit margin indicates a company's effectiveness in managing costs and generating sales profits. Sales growth, supported by effective management, leads to an increase in the company's revenues and profits. On the other hand, it was found that some factors influenced net profit margin growth in a negative way and a high Current Ratio may indicate an excessive amount of current assets that are not being used effectively in the company's operations, which can lead to a decline in profits. A high Current Liabilities Coverage Ratio indicates a company's high dependence on suppliers and a high level of short-term debt, which may generate high interest costs and reduce profits (Endri et al., 2020).

Danbolt et al. (2011) found that earnings growth has a significant impact on a company's value. According to the Miller-Modigliani model (1961), the value of a company can be divided into the value of fixed assets and the value of growth opportunities (Miller-Modigliani, 1961). The value of growth opportunities is the net present value (NPV) of future investment projects. Earnings per share (EPS) growth is a more reliable indicator of a company's value than growth in sales, assets, or equity. An increase in EPS indicates that the company is implementing profitable projects with a positive NPV. However, it should be remembered that an increase in profits alone does not guarantee an increase in the company's value. Investments may be misdirected, made for reasons other than shareholder interests, or high profitability may attract competition, resulting in lower profits in the long run. Although earnings growth is an important factor in a company's value, it is not the only factor that should be taken into account. Other factors such as capital structure, dividend policy and risk management also play an important role (Danbolt et al., 2011).

The study of Cherkasova and Nenuzhenko (2022) examined the impact of ESG investments on the financial performance of multinational companies in seven regions: North America, Latin America, Western Europe, Eastern Europe, the Middle East and Africa, developing Asia and developed Asia. It was found that the region in which a company is based affects the relationship between financial performance and investments in ESG projects. Moreover, companies in North America, Developing Asia, and Developed Asia benefit from ESG investing. It was also found that Eastern European companies demonstrate effective ESG implementation, likely due to their proximity to Western Europe. Companies in the Middle East, Africa, and Latin America do not see significant benefits from implementing ESG. It was also found that internationalization leads to a positive relationship between ESG activities and the financial performance of companies in Developing Asia and Developed Asia. Internationalization does not affect this relationship for North American and Western European firms.

Internationalization negatively affects the relationship between ESG activities and the financial performance of companies in the Middle East, Africa, and Latin America. ESG initiatives lower the credit ratings of companies in Latin America, North America, and Developed Asia. Internationalization mitigates this negative effect for firms in North America and Developed Asia. Multinational companies in Developing Asia are improving their credit ratings by engaging in ESG projects. For Western European companies, ESG initiatives increase credit ratings, but internationalization weakens this positive effect. For companies in the Middle East and Africa, internationalization produces an inverse relationship between ESG initiatives and credit rating. ESG practices do not have a significant impact on the credit rating of Eastern European companies. It was concluded that Latin American companies face significant challenges when implementing ESG projects and should receive support from more developed regions. Investors interested in companies actively participating in ESG should consider multinational companies based in Emerging and Developed Asia or North America (Cherkasova & Nenuzhenko, 2022).

Zhou et al. (2022) analyzed the relationship between ESG performance, financial performance, and market value of listed companies on the stock exchange in China. The study focuses on whether improving ESG performance translates into an increase in a company's market value, and if so, how financial performance plays a mediating role in this process. It was found that improving ESG scores contributes to increasing a company's operational capabilities but does not have a significant impact on its profitability and ability to grow but improving ESG results helps increase the company's market value. Operational ability is one of the most important factors mediating the impact of ESG results on the company's market value (Zhou et al., 2022).

Giese et al. (2019) focused on three areas within the standard discounted cash flow (DCF) model related to ESG: the cash flow channel, the idiosyncratic risk channel, and the valuation channel. Companies with a high ESG score are more competitive, which translates into higher profitability and higher dividends. Examination of data from 2007–2017 confirmed that companies with the highest ESG ratings were characterized by higher profitability and paid higher dividends compared to companies with the lowest ratings. The authors argue that companies with strong ESG ratings have better risk control and compliance standards, leading to fewer major incidents such as fraud, embezzlement, corruption, or lawsuits. As a result, companies with high ESG ratings are characterized by lower idiosyncratic risk, which translates into lower share price volatility. Companies with the highest ESG ratings had lower volatility and kurtosis of stock returns compared to companies with the lowest ratings. A strong ESG profile leads to higher valuations through a lower systematic risk and a lower cost of capital. Companies with high ESG ratings are less susceptible to market shocks, which translates into lower beta and lower cost of capital. Companies with the highest ESG ratings had lower beta, higher price-to-book (P/B) ratios, and higher price-to-earnings (P/E) ratios compared to companies with the lowest ratings (Giese et al., 2019).

