China Sustainable Investment Review

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Foreword

Seeking Certainty amid Uncertainty

We are pleased to release the annual China Sustainable Investment Review again. According to public information collected by China SIF, in 2022 (as of September 30), the overall market size for responsible investment in China sustained its growth: RMB 20.9 trillion in the green credit balance, approximately RMB 3.07 trillion in sustainable securities investment assets, and approximately RMB 0.63 trillion in sustainable equity investment assets. The combined value was RMB 24.60 trillion, up by 33.4% year-on-year. With a GDP growth rate of 3% in the first three quarters of 2022, achieving such significant growth in responsible investment is no mean feat. This growth is largely attributed to the growth in green credit; ESG mutual funds, despite an increased number of products, have seen shrinking assets under management (AUM) due to a market downturn.

The economic outlook for the new year is quite uncertain, and forecasts are not very optimistic. Under such circumstances, the development of responsible investment is also overshadowed. Meanwhile, signs of the consolidation of responsible investment in the US and European markets over the past two years have raised doubts about ESG and the prospects of responsible investment in the market, especially this year. I believe that these are normal phenomena. After all, nothing can grow or stay trouble-free indefinitely. The key to dealing with this is to distinguish between long-term trends and short-term disturbances and to seek certainty in an uncertain future.

In my view, at least three aspects of ESG growth are certain. First, the impact of non-financial factors on business operations and investment returns is certain, and such factors will make a greater difference among all factors. However, it is uncertain how significant the impact will be and how big a difference it will make among all factors. In today's society, maximising shareholders' interests at the expense of other stakeholders is increasingly like "killing the goose that lays the golden eggs" and is inevitably unsustainable. Second, while the green and low-carbon (zero-carbon) transition is moving in a definite direction, the transition speed and path are still uncertain. This transition involves internal and external factors, with internal factors as the main drivers. Therefore, seeking synergy in reducing pollution and carbon emissions and gradually achieving "decarbonisation" is necessary for China's economic and social development. Third, non-financial information disclosure, especially carbon information disclosure, is certain. At the same time, it is uncertain when the mandatory requirements will be implemented. Both government authorities and investment institutions need access to such information to make better policy and investment decisions.

By clarifying certain factors, we may be able to peer through the fog to see the top of a snow-covered mountain.

It is unclear what the path will look like, but at least we have a sense of direction. Zero-carbon transition, information disclosure, and ESG rating are still the keys to future ESG development in China. The new survey on domestic and foreign asset owners in this year's report also provides more concrete information to help the market understand the future of ESG investment. It is essential to know that asset owners such as pension funds and insurance asset are the key drivers of responsible investment.

The survey on domestic and foreign asset owners also found that most asset owners take ESG investment capabilities into account when selecting a manager. It implies a market need for ESG evaluation of asset managers and asset management products. In response, this year's report incorporates the preliminary results of the Responsible Investment Competence Evaluation (RICE) for institutions by SynTao Green Finance. Based on the results, domestic asset management institutions have a huge room for improvement.

In my opinion, asset managers should make sure to invest more in enhancing their ESG investment capabilities despite uncertainty in the future. After all, opportunity favours the prepared mind.

To all those who are passionate about ESG, let us encourage each other in our endeavours.

Dr. GUO Peiyuan

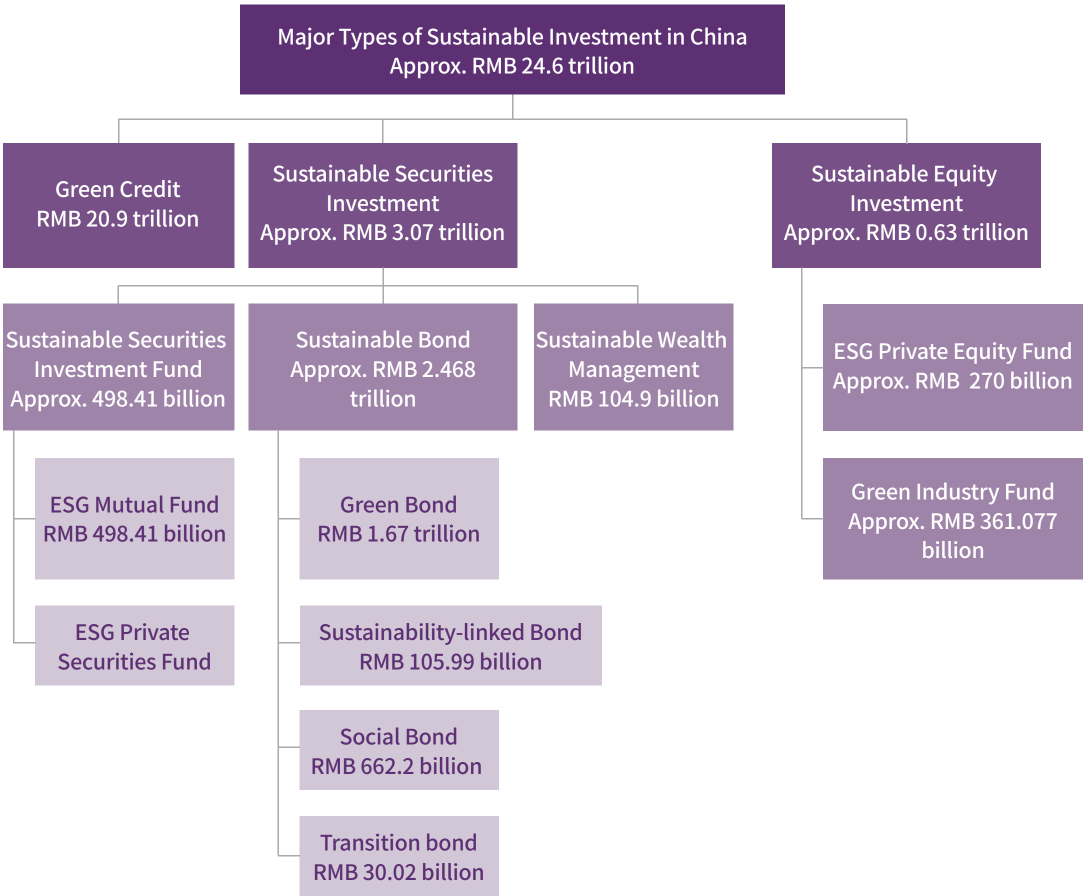
Chairman of China Sustainable Investment Forum

Abstract

As the world economy faces multiple uncertainties in 2022, preventing global warming and achieving the Sustainable Development Goals (SDGs) remain the consensus and common goals of economies across the globe. In October 2020, China set the ambitious goal of peaking carbon emissions by 2030 and achieving carbon neutrality by 2060. The "dual-carbon goals" have served as an important guide for the country's economic development and financial work. Despite a sluggish growth of the global economy, sustainable investment and green finance in China's capital markets have continued to grow at a rapid pace, and the number of new sustainable investment products has increased by leaps and bounds. The concepts of ESG, responsible investment, and climate risk and opportunity management have gained mainstream recognition.

Based on public information, ***China Sustainable Investment Review 2022*** (the "Report") has mapped out the status quo and the size of sustainable investment in China. As compiled by the China Sustainable Investment Forum (China SIF), the available market size of the major types of sustainable investment was about RMB 24.6 trillion in China in 2022, with a year-on-year growth of about 33.4%. Among it, the green credit balance was RMB 20.9 trillion; the AUM of ESG mutual funds totaled RMB 498.41 billion; the outstanding size of green bond was RMB 1.67 trillion; the sustainability-linked bond was RMB 105.99 billion; the social bond was RMB 662.02 billion; the transition bond was RMB 30.02 billion; the outsanding size of sustainable wealth management products was RMB 104.9 billion; the total amount of ESG equity funds was about RMB 270 billion[1]; and the total amount of green industry funds was about RMB 361.077 billion.

[1] The number was estimated by China Sustainable Investment Forum (China SIF) based on public data. For estimation methodology, please refer to Appendix 1.



Note: The data collection standards for different data types are not exactly the same. For details, please refer to Appendix 1.

This Report summarised the international development trend of sustainable investment, reviewed the progress of China's responsible sustainable policies and financial institutions' sustainable investment practices in recent years, mapped out existing ESG stock indices, mutual funds and asset management products, and shared the results from the survey regarding individual investors and asset owners' attitude towards sustainable investment.

Main Findings

Sustainable Investment Policy Progress

- Following the principle of "adopting uniform standards in the domestic market and aligning them with international standards", China is establishing and improving a system with a set of strict, precise, detailed, and highly operational green financial standards. The country has already introduced the ***Standards for Carbon Financial Products***, the ***China Green Bond Principles*** in 2022 and more.
- ESG information disclosure is developing fast by steps, and ESG information disclosure by financial institutions has become a focus of both policy and the market. In particular, mandatory disclosure of environmental and climate-related risks and opportunities has become a trend.
- In its ***Guidelines on Green Finance for the Banking and Insurance Industries***, the China Banking and Insurance Regulatory Commission (CBIRC) includes the non-credit business of the banking industry and the underwriting and asset management business of the insurance industry into green finance, and stimulate more capital to flow towards green finance, involving AUM of tens of trillions of yuan.
- The ***China Green Bond Principles*** unified the classification of green bonds for the first time. The policy promotes the innovation of sustainability-themed bonds, such as transition bonds, blue bonds, and social bonds.

Sustainable Investment Market Trends

- Domestic mutual funds, insurance asset managers, and wealth management subsidiaries of banks have all been practising sustainable investment to varying degrees, and some leading institutions have improved their practice to a comparable level of industry best practice. However, asset managers are still in their infancy in climate risk and opportunity management.
- By the end of October 2022, the Shanghai and Shenzhen Stock Exchanges had issued 157 A-share ESG indices using more diversified screening methods. Among them, the ESG Select Indices had seen the fastest growth.
- By the end of October 2022, there had been 606 ESG mutual fund products, with a sustained high growth rate. Among them, ESG funds accounted for about 6.63% of all equity and hybrid funds in the market in terms of AUM.

Investors' Awareness of Sustainable Investment

- The main driver for individual investors in China to make sustainable investments is to create value for society. Risk reduction and personal values have become less of a driver than in previous years.
- Major challenges for individual investors in sustainable investment continue to be the lack of access to ESG information channels, poor understanding of sustainable investment, and the absence of criteria for evaluating ESG performance.
- Asset owners already have a strong awareness of ESG investment. Among them, many have relatively sophisticated ESG governance structures, recognise the effectiveness of ESG investment strategies and have ESG investment requirements for fund managers.

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About This Report

Methodology and Definitions

Sustainable investment is an investment approach that incorporates considerations of environmental, social and governance (ESG) factors of the investees into traditional investment strategies. For this Report, the term "sustainable investment" covers concepts such as low-carbon finance, climate finance, and green finance.

This Report mainly covers the following sustainable investment strategies:

- Positive/best-in-class screening: investment in sectors, companies or projects selected from a defined universe for positive ESG performance relative to industry peers;
- Negative/exclusionary screening: the exclusion from a fund or portfolio of certain sectors, companies or practices based on specific ESG criteria;
- Sustainability themed investing: investment in themes or assets that address specific sustainability issues such as climate change, food, water, renewable energy, clean technology and agriculture;
- Corporate engagement and shareholder action: the use of shareholder power to influence corporate behavior, including through direct corporate engagement, filing or co-filing shareholder proposals, and proxy voting that is guided by comprehensive ESG guidelines.

This Report is consistent with Global Sustainable Investment Alliance (GSIA)[2] in terms of classifying sustainable investment strategies. According to GSIA, common sustainable investment strategies encompass negative/exclusionary screening, positive/best-in-class screening, norms-based screening, ESG integration, sustainability-themed investing, impact/community investing, and corporate engagement and shareholder action.

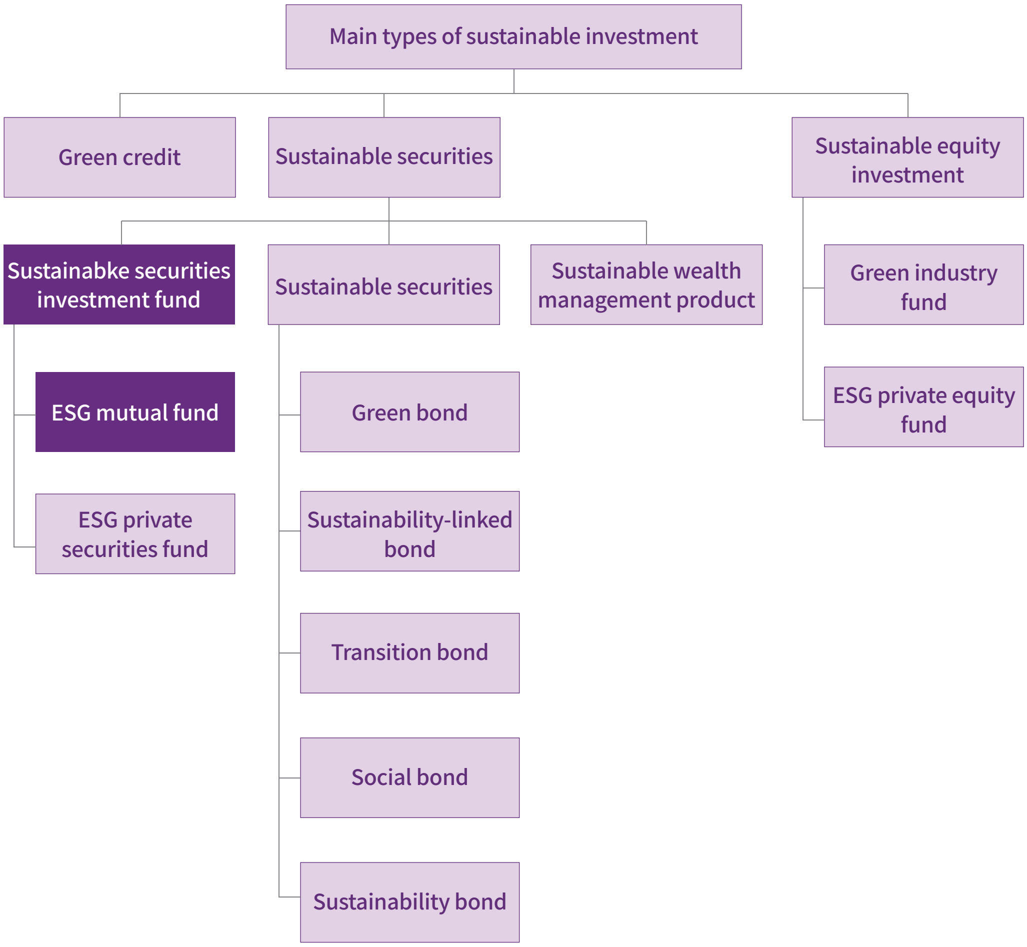
Report Scope

In the Chinese market, sustainable investment, which was primarily adopted by banks in their credit business at the outset, has gradually penetrated the practice of securities investment, equity investment, and industrial funds in recent years. Meanwhile, sustainable investment products, such as ESG stock indices, green bonds, green funds, and other types of sustainable investment products have continued to emerge (Figure. 1) (related definitions and data can be found in Appendix 1).

This Report focuses on the category of sustainable securities investment funds, without placing restrictions on the sustainable investment strategies used by investors. The data collection of ESG stock indices and funds is not limited by the ESG factors considered by investors, with products that include one or more elements of E, S and G all included in the analysis.

[2] Global Sustainable Investment Alliance (GSIA), 2021. Global Sustainable Investment Review 2020.

Figure 1 Main Types of Sustainable Investment in China



Data Sources

The main data[3] sources of this Report are as follows:

- Sustainable investment policies: relevant data are mainly sourced from the ***China Green Financial Policy Database*** of SynTao Green Finance.
- Sustainable investment practices: information disclosed by financial institutions, compiled by China SIF.
- Sustainable investment products: the data of ESG stock indices, mutual funds and wealth management products are collected and compiled by China SIF based on public information.
- Survey on individual investors' attitudes towards sustainable investment: the results are obtained from the ***2022 Survey on Public Attitudes Towards Responsible investment*** launched by China SIF and Sina Finance in November 2022, with 2,234 valid responses. The survey is anonymous and open to individual investors.
- Survey on asset owners' attitudes towards sustainable investment: the results are cited from the ***ESG Survey Report for Asset Owners*** launched by China SIF, SynTao Green Finance and Southern Asset Management. The survey received 51 valid responses from onshore and offshore asset owners.

[3] If not otherwise specified, the data on China covered in this Report does not include data for Hong Kong Special Administrative Region, Macau Special Administrative Region or Taiwan Province.

1. Trends and Key Progress in Global Sustainable Investment

Sustainable Investment in the Five Major Global Markets Exceeds US$ 35 Trillion, with the Number of Sustainable Investment Institutions Growing Rapidly

According to the latest statistics from the Global Sustainable Investment Alliance (GSIA)[4], sustainable investment in the five major global markets[5] reached US$ 35 trillion by the beginning of 2020, up by 15% compared to the beginning of 2018, representing 36% of the five markets' assets under management (AUM).

Table 1 AUM of Global Sustainable Investing Assets in the Five Major Global Markets

	2016	2018	2020
Global AUM of sustainable investment (in US$ billion)	22,872	30,683	35,301
% sustainable investment in total AUM	27.9%	33.4%	35.9%
Increase of % sustainable investment (compared to previous period)		5.5%	2.5%

Data source: GSIA

Europe and the United States remain the largest markets for sustainable investment, with AUM at EUR 10 trillion and US$ 17 trillion, respectively. Over the last two years, the scale of sustainable assets in the United States has increased by 42%. In Europe and Australasia, due to significant changes in the definition of sustainable investment (for example, the EU officially released the ***EU Taxonomy*** in 2020, providing for the first time an official and detailed definition of sustainable activities), the data collected in 2020 on the size and growth rate of sustainable investment lacks direct comparability with previous years.

Table 2 AUM Growth of Sustainable Investment in the Five Major Global Markets (2014-2020)

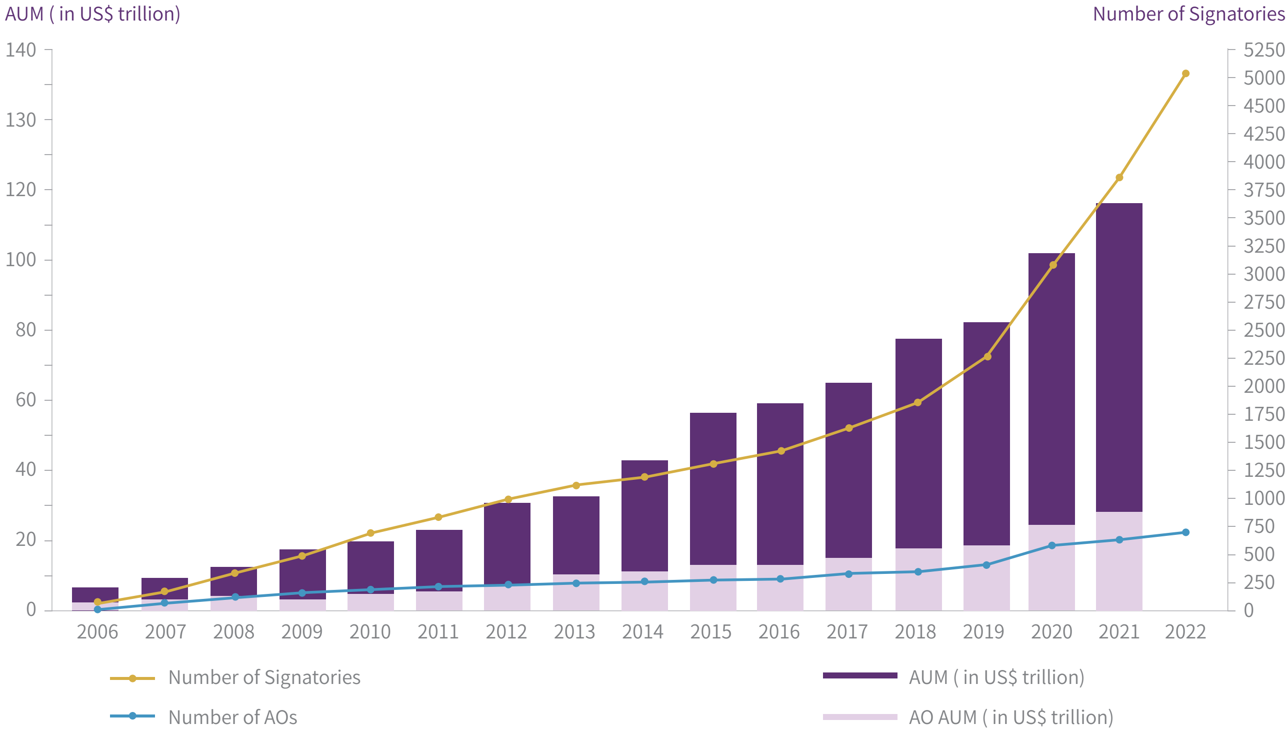
	2014	2016	2018	2020	Growth per Period			Compound Annual Growth Rate (CAGR) 2014-2020
					Growth 2014-2016	Growth 2016-2018	Growth 2018-2020	
Europe (EUR)	€9,885	€11,045	€12,306	€10,730	12%	11%	-13%	1%
United States (USD)	$6,572	$8,723	$11,995	$17,081	33%	38%	42%	17%
Canada (CAD)	$1,011	$1,505	$2,132	$3,166	49%	42%	48%	21%
Australasia (AUD)	$203	$707	$1,033	$1,295	248%	46%	25%	36%
Japan (JPY)	¥840	¥57,056	¥231,952	¥310,039	6,692%	307%	34%	168%

Note: The cut-off date for data collection in Japan is March 31, 2020, and is December 31, 2019 for other markets.
Data source: GSIA

[4] GSIA, 2021. Global Sustainable Investment Review 2020.
[5] The five major markets include Europe, the United States, Japan, Canada, and Australia and New Zealand (Australasia).

The number of institutions involved in sustainable investment has continued to grow globally. By the end of September 2022, the number of signatories to the UN-supported Principles for Responsible Investment (PRI) had reached 5,179, with 496 new signatories or an increase of 10.6% compared to the end of 2021. In China Mainland, there were 117 signatories to the PRI by the end of October 2022, including 85 asset managers, four asset owners, and 28 service providers, with a total of 36 new signatories or an increase of 44.4% from the end of 2021. This increase exceeds the global average.

