Editorial: ESG investment and its societal impacts

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Editorial on the Research Topic
ESG investment and its societal impacts

ESG investing refers to companies' investment actions that consider the environment (Environment), society (Social), and corporate governance (Governance) together. "Environment" refers to activities such as reducing carbon dioxide emissions and energy consumption. "Social" refers to activities such as human rights issues and promoting women's activities. "Corporate Governance" refers to activities such as compliance and management transparency.

ESG began with the Principles for Responsible Investment (PRI) proposed by the United Nations in 2006 and has been attracting attention as a new indicator for measuring corporate investment value among institutional investors. The idea is that focusing on ESG requirements can lead to the sustainable growth of a company over the medium-to long-term and eliminate risks that are not visible from financial statements. The idea is that it is possible to eliminate risks that are not visible in financial statements.

"ESG Investment and Its Societal Impacts" are of significant academic and policy importance. This Research Topic aims to cover promising and new research trends in this area.

A total of 27 articles were published on this Research Topic; 18 of the analyses were based on data from China. This indicates that ESG impacts in China are receiving significant attention. A total of two articles on the impact of COVID-19 are also included, as are two analyses using SNS data.

A word cloud created from the abstracts of the 27 articles is presented in Figure 1. It is clear that, among ESG issues, there is a particularly strong interest in the environmental aspect of ESG.

The articles on COVID-19 yielded the following results. Zhou et al. analyzed the impact of the COVID-19 pandemic on different international curve sectors, using data from Germany and the United States. The results indicate that the impact of the pandemic on government bond yields varies across countries and valuation periods, particularly in the longer-term response, with German yields being more negative (indicating lower

FIGURE 1
Word cloud.
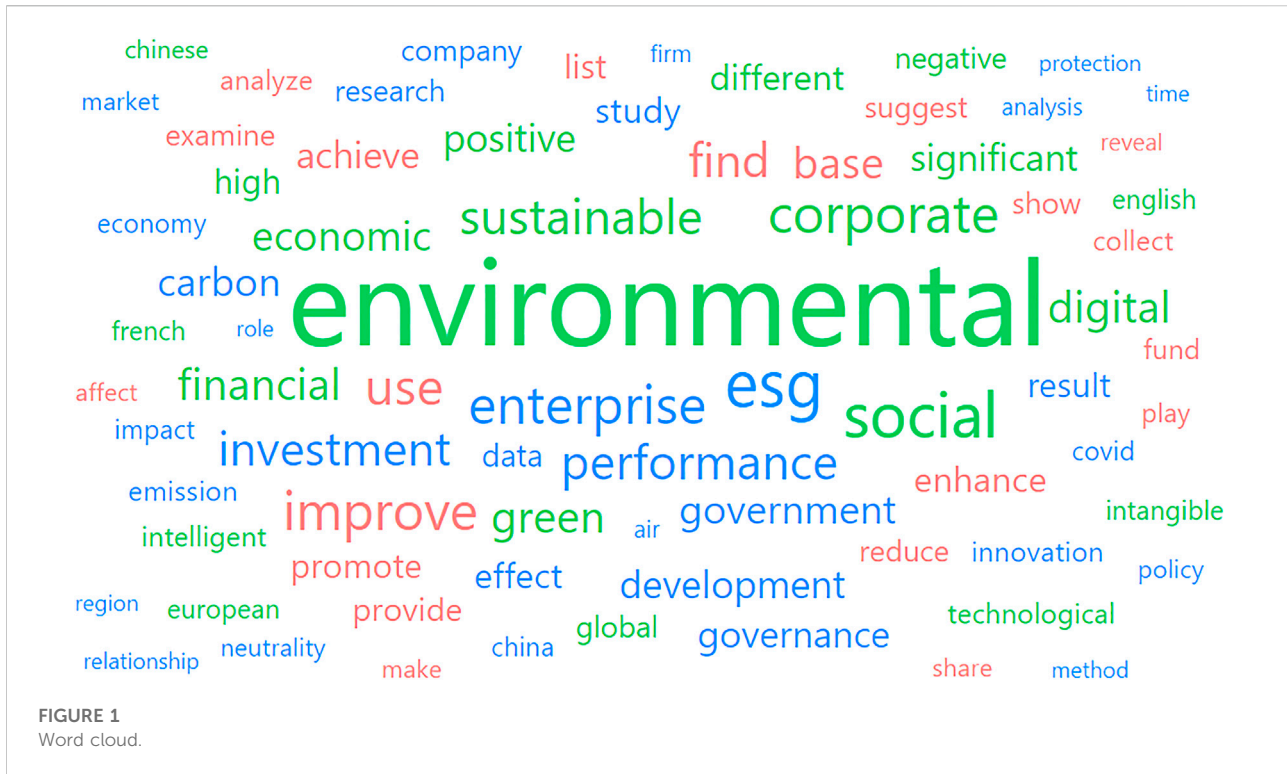
yields) and U.S. yields being more positive (indicating informative yields). Chen et al. investigated the impact of the pandemic on ESG stock index performance in emerging, European, and global markets. The results reveal that the global pandemic and mortality risk of COVID-19 infection had a significant negative impact on ESG stock market performance in all markets.

