

Integration of ESG Factors in Portfolio Management: International Trends and Practices

Ningwei Ma^{1,*}

¹ School of Accounting Hangzhou Dianzi University, Hangzhou, Zhejiang, China

* Corresponding author: Ningwei Ma (Email: 2773641161@qq.com)

Abstract: The promotion of the concept of sustainable development has made ESG (Environmental, Social, and Governance) investing a significant trend in today's investment landscape. This article elaborates on the relevant concepts of ESG investing, analyzes the global development of ESG investing, explores the relationship between ESG ratings and company financial and non-financial performance, and suggests the correlation between rating systems and capital costs, employee satisfaction, and more. Based on this foundation, the article discusses the specific application of ESG factors in international portfolio management, including ESG integration methods, portfolio construction strategies, and risk management. Research indicates that the consideration of ESG factors provides a more comprehensive dimension for investment decision-making, emphasizing sustainability in investment portfolios, and offering valuable insights for investors and businesses.

Keywords: ESG Investment, Sustainable Finance, Portfolio Management, Corporate Performance.

1. Introduction

With the increasing global societal focus on sustainability and environmental issues, Environmental, Social, and Governance (ESG) factors are playing an increasingly crucial role in portfolio management. ESG investment, which involves incorporating these non-financial factors into investment decisions, has become a focal point in international trends and practices. Investors, asset management firms, and businesses are increasingly realizing that, in addition to seeking financial returns, they must actively promote sustainability, social responsibility, and ethical conduct in the investment process. This article explores the integration of ESG factors in international portfolio management, encompassing ESG integration methods, ESG portfolio construction strategies, and ESG investment risk management. Through comprehensive analysis, the research reveals the pivotal role that ESG factors play in today's investment landscape and the significant impact they have on investment decisions and strategic planning for businesses. As global society's awareness of the importance of sustainability continues to grow, ESG integration in investment strategies is no longer optional but imperative. By delving into ESG integration methods, portfolio construction strategies, and risk management, this article underscores the profound influence of ESG factors on investment decisions and their vital role in shaping the strategic direction of businesses.

2. ESG Investment Concepts and Overview of Development

2.1. ESG Investment Concepts

ESG investment is an approach that incorporates environmental, social and corporate governance factors into investment decision-making and portfolio management. On the environmental aspect, ESG investment considers a company's resource efficiency, carbon emission control, waste disposal and other sustainable development practices. The social dimension focuses on a company's relationship

with its employees, local communities, such as employee rights, supply chain management, product quality etc. In terms of corporate governance, ESG investment evaluates a company's board structure, anti-corruption measures, information transparency and more. By comprehensively assessing the E, S and G factors, ESG investment can identify sustainability risks and discover well-managed sustainable companies more thoroughly. Incorporating non-financial information into investment decisions is the core concept and unique advantage of ESG investment, which also distinguishes it from traditional investing approaches. Through integrated analysis of ESG elements, investors can achieve steady investment returns and promote corporate sustainability for social good.

2.2. International Overview of ESG Investment Development

Globally, ESG investing is booming. As shown in Table 1, although there are some differences in ESG development in different countries and regions, ESG investment has become an important development trend in the global capital market. Developed economies actively promote ESG investment, such as the European Union's Sustainable Finance Action Plan, which requires financial institutions to incorporate ESG factors into investment decisions and risk management, providing strong support for ESG investment. In the United States, despite a relatively loose regulatory environment, ESG funds and strategies have also attracted attention, with regulators gradually strengthening ESG information disclosure requirements and promoting the development of the ESG investment market. In terms of emerging markets, the Chinese government has taken active policy measures to promote the development of ESG investment, making China a leader in ESG investment among developing countries. However, Asian markets also face some challenges, such as insufficient ESG data and limited room for improvement of information transparency, as well as insufficient regulatory coordination. Despite different country differences, ESG investing has become an important trend leading global capital markets. The experience of advanced economies and

the growth dynamics of emerging markets provide favorable conditions for ESG investing to flourish. With the continuous improvement of regulatory coordination and market mechanism, the application and integration of ESG factors on

a global scale will reach a new height. In the future, ESG investing will continue to be integrated into global investment decisions and play a greater role in sustainable finance.

