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Trends and Insights in Green Investment Research: A Bibliometric Study

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ABSTRACT

The increasing reality of climate change demands cross-sectoral solutions, including from the economic, business, and financial sectors. In response to this challenge, adopting more sustainable practices has become crucial. Companies and industries are directing their investments toward green technologies that can reduce carbon emissions and improve resource efficiency. Investment flows are also shifting toward more environmentally friendly sectors, driving the growth of the concept of green investment. This study aims to map the development of research on green investment using a bibliometric approach. Data were obtained from the Scopus database and analyzed using VOSviewer software to evaluate publication trends, author collaboration, country distribution, and keyword co-occurrence. The analysis results show that publications related to green investment have increased significantly over the past five years. Keywords such as economic policy uncertainty (EPU) and investment decision are among the most frequently associated with green investment, reflecting academic attention on the relationship between economic uncertainty and sustainable investment decision-making. China emerges as the leading country in terms of publication volume, funding, and affiliated institutions, highlighting its role in the development of green investment literature and practices at the global level. These findings offer valuable insights for researchers and policymakers to inform future research directions and enhance policy initiatives that support the transition toward a green economy.

KEYWORDS: bibliometric analysis; green finance; green investment

INTRODUCTION

Companies as key actors in the economic system, play a strategic role. Beyond focusing solely on profit, businesses need to take responsibility for environmental sustainability by implementing sustainable business practices. There is increasing pressure from stakeholders, including investors, consumers, and the public, to adopt green investment strategies. The concept of green investment has become increasingly relevant, whereby companies allocate resources to projects or activities that contribute to environmental preservation, such as renewable energy development, energy efficiency, and low-emission technologies (Lin & Xie, 2025).

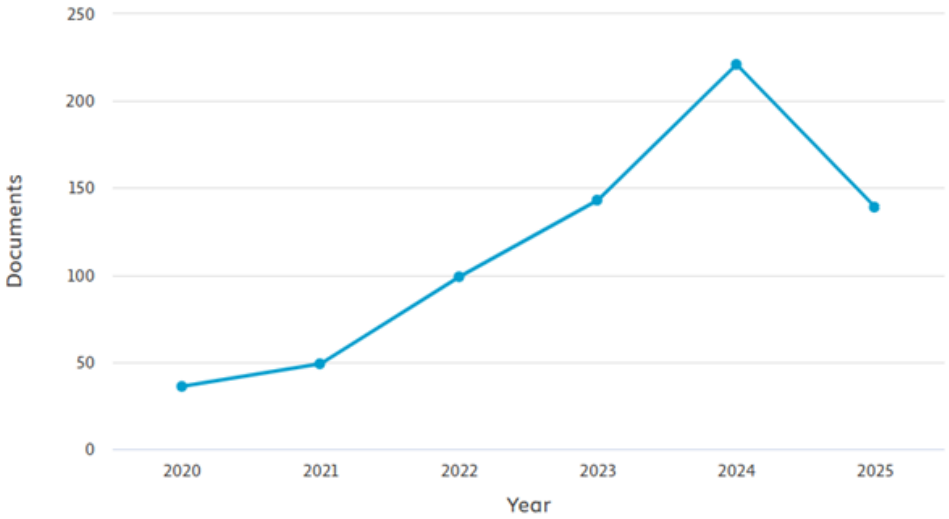
The rise of environmentally friendly companies and green investments has led to greater demand for sustainable products and services (Ben Ameur et al., 2024). Companies that successfully meet market expectations for sustainability not only improve their reputation and customer loyalty but also strengthen their foundation for long-term going concern. Thus, integrating economic objectives with environmental responsibility through green investment is a vital step toward achieving sustainable economic growth. Additionally, the benefits of green investment contribute to increased sales performance (Quatraro & Ricci, 2025)

Within the corporate context, green investment is not only aimed at long-term profits but also contributes to better environmental governance and ecological protection through the adoption of low-emission and sustainable technologies(Zhang et al., 2025). In addition to generating economic value, green investment plays a crucial role in reducing the impacts of climate change, conserving natural resources, and supporting the transition toward a low-carbon economy. Green investment has been proven to reduce carbon emissions (Amin et al., 2025; Angelina & He, 2025; Kumar et al., 2025). Therefore, corporate decisions to engage in green investment have not only internal implications but also significant effects on the broader economy (Supriyanto et al., 2025).

