Financial Performance and Large Sustainable Companies: What Relationships in the Italian Blue Chips of the MIB ESG Index?

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Abstract: *This study aims to analyze the relationship between financial performance and ESG performance with particular reference to a market segment characterized by high liquidity. The research concerns, in fact, the Italian blue chips that make up the MIB ESG index, that is, the first forty companies among the best sixties. The methodology used is based on a sample of the top ten companies in the index and uses regression analysis, assuming liquidity ratio, debt ratio, ROE and ROA as independent variables, while dependent variables are ESG scores. The results show that relationships between variables are mostly positive. However, they are still rather weak and therefore have room for improvement. The study helps to deepen the knowledge of a market segment still little studied in the literature.*

1. INTRODUCTION

Sustainable development is a crucial phenomenon for the economic success of firms. This consideration has led the literature to question the concrete compatibility (De Bruyn, 2000; Hess, 2013; Xepapadeas, 2005) in the long term between economic growth, environmental protection, and social evolution. Typically, the answer to this question is that, for development to be truly sustainable, it must be inclusive, in other words, it must be able to effectively balance economic goals with social and environmental objectives (Soubbotina, 2004). The problem has involved, especially in recent history, the major world institutions (Ahmed et al., 2022; Al-Qudah et al., 2022) that have acted both as engines and regulators for economic growth that respects the environment and the people who live in it.

In Europe, the issue of environmental and social sustainability has been addressed through a series of actions aimed at improving the management and reporting practices of companies. The integration of ESG (Environmental, Social and Governance) factors in business models is now an essential requirement for firms to have a durable life. However, it is important to consider that the integration of ESG is a complex process that involves the whole business management and requires demanding and costly investments (Friske et al., 2023). In this sense, such integration tends to be easier for financially robust and economically sound companies. This research aims to identify the economic performance of Italian companies that achieve the best ESG performance, in order to verify whether there are significant common elements for the explanation of success in sustainability. Since the companies analyzed belong to different sectors, the search for common traits can be useful in understanding the relationships between financial performance and ESG performance.

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2.   LITERATURE REVIEW AND RESEARCH QUESTION

The literature on the relationship between financial performance and sustainability is particularly vast and the number of studies on the subject has grown especially in the last five years. As observed by Friede et al. (2015) *The search for a relationship between environmental, social, and governance (ESG) criteria and corporate financial performance (CFP) can be traced back to the beginning of the 1970s. Scholars and investors have published more than 2000 empirical studies and several review studies on this relation since then* (p. 210).

However, despite this development, the results achieved so far are not homogeneous. This heterogeneity is manifested concerning at least two profiles. First, the relationships between the variables identified by the authors are different, being positive according to some scholars, and negative or null according to others. Secondly, the causality relationship is also not seen in the literature in a univocal way, since sustainability performance can be considered as the cause or the effect of financial performance.

The study conducted by Whelan et al. (2021) found that 58% of studies based on operational variables, such as ROE and ROA, identify positive relationships between ESG performance and financial performance, while 13% found no relationships, 21 % found mixed correlations and 8 % found negative relationships.

Chen and Xie (2022) found that ESG disclosure has a positive effect on financial performance, with heterogeneous impacts. In particular, the positive influence is more marked in high-visibility companies and with ESG investors, as ESG disclosure attracts ESG investors.

Regarding the Italian context, Landi and Sciarelli (2018) noted a growing interest in Corporate Social Responsibility as well as a more reliable ESG disclosure. However, investors do not seem to consider Corporate Social Responsibility in the stock market and therefore the strongly stakeholder-oriented behavior is not compensated with a premium price.

According to Velte (2017), *governance performance has the strongest impact on FINP [Financial Performance] in comparison to environmental and social aspects. One possible explanation for this result could be the longer tradition of corporate governance reporting in Germany since the introduction of the Code 2002 or the increased value relevance for the stakeholder* (p. 176).