Table 1. Overview of ESG Development in Major International Countries and Regions

| Country/Region | Asset Size | Policy Environment | Information Disclosure | Rating System |
|----------------|--------------------|--------------------|------------------------|---------------------|
| Europe | Rapid Growth | Multiple policies | High | Mature |
| USA | Steadily Expanding | Relatively Lenient | Gradually Increasing | Influence Expanding |
| China | Rapid Growth | Strongly Support | Requires Enhancement | Under Construction |

3. ESG Factors and Corporate Performance

3.1. ESG Ratings and Financial Performance

Companies with high ESG (Environmental, Social, and Governance) ratings tend to achieve superior financial performance. Focusing on ESG issues enables companies to better identify and mitigate environmental, social, and governance risks, reducing financial impacts from legal disputes and environmental pollution. For instance, Apple strengthened its supply chain human rights management and environmental audits, lowering operational risks. Companies with outstanding ESG performance find it easier to attract socially responsible investors, gaining more robust financial support and reducing capital costs. Proactively addressing ESG issues enhances a company's image and brand influence, improves product competitiveness, and boosts profitability. For example, Coca-Cola's water resource management project enhanced its brand reputation. Effective ESG planning and initiatives also enhance operational efficiency, such as energy and resource conservation, reducing production costs. Alibaba has consistently ranked high on ESG rating lists, and its efforts in green operations and employee care are linked to its strong profitability and market value growth. Samsung Electronics emphasizes green product innovation and environmental management, closely connecting its ESG performance to brand influence growth and revenue increase. It's evident that companies from emerging economies also demonstrate the positive correlation between ESG performance and financial performance.

3.2. ESG Information Disclosure and Capital Costs

A company's comprehensive and accurate disclosure of ESG information can lower its capital cost. Robust ESG disclosure enhances corporate transparency and establishes investor confidence, facilitating financing from responsible institutional investors and social responsibility funds. Freshwater Valley Company, for example, gained broader investor recognition by publishing dedicated ESG reports to strengthen information disclosure. Clear and reliable ESG data disclosure enables companies to obtain funding through diverse channels, expanding financing avenues. Standardized ESG information disclosure assists companies in identifying environmental and social risks, and proactively taking risk management measures. This reduces business uncertainties and lowers capital costs. The formula describing the relationship between capital cost and transparency is:

$$C = C_0 - (\alpha * T) + (\beta * FS) - (\gamma * RI) \quad (1)$$

In this formula, C represents the company's capital cost, C_0 represents the benchmark capital cost, T represents the company's transparency level, FS represents the sources of funds attracted by the company, RI represents the level of environmental and social risks identified by the company through ESG information disclosure, and α , β , and γ represent the coefficients related to transparency, funding sources, and risk identification.

3.3. ESG Ratings and Non-Financial Performance of Companies

ESG ratings are not only related to a company's financial performance, but also to employee attractiveness, social responsibility and innovation ability, which have a profound impact on a company's overall performance. Companies with good ESG performance are better positioned to attract and retain talent. Companies with higher ESG ratings are generally better able to attract and retain high-quality employees. For example, Apple has made outstanding performance in carbon neutrality, supply chain supervision and other aspects, and its positive corporate social responsibility image is more likely to attract outstanding employees with social responsibility. The company's ESG level affects corporate culture and employee sense of belonging, and employees tend to be more willing to work with companies that actively pay attention to social and environmental issues and tend to work in companies with positive cultures. Ikea has established good internal governance and corporate culture, and employee satisfaction has always been among the highest in the world. In companies that frequently generate negative news due to environmental pollution or human rights issues, employees will feel a sense of crisis and loss of belonging. At the same time, ESG performance is closely related to corporate innovation, and companies that advocate human rights and inclusiveness are more able to stimulate employee creativity. As shown in Figure 1, Company A, a technology enterprise with high scores in terms of ESG ratings, has implemented policies such as flexible working hours, employee well-being programs, and career development support, and its employee satisfaction is significantly higher, promoting the company's non-financial performance. Company B has a low score in ESG rating, and its employee satisfaction is relatively low. Employees are not satisfied with its working environment and treatment, so there is a risk of low employee satisfaction.

