Proceedings of the 3rd International Conference on Financial Technology and Business Analysis
DOI: 10.54254/2754-1169/134/2024.18614

How ESG Factors Affect Corporate Valuation and Stock Investor Decisions

Ziyu Song[1,a,*]

[1]Renmin University of China, Haidian Street, Beijing, China
a. Songziyu221@163.com
**corresponding author*

Abstract: Recent studies indicate that ESG investing can positively influence overall economic health, leading to more substantial and sustainable returns for investors. The development of various data-driven scoring methods has improved the objectivity and efficiency of evaluating companies based on ESG principles, reducing investment risks and enhancing decision-making processes. Despite these advancements, challenges persist, including ongoing debates about the efficacy of mandatory ESG reporting, varied investor perceptions, and the quality of information disclosure. Regional analyses, such as evidence from China, suggest promising outcomes for ESG-focused portfolios, while the growing involvement of non-professional investors underscores the increasing importance of transparent and comprehensive ESG disclosures in shaping future investment landscapes.

Keywords: ESG investing, Sustainable returns, Data-driven scoring methods, Mandatory ESG reporting, Information disclosure quality.

1. Introduction

ESG investing entails incorporating Environmental, Social, and Governance (ESG) factors into traditional financial analysis to identify companies that deliver both economic returns and demonstrate responsible conduct in areas vital for sustainable growth. The Environmental component addresses a company’s environmental impact, such as carbon emissions, energy use, and efforts to combat climate change. The Social aspect relates to a company’s interactions with stakeholders, including labor conditions, diversity, and community involvement. Governance concerns how a company is managed, covering topics like board structure, executive pay, and transparency. The advantages of ESG investing include reducing risks, potentially achieving long-term gains, and aligning investments with personal ethics. Approaches to ESG investing include selecting top performers in ESG criteria (positive screening), excluding industries considered harmful (negative screening), focusing on specific sustainability themes (thematic investing), and engaging with companies to enhance their ESG practices (active ownership). Challenges such as varying data quality, the risk of greenwashing, and concerns about returns remain, but ESG investing is gaining traction as more investors recognize that ethical business practices can support sustainable financial performance.

2. The Evolution of ESG Investing and Its Main factors

Entering the fourth industrial revolution era, investors embed ESG (environmental, social, and governance) factors in their portfolio decisions due to the increasing care for the sustainability of human beings. The first introduction of ESG factors in 2019 in wealth management is to exclude those not favored companies, which undesirably leads to the underperformance of the early SRI (socially responsible investing) portfolios in the short term. Later, numerous public companies implemented voluntary disclosure of their ESG data, contributing to stable and convictive access to commercial and academic research [1]. Thanks to these studies, investing advisors turned to the positive application of ESG factors and gained great reputations through more mature SRI strategies. From the aspect of competitiveness, corporates with ESG reports align with stock exchanges' requirements, forming another motivation for ESG adoption [2]. Nevertheless, heated discussions about whether or not the enforcement of ESG reports functions well in investing determination still continue.

2.1. The Economic Impact of ESG Strategies

There are reasons why an increasing number of investors turn to ESG investing. As economically friendly factors of diverse dimensions were under consideration, the whole situation of an economy will react either positively or negatively to these ESG investing strategies. According to a recent study, the desirable consequences can in turn benefit the investing portfolio for the rise from a healthy economy is more dramatic than the decline from a sick one [3]. Once the ESG portfolio enhances the economy, the investors may well get an invisible but strong enough promise to gain what they basically want. Eventually, this will be a win-win scene for both the economy to improve steadily and investors to earn substantially. In other words, it is more efficient for strategists to dive into whether their decisions can contribute to the whole economy instead of sticking to the numbers on the simulative line charts.

