Proceedings of the 7th International Conference on Economic Management and Green Development
DOI: 10.54254/2754-1169/39/20231967

Assessment of Potential Risks of Current ESG Investment

Ruiyang Chen[1,a,*]

[1]*New York University Shanghai, Shanghai, 200122, China*
a. rc4490@nyu.edu
**corresponding author*

Abstract: This paper addresses the critical need for a systematic examination of risks in the field of Environmental, Social, and Governance (ESG) investment. By categorizing these risks into three main dimensions - consumer side, corporate side, and regulatory side - this study presents a refined analysis of the distinct risks faced by each stakeholder. The identified risks include costs, limitations of investment models, environmental risks, and risks associated with inconsistent standards. Importantly, this research bridges the gap in previous literature by providing a comprehensive and systematic investigation of ESG investment risks. To mitigate these risks, this paper integrates cutting-edge theories and models to propose practical recommendations for risk management and control. By doing so, it offers valuable insights for investors, corporations, and regulatory bodies seeking to strengthen their understanding of and ability to navigate ESG investment risks effectively. Furthermore, this study forecasts future trends, allowing for reasonable considerations of potential policy changes and the evolution of investment models. By providing such insights, the paper offers a perspective that is forward-looking and adaptable to emerging developments. In summary, this research contributes to the understanding of ESG investment risks by presenting a comprehensive analysis and proposing actionable measures to mitigate these risks. It fills the gap in the existing literature and offers practical significance for stakeholders involved in ESG investment. Additionally, the study presents a forward-looking perspective by offering reasonable projections for future trends.

Keywords: ESG investment, risk assessment, rating criteria

1. Introduction

Environmental, Social, and Governance (ESG) investment is now a worldwide heated topic, numerous conference reports, academic papers, and corporate studies are focusing on ESG topics. In addition to the growing influence of ESG topics at the academic level, ESG investment and regulation are becoming increasingly important on the government side. The SEC recommended changes to its regulations and reporting requirements on May 25, 2022, to make it easier to tell investors about how funds and advisers are incorporating ESG factors. Certain registered investment advisers, advisors exempt from registration, registered investment firms, and business development organizations would be subject to the proposed amendments [1]. According to the MAS, On September 12, 2022, ESGenome, a collaborative project of the MAS and SGX Group, was launched as a digital disclosure site enabling businesses to publish ESG data. [2]. Besides that, in the wider world, the EU and China have adopted a number of ESG-related proposals in recent years, such as the CSRD and the TCFD

DOI: 10.54254/2754-1169/39/20231967

Recommendation to optimize regulatory guidance for listed companies and large companies. The development of these policies and guidance recommendations significantly reveals the important role of ESG development in policymakers' plans, and that for the foreseeable future, consumers, markets, and governments will deepen their collaboration in the ESG arena to achieve more sustainable development.

However, current ESG investment systems and frameworks are still in their infancy, so it is critical to review the potential risks of ESG investment. According to Boffo & Patalano, there are a number of possible hazards associated with ESG, including the subjective components' opacity, market bias, and transparency difficulties [3]. In addition, climate risk, investor risk, the lack of current models for measuring ESG investment outcomes, and the potential conflict between new ESG measurement models (such as the Brown Penalizing Factor (BPF), which measures carbon bias and the Green Supporting Factor (GSF)) and financial markets are a series of potential risks that investors, markets, and policymakers should carefully weigh today. In addition to academia, some of the leading experts in the investment field also have a cautious or negative attitude toward ESG Investment. The hype surrounding ESG has significantly outpaced the reality of what it is and what it can deliver, according to Damodaran, who made this observation in a lecture given on campus and the investor platform Seeking Alpha. He also noted that the buzzwords are ineffective [4]. Under this circumstance, it is important to provide a systematic overview of the potential risks faced by ESG investment in the modern era. Therefore, in order to fill the gap in the review of potential risks of current ESG investments, this paper will discuss the potential investment risks of the current ESG system from three perspectives: consumers, companies, and governments.

