

Dr. Ervin Denich<sup>1</sup> – Lajos Áron Baracsi<sup>2</sup>

# Sustainability and Stock Market Effects: How Do ESG Ratings Affect Stock Prices?

## SUMMARY

The present study aims to examine the impact of ESG ratings on the stock prices of companies within the European Union. The central question the study seeks to answer is twofold: firstly, to what extent the ratings issued by the ESG rating partners (MorningStar Sustainalytics, London Stock Exchange Group, and Morgan Stanley Capital International) are consistent with each other, and secondly, to what extent they influence the stock price of companies. A sample of 50 companies was selected from a simple random sample of the 100 largest market capitalisation companies in the European Union. ESG rating data were obtained from three independent rating partners, while stock prices were retrieved from a publicly available stock exchange database for the period 1 January 2024 to 31 December 2024. Descriptive statistical analysis, correlation calculations and scaling transformation were used to explore the relationships between ESG ratings and stock prices.

The result of the analysis demonstrates that there is a weak positive correlation between certain ESG ratings, particularly between Morgan Stanley Capital International's ratings and those of other rating agencies, which can be considered significant. However, the relationship between ESG ratings and stock price movements is weak negative and not significant. Consequently, a negative correlation suggests that the ratings are in fact progressing in a favourable direction. This indicates that other factors are more significant determinants of individual stock price movements.

**Keywords:** sustainability, ESG, stock price, market perception of companies

**JEL codes:** M40, M41, G32

## INTRODUCTION

The concept of sustainability is gaining increasing importance for economic operators, as it aims to preserve natural resources and maintain environmental balance, while considering both social and economic factors. ESG criteria play a pivotal role in integrating this approach, as ESG is utilised to evaluate corporate performance and social responsibility. ESG is gaining increasing attention from investors and regulators and has evolved into a key factor in providing a transparent and reliable framework for assessing companies' sustainability efforts and ethical standards (Atz et al., 2022).

The evolution of stock prices has traditionally been based on financial and market factors, but today there is a growing concern about how ESG criteria affect the market perception and financial performance of companies. The tightening of ESG reporting regulations and the growing interest in ethical and sustainable investment are bringing new considerations to investor decisions. ESG rating agencies assess the performance of companies along different dimensions. These dimensions include the reduction of adverse environmental impacts, social value creation and responsible governance. However, the ratings pose a major challenge for companies, as they have to meet not only financial performance criteria but also sustainability and social responsibility standards.

A substantial corpus of research has been published in the international literature examining the relationship between ESG and stock prices (Di Tommaso and Mazzuca, 2023; Feng et al., 2022; Gibson et al., 2021; La Torre et al., 2020; Leite and Uysal, 2023; Naughton et al., 2019; Serafeim and Yoon, 2023). International research suggests that companies with high ESG ratings typically exhibit more stable growth and have effective crisis management mechanisms. Domestic research (Timár, 2021) has primarily focused on ESG aspects in terms of transparency and comparability of corporate sustainability reporting, while there is a limited amount of domestic literature exploring the relationship between ESG and capital market performance. Consequently, the current study makes greater use of foreign literature in the course of the research. Nevertheless, the findings in both international and domestic literature clearly demonstrate that incorporating ESG factors into corporate strategy and operations can engender long-term benefits for both companies and investors.

However, the interpretation and implementation of ESG ratings can vary considerably across different markets and rating agencies (Berg et al., 2022). The methodologies employed by ESG rating agencies are not uniform, which poses a substantial challenge to ensuring the comparability and consistency of results. In this research study, we examine the ratings of three prominent ESG rating agencies: MorningStar Sustainalytics (MSS), London Stock Exchange Group (LSEG), and Morgan Stanley Capital International (MSCI). It is evident that these agencies employ divergent approaches and weighting schemes, resulting in disparate outcomes when evaluating corporate sustainability. The presence of methodological discrepancies can potentially engender uncertainty in investor decision-making, particularly in scenarios where ESG ratings are utilised to forecast financial performance.

<sup>1</sup> Assistant Professor, Budapest University of Economics, Faculty of Finance and Accounting, Department of Accounting, denich.ervin@uni-bge.hu

<sup>2</sup> Master's student and teaching assistant, Budapest University of Economics, baracsi.aron@uni-bge.hu

The objective of the present study is to ascertain the extent to which ESG ratings impact stock prices of the most significant market participants and the manner in which this information is integrated into said prices. Furthermore, the investigation will encompass the question of whether there are substantial discrepancies between the ratings issued by ESG rating companies and whether these discrepancies may have an impact on the evolution of stock prices.

## LITERATURE REVIEW

### *Sustainability and ESG*

The concepts of sustainability and sustainable development have become integral to contemporary society, with a growing body of research in this field. The diversity of conceptual definitions has led to challenges in establishing a uniform understanding of these terms. This research does not aspire to capture a specific definition, but rather to present a broad interpretation of the underlying content. The complexity of sustainability necessitates a multifaceted definition, and this study proposes the following interpretation: Sustainability is the meeting of the present needs of humanity, together with the conservation of the environment and natural resources for future generations (Pearce and Atkinson, 1998).