DasGupta (2022), on the other hand, has identified an inverse relationship in which financial performance determines ESG results, especially when it shows a decline. In such cases, the worsening of financial performance exerts a strong positive influence on ESG results, as the company seeks to maintain its credibility through sustainable behavior.

According to Zhou et al. (2022), operational management is a significant tool through which the ESG performance of listed companies can increase their market value, and similarly, Dalal and Thaker (2019) have indicated that ESG business results can improve financial performance, measured in both accounting and market value terms.

In line with the aforementioned literature, this study considered the relationships between the economic performance and ESG performance of Italian-listed companies with high equity cap.

In this regard, on the one hand, the pursuit of the ESG objectives requires significant investments with not short recovery times that adversely affect economic performance; on the other hand, it can improve the market position of the company (image, reputation, trust) and promote its economic performance. Finally, it may also be that the two types of performance do not affect each other at all, for example, because the positive and negative effects are compensated. This study accepted all three hypotheses because even if they are opposite each other they are all equally likely. On this basis, the following research question was formulated:

RQ1 Do the relationships between ESG performance and economic performance support each other (positive relationship), or are they opposite each other (negative relationship), or do they not have relationships?

3. METHODOLOGY

3.1. Sample selection

In order to appreciate the economic performance of the best sustainable companies, the research selected a sample of the top ten Italian listed companies included in the MIB ESG index, based on best performers according to the ESG global score as of June 30, 2023 (Moody, 2023).

The sample is representative because the index on which it is based, although recently introduced, includes the largest sustainable Italian companies.

The MIB ESG index is the first ESG index dedicated to Italian blue-chips, designed to identify the major Italian-listed issuers that present the best ESG practices. The MIB ESG index is the second national ESG index of Euronext after the CAC40 ESG launched in March 2021. It was announced by Euronext, the company that controls the Amsterdam, Brussels, Dublin, Lisbon, Oslo, Paris and Milan stock exchanges and launched on 18 October 2021.

The MIB ESG Index combines the measurement of economic performance with the assessment of sustainable practices, according to the principles of the United Nations Global Compact. The methodology behind the index provides a ranking of the top 40 companies based on ESG criteria, selected from the 60 most liquid Italian, excluding those involved in activities not compatible with ESG investments. Governance, transparency of corporate information, respect for the environment and environmental regulations, respect for human rights, diversity and inclusion are some of the main elements that contribute to the index calculation. The components of the index are weighted by the market free float capitalization. The composition of the index will be reviewed quarterly in order to enable the inclusion of new companies whose ESG performance has improved.

According to the Index Rule Book (version 22-01, Effective from June 2022) the companies part of the Index Universe are screened for liquidity. The top 60 in terms of 6 months MDTV (Median Daily Traded Value) are eligible. Companies currently included in the Index are eligible as long as they rank in the top 70 in terms of 6 months MDTV.

According to the Euronext MIB ESG index Benchmark Statement (Euronext, 2022a) *The MIB ESG is designed to reflect the price level trends in the trading of shares listed in Italy. The MIB ESG Index family is designed to reflect the performance of the top 40 companies demonstrating strong Environmental, Social and Governance practices amongst the top 60 liquid Italian*

companies. The MIB ESG index includes the most common ESG investment approaches adopted by institutional and private investors such as norm-based exclusion filters applied in accordance with the UN Global Compact Principles or involvement in coal, controversial weapons and tobacco. The index ambitions are to progressively integrate upcoming EU Taxonomy evolutions and Science Based Targets (SBT) developments (p. 4).

Financial performance was analyzed based on data from the half-yearly reports as of 30 June 2023 published by the sampled companies. The short-term analysis is consistent with the nature of the MIB ESG index, whose composition varies throughout the year based on the evolution of the performance of Italian blue chips.

3.2. Variables

Based on the research question, this study considered the ESG performance as the dependent variable, and, specifically, the four MIB ESG scores as of 30 June 2023: global score (GLS), environment score (ES), social score (SS) and governance score (GS).