2.2. ESG Scoring Systems and Their Benefits

In an attempt to help with the determination of which several companies or how combined projects can provide the most promising achievements to the economy, investing teams invented numerous methods to score them from the point of ESG principles. One of the approaches is called ESG investing: A statistically valid approach to data-driven decision-making (ESGI-SVADDM) by two researchers who examined the influences of environment, society, and governance on investment from the angle of statistics. This approach is supposed to be a strict and rigorous way to weaken personal preference and increase objectivity during investing [4].

Catering to the peaceful development between nature and human beings, people began to score ESG performance on an irresistibly larger scale. Due to the significance of ESG scores in investing decisions, plenty of basic factors are dug into and classified in order to fundamentally support the ultimate ESG scores. Increasing more details in the process of score calculating, investors can rank and filter different projects with more concrete data, which will observably decrease the "tracking error" and present better feedback from risk adjustment [5]. Such tiny changes answer the ambiguous questions haunting those conventional investors with marked improvements in ESG scores.

2.3. Investor Attitudes and Challenges in Implementing ESG Investing

Another research makes a deep analysis into how different factors make a difference to the categories they belong to. This research can not only offer investing suggestions to those who want to carry out investment but also hopefully give instructions for those who want to gain investment to improve

DOI: 10.54254/2754-1169/134/2024.18614

their ESG scores [6]. Research shows that investor attitudes are influenced by their perception of ESG (Environmental, Social, and Governance) factors, which in turn affects their investment decisions. Additionally, ESG activities can moderate the relationship between ESG perceptions and investment decisions. To maintain a positive attitude, investors need to recognize the company's contributions to environmental protection. Therefore, it is recommended that practitioners develop strategies and utilize platforms such as advertising, social media, or the company's website to promote the company's environmental initiatives. The results indicate that investor attitudes play a mediating role in investment choices, and although the impact is limited, it is still worth noting.

More than one research connects ESG investing with financial performance, among which a group employs the PVAR-Granger causality model and a fixed-effects panel data model to analyze a comprehensive dataset of 234 ESG-rated REITs from five developed economies, covering the period from 2003 to 2019 [7]. According to the research, investors place greater emphasis on the performance of socially-focused investments, especially during the post-global financial crisis period from 2011 to 2019. The positive premium associated with social investments supports stakeholder theory, as the social impact can be monetized into higher returns and lower systemic risk, creating a competitive advantage.

Though ESG investing strategies are super popular among academia, still a great many investors find them difficult to come into practice. An article examines ESG (Environmental, Social, and Governance) investing behavior by analyzing over 13,000 messages exchanged among finance professionals between 2017 and 2020. There is a general agreement that distinguishing between firms with low and high ESG performance is necessary for ESG investing, but it alone is not sufficient [8]. Sentiment analysis reveals that asset managers generally have a negative perception of ESG investing, which is surprising given the growing popularity of ethical investing. To harness the potential positive externalities of ESG investing, it may be necessary for regulators and investors to take action to enhance the quality of information disclosure and to encourage fund managers to include nonfinancial criteria in their investment models.

2.4. Evidence from Global Markets

Chinese evidences prove that ESG investing is a promising direction for future investing development. The portfolio-level analysis indicates that portfolios with either high or low ESG ratings can generate higher abnormal returns, indicating a potential non-linear connection between ESG ratings and portfolio excess returns. At the stock level, the influence of ESG on future stock returns varies depending on the pillar and sector. Governance and social pillars have contrasting effects on return predictions. Specifically, in the secondary sector, higher ESG scores tend to predict lower returns, whereas in the tertiary sector, higher ESG scores are linked to higher returns [9].