Pérez et al. (2022) indicated that companies that do not incorporate ESG aspects into their business strategies risk losing public trust, which could lead to a decline in value in the long run. Ignoring the growing importance of ESG factors, such as climate change, the impact on markets, or the health and safety of suppliers, may lead to an incorrect assessment of the market situation and make it difficult to achieve long-term goals. Companies, especially those with a significant impact on the environment (e.g., high-emitting industries) that delay implementing ESG principles until "perfect" data and "error-free" rating systems are developed, may lose their *raison d'être* in the next 20–30 years. While there is no clear evidence that high ESG ratings translate into better financial performance, companies that show improvement in these rankings often achieve higher shareholder returns compared to their competitors (Pérez et al., 2022).

Lubis and Rokhim (2021) presented the results of a study conducted on 52 companies listed on the Indonesia Stock Exchange (IDX) between 2015 and 2019 and found that ESG disclosures hurt companies' financial performance. This means that the better a company was at disclosing ESG information, the worse its financial performance. There are several potential explanations for this phenomenon as the costs of ESG implementation. Shareholders may perceive ESG disclosures as an additional cost that does not provide direct financial benefits. Companies from sectors with a high environmental impact may incur significant costs in adapting to new standards. The study also found that a company's competitive advantage has a positive but statistically insignificant effect on the relationship between ESG disclosures and company performance. This means that competitive advantage may amplify the positive impact of ESG disclosures on performance, but this effect is not yet clear (Lubis & Rokhim, 2021).

Oprean-Stan et al. (2020) found that there are companies for which compliance with ESG principles brings benefits, but there are also those for which it generates costs without bringing tangible benefits. It is more likely that companies that adopt ESG will succeed than that adopting ESG will make them successful. Investors can make profits by investing in ESG-compliant companies during transitional periods, but this will result in lower returns in the long term. Research on the impact of ESG on companies' financial performance is inconclusive and the relationship between them is weak. Markets are more likely to punish companies that do not meet ESG standards than to reward those that do (Oprean-Stan et al., 2020).

Cornell and Damodaran (2020) concluded that there is no clear evidence that high ESG ratings automatically translate into better financial results for companies. Companies that effectively implement shared value strategies can achieve better results, benefiting both society and their shareholders. There are successful companies that do not rank at the top of ESG rankings. Investors should focus on analyzing specific ESG factors relevant to a given industry and company strategy, rather than relying on general ESG rankings. Companies often do not report the economic benefits resulting from implementing ESG, which makes it difficult for investors to assess their impact on financial results (Cornell & Damodaran, 2020).

Porter et al. (2019) focused on the relationship between reporting non-financial data, including ESG factors, and companies' financial, market, and sustainable growth performance. It analyzed 50 companies included in the STOXX Europe 50 index in 2013–2020. It was found that there is no clear evidence of a positive relationship between reporting non-financial data and companies' financial performance, despite research suggesting such a correlation. Improper management of ESG factors, especially social aspects, harms companies' financial results. Managing environmental and social aspects in the context of ESG has a positive impact on the sustainable development of companies. No relationship was found between non-financial reporting and sustainable growth, ESG risk and market performance, or involvement in controversial events and financial and market performance (Porter et al., 2019).