Figure 2 Number of PRI Signatories and AUM

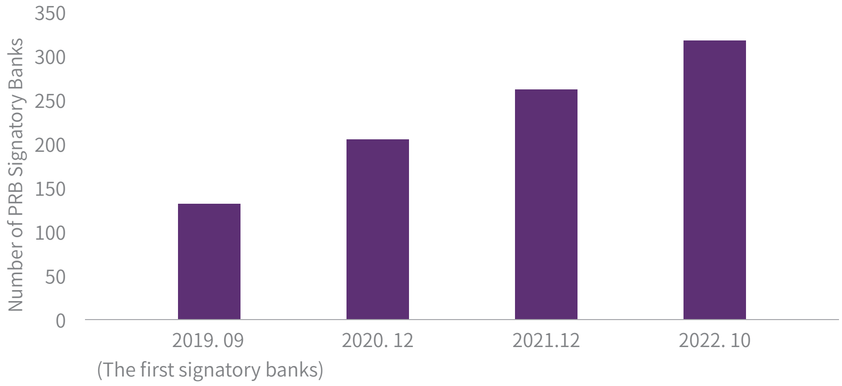


Data source: PRI

As of: March 2021

In addition, there have been 300 signatory banks since the PRB was established in September 2019. Their AUM reached approximately US$84.7 trillion, accounting for approximately 45% of global banks. As of the end of October 2022, there had been 22 signatory banks in China Mainland, with six new signatories or an increase of 37.5% from the end of 2021. This increase exceeds the global average.

Figure 3 Number of UN PRB Signatories

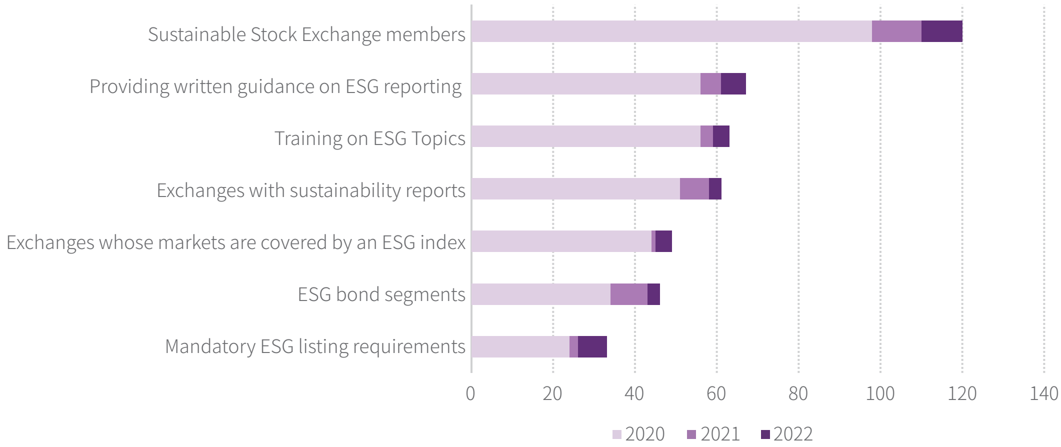


Data source: PRB, compiled by China SIF

Further Enhancement in Mandatory and Integrated Information Disclosure

By the end of October 2022, the United Nations Sustainable Stock Exchange Initiative (UN SSEi) had 120 members, with a regulatory coverage of 62,300 listed companies and a combined market capitalisation of nearly US$127 trillion. The number of member exchanges and listed companies covered increased by about 9% and 11%, respectively, compared to the end of last year. UN SSEi members have continued to promote ESG disclosure and training on ESG issues, publish ESG reports and ESG indices, develop ESG bond markets and press ahead with other sustainable finance-related activities. The number of exchanges that require mandatory ESG disclosure of listed companies grew the fastest in the past year. As of the end of October 2022, 33 stock exchanges had imposed mandatory ESG disclosure requirements for listed companies, up by 26.9% from the end of last year and a significant increase during the same period in the number of UN SSEi members. In addition, 50 stock exchanges organised TCFD training.

Figure 4 Progress of Sustainable Finance-Related Activities in Stock Exchanges



Data source: SSEi, compiled by China SIF

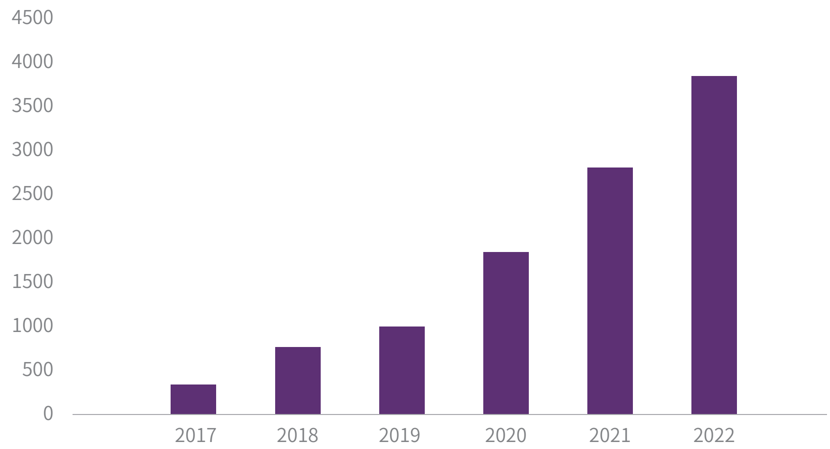
The International Sustainability Standards Board (ISSB), created by the International Financial Reporting Standards Foundation (IFRS) at the UN Climate Change Conference (COP26) in November 2021, aims to establish a set of non-financial sustainability standards. In March 2022, the ISSB announced a partnership with the Global Reporting Initiative (GRI), a long-established launcher of sustainability disclosure standards, and issued two exposure drafts of information disclosure standards for the first time, namely the ***IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information (Draft)*** (hereinafter referred to as the ***General Requirements***) and the ***Exposure Draft IFRS S2 Climate-related Disclosures*** (hereinafter referred to as ***Climate Disclosures***). By the end of July 2022, these two exposure drafts had received more than 1,300 responses worldwide.

- The General Requirements is generic in nature and provides general standards for sustainability-related financial information disclosures, including targets, scope, core content, universal features (general features), and appendices. It requires an entity to disclose sustainability-related information about material risks and opportunities for major readers of financial reports to be able to make informed decisions. The core content follows the disclosure framework of the Task Force on Climate-related Financial Disclosures (TCFD), namely governance, strategy, risk management, metrics, and targets.
- The Climate Disclosures focuses on climate issues and requires an entity to disclose information about the material climate-related risks and opportunities it faces, allowing users to reasonably assess the entity's ability to address those risks and opportunities. The Climate Disclosures generally follows the TCFD framework, requiring an entity to disclose its calculation of Scope 1, Scope 2, and Scope 3 GHG emissions, while considering multiple approaches such as carbon reduction, carbon offsetting, climate transition, and climate adaptation. It emphasizes the importance of climate-related scenario analysis in the climate adaptation section. Its ***Appendix B – Industry-Based Disclosure Requirements*** follows the SASB standards and provides detailed descriptions of disclosure metrics for nearly 70 sectors.

On August 1, 2022, the ISSB completed its consolidation with the Value Reporting Foundation (VRF). So far, the ISSB has consolidated with the three disclosure standard-setting organisations, namely the Climate Disclosure Standards Board (CDSB), the Sustainability Accounting Standards Board (SASB), and the International Integrated Reporting Council (IIRC). In September 2022, the IFRS Foundation announced the establishment of the Sustainability Consultative Committee (SCC), whose members include the International Monetary Fund (IMF), the World Bank, and nine other institutions.

Since TCFD released its Recommendations in 2017, it has received support from 3,992 organisations globally as of October 2022, including 1,574 financial institutions and 1,030 new supporting organisations or an increase of 34.8% from the end of 2021. 55 organisations in China Mainland publicly announced their support for TCFD and its Recommendations, including 26 financial institutions. 17 new organisations joined the supporting community in 2022, with an increase of 60.7% from the end of 2021, which exceeds the global average. The newly released ***ISSB Exposure Draft of Disclosure Standards*** in 2022 also follows the TCFD Recommendations. According to the UN SSEi, 63% of the 67 global stock exchanges that have developed ESG information disclosure guidelines had referred to the TCFD Recommendations as of October 2022.

Figure 5 Number of TCFD Supporting Organisations



Source: TCFD, compiled by China SIF as of the end of October 2022

Stricter Requirements for Financial Institutions to Disclose Climate and ESG-Related Information in the Context of the Crackdown on "Greenwashing"

The ***EU Sustainable Finance Disclosure Regulation (SFDR)*** was introduced in May 2018 and formally implemented in phases in March 2021. As part of the EU's commitment to sustainability, the SFDR supplements the EU Taxonomy, which aims to improve transparency in sustainability-related disclosures of financial products and to prevent "greenwashing".

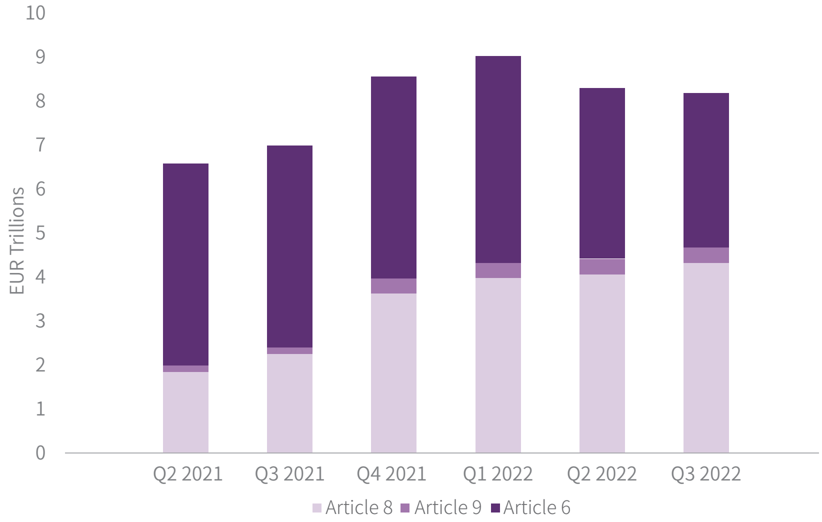
The SFDR mandates information disclosure under its standards from all EU financial market participants, financial advisors, and non-EU entities that have subsidiaries or conduct business in the EU. It sets out disclosure requirements at both institutional and product levels. Its "Principle Adverse Impacts (PAI)" section adopts the "comply or explain" principle. The ***SFDR Regulatory Technical Standards Annex*** includes a list of PAIs on sustainability, including greenhouse gas emissions, biodiversity loss, water pollution, hazardous waste, and other common environmental and climate indicators.

- At the institutional level, the SFDR requires financial market participants to disclose their management of PAI factors on an annual basis, including policies for identifying principle adverse impacts, mitigation measures, compliance with international standards, and comparable historical data related to impacts. Financial advisers are also required to disclose their policy statements and specific practices for considering PAIs on sustainability when providing investment advice or insurance advice, and remuneration policies' relevance to sustainability risks. Financial market participants and financial advisers are required to disclose their integration of sustainability risks in pre-contractual documents.

- At the product level, the SFDR divides financial products into general products (Article 6 of the SFDR), products that promote environmental or social attributes (Article 8 of the SFDR), and products that have sustainable investment objectives (Article 9 of the SFDR). For the latter two types of products, it is required to disclose the process of considering sustainability-related issues in pre-contractual documents, on the official website, and in periodic reports. Among them, products with carbon reduction objectives are required to report the degree of their alignment with the ***EU Taxonomy*** and the objectives of the ***Paris Agreement***.

According to Morningstar, as of the end of September 2022, the funds in line with Article 8 and Article 9 of the SFDR had been EUR 4.3 trillion, accounting for approximately 53.3% of the total EU market shares, and for 48.3% and 5.2%, respectively of the total AUM.

Figure 6 AUM of Funds in Line with SFDR in the EU Market



Source: Morningstar

In May 2022, the US Securities and Exchange Commission (SEC) issued the ***Enhanced Disclosures by Certain Investment Advisers and Investment Companies about Environmental, Social**, **and Governance Investment Practices***[6], which imposes clearer and stricter disclosure requirements on asset managers and products that claim to involve ESG investments. For ESG-focused products that consider environmental factors as part of their investment strategy, the SEC recommends the disclosure of portfolio-level carbon emissions and the weighted average carbon intensity ("WACI"). For ESG-themed funds that focus on impact (Impact Funds), the SEC recommends summarising their progress in achieving specific impact(s) in both qualitative and quantitative terms.

During the same period, the SEC issued the ***Proposed Rule: Investment Company Names***[7]. The proposal suggests that where a product has been named with a clear meaning, i.e. ESG investment fund, the fund must adopt a policy to invest at least 80% of the value of its assets consistent with its name. The funds that consider ESG factors along with, but not have more significance than other factors, can only be called 'integration funds' instead of using ESG-related terms in their names.

The Development of Transition Finance Has Become an International Consensus

The ***G20 Transition Finance Framework*** was approved and officially released at the G20 leaders' summit on November 16, 2022, marking the first international consensus among the G20 leaders on the development of transition finance. The framework comprises five pillars: identifying transition activities and investments, reporting information on transition activities and investments, transition-related finance instruments, policy measures, and assessing and mitigating negative social and economic impacts, a total of 22 principles. By establishing a principle-driven and high-level consensus, the framework intends to guide the global development of transition finance, enhance the credibility and transparency of transition activities, and lay the foundation for improving compatibility among the rules of transition finance markets in different countries and facilitating cross-border transactions.

[6] SEC, 2022. Enhanced Disclosures by Certain Investment Advisers and Investment Companies about Environmental, Social, and Governance Investment Practices (Proposed Rule).

[7] SEC, 2022. Investment Company Names (Proposed Rule).

Domestic and international regulators and market participants have begun their exploration and practice related to transition finance. For example, the International Capital Markets Association (ICMA) issued the ***Sustainability-Linked Bond Principles*** (SLBP) in June 2020, the National Association of Financial Market Institutional Investors (NAFMII) issued the ***Ten Questions and Answers on Sustainability-Linked Bonds*** (SLB) and the ***Notice on Conducting Pilot Innovation Related to Transition Bonds***. Chinese companies have started to issue transition bonds. Overall, the exploration of transition finance at home and abroad is still at an early stage. There is still much room for improvement regarding standard definition, information disclosure, innovation in financial instruments, incentive policy measures, and just transition.

The Materiality of Biodiversity Risks is Recognised

With the hosting of the first phase of the 15th Conference of the Parties (COP15) of the United Nations Convention on Biological Diversity (CBD) in China and the adoption of the ***Kunming Declaration***, the global consensus on the implementation of the ***Post-2020 Global Biodiversity Framework*** has been further strengthened. At the Conference, it was noted that the current spending on biodiversity is about US$143 billion per year or about 1.2% of the global GDP. The financing need for global biodiversity conservation is expected to reach US$700 billion to US$1 trillion per year by 2030. The investment gap could reach 80% to 90%.

The joint study group on Biodiversity and Financial Stability, launched by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) and the International Network for Sustainable Financial Policy Insights, Research, and Exchange (INSPIRE), published an interim report ***Biodiversity and Financial Stability: Building the Case for Action*** in 2021 and another titled ***Biodiversity and Financial Stability***. It then released the report ***Central Banking and Supervision in the Biosphere: An Agenda for Action on Biodiversity Loss, Financial Risk, and System Stability*** in March 2022, further elaborating on the connection between biodiversity loss and financial stability. The report warns that biodiversity loss poses a systemic risk similar to climate change and recommends and calls for central banks and financial regulators to take mitigation measures comparable to those addressing climate change.

At the same time, financial institutions have strengthened their support for biodiversity conservation actions through the ***Joint Declaration of the Banking Sector to Support Biodiversity Conservation*** and ***The Global Joint Initiative on the Partnership of Biodiversity and Finance (PBF)***. The ***Survey Report on Financial Support to Biodiversity*** released by the People's Bank of China (PBoC) in September 2022 points out that financial development and biodiversity are interdependent. While biodiversity loss brings physical and transition risks to the financial industry, an optimal allocation of resources through financial means contributes to biodiversity conservation. The research shows that a wide array of credit products, bank-insurance collaboration, issuance of special-purpose bonds, and fund-lead multilevel financing have encouraged progress in biodiversity conservation. At the same time, the financing gap remains sizeable and the transition risks are surfacing, calling for financial institutions to manage risks more effectively.

The Taskforce on Nature-related Financial Disclosures (TNFD) was formally established in June 2021 with 34 members representing financial institutions, businesses, and service providers. It aims to develop and offer a risk management and disclosure framework to enable organisations to report and act on evolving nature-related risks, and help shift financial flows from nature-negative to nature-positive investments. In March 2022, the TNFD released its ***Nature-Related Risk & Opportunity Management and Disclosure Framework (Beta Version)*** and planned to release the official TNFD framework in September 2023.

2.Development of China's Sustainable Investment Policy

2.1 "Three Functions" and "Five Pillars" of Green Finance

With abundant research and practice experience in recent years, the PBoC summarised a path to develop green finance with "three major functions" and "five pillars". The "three functions" refer to the functions of green finance in capital allocation, risk management, and market pricing, and the "five pillars" refer to green finance standard system, regulation and information disclosure, incentive and restraint mechanism, product and market system, and international cooperation.

The Green Finance Standard System Is Becoming More Sophisticated

At the beginning of 2022, the PBoC and three other ministries and commissions issued the ***"14th Five-Year" Development Plan for Finance Standardisation***. The document points out that standards are an important pillar for the sustainable development of green finance, and it is necessary to follow the principle of "adopting uniform standards in the domestic market and aligning them with international standards" to establish and improve a set of strict, clear, detailed, and operable standards. The document proposes a variety of specific tasks: unifying green bond standards, enriching standards of green financial products and services, accelerating the development of environmental information disclosure standards for listed companies and debt-issuing enterprises, studying, developing, and promoting carbon emission accounting standards for financial institutions, establishing a system for evaluating ESG standards, establishing statistical standards for loans that can measure the effect of carbon emission reduction, exploring the development of standards for carbon-related financial products, and speeding up the process of studying and developing standards for transition finance. These elements constitute the focus of the work on green finance and ESG standards in 2022 and the coming years.

Some efforts began to show results in 2022. The ***Standards for Carbon Financial Products*** released by the China Securities Regulatory Commission (CSRC) in April 2022 outlines the standards and requirements for the classification and implementation of carbon financial products and serves as a guide for financial institutions in the development and introduction of such products. In July 2022, with the release of the ***China Green Bond Principles*** by the China Green Bond Standard Committee, a set of preliminary unified domestic standards on green bonds that are compliant with international standards was formally established. This is a milestone in the promotion of the high-quality development of the green bond market.

In 2022, ESG-related standards for associations experienced a meteoric rise. As of November 2022, six standards, including the ***ESG Evaluation Technical Guideline for Listed Companies***, the ***ESG Evaluation Guide for Enterprises***, and the ***ESG Disclosure Guide for Enterprises*** were published. These standards are mainly developed and compiled by technical associations and organisations. However, it is unclear how well they are accepted by the market.

Some standards are prepared by local authorities as local standards or guidance documents. For example, the ***Construction and Management Standards of "Carbon Neutral" Banking Institutions*** published by Huzhou City in northern Zhejiang province in July 2022, and the ***Guidelines on Environmental Information Disclosure for Financial Institutions in Shenzhen*** formulated in September 2022.

Information Disclosure Requirements for Corporates are Getting Stricter

The ***Company Law of the People's Republic of China (Draft Revision)*** was enacted on December 24, 2021. In accordance with Article 19, when conducting operations activities, companies are required to comply with legal and regulatory obligations, fully consider the interests of stakeholders such as employees and consumers, as well as public interests such as ecological and environmental conservation, and assume social responsibility. It encourages companies to participate in social welfare activities, and publish social responsibility reports. The ***Measures for the Administration of Legal Disclosure of Enterprise Environmental Information*** issued by the Ministry of Ecology and Environment at the end of 2021 outlines the requirements for the legal disclosure of environmental information for five types of companies, such as listed companies and bond issuers. The ***Guidelines on the Format of Legal Disclosure of Enterprise Environmental Information*** issued in January 2022 stipulates what types of information should be disclosed, including an abstract of key environmental information, basic corporate information, information on corporate environmental management, information on pollutant generation, treatment and discharge, and information on carbon emissions.

In the capital market, the Shanghai Stock Exchange (SSE) and Shenzhen Stock Exchange (SZSE) updated their ***Listing Rules***, respectively, to include corporate social responsibility (CSR)-related content for the first time in January 2022. These updates include the inclusion of social responsibility in corporate governance, the requirement to disclose the fulfilment of CSR as required, and the possibility of compulsory delisting due to damage to public interests. The ***Listing Rules*** explicitly stipulates that certain listed companies are required to prepare and disclose non-financial reports such as social responsibility reports. In the past, the two exchanges only mandated disclosures from companies which are constituents of the ***SSE Corporate Governance Index*** and ***SZSE 100 Index***, companies listed both in the domestic and international markets, and companies in the finance sector. In April 2022, the CSRC issued the ***Work Guidelines for the Investor Relations Management of Listed Companies***, which stipulates that ESG information should be shared with investors as part of investor relations management.

In terms of policy direction, two types of enterprises are under greater pressure to disclose information. The first type is listed companies controlled by central SOEs. In May 2022, the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) issued the ***Work Plan for Improving the Quality of Listed Companies Controlled by Central SOEs***. It sets a clear goal to promote the disclosure of ESG reports by listed companies held by central SOEs and strives to reach 100% ESG disclosure of all listed companies controlled by central SOEs by 2023. The second type is financial institutions. In 2021, the PBoC issued the ***Guidelines for Financial Institutions Environmental Information Disclosure*** as a standard for the entire industry. Although the standard is not mandatory, it encourages financial institutions, especially banks, to prepare environmental information disclosure reports.

The HKEx's ESG reporting requirements have also been adjusted. Beginning in 2022, ESG reports are required to be published in tandem with annual reports.

Green Finance and Climate Investment and Financing: Incentive and Constraint Mechanisms with Incentives as the Main Driver and Constraints as a Supplement

Based on the practice over the past few years, incentives serve as the main driver, and constraints serve as a supplement in the incentive and constraint mechanisms for green finance and ESG investment. The core of incentives is to promote capital inflows and reduce costs.

In 2022, two significant policy measures were implemented. The first policy is the ***Guidelines on Green Finance for the Banking and Insurance Industries*** issued by the CBIRC in June 2022. It requires banking and insurance institutions to promote green finance at a strategic level and increase their support for the green, low-carbon, and circular economy. It incorporates the non-credit business of the banking industry and the underwriting and asset management business of the insurance industry, involving AUM of tens of trillions of yuan. The second policy is about the pilot program of climate investment and financing. In December 2021, the Ministry of Ecology and Environment and eight other ministries and commissions issued the ***Notice of Launching the Pilot Program of Climate Investment and Financing***, officially starting the pilot program and beginning accepting applications. In August 2022, the first batch of 23 pilots was announced, consisting of twelve cities, four districts, and seven national new areas.