According to the Euronext Index Rule Book (Euronext, 2022b), the ESG factors considered by the benchmark methodology are represented by 38 criteria divided into six areas that, as a whole, define the corporate environmental, social and governance responsibility:
1) Environment,
2) Human rights,
3) Human resources,
4) Community involvement,
5) Business behavior,
6) Corporate governance.

From a methodological point of view, the ESG score is determined in two steps:
1) in the first phase, Moody's ESG Solutions classifies companies based on the 38 factors mentioned above;
2) in the second phase, each company is assigned a Global ESG score, up to a maximum of 100, calculated by weighing all sustainable factors in a given sector.

As an independent variable, the study considered the economic performance of the best sustainable enterprises, using the main financial and profitability indices on 30 June 2023. Specifically, for the financial variables, the research considered the liquidity ratio (LR) and the debt ratio (DR), while for the profitability analysis, the study used Return on Equity (ROE) and Return on Assets (ROA). The formulas for independent variables are illustrated in Table 1.

Table 1. Formulas for independent variables

Liquidity Ratio (LR)	Current assets, net of inventories to short-term debt
Debt Ratio (DR)	Debt to equity
Return on Equity (ROE)	Net income to equity
Return on Assets (ROA)	Operating income to total assets

Source: Own research

The liquidity ratio expresses the ability of the company to support short-term debts with its current assets, while the debt ratio expresses the debt weight in relation to the company's equity. The ROE expresses the return on equity, while the ROA represents the operating profitability of the total assets.

3.3. Empirical model

In order to answer the research question, the study used a linear regression model to identify the relationships between the economic performance variables (independent variables) and the ESG performance variables (dependent variables). Given the variables selected, ESG performance was represented as follows:

$$ESG\ performance = f(liquidity\ ratio,\ debt\ ratio,\ ROE,\ ROA) \tag{1}$$

Research models are expressed by equations (2), (3), (4) and (5).

$$GLS = \beta_0 + \beta_1 LR + \beta_2 DR + \beta_3 ROE + \beta_4 ROA + \varepsilon \tag{2}$$

$$ES = \beta_0 + \beta_1 LR + \beta_2 DR + \beta_3 ROE + \beta_4 ROA + \varepsilon \tag{3}$$

$$SS = \beta_0 + \beta_1 LR + \beta_2 DR + \beta_3 ROE + \beta_4 ROA + \varepsilon \tag{4}$$

$$GS = \beta_0 + \beta_1 LR + \beta_2 DR + \beta_3 ROE + \beta_4 ROA + \varepsilon \tag{5}$$

where,
GLS = global score,
ES = environment score,
SS = social score,
GS = governance score,
β_0 = intercept,
LR = liquidity ratio,
DR = debt ratio,
ROE = return on equity and
ROA = return on assets.

4. FINDINGS AND DISCUSSION

Table 2 shows all ESG scores of the selected top ten companies.

Table 2. Best performers included in the MIB ESG index,
based on the ESG global score (as of June 30, 2023)

Company	Weight	Global score	Environment score	Social score	Governance score
POSTE ITALIANE	1,11%	77	70	78	80
ENEL	10,00%	75	78	77	70
TERNA	2,77%	74	77	71	77
TELECOM ITALIA	0,67%	70	67	70	70
ENI	7,77%	70	68	71	72
ITALGAS	0,70%	68	70	64	74
PIRELLI & C	0,36%	68	74	67	62
INTESA SANPAOLO	9,90%	67	72	67	65
ASSICURAZIONI GENERALI	5,16%	66	79	61	68
SNAM	2,55%	66	75	59	72

Source: Moody, 2023

To appreciate the excellence of the sample, this study also considered the weighted average ESG ratings for the 40 companies that make up the index on the same date. Table 3, for each ESG score, shows the average, minimum and maximum values according to the MIB ESG Index Moody's ESG Report 2023 Q2 (Moody, 2023).