2. ESG Challenges

2.1. Risks of Consumer Investment in ESG

The first significant challenge that consumers or investors, whether professional investment institutions or individual investors or researchers, face in ESG investing is the asymmetry of information. According to Leea & Suhb, almost all studies conducted after 2015 rely heavily on ESG scores provided by rating agencies to determine how ESG-oriented a company is. As a result, fund managers, investors, and researchers are unable to independently evaluate a company's ESG practices [5, 6]. These studies reveal the problems that investors face in entering the ESG market, including the lack of information sources (consumers are only able to assess companies' ESG-friendly performance through third-party sources) and the potential risk of information opacity.

In addition, the applicability and limitations of investment models in the ESG space may pose potential risks for investors. ESG is an emerging concept, and the extent to which the parameters and methods of measuring ESG investments affect or distort the instability returns of the above financial models, increasing or decreasing the risk-return impact still requires the market and research community. However, ESG is an emerging concept and the extent to which ESG investment parameters and approaches affect or distort the investment returns of the above-mentioned financial models, increase or decrease the risk-return impact still needs to be studied empirically by the market and research community for a long time. However, one thing is confirmed, the models that have been widely used in the past need to be adjusted to some extent to optimize the consumer investment process. In the process, consumers may therefore be exposed to the risk of missing models or actual results that contradict the investment models, thereby taking greater investment risk.

In specific cases, according to Leea & Suhb, almost all studies conducted after 2015 rely heavily on ESG scores provided by rating agencies to determine how ESG-oriented a company is. As a result, fund managers, investors, and researchers are unable to independently evaluate a company's ESG practices [7]. In this case, the researchers take the standard deviation of the ESG ratings of six major

DOI: 10.54254/2754-1169/39/20231967

ESG rating agencies as a measure of ESG uncertainty risk, an approach that reveals the potential investment risk faced by consumers based on the flaws of the investment model. It is worth noting, however, that while the researcher's approach is somewhat based on reality, realistic ESG uncertainty risks also include a range of environmental risks, policy risks, and risks arising from the variability of different rating approaches. As a result, the factors that affect ESG models, in reality, can have a higher degree of complexity, making it more difficult for consumers to measure ESG investment risk.

2.2. Risks of Corporate Investment in ESG

For companies, one of the most significant potential risks associated with investing in ESG is the rise in costs. Damodaran asserts that the main goal of business is to generate a profit, yet investing in ESG-related fields surely raises company expenses, placing enterprises in danger of higher expenses. Companies also need to weigh the risk of whether the return on investment in ESG-related sectors is worth the cost to the business. According to Rotaru, management is frequently hesitant to reallocate money toward long-term sustainability goals because the existing corporate landscape and reporting framework only allow for voluntary, restricted disclosures on ESG issues and reward short-term performance [8].

The first factor that constitutes the riskiness of the return cycle is the unknown nature of the link between ESG factors and corporate financial performance and returns. Many studies have linked ESG performance with corporate financial performance, but the reasons for this positive correlation and the strength of this association still require significant empirical analysis, and at this stage, the unknown nature of this linkage still constitutes a cause of return cycle risk. In addition, the complexity to show the return on investment is also a potential risk. In contrast to factor investing, where the transmission method is frequently simpler and one-dimensional, ESG features are transmitted through several channels to financial value, according to Giese et al. [9]. The impact of ESG is ultimately reflected in the value of the business through a complex transmission, however, does this pose some problems? For example, what are the cycles of this transmission pattern and whether ESG impacts are distorted and biased in the complex transmission mechanism are still waiting to be addressed by researchers. In the present, such questions may lead companies to take on the uncertainty of the return cycle and the risk that returns will deviate from original expectations.

It can be seen that longer payback periods, unclear payback rates, and more imperfect information disclosure processes are potential influencing factors for corporate risk in ESG investments. For management, investing in long-term ESG-related projects may cost the company some short-term gains, thus affecting the short-term value of the company to some extent. At the same time, managers are under pressure from both cost control and shareholder expectations and in this situation, management is exposed to greater potential risk and tends to adopt a conservative strategy.