Local governments are highly motivated to promote the development of green finance. According to SynTao Green Finance's ***China Green Finance Policy Database***, nearly 160 green finance-related policies were issued nationwide by provincial, city, and district-level government departments in the first three quarters of 2022.

The development of green finance franchise institutions is also a new trend in local incentive policies on green finance. Guangdong, Shanghai, and Zhejiang have all proposed to encourage financial institutions to set up green franchise institutions in their policies.

Continuous Innovation in Policy Tools and Bond Products

Green credit is the largest ESG investment and green finance product, followed by green bonds and ESG mutual funds.

The green credit product system is relatively mature. Two policies reverberate through the market this year, including a carbon-reduction supporting tool and a refinancing loan to support the clean and efficient use of coal created by the People's Bank of China in November 2021. Essentially, both tools function as refinancing loans to disburse low-cost funds in a targeted manner. According to statistics, in the first half of 2022, a total of RMB 182.7 billion and RMB 35.7 billion, respectively, were provided through the two tools, leveraging loans of RMB 304.5 billion and RMB 43.9 billion, respectively, and reducing a total emission equivalent to 60 million tonnes of carbon dioxide.

There are also various policies related to innovation in green bond products. The ***China Green Bond Principles*** issued in 2022 provides clarifications on different types of green bonds, including four categories of green bonds (two sub-categories of blue bonds and carbon neutral bonds), carbon yield (environmental rights-related) green bonds, green project yield bonds, and green asset-backed securities. It is the first time China's green bond market has unified its classification standards.

In terms of specific products, major products that are promoted by policies as innovation directions include transition bonds, blue bonds, and social responsibility bonds. In May 2022, the National Association of Financial Market Institutional Investors (NAFMII) issued the ***Notice on the Pilot Program of Innovation Related to Transition Bonds***, officially launching transition bond products. Transition bonds are not green bonds and are primarily designed to support the transition and upgrading of traditional industries. The Shenzhen Stock Exchange completed the issuance of the first batch of blue bonds in March 2022, ensuring that blue bonds are fully covered by both the interbank market and exchanges; In October 2022, the Finance Department of Hainan Province issued a blue bond in Hong Kong, which was the first time for a local government to issue blue bond. In November 2021, the NAFMII issued the ***Questions and Answers on Piloting the Business of Social Responsibility Bonds and Sustainability Bonds***, introducing the two types of bonds to the market.

China Continues to Play a Leading Role in International Green Finance Cooperation

In 2022, China made progress in its efforts to engage in international cooperation on green finance. The PBoC led the development of the G20's policy framework on financing the transition of high-carbon emission industries and issued the ***2022 G20 Sustainable Finance Report*** at the G20 Finance Ministers and Central Bank Governors (FMCBG) Meeting in October 2022. In September 2022, the International Organisation for Standardisation (ISO) officially released the ***Guidance on Environmental Criteria for Projects, Assets, and Activities to Support the Development of Green Finance (ISO 14100)***, the second international standard led by Chinese experts in the field of green and sustainable finance at the ISO. In addition, more than 20 Chinese banks and more than 100 Chinese financial institutions are signatories to the PRB and the PRI by October 2022, with a record-high number of Chinese signatories.

In terms of international cooperation, in 2022, the PBoC and the European Commission jointly released the ***Common Ground Taxonomy***, which identifies 72 economic activities that significantly contribute to the mitigation of climate change and lays the foundation for connecting the domestic and foreign green bond markets.

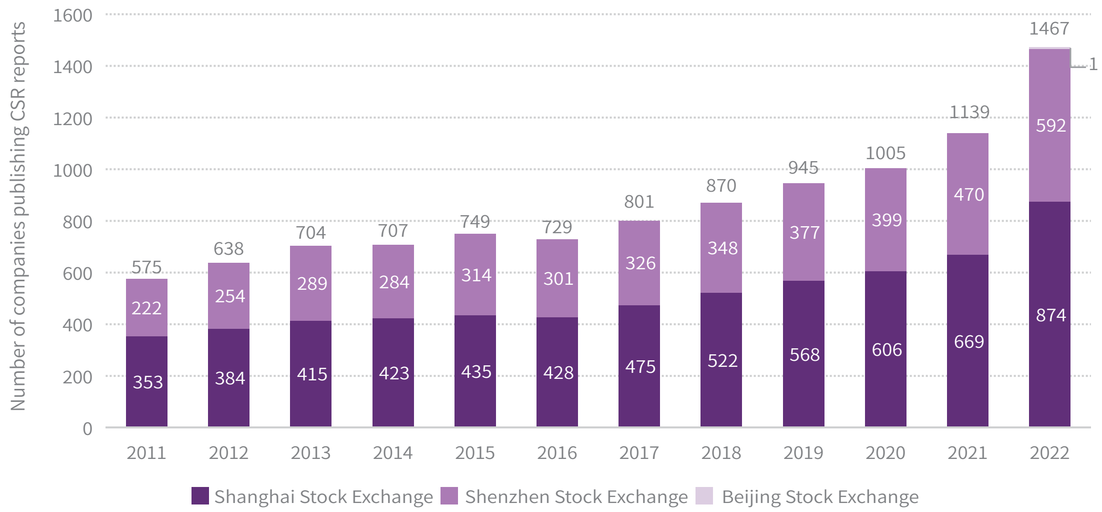
The international standards on information disclosure are also a focus for China's participation in international cooperation in 2022. The ISSB appointed a representative of China's Ministry of Finance (MOF) as a member in June 2022 and appointed Hua Jingdong, former vice president of the World Bank, as the vice chairman in August. Prior to this, in April, the ISSB assembled a task force that included members from China's MOF. This clearly indicates China's strong focus on and active participation in ISSB's work.

2.2 Status Quo of ESG Disclosure by Listed Companies

A Summary of Non-financial Information Reports Released by Listed Companies

As of November 2, 2022, there had been a total of 2,152 companies listed in the Shanghai Stock Exchange[8], 2,751 companies listed in the Shenzhen Stock Exchange[9], and 121 companies listed in the Beijing Stock Exchange, totaling 5,024 listed companies in the three markets. Since the beginning of 2022 (as of October 31), a total of 1,467 A-share listed companies have issued 1,484 CSR reports for 2021[10], among which 17 companies have issued two CSR reports with different contents[11].The number of CSR report issuing companies accounted for 29.2% of all listed companies, including 874 companies listed in the Shanghai Stock Exchange, 592 companies listed in the Shenzhen Stock Exchange, one listed in the Beijing Stock Exchange and among them 141 are A+H dual-listed companies.

Figure 7 CSR Reports Issued by A-Share Listed Companies, 2021-2022



Data source: compiled by SynTao Green Finance, as of October 31, 2022.

Overall, the year-on-year increase in and growth rate of companies issuing CSR reports among A-share listed companies in 2022 are much higher than in the past ten years. The proportion is also significantly higher compared to last year[12].

8 General overview of SSE stock data, http://www.sse.com.cn/market/stockdata/statistic/

9 General overview of SZSE stock data, http://www.szse.cn/market/overview/index.html

10 "CSR reports" in this context refer to the reports that disclose ESG and other non-financial information under different names such as "Social Responsibility Report", "Sustainability Report", "Environmental, Social and Governance Report", "ESG Report", etc.

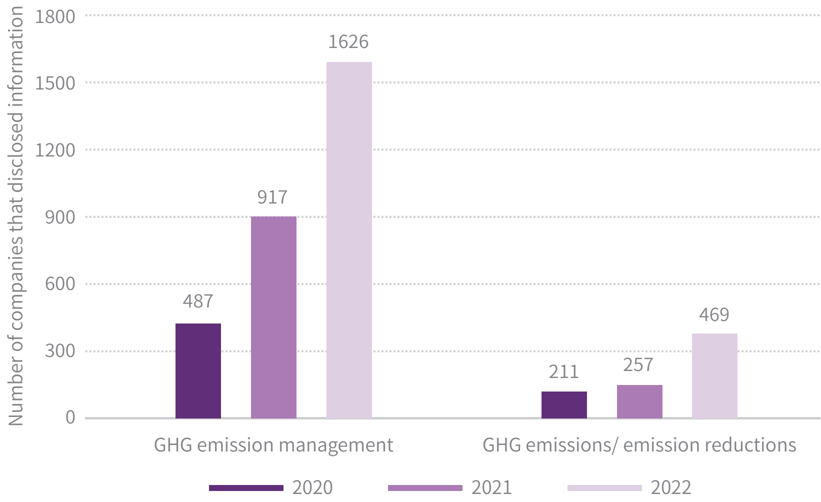
11 In 2022, 17 companies, including Dahua Tech, Hikvision, Huaneng Power International, Minsheng Bank, Shandong Nanshan Aluminium, Fuyao Glass, Bank of Beijing, CanSino Biologics, and China National Nuclear Power released two social responsibility reports respectively.

12 According to ***China Sustainable Investment Review 2021***, the proportion of CSR disclosure is 24.9%.

Status Quo of Climate-Related Disclosure by Listed Companies

As of September 2022, 1,626 A-share listed companies or about 33% of all A-share listed companies had disclosed their greenhouse gas (GHG) emission management targets. Among them, 102 companies disclosed quantitative targets, including the timeline for achieving carbon neutrality targets, or specific carbon reduction paths. During the same period, 469 companies, or about 9.6% of all listed companies, disclosed their GHG emissions or emission reduction, an increase of more than 80% year-on-year. However, only less than 50 of them disclosed their Scope 3 GHG emissions data.

Figure 8 Climate-Related Disclosure by Listed Companies in China, 2021-2022



Data source: Compiled by SynTao Green Finance

Since the introduction of the "dual-carbon goals", climate-related information disclosure by listed companies has gradually improved. For example, the disclosure of qualitative information, such as GHG emission management, has increased. The quantitative information disclosure, such as GHG emissions and emissions reduction, has also increased significantly. However, the disclosure of quantitative information is still at a preliminary stage. The report to the 20th National Congress of the Communist Party of China (CPC) details the latest strategic deployment to achieve the "dual-carbon goals". Under this trend, more companies are expected to disclose climate-related information in the future.

2.3 The Start of Stewardship in the Asset Management Industry

In 2018, the CSRC revised the ***Code of Corporate Governance of Listed Companies***. The revision focused on promoting the participation of institutional investors in corporate governance. International organisations and capital market regulators have reached a consensus on improving stewardship in recent years, aiming to promote corporate governance in the capital market, encourage institutional investors to play an effective role in corporate governance, and assist financial institutions in fulfilling their fiduciary duty.

In September 2022, the Insurance Asset Management Association of China (IAMAC) issued the ***IAMAC ESG Stewardship*** Initiative (hereinafter referred to as "the Initiative"), proposing six initiatives to all insurance institutions: First is to align the interests of clients and beneficiaries; Second is to incorporate significant ESG factors in decision-making; Third is the supervision and active participation in the ESG management of investee companies; Fourth is to encourage and promote stronger communication and collaboration with other stakeholders on ESG issues; Fifth is to ensure openness and information transparency and to disclose ESG information that may significantly impact stakeholders; Sixth is to strengthen talent development, data building and information disclosure capabilities in the field of environmental and climate-related finance risks.

The size and sophistication of China's financial markets and institutional investors are rapidly expanding, and regulators are increasing their focus on institutional investors' engagement in corporate governance, ESG risk management, and addressing systemic issues such as broader economic, social, and environmental issues with capital support. However, developing and improving the regulatory framework that guides and supports institutional investors in implementing more effective stewardship and engagement practices is still necessary. According to the IAMAC, its initiative was launched to implement the decisions and deployments of the CPC Central Committee and the State Council on promoting green development and to follow the spirit of the ***Guidelines on Green Finance for the Banking and Insurance Industries*** issued by the CBIRC. Given the opportunities and challenges presented by the "dual-carbon goals" strategy, the insurance industry must pursue high-quality development, actively and comprehensively promote and participate in the green transition, and also fully leverage the influence of institutional investors with the responsibility of due diligence management, guide the stakeholders, including investment receiving enterprises, to work together to build a green development ecosystem, support China's social and economic sustainable development and contribute to achieving the "dual-carbon goals".

3.Financial Institutions' Responsible Investment Practices

3.1 Responsible Investment Practices of Asset Management Institutions

With the strong support and promotion of the Central Government's development strategy of green development and "dual-carbon goals", and the recognition and deepening of the ESG concept in the domestic capital market, domestic financial institutions have started to engage in a variety of responsible investment practices. The number of Chinese signatories to the Principles for Responsible Investment (PRI) has grown rapidly, as of October 2022, reaching 24 mutual funds, four insurance asset managers and one bank wealth management subsidiary.

To assess the performance of asset management institutions' responsible investment practices, SynTao Green Finance has developed the ***Responsible Investment Capacity Evaluation (RICE) Platform***. The assessment aims to show the development process of responsible investment of China's asset management institutions, provide a reference for individual investors, asset owners and institutions to make horizontal comparisons of responsible investment capacities, and further improve the construction of the domestic ESG ecosystem.

Data Sources and Scope

SynTao Green Finance has collected data from public information, mainly including but not limited to the following:

- Regular reports and policy documents: e.g. financial institutions' annual CSR reports, sustainability reports, ESG reports, and responsible investment policies;
- Disclosures mandated by any responsible investment initiative to which a financial institution is a signatory, such as the annual transparency report required by PRI;
- Company's official websites, official social media accounts (e.g. official WeChat accounts);
- Related reports and information from the group company or parent company;
- News articles from reliable media.

A total of 202 financial institutions were assessed by the RICE Platform, including 147 mutual funds (including asset managers that have obtained a mutual fund license), 22 bank wealth management subsidiaries, and 33 insurance asset managers. The institutions were selected from the CSRC's ***List of Mutual Fund Management Institutions (May)*** and the CBIRC's ***List of Legal Persons of Financial Institutions in the Banking Industry (as of the end of December 2021)***, and ***List of Legal Persons of Insurance Institutions (as of the end of December 2021)***. The information was accessed and collected until July 31, 2022.

Assessment Methodology

Indicators developed by the RICE Platform are based upon standards and reports such as the ***Self-Assessment Report on Green Investment by Fund Managers (2021)*** issued by the Asset Management Association of China (AMAC), the annual ***Transparency Reports*** disclosed by signatories as required by the PRI, and the TCFD Recommendation report. Accordingly, further adjustments were made to the selected RICE indicators and weight settings by considering the market practices and data availability.

The RICE Platform started its evaluation in six dimensions: strategy, management, product, climate, disclosure, and advocacy, involving a total of 12 secondary indicators and more than 50 tertiary indicators.

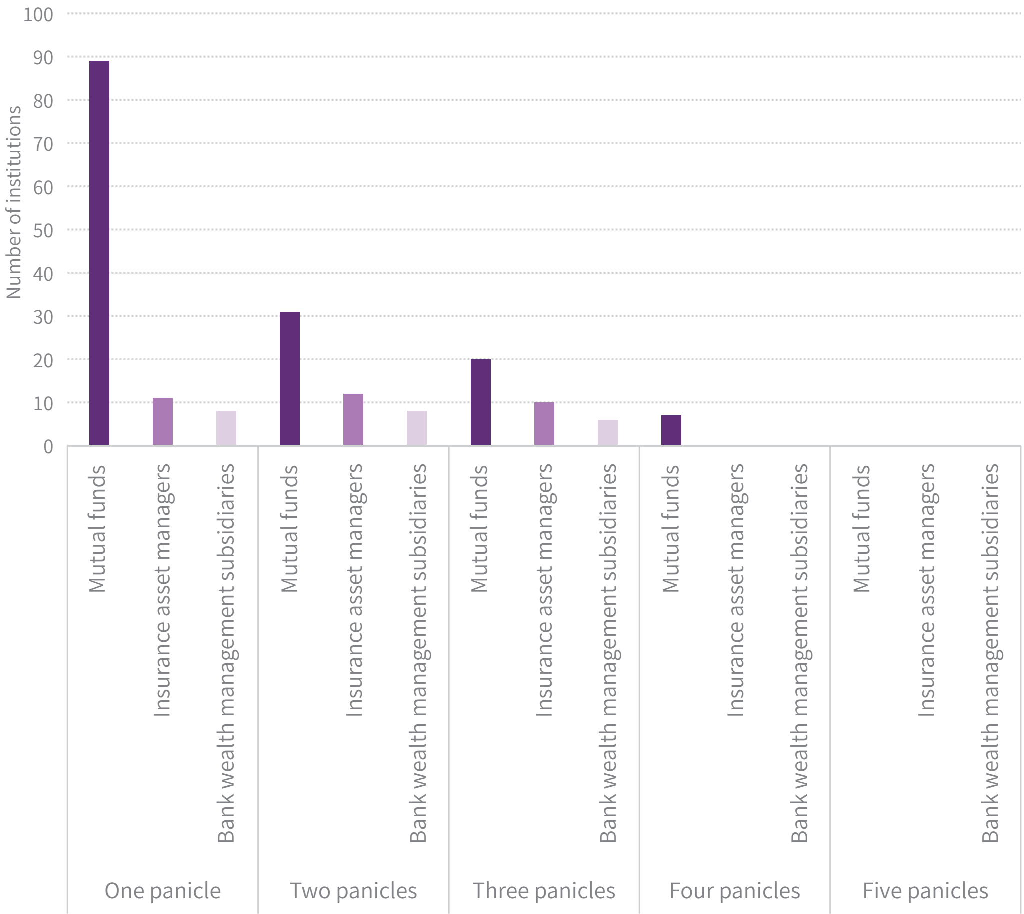
- Strategy indicators evaluate whether an organisation has a responsible investment philosophy and has integrated it into its strategy, policies, and organisational structure.
- Management indicators evaluate an institution's responsible investment methods and how the ESG assessment system is constructed.
- Product indicators evaluate the types, sizes, and ESG investment strategies of ESG products provided by an institution.
- Climate indicators evaluate whether an institution considers climate-related risks and opportunities of the investment, the management methods and tools employed, as well as the status of climate-related information disclosure.
- Disclosure indicators evaluate whether the institution regularly discloses information on ESG- and climate-related activities.
- Advocacy indicators evaluate whether an institution has participated in international and domestic ESG initiatives and whether it has promoted industry development through research, advocacy, and other means.

Data Analysis and Assessment Results

The initial weights for primary, secondary, and tertiary indicators are set in the RICE Platform based on their materiality. They are then adjusted according to the industry development status and data availability to formulate the final weighting system. The three-level indicators are mainly scored based on whether the indicator has been achieved. However, some indicators adopt special scoring rules. For example, in terms of the product indicators, the scale of ESG products and the extent to which each ESG strategy applies are considered in evaluating mutual funds; the types of ESG products are mainly considered in evaluating bank wealth management subsidiaries; and whether they offer thematic ESG products is mainly considered in evaluating insurance asset managers. Meanwhile, the institution will get a lower score in this indicator if only the parent company discloses relevant information. In the end, each asset manager will receive a total score on a percentage scale. The RICE Platform further classifies the sample asset managers into five tiers, represented by the number of panicles as rating points to indicate their development level of responsible investment, with five panicles being the highest rating.

According to RICE's assessment, no institution has reached the highest development level or a five-panicle rating yet; seven mutual funds reached the advanced level with a four-panicle rating, accounting for 4.8% of all mutual funds. A total of 20 mutual funds (13.6%), ten insurance asset managers (30.3%), and six bank wealth management subsidiaries (27.2%) received a triple-panicle rating for their current responsible investment practices. A total of 31 mutual funds (21.1%), 12 insurance asset managers (36.4%), and eight wealth management subsidiaries (36.4%) are at a starting level with a two-panicle rating. There are also 89 mutual funds (60.5%), 11 insurance asset managers (33.3%), and eight bank wealth management subsidiaries (36.4%) at the very initial stage with a one-panicle rating.

Figure 9 Development Level of Responsible Investment of Mutual Funds, Insurance Asset Managers and Bank Wealth Management Subsidiaries



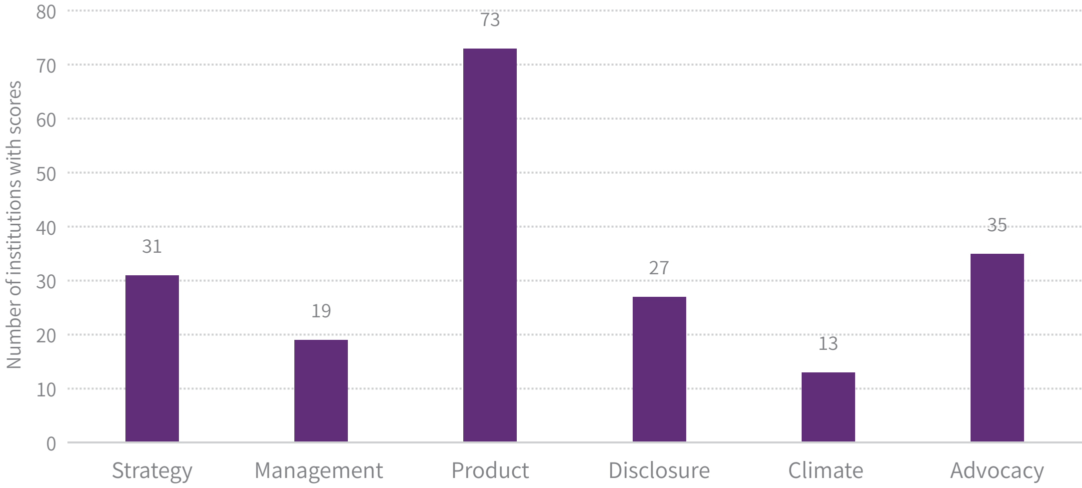
Data source: The STGF Responsible Investment Competence Evaluation (RICE) Platform

3.1.1 Mutual Funds' Responsible Investment Practices

According to the RICE Platform, as of July 2022, out of the 147 mutual funds listed in the CSRC's ***List of Mutual Fund Management Institutions (May)***, there had been 7 four-panicle funds, 20 three-panicle funds, 31 two-panicle funds, and 89 one-panicle funds. Mutual funds have better overall performance than insurance asset managers and bank wealth management subsidiaries.

This shows that more mutual funds have started to deploy and explore responsible investment, which can be attributed to the requirements of asset owners such as social security funds and overseas pension funds for fund managers in terms of ESG. However, most funds are still in their initial stage, except for a few industry leaders. The absence of five-panicle funds indicates that mutual funds haven't developed mature ESG practices and still have much room for improvement compared to overseas front-runners.

Figure 10 Profile of the 84 Mutual Funds with ESG Investment Practices



Data source: The STGF Responsible Investment Competence Evaluation (RICE) Platform for institutions of SynTao Green Finance

Strategy

The strategy indicators include dimensions such as the ESG philosophy and objectives, ESG responsible investment policies, and organisational structures. Among the 31 mutual funds scored, 7 have four panicles, and 23 have three panicles.

