ESG Index Construction and China's ESG System

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Abstract. The Environmental, Social, and Governance (ESG) system has gained popularity recently as concerns over issues like corporate responsibility, labor conditions, and climate change become more pressing. At the same time, investors from around the world have become increasingly interested in the ESG Thematic Index because it offers greater risk resilience and returns than traditional trading strategies. Building a Chinese financial ESG system is crucial to advancing the development of ESG in China since Chinese finance needs to create and enhance its own ESG system but there is still a lack of systematic study in this area. This article first defines the meaning of ESG-themed indices, then selects representative ESG-themed indices from the global market, analyzes the construction processes and methodologies of the indices, and finally makes pertinent recommendations to promote the growth of ESG-themed indices in China using inductive, comparative, and case study methods.

Keywords: ESG; ESG Thematic Index; Green Finance; Sustainable Development.

1. Introduction

The ESG Thematic Index integrates the three dimensions of environmental, social, and corporate governance as a crucial tool for ethical investors to participate in the ESG investment market, reflecting the ability of the position sample in environmental protection, social responsibility, and their own sustainable development [1]. It is also a crucial financial tool for directing social capital flow to sustainable development projects to support sustainable economic development. The use of social capital as a financial resource to fund sustainable development initiatives is crucial for promoting sustainable economic growth.

ESG measures sustainability and ethical impact in three key areas, including gender inequality, labor, product responsibility, corruption, bribery, social development, and poverty, as well as shareholder rights, institutional investors, stakeholders, disclosure and transparency, board responsibility, and management diversity [1,3]. These areas are all covered by ESG.

The E (Environmental) in ESG stands for a company's proactive attitude to the environment, which includes adherence to current regulatory frameworks and consideration of potential effects in the future. The combination of the governance environment, governance structure, governance mechanism, and governance behavior results in G (Governance) [2]. The system's base is its governance environment, its carrier is its governance structure, and its operational mechanism for the interaction of its components—a process of continual improvement—is its governance behavior or process.

A number of ESG-themed indices have been produced recently by fusing ESG themes with index products, as more and more financial institutions have started to concentrate on the ESG investing sector and continue to strengthen their efforts in the invention and development of ESG financial products. These index products may be roughly divided into two groups based on whether they have the qualities necessary to engage in market trading, namely ESG stock indices and ESG bond indices. The screening and weighted aggregation of listed firms by various index companies and ESG rating organizations based on their performance in the three dimensions of E, S, and G are referred to as ESG stock indexes among them [4]. They reflect the overall changes in the share prices of businesses with sustainable development capabilities by giving more weight and exposure to stocks with better ESG performance, thereby encouraging businesses to actively fulfill their obligations in environmental protection and fostering social development through capital flows. The ESG Bond Index chooses sample bonds based on two factors, the investment of funds raised and the bond issuer, either to ascertain whether the funds raised are invested in ESG-related projects based on clear criteria or to ascertain whether the bond issuer has a good ESG performance; in both cases, the index is based on the bond price of the sample bonds.

Few institutions and organizations throughout the world have ESG indicators that are properly defined, and the system of ESG indicators is still highly unfinished and fragmented. Table 1 illustrates the main international ESG-related indicators.

Table 1. Indicators related to ESG from major international institutions and organisations

Subject	Relevant indicators involving ESG
Global Reporting Initiative	Pay attention to society and the environment. Materials, energy, and the environment are covered by 12 categories and 34 items. Materials, energy, wastewater and waste, air emissions, and other topics are covered by 12 categories and 34 items under the environmental heading; similarly, labor practices, human rights, social effect, and product responsibility are covered by 30 categories and 48 things under the social heading [5,6].
Committee on Non-Profit Sustainability	The entirety of the Sustainability Code includes 79 sectors in 10 categories, including those associated with governance and the environment [7].
International Integrated Reporting Committee	The link between financial performance and society and the environment [8].
European Parliament and European Commission	Environmental issues, social and employee issues, human rights, anti-corruption and bribery issues, and Board and Management Diversity [9,10].
World Bank	To concentrate on society and the environment. Starting with a goal of sustainable development and ending with the funding of investment initiatives Environmental and social norms, as well as their annexes, are discussed [11].
International Finance Corporation	The sustainability framework focuses on the environment and society.
Asian Development Bank	Information on the environment, society, and governance. Agriculture and food safety, climate change, gender and development, social development and poverty, and water are some of the issues that need to be addressed [11,12].

2. ESG Index Construction

2.1 Construction method

The majority of the aforementioned metrics are challenging to properly quantify and were not created with ESG in mind. As a result, the assessment agency first gathers data and information from businesses and other outside organizations. It then researches the current industry best practices for each assessment element, evaluates the distance between businesses and the best practices in each area, and assigns a score. The composite score is then determined after each score has been given a weight. Since various organizations have different ideas on what the ESG framework should include and the weighting of each component, there is no standardized ESG assessment technique. The MSCIESG series (Global/US/Emerging Markets), the FTSE4Good series, and the Bloomberg ESG Index are currently significant international ESG rating indexes.