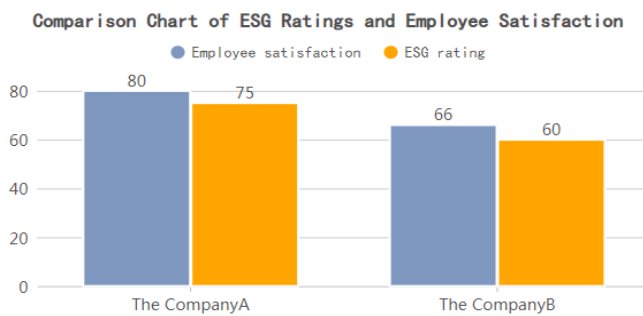


Figure 1. Comparison Chart of ESG Ratings and Employee Satisfaction

4. Application of ESG Factors in International Portfolio Management

4.1. ESG Integration Methods

ESG integration methods play an increasingly important role in international trends and practices. The primary objective is to incorporate environmental, social, and governance (ESG) factors into the investment decision-making process to comprehensively assess potential risks and opportunities while promoting sustainable investments. Globally, investors are becoming increasingly aware of the impact of ESG factors on portfolios, and the adoption of ESG integration methods has become an international trend and practice. Investors actively seek reliable ESG data to gain a better understanding of the ESG performance of potential investment targets, integrating it with financial data to obtain a more comprehensive picture of companies. Investors using ESG data as part of their decision-making process help establish a more comprehensive assessment of risks and opportunities, better reflecting a company's long-term value. ESG ratings and rankings are widely used to help investors identify high-performing companies. Investors use these ratings and rankings as one of the bases for their investment decisions. Companies with high ESG ratings are generally considered more sustainable and preferred for investment. Conversely, companies with low ESG ratings require more careful scrutiny to understand potential risks. Some investors use ESG integration models, combining ESG factors with financial models to assess a company's long-term value. This integration method helps to better understand a company's performance and potential long-term risks. By combining ESG factors with financial factors, investors can comprehensively evaluate a company's sustainability, better meeting the increasingly important goals of sustainable investing.

4.2. ESG Portfolio Construction Strategies

In international trends and practices, the choice of ESG (Environmental, Social, and Governance) investment portfolio construction strategies is of paramount importance for investors. These strategies can be tailored based on investment objectives, risk preferences, and ESG standards to ensure that the portfolio not only aligns with sustainability goals but also delivers satisfactory financial returns. Positive strategies focus on high ESG performance companies, taking a proactive stance towards ESG factors and aiming to support those excelling in environmental, social, and governance aspects. Investors utilize ESG ratings, quantitative metrics, and ESG reports to screen and select companies. For example, an investment institution may opt to incorporate companies with high ESG ratings into its core investment portfolio to

achieve sustainability objectives. Exclusion strategies emphasize the exclusion of companies with lower ESG performance or involvement in controversial activities. This primarily includes the exclusion of companies engaged in carbon energy, weapons manufacturing, tobacco, or other contentious businesses. Exclusion strategies often rely on ethical, moral, or sustainability criteria to ensure that the portfolio remains disassociated from companies that do not align with the investors' values. Theme strategies place their focus on specific ESG themes, such as renewable energy, social responsibility, women's leadership, among others. Investors can construct portfolios that support these themes. For instance, an investment institution may be preparing to establish a renewable energy fund, with a primary focus on supporting renewable energy companies to advance sustainable energy development. ESG index funds are a method of building portfolios by tracking specific ESG indices designed to represent high ESG performance companies. Investors can choose to invest in ESG index funds to obtain broadly diversified high ESG performance investment portfolios.

4.3. ESG Investment Risk Management

ESG (Environmental, Social, and Governance) investment risk management plays a pivotal role in safeguarding investment portfolios from unnecessary ESG-related risks. This primarily involves regular portfolio assessments to identify environmental, social, and governance issues associated with companies, as well as potential ESG events and vulnerabilities. Investors should actively employ reliable ESG data and analytical tools to gain a more comprehensive understanding of potential risks and take corresponding measures. By diversifying their portfolios, which means investing in a variety of assets and industries, investors can effectively reduce concentration risk, thus mitigating the adverse impact of ESG events related to a single company or industry on the entire portfolio, achieving a more balanced risk-return allocation. It's worth noting that ESG regulations and policies vary in different regions and have different degrees of impact on companies. Investors need to closely monitor changes in the regulatory environment to better anticipate potential impacts, thus more effectively managing ESG risks in their portfolios. In this process, reliable ESG data and analytical tools play a crucial role by providing valuable insights into a company's ESG performance, risks, and opportunities, helping to gain a deeper understanding of potential risks as well as a company's ESG performance. For instance, Bloomberg Terminal offers a wealth of ESG data resources, including historical ESG ratings for companies over the past decade, industry comparative analysis, and future target forecasts. These data resources support investors in conducting forward-looking ESG research, contributing to improved decision-making and risk management. Through these tools, investors can gain a more comprehensive understanding of a company's sustainability capabilities, providing robust support for their ESG investment strategies. In an ever-evolving ESG landscape, proactively managing ESG risks and harnessing the power of reliable data and analytics is critical for investors to navigate this complex terrain successfully and ensure their portfolios remain resilient in the face of ESG-related challenges.