As sustainable development has become a central theme in today's society, there has been a shift from traditional financial metrics and firm value toward sustainable corporate development and long-term value, particularly in terms of the awareness and capacity of firms to fulfill social and environmental responsibilities while simultaneously pursuing economic profitability (Chen et al., 2025). This shift in focus, driven by environmental change, is not limited to technological innovations and renewable energy advancements aimed at reducing carbon emissions, but also includes how financial mechanisms such as green investments can serve as sustainable project drivers (Lazaro et al., 2023).

Currently, green finance has emerged as a critical solution for addressing the challenges of climate change and environmental degradation (Hai et al., 2025). Green finance, which encompasses green funding, green investment, green technologies, and other related areas (Bhatnagar & Sharma, 2022), is transforming financial systems to become more responsive to environmental risks. Through instruments such as green bonds, renewable energy financing, and environmentally responsible investments, green finance plays a key role in redirecting capital flows away from environmentally

Figure 1
Publication Trends



harmful sectors toward those that support sustainable development. Thus, green finance serves as an important bridge between economic growth and environmental conservation.

A research gap remains regarding the impact of green investment on corporate profitability. A study by Zhang & Wei (2025) states that regulations concerning green investment can enhance a company's profitability. In contrast, a study by Hasanah & Paramita (2025) found that green finance does not impact firm value, the value of the firm will be high if investors feel confident that the firm can continue to grow and generate profitability. Previous research has employed bibliometric analysis on the topic of green investment; however, this study primarily focuses on the fields of economics, business, accounting, and finance, examining the countries of origin, affiliated institutions, authors, and keywords. Research on green investment is important for observing the development of the literature and providing policy and business practice implications relevant to the era of a sustainable economy.

METHODOLOGY

This study employs a bibliometric analysis method using data retrieved from the Scopus database, along with co-occurrence analysis performed using the VOSviewer application. Bibliometric analysis employs quantitative methods to examine academic literature, analyzing elements such as authors, keywords, citations, and publication patterns to assess research impact and trends (Li et al., 2025).