The following results were obtained from the analysis using social networking data. Li et al. analyzed people's perceptions of carbon neutrality by collecting posts from Weibo, the most popular social platform in China. The results reveal that people believe that achieving carbon neutrality will help them pursue a better life. Yao et al. used Twitter data to compare the differences between French and English tweets on carbon neutrality. The results indicate that in France, negative tweets outnumbered positive tweets. This could be due to people's dissatisfaction with the government's current carbon neutrality policy.

Using data from China, Xu et al. analyzed the impact of environmental investment on firm innovation using a sample of industrial firms. The results reveal that firms that invest more in environmental protection receive more government subsidies and, subsequently, exhibit better innovation performance. Cai et al. examined the relationship between green innovation and carbon emissions. The results suggest that green innovation in the eastern and central regions effectively reduces carbon emissions. Strong spatial spillover effects among provinces were identified and green technological advances in one

province had a negative impact on the carbon emissions of neighboring chapters. Jun et al. analyzed ESG score improvement and intangible capital. The results indicate that ESG disclosures contribute significantly to the performance of listed firms but that such disclosures and intangible capital exhibit an "inverted U" shape. Qi et al. investigated the relationship between government-led construction of national civilization cities and ESG investments, including social and environmental activities, in firms using panel data of listed firms. Firms' ESG performance was found to improve when their residence is rated as a national civilization. Li et al. analyzed the relationship between environmental scores and stock price crash risk using a sample of ESG-rated listed companies. The results reveal that companies with higher environmental scores have lower stock price crash risk. Li et al. examined the impact of corporate ESG-responsive investments on the investment size of sovereign wealth funds (SWFs). ESG performance was found to induce SWFs to invest by increasing ROA and reducing risk. Chen et al. determined the impact of the development of the urban digital economy on firms' ESG performance. The results indicate that the development of the urban digital economy significantly improves firms' ESG performance. Lu et al. analyzed the policy effects of the "Three-Year Action Plan to Win the Blue Sky War" on the steel industry and air pollution. The results suggest that ESG investments by steel companies lead to a significant decline in financial performance. Furthermore, emissions of sulfur dioxide and nitrogen oxides in flue gas were