The term 'ESG' was first employed in 2004, encompassing environmental (E), social (S), governance (G) criteria. Since its publication, numerous countries have proactively addressed the issue, facilitating the design and development of ESG systems, leading to the establishment of accomplishments such as ESG disclosure rules, ESG rating systems and ESG index systems. The concept of ESG is gradually becoming a dominant trend, and is being widely studied, applied and promoted in practice. In addition, it is attracting the interest of academics worldwide (Li et al, 2021).

ESG ratings are produced by independent rating agencies that analyse and assess companies' environmental, social and governance performance, actively or passively, using available information and data. In the ESG rating process, the raters follow their own methodologies and take into account a number of metrics, which are aggregated according to different weighting principles. However, research in recent years has highlighted significant variations between ESG assessments (Berg et al., 2022; Chatterji et al., 2016), which has led to questions about the reliability and comparability of these assessments. Nevertheless, interest in ESG assessments remains strong as decision makers increasingly seek a deeper understanding of the operational logic and characteristics of these assessments in order to integrate them more effectively into their risk and investment strategies (Serafeim and Yoon, 2023).

The three-pillar model helps companies establish clear and measurable objectives, enabling investors and shareholders to make informed comparisons. It also serves as a mechanism to present the environmental and social commitments of the company's objectives in a responsible and concrete manner. Moreover, environmental, social and governance factors play a pivotal role in evaluating the future financial performance and social impacts of companies. Consequently, ESG, comprehended as an investment principle integrating environmental, social and governance factors, has emerged as a pivotal catalyst in the promotion of sustainable development. Moreover, the

intricate interrelationships among the ESG dimensions have garnered particular attention.

### *The role of ESG concepts and technological innovation in modern corporate strategies*

In the contemporary business landscape, there is an increasing emphasis on corporate sustainability and adherence to sustainability principles, as economic actors become more circumspect in the face of resource scarcity. The transition to green finance is a complex undertaking, requiring companies to consider environmental, social, and governance factors in their day-to-day operations. The mounting urgency of global challenges, such as climate change and the transition to a circular economy, underscores the imperative for companies, managers, investors, employees, and regulators to accord heightened priority to sustainability considerations. The paradigm of sustainable business operations encompasses not only financial outcomes, but also the stewardship of natural and social capital (Kotsantonis et al., 2016). This responsible approach is reflected in the internal functioning of companies and the outcomes of their activities. In order to ensure competitiveness in the long term, companies must align their target systems with sustainability criteria.

Recent technological advances have given rise to a multitude of ESG applications and services that utilise blockchain or artificial intelligence, thereby rendering it an automated system for data synthesis, reprocessing, and compliance with various reporting obligations. Automation has the potential to facilitate more accurate and expeditious data processing, thus enabling companies to more readily meet the progressively intricate ESG requirements.

ESG targets are company-specific and play a significant role in the planning phase. Qualitative ESG goals can also be defined, reflecting information and data on the company's operations. Sustainability elements have a significant impact on the social perception and reputation of the company, which can directly affect consumer expectations, corporate culture, investor decisions and even market competitiveness. In order to attract consumers and investors, companies utilise a variety of strategies, ranging from conventional marketing tools to the publication of voluntary sustainability reports. Socio-economic development and competitiveness are closely intertwined with sustainability. The basis for competitiveness and a competitive economy is long-term sustainable solutions, and a sustainable framework is a prerequisite for such an economy. It is imperative to emphasise that the pursuit of competitiveness and sustainability cannot be predicated on quantitative growth alone; rather, there is a necessity for qualitative development and structural change (Obádovics et al., 2023).

The co-existence of soft and mandatory regulations in sustainability reporting reduces transparency. In addition, the corporate sustainability challenges of different sectors vary significantly, as the operational characteristics of each industry result in different types of environmental, social and economic impacts, not to mention that companies, investors and consumers in different segments often use different terminology to address sustainability issues and objectives. To this end, it is necessary to establish an objective framework and KPIs (Key Performance Indicators) across sectors to enable the measurement and evaluation of individual company activities (Boros et al., 2022).

### *Differences between ESG ratings*

The effective distribution of economic resources is contingent on the establishment of institutions that facilitate the dissemination of information. Consequently, ESG rating companies have emerged, allocating substantial resources to the production of benchmarking tools, including sell-side analyst forecasts, recommendation ratings, and credit ratings. A fundamental aspect of these valuations is the eventual realisation that they are subject to discipline, as evidenced by investment recommendations for future stock returns (Gleason and Lee, 2003), realised outcomes for analyst forecasts (Bradshaw et al., 2012), or default on loan repayments for credit ratings (Becker and Milbourn, 2011).

The relationship between ESG assessments and news is not immediately apparent. If the ratings accurately reflect management's initiatives to mitigate adverse events and encourage positive ESG outcomes, then a positive and significant relationship between ESG ratings and favourable news should be anticipated. However, there is a lack of consensus among various social raters regarding the interpretation of ESG ratings (Chatterji et al., 2016; Erhart, 2022).