A well-developed responsible investment policy often includes the ESG philosophy and objectives, scope of application, organisational structures, ESG investment approaches, disclosure and reporting, active ownership, and exclusion policies. Responsible investment policies reflect the extent to which a fund focuses on responsible investment and whether it systematically implements responsible investment objectives. It also significantly impacts how the public evaluates the responsible investment performance of a fund.

As the most advanced type of domestic asset manager in adopting ESG investments, mutual funds are expected to formulate and publish more responsible investment policies in the coming years, and they are likely to achieve higher RICE evaluation ratings.

Product

The product indicators evaluate three types of ESG products issued by financial institutions: the ESG Select category, the ESG Exclusion category, and the ESG Theme category[13]. A total of 73 mutual funds have issued ESG products[14]. That means most of the 84 scored mutual funds in this evaluation have started to deploy ESG fund products (see Appendix 5 for details). This fully reflects the active responses of mutual funds to China's "dual-carbon goals" and green development strategy as well as the growing recognition, enthusiasm, and attention of the ESG concept in the domestic investment market.

A total of 67 mutual funds have issued thematic ESG products, which indicates that most mutual funds have started issuing ESG fund products from thematic ESG fund products, such as carbon neutral funds, energy conservation and environmental protection funds, as well as green and low-carbon funds.

[13] For definitions of the three types of ESG products, please refer to section 4.1.

[14] Data as of July 31, 2022.

In terms of the ESG Exclusion products, only six mutual funds have deployed related products, falling short of the international proportion in this category. It may be related to the lower number of domestic mutual funds with a complete responsible investment policy, i.e. the lack of a complete responsible investment framework. It may also be a result of the differences in the development characteristics, cultural differences, and investor demands and preferences between China and developed countries, causing domestic mutual funds to be more cautious in determining the excluded industries. For instance, alcohol and fossil fuels are generally not included on the exclusion list of domestic institutions.

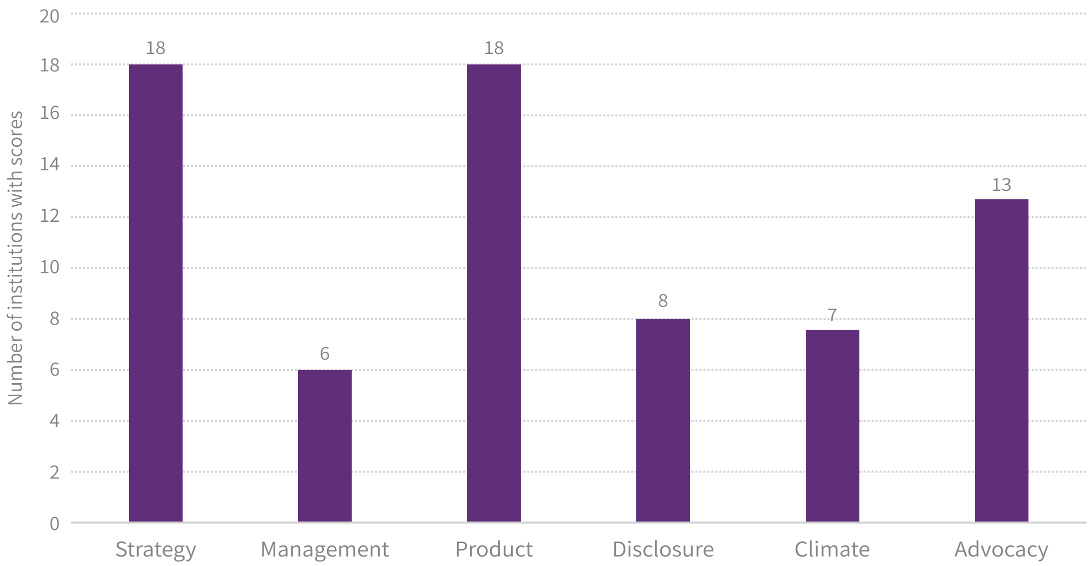
Twenty-eight mutual funds have issued ESG Select products, and most of them are taking the lead in their domestic responsible investment practices. The RICE Platform evaluated the investment strategies of ESG Select products with reference to criteria such as the SFDR and the ESG funds recognised by the Securities and Futures Commission (SFC) of Hong Kong. The evaluation found that leading institutions in China have explained how ESG is defined, which ESG assessment system is applied, what ESG investment methods are adopted, and how ESG factors influence investment decisions in their investment strategies in a comprehensive, detailed, and professional manner, allowing investors to better understand how ESG factors are applied in their products to help them make their investment decisions. By contrast, some mutual funds in their initial stage have shortages in this regard.

3.1.2 Responsible Investment Practices of Insurance Asset Managers

According to the RICE Platform, as of the end of July 2022, out of the 33 sample insurance asset managers, there had been 10 three-panicle companies, 12 two-panicle companies, and 11 one-panicle companies.

It's not hard to see that the insurance asset management industry has less developed responsible investment practices than mutual funds. Even though ESG is compatible with the long-term value investment philosophy of insurance asset managers, one of the reasons for their late start in responsible investment may be that they primarily manage insurance assets of their group company and are less influenced by asset owners' needs. Several leading insurance asset managers have already signed the PRI, and built a framework for responsible investment, setting an example in this field as pioneers. After the ***Guidelines on Green Finance for the Banking and Insurance Industries*** extended the scope of green finance to the insurance industry, it is foreseeable that ESG will be rapidly integrated into the investment practice of domestic insurance assets, and the responsible investment practices in the insurance asset management industry are expected to develop rapidly.

Figure 11 Profile of the 25 Insurance Asset Managers with ESG Investment Practices



Data source: The STGF Responsible Investment Competence Evaluation (RICE) Platform

Management

The management indicators include, among others, whether the ESG integration and ESG screening methods are applied, how the ESG assessment system is built, and ESG active ownership. A total of 6 insurance asset managers received a three-panicle rating.

This result indicates that leading insurance asset managers are on par with mutual funds regarding ESG development, and reflects that leading institutions are setting the standard for the whole industry. In practice, insurance asset managers are more likely to encounter difficulties when implementing various types of ESG investments across all asset classes than mutual funds due to the complexity of asset types and the pursuit of stable long-term returns.

The ***Guidelines on Green Finance for the Banking and Insurance Industries*** issued by the CBIRC in June 2022 requires insurance institutions to strengthen ESG due diligence, ESG compliance review, ESG risk management, and ESG engagement practices. In contrast to mutual funds, insurance asset managers are more likely to implement responsible investments due to regulatory requirements. With the implementation of these Guidelines and more ESG-related regulations, more insurance asset managers are expected to develop a framework for responsible investment. They will see further improvement of the management indicators and overall scores on the RICE Platform.

Advocacy

The advocacy indicators evaluate whether financial institutions have participated in or are signatories to any responsible investment organisations/initiatives/forums. Financial institutions will be given a corresponding score when becoming relevant global/regional/domestic organisation signatories. In the advocacy indicators, 13 insurance asset managers have received valid scores. This number is similar to that of banks' wealth management subsidiaries but higher than that of mutual funds.

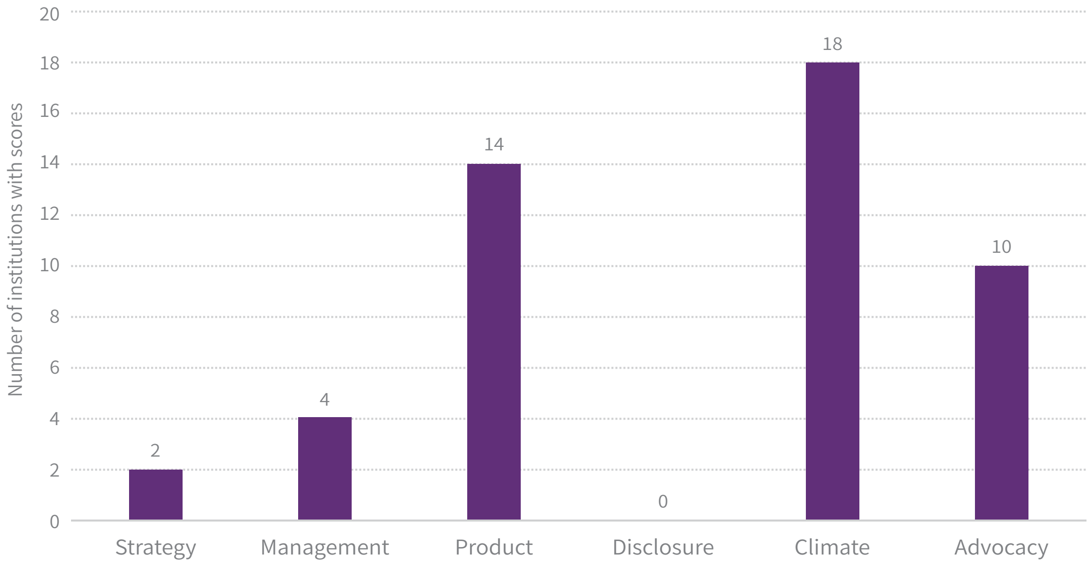
The PRI is one of the major international initiative organisations participated by insurance asset managers, and the First Professional Committee of Responsible Investment (ESG) of the IAMAC is the most relevant organisation domestic organisations have participated in. Fewer institutions support the TCFD or have participated in climate-related initiatives such as Climate Action 100+. Participation in responsible investment initiatives shows that insurance asset managers are communicating and working with their peers to improve their responsible investment capabilities. It further indicates that the concept of responsible investment and commitment to ESG is increasingly recognised by leading insurance asset managers.

3.1.3 Responsible Investment Practices of Bank Wealth Management Subsidiaries

According to the RICE Platform, as of July 2022, out of the 22 sample bank wealth management subsidiaries, there had been 6 three-panicle companies, 8 two-panicle companies, and 8 one-panicle companies.

This shows that responsible investment development among bank wealth management subsidiaries is still at its beginning, lagging behind mutual funds and insurance asset managers. The reason may be that all bank wealth management subsidiaries only have a short history, and are just starting their ESG investment and research capacity building. However, compared to other financial institutions, bank wealth management subsidiaries have inherited the ESG foundation at the beginning of their establishment, which is very valuable. Meanwhile, similar to insurance asset managers, bank wealth management subsidiaries will also be influenced and constrained by the ***Guidelines on Green Finance for the Banking and Insurance Industries***, requiring them to improve their ESG risk management capacity further.

Figure 12 Profile of the 18 Bank Wealth Management Subsidiaries with ESG Investment Practices



Data source: STGF Responsible Investment Competence Evaluation (RICE) Platform

Product

As there is less disclosed information on bank financial products and their investment strategies and specific product sizes are not available in the disclosed information, the assessment will only consider the number of ESG-related products issued and in existence (excluding different periods of the same product).

Of the 18 bank subsidiaries scored, 14 issued thematic ESG products, demonstrating their commitment to responsible investment. Most of the thematic ESG products are fixed-income, a small number are hybrid, and only one is an equity product. The investment targets include green bonds, green asset-backed securities (ABS), and credit assets of enterprises with sound ESG performance, covering key areas such as energy conservation and environmental protection, ecological protection, high-quality development, clean energy, and rural revitalisation.

There is currently limited disclosure on responsible investment philosophy, systems, organisational structure, and methodology. The products' ESG investment strategy is not detailed either. If improved, the public can understand their responsible investment capabilities better, which will attract more investors for ESG products.

Climate

The climate indicators evaluate climate-related response philosophy, climate risks and opportunities management, and the disclosure of climate-related information. All 18 bank wealth management subsidiaries are scored in this area. Results show that bank wealth management subsidiaries emphasise climate more than mutual funds and insurance asset managers. However, their actual scores are slightly lower since most of their information is disclosed by their parent banks.

Only leading mutual funds institutions and insurance asset managers have engaged in climate-related practices at this stage. The majority have not included climate-related factors in their information disclosure or responsible investment policies. A total of 13 mutual funds and 7 insurance fund managers have scored in the climate category. Compared with bank wealth management subsidiaries, mutual funds and insurance asset managers mainly score on climate-related strategies and assessment of climate-related risks and opportunities. Most of them still haven't disclosed their carbon emissions.

The main climate-related practices of bank wealth management subsidiaries include climate-related strategies, assessment of climate-related risks and opportunities, and regular disclosure of climate-related information. This is an extended reflection of China's banking industry's focus on green finance and its practices to achieve the "dual-carbon goals". While most mutual funds and insurance asset managers choose the PRI as the top choice for participation, the number of supporting organisation of the TCFD among parent companies of bank wealth management subsidiaries prevails other initiatives. These banks have considered the TCFD recommendations in their information disclosure. Overall, only a very few leading institutions in the industry have begun to consider calculating the carbon emissions of their portfolios and conducting climate risk scenario analysis or stress testing. This is also related to the lack of carbon emission disclosure of investment targets.

3.2 Green Investment Practices of Funds

To promote the development of green investment in the fund industry, the AMAC issued the ***Green Investment Guidelines (for Trial Implementation)*** in November 2018 and conducted a self-assessment survey on green investment for three consecutive years. The AMAC released the ***Green Investment Assessment Report for Fund Managers (2021)*** in March 2022, resulting from its third self-assessment survey conducted among its asset management member institutions.

Two versions of the questionnaire were issued: the securities version was issued to mutual funds, private equity managers, and securities and futures business institutions; the equity version was issued to private equity and venture capital fund managers, securities and futures business institutions, and other private investment fund managers.

The questionnaire contains three dimensions: green investment strategy management, green investment system development, and operations of green investment products. It mainly focuses on whether "green investment" is explicitly incorporated into a company's strategy, whether there is a senior manager or a company-level committee responsible for green investment business, research on green investment, emergency response mechanisms, positive screening evaluation methods, exclusion lists, and whether a company has issued green investment products.

The results show that green investment practices generally performed well in 2021. Taking the results of the questionnaire of mutual fund managers (56 valid samples) as an example, the key progress can be summarised as follows:

- Green investment strategy management: 24 or 42.9% of the institutions have explicitly incorporated "green investment" into their corporate strategies, and 18 institutions have established green investment business objectives at the corporate level based on their strategy. In addition, 45 or more than 80% of the sample mutual funds have senior management or committees responsible for green investment business.
- Green investment system development: 83.9% of the sample mutual funds have researched green investment, while fewer institutions have established emergency response mechanisms for environmental risk exposure; 30 sample mutual funds have established positive screening methods for green performance, while 22 have exclusion lists. Sample mutual funds are slightly underperforming in the construction of environmental risk monitoring mechanisms and response mechanisms for invested targets, as 34 institutions have not established either mechanism.
- Operations of green investment products: The number of green investment products issued by the sample mutual funds has increased, and their investment performance is regularly disclosed to investors. A total of 38 sample mutual funds have released or are in the process of releasing green investment products, bringing the total products to 106, an increase of about 96% over the 54 products issued last year.

3.3 ESG Performance Evaluation of Fund Products

To achieve the "dual-carbon goals", domestic institutional investors have become more focused on ESG investment as part of their effort to align themselves with international standards by incorporating ESG into their investment process. Additionally, ESG investments are beginning to get recognised as an effective means to improve the risk-return characteristics of investment portfolios. In recent years, the Fund of Funds (FOF) investment has taken off due to the growth of AUM and the rapid development of mutual funds. The concept of ESG and responsible investment has also influenced FOF institutional investors and pension funds to place a high premium on the ESG performance of the investee funds.

The ESG performance of the mutual fund is obtained by calculating the ESG ratings of listed companies according to the positions of a mutual fund. This Report collected the complete position information from semi-annual and annual reports of equity funds and hybrid funds listed before January 1, 2022, and only included funds listed for more than six months[15] when calculating the ESG scores. This Report evaluated the ESG performance of funds from 2020 to June 2022[16], a total period of 2.5 years, including 2020 Q2, 2020 Q4, 2021 Q2, 2021 Q4, and 2022 Q2.

In this Report, SynTao Green Finance (STGF) ESG score is used as a measurement of the ESG performance of a specific stock position. The STGF ESG score includes the total ESG score, E, S, and G sub-scores, the ESG management score, and the ESG risk exposure score.

As funds may hold stocks, bonds, and cash, different types of funds have different structural and range requirements for asset allocation. If stocks only account for a small percentage of a fund's portfolio, it is not representative enough to calculate its ESG scores and evaluate the ESG performance of the fund by just using its stock positions. Therefore, this Report only includes funds with stock positions representing over 2/3 of the overall fund net worth. The ESG performance of a specific fund for a particular period is calculated using the weighted average of the total ESG score corresponding to the fund's positions. The amount corresponding to each stock position is selected as the weighting factor. The specific formula is as follows:

$$ESG_t \text{ of a Fund} = \Sigma_{i=1} ESG_{it} \times Weight_{it}$$

Where ESG_{it} is the total ESG score of the stock i in period t, and $Weight_{it}$ is the position weight in the fund's stock portfolio for stock i in period t.

[15] The position opening period for a mutual fund from its establishment is generally six months, which means that the fund's positions and strategies run relatively stable after six months of establishment.

[16] Semi-annual reports of mutual funds are generally released by August 31, and annual reports of mutual funds are generally released by March 31 of the following year.

Figure 13 shows the ESG performance distribution of mutual funds. Most funds have ESG performance scores between 50-60, and a few have higher total ESG scores, suggesting a positive bias. The highest ESG performance score is 70. **Table 3** shows the distribution of various ESG performance scores of mutual funds at five time nodes from 2020-2022. The median of the ESG performance score (the 50th percentile: median) is gradually increasing.

Figure 13 Distribution of Total ESG Scores Based on Mutual Funds' 2022 Interim Reports

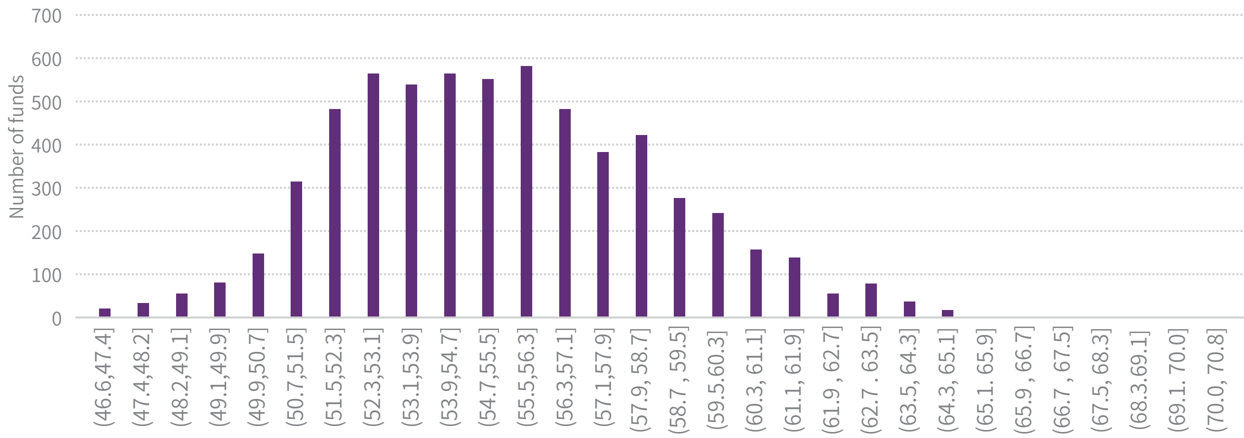


Table 3 Distribution of ESG Scores Based on Mutual Funds, 2020-2022

ESG Total Score	mean	std	min	25%	median	75%	max	skew	kurt
2020Q2	50.68	2.32	43.53	48.96	50.40	51.95	63.31	1.01	2.52
2020Q4	50.92	2.24	42.27	49.33	50.84	52.28	63.13	0.67	2.27
2021Q2	53.26	2.61	44.42	51.36	53.27	54.93	65.92	0.50	1.48
2021Q4	52.64	2.45	44.20	50.82	52.41	54.28	65.75	0.61	1.24
2022Q2	56.01	3.31	46.64	53.60	55.80	58.24	70.75	0.32	0.04
E Score	mean	std	min	25%	median	75%	max	skew	kurt
2020Q2	51.35	3.59	39.70	48.77	51.18	53.35	68.65	0.64	1.44
2020Q4	51.61	3.59	40.30	49.24	51.63	53.81	68.66	0.31	1.04
2021Q2	55.07	4.30	43.14	51.97	55.18	58.16	71.30	0.14	0.15
2021Q4	53.98	4.13	43.51	50.86	53.89	56.84	70.48	0.31	0.00
2022Q2	56.32	5.23	41.93	52.52	56.15	59.93	74.07	0.20	-0.10
S Score	mean	std	min	25%	median	75%	max	skew	kurt
2020Q2	54.58	2.05	45.69	53.29	54.41	55.84	63.66	0.37	1.40
2020Q4	54.75	1.93	44.36	53.58	54.69	55.89	64.14	0.18	1.93
2021Q2	56.77	2.11	46.10	55.43	56.83	58.10	66.57	0.03	2.02
2021Q4	56.40	1.98	45.51	55.14	56.35	57.58	66.78	0.04	2.05
2022Q2	54.41	3.70	43.38	51.73	54.35	56.95	71.70	0.27	0.13
G Score	mean	std	min	25%	median	75%	max	skew	kurt
2020Q2	45.75	2.13	40.12	44.44	45.50	46.67	60.29	1.34	3.67
2020Q4	46.03	2.05	39.35	44.78	45.90	46.96	57.53	0.85	2.87
2021Q2	47.26	2.23	40.59	45.89	47.13	48.39	60.12	0.88	2.70
2021Q4	46.96	2.07	39.86	45.64	46.81	48.19	60.21	0.76	2.48
2022Q2	57.45	2.12	51.66	56.07	57.18	58.51	67.24	1.01	2.29
ESG Management Score	mean	std	min	25%	median	75%	max	skew	kurt
2020Q2	23.66	5.35	10.87	19.63	22.71	26.88	44.18	0.73	0.20
2020Q4	24.19	5.08	10.35	20.52	23.75	27.45	44.27	0.40	0.23
2021Q2	27.77	5.61	10.95	23.57	27.65	31.46	49.21	0.27	0.02
2021Q4	26.50	5.40	10.47	22.52	25.98	29.92	48.64	0.50	0.18
2022Q2	36.21	5.96	18.79	31.87	36.04	40.39	56.90	0.16	-0.21
ESG Risk Score	mean	std	min	25%	median	75%	max	skew	kurt
2020Q2	91.20	3.76	77.32	88.66	92.20	94.06	98.32	-0.75	-0.21
2020Q4	91.02	3.55	76.97	88.53	91.57	93.76	98.04	-0.56	-0.22
2021Q2	91.49	3.43	76.40	89.59	92.21	93.82	98.46	-0.94	0.96
2021Q4	91.86	3.44	74.23	89.94	92.69	94.26	98.57	-1.06	1.30
2022Q2	85.70	1.89	78.19	84.51	85.80	86.96	95.20	-0.18	0.62

If the ESG performance scores of different types of funds are compared and analysed, it can be found that passive index funds have higher ESG performance scores than other types of funds. In contrast, the ESG performance scores of the partial-equity hybrid funds, enhanced index funds, common equity funds, and flexible allocation funds do not show significant differences (Table 4).