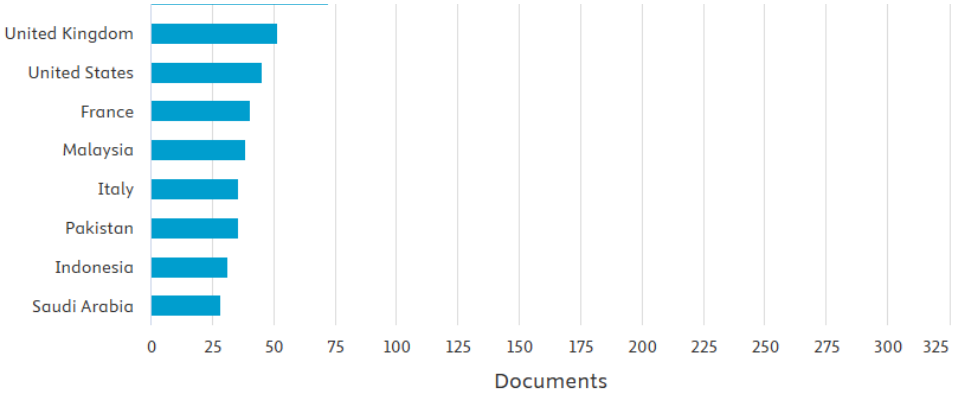
Table 1
The Most Productive Authors

Author's Name	Institution	Number of Document
Mishra, U.	Vellore Institute of Technology	8
Cheng, B.	Zhejiang Agriculture and Forestry University	5
Jauhari, W.A.	Universitas Sebelas Maret	5
Lee, C.C.	City University of Macau	5
Abakah, E.J.A.	University of Ghana Business School	4
Bhattacharjee, N.	Pandit Deendayal Upadhyaya Govt. Model College	4
Nassani, A.A.	King Saud University	4
Ngo, T.Q.	University of Economics Ho Chi Minh City	4
Ozturk, I.	University of Sharjah	4
Park, D.	Asian Development Bank Philippines	4
Sen, N.	Assam University	4
Tiwari, A.K.	Indian Institute of Management Bodh Gaya	4
Tursoy, T.	Yakın Doğu Üniversitesi	4

Data Source : Scopus processed by authors

Figure 2

Documents by country



This methodology is employed to explore topic development and identify future research directions relevant to the keywords used. The Scopus database was selected due to its recognized quality in academic publishing. The results of this analysis are expected to provide an in-depth overview of the current landscape and direction of green investment research.

In the initial stage, a keyword search using “green investment” yielded 1,862 documents as the population. Then, the results were refined by limiting the publication years to between 2020 and 2025, resulting in 1,588 documents. The next step involved narrowing the subject areas to Economics, Econometrics, and Business, Management, and Accounting, which produced 822 documents. Further filtering was conducted by selecting only article-type documents to ensure the inclusion of recent and original research, resulting in a count of 695 articles. Finally, only articles written in English were selected, resulting in 687 documents included in the final analysis.

The query used in the Scopus database was:
TITLE-ABS-KEY ("green investment") AND PUBYEAR > 2019 AND PUBYEAR < 2026 AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (SUBJAREA , "ECON") OR LIMIT-TO (SUBJAREA , "BUSI")) AND (LIMIT-TO (LANGUAGE , "English")). The document search was conducted on June 20, 2025.

Table 2

Affiliation

Rank	Institution	Country / Region	Number of Documents
1	Zhongnan University of Economics and Law	China	13
2	Xiamen University	China	11
3	Vellore Institute of Technology	India	10
4	University of Economics Ho Chi Minh City	Vietnam	10
5	Xi'an Jiaotong University	China	9
6	Southwestern University of Finance and Economics	China	9
7	Nanjing University of Information Science & Technology	China	8
8	Lebanese American University	Lebanon	8
9	Nanjing Audit University	China	8
10	Shenzhen University	China	7

Data Source : Scopus processed by authors

Table 3
Funding Sponsor

Rank	Institution	Country / Region	Number of Documents
1	National Natural Science Foundation of China	China	86
2	National Office for Philosophy and Social Sciences	China	50
3	Fundamental Research Funds for the Central Universities	China	23
4	Ministry of Education of the People's Republic of China	China	15
5	European Commission	Uni Eropa	13
6	Horizon 2020 Framework Programme	Uni Eropa	8
7	Fundação para a Ciência e a Tecnologia	Portugal	6
8	China Postdoctoral Science Foundation	China	6
9	European Regional Development Fund	Uni Eropa	5
10	Humanities and Social Science Fund of Ministry of Education of China	China	5

Data Source : Scopus processed by authors

RESULTS AND DISCUSSION

Publication Trends

The trend in publications on the topic of green investment has increased significantly over the past five years, as illustrated in Figure 1. In 2020, 36 documents were published, followed by 49 in 2021, 99 in 2022, 143 in 2023, and 221 in 2024. As for 2025, although the year is only halfway through (as of June), there are already 139 documents, and this number is expected to continue rising until the end of the year.

Based on the initial year filter, the database refinement from 1,862 to 1,588 documents—after limiting to publications between 2020 and 2025—shows that the topic of green investment has only recently gained significant attention. Only 274 documents in the Scopus database fall outside the 2020–2025 range, indicating that this topic is still relatively new and emerging in academic research.