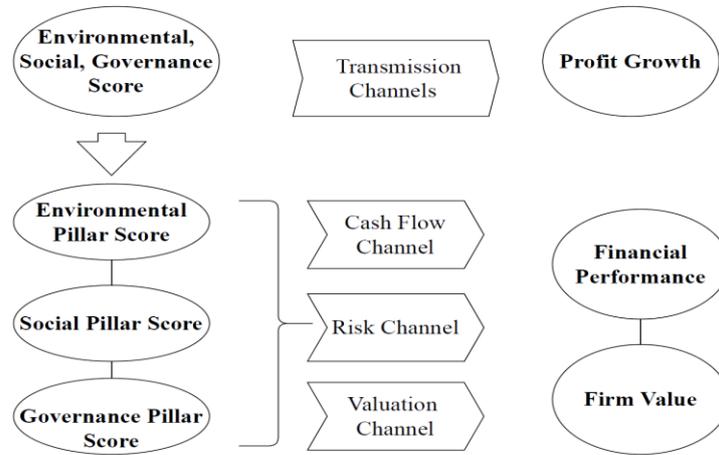
Data and Methodology

The data originates from the S&P Global database, which, beyond financial information, evaluates companies on their sustainability performance (availability, quality, relevance, and performance) using a 0–100 scale. This database, aimed at assessing ESG risks, opportunities, and impacts, is built through company disclosures, media and stakeholder analysis, modeling techniques, and the S&P Global Corporate Sustainability Assessment (CSA). S&P Global's ESG scoring offers a quantitative evaluation of a company's sustainability performance, mainly derived from their CSA. This scoring system assesses companies across environmental, social, and governance criteria, employing a double materiality lens to capture both the company's impact on the world and how ESG factors affect its financial well-being. Scores range from 0 to 100, indicating how effectively a company manages its ESG risks and opportunities compared to its industry counterparts. Companies taken into consideration include public non-financial entities in a legal form of shareholder companies traded on a European stock exchanges.

To examine the relationship between ESG scores and net profit growth, ESG scores, assets, intangible assets, ROA, ROE, debt/assets, and net profit growth variables are selected. While examining this relationship, the Environmental score, social score, Governance score, as well as the total scores of ESG, are considered separately to evaluate the impact of different factors and make policy recommendations accordingly. In selecting these variables, studies in the literature analyzing the relationship between ESG scores and profitability and firm value are used. To reveal this relationship, which is known to occur through three transfer channels called cash flows, risk, and valuation, the factors affecting the cash conversion cycle are discussed in the analysis. In this way, it is aimed to evaluate the impact that the positive perception of companies with high ESG scores by investors, consumers, and employees will have on the financial performance of the company. This study is conducted with the expectation that this perception would have a positive impact on the growth of the company's net profit. The framework guiding this study is illustrated below.

Figure 1

The relationship between ESG scores and profit growth



Source: own research.

In the analysis, Developed Europe data from the S&P Global dataset is used. To increase the reliability of the analysis and minimize data loss, data from 238 companies whose data are accessible between 2013 and 2023 are used. Profit growth can be determined by many variables. Variables selected for this study include the profitability of assets and equity capital, the size of enterprises, their innovativeness, capital structure and the level of ESG, also divided into subgroups regarding environmental activity, social activities and the corporate governance. In the research part, the hypotheses shown below is verified.

For total ESG;

$$NPG_i = \alpha + \beta_1 ROE_{0i} + \beta_2 ROA_{0i} + \beta_3 ESG_{0i} + \beta_4 D/A_{0i} + \beta_5 IA_{0i} + \beta_6 IIA_{0i} + \varepsilon_{it}$$

For ESG pillars;

$$NPG_i = \alpha + \beta_1 ROE_{0i} + \beta_2 ROA_{0i} + \beta_3 E_{0i} + \beta_4 D/A_{0i} + \beta_5 IA_{0i} + \beta_6 IIA_{0i} + \varepsilon_{it}$$

$$NPG_i = \alpha + \beta_1 ROE_{0i} + \beta_2 ROA_{0i} + \beta_3 S_{0i} + \beta_4 D/A_{0i} + \beta_5 IA_{0i} + \beta_6 IIA_{0i} + \varepsilon_{it}$$

$$NPG_i = \alpha + \beta_1 ROE_{0i} + \beta_2 ROA_{0i} + \beta_3 G_{0i} + \beta_4 D/A_{0i} + \beta_5 IA_{0i} + \beta_6 IIA_{0i} + \varepsilon_{it}$$

where: NPG – net profit growth; ESG – ESG score; ROE – return on equity; ROA – return on assets; E – environmental score; S – social score; G – governance score; IA – Assets (log); IIA – intangible assets (log); D/A – debt/asset ratio.

Table 1 presents the statistics of the analyzed variables.