Table 4 Comparison of ESG Scores for Same Fund Type, 2022Q2

Type\ ESG Performance Score	mean	std	min	25%	50%	75%	max
Partial-equity hybrid funds	55.62	2.88	46.64	53.63	55.50	57.41	66.28
Enhanced index funds	55.92	3.43	49.53	52.68	56.52	58.97	62.56
Common equity funds	55.72	3.24	46.85	53.46	55.51	57.75	66.95
Flexible allocation funds	55.03	2.87	47.76	53.05	55.05	56.85	65.73
Passive index funds	58.02	3.71	48.33	54.73	58.62	60.45	70.75

When the ESG performance scores of funds with an ESG philosophy (hereinafter referred to as ESG funds, as defined in Section 4.2 and listed in Appendix 5) are compared to these of all funds in Q2 2022, it can be seen that the ESG funds have a higher mean and median ESG performance scores than all funds (Table 5). ESG funds have higher E scores, S scores, and ESG Management Scores. No differences was found between ESG funds and other funds in terms of G scores and ESG Risk Exposure Scores[17].

Table 5 Comparison of ESG Scores for All Funds and ESG Funds 2022Q2[18]

	All Funds		ESG Funds	
	mean	median	mean	median
ESG Total Score	56.01	55.80	57.06	57.74
E Score	56.32	56.15	58.51	59.66
S Score	54.41	54.35	55.63	56.22
G Score	57.45	57.18	57.48	57.53
ESG Management Score	36.21	36.04	38.45	39.64
ESG Risk Exposure Score	85.70	85.80	84.98	85.10

[17] A higher ESG Exposure Score indicates a lower ESG risk.

[18] Note: The funds counted here are all issued before 2022.

4.Sustainable Investment Products

Due to adverse factors such as the global economic recession, rising interest rates, and the Russia-Ukraine conflict, the AUM of global sustainable funds has declined in the first three quarters of 2022, ending its upward trend since early 2020. While China's sustainable investment market has grown significantly in terms of the number of products and product innovation, there has been no explosive growth in size.

4.1 ESG Indices

The Number of ESG Indices Continues to Grow and the Sustainable Investment Strategies Involved are Gradually Diversifying

According to the China SIF, as of the end of October 2022, major domestic index companies[19] have released a total of 157 (see Appendix 3 for more details) stock indices involving constituent stocks screened by environmental (E), social (S), or corporate governance (G) factors. Among them, 56 are ESG Select indices, 6 are Corporate Governance Select indices, 11 are green and Low-Carbon Select indices, and 3 are Social Select indices; 69 of those have energy conservation and environmental protection themes, one with Blue Economy Theme, and 3 with Rural Revitalisation Theme; 6 are ESG Exclusion indices, and 2 are Green and Low-Carbon Exclusion indices. Before the SSE and SZSE required listed companies to disclose social responsibility information in 2008, the development of ESG indices was very slow. The number of ESG indices rose steadily after 2008, up by single digits each year by 2018. The number has been increasing rapidly since 2019. Especially in 2021 and 2022, after the "dual-carbon goals", the number has increased by more than 40% compared to the previous year.

Select Category

- "ESG Select": The constituent stocks are screened based on all three factors of E, S and G.
- "Corporate Governance Select": The constituent stocks are screened based on corporate governance factors.
- "Green and Low-Carbon Select": The constituent stocks are screened based on environmental factors.
- "Social Select": The constituent stocks are screened based on social factors (e.g., employee compensation, tax contributions, etc.).

Exclusion Category

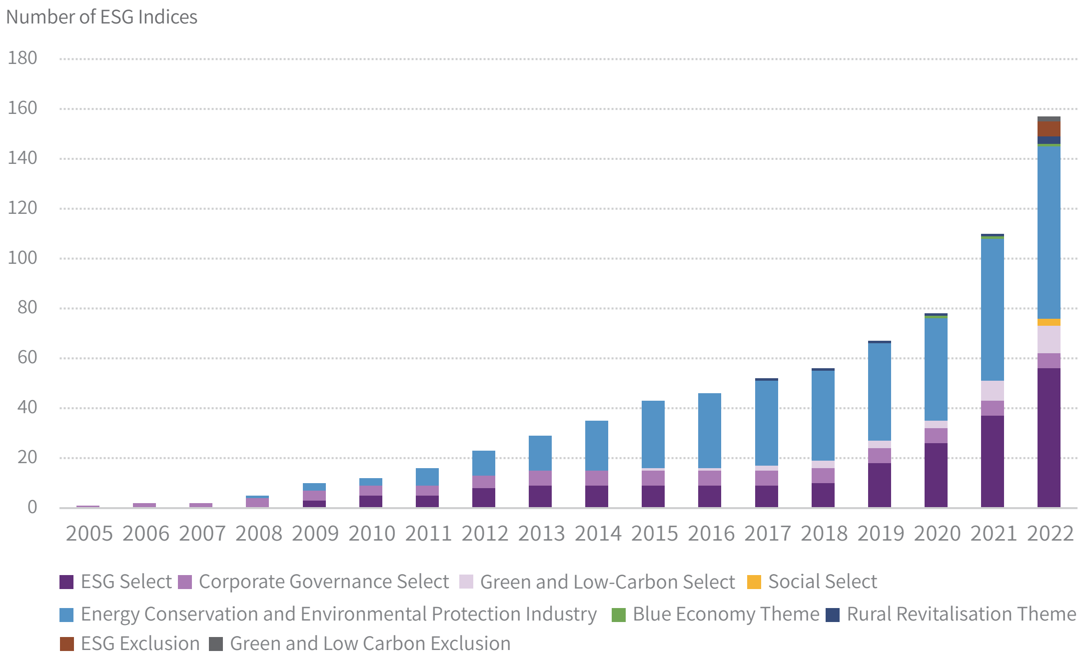
- "ESG Exclusion": a screening method that excludes constituents with poor ESG performance.
- "Green and Low-Carbon Exclusion": a screening method that excludes constituents with poor environmental performance.

Theme Category

- "Energy Conservation and Environmental Protection Theme": All the constituent stocks are those of listed companies engaging in energy conservation and environmental-related business.
- "Rural Revitalisation Theme": All the constituent stocks are those of listed companies engaging in rural revitalisation-related business.
- "Blue Economy Theme": The constituent stocks are those of listed companies related to marine economy.

[19] They include the SZSE, China Securities Index Company, Shenzhen Securities Information Co., Ltd., and Sino-Securities Index Information Service (Shanghai) Co., Ltd.

Figure 14 Growth of A-Share ESG Indices



Data source: Wind data terminal. Compiled by China SIF as of October 2022

In addition to the significant increase in the number of ESG indices, the screening methods have also become more diverse. The screening methods of "ESG Exclusion", "Green and Low-Carbon Exclusion", and "Social Select" were all developed in 2022. Among the various strategies, "ESG Select" indices which take ESG factors into account, have seen the fastest increase of 51.35% at the end of October 2022 compared to the end of last year. This shows that China's ESG indices have become more mature and science-based in their approaches.

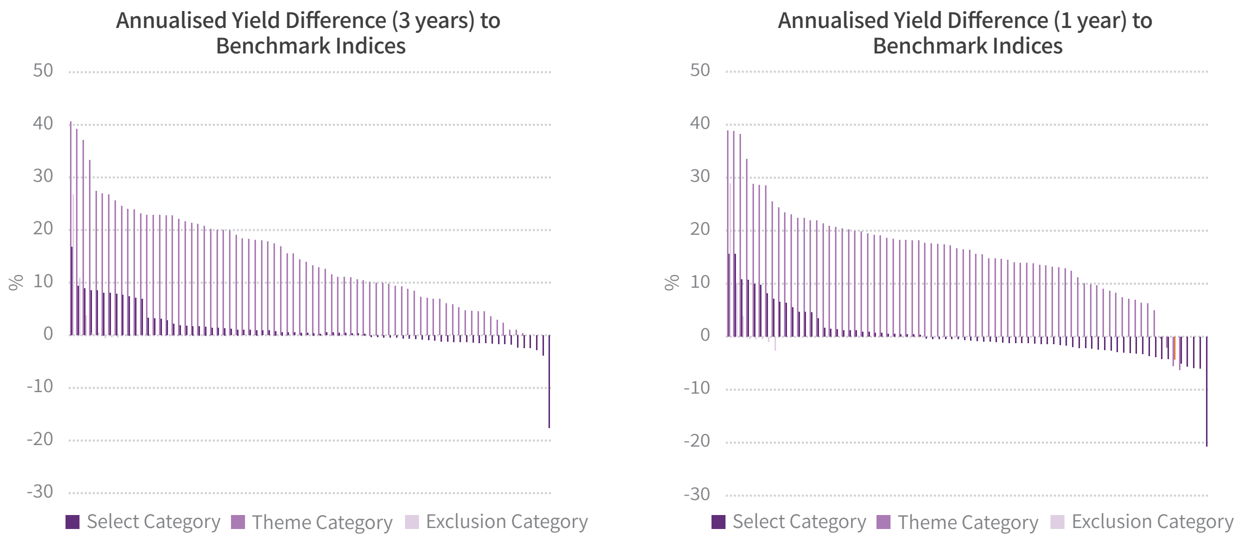
Thematic ESG Indices Have Outperformed the Market Over the Long Term, and Select ESG Indices are More Stable

Apart from indices that include H-shares and bonds[20], there are 143 ESG indices whose performance can be compared with the benchmark indices. Among those, the Theme Category (which screens for companies in the energy conservation and environmental protection industry or rural revitalisation business) outperformed the Select Category in the past three years, and the Exclusion Category also recorded good yields in terms of three-year yields (**Figure 15**). However, in terms of annualised index volatility, the Select Category still outperformed the Theme Category, reflecting the better stability of the overall strategy of the former (**Figure 16**).

Figure 15 Comparison of Annualised Yields of Select, Thematic and Exclusion ESG indices

Data source: Wind data terminal. Compiled by China SIF

Figure 16 Comparison of the Annualised Volatility of the Select, Thematic and Exclusion ESG Indices



Data source: Wind data terminal. Compiled by China SIF

[20] They include China Low Carbon Index, CUFE-CNI SZ-HK Connect Green Selection Index, CNI Shenzhen-Hong Kong Stock Connect Energy Conservation Index, CNI Shenzhen-Hong Kong Stock Connect New Energy Vehicle Index, CSI Yangtze River Protection Theme, CNI Blue 100 Index, CSI SH-HK-SZ Wind Power Industry Index, CNI Xiangmi Lake Green Finance Index, CSI SH-HK-SZ Photovoltaic 30 Index, CSI SH-HK-SZ Solar Power 50 Index, CSI China Energy Conservation Carbon Neutral Technology Power Index, SSI A-HK Share Energy Select 100 Index, and CSI ICBCWM Carbon Neutral Asset Allocation Index.

SynTao Green Finance Builds an ESG Select Index Based on ESG Rating Data

Based on more than 10 years of experience in China's ESG market, SynTao Green Finance has independently developed an ESG Rating Framework that is more suitable for the A-share market. Based on the systematic evaluation of the ESG performance of listed companies, SynTao Green Finance has developed a series of index strategies based on various ESG factors. An ESG Single-factor Select Strategy Index was developed by selecting the top 20% of the CSI 300 constituent stocks and CSI 500 constituent stocks; a weight tilting strategy was also designed to lean the weights toward companies with higher ESG scores without changing constituent stocks of the index. The analysis found that the Single-factor Select Strategy Index has excess return relative to the benchmark index and can get a higher Sharpe ratio. On this basis, SynTao Green Finance further constructed a multi-factor-based Smart Beta Strategy Index to extend and enrich the investment application scenarios of ESG rating data.

SynTao Green Finance developed the ESG Single-factor Select Strategy Index and the CSI ESG Smart Beta Strategy Index using the CSI 300 constituent stocks as the sample pool. During the backtesting interval (July 2016 to October 2022), the annualised excess return of the ESG Total Score Select Strategy Index relative to the benchmark index was 6.5%, the annualised excess return of the ESG Progress Select Strategy Index was 6.6%, and the annualised excess return of the ESG Management Select Strategy Index was 7.4%. Compared to the Sharpe ratio of only 0.1 of the benchmark index during the observation period, the ESG Total Score Select Strategy Index, ESG Progress Select Strategy Index, and ESG Management Select Strategy Index increased the Sharpe ratio to 0.43, 0.47, and 0.50, respectively **(Figure 17)**.

Since ESG factors have a long-term impact on the risk-return of a portfolio, SynTao Green Finance developed the Smart Beta Strategy Index by compounding ESG factors with other traditional factors. After research, it found that market capitalisation, return on equity (ROE) and momentum factors have long-term monotonicity in portfolio returns in CSI 300 constituent stocks. As a result, a 4-factor strategy index developed by compounding these three factors with the total ESG score or ESG Momentum Factor can increase the annualised excess return to 7.5% and 8.6%, respectively, and the Sharpe ratio to 0.48 and 0.52 respectively. Both are higher compared to those of a ESG Single-factor Select Index **(Figure 18)**.

Figure 17 Performance of CSI 300 ESG Single-Factor Select Strategy Index

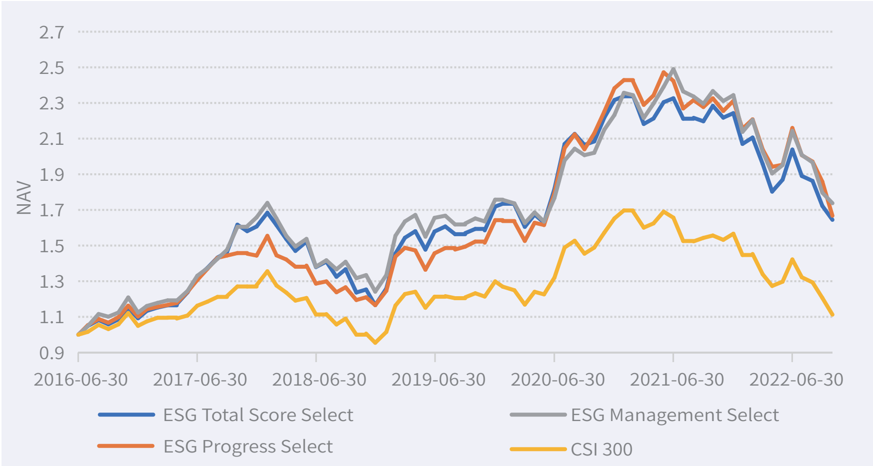
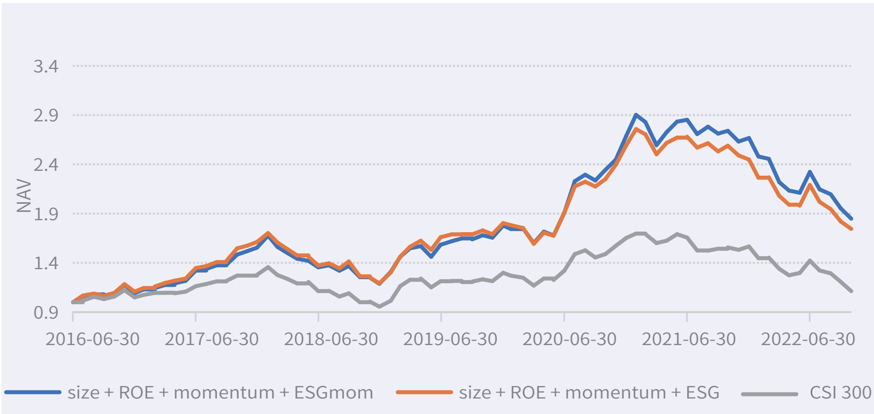


Figure 18 Performance of the CSI 300 ESG Smart Beta Strategy Index



Using the CSI 500 constituent stocks as the sample pool, SynTao Green Finance has also developed the ESG Single-factor Select Strategy Index and the Shanghai and Shenzhen ESG Smart Beta Strategy Index. During the backtesting interval (July 2018 to October 2022), the annualised excess return of the ESG Total Score Select Strategy relative to the benchmark index was 5.96%, the annualised excess return of the ESG Management Select Strategy was 6.99%, and the annualised excess return of the ESG Risk Select Strategy was 2.76%. In comparison to the benchmark index's Sharpe ratio of 0.12, the ESG Total Score Select Strategy, ESG Management Select Strategy, and ESG Risk Select Strategy increased the Sharpe ratio to 0.42, 0.50, and 0.25, respectively **(Figure 19)**.

A Smart Beta Strategy Index can be developed by compounding an ESG factor and other traditional factors in the CSI 500 constituent stocks. CSI 500 portfolio returns exhibit long-term monotonicity in ROE, net profit growth rate, and turnover rate factors. Therefore, a 4-factor strategy index developed by compounding the three factors and one ESG factor can increase the annualised excess return to 10-12%, and the Sharpe ratio to 0.6-0.8 respectively. Both are higher compared with an ESG Single-factor Select Strategy Index **(Figure 20)**.

Figure 19 Performance of CSI 500 ESG Single-Factor Select Strategy Index

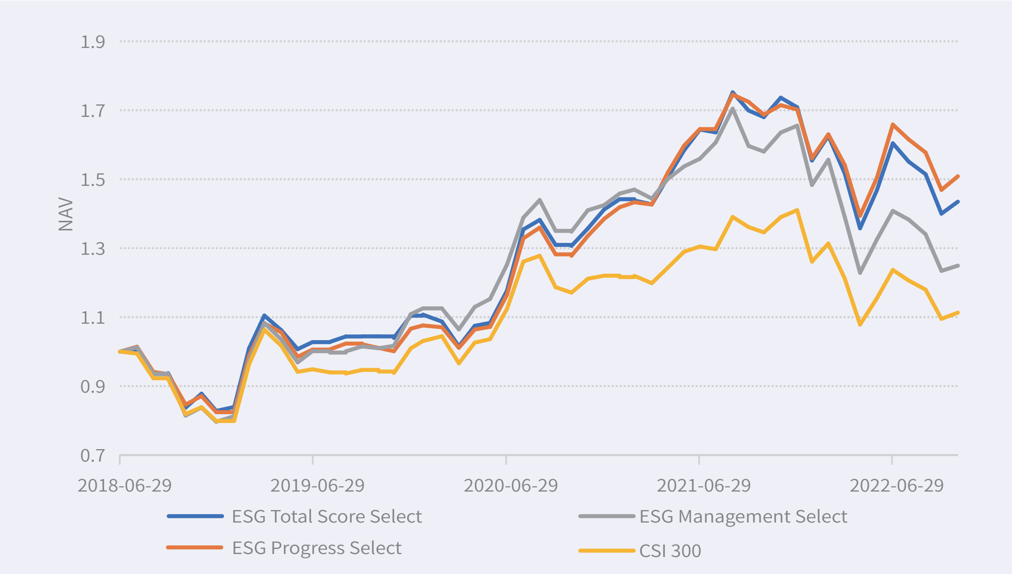
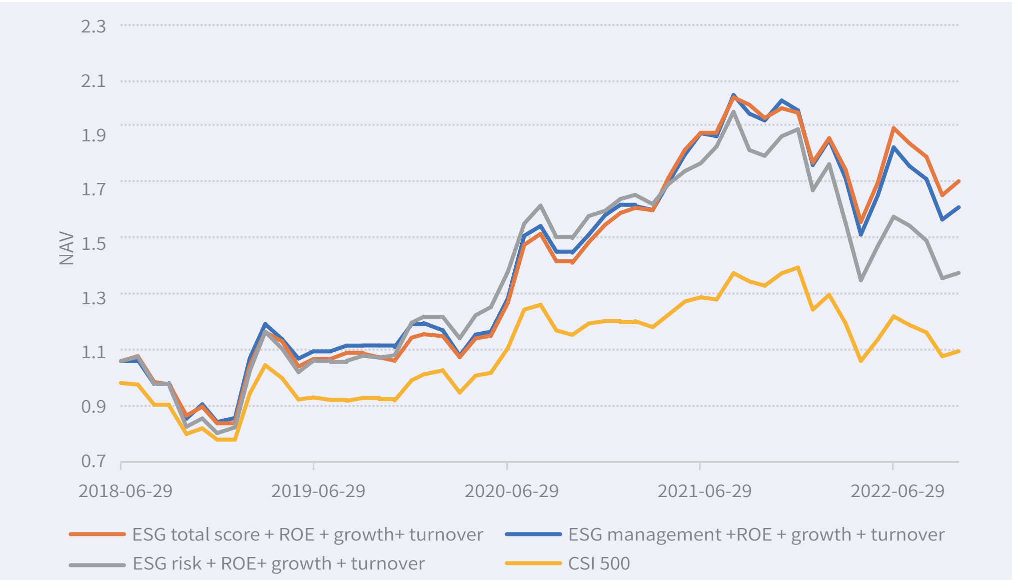


Figure 20 Performance of CSI 500 ESG Multi-Factor Smart Beta Strategy Index



Funds Tracking ESG Indices are Growing Rapidly, and Carbon Neutral Indices are Popular in the Market

By the end of October 2022, 30 ESG indices were tracked by mutual funds, corresponding to a total of 170 passive index fund products (see Appendix 4 for details). As of October 2021, six new indices released before the end of October were being tracked by mutual funds, an increase of 25%. A total of 54 new ESG index-tracking funds have been issued since the end of October 2021, an increase of about 46.55%.

Among the 30 ESG indices, the CSI SEHK Carbon Neutral Index (931755.CSI) launched in October 2021, is the most recently released index. In July 2022, 8 ETF products tracking this index were issued, and two new funds tracking this index were issued in October. The CSI SEHK Carbon Neutral Index selects listed companies with a large market capitalisation in deep low-carbon fields such as clean energy and energy storage in the markets of Shenzhen and Shanghai. It also screens a total of 100 listed companies in traditional high-carbon industries with significant potential in carbon emissions reduction as constituents, covering sectors such as thermal power and steel. The index covers both low-carbon and transition sectors, taking into account the diversity of industry coverage.