Berg et al. (2022) have indicated that the rationale behind the variances in ESG ratings is attributable to the divergent methodologies employed by raters in measuring, defining and weighting their ESG ratings. The findings of this study suggest that the preponderance of ESG data distributors relies on subjective interpretations in the analysis of published corporate ESG data. Consequently, it is plausible to hypothesise that inconsistencies may emerge among different raters in the interpretation of the metrics intended to measure ESG, thereby resulting in variations in the outcomes of their assessments. This suggests that ESG ratings may possess varying degrees of predictive capability, with the ratings from the strongest predictor potentially able to forecast future stock returns in instances of significant divergence. This assertion is further substantiated by the findings of Serafeim and Yoon (2023), who demonstrate the efficacy of ESG maturity scores in predicting future news events. However, they also observe a decline in the predictive utility of ESG scores in circumstances of substantial disagreement. The findings of Christensen et al. (2022) indicate that disparities in ESG appraisals escalate in proportion to the extent of information divulged, signifying that the comprehension of the significance and substance of ESG indicators and disclosures remains in its nascent stage.

### *Sustainability and stock market prices*

In recent decades, a substantial number of studies in the fields of accounting and finance have examined the market reaction to news. It is broadly acknowledged that the introduction of new information prompts a response from market participants, a notion that has been substantiated by earlier research, including the contributions of Beaver (1968). In the context of ESG, particular emphasis is placed on the investor response to news in this domain and the subsequent impact on the perception and market value of companies.

The Wall Street Journal has observed an increasing tendency among companies to communicate their ESG efforts more effectively, while regulators are placing greater emphasis on understanding ESG and how ESG information is flowing into the market and how capital market participants are responding.

This phenomenon highlights the importance of ESG-related news not only in financial terms, but also in terms of corporate image and long-term strategic positioning.

Research by Barber and Odean (2008) demonstrates that companies that are subject to media scrutiny attract greater investor attention than those that do not feature in the news. Subsequent studies, including those by Dellavigna and Pollet (2009) and Hirshleifer et al. (2009), have shown that this heightened investor attention exerts a significant influence on stock returns, thereby underscoring the pivotal role that news-generated investor attention plays in shaping market prices over time.

Serafeim and Yoon's (2023) research is associated with analyses of the reasons underlying investor responses to ESG news. Some explanations posit that investors react to this information solely for non-financial reasons, while others contend that ESG news conveys information regarding a company's future growth, risk and competitive position. The study's findings generally support the notion that investors discern between news that is likely to influence a company's fundamentals and thus react predominantly based on financial considerations.

Earlier research findings also substantiate that market reactions vary depending on the nature of ESG news. For instance, Naughton et al. (2019) discovered that announcements pertaining to ESG activities yielded positive abnormal returns when investors placed a higher value on ESG performance. Conversely, Flammer (2013) observed a favourable market response to announcements of green initiatives, while Dimson et al. (2015) noted a comparable positive reaction to successful ESG engagements. In contrast, Capelle-Blancard and Petit (2019) reported negative market reactions to unfavourable ESG news.

Serafeim and Yoon's (2023) research posits that positive ESG news is associated with a positive stock price reaction, while negative ESG news is associated with a negative stock price reaction. Furthermore, their findings indicate that consensus ESG ratings play a role in moderating the relationship between news and stock price reaction, with particularly strong reactions observed for relevant ESG news. This suggests that not all ESG news is financially relevant for all firms. The findings concerning relevant ESG news are notably more pronounced than those derived from all ESG news, thereby aligning with the prevailing literature underscoring the significance of financial relevance in ESG matters. This observation suggests that not all ESG issues possess financial relevance for companies within a specific industry (Grewal et al., 2020; Khan et al., 2016).

Flammer's (2013) study of the stock market response to corporate social responsibility (CSR) revealed that active corporate involvement in environmental issues can generate new competitive resources. Shareholders' response to companies' announcements of environmentally friendly initiatives is one such resource. Corporate environmental CSR can also play an insurance-like role in the event of an adverse environmental occurrence, thereby minimising losses to the company. In a similar vein, Shiu and Yang (2017) utilised the KLD database to measure the social dimension and concluded that CSR can serve as an insurance-like function in instances of adverse events, exerting a substantial influence on the initial negative occurrence.

In addition, Serafeim and Yoon (2023) also observed that consensus ESG assessments predict the direction of future ESG

news, but this relationship is moderated by the degree of disagreement between assessors. An interesting finding is that the market reaction to positive ESG news is weaker for companies with high ESG valuations, suggesting that much of the positive news is already incorporated into the stock price. However, for companies with low shareholder disagreement, the stock price reaction is even stronger, indicating stronger expectations of future positive news.

As a main finding, Serafeim and Yoon (2023) find that investor reactions are primarily driven by financially relevant ESG news, while irrelevant news has less impact on market reactions. This suggests that consensus ESG valuations can not only be a proxy for market expectations, but can also predict future news and stock returns, even though disagreement between valuations may hinder their full utility.