The MSCI ESG family of indices has criteria for each of the three ESG dimensions, which are scored and added to form an overall ESG score, with AAA denoting the best sustainable performance and C denoting the worst sustainable performance [9]. This family of indices provides investment decision support tools for over 5,000 clients in pension funds and hedge funds [6]. In order to assist investors understand the environmental, social, and corporate governance (ESG) risks and opportunities in their portfolios and to assess issuers' ability to manage long-term financial-related ESG issues, MSCI developed the ESG Rating System [10].

To identify important risks and opportunities in each sector and to build a framework of indicators, MSCI employs quantitative models. The indicator system is made up of 35 ESG Key Issues (ESG Key Issues), 10 themes (Themes), 3 primary categories (Pillars), and hundreds of indicators. The MSCI ESG Key Issues are assigned to each sector based on the extent of ESG's impact on that sector, and to each GICS sub-sector based on the extent and duration of the impact of environmental and social risks on that sector [3]. Governance issues are always crucial and will be taken into consideration when calculating all company scores. As a result, the final ESG rating score assigned to a firm is not an absolute number but rather a measure of how well the company performed in comparison to its competitors.

The FTSE4Good Index focuses on five key categories, including labor standards in the supply chain, support for human rights, and environmental sustainability. bribery issues and tackling climate change mitigation. ESG concerns are taken into account for both positive and negative screening, in addition to theme factors (such as minimal carbon emissions). In comparison to the parent index, the index's members will exclude from the index any firms involved in questionable business practices or those that do not adhere to the UN Global Compact Principles. To ensure that the relative weighting of constituents at the nation and sector level is equal to that in the parent index, components are also weighted in accordance with FTSE's internal ESG score and thematic risk ratings (such as carbon emissions).

By rating 20,000 of the most regularly traded public firms based on these disclosures in four categories—environmental, social, governance, and ESG composite scores—the Bloomberg ESG Index pushes businesses to publish more ESG data. The eligible constituents of the Large/MidCap ESG Index, which covers global and regional markets, respectively, are used to create the S&P Global Large/MidCap ESG Index and the Emerging Large/MidCap ESG Index. The eligible constituents are chosen by evaluating the business practices of the companies and/or their scores in accordance with the UN Global Compact Principles, as well as by excluding the companies in each sector with the lowest quartile of S&P's internal metrics. A target of 75% of the outstanding market capitalization of eligible constituents in each sector is then selected from the remaining candidates, weighted by market capitalization and chosen in descending order of internal ESG score.

2.2 ESG Index Construction Process

Currently, the creation of an international ESG stock index typically involves five steps. A benchmark index is chosen in the first stage, and the benchmark index's sample stocks are utilized as the starting reference. The second stage involves "scanning" the sample stocks for negativity based on the sample businesses' industry, the prevalence of contentious problems like human rights concerns, and other factors. The final ESG index sample is chosen in the third phase, which involves evaluating the ESG scores by combining the pertinent components, ranking them, and rescreening them in accordance with the various aims of the index design. The weighting of sample stocks is done in the fourth phase, and the weighting guidelines are often established under circumstances like the goal of the index design, geographic distribution, and compatibility with the benchmark index. To accomplish the proper index design goal, three weighting strategies are typically used: weighting by market capitalization, equal weighting, and skewing towards certain metrics. The regular upkeep, revision, and updating of the index constitute the fifth step.

2.3 Case Study - MSCI ESG Leaders Index

The MSCI ESG Leaders Index is a leading ESG index that was introduced in 2020 with the goal of drawing market attention to top-tier, leading ESG businesses and fostering ESG investment. Its benchmark index is the "five-step" MSCI Global Investable Market Indexes (GIMI), which accounts for 50% of the index's market capitalization.

"Extremely controversial" items like biochemical and incendiary weapons, "seriously controversial" items like nuclear missiles and related accessories, and "more controversial" items like nuclear missiles and related accessories are all categorized in the negative screening process according to the level of controversy in the business sector. All businesses engaged in the four business levels mentioned above are not included in the MSCI ESG Leaders Index, also known as the ESG Leaders Index. Businesses.

The index demands that businesses have an ESG rating of BB or above (there are seven categories, from AAA to CCC), as well as a controversy index score of 3 or higher (on a scale of 10, with a score of zero being the most controversial). The four main themes for the environment are climate change, natural resources, pollution and waste, and opportunities for development related to the environment [13,14]. The four main themes for society are human resources, product responsibility, stakeholder conflict, and opportunities for development related to social responsibility. The four main themes for governance are corporate governance and corporate behavior. Additionally, the index considers ESG trend scores, current index inclusion, and sector-adjusted ESG scores. The final index, which is maintained and modified on a quarterly basis, is created by liquid market capitalization weighting the index.