4.2 ESG Funds

The Number of Fund Managers Signing the Principles for Responsible Investment (PRI) is Gradually Increasing

In March 2017, the PRI welcomed the first mutual fund manager from Mainland China as its signatory. By the end of October 2022, there had been two new mutual fund signatories to the PRI this year alone, as opposed to three and six new mutual fund signatories in 2020 and 2021, respectively. A total of 24 mutual fund managers have joined the PRI, including China Asset Management, E Fund Management, Harvest Fund Management, Penghua Fund Management, Hwabao WP Fund Management, China Southern Asset Management, Bosera Funds, Morgan Stanley Huaxin Fund, Orient Securities Asset Management, Dacheng Fund Management, China Merchants Fund Management, AEGON-INDUSTRIAL Fund Management, China Universal Asset Management, Yinhua Fund Management, ICBC Credit Suisse Asset Management, Guangfa Fund Management, Taikang Asset Management, Huatai Securities, CCB Principal Asset Management, Zhong Ou Asset Management, UBS SDIC, HFT Investment Management, Bank of Beijing Scotiabank Asset Management, and Guotai Asset Management[21].

The Number of ESG Mutual Fund Products Grew to 606, Maintaining a Strong Momentum

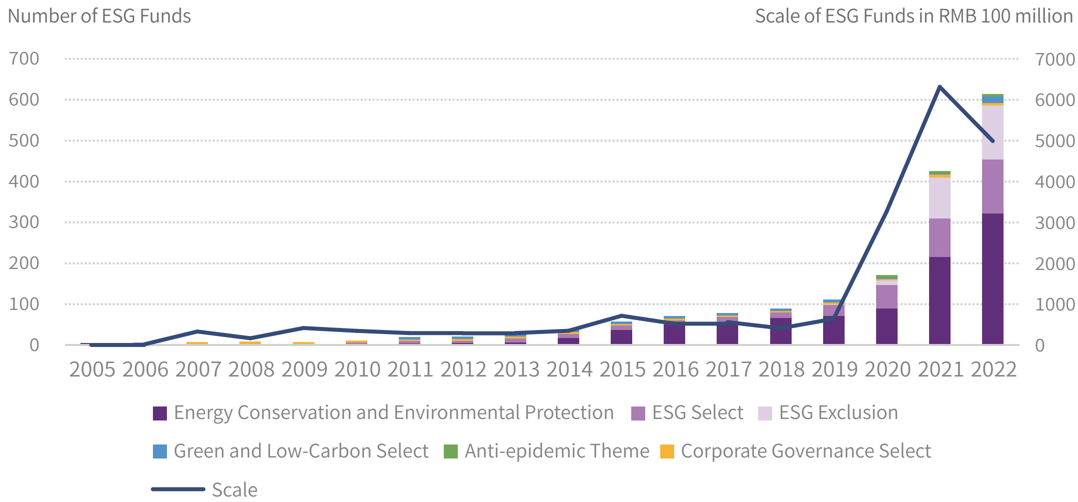
ESG mutual funds made their debut in China in 2005. However, they grew slowly until 2015, with a single-digit increase in new funds each year. By the end of 2014, there had been only 33 ESG mutual funds, and since 2015, more than ten new funds have been issued each year, bringing the total number to over 100 in 2019. In 2021 and 2022, ESG funds grew exponentially to 422 and 606, respectively. In 2021, the scale of ESG funds increased to about twice that of 2020, reaching more than RMB 630 billion. Due to market downturn, in 2022, despite a fast growth rate in the number of ESG funds, the total scale has dropped to around RMB 500 billion (**see Figure 21**).

By the end of October 2022, 89 funds had issued 606 ESG mutual fund products (calculated by A/B/C/H classification). There are 154 fund managers in China, and nearly 60% have released ESG fund products. Among those, 16 are bond funds, 230 are equity funds, 338 are hybrid funds, 18 are FOFs, and 4 are international (QDII) funds (see Appendix 5 for the complete list).

Among the 606 ESG mutual funds, 132 used the ESG Select Strategy, 7 used the Corporate Governance Select Strategy, 15 followed the Green and Low-Carbon Select Strategy, 318 selected constituents primarily based on whether they belong to the "energy conservation and environmental protection industries" defined by the fund, 2 were anti-epidemic bond funds released in response to the COVID-19 outbreak, and 132 ESG Exclusion funds used a screening methodology that excluded stocks with significant flaws in ESG performance (**Figure 21**).

[21] Sorted by the time of joining the PRI.

Figure 21 Growth in the Number and Scale of ESG Funds



Data source: Wind data terminal, compiled by China SIF

ESG funds have also made substantial progress regarding their share and influence in the overall fund market. In total, there were 553 ESG equity funds and hybrid funds as of September 30, 2022[22]. According to the mutual fund market data provided by the Asset Management Association of China (AMAC), as of September 30, 2022, the proportion of ESG mutual funds to the number of all equity and hybrid funds in the market had increased by 46%, from 5.92% last year to 8.64%, and nearly three times the proportion in 2019. The scale of ESG funds only increased slightly, from 6.27% last year to 6.63%, due to a market impact. (**Table 6**).

Table 6 Number and AUM of Broad-Based ESG Funds

Types	2020/9/30		2021/9/30		2022/9/30	
	Quantity	Scale of AUM (in RMB 100 million)	Quantity	Scale of AUM (in RMB 100 million)	Quantity	Scale of AUM (in RMB 100 million)
ESG Equity Funds	61	678.96	156	2239.00	224	2036.58
ESG Hybrid Funds	57	482.86	166	2788.48	331	2707.29
All Equity and Hybrid Funds	4365	53748.35	5436	80140.23	6404	71551.44
ESG equity and hybrid funds as a percentage of the market	**2.66%**	**2.16%**	**5.92%**	**6.27%**	**8.64%**	**6.63%**

Data source: AMAC, mutual fund market data by September 30, 2022, statistics compiled by China SIF.

Among the 606 ESG funds, there are 172 Passive Index-based Equity Funds. Among them 169 funds track the ESG indexes mentioned above[23], except for two funds tracking the MSCI China A-Share International ESG General Index. In addition, one passive index-based bond fund is tracking the China Bond-Hubei Local Government Bond Index (CBA10501.CS).

[22] By the end of October 2021, there were 568 ESG equity and hybrid funds. Of these, 15 ESG equity and hybrid funds were launched after 30 September 2020.

[23] There are 170 funds tracking the above-mentioned ESG indices, one of which is the Hong Kong-listed Harvest CSI 300 ESG Leadership Index ETF (3108.HK).

Active ESG Funds Will Embrace Better Long-Term Performance, Despite Their Recent Performance Being Affected by Market Downturn

Among the 434 active funds, there are 114 funds with Select Strategy, including 106 funds using ESG Select Strategies, 3 funds using Corporate Governance Select Strategies, and 5 funds using Green And Low-carbon Select Strategies; there are 132 exclusion funds and 188 theme funds, including 187 funds whose constituents mainly belong to the energy conservation and environmental protection industry, and one fund with the anti-pandemic theme.

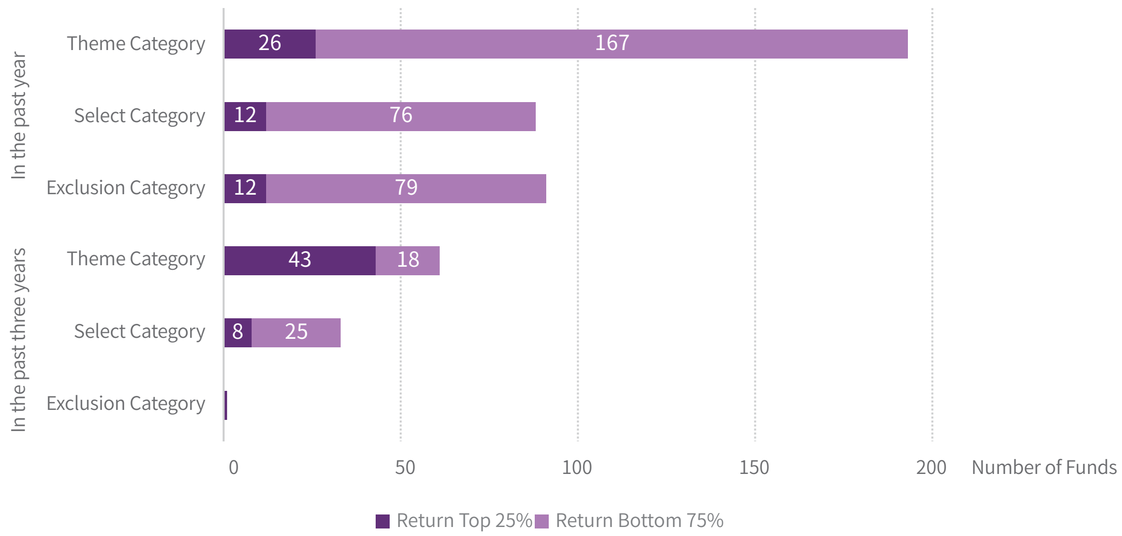
Among the 261 actively managed funds with traceable annual performance (established more than one year ago), there are 101 ESG mutual funds in the Theme Category (based on meeting specific energy conservation and environmental protection definitions), 69 in the Select Category (selected based on specific ESG performance), and 91 in the exclusion category (excluding those with poor ESG performance).

Among the 101 thematic ESG mutual funds, 17.8% (18) are ranked in the top 25% in terms of return for the recent year by the secondary category standard peer group, and 68.1% (32) of the 47 with three-year traceable performance are ranked in the top 25% in terms of return for the last three years by the secondary category standard peer group **(Figure 22)**.

Among the 69 select mutual funds, 14.5% (10) are ranked in the top 25% in terms of return for the recent year by the secondary category standard peer group, and 40% (8) of the 20 with three-year performance are ranked in the top 25% in terms of return for the last three years by the secondary category standard peer group.

Among the 91 ESG Exclusion mutual funds, 13.2% (12) are ranked in the top 25% in terms of return for the recent year by the secondary category standard peer group. Only one is ranked in the top 25% in terms of return for the last three years by the secondary category standard peer group.

Figure 22 Ranking of Active ESG Mutual Funds in Terms of Their Return Percentage



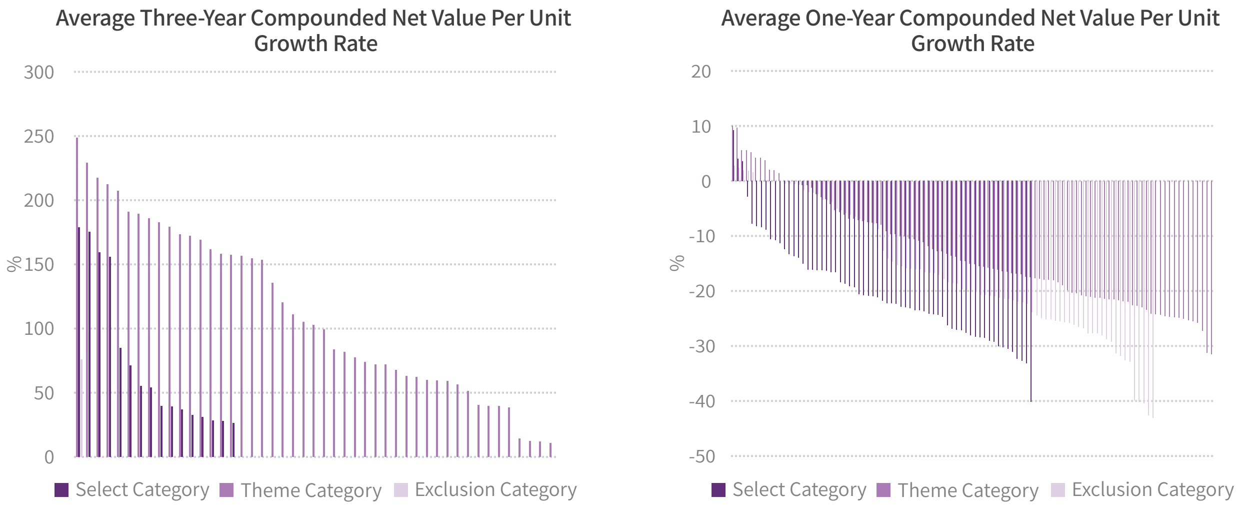
Data source: Wind data terminal, compiled by China SIF

As can be seen from the same-category fund ranking perspective, ESG mutual funds have performed significantly better over a three-year period, while the performance in the last year has been weaker than the overall market performance. This reflects the long-term nature of ESG funds and suggests that events such as regional conflict and energy crises have affected returns for ESG funds over the last year.

ESG mutual funds have shown similar performance trends in terms of absolute performance. From a long-term static perspective, active ESG mutual funds have shown strong performance in returns, with positive net value growth rates for the three-year period. The average three-year compounded net value per unit growth rate reached 113.2% for the Theme Category and 74.7% for the Select Category. Due to market downturn, the average one-year compounded net value per unit growth rate reached -13.0% for the Theme Category, -20.1% for the select category, and -16.2% for the exclusion category.

However, in terms of stability, the Select Category slightly outperformed the Theme Category. The standard deviation of the fund net growth rate for one year was 9.3% for the Select Category, 9.7% for the Theme Category, and 12.0% for the exclusion category; the standard deviation of the fund net growth rate for the three-year period was 57.7% for the Select Category, which is still lower than the standard deviation of the Theme Category of 66.5%, indicating that the returns of the Select Category are more stable and less volatile.

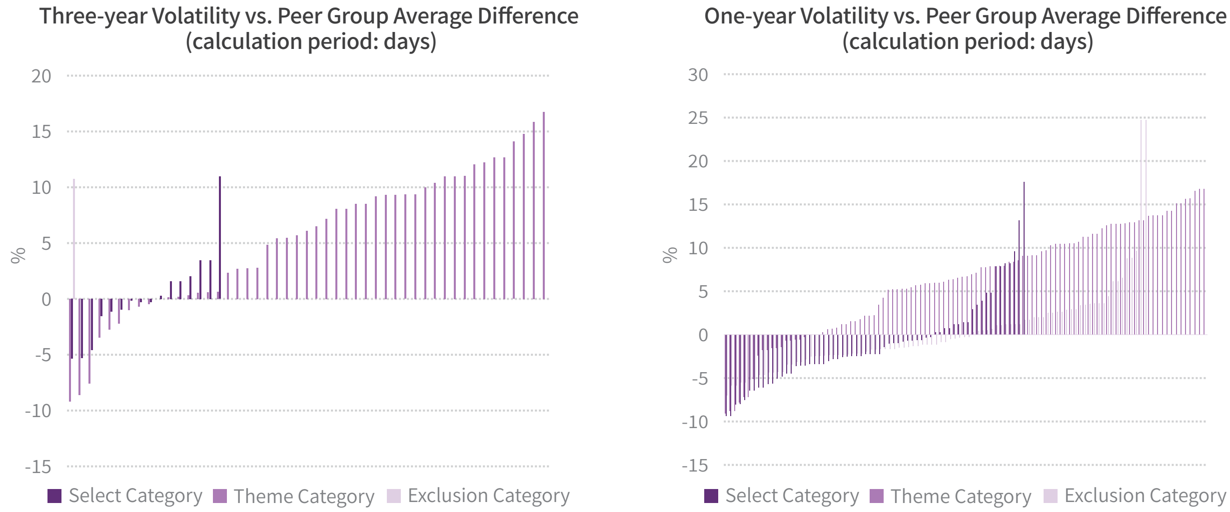
Figure 23 Overview of Compounded Net Unit Growth Rate of Active ESG Mutual Funds



Data source: Wind data terminal. Compiled by China SIF

The Select Category also outperformed the Theme Category in terms of volatility. Over the last three years, about half of Select funds had a lower annualised volatility than the average of their peer group, while only about one-fifth of the Theme Category had a lower annualised volatility than the average of their peer group. Over the recent year, about 60% of the Select Category had a higher annualised volatility than the average of their peer group, slightly outperforming the Exclusion Category, while less than one-fifth of the Theme Category had a lower annualised volatility than the average of their peer group **(Figure 24)**.

Figure 24 Net Volatility Profile of Active ESG Mutual Funds



Data source: Wind data terminal. Compiled by China SIF

4.3 ESG Wealth Management Products

The market for sustainable wealth management products has boomed since the debut of ESG products in the wealth management market in 2019. According to the Banking Wealth Management Registration and Custody Center, in the first half of 2022, 43 ESG thematic wealth management products were issued, raising over RMB 20 billion, accounting for 0.28% of the newly issued wealth management products[24]. By the end of June 2022, there were 134 ESG thematic wealth management products, accounting for 0.38% of all outstanding wealth management products; the balance stood at RMB 104.9 billion, accounting for 0.36%[25] of all outstanding wealth management products, up by 1.44 times year-on-year. In addition, in the first half of 2022, 56 wealth management products with a social responsibility theme, such as rural revitalisation, public welfare and charity, were issued, raising over RMB 16 billion.

According to the China SIF, as of the end of October 2022, out of all outstanding wealth management products, 243 were wealth management products with the ESG concept issued by 33 wealth management companies. Among them, 152 products have included “ESG” in their names, 19 included "green", 26 included "carbon neutral", 41 included "low-carbon", 3 included "sustainability", and 2 included "social responsibility". A further 67 wealth management products have dedicated purposes such as “rural revitalisation”, “public welfare”, and “charity”.

[24] According to the Banking Wealth Management Registration and Custody Center, in the first half of 2022, 15.2 million new wealth management products were issued, totalling RMB 4.792 trillion (including cumulative subscriptions for open-ended wealth management products in the 2022 open cycle).

[25] According to the Banking Wealth Management Registration and Custody Center, by the end of June 2022, there were 35,600 wealth management products, with a balance of RMB 29.15 trillion (including cumulative subscriptions for open-ended wealth management products in the 2022 open cycle).

Among the 243 products with the ESG concept, 169 are fixed-income type, 63 are hybrid, and 11 are equity. Most of the wealth management products on the market now focus on investing in green projects or rural revitalisation, livelihood, and industries involving agriculture, rural areas, and farmers. ESG wealth management products primarily invest in green bonds, green asset-backed securities, and other products with green labels. According to the Banking Wealth Management Registration and Custody Center, as of the end of June 2022, the AUM of wealth management products investing in green bonds is over RMB 250 billion. It can be seen that although individual investors have already recognised the ESG investment concept, incorporating ESG in wealth management products is still in its infancy, with a small market share. Systematic ESG methodology has not been widely adopted yet.

5.Survey on Attitudes Towards Responsible Investment

5.1 Individual Investors

China SIF and Sina Finance conducted a survey in October 2022 on public attitudes towards sustainable investment in the form of a questionnaire. The following is an analysis of sustainable investment behaviours and attitudes based on the responses of 2,234 individual investors.

5.1.1 Understanding and Practices of Sustainable Investment

Despite Their Limited Understanding of Sustainable Investment, More Than 70% of Individual Investors Would Like to Consider Related Factors in the Investment. The Level of Understanding Generally Affects the Investors' Willingness to Incorporate ESG Factors into Their Investment Decisions.

Individual investors have limited knowledge of sustainable investment, with 77% of survey respondents having no understanding of sustainable investment. 27% of them have never heard of "green finance," "sustainable investment", or "ESG" (**Figure 25**). Although respondents with an understanding of sustainable investment are still in the minority, their proportion has increased to 23% compared to 17% last year.

However, from an investment behaviour perspective, whether or not one has heard of or understands sustainable investment does not have a decisive impact on whether or not one considers ESG factors in their investments. For individual investors who have never heard of or are not aware of sustainable investing, some still include "environmental protection", "emissions reduction", "climate-related risk management", "labour rights and safety", and "business ethics" as part of their investment process. 84% of respondents said they consider ESG factors in making investments, up by 4 % compared to last year; Among them, 26 % always consider ESG factors and 58 % sometimes do (**Figure 26**).

Figure 25 Individual Investors' Level of Knowledge of Sustainable Investment

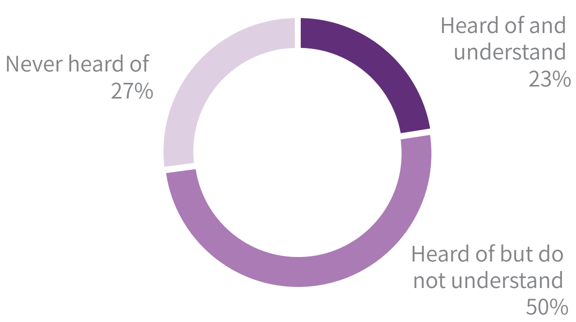
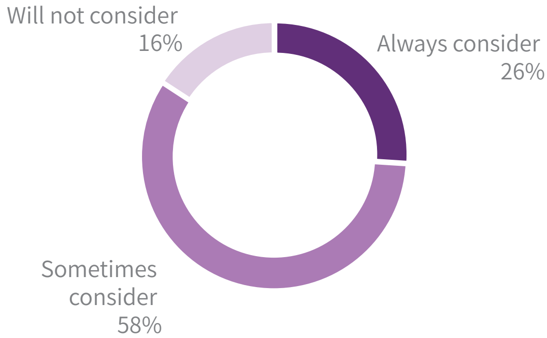
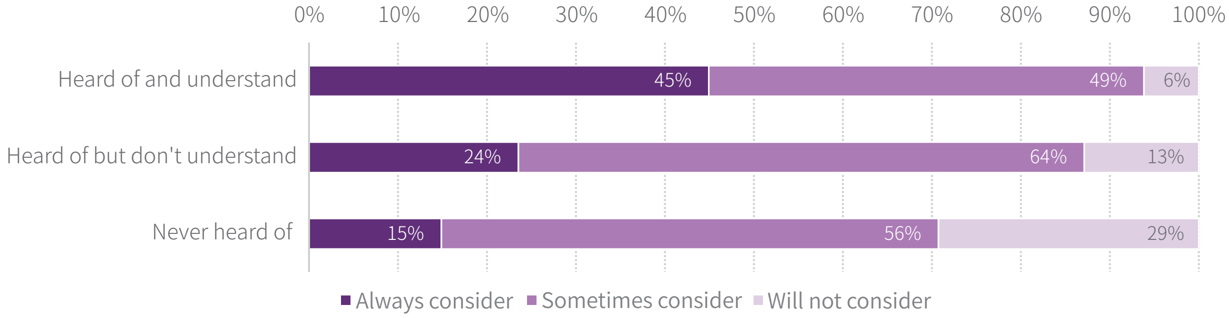


Figure 26 Individual Investors' Willingness to Consider Sustainable Investment



While perception is not a decisive impact factor on behaviour, the more knowledgeable they are about sustainable investment, the more likely they are to adopt it. Of people who have "heard of and understand" sustainable investment, 94% would incorporate ESG factors into their investment, as opposed to 87% of those who have "heard of but do not understand" and 71% of those who have "never heard of" sustainable investment **(Figure 27)**.