### *ESG and the financial performance*

The majority of research on the financial performance of ESG investments demonstrates positive results and empirical evidence that ESG investments can have a stable and positive impact on corporate financial performance (Whelan et al., 2021). Positive effects can be particularly important for competitive global securities markets. Based on the correlation coefficients and distributional analysis of more than 2000 empirical studies, it can be confidently asserted that ESG criteria and corporate financial performance show, on average, a positive correlation. This assertion is further substantiated by the observation that approximately 90% of the studies failed to identify a negative correlation between ESG and CFP, with nearly half of these studies demonstrating a pronounced positive correlation. Consequently, it can be concluded that ESG-based investment decisions possess a robust business case (Friede et al., 2015).

This finding suggests that financial markets are progressively incorporating ESG criteria, although the overall transition by the majority of investors towards sustainable investment practices remains relatively gradual. For instance, merely 25% of investment professionals frequently consider non-financial information when making decisions, and a mere 10% of global professionals receive training in analysing ESG considerations (CFA Institute, 2015). These proportions suggest that while the role of ESG is growing, there is still a lack of deep integration in investment processes. An examination of the relationship between ESG and CFP analysed the results of more than 3,700 studies, with findings from more than 2,200 separate studies. The aggregated results clearly show a positive impact of ESG investments, especially in the case of company-focused studies. However, a lower correlation was observed in portfolio-based studies, where management and trading costs are included (Friede et al., 2015). This exception may be the source of a widespread misconception around the ESG-CFP link. The “noise drowns out” argument (Peloza, 2009) posits that the presence of overlapping market and non-market factors in portfolios, in conjunction with diverse ESG screening methodologies, can lead to the distortion of the ESG-CFP relationship, resulting in a weakened ESG-CFP correlation at the portfolio level.

Observations of ESG outperformance opportunities are evident in numerous markets, particularly in North America and emerging markets, where the positive effects of ESG are consistent over time (Friede et al., 2015), i.e. they are sustain-

able over the long term. In general, the ESG performance index is poised to elucidate the correlation between sustainable investment and financial performance. Awaysheh et al. (2020) conducted a study of company benchmarks under constant time-based and industry-based effects, identifying the top 10% and bottom 10% performers. Their findings indicated that the top-performing companies exhibited higher operating performance and relative market valuation in comparison to their industry peers (Li et al., 2021). The evident interest in ESG criteria, therefore, signifies not only a commitment to sustainable development, but also long-term investor aspirations that are grounded in rationality. The integration of ESG criteria within investment processes is poised to facilitate the adoption of responsible investment practices, which have the potential to generate financial value over an extended timeframe.

A review of regional studies indicates that North American results are more positive than those from Europe or Asia. This may be attributed to lower portfolio study rates in North American samples, as company-focused studies tend to report stronger ESG impacts. In contrast, some studies in the rest of the world have found significantly higher ESG impacts, especially in countries with a higher human orientation (Rodríguez et al., 2015).

However, it is important to note that portfolio-based outcomes are also influenced by various systematic risks and costs, such as management fees. While firm-specific studies typically do not consider these costs, the business case for ESG investing is supported by a number of empirical results. ESG outperformance is observed across multiple asset classes and regions, suggesting that the value and importance of ESG performance is stable over time (Friede et al., 2015).

Finally, the integration of ESG criteria into investment processes not only serves the financial interests of investors, but can also contribute to the achievement of broader societal goals, and a long-term responsible investment orientation provides investors with the opportunity to fulfil their fiduciary duties while remaining consistent with sustainable development.

### **METHODS**

The research examined the ESG ratings and stock price changes of the 100 largest market capitalisation companies in the European Union. A total of 50 companies were selected using a simple random sampling method. The ESG ratings were obtained from three separate independent data partners, while the stock price data were obtained from a publicly available stock exchange database. In addition to descriptive statistics, the analysis included correlation calculations, which provided an opportunity to test the research hypotheses.

ESG ratings have the potential to be integrated into various areas of corporate decision-making, including risk management, strategic planning and investment decision-making. These ratings are produced by independent service providers who analyse and assess companies' disclosed environmental, social and governance performance. The advantage of ESG ratings is that they provide a comprehensive picture of companies' sustainability performance, helping investors to make informed decisions. However, considerable variation exists between different assessors due to methodological differences, which calls into question their reliability and comparability.



Such differences can arise in how each rating agency measures, defines and weights ESG criteria, so these ratings may have different predictive capabilities, which can affect the forecasting of future news and stock returns.

The three third-party rating methodologies (MorningStar Sustainability [MSS], London Stock Exchange Group [LSEG], Morgan Stanley Capital International [MSCI]) whose data were utilised in the research employ unique approaches and metrics to assess ESG performance. Consequently, discrepancies in the final scores can be observed. It is important to note the potential for Refinitiv and alternative data sources to be employed in analogous ways in the context of ESG and equity market research (Pástor et al., 2022).

Furthermore, the stock prices of these companies were requested for the period from 1 January 2024 to 31 December 2024.