Table 3. Weighted average ESG ratings as of June 30, 2023

	Average	Min	Max
Global MIB ESG	63	47	77
Global Eligible Companies	60	36	77
Environment MIB ESG	64	39	79
Environment Eligible Companies	61	22	79
Social MIB ESG	63	44	78
Social Eligible Companies	60	31	78
Governance MIB ESG	63	48	80
Governance Eligible Companies	61	42	80

Source: Moody, 2023

As Table 3 shows, almost all top ten are above average for all ESG scores. The independent variables on 30 June 2023 are shown in Table 4.

Table 4. Independent variables on 30 June 2023

Company	LR	DR	ROE	ROA
POSTE ITALIANE	0.497	26.970	0.120	0.006
ENEL	0.779	3.472	0.067	0.030
TERNA	0.720	2.669	0.018	0.104
TELECOM ITALIA	0.555	2.358	-0.037	0.004
ENI	1.257	1.529	0.049	0.030
ITALGAS	1.129	3.659	0.098	0.033
PIRELLI & C	0.814	1.534	0.045	0.032
INTESA SANPAOLO [(*)]	0.996	14.293	0.068	0.008
ASSICURAZIONI GENERALI [(*)]	0.083	16.655	0.085	0.006
SNAM	0.367	2.998	0.092	0.025

(*) For these companies, the ratios LR and DR are not representative because it was not possible to calculate the current share of assets and liabilities.

Source: Own calculations

Table 5 presents the descriptive statistics relating to independent variables.

Table 5. Descriptive statistics for independent variables

Variable	Obs	Mean	Median	Std. Dev.	Min	Max
LR	10	0.720	0.750	0.358	0.083	1.257
DR	10	7.614	3.235	8.700	1.529	26.970
ROE	10	0.06	0.07	0.045	-0.037	0.120
ROA	10	0.028	0.028	0.029	0.004	0.104

Source: Own calculations

The comparison between Table 2 and Table 4 allows us to highlight how the best economic performance is not always associated with the best ESG performance. As regards the liquidity ratio and the debt ratio the best results are achieved by companies that in terms of ESG performance are not at the top, but about half of the ESG ranking. Similarly, if we exclude the first company in the ESG ranking, the best performance of the ROE is achieved by the companies that, in ESG terms, are at the bottom.

To clarify these observations, the Pearson correlation indices represented in Table 6 for all variables provide additional information.

Table 6. Pearson correlation for all variables

	GLS	ES	SS	GS	LR	DR	ROE	ROA
GLS	1.0000							
ES	-0.0333	1.0000						
SS	0.9249	-0.2020	1.0000					
GS	0.6364	-0.1719	0.3850	1.0000				
LR	0.2643	0.2185	0.3557	-0.3320	1.0000			
DR	0.2514	0.0226	0.2179	0.2847	0.0236	1,0000		
ROE	-0.0072	0.2328	-0.1189	0.2424	-0.2854	0,5631	1,0000	
ROA	0.2908	0.3430	0.0984	0.3147	0.1411	-0,4600	-0,2402	1

Source: Own calculations

As regards the correlations of Table 6, this study did not consider it relevant to analyze the relationships between GLS and the remaining ESG scores, as these relationships are the normal result of the calculation and weighting methodology on which the MIB ESG Index is based.

Concerning the other Pearson correlations, Table 6 shows that the relationships between economic performance and ESG performance are almost always positive. Moreover, since neither the debt ratio nor the ROA have negative cases, the conclusion could be that the operational management of the Italian blue chips moves in harmony with the ESG results, while the level of indebtedness does not compromise the relations between the different performances.

However, it is also important to note that the positive relationships are rather weak since the higher one is still less than 0.5. The correlations found by this study are therefore not strong, probably testifying that the factors that can affect economic performance and ESG results are multiple and complex. In particular, the complexity of sustainability explains how the achievement of significant objectives implies an overall commitment that involves the environmental and social dimension, in terms of both investments and costs, as well as culture and organization. At the same time, the benefits of the credibility and reliability of sustainable businesses can be reflected in higher revenues that offset the increased costs of achieving optimal ESG. In any case, it remains important to reiterate that the presence of positive, albeit weak, relations confirms that the pursuit of economic goals and sustainable results are not mutually conflicting but can, on the contrary, support each other.