Table 1*Variable statistics*

Variable	Mean	Median	Minimum	Maximum
ESG	59.2640	58.0000	7.00000	94.0000
E	61.9704	64.0000	6.00000	100.000
S	56.1296	55.0000	5.00000	97.0000
G	60.5196	59.0000	7.00000	94.0000
Assets	168,966,000	20,074,300	564.823	3,044,030,000
Intangible Assets	7,493,600	2,064,250	0.000000	186,814,000
ROA	5.45259	3.58700	-114.309	2599.00
ROE	12.6908	10.9905	-920.192	596.786
Net Profit Growth	27.4442	6.87730	-100.726	978.400
Debt/Asset	0.223722	0.208032	-0.000240615	7.63747
Variable	Std. Dev.	C.V.	Skewness	Ex. Kurtosis
ESG	18.5934	0.313739	-0.0207028	-1.13730
E	22.4395	0.362100	-0.310439	-0.918620
S	20.2945	0.361565	0.0442582	-1.12022
G	17.6322	0.291347	-0.0455660	-1.06658
Assets	389,310,	2.30407	3.89615	17.9164
Intangible Assets	16,335,600	2.17994	6.07322	49.4972
ROA	52.0840	9.55216	49.0980	2442.67
ROE	37.9265	2.98849	-4.19149	224.740
Net Profit Growth	106.501	3.88063	3.99004	22.2680
Debt/Asset	0.307669	1.37523	11.9763	255.483

Source: own research.

Results

The results of the research that has two stages are presented below. First, the effect of information about companies' total ESG scores on the net profit growth is examined. Subsequently, the environmental, social, and corporate impacts that constitute ESG are evaluated separately. In this way, it is attempted to determine which ESG factor companies should focus on to improve their financial performance. It has been observed which of these factors all stakeholders – investors, consumers, suppliers, and government – react more to, and suggestions have been made for companies and investors.

The heteroscedasticity-corrected OLS model is used in this analysis. In the analysis, OLS is applied for the heteroscedastic model instead of OLS, which assumes that the variance of the error term is constant (Westort, 2010).

Table 2 presents a model in which, in addition to the classic variables determining net profit growth, the ESG indicator was taken into account.

Table 2*ESG Score – Net Profit Growth: Heteroskedasticity-corrected OLS Model*

	Coefficient	Std. Error	t-ratio	p-value	
const	-15.93	25.0609	-0.6356	0.52508	
ROE	0.0740662	0.0633846	1.1685	0.24274	
ROA	0.678092	0.337526	2.0090	0.04467	**
L_A	3.47522	1.86353	1.8649	0.06235	*
L_IA	-0.693464	1.52265	-0.4554	0.64885	
D/A	6.32946	13.6191	0.4647	0.64216	
ESG	-0.242647	0.125063	-1.9402	0.05250	*
Statistics based on the weighted data:					
Sum squared resid	25336.23		S.E. of regression	3.612919	
R-squared	0.006576		Adjusted R-squared	0.003505	
F(6, 1941)	2.141254		P-value(F)	0.046013	
Statistics based on the original data:					
Mean dependent var	25.21984		S.D. dependent var	105.6498	
Sum squared resid	21884384		S.E. of regression	106.1829	

Source: own research.

As a result of the research, it is found that the increase in net profits is positively influenced by profitability and the size of assets, so the larger the company, the higher the increase in net profits it records, while ESG has a negative impact on this increase, due to the costs incurred in connection with the implementation of this strategy.

Table 3*Environmental Score – Net Profit Growth: Heteroskedasticity-corrected OLS Model*

	Coefficient	Std. Error	t-ratio	p-value	
const	-17.7296	25.2105	-0.7033	0.48198	
ROE	0.0561944	0.0622338	0.9030	0.36666	
ROA	0.750771	0.333743	2.2495	0.02459	**
L_A	3.7971	1.8129	2.0945	0.03635	**
L_IA	-0.932979	1.52143	-0.6132	0.53980	
D/A	5.77455	13.4731	0.4286	0.66826	
E	-0.233285	0.100832	-2.3136	0.02079	**
Statistics based on the weighted data:					
Sum squared resid	25392.86		S.E. of regression	3.616954	
R-squared	0.008085		Adjusted R-squared	0.005019	
F(6, 1941)	2.636947		P-value(F)	0.015021	
Statistics based on the original data:					
Mean dependent var	25.21984		S.D. dependent var	105.6498	
Sum squared resid	21880028		S.E. of regression	106.1723	

Source: own research.

Next, due to the division of the ESG indicator into subcategories, only the part related to the environment is included in the model, and the model estimation results are presented in Table 3.

As a result of the estimation, it is found that environmental activities have a negative impact on the growth of net profits due to the costs incurred by enterprises.