2.3. Regulatory Risks in ESG Investment

Unlike traditional financial regulation, government regulation of ESG will be more influenced by the ecological environment and climate. This impact makes it more difficult for governments and financial regulators to designate policies and implement regulations. The current financial policy framework is inadequate to analyze the system's sensitivity to financial risks associated to climate change or to reroute financial flows to sustainable investments, as Sustainable Finance and ESG pointed highlighted [10, 11]. The argument held by these scholars is that if climate risks are not taken into account or if green investments are lent to carbon-intensive industries, the country's exposure to climate-related risks will further increase since the "carbon bias" is increased. Thus, the potential impact of the environment increases the riskiness and complexity of the current financial regulatory system. And since the world is also facing simultaneous shocks from black swan events such as

DOI: 10.54254/2754-1169/39/20231967

pandemics and deterioration of the international environment, the vulnerability of the current financial risks is of equal concern.

Nowadays, the main international companies providing ratings for ESG aspects are MSCI, FTSE Russell, S&P, Morningstar, Thomson Reuters, and others companies. These rating agencies rate equities and fixed-income bonds. However, the notable risk is that these firms take different approaches to ratings, for example, MSCI uses seven ratings from AAA to CCC to categorize ESG grades, establishing the basis of the assessment through ten themes and 35 key indicators. In contrast, FTSE Russell uses 14 themes and subdivides 10-35 metrics in each theme to accomplish a similar rating basis. Based on this, governments and regulators facing ESG review and supervision work may face a series of problems such as different rating agencies adopting different ESG rating approaches, indicator screening, and weighting assignments, which can lead to increased regulatory risk and potential trust risk for regulators.

In addition, there is a risk of inconsistency in ESG disclosure systems and protocols around the world. Mainstream standards include Global Reporting Initiative (GRI) Standards, Sustainability Accounting Standards Board (SASB) Standards, TCFD reporting recommendations, International Integrated Reporting Council (IIRC) Standards, Carbon Disclosure Project (CDP) Standards, etc. The GRI standard is more common among European companies; the SASB standard for general disclosure is more popular among U.S. companies. This risk of non-uniform standards exacerbates the difficulty of cross-regional collaboration and globalization of regulation and increases the risk of regulatory opacity.

3. Suggestions

Based on the above-mentioned risks, this thesis will propose recommendations to reduce the above-mentioned risks from different perspectives of macro and micro aspects.

From a macro perspective, the establishment of a globally harmonized ESG disclosure standard and review mechanism will be the foundation of everything. This is because such a standard will not only guide companies on how to evaluate and improve their performance in ESG-related areas but also provide the possibility for transparent and open global regulation. In fact, corresponding efforts are being made at the international level. The International Sustainability Guidelines Board (ISSB) was announced at COP26 in Glasgow on November 3, 2021. The ISSB will produce a top-notch, thorough worldwide baseline of sustainability disclosures centered on the requirements of investors and the financial markets [12]. However, the designation, revision, and disclosure of standards still require the concerted efforts of countries and companies around the world. On January 1, 2024, the ISSB announced that the standard on information disclosure will come into effect. Thus, in the 2023-2024 timeframe, companies, governments, and investors are able to use the guidelines to solicit changes and additional regulations to gradually build consensus on globalization harmonization. The rating agencies, need to adjust their rating methods according to the relevant regulations in the future, which also gives future consumers a more transparent source of corporate ESG information reference to achieve a win-win development model.

In addition, from a macro perspective countries and firms need to conduct stress and risk tests. Due to the quantity of projected greenhouse gas emissions and the unpredictability of the pace of technological innovation, financial institutions must include climate risk into their strategy using scenario analysis and stress-testing techniques [10]. In addition to the factors of future environmental impacts and changes in the level of technology noted in previous studies, black swan events represented by large-scale epidemics and wars, energy depletion, etc. should also be included in the risk testing in the field of ESG regulation, as the occurrence of these events can significantly affect cost control, cash flow, and liabilities, changes in corporate structure and influence policy implementation and formulation from a macro perspective. This is why it is important for companies

DOI: 10.54254/2754-1169/39/20231967

to specify measures and plans, either through digital stress test simulations or by working with a consulting firm. For the state and regulators, setting up a policy experiment area that can take on stress tests is a logical choice to help the state regulate potential risks from a macro perspective.

At the micro level, researchers need to optimize previous widely used financial models such as the CAPM model, based on new financial investment models that allow firms and investors to better hedge potential risks. Some academics are making efforts in this direction. For example, Kocmanov á et al. presented the Sustainable Investing Model (SIM) model, which combines the CAPM model, ESG indicators, stock value, and other elements [13]. Although the scope of application of the above-mentioned scholars' study is somewhat limited, since in their study only joint-stock companies in the Czech Republic were studied, it does represent a good start. In the foreseeable future, more and more financial investment models with a broader scope of application and a more rigorous theoretical model will enter the investors' view, thus providing more financial tools for investors and companies.