Although ESG performance is not a strong force for economic success, and although financial strength is not a powerful determinant for achieving ESG goals, the results of this study show that the Italian blue chips are a concrete example of relations almost positive.

Based on this evidence, the study concludes that, in general, the most financially robust companies – such as blue chips – are able to make virtuous links between economic performance and environmental, social and governance sustainability.

A further significant aspect concerns the identification of which independent variables have the greatest impact on ESG scores. For this purpose, the regression equations resulting from this study are shown in Table 7.

Table 7. Regression equations

Dependent variable	Regression equation
GLS	Global score = 66,5167 + 0,0014 * LR + 0,2591 * DR - 0,0152 * ROE + 0,0661 * ROA
ES	Environnent score = 67,5223 + 0,0034 * LR - 0,0273 * DR + 0,0413 * ROE + 0,0551 * ROA
SS	Social score = 64,8843 + 0,0042 * LR + 0,3233 * DR - 0,0350 * ROE + 0,0447 * ROA
GS	Governance score = 68,7160 - 0,0070 * LR + 0,4027 * DR - 0,0122 * ROE + 0,1194 * ROA

Source: Own calculations

A noteworthy aspect is the influence exerted by the DR which represents the weightiest variable for all ESG scores, with the sole exception of the environment score. This result has been interpreted in the literature with the theory that having a higher ESG score brings the advantage of having access to capital at lower costs and consequently having a higher debt. A similar relationship is identified by Cantino et al. (2017), who found that the literature confirms that ESG sustainability performance and disclosure are jointly related to the cost of debt. A significant coefficient was found by Wong et al. (2021), who observed that the debt ratio is also positively related to the value of the enterprise. Hamrouni et al. (2019) showed that long-term and short-term debt levels increase with the disclosure of ESG information, thus suggesting that CSR information plays a significant role in reducing information asymmetry and improving transparency around the ESG activities of companies. This result meets lenders' expectations in terms of extra financial information and attracts sources of debt financing.

5. CONCLUSION

This study highlighted two relevant profiles. First, the economic performance of the blue chips in the MIB ESG index has a positive impact on sustainability. This finding demonstrates that sustainable growth is a virtuous path in which economic performance favors ESG success and, in turn, the implementation of ESG practices improves economic performance. However, although positive, the relationships between the observed variables are still rather weak and this circumstance may mean that there is room for action to be used to optimize the pursuit of sustainable goals. This study considers that an unbalanced relationship between the two performances can represent an obstacle for enterprises to think and act sustainably. In other words, social and environmental sustainability cannot be achieved at the expense of economic sustainability, since only a balanced relationship can be successful in the long term.

Second, this research has shown that financial variables affect ESG results more than profitability and in particular more than variables that measure return on equity (ROE). Specifically, the most effective variable is the debt ratio (DR), so that ESG results improve as debt increases. This effect could represent the main route through which the specific connotations of the blue chips of the MIB ESG index – which, it should be remembered, are the most liquid Italian companies – are reflected in ESG performance. The financial strength of these companies is probably the key to their success in the complex path that leads to sustainability.

As for the limits of this research, one of the most relevant is the time interval of analysis, which refers to a semester. On the one hand, this methodological flaw is justified by the variability of the composition of the index, which is updated every quarter. On the other hand, to better understand the theme, it would have been useful to reconstruct the structural characteristics of the blue chips. In fact, it is much more likely that the ESG performance of these companies is the result of a financial strengthening that has occurred gradually over time, due to many factors

that this study has not considered. Despite this limitation, the results obtained help to deepen the knowledge of the Italian blue chips, to which the literature has not yet devoted extensive discussion. The value of the research lies in the importance of the analyzed sector, which includes the top 40 companies based on ESG criteria, selected from the 60 most liquid Italian companies.