This conclusion is not one-sided. In the context of the United Nations Sustainable Development Goals (SDGs), both the United States and China have set forth ambitious environmental, social, and governance (ESG) investment initiatives. However, the existing literature presents a dichotomy regarding the impact of rising ESG practices on firm value (FV). This study explores both the linear and nonlinear effects of ESG practices on FV, while also examining the moderating role of growth-option value (GV) within the real-option framework. Using data from 5,220 publicly listed firms in the US and China between 2018 and 2022, and employing a generalized method of moments model, the study finds that ESG practices exert a nonlinear influence on FV [10]. Specifically, the impact of ESG practices on FV shifts from positive to negative as the intensity of these practices increases, with the effect being more pronounced in Chinese firms compared to their US counterparts. Additionally, the study reveals that GV negatively moderates the relationship between ESG practices and FV across the sample. The endogeneity-adjusted results are robust and carry significant policy implications.

DOI: 10.54254/2754-1169/134/2024.18614

While supporters have offered substantial evidence, critics have also uncovered data to challenge these claims. One article analyzes the influence of ESG screening on portfolio performance across four risk-weighting models in China's stock market from July 2012 to June 2019. Using an innovative ESG rating dataset for CSI 300 stocks, the research shows that: (i) ESG screening reduces portfolio value in the equal-weighted (EW), value-weighted (VW), minimum variance (MVP), and reward-to-risk (RRT) models, with portfolios in the High-ESG group showing the lowest out-of-sample returns, Sharpe ratios, and cumulative wealth; (ii) Once adjusted for asset pricing models, High-ESG portfolios generally deliver the lowest risk-adjusted returns per idiosyncratic volatility (IVOL); (iii) ESG screening lowers portfolio value by excluding stocks with attractive risk-return profiles, leading to a conservative investment strategy that is costly for both ESG-focused and traditional investors. These findings highlight that despite the growing popularity of ESG investing, portfolio managers in emerging markets should weigh the opportunity costs of implementing such screening [11].

2.5. Diverse Opinions on ESG

The most remarkable challenge may be the opinions of unprofessional investors in decisions. A recent study seeks the conclusion from the responsible sourcing issues of chocolate production and it turns out that there is no evidence of a significant increasing impact on investment value based on ESG process disclosure in comparison with ESG targets disclosure [12]. But there is one thing for sure that both ESG process disclosure and ESG target disclosure can contribute to the escalation of investment allocation. With an increasing number of unprofessional investors flooding into the stock market, in what way and to what extent they consider ESG disclosure is becoming inevitably important.

There are varying opinions on ESG investing, with two key factors being the perspective taken and the investment payback period. A study reviews recent literature on how investors incorporate Environmental, Social, and Governance (ESG) criteria into their decisions, either aiming for higher returns or seeking a positive social impact. According to models that account for investors' preferences for ESG investments, green assets are expected to deliver lower long-term returns compared to non-ESG assets. However, in the short term, ESG investments may outperform non-ESG ones through several channels [13]. The empirical evidence comparing the performance of ESG and non-ESG investments is mixed. Nevertheless, strong evidence shows that investors value ESG factors, and their participation can lead to positive societal outcomes. The growing focus on sustainable business practices is driven by the higher market value and lower cost of capital that green companies enjoy, shaped by investor preferences.

2.6. Innovation and Legal Complexities in ESG Investment

At a time when different views are colliding violently, innovation and exploration have become one of the most important keywords in ESG investment. In one article, researchers analyze how innovative practices can support trustees in engaging in ESG investing, particularly in light of recent developments. The question of whether trustees may consider ethical factors in investment decisions has been widely debated in existing literature, with the prevailing view being that the Cowan v Scargill case did not establish a strict rule against ethical investing [14]. However, in the absence of legal reform or clarification, trustees still face a complex and uncertain legal environment. This article examines the issue by analyzing the structure of a new express private trust and identifying potential risks that may discourage trustees from pursuing ethical investments. These risks vary based on the approach to ethical investing. ESG integration with a focus on long-term financial returns is generally defensible, while broad exclusion through portfolio screening may encounter more resistance. With these risks in mind, we introduced John, an environmentalist, to various structuring solutions, each emphasizing different aspects. The main challenge is balancing competing factors such as certainty, flexibility, and accountability. Rather than offering a perfect solution, we recognize that the outcome depends largely on John's goals and the level of compromise he and his trustee are willing to make. Still, we hope the structuring toolkit we've developed, which helps in identifying and managing risks, will give settlers and trustees more confidence in directing wealth toward sustainability initiatives.