Figure 27 Individual Investors' Willingness to Consider Sustainable Investment by Their Level of Understanding

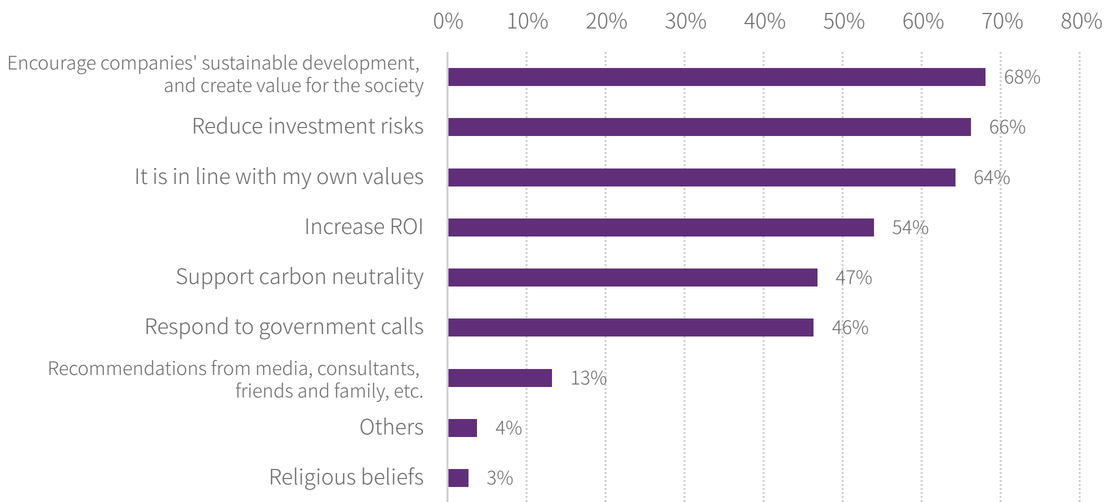


5.1.2 Motivations for Considering Sustainable Investment and the Impact of External Factors

Creating Value for the Society is the Primary Motivation for Individual Investors to Consider Sustainable Investment

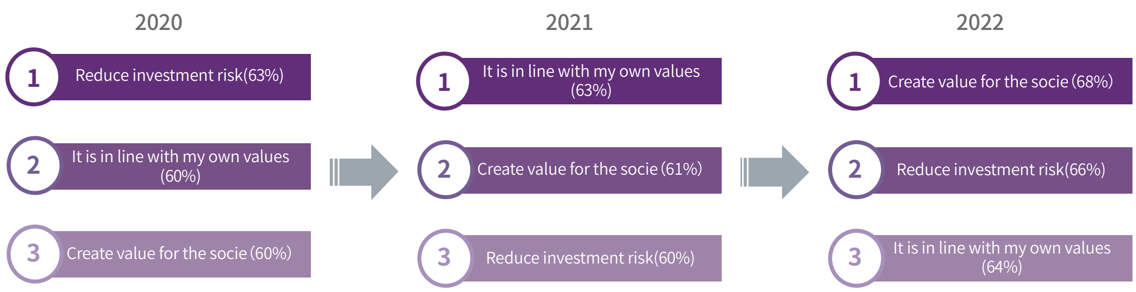
The top drivers for individual investors to adopt sustainable investment are encouraging companies' sustainable development and creating value for society (68%). Secondly, 66% of individual investors want to reduce risks through sustainable investment. In comparison, 64% believe that practising sustainable investment is primarily based on their values (**Figure 28**).

Figure 28 Motivations for Individual Investors to Consider Sustainable Investment



Compared to the survey results for 2021 and 2020, the top driver for individual investors to adopt sustainable investment have changed from personal values and reducing investment risks to creating value for society **(Figure 29)**. This suggests that investors are now focusing more on the pursuit of their social value when making sustainable investments. Notably, reducing risks and alignment with one's values remain among the top three drivers for individual investors to adopt sustainable investment, up by 5% and 4% in percentage, respectively, from last year. This implies that investors will continue to focus on reducing risks and pursuing their values when making sustainable investments.

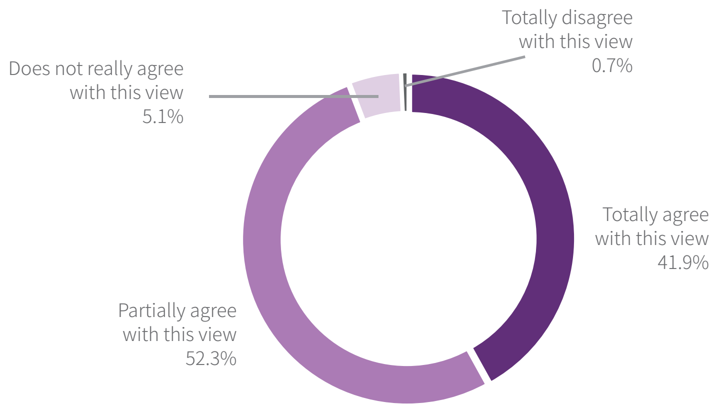
Figure 29 Changes in Individual Investors' Motivations to Consider ESG/Sustainable Investment



42% of the Individual Investors Agree that External Environmental and Policy Factors Highlight the Importance of Identifying ESG-Related Risks/Opportunities in Portfolios

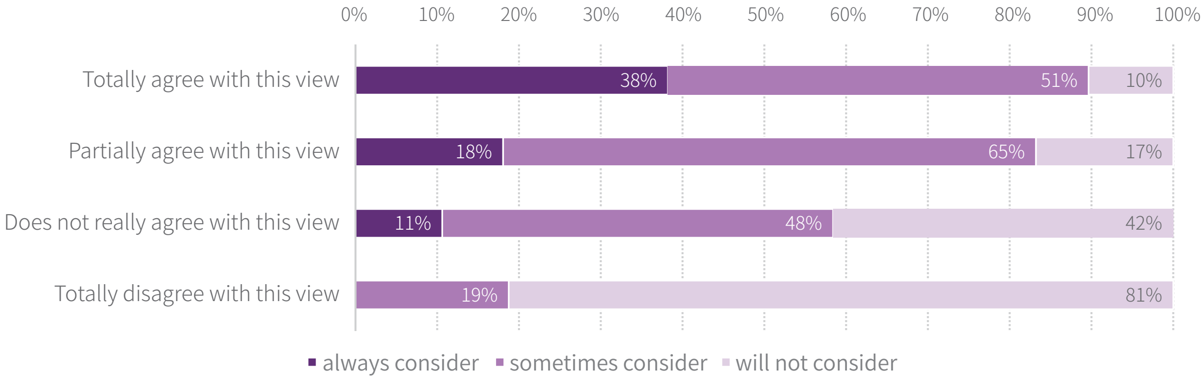
In the question of "How do you agree with the view that external environmental/policy factors such as the COVID-19 pandemic and the 'dual-carbon goals' will further highlight the importance of identifying ESG risks and opportunities in a portfolio", 41.9% of individual investors strongly agreed with this view (**Figure 30**). This implies that in the context of the fight against the pandemic and the pursuit of "dual-carbon goals", individual investors are becoming more aware that external factors will increase investment risks and uncertainties, thus making it more important to identify ESG-related risks and opportunities.

Figure 30 Individual Investors' Level of Agreement that External Factors Highlight the Importance of Identifying ESG-Related Risks and Opportunities



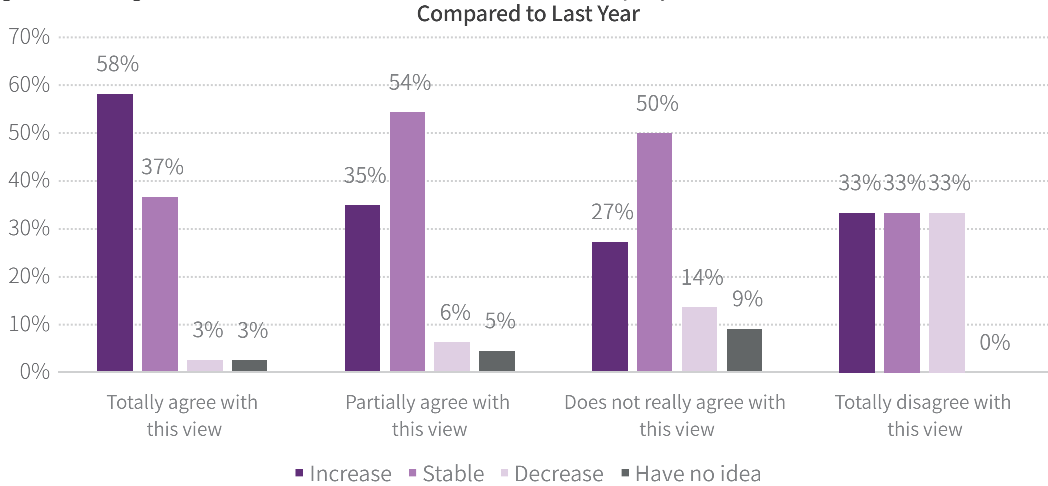
Among individual investors, those who strongly agree with the view that "external environmental/policy factors, such as 'COVID-19' and 'dual-carbon goals', will further highlight the importance of identifying ESG-related risks and opportunities in a portfolio" have the highest percentage among investors who "always consider ESG factors in their investments" (33%). The proportion decreases as their agreement with this view decreases. For those who completely disagree with the view, no investors always consider ESG factors when making sustainable investment (**Figure 31**). In addition, the percentage of investors who strongly agree with this view and consider sustainable investment has increased to 90% from 87% last year.

Figure 31 Classification of "Individual Investors' Consideration of Sustainable Investment" by "Agreement that External Factors Highlight the Importance of Identifying ESG Risks/Opportunities"



Among those individual investors who strongly agree that external factors highlight the importance of identifying ESG risks and opportunities in a portfolio, 58% have increased their consideration of corporate ESG performance in their investments this year compared to last year, while only 33% of those who strongly disagree have increased their consideration of corporate ESG this year (**Figure 32**). Conversely, the percentage of individual investors who reduced their consideration of corporate ESG performance this year is higher among those who "do not really agree" or "totally disagree" with the importance of external factors in ESG investing, suggesting a correlation between the two.

Figure 32 Change in Individual Investors' Consideration of a Company's ESG Performance in their Investments Compared to Last Year

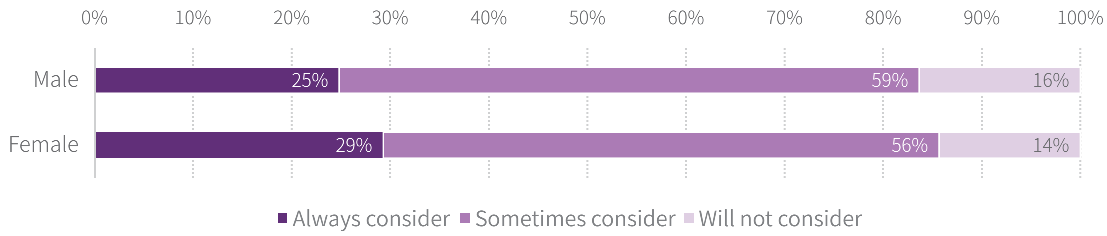


5.1.3 Demographic Features of Respondents Who Are Willing to Consider Sustainable Investment

Women are More Proactive to Take Sustainable Investments into Consideration, and are More Likely to Always Consider ESG Factors

Women are more likely to consider sustainable investment factors in their investment decisions than men (86%). The percentage of investors who always consider such factors is 29% among women and 25% among men (**Figure 33**).

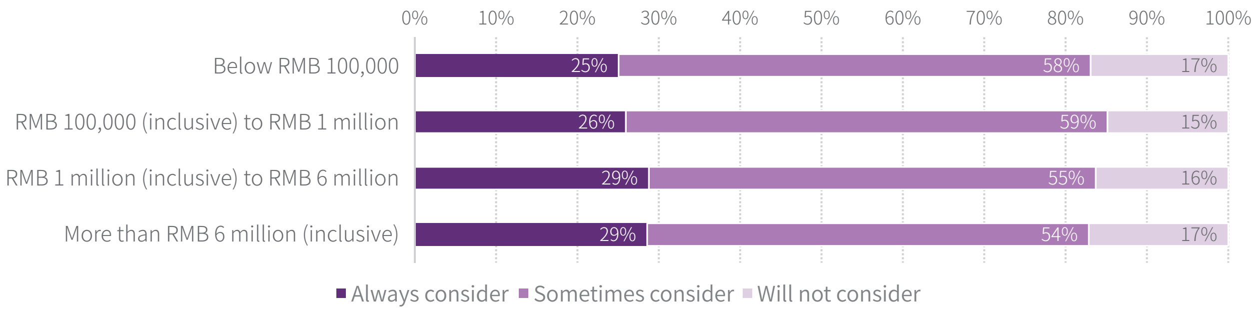
Figure 33 Individual Investors' Willingness to Consider Sustainable Investment by Gender



High-Net-Worth Individuals ("HNWIs") are More Likely to Always Consider ESG Investment Factors in Their Investments

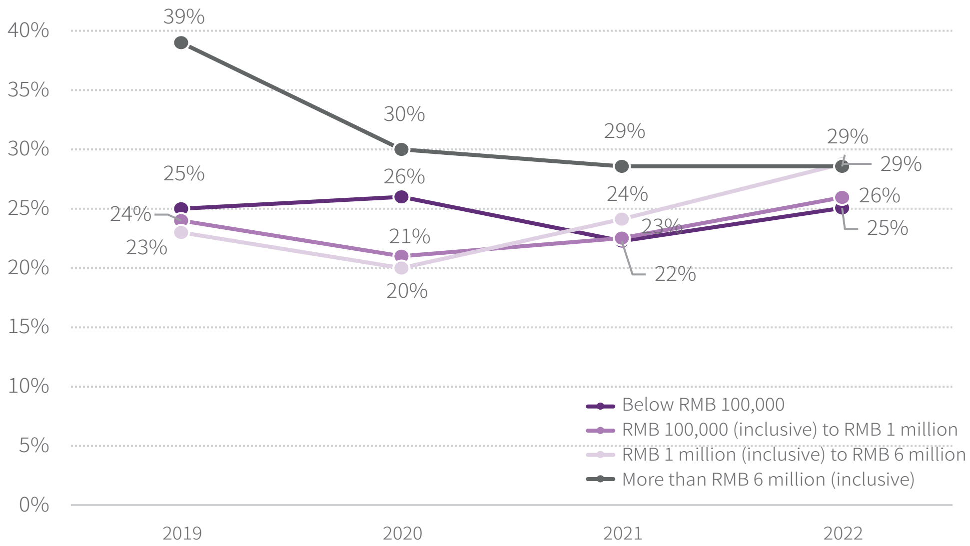
Among individual investors, those whose assets available for investment are RMB 1 million to RMB 6 million and over RMB 6 million and who always consider sustainable investment factors in their investments represent the highest proportion (29%) (**Figure 34**).

Figure 34 Individual Investors' Willingness to Consider Sustainable Investment by Portfolio Size



The gap between the proportion of HNWIs who always consider ESG factors and other net worth groups is narrowing year on year compared to the survey results of the previous three years (**Figure 35**).

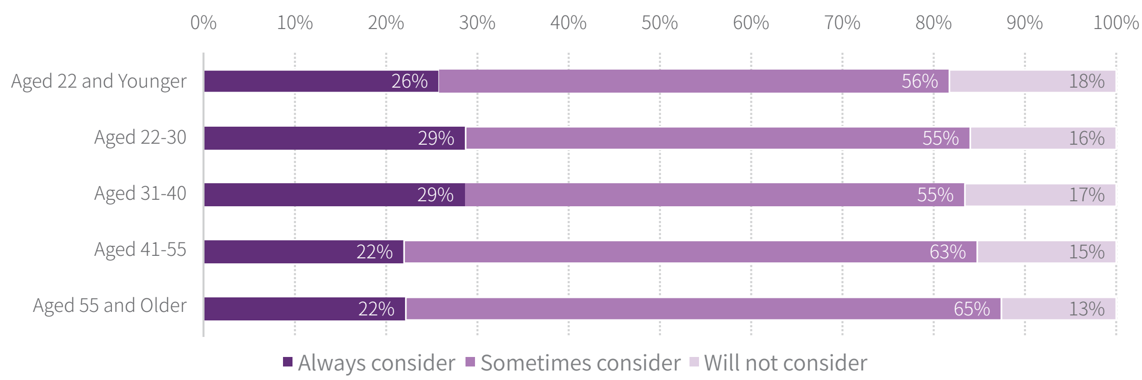
Figure 35 Proportion of Individual Investors in Different Net-Worth-Groups that Always Consider ESG Factors in Making an Investment (2019-2022)



Senior Investors are More Likely to Consider ESG Investment Factors in Their Investments

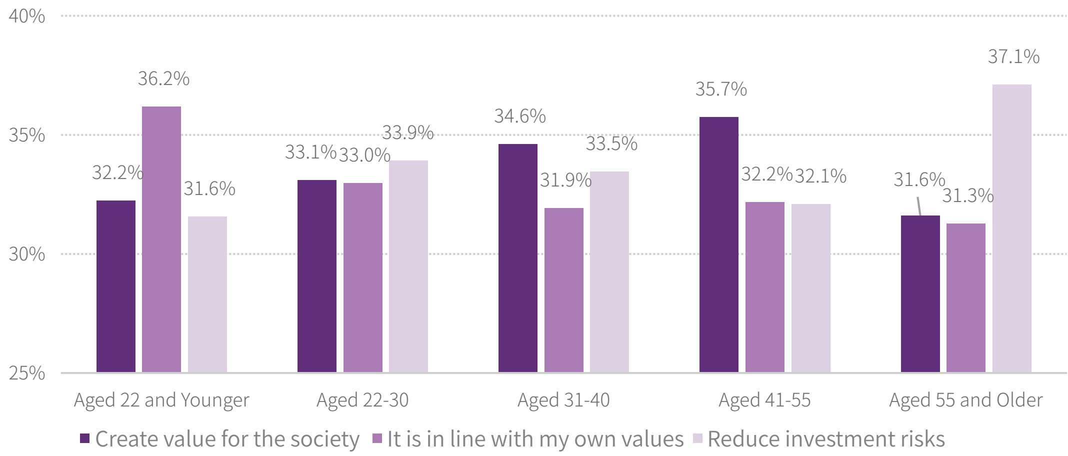
The percentage of individual investors over 55 years old, who consider ESG factors in their investments is the highest among all age groups (87%), while the percentage of those aged 22 and under, who consider ESG factors is the lowest (82%) (**Figure 36**).

Figure 36 Individual Investors' Willingness to Consider Sustainable Investment, by Age



However, the percentage of investors aged 40 and younger who always consider ESG factors in their investments is higher than that of those aged 40 and older **(Figure 27)**. The younger the age group, the higher the percentage of those whose responsible investment is driven by their own values. In particular, the figure is up to 36.2% among those aged 22 and under (**Figure 37**).

Figure 37 Top Three Drivers of Adopting Sustainable Investment Among Individual Investors by Age Group

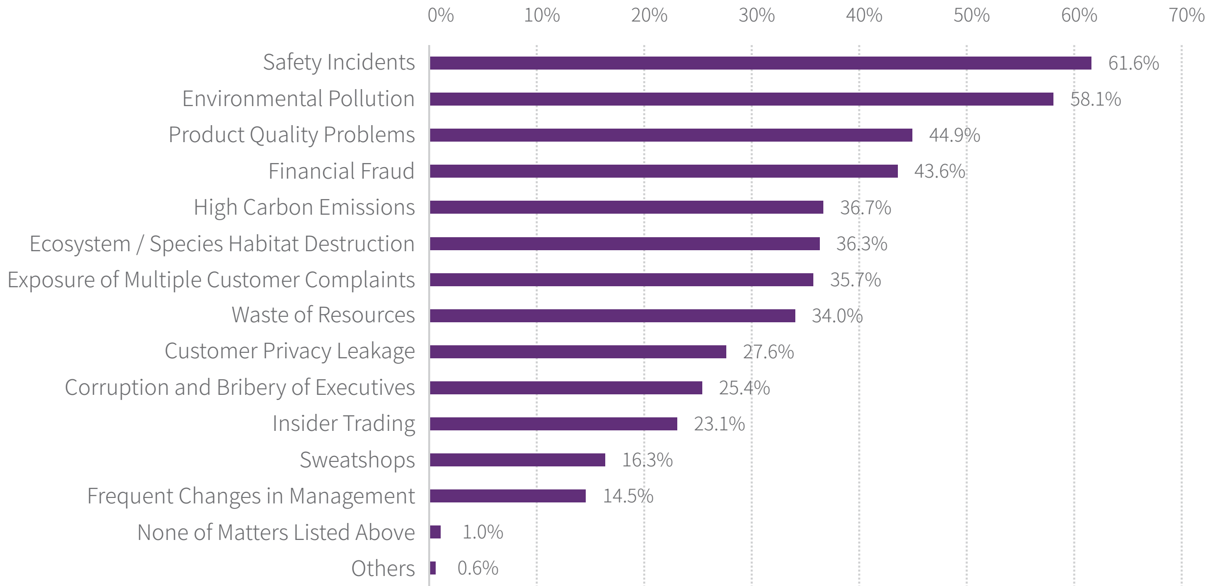


5.1.4 Sustainable Investment Focus and Strategy

The Most Important ESG Investment Issue for Individual Investors is "Safety Incidents"

In the question "Which of the following issues do you think would prevent or discourage you from investing in a listed company given the expected return on your investment? (Choose up to 5, at least 1)", among all individual investors, the top three issues of concern were: safety incidents (61.6%), environmental pollution (58.1%), and product quality (44.9%) (**Figure 38**). Compared to last year's survey, safety accidents, environmental pollution, product quality issues, and financial fraud continue to be the top four issues of most concern; it is worth noting that the proportion of individual investors who are concerned about high carbon emissions increased to 36.7% from 31.5% last year, moving up the ranking from the ninth last year to the fifth this year.