References

Ahmed, F., Kousar, S., Pervaiz, A., & Shabbir, A. (2022). Do institutional quality and financial development affect sustainable economic growth? Evidence from South Asian countries. *Borsa Istanbul Review*, *22*(1), 189-196. https://doi.org/10.1016/j.bir.2021.03.005.

Al-Qudah, A. A., Al-Okaily, M., & Alqudah, H. (2022). The relationship between social entrepreneurship and sustainable development from economic growth perspective: 15 'RCEP' countries. *Journal of Sustainable Finance & Investment*, *12*(1), 44-61. https://doi.org/10.1080/20430795.2021.1880219.

Cantino, V., Devalle, A., & Fiandrino, S. (2017). ESG sustainability and financial capital structure: Where they stand nowadays. *International Journal of Business and Social Science*, *8*(5), 116-126.

Chen, Z., & Xie, G. (2022). ESG disclosure and financial performance: Moderating role of ESG investors. *International Review of Financial Analysis*, *83*, 102291. https://doi.org/10.1016/j.irfa.2022.102291.

Dalal, K. K., & Thaker, N. (2019). ESG and corporate financial performance: A panel study of Indian companies. *IUP Journal of Corporate Governance*, *18*(1), 44-59.

DasGupta, R. (2022). Financial performance shortfall, ESG controversies, and ESG performance: Evidence from firms around the world. *Finance Research Letters, 46*, 102487. https://doi.org/10.1016/j.frl.2021.102487

De Bruyn, S. M. (2000). Economic Growth and the Environment. Economy & Environment. https://doi.org/10.1007/978-94-011-4068-3

Euronext. (2022a). *Benchmark Statement Index MIB ESG*. Retrieved August 2023, from https://live.euronext.com/en/product/indices/FR0014005WN0-XPAR/market-information

Euronext. (2022b). *Index Rule Book. MIB ESG Index Family*. Retrieved August 2023, from https://live.euronext.com/en/product/indices/FR0014005WN0-XPAR/market-information

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of sustainable finance & investment*, *5*(4), 210-233. https://doi.org/10.1080/20430795.2015.1118917.

Friske, W., Hoelscher, S. A., & Nikolov, A. N. (2023). The impact of voluntary sustainability reporting on firm value: Insights from signaling theory. *Journal of the Academy of Marketing Science*, *51*(2), 372-392. https://doi.org/10.1007/s11747-022-00879-2.

Hamrouni, A., Boussaada, R., & Toumi, N. B. F. (2019). Corporate social responsibility disclosure and debt financing. *Journal of Applied Accounting Research*, *20*(4), 394-415. https://doi.org/10.1108/JAAR-01-2018-0020

Hess, P. N. (2013). *Economic growth and sustainable development*. Oxon: Routledge.

Landi, G., & Sciarelli, M. (2018). Towards a more ethical market: the impact of ESG rating on corporate financial performance. *Social responsibility journal*, *15*(1), 11-27. https://doi.org/10.1108/SRJ-11-2017-0254.

Moody. (2023). *ESG Reporting. MIB ESG Evaluation 2023 Q2*. Retrieved August 2023, from https://live.euronext.com/en/product/indices/FR0014005WN0-XPAR/market-information

Soubbotina, T. P. (2004). *Beyond economic growth: An introduction to sustainable development*. Second Edition. Washington D.C.: World Bank Publications.

Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. *Journal of Global Responsibility*, *8*(2), 169-178. https://doi.org/10.1108/JGR-11-2016-0029.

Whelan, T., Atz, U., Van Holt, T., & Clark, C. (2021). ESG and financial performance. *Uncovering the Relationship by Aggregating Evidence from*, *1*, 2015-2020.

Wong, W. C., Batten, J. A., Ahmad, A. H., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2021). Does ESG certification add firm value? *Finance Research Letters, 39*, 101593. https://doi.org/10.1016/j.frl.2020.101593

Xepapadeas, A. (2005). Chapter 23 Economic growth and the environment. *Economy-wide and International Environmental Issues*, 1219-1271. https://doi.org/10.1016/s1574-0099(05)03023-8

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