Documents by Author

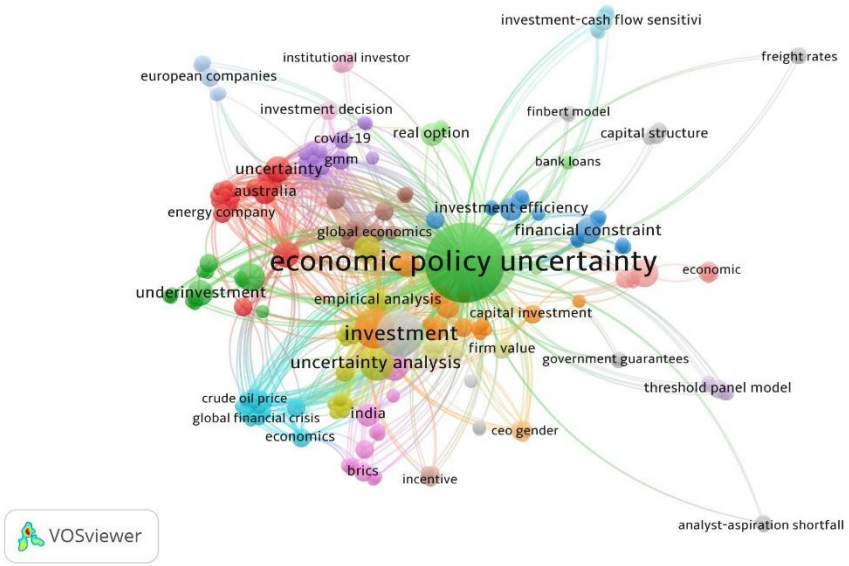
During the 2020–2025 period, several authors from various institutions emerged as the most active researchers in the field of green investment. Table 1 presents the most prolific authors, each producing an average of more than four documents per year.

Table 4
Most Productive Journal

Journal	Number of Documents
Journal of Cleaner Production	86
Resources Policy	50
Energy Economics	23
Environment Development and Sustainability	15
Finance Research Letters	13
International Review of Economics and Finance	8
International Review of Financial Analysis	6
Economic Research Ekonomska Istrazivanja	6
Technological Forecasting and Social Change	5
Humanities and Social Sciences Communications	5

Data Source : Scopus processed by authors

Figure 3
Co-occurrence Visualization



Documents by Country

Many countries have contributed to research on green investment, including both developed and developing nations. As shown in Figure 2, the top 10 countries with the highest number of publications on green investment are dominated by China, with 297 documents, nearly four times the number of India, which ranks second with 72 documents. The United Kingdom and the United States follow in third and fourth place with 51 and 45 documents, respectively.
The contribution from developed and developing countries in green investment research is relatively balanced. Several developing countries are among the top 15 contributors, including Malaysia (38 documents), Pakistan (35 documents), and Indonesia (31 documents).