4. Conclusion

This paper discusses the potential risks under the current ESG system through an overview and gives feasible suggestions to reduce the risks in the context of cutting-edge research. This thesis systematically and comprehensively discusses seven potential risks of ESG Investment from the consumer, corporate, and regulatory sides: information asymmetry, model limitations, cost risk, return cycle risk, management pressure, environmental risk, and the impact of non-uniform standards. It fills the gap that no previous studies have systematically studied the risks of ESG Investment. In the recommendation section, the paper combines the current cutting-edge theoretical system, and international institutional architecture and proposes to establish uniform standards, stress test companies and policies at the macro level, and optimize existing models by combining ESG factors at the micro level. In the foreseeable future, these instruments will likely serve as a means for governments and companies to reasonably curb ESG uncertainty risk. In addition, frontier financial models developed, optimized, and tested in reality will also complement the argumentative basis of this thesis, thus strengthening the risk control of ESG investments.

References

[1] *SEC Proposes to Enhance Disclosures by Certain Investment Advisers and Investment Companies About ESG Investment Practices. https://www.sec.gov/news/press-release/2022-92, last accessed 2023/5/20.*

[2] *MAS and SGX Group Launch ESGenome Disclosure Portal to Streamline Sustainability Reporting and Enhance Investor Access to ESG Data. Monetary Authority of Singapore. https://www.mas.gov.sg/news/media-releases/2022/mas-and-sgx-group-launch-esgenome-disclosure-portal-to-streamline-sustainability-reporting-and-enhance-investor-access-to-esg-data, last accessed 2023/5/20.*

[3] *ESG Investing: Practices, Progress, and Challenges. OECD Paris. www.oecd.org/finance/ESG-Investing-Practices-Progress-and-Challenges, last accessed 2023/5/20.*

[4] *Sounding Good Or Doing Good? A Skeptical Look At ESG. Seeking Alpha. https://seekingalpha.com/article/4375648-sounding-good-or-doing-good-skeptical-look-at-esg, last accessed 2023/5/20.*

[5] *Lee, M. D., & Suh, I.: Understanding the effects of Environment, Social, and Governance conduct on financial performance: Arguments for a process and integrated modelling approach. Sustainable Technology and Entrepreneurship 1(1), 100004 (2022).*

[6] *Drempetic, S., Klein, C., & Zwergel, B.: The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review. Journal of Business Ethics 167(2), 333–360 (2020).*

[7] *Avramov, D., Cheng, S., Lioui, A., & Tarelli, A.: Sustainable Investing with ESG Rating Uncertainty. Journal of Financial Economics 145(2): 1-49 (2022).*

[8] *Ferrua Rotaru C. S.: Challenges and Opportunities for Sustainable Finance. Journal of Contemporary Issues in Business and Government 25(1): 1-13 (2019).*

[9] *Giese, G., Lee, L., Melas, D., Nagy, Z. Z., & Nishikawa, L.: Foundations of ESG Investing: How ESG Affects Equity Valuation, Risk, and Performance. The Journal of Portfolio Management 45(5), 69–83 (2019).*

DOI: 10.54254/2754-1169/39/20231967

[10] Gaganis, C., Pasiouras, F., Tasiou, M., & Zopounidis, C.: Sustainable Finance and ESG: Risk, Management, Regulations, and Implications for Financial Institutions, 1st ed. Cham: Palgrave Macmillan (2023).

[11] D'Orazio, P.: Towards a post-pandemic policy framework to manage climate-related financial risks and resilience. Climate Policy 21(10), 1368–1382 (2021).

[12] IFRS. International Sustainability Standards Board. https://www.ifrs.org/groups/international-sustainability-standards-board/, last accessed 2023/5/20.

[13] Kocmanová, A., Dočekalová, M., Meluzín, T., & Škapa, S.: Sustainable Investing Model for Decision Makers (Based On Research of Manufacturing Industry in the Czech Republic). Sustainability 12(20), 8342 (2020).