Next, it is examined how activities for the social benefit affect the increase in net profits and the results are presented in Table 4.

Table 4

Social Score – Net Profit Growth: Heteroskedasticity-corrected OLS Model

	Coefficient	Std. Error	t-ratio	p-value	
const	-25.6804	25.4185	-1.0103	0.31247	
ROE	0.0806167	0.0622247	1.2956	0.19528	
ROA	0.724599	0.330603	2.1917	0.02852	**
I_A	3.74702	1.8732	2.0003	0.04560	**
I_IA	-0.561909	1.51235	-0.3715	0.71027	
D/A	7.62879	13.5884	0.5614	0.57458	
S	-0.220634	0.112382	-1.9632	0.04976	**
Statistics based on the weighted data:					
Sum squared resid	25112.66	S.E. of regression		3.596943	
R-squared	0.007272	Adjusted R-squared		0.004203	
F(6, 1941)	2.369774	P-value(F)		0.027674	
Statistics based on the original data:					
Mean dependent var	25.21984	S.D. dependent var		105.6498	
Sum squared resid	21907762	S.E. of regression		106.2396	

Source: own research.

As a result of the analysis, it is found that activities for the social benefit have a negative impact on the increase in net profits.

Next, an analysis of the impact of corporate governance on the growth of net profits is carried out and the results are presented in Table 5.

Table 5

Governance Score – Net Profit Growth: Heteroskedasticity-corrected OLS Model

	Coefficient	Std. Error	t-ratio	p-value	
const	-11.6213	25.0434	-0.4640	0.64267	
ROE	0.0711165	0.0669659	1.0620	0.28838	
ROA	0.669593	0.350138	1.9124	0.05598	*
I_A	3.12816	1.86057	1.6813	0.09287	*
I_IA	-0.975568	1.53538	-0.6354	0.52525	
D/A	6.14493	13.6756	0.4493	0.65324	
G	-0.140502	0.138052	-1.0177	0.30893	

Statistics based on the weighted data:

Sum squared resid	25840.66	S.E. of regression	3.648707
R-squared	0.005016	Adjusted R-squared	0.001941
F(6, 1941)	1.630929	P-value(F)	0.134631

Statistics based on the original data:

Mean dependent var	25.21984	S.D. dependent var	105.6498
Sum squared resid	21852068	S.E. of regression	106.1044

Source: own research.

Discussion

The analysis concludes that the increase in net profit is affected by the size and return of assets (ROA), as well as its activities in the field of ESG. The direction of this effect varies depending on the variables. While it is observed that the size of the assets and the profitability of the assets positively affect the increase in net profit, it is determined that the increase in ESG negatively affects the net profit. It is an expected result that the size of the assets, which generally shows the size of the company, and ROA, which shows how effectively the assets are used, positively affect the growth in the company's profit. Because, as companies grow and gain the ability to use their assets more effectively, their value in the eyes of investors and consumers may increase. As their risks decrease, they may be able to meet their resource needs in a less costly way and create a more effective process for their cash conversion cycle. The improvement in their financial performance may also increase their profitability. There are studies in the literature that support these results.

Kalsum (2023) found that ROA has a significant positive impact on earnings growth, and it was confirmed in the presented research. Andriani and Setiawati (2024) showed a negative impact of company size on profit growth. Large companies may have higher operating costs due to their scale, which can limit profit growth. Lubis and Rokhim (2021) found that ESG had a negative impact on companies' financial performance, and it was confirmed in the presented study. In the study of Cherkasova and Nenuzhenko (2022) it was found that the region in which a company is based affects the relationship between financial performance therefore in this research paper the authors focused on one region that is Europe.

However, it should be remembered that the relationship between ESG factors and company valuation is complex and not always clear. There are many factors that influence company valuations, and ESG factors are just one of them. Additionally, measuring ESG performance is complex and subjective, making it difficult to clearly assess the impact of ESG factors on valuation.

Empirical research confirms the relationship between ESG factors and company valuation. For example, companies with higher ESG ratings tend to have lower costs of capital, which translates into higher valuations. Moreover, changes in ESG ratings can be a useful financial indicator. For example, an improvement in an ESG rating can signal to investors that a company is making steps to improve its ESG performance, which could lead to a higher valuation.