The proposed ESG investment approach emphasizes its role in public affairs, with numerous studies examining this. This study explores how environmental, social, and governance (ESG) practices affect the investment performance of Australian energy and utility companies. Using monthly returns and ESG scores from S&P/ASX 300-listed energy and utility firms between 2014 and 2022, the research builds both conventional and ESG-rated portfolios. Portfolio performance is evaluated through a four-factor regression model, considering the economic shocks from the COVID-19 pandemic. The results show that portfolios with lower ESG scores, particularly in the overall ESG and environmental categories, outperform the market, although they do not outperform other ESG or conventional portfolios. Surprisingly, high ESG scores do not improve the performance of energy and utility portfolios, indicating that adopting ESG practices may not result in better risk-return outcomes. The study also suggests that a contrarian investment strategy might be effective for high-rated ESG portfolios. Additionally, ESG practices did not influence portfolio performance during the COVID-19 pandemic [15]. This research contributes to the literature by providing insights into ESG investment for policymakers, regulators, fund managers, and investors, and supports the agency perspective on ESG practices and the efficient market hypothesis. It implies that investors, regardless of ESG scores, might consider passive investment in diversified energy and utility portfolios or low-cost index fund alternatives.

ESG investment opens new ideas for investors and injects new vitality into the investment market. In the context of contemporary environmental, social, and governance (ESG) investing principles, this study examines the risk–reward characteristics of portfolios in the United States, Europe, and Japan, constructed using the foundational principles of Markowitz's modern portfolio theory. The analysis utilizes data from six major ESG rating agencies and covers the period from 2014 to 2020. The authors report statistically significant excess returns in ESG portfolios in both the United States and Japan during this period [16]. To enhance portfolio performance, they propose several methods for aggregating individual ESG ratings, including statistical approaches and voting-based methods grounded in social choice theory. Their findings indicate that aggregating ESG ratings improves portfolio performance, and using Treynor–Black weights further enhances the performance of ESG portfolios. Overall, the results suggest that despite the noisy nature of ESG rating scores, they can provide meaningful signals that enhance portfolio construction.

3. Conclusion

As the fourth industrial revolution progresses, ESG (Environmental, Social, and Governance) factors have become increasingly important in investment decisions due to growing concerns about sustainability. Initially, the integration of ESG factors in wealth management, starting in 2019, led to the exclusion of less favored companies, which caused early socially responsible investing (SRI) portfolios to underperform in the short term. However, as public companies began voluntarily disclosing their ESG data, investment advisors shifted towards more positive applications of ESG factors, leading to more mature SRI strategies and enhanced reputations. Companies have also adopted ESG reporting to meet stock exchange requirements, further motivating ESG adoption. Despite these developments, debates continue over the effectiveness of mandatory ESG reporting in influencing investment decisions.

Investors are increasingly drawn to ESG investing for various reasons, recognizing that ESG strategies can positively impact the broader economy, potentially leading to stronger returns. Research shows that ESG portfolios can contribute to economic health, providing investors with the

DOI: 10.54254/2754-1169/134/2024.18614

assurance of sustainable gains. To support better investment decisions, various methods have been developed to score companies based on ESG principles, enhancing objectivity and reducing personal bias. This scoring process, along with increased data analysis, helps investors rank and filter projects more effectively, ultimately reducing risks and improving returns. However, challenges remain, particularly regarding the attitudes of investors and the quality of information disclosure, which can impact the practical implementation of ESG investing strategies.

References

[1] Peter Roselle.(2016).The Evolution of Integrating ESG Analysis into Wealth Management Decisions.Journal of Applied Corporate Finance(2), 75-79.