significantly reduced after the implementation of the "Blue Sky Plan." Chen et al. found that environmental subsidies significantly improve firms' environmental performance but have no significant impact on pollutant emissions disclosure or governance. Using data from the manufacturing sector, Jianqiang et al. established that ESG investments and the embedding of external data elements have no direct impact on firm performance but have an indirect impact through organizational agility. Moreover, environmental uncertainty negatively moderates the impact of ESG investments on organizational agility. Environmental uncertainty negatively moderates the impact of ESG investments on organizational agility. Wu et al. determined the spatiotemporal correlation between environmental governance investments and air quality in each province and revealed a negative spatiotemporal correlation between these factors. Cong et al. analyzed the relationship between ESG investment and carbon emissions and revealed that a 1% increase in environmental investment reduces CO_2 emissions by 0.246% and carbon emissions intensity by 0.558%. To further analyze the digital transformation mechanism of firms, Gao et al. analyzed the decision-making behavior of firms under financing constraints from the perspective of intermediary mechanisms. The results indicate that firms' decision to increase their intangible capital facilitates improves corporate performance and further improves their ESG scores. Li and Li examined the effects of environmental protection taxes on corporate ESG performance and green innovation. The results reveal that such tax can significantly improve firms' ESG performance and green technological innovation and that ESG performance exhibits a partial mediating effect in promoting firms' green technological innovation. Wang and Hu empirically examined the effects of performance-based budget (PBB) reforms on corporate ESG. The results demonstrate that PBB significantly optimizes firms' ESG. Furthermore, the environmental governance effects of PBB are more pronounced in regions with strong fiscal pressures and strong government audits. Using the Luenberger productivity index based on the data envelopment analysis (DEA) method, Huang et al. measured green total factor productivity (GTFP). The results reveal that environmental regulations on Taiwanese firms have a negative impact on GTFP. This means that Taiwanese-affiliated firms have to pay "compliance costs" due to the implementation of environmental regulatory policies by the Chinese local government. Zhang et al. analyzes the impact of the guidance on the quality of environmental disclosure by listed companies based on a quasi-natural experiment by China's Shenzhen Stock Exchange, which issued "Guidance on the Social Responsibility of Listed Companies" in 2006. The results indicate that the exchange's corporate social responsibility (CSR) regulations contribute to improving the quality of listed companies' environmental information disclosure.

In addition, using data from private commercial banks in Bangladesh, Guang-Wen and Siddik investigated the impact of CSR and green finance on the environmental performance of banking institutions. According to the results, CSR practices have a positive impact on environmental performance. Zhao et al. assessed the achievement of the EU and UN environmental targets for net zero emissions in 2050 as a result of green energy, digitalization, and technology. Zeng et al. collected 2,400 financial data items and ESG performance of 200 companies from the global "Clean 200" list of publicly traded companies. The study evaluated green supply chain performance based on financial indicators and company ESG performance. Operational performance was given the highest weight, followed by environmental performance, while profitability was ranked last. The results suggest that management should focus more on governance and the environment than on short-term financial gains.

Furthermore, Tong et al. investigated the predictive relationship between AI and intelligent automation in tourism, which has a mediating role in ESG investment. The results reveal that AI has a predictive relationship with intelligent automated tourism. Cai and Sakemoto examined the time-series impact of the El Niño Southern Oscillation (ENSO) on commodity prices. The results indicate that there is a strong relationship between ENSO and commodity prices and that this relationship has been particularly pronounced since 2000.

Finally, Li et al. is a state-of-the-art study on the incorporation of ESG in prefabricated buildings and the impact of economic development on the development of such buildings by visualizing the titles, authors, keywords, abstracts, and references of articles from Web of Science and Scopus. This study reviewed previous research.

These articles all contribute to the development of empirical finance by addressing a wide range of issues and topics related to ESG investment and its societal impacts.

While research has been conducted on a variety of issues in this research topic, the following issues remain to be addressed. First, the impact of geopolitical risk, as exemplified by Russia's invasion of Ukraine, can be pointed out. Analyzing the impact of geopolitical risk on ESG investments is an important remaining research issue. Next is the relationship between ESG investments and macroeconomic activities: empirical research on the spillover channels through which ESG investments affect macroeconomic activities such as GDP is an important issue for future study. In addition, it would be interesting to analyze the impact of further development of artificial intelligence on ESG investment in society.

Author contributions

SH, X-GY, LY, and MC contributed to the conception and design of the study. SH wrote the first draft of the manuscript. X-GY, LY, and MC reviewed and edited the manuscript. All

authors contributed to the manuscript revision, read, and approved the submitted version.

Conflict of interest

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