Initially, the MSCI ESG rating scale was converted into a scale ranging from 1 to 7, with “CCC” representing a rating of 1 and “AAA” representing a rating of 7. Subsequently, these values were scaled to ensure comparability across analyses, with a range of 0 to 100. This conversion has enabled the ESG ratings to become more comparable with the ratings of the other ratings.

## RESULTS

**Table 1. Descriptive statistics of ESG ratings and changes in average stock prices**

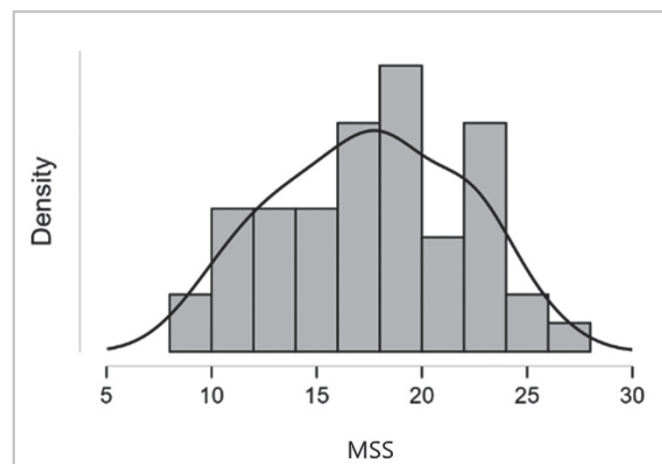
Name	Morning-Star Sustainability	LSEG	MSCI	Average price change
Valid	50	50	50	50
Missing	0	0	0	0
Mean	17.480	76.300	5.620	1.557
St. Deviation	4.385	13.470	1.308	3.173
Minimum	8.500	41.000	1.000	0.030
Maximum	26.200	93.000	7.000	21.650

Source: based on own editing (2025)

The analysis of stock prices was conducted by examining the opening prices as a basis, and the absolute price changes between them were then examined during the assessed year. The arithmetic average of the resulting changes yielded the average price change of the stock prices. As demonstrated in Table 1, 50 valid data points are present for all four variables, with no missing values. The average of the ESG ratings demonstrates a substantial discrepancy among the ratings assigned by the three raters. However, it is imperative to acknowledge that the MSS value is calculated in an inverse manner, meaning that a lower value indicates a higher sustainability rating for a company. The LSEG utilises a total score of 100 points, which is segmented into four quarters for the purpose of ranking. Consequently, the sample falls within the category of excellent ESG performance, as it surpasses 75 points. In the case of MSCI, it is evident that a score of 5.62 corresponds to an outstanding ESG rating on the converted 7-point scale.

Based on the minimum and maximum values, it is observed that the range for the MSS is relatively large (17.7). This means that the ESG scores are spread over a wide range. In contrast, the variance is relatively lower, suggesting that most of the val-

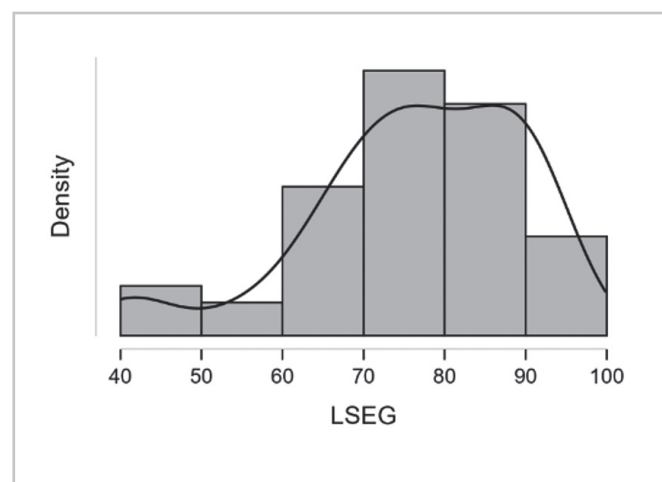
ues are concentrated around the average and that there are fewer extreme fluctuations. This observation is supported by Figure 1, which plots a bell curve based on the normal distribution.



**Figure 1. Distribution of MorningStar Sustainability ratings by histogram**

Source: based on own editing (2025)

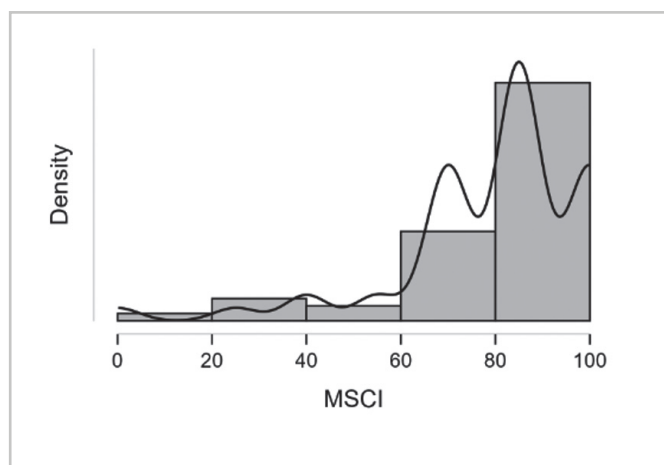
For LSEG, the range is the widest of the three classifiers, indicating considerable variability. Consequently, the rating range also examines a much wider spectrum of ESG scores. In this case, it is observed that the standard deviation of the scores is 13.47, which represents a variation of approximately 17.6% compared to the average, thus showing a relatively large variance in the data. However, the histogram reveals that the data adheres to a roughly normal distribution, though it exhibits slight asymmetry, with ESG ratings tending to be concentrated in the higher range (between 70 and 90). Figure 2 provides a visual representation of this distribution.