Contrary to this expected result, the conclusion that ESG negatively affects profit growth should be analyzed carefully. However, it is worth noting that not all ESG components significantly determine net profit growth and corporate governance is not important in this respect. Although this result is different from our expectations before building the model, it is noteworthy that many studies find similar results in the literature. There have been numerous empirical studies proving that ESG negatively affects profit growth. In these works, different explanations were offered for the results found. There are studies stating that the company's costs increased with the ESG practices, and as a result, their profitability decreased. This impact on profitability may be due to the actual increase in costs as well as their perception in the eyes of investors. Investors may act with the thought that the expenses they make due to the company's ESG practices will not benefit the company and may not support the company's long-term investments. Decreasing trust in the company and increasing risk perception can make the company's resources costly. Additionally, studies are emphasizing the importance the company attaches to ESG practices, and the resulting score distracts the company from its main field of activity, which will increase the company's profitability. Engaging in these practices instead of activities that will increase company profits may lead to negative investor perceptions. This could negatively impact profitability.

Cherkasova and Nenuzhenko (2022) stated that the high cost of expenses made by companies for ESG activities leads to this result. It was particularly emphasized that internationalizing companies need to bear additional costs to successfully expand their business outside the country and that simultaneous costs for sustainability projects are not affordable. Folger-Laronde et al. (2022) concluded that during market downturns, higher sustainability performance does not ensure protection. They analyzed the COVID-19 period and suggested that investors should not assume that the sustainability performance of ETFs does not guarantee that investments will be resilient (Folger-Laronde et al., 2022). Giannopoulos et al. (2022), in their study on Norwegian listed companies, indicated that ESG practices have a negative impact on profitability. They attributed this outcome of ESG disclosure regulations, which results in a company's ESG practices not being reflected in its rating. Saygili et al. (2022) discussed the ESG pillars separately, drawing attention to their different effects on financial performance. Accordingly, while environmental disclosures have a negative impact on financial performance, social and governance dimensions of ESG have a positive effect. In our study, the results support considering ESG pillars separately. The emphasis a company places on environmental, social, and governance factors can differ, and this variation can influence financial performance to different extents. Our findings indicate that environmental and social practices negatively impact profitability, while governance practices did not show a statistically significant effect. This shows us that both the investor and the company should pay attention to the details of these scores and consider their individual impacts on profitability.

The landscape of Environmental, Social, and Governance (ESG) assessment in Europe between 2013 and 2023 has been characterized by both increasing recognition of its importance and significant

challenges in standardization and comparability. This period witnessed a notable evolution in how institutions approached ESG, particularly in the context of a still-developing regulatory framework.

One of the primary hurdles during the examined period was the incomplete legislative process for a standard ESG calculation methodology across Europe. This regulatory gap led to a situation where various institutions, including rating agencies, data providers, and even companies themselves, adopted diverse methods for evaluating and scoring ESG performance. This heterogeneity in methodologies inherently resulted in a lack of comparability of ESG Scores between different rating agencies. An ESG score assigned by one agency might weigh different factors more heavily, utilize distinct data sources, or employ unique calculation algorithms compared to a score from another agency. This lack of standardization created confusion for investors seeking to compare the sustainability profiles of different companies and hindered the development of a truly transparent and efficient market for sustainable finance.

Furthermore, the development of ESG considerations across EU countries exhibited significant divergence at the beginning of the examined period (2013). Factors such as national regulations, investor awareness, and the maturity of sustainable finance ecosystems varied considerably. Some countries were early adopters, with established frameworks and greater market demand for ESG information, while others lagged behind. This initial disparity meant that the context and drivers for ESG adoption were not uniform across the continent.

The latter part of the examined period, particularly the last two years (approximately 2021–2023), witnessed a more intensified focus on ESG. This surge in activity can be attributed to several factors, including increasing societal pressure, growing investor demand, and the advancement of the EU's sustainable finance agenda (e.g., the Action Plan on Financing Sustainable Growth and related legislative initiatives, even if not fully complete). Notably, this more intense engagement was primarily driven by large international enterprises who faced greater scrutiny from global investors and stakeholders and were more likely to proactively seek ESG Scores to demonstrate their sustainability credentials and attract capital. Smaller and medium-sized enterprises (SMEs) often faced different pressures and resource constraints, leading to a potentially slower adoption rate of formal ESG scoring.