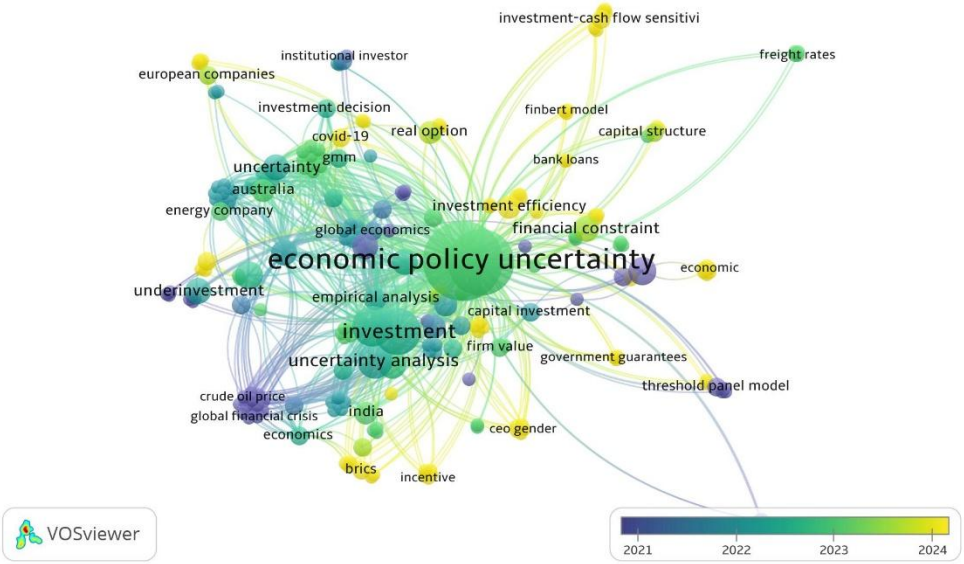
Institutional Contributions

Universities predominantly conduct research in this field. As shown in Table 2, the top ten institutions affiliated with green investment publications are predominantly Chinese institutions, with eight out of ten based in China.
Table 3 highlights that the majority of funding institutions also originate from China. Some of these are government programs such as the National Natural Science Foundation of China, the National Office for Philosophy and Social Sciences, and the Humanities and Social Science Fund of the Ministry of Education of China. European Union institutions also fund green investment research, including the European Commission, Horizon 2020 Framework Programme, and the European Regional Development Fund.

Documents by Journal

Table 4 presents the ten journals that publish the most articles on green investment. Although this study focuses on documents within the fields of economics, accounting, and finance, several journals outside these disciplines—such as Journal of Cleaner Production, Environment, Development and Sustainability, Technological Forecasting and Social Change, and Humanities and Social Sciences Communications—also feature prominently. The diversity of journals publishing on this topic reflects the interdisciplinary nature of green investment research.

Figure 4
Visualization Year VOSViewer



Keyword Co-occurrence Analysis

The initial stage of the bibliometric analysis involved merging keywords with similar meanings—for example, combining "EPU" with "economic policy uncertainty," and "firm investment" with "corporate investment." Only keywords that appeared at least once were included, resulting in 226 keywords. As shown in Figure 4, keywords with larger nodes represent those that appeared more frequently, while the lines connecting them indicate the strength of relationships between keywords (Donthu et al., 2021). Using VOSviewer, the analysis yielded 24 clusters, each distinguished by a different color. The most frequently occurring keyword was economic policy uncertainty (EPU).

VOSviewer also visualized the timeline of research related to green investment. Brighter colors represent more recent research themes. As seen in Figure 5, in 2020–2021, darker-colored node keywords, such as crude oil price and global economics, dominated. In the mid-range of the research timeline, keywords such as corporate investment and economic policy uncertainty emerged. Recent topics include BRICS, CEO gender, and investment efficiency.

CONCLUSION

The topic of green investment has surged in the past five years due to the increasingly critical nature of environmental issues. Companies, as key actors in green investment, are investing in technologies, resource-saving practices, and carbon-reducing innovations. Given its broad scope, green investment has become a research topic that spans various academic disciplines and journals. Both developed and developing countries have recognized the importance of green investment, as reflected in the balanced contributions from each in research output.

However, China dominates this research field, not only in terms of affiliated institutions but also in funding support. The Chinese government allocates substantial resources to research in this area, as evidenced by the predominance of government funding agencies. China's rapid industrialization has had significant negative impacts on the environment and public health, prompting the government to promote technological innovation for greener economic development, aimed at reducing CO2 emissions, conserving resources, and preventing various forms of pollution (Zeng et al., 2021). One form of support is through funding research on green economic development.

Given the breadth of the green investment topic, future studies are encouraged to combine systematic literature review methods with bibliometric analysis to enhance the understanding of this field. A systematic literature review can provide deeper insights into relevant variables, measurements, theories, and effect mapping—information that is not easily captured by bibliometric methods alone. Future research could also focus on more specific themes, such as green investment

in countries with available EPU (Economic Policy Uncertainty) indices. Further studies may explore green investment using emerging variables such as CEO gender, incentives, and other contemporary factors.

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