**Figure 2. Distribution of LSEG ratings on histogram**

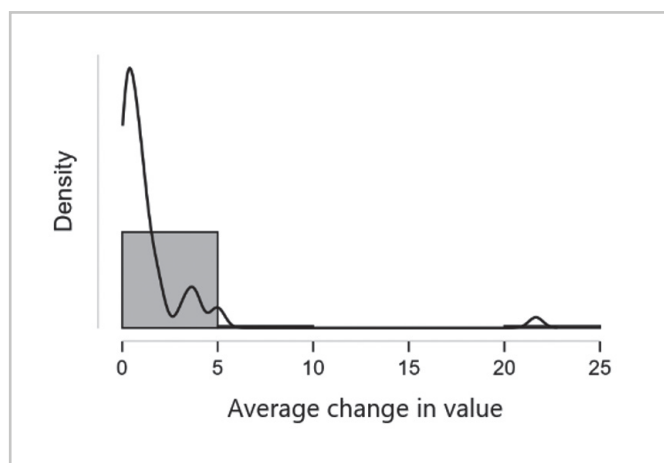
Source: based on own editing (2025)

For the MSCI, a modified scale of 1 to 7 has been developed, with a value of 1 representing underperformers and a value of 7 representing leaders. Figure 3 clearly shows that the values appear within the full range, the distribution is not uniform. Most of the data is concentrated in the range 5 to 7, where the high ESG ratings are found, and the distribution is characterised by a more left asymmetry.



**Figure 3. Distribution of MSCI ratings on histogram**  
Source: based on own editing (2025)

In the case of the average price change, there is some apparent inconsistency between *Figure 4* and the corresponding *Table 2*, which is due to the inclusion of some outliers in the sample, thereby distorting the statistics. The majority of the values are concentrated in the lower range, thus the average price change is characterised by a right-skewed distribution.



**Figure 4. Distribution of average price change assessments on histogram**  
Source: based on own editing (2025)

In the course of our research, we also calculated correlations between the four variables. For the analysis, we employed Pearson's correlation coefficient to detect significant relationships between the variables under study. The results are presented in *Table 2* in detail, thus illuminating the strength and direction of the relationships between the different variables.

The following table illustrates the correlation between three distinct ESG classifiers and the average price change, employing the Pearson correlation coefficient and its corresponding p-value to indicate the significance of the relationship between the variables. An asterisk denotes a statistically significant relationship at the 5% level of probability. The table reveals a significant relationship between MSCI and the other two ESG raters, as well as a weak positive correlation between them. It is imperative to acknowledge that, for the MSS rating, lower scores are indicative of a superior rating.

## CONCLUSIONS

The present study sets out to compare the ratings of three different ESG rating agencies: MorningStar Sustainalytics (MSS), London Stock Exchange Group (LSEG) and Morgan Stanley Capital International (MSCI). The relationship between ESG ratings and stock price movements was analysed for the period 1 January 2024 to 31 December 2024

The findings of the research indicate the presence of substantial discrepancies between the assessments of the aforementioned ESG rating agencies, attributable to the heterogeneity of their methodological approaches (Hurduzeu et al., 2022). MorningStar Sustainalytics (MSS) places a predominant emphasis on companies' ESG risk, London Stock Exchange Group (LSEG) places a comparatively greater focus on companies' relative performance in environmental, social and governance factors, and Morgan Stanley Capital International (MSCI) undertakes an assessment of long-term, financially relevant ESG risks and employs a comparison of individual companies with others within their respective industry.

The study revealed a weak, correlation between the ESG ratings of the rating agencies, attributable to methodological differences between the agencies. This finding suggests that the three providers share similar objectives in identifying ESG risks and opportunities. However, due to differing interpretations and weighting methods, the results convey different emphases and focus, thus providing distinct information. Moreover, it is

**Table 2. Correlation coefficients of the variables included in the study**

Variable name		MorningStar Sustainalytics	LSEG	MSCI	Average price change
MorningStar Sustainalytics	Pearson's r	—			
	p-value	—			
LSEG	Pearson's r	0.090	—		
	p-value	0.535	—		
MSCI	Pearson's r	0.315*	0.343*	—	
	p-value	0.026	0.015	—	
Average price change	Pearson's r	-0.100	-0.234	-0.170	—
	p-value	0.488	0.101	0.238	—

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Source: based on own editing (2025)

noteworthy that during the period under review, no substantial correlation was identified between ESG ratings and changes in stock prices. In light of these findings, further research is recommended to enhance our understanding of the relationship. It would be advantageous to conduct this study again after 2030 for the same time period, as it is anticipated that the evolution of companies' ESG performance will become increasingly evident following the achievement of the 2030 Agenda targets. The present study is subject to several limitations, including the relatively small sample size and the cross-sectional nature of the research. These limitations are intended to be addressed in future studies by applying a broader methodology.