3. China ESG System Development

3.1 Differences in domestic and international ESG systems

First off, China's ESG system is still in its infancy compared to other nations, and the climate for information sharing and the quality of the data base are both lacking. There have been restrictions in the independent study on firms' fulfillment of social responsibility or green development in recent years, and China's ESG system still trails far behind that of other nations. The quantity and caliber of corporate information disclosure are weak, and the disclosure structure for ESG-related information is still unclear. Second, compared to other nations, China's base for data collecting is weak. Thirdly, the data disclosed in China's social responsibility reports and other reports primarily focuses on performance enhancement and hardly ever includes unfavorable data.

Second, whereas ESG systems are mostly governed by the government in China, they are founded on spontaneous movements in other nations. The public's spontaneous movement and the promotion of non-profit organizations marked the beginning of the ESG system in the international sphere. Subsequently, internationally significant organizations, like the United Nations, started to develop ESG-related principles and frameworks and to encourage the adoption of ESG disclosure standards by national exchanges [13]. The early ESG system in China was created by the government issuing pertinent papers, which was followed by a top-to-bottom promotion of ESG awareness among businesses and the general public. The government still plays a significant role in directing the development of an ESG system in China, despite the fact that numerous non-governmental organizations in China also publish their own ESG ratings and investment recommendations [15,16].

3.2 Suggestions for China's ESG system

3.2.1 Strengthening information disclosure capabilities

Globally speaking, ESG-related disclosures are becoming more and more common in many nations and areas. More than 30 nations have passed legislation requiring corporate ESG disclosure, including important stock markets in Europe, the United States, Japan, and Singapore, as well as South Africa, Brazil, Canada, India, Malaysia, Sri Lanka, Thailand, and Turkey. By 2030, the United Nations mandates that all significant businesses produce sustainability reports.

China can get more insight from the aforementioned experience with information disclosure in developed capital markets and create a set of ESG information disclosure policies that are appropriate for its own national circumstances. Additionally, it is recommended that the appropriate authorities increase the standards for financial ESG reports, harmonize information disclosure guidelines, standardize third-party certification of the reports, and gradually establish the principles, procedures, and individuals in charge of third-party audits to ensure the reliability of the published reports. Furthermore, financial ESG disclosure has to be standardized. Information on the effects of financial institutions' own operations, investment and financing activities, as well as the effects of ESG on their possibilities and dangers, should also be included in financial ESG disclosure.

3.2.2 Playing a government-led role

In contrast to the growth of public movements in other nations, the government and pertinent agencies should still direct the ESG system in China. In order to improve the corresponding supporting policies and ultimately reflect the effect at the enterprise level, this necessitates ongoing communication and cooperation between the industry itself, industry associations, and regulatory authorities (including industry and commerce, taxation, environmental protection, finance, etc.) [16,17]. Examples include preferential rules for bidding and tax exemptions, as well as access to financial resources, for businesses (particularly listed businesses) with strong ESG performance evaluations. Companies should be cautioned or penalized if they fail to provide the necessary disclosures, provide false information, and perform badly during performance reviews.

Information disclosure, performance evaluation, and investment advice are the three components of the ESG system. These three components are interconnected and naturally interwoven. In addition to aggressively promoting and improving the entire institutional framework of ESG in China, government departments and pertinent institutions should increase their general awareness of ESG ideas and systems. In particular, they should encourage industry associations and regulatory bodies to establish ESG disclosure and evaluation systems, encourage rating agencies to actively carry out ESG performance ratings of businesses and make them public in a timely manner, support businesses in implementing ESG principles in their operations, and increase investor awareness of ESG principles and responsible investment.

3.2.3 Improving ESG database construction

Based on international experience, an effective ESG system has to be well backed by data. More comprehensive fundamental data will result in more credible evaluation outcomes, especially in the evaluation of ESG performance. The results are more trustworthy the more data there is available. Some organizations offer their processed data directly to the public, but the data base and data processing remain mainly undisclosed. Processing ESG data is a complicated process that needs a lot of time, effort, and resources, and it is regularly updated and maintained. The database is routinely maintained and updated. Therefore, it is advised that the pertinent departments support the company or institution in creating an ESG database as part of an overall ESG strategy. Therefore, it is advised that the pertinent departments help businesses or institutions create their ESG database as part of an overall ESG strategy.

4. Conclusion

Environmental, social and governance (ESG) measures the three core elements of sustainability and ethical impact in a company or corporate investment. ESG is also gaining attention in China, where more and more companies are disclosing their social responsibility reports, but its development is still in its infancy. The ESG Thematic Index, which integrates the three dimensions of environmental, social and corporate governance, is an important tool for ethical investors to participate in the ESG investment market, reflecting the ability of a sample of positions in environmental protection, social responsibility and their own sustainable development. It is also an important financial tool for directing social capital flows to sustainable development projects to support sustainable economic development. The use of social capital as a financial resource to finance sustainable development initiatives is essential to promote sustainable economic growth. Important international ESG rating indices currently include the MSCIESG series, the FTSE4Good series and the Bloomberg ESG Index. There is still a gap between the current Chinese ESG system and the international one. China needs to strengthen its information disclosure capacity, play a leading role in government, improve the ESG database construction and gradually improve the ESG system.

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