It is crucial to acknowledge that this analysis, and any conclusions drawn from it, are subject to several restrictions. The availability and quality of ESG data have improved over the decade, but inconsistencies and gaps likely persisted, particularly in the earlier years and for smaller companies. The evolving nature of ESG reporting standards and the lack of a universally agreed-upon definition of "sustainability" also contribute to the complexity of comparing data and scores across time and agencies. Moreover, the focus on large international enterprises in the later period might skew the overall picture of ESG development across the entire European business landscape.

Conclusions

Our findings reveal a nuanced relationship between ESG scores and profit growth, with certain dimensions of ESG exerting a negative impact. This has critical implications for investors and companies. Instead of solely focusing on companies with high sustainability scores, investors must carefully evaluate the potential costs and financial implications of these practices for individual companies. This understanding is crucial to avoid deterring companies from pursuing sustainability initiatives. Companies should prioritize integrating ESG considerations into their core business strategies, creating "shared value" for both society and shareholders. This requires a shift from solely focusing on regulatory compliance to proactively integrating social and environmental concerns into business decisions.

Financial professionals must consider the long-term impact of ESG factors on industry structure and company performance, rather than solely focusing on short-term financial gains. They should support companies that effectively utilize capital to address societal needs, fostering a "virtuous cycle" of sustainable growth. Policymakers and regulators should play a more active role in evaluating ESG performance and encouraging effective ESG management practices. Companies should focus on improving their ESG scores strategically, recognizing that this translates into long-term benefits for their business and market position. Integrating ESG data into investment strategies is essential for identifying high-quality companies and building more resilient portfolios.

Future research should expand beyond Europe, considering regional variations within the continent and exploring the impact of ESG in other regions globally.

References

- Andriani, E., & Setyawati, E. (2024). Determinants of profit growth. *International Journal of Economics Development Research (IJEDR)*, 5(1), 649–664. <https://journal.yrpiaku.com/index.php/ijedr/article/view/4636/2731> or <https://doi.org/10.37385/ijedr.v5i2.4636>
- Bax, K., Şahin, Ö., Czado, C., & Paterlini, S. (2023). ESG, risk, and (tail) dependence. *International Review of Financial Analysis*, 87, 102513. <https://doi.org/10.1016/j.irfa.2023.102513>
- Chang, C.-C. (2018). Cash conversion cycle and corporate performance: Global evidence. *International Review of Economics and Finance*, 56, 568–581. <https://doi.org/10.1016/j.iref.2017.12.014>
- Chen, Y., Li, T., Zeng, Q., & Zhu, B. (2023). Effect of ESG performance on the cost of equity capital: Evidence from China. *International Review of Economics & Finance*, 83, 348–364. <https://doi.org/10.1016/j.iref.2022.09.001>
- Cheng, X., & Feng, C. (2023). Does environmental information disclosure affect corporate cash flow? An analysis by taking media attentions into consideration. *Journal of Environmental Management*, 342, 118295. <https://doi.org/10.1016/j.jenvman.2023.118295>