## REFERENCES

- ATZ, U.–VAN HOLT, T.–LIU, Z. Z.–BRUNO, C. C. (2022): Does Sustainability Generate Better Financial Performance? Review, Meta-analysis, and Propositions. *Journal of Sustainable Finance & Investment*, 13(1), 802–825. <https://doi.org/10.1080/20430795.2022.2106934>
- AWAYSHEH, A.–HERON, R. A.–PERRY, T.–WILSON, J. I. (2020): On the Relation Between Corporate Social Responsibility and Financial Performance. *Strategic Management Journal*, 41(6), 965–987. <https://doi.org/10.1002/smj.3122>
- BARBER, B. M.–ODEAN, T. (2008): All That Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors. *The Review of Financial Studies*, 21(2), 785–818. <https://doi.org/10.1093/rfs/hhm079>
- BEAVER, W. H. (1968): The Information Content of Annual Earnings Announcements. *Journal of Accounting Research*, 67–92. <https://doi.org/10.2307/2490070>
- BECKER, B.–MILBOURN, T. (2011): How Did Increased Competition Affect Credit Ratings? *Journal of Financial Economics*, 101(3), 493–514. <https://doi.org/10.1016/j.jfineco.2011.03.012>
- BERG, F.–KÖLBEL, J. F.–RIGOBON, R. (2022): Aggregate Confusion: The Divergence of ESG Ratings. *Review of Finance*, 26(6), 1315–1344. <https://doi.org/10.1093/rof/rfac033>
- BOROS, A.–LENTNER, C.–NAGY, V. (2022): A fenntarthatóság új szempontjai: a nem pénzügyi jelentések európai gyakorlatának elemzése. *Public Finance Quarterly*, 67(2). [https://doi.org/10.35551/PFQ\\_2022\\_2\\_2](https://doi.org/10.35551/PFQ_2022_2_2)
- BRADSHAW, M. T.–DRAKE, M. S.–MYERS, J. N.–MYERS, L. A. (2012): A Re-examination of Analysts' Superiority Over Time-series Forecasts of Annual Earnings. *Review of Accounting Studies*, 17, 944–968. <https://doi.org/10.1007/s11142-012-9185-8>
- OBÁDOVICS, C.–RESPERGER, R.–SZÉLES, ZS.–TÓTH, B. I. (2023): Társadalom – gazdaság – természet: szinergiák a fenntartható fejlődésben. *Conference Proceedings, Publisher: Soproni Egyetem Kiadó*. doi: 10.35511/978-963-334-450-7.
- CAPELLE-BLANCARD, G.,–PETIT, A. (2019): Every Little Helps? ESG News and Stock Market Reaction. *Journal of Business Ethics*, 157, 543–565 <https://doi.org/10.1007/s10551-017-3667-3>
- CHATTERJI, A. K.–DURAND, R.–LEVINE, D. I.–TOUBOUL, S. (2016): Do Ratings of Firms Converge? Implications for Managers, Investors and Strategy Researchers. *Strategic Management Journal*, 37(8), 1597–1614. <https://doi.org/10.1002/smj.2407>
- CHRISTENSEN, D. M.–SERAPEIM, G.–SIKOCHI, A. (2022): Why is Corporate Virtue in the Eye of the Beholder? The Case of ESG Ratings. *The Accounting Review*, 97(1), 147–175. <https://doi.org/10.2308/TAR-2019-0506>
- DEL MAR MIRAS-RODRÍGUEZ, M.–CARRASCO-GAL-LEGO, A.–ESCOBAR-PÉREZ, B. (2015): Are Socially Responsible Behaviors Paid Off Equally? A Cross-cultural Analysis. *Corporate Social Responsibility and Environmental Management*, 22(4), 237–256. <https://doi.org/10.1002/csr.1344>
- DELLAVIGNA, S.–POLLET, J. M. (2009): Investor Inattention and Friday Earnings Announcements. *The Journal of Finance*, 64(2), 709–749. <https://doi.org/10.1111/j.1540-6261.2009.01447.x>
- DI TOMMASO, C.–MAZZUCA, M. (2023): The Stock Price of European Insurance Companies: What is the Role of ESG Factors? *Finance Research Letters*, 56, 104071. <https://doi.org/10.1016/j.frl.2023.104071>
- ERHART, S. (2022): Take It With a Pinch of Salt—ESG Rating of Stocks and Stock Indices. *International Review of Financial Analysis*, 83, doi: 10.1016/j.irfa.2022.102308
- FENG, J.–GOODELL, J. W.–SHEN, D. (2022): ESG Rating and Stock Price Crash Risk: Evidence From China. *Finance Research Letters*, 46, 102476. <https://doi.org/10.1016/j.frl.2021.102476>
- FLAMMER, C. (2013): Corporate Social Responsibility and Shareholder Reaction: The Environmental Awareness of Investors. *Academy of Management Journal*, 56(3), 758–781. <https://doi.org/10.5465/amj.2011.0744>
- 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>
- GIBSON BRANDON, R.–KRUEGER, P.–SCHMIDT, P. S. (2021): ESG Rating Disagreement and Stock Returns. *Financial Analysts Journal*, 77(4), 104–127. <https://doi.org/10.1080/0015198x.2021.1963186>
- GLEASON, C. A.–LEE, C. M. (2003): Analyst Forecast Revisions and Market Price Discovery. *The Accounting Review*, 78(1), 193–225. <https://doi.org/10.2308/accr.2003.78.1.193>
- GREWAL, J.–RIEDL, E. J.–SERAPEIM, G. (2019): Market Reaction to Mandatory Nonfinancial Disclosure. *Management Science*, 65(7), 3061–3084. <https://doi.org/10.1287/mnsc.2018.3099>
- HIRSHLEIFER, D.–LIM, S. S.–TEOH, S. H. (2009): Driven to Distraction: Extraneous Events and Underreaction to Earnings News. *The Journal of Finance*, 64(5), 2289–2325. <https://doi.org/10.1111/j.1540-6261.2009.01501.x>
- JOSHIPURA, M.–MATHUR, S.–KEDIA, N. (2024): Sustainable Investing and Financing for Sustainable Development: A Hybrid Review. *Sustainable Development*, 32(5), 4469–4485. <https://doi.org/10.1002/sd.2912>
- KHAN, M.–SERAPEIM, G.–YOON, A. (2016): Corporate Sustainability: First Evidence on Materiality. *The Accounting Review*, 91(6), 1697–1724. <https://doi.org/10.2308/accr-51383>
- KOTSANTONIS, S.–PINNEY, C.–SERAPEIM, G. (2016): ESG Integration in Investment Management: Myths and Realities. *Journal of Applied Corporate Finance*, 28(2), 10–16. <https://doi.org/10.1111/jacf.12169>