5. Conclusion

This article comprehensively explores the concept of ESG

(Environmental, Social, and Governance) investment and elucidates the relationship between ESG factors and a company's financial and non-financial performance. Research indicates that companies with strong ESG performance often achieve better operational results and lower capital costs. In international practice, investors widely employ various ESG integration methods and construct ESG-oriented investment portfolios based on various sustainable investment strategies. The study underscores the significant strategic and practical implications for investors. It reveals that taking ESG factors into consideration provides a more comprehensive dimension for investment decisions and emphasizes the importance of focusing on sustainability, social responsibility, and ethical business practices. ESG performance often serves as a critical indicator of a company's commitment to responsible business operations, which, in turn, can impact financial performance. Looking ahead, with the rapid development of sustainable finance, ESG investments are poised to have a more substantial impact on investors' portfolios and corporate behavior. ESG principles are becoming deeply ingrained in the investment landscape, and investors are likely to play a pivotal role in shaping a more sustainable and responsible future by supporting companies that adhere to ESG values and practices.

References

- [1] Kotsantonis, Sakis, Chris Pinney, and George Serafeim. "ESG integration in investment management: Myths and realities." *Journal of Applied Corporate Finance* 28.2 (2016): 10-16.
- [2] Zaccone, Maria Cristina, and Matteo Pedrini. "ESG factor integration into private equity." *Sustainability* 12.14 (2020): 5725.
- [3] Briand, Remy, Roger Urwin, and Chin Ping Chia. "Integrating ESG into the investment process." MSCI ESG Research, New York, NY, available at: www.msci.com/resources/research_papers/integrating_esg_into_the_investment_process_2.html (accessed 20 April 2013) (2011).
- [4] Amon, Julian, Margarethe Rammerstorfer, and Karl Weinmayer. "Passive ESG portfolio management — the benchmark strategy for socially responsible investors." *Sustainability* 13.16 (2021): 9388.
- [5] Naffa, Helena, and Máté Fain. "Performance measurement of ESG-themed megatrend investments in global equity markets using pure factor portfolios methodology." *PloS one* 15.12 (2020): e0244225.
- [6] Van Duuren, Emiel, Auke Plantinga, and Bert Scholtens. "ESG integration and the investment management process: Fundamental investing reinvented." *Journal of Business Ethics* 138 (2016): 525-533.
- [7] Kuzmina, Jekaterina, et al. "ESG Integration as a Risk Management Tool within the Financial Decision-making Process." *Digital Transformation, Strategic Resilience, Cyber Security and Risk Management*. Emerald Publishing Limited, 2023. 105-113.
- [8] Eccles, Robert G., Mirtha D. Kastrapeli, and Stephanie J. Potter. "How to integrate ESG into investment decision - making: Results of a global survey of institutional investors." *Journal of Applied Corporate Finance* 29.4 (2017): 125-133.
- [9] Åneman, Astrid Ebba Karin, and Sara Louise Björk. "To What Extent are ESG Related Factors Integrated into Risk Management Practices in Nordic Pension Funds."
- [10] Xue, L. & Di, H. Research on futures portfolio management based on uncertainty theory [J]. *Price Theory & Practice*, 2021(05):136-139.
- [11] Wang, F. China ESG Investment Development Report: Talent Shortage, Information disclosure problems to be solved [N]. *China Business News*, 2023-10-10(A07).
- [12] Dong Zitong. ESG investment is insufficient, dragging down the process of energy transformation in Europe and the United States [N]. *China Energy News*, 2023-09-18(014).
- [13] Li Jinglin, Yang Hongjie. ESG and corporate finance: Research review and Outlook [J]. *Friends of Accounting*, 2023(15):69-74.
- [14] Zheng, S. Research on the Impact of ESG performance on enterprise Investment Efficiency [D]. Qilu University of Technology, 2023.
- [15] Zhao, W. et al. Research on the Impact of ESG performance on stock Price synchronism [D]. Yunnan University of Finance and Economics, 2023.
- [16] Wang, Y. Impact of ESG performance on corporate Investment Efficiency [D]. Donghua University, 2023.