[2] Lu.(2016).The 'legalisation' of corporate social responsibility: Hong Kong experience on ESG reporting.Asia Pacific Law Review(2), 123-148.

[3] Buckle, D. (2023). The futility of measuring relative performance of ESG portfolios if ESG investing improves the market performance. Journal of Asset Management, 24(7), 601–607. https://doi.org/10.1057/s41260-023-00339-8

[4] Teja, K. R., & Liu, C. (2024). ESG Investing: A Statistically Valid Approach to Data-Driven Decision Making and the Impact of ESG Factors on Stock Returns and Risk. IEEE Access, Access, IEEE, 12, 69434–69444. https://doi.org/10.1109/ACCESS.2024.3401873

[5] Ehlers, T., Elsenhuber, U., Jegarasasingam, A., & Jondeau, E. (2024). Deconstructing ESG scores: investing at the category score level. Journal of Asset Management, 25(3), 222–244. https://doi.org/10.1057/s41260-024-00356-1

[6] Makhija, P., Chacko, E., Kukreja, M., & Agarwal, S. (2023). Sustainable Investing with ESG-Variables Impacting Individual Investor Decisions. SDMIMD Journal of Management, 14(2), 91–101. https://doi.org/10.18311/sdmimd/2023/32699\

[7] Erol, I., Unal, U., & Coskun, Y. (2023). ESG investing and the financial performance: a panel data analysis of developed REIT markets. Environmental Science and Pollution Research, 30(36), 85154–85169. https://doi.org/10.1007/s11356-023-28376-1

[8] Zeidan, R. (2022). Why don't asset managers accelerate ESG investing? A sentiment analysis based on 13, 000 messages from finance professionals. Business Strategy & the Environment (John Wiley & Sons, Inc), 31(7), 3028–3039. https://doi.org/10.1002/bse.3062

[9] Zhang, X., Zhao, X., & He, Y. (2022). Does It Pay to Be Responsible? The Performance of ESG Investing in China. Emerging Markets Finance and Trade, 58(11), 3048–3075. https://doi.org/10.1080/1540496X.2022.2026768

[10] Bagh, T., Fuwei, J., & Khan, M. A. (2024). Corporate ESG Investments and Firm's Value under the Real-Option Framework: Evidence from Two World-Leading Economies. Borsa Istanbul Review, 24(2), 324–340. https://doi.org/10.1016/j.bir.2024.01.002

[11] Wang, Z., Liao, K., & Zhang, Y. (2022). Does ESG Screening Enhance or Destroy Stock Portfolio Value? Evidence from China. Emerging Markets Finance and Trade, 58(10), 2927–2941. https://doi.org/10.1080/1540496X.2021.2014317

[12] Sanseverino, A., González-Ramírez, J., & Cwik, K. (2024). Do ESG progress disclosures influence investment decisions? International Journal of Disclosure and Governance, 21(1), 107–126. https://doi.org/10.1057/s41310-023-00198-0

[13] Kräussl, R., Oladiran, T., & Stefanova, D. (2024). A review on ESG investing: Investors' expectations, beliefs and perceptions. Journal of Economic Surveys, 38(2), 476–502. https://doi.org/10.1111/joes.12599

[14] Ooi, V., & See, A. W.-L. (2024). Promoting ESG Investing by Trustees: Risk Management and Structuring Solutions. King's Law Journal, 35(1), 68–88. https://doi.org/10.1080/09615768.2024.2323795

[15] Niblock, S. J. (2024). ESG and the performance of energy and utility portfolios: evidence from Australia. Studies in Economics and Finance, 41(3), 502–521. https://doi.org/10.1108/SEF-06-2023-0366

[16] Berg, F., Lo, A. W., Rigobon, R., Singh, M., & Zhang, R. (2024). Quantifying the Returns of ESG Investing: An Empirical Analysis with Six ESG Metrics. Journal of Portfolio Management, 50(8), 216–238. https://doi.org/10.3905/jpm.2024.50.8.216