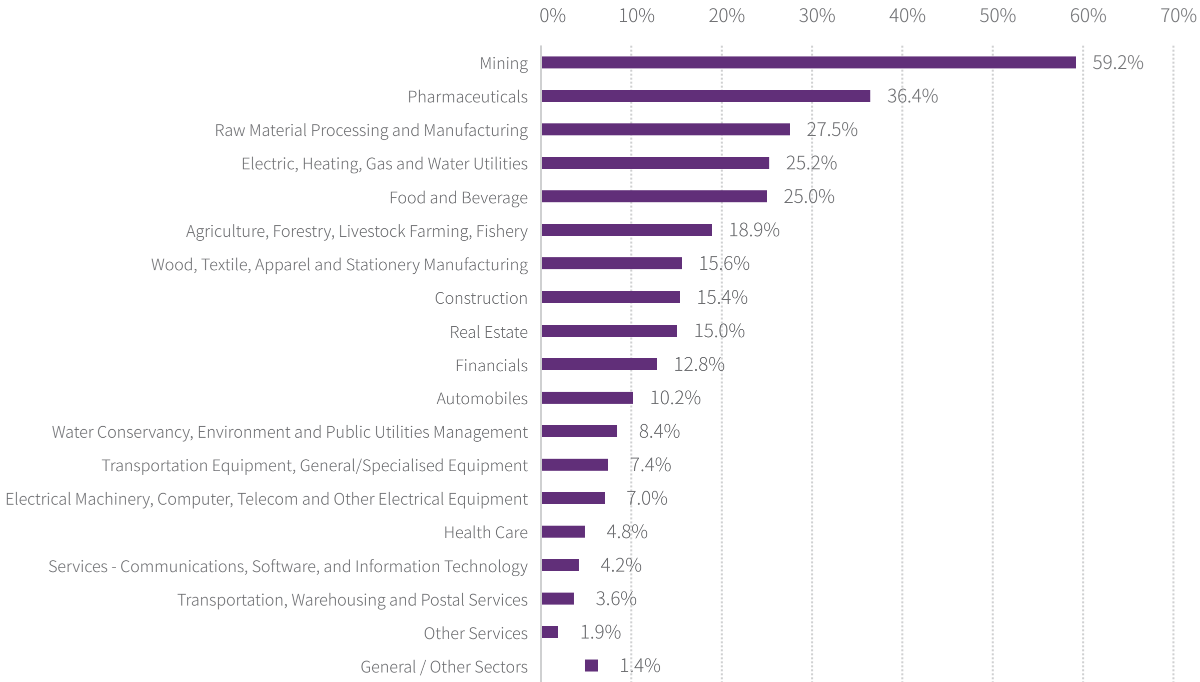
Figure 38 Level of Concern about ESG Factors by Individual Investors



Mining Industry is Believed to be Subject to the Highest ESG Risks, According to Individual Investors

When choosing the top three industries with the highest ESG risks, 59.2% of individual investors chose mining, followed by pharmaceutical manufacturing (36.4%), raw materials processing and manufacturing (27.5%), and power, heat, gas and water utilities (25.2%), respectively (**Figure 39**).

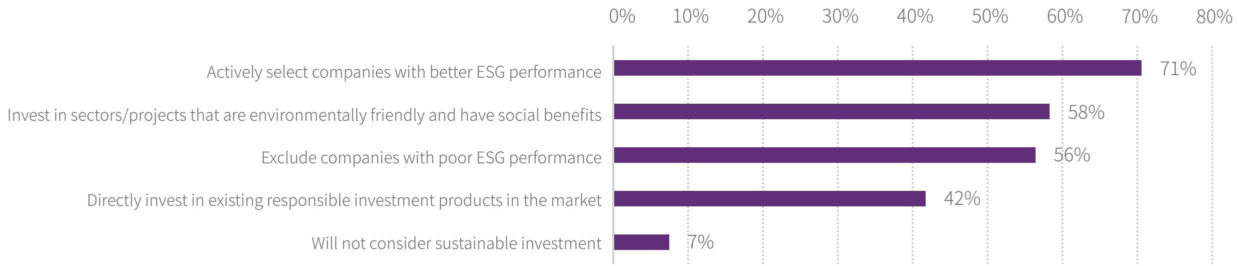
Figure 39 Sectors' ESG Risks as Perceived by Individual Investors



Individual Investors are More Inclined to Choose the Best-in-Class when Considering ESG Investments for the Future, and a Large Number of Individual Investors that have Never Considered ESG Factors in Their Investments before are Inclined to Experiment with ESG Investment Strategies

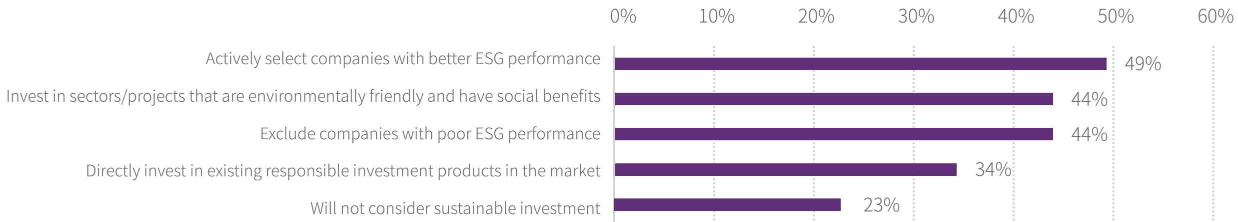
In the question "Would you consider using the following approach in your investments in the coming year?", 71% of individual investors chose a best-in-class strategy, preferring to actively select companies that perform well in terms of ESG (**Figure 40**), an increase of 14% compared to last year.

Figure 40 Individual Investors' Sustainable Investment Plans



Among the individual investors who have never considered ESG factors, only 23% chose not to consider sustainable investment in the coming year, implying that 77% of investors who never considered ESG investing are willing to try ESG investment in the next year. The strategy of actively selecting companies with better ESG performance is the first choice in their first attempt at ESG investment (**Figure 41**).

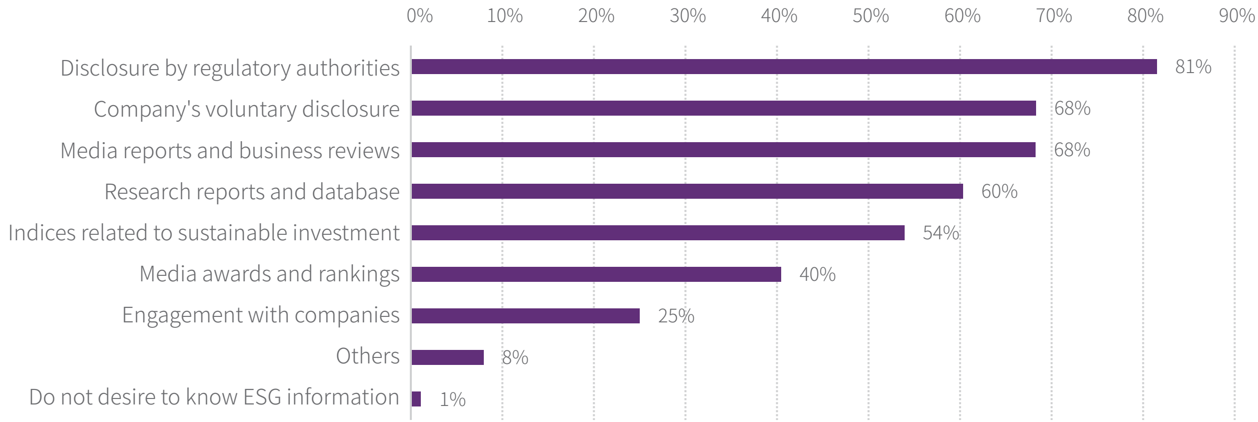
Figure 41 Future 1-Year Sustainable Investment Plan of Individual Investors that Do Not Consider Sustainable



Regulatory Authorities are the Most Trusted Information Source, According to Individual Investors

The source of information most preferred by individual investors is the disclosure by regulatory authorities, with 81% of investors prefer to learn about a company's ESG performance through this source, consistent with the results of the previous two years' surveys. In addition, more than 60% of investors prefer to learn about a company's ESG performance from media report and business reviews (68%) and voluntary corporate disclosures (68%) (**Figure 42**).

Figure 42 Individual Investors' Preferred Sources of ESG Information

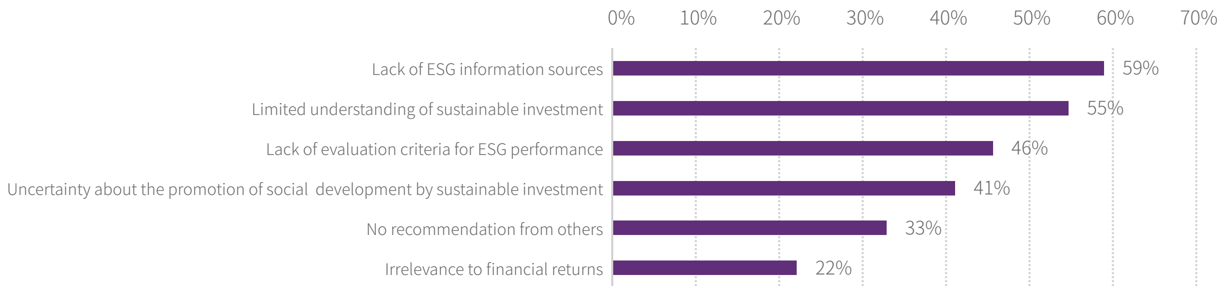


5.1.5 Challenges for Sustainable Investment

The Biggest Challenge for Individual Investors to Consider Sustainable Investment Remains the Lack of ESG Information Sources

When being asked, "What are the possible reasons for you to not consider a company' s ESG performance when making an investment", 59% of individual investors cited that a lack of access to information was the biggest barrier to sustainable investment, followed by a lack of criteria for measuring corporate ESG performance (55%) and a lack of knowledge about sustainable investment (46%) (**Figure 43**).

Figure 43 Barriers Hindering Individual Investors from Considering Sustainable



In the survey results across the past three years (2020-2022), the lack of ESG information sources, the lack of evaluation criteria for ESG performance, and the limited understanding of sustainable investment have consistently ranked as the top three barriers to individual investors' adoption of sustainable investment **(Figure 44)**.

Figure 44 Changes in the Top Three Barriers Hindering Individual Investors from Considering Sustainable Investment

5.2 Asset Owners

In October 2022, China SIF, in collaboration with SynTao Green Finance and China Southern Asset Management, conducted a survey on ESG investment among asset owners in China [26]. The survey covered 51 asset owners from North America, Europe, Asia Pacific, Hong Kong, and Mainland China, reaching a wide range of financial institutions, including insurance institutions, banks and wealth management subsidiaries, pension funds, sovereign funds, family offices, representing over US$2.4 trillion in AUM.

The survey results show that

Responsible investment philosophy:

- Asset owners agree that meeting the needs of principals/beneficiaries and generating excess returns are important factors driving their responsible investment in China.
- The overseas respondents are more mature regarding responsible investment awareness, have incorporated ESG considerations into their investment decisions, and are more advanced in the systematic process of ESG integration investments.
- While domestic respondents consider ESG in investment decisions primarily to comply with regulatory requirements, foreign respondents consider avoiding ESG risks as their primary motive for incorporating ESG into their investment decisions.

[26] For more details, please refer to the ESG Survey Report for Asset Owners (2022).

Responsible investment governance:

- When selecting an asset manager, most asset owners consider the asset manager' s capability to assess the ESG performance of their investment targets. 71.4% of overseas respondents indicated that they always consider this capability in selecting an asset manager.
- Asset owners value two ESG investment capabilities of an asset manager the most: a well-developed ESG integration process, and mature ESG investment awareness.
- The overseas respondents have invested more resources in developing ESG structures at the management and executive levels, and over 85% have developed ESG governance structures at the management level. In contrast, the surveyed domestic institutions are more likely to appoint employees responsible for ESG as part of their job.

Responsible investment practices:

- In practice, asset owners' most common ESG investment approaches are exclusion, ESG integration, and best-in-class; the overseas respondents are more committed to frequently engaging with their investees to improve their ESG management.
- Asset owners are most concerned about ESG risks in the following three industries: mining, power, heat and gas, and manufacturing.
- Climate change is the primary environmental concern of asset owners, and nearly 40% of the institutions surveyed have already begun measuring their portfolios' carbon footprint to achieve carbon neutrality at portfolio level.
- Regarding social issues, overseas respondents are more concerned with supply chain management, labour rights, and community relations. In contrast, domestic respondents are more concerned with information security, product quality, and customer relations.

Information Disclosure:

- Most asset owners require asset managers to report on their valuation methods and the results they achieve in conducting their responsible investments. In this regard, the overseas respondents were relatively stricter.
- Most asset owners indicated that the most significant difficulty when making responsible investments in China was the availability of ESG information.

Based on the results of this study, the asset owners surveyed already have a high level of ESG investment awareness, many of them have relatively sound ESG governance structures, and most recognise the effectiveness of ESG investment strategies. Asset managers should further improve their ESG investment capabilities and information disclosure to meet the ever-increasing ESG investment standards and needs of asset owners.

6.Summary and Outlook

While sustainable investment in China generally enjoyed a sound momentum in 2022, the impacts brought by the changing international situation and the global economic downturn still cannot be ignored. Guided by the "dual-carbon goals" and the improvement of the "1+N" policy system, China's green finance market standards are being gradually aligned with international standards. New challenges like how to integrate sustainable development concepts while ensuring investment returns, how to promote the low-carbon transition amid the energy crisis, and how to deal with the bubbles and "greenwashing" during the rapid development of ESG investment arise. They all require financial institutions to find solutions.

At the policy level, disclosure requirements for financial institutions are becoming stricter both internationally and domestically. In particular, products claimed to have ESG attributes are required to systematically explain the strategies and methods employed and the ESG risks associated with the assets. In addition, the further consolidation of international disclosure standards and the continuous refinement of domestic disclosure standards impose requirements for financial institutions and investees to improve their ESG practices and reporting transparency.

Regarding market practices, ESG products in China continue to grow rapidly in quantity. However, their scale declined due to market downturn. Yet, it is still worth noting that the ESG analysis approaches used by ESG indices and ESG funds are being enriched. The proportion of products applying ESG best-in-class screening approach is increasing, demonstrating the continued growth of sustainable investment in China.

As analysed in Section Three of this Report, financial institutions are either taking action or are aware of the need for sustainable investment practices. Sustainable investment practices, however, are significantly different among institutions: The leading institutions have established themselves in various areas, such as policy and management structure, ESG integration, and climate risk management, while those left behind have yet to begin taking relevant actions. As sustainable investment develops rapidly and regulatory requirements become stricter, there is a need for financial institutions to incorporate ESG factors into their business development strategies. To remain competitive in the long term, financial institutions need to explore and adhere to in-depth ESG integration and stay advanced in sustainable investment concepts and actions.

Amidst the impact of long covid and many other challenges facing the world economy in 2022, sustainable investment is providing solutions to these challenges in its continuous evolution and improvement. We expect that policies will further incentivise the development of sustainable investment and also strengthen regulation in this regard. In the future, ESG products will continue to grow in terms of quantity and diversity, with transition finance and biodiversity likely to become key issues.

Appendix 1 Scale of Sustainable Investment in China

<table>
<tr><th>Type of Sustainable Investment</th><th colspan="3">Definition</th><th>Scale (in RMB)</th><th>Current Status</th></tr>
<tr><td>Green Credit</td><td colspan="3">Green credit requires banking institutions to promote green economy, low-carbon economy, and recycled economy through credit business, enhance the environmental and social risk management in their credit business, and improve their own environmental and social performance. (Based on the Green Credit Guidelines issued by the former CBRC in 2012)</td><td>RMB 20.9 trillion</td><td>· 9 banks signed the Equator Principles
· 22 banks signed the Principles for Responsible Banking
· 29 banks signed the China Banking Sector Green Credit Joint Commitment
· At the end of Q3 of 2022, the balance of green loans in domestic and foreign currencies was RMB 20.9 trillion (PBoC statistics)[27]</td></tr>
<tr><td rowspan="5">Sustainable Securities / Wealth Management Products</td><td rowspan="2">Green/ sustainable (securities) investment fund/asset manage-ment program</td><td rowspan="2">Green (securities) investment refers to investment, aiming to promote companies' environmental performance, develop green industries and reduce environmental risks, in companies and projects which could deliver environmental benefits, reduce environmental costs and risks through systematic green investment strategies. (Asset Management Association of China, 2018. Green Investment Guidelines (for Trial Implementation))</td><td>· ESG mutual funds</td><td>RMB 498.41 billion</td><td>· 24 mutual fund managers signed the UN Principles for Responsible Investment
· 90 fund managers released 606 broad-based ESG funds as of Oct. 31, 2022
· On October 31, 2022, the scale of ESG fund was RMB 498.41 billion (Data source: Wind data terminal. Compiled by China SIF)</td></tr>
<tr><td>· ESG Private Securities funds</td><td>Statistics not yet available</td><td></td></tr>
<tr><td rowspan="3">Sustaina bility Bonds</td><td colspan="2">· Green bonds refer to marketable securities through which use of proceeds are exclusively to support green industries, green projects or green economic activities that meet the prescribed conditions, and are issued in accordance with legal procedures and to repay principal and interest as agreed. (Announcement made by the China Green Bond Standard Committee, No. 1 [2022])
· Carbon neutral bonds are a debt financing tool that the proceeds are specifically used for green projects with carbon emission reduction benefits, and are required to have four core elements, such as the use of proceeds, project evaluation and selection, use of proceeds management and information disclosure during the duration. Carbon neutral bonds and are a sub-specie of the green debt financing tool. (National Association of Financial Market Institutional Investors (NAFMII), 2021, Notice on the Clarification of Carbon Neutrality Bond Related Mechanisms)</td><td>RMB 1.65 trillion</td><td>· As of October 31, 2022, the scale of outstanding green bonds had been RMB 1.67 trillion, including RMB 310.3 billion of carbon neutral bonds (according to the "Green Bonds" section of the Wind data terminal)</td></tr>
<tr><td colspan="2">· Sustainability-linked bonds are a debt financing tool that links the terms of the bond to the issuer's sustainability targets. The linked targets include key performance indicators (KPIs), and sustainability performance targets (SPTs). KPIs are sustainability performance indicators that are material to the issuer's operations; SPTs are quantitative assessment targets for KPIs and require clear timelines for achievement. (The National Association of Financial Market Institutional Investors, 2021, Ten Questions and Answers on Sustainability-Linked Bonds)</td><td>RMB 105.99 billion</td><td>· As of the end of October 2022, the scale of outstanding sustainability-linked bonds had been RMB 105.99 billion. (Data source: Wind data terminal. Compiled by China SIF)</td></tr>
<tr><td colspan="2">· Transition bonds are a debt financing tool that the proceeds are specifically used to support environmental improvements and adaption to climate change in low-carbon transition areas. (The National Association of Financial Market Institutional Investors, 2022, Notice on Conducting Pilot Innovation Related to Transition Bonds)</td><td>RMB 30.02 billion</td><td>· As of the end of October 2022, the scale of outstanding transition bonds had been RMB 30.02 billion. (Data source: Wind data terminal. Compiled by China SIF)</td></tr>
</table>

[27] PBoC, Statistical Report on the Loan Orientation of Financial Institutions (the third quarter of 2022), November 1, 2022.

Type of Sustainable Investment	Definition		Scale (in RMB)	Current Status
Sustainable Securities / Wealth Management Products	Sustain-ability Bonds	· **Social bonds** are any debt tool in which the use of proceeds are used entirely to finance or refinance, in entirely or partially, new and/or eligible socially beneficial projects. (International Capital Markets Association, 2018. Social Bond Principles). According to the National Association of Financial Market **Institutional Investors (NAFMII), social responsibility bonds** are issued by an issuer in the national interbank market that the use of proceeds are entirely for social responsibility projects. (NAFMII, 2021, Q&A on Piloting the Business of Social Responsibility Bonds and Sustainability Bonds)	**RMB 662.2 billion**	As of the end of October 2022, the scale of the following bonds had been (Data source: Wind data terminal. Compiled by China SIF): · Rural revitalisation bonds: RMB 135.08 billion · Poverty alleviation bonds: RMB 62.01 billion · Regional development bonds: RMB 223.20 billion · Belt and Road Initiative bonds: RMB 95.08 billion · Social courses bonds: RMB 52.68 billion · Relief bonds: RMB 63.83 billion · Old revolutionary base areas bonds: RMB 36.01 billion · Pandemic prevention and control bonds: RMB 227.47 billion
	Sustainable Wealth Management Products	No official definition yet	**RMB 104.9 billion**	· As of the end of June 2022, 134 outstanding ESG wealth management products, with a balance of RMB 104.9 billion (data from the Banking Wealth Management Registration and Custody Center)
Sustainable Equity Investment	· Green equity investment (please refer to the concept of "green (securities) investment")		**Approx. RMB 270 billion**	· 50 PEs have signed the PRI · According to the Annual Social Responsibility Practices Report of Private Investment Fund in China 2021, among the 1,399 valid questionnaire responses from private equity institutions collected at the end of June 2021, 177 made investments in the green industry, and according to the Monthly Report on Registration and Product Filing of Private Fund Managers (September 2022), as of the end of September 2022, the scale of private equity investment funds had been RMB 10.955771 trillion, and the estimated investment scale of private equity funds in the green industry is about RMB 270 billion. [28]
Green Industry Fund	**Green industry fund** refers to special investment funds that the government establishes to support energy conservation and emission reduction, promote low-carbon economic development, and improve the environment. (according to the Case Studies of Green Finance in China)		**Approx. RMB 361.077 billion**	According to Qingke database, China SIF estimated the target capital of government guide funds invested in green energy conservation and environmental protection, circular economy, ecological and soil protection and new energy had been RMB 361.077 billion as of the end of October 2022.

[28] According to the Annual Social Responsibility Practices Report of Private Investment Fund in China 2021, 177 private equity institutions have invested in the green industry, among which 28.5% of them have invested more than 30%, 19.21% of them have invested 20%-30% (included), 19.21% of them have invested 10%-20% (included), 22.03% of them have invested 5%-10% (included), and 11.3% of them have invested less than 5% of the total investment in the green industry. Based on the following assumptions: ① The investment scale of each private equity institution participating in green industry investment is consistent with the average investment scale of all private equity institutions; ② The proportion of investment in the green industry is 35% for those institutions whose investment amount in green industry cases accounts for more than 30% of the total investment scale; ③ The proportion of investment in the green industry is 25% for those institutions whose proportion of green industry investment is 20%-30% (included); ④ The proportion of investment in the green industry is 15% for those institutions whose proportion of green industry investment is 10%-20% (included); ⑤ The proportion of investment in the green industry is 7.5% for those institutions whose proportion of green industry investment is 5%-10% (included); ⑥ The proportion of investment in the green industry is 2.5% for those institutions whose proportion of green industry investment is less than 5%. It is estimated that the proportion of private equity funds' investment in the green industry to the total investment scale is 2.47%.

Appendix 2 Sustainable Investment Policies in China

For details, please visit: https://dataexplorer.syntaogf.com/china-sustainable-investment-review-2022

Appendix 3 ESG Index

Sorted by strategy type and release time

Index Ticker	Index Name	Index Release Time	Strategy Type
399341.SZ	SZSE CSR	2009-08-03	ESG SELECT
000048.SH	SSE Social Responsibility Index	2009-08-05	ESG SELECT
399369.SZ	CNI CSR Index	2009-11-04	ESG SELECT
000970