- LA TORRE, M.–MANGO, F.–CAFARO, A.–LEO, S. (2020): Does the ESG Index Affect Stock Return? Evidence From the Eurostoxx50. *Sustainability*, 12(16), 6387. <https://doi.org/10.3390/su12166387>
- LEITE, B. J.–UYSAI, V. B. (2023): Does ESG Matter to Investors? ESG Scores and the Stock Price Response to New Information. *Global Finance Journal*, 57, 100851. <https://doi.org/10.1016/j.gfj.2023.100851>
- LI, T. T.–WANG, K.–SUEYOSHI, T.–WANG, D. D. (2021): ESG: Research Progress and Future Prospects. *Sustainability*, 13(21), 11663. <https://doi.org/10.3390/su132111663>
- LUPU, I.–HURDUZEU, G.–LUPU, R. (2022): How is the ESG Reflected in European Financial Stability? *Sustainability*, 14(16), 10287. <https://doi.org/10.3390/su141610287>
- NAUGHTON, J. P.–WANG, C.–YEUNG, I. (2019): Investor Sentiment for Corporate Social Performance. *The Accounting Review*, 94(4), 401-420. <https://doi.org/10.2308/accr-52303>
- PÁSTOR, L.–STAMBAUGH, R. F.–TAYLOR, L. A. (2022): Dissecting Green Returns. *Journal of Financial Economics*, 146(2), 403-424. <https://doi.org/10.1016/j.jfineco.2022.07.007>
- PEARCE, D.–ATKINSON, G. (1998): The Concept of Sustainable Development: An evaluation of its Usefulness Ten Years After Brundtland. *Revue Suisse d'Economie Politique et de Statistique*, 134, 251-270.
- PELOZA, J. (2009): The Challenge of Measuring Financial Impacts From Investments in Corporate Social Performance. *Journal of Management*, 35(6), 1518-1541. <https://doi.org/10.1177/0149206309335188>
- SERAFFEIM, G.–YOON, A. (2023): Stock Price Reactions to ESG News: The Role of ESG Ratings and Disagreement. *Review of Accounting Studies*, 28(3), 1500-1530. <https://doi.org/10.1007/s11142-022-09675-3>
- SHIU, Y. M.–YANG, S. L. (2017): Does Engagement in Corporate Social Responsibility Provide Strategic Insurance-like Effects? *Strategic Management Journal*, 38(2), 455-470. <https://doi.org/10.1002/smj.2494>
- TIMÁR, B. (2021): Hogyan árazza a piac a felelős és fenntartható befektetéseket? *Hitelintézet Szemle/Financial and Economic Review*, 20(2), 117-147. <https://doi.org/10.25201/HSZ.20.2.117147>
- WHELAN, T.–ATZ, U.–VAN HOLT, T.–CLARK, C. (2021): ESG and Financial Performance: Uncovering the Relationship by Aggregating Evidence From 1,000 Plus Studies Published Between 2015–2020. *New York: NYU Stern Center for Sustainable Business*, 520-536.