- Cherkasova, V., & Nenuzhenko, I. (2022). Investment in ESG projects and corporate performance of multinational companies. *Journal of Economic Integration*, 37(1), 54–92. <https://doi.org/10.11130/jei.2022.37.1.54>
- Cornell, B., & Damodaran, A. (2020). Valuing ESG: Doing good or sounding good? *NYU Stern School of Business*. <https://ssrn.com/abstract=3557432> or <http://dx.doi.org/10.2139/ssrn.3557432>
- Danbolt, J., Hirst, I.R., & Jones, E. (2011). The growth companies puzzle: Can growth opportunities measures predict firm growth? *The European Journal of Finance*, 17(1), 1–25. <https://doi.org/10.1080/13518470903448432>
- Dash, S.R., & Sethi, M. (2024). The impact of economic policy uncertainty on investment – cash flow sensitivity: Does ESG make any difference? *Australasian Accounting, Business and Finance Journal (AABFJ)*, 18(3), 202–222. <https://doi.org/10.14453/aabfj.v18i3.11>
- Doğan, M., & Kevser, M. (2020). The determinants of cash conversion cycle and firm performance: An empirical research for Borsa Istanbul Turkey. *Management and Economics Review*, 5(2), 197–206. <https://doi.org/10.24818/mer/2020.12-01>
- Endri, E., Sari, A.K., Budiasih, Y., Yuliantini, T., & Kasmir, K. (2020). Determinants of profit growth in food and beverage companies in Indonesia. *Journal of Asian Finance, Economics and Business*, 7(12), 739–748. <https://doi.org/10.13106/jafeb.2020.vol7.no12.739>
- Folger-Laronde, Z., Pashang, S., Feor, L., & El Alfy, A. (2022). ESG ratings and financial performance of exchange-traded funds during the COVID-19 pandemic. *Journal of Sustainable Finance & Investment*, 12(2), 490–496. <https://doi.org/10.1080/20430795.2020.1782814>
- Giannopoulos, G., Fagernes, R.V.K., Elmarzouky, M., & Hossain, K.A.B.M.A. (2022). The ESG disclosure and the financial performance of Norwegian listed firms. *Journal of Risk and Financial Management*, 15(6), 237. <https://doi.org/10.3390/jrfm15060237>
- Giese, G., Lee, L.E., Melas, D., Nagy, Z., & Nishikawa, L. (2019). Foundations of ESG investing: How ESG affects equity valuation, risk, and performance. *The Journal of Portfolio Management*, 45(5), 69–83. <https://doi.org/10.3905/jpm.2019.45.5.069>
- Gregory, R.P. (2022). ESG activities and firm cash flow. *Global Finance Journal*, 52, 100698. <https://doi.org/10.1016/j.gfj.2021.100698>
- Kalsum, U. (2023). Factors affecting profit growth. In *Proceeding Medan International Conference on Economic and Business*, 1, 2565–2575.
- Lubis, M.F.F., & Rokhim, R. (2021). The effect of environmental, social, and governance (ESG) disclosure and competitive advantage on companies performance as an implementation of sustainable economic growth in Indonesia for period of 2015–2019. *IOP Conference Series: Earth and Environmental Science*, 940(1), 012059. <https://doi.org/10.1088/1755-1315/940/1/012059>
- Miller, M.H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411–433. <http://dx.doi.org/10.1086/294442>

- Oprean-Stan, C., Oncioiu, I., Iuga, I.C., & Stan, S. (2020). Impact of sustainability reporting and inadequate management of ESG factors on corporate performance and sustainable growth. *Sustainability*, 12(20), 8536. <https://doi.org/10.3390/su12208536>
- Pérez, L., Hunt, V., Samandari, H., Nuttall, R., & Biniek, K. (2022). Does ESG really matter – and why. *McKinsey Quarterly*, 59(2), 1–9.
- Porter, M., Serafeim, G., & Kramer, M. (2019). Where ESG fails. *Institutional Investor*, 16(2), 1–17.
- Ramirez, A.G., Monsalve, J., Gonzalez-Ruiz, J.D., Almonacid, P., & Pena, A. (2022). Relationship between the cost of capital and environmental, social, and governance scores: Evidence from Latin America. *Sustainability*, 14(9), 5012. <https://doi.org/10.3390/su14095012>
- Sabbaghi, O. (2022). The impact of news on the volatility of ESG firms. *Global Finance Journal*, 51, 100570. <https://doi.org/10.1016/j.gfj.2020.100570>
- Saygili, E., Arslani, Ş., & Birkan, A.Ö. (2022). ESG practices and corporate financial performance: Evidence from Borsa İstanbul. *Borsa Istanbul Review*, 22(3), 525–533. <https://doi.org/10.1016/j.bir.2021.07.001>
- Shad, M.K., Lai, F.-W., Shamim, A., & McShane, M. (2020). The efficacy of sustainability reporting towards cost of debt and equity reduction. *Environmental Science and Pollution Research*, 27, 22511–22522. <https://doi.org/10.1007/s11356-020-08398-9>
- Starks, L.T. (2009). EFA keynote speech: Corporate governance and corporate social responsibility: What do investors care about? What should investors care about? *The Financial Review*, 44(4), 461–468. <https://doi.org/10.1111/j.1540-6288.2009.00225.x>
- Westort, P., Kashian, R., & Cummings, R. (2010). Does ownership form in community banking impact profitability? *Managerial Finance*, 36(2), 122–133. <https://doi.org/10.1108/03074351011014541>
- Zhou, G., Liu, L., & Luo, S. (2022). Sustainable development, ESG performance and company market value: Mediating effect of financial performance. *Business Strategy and the Environment*, 31(7), 3371–3387. <https://doi.org/10.1002/bse.3089>

Received: 11.02.2025
Accepted: 29.04.2025
Available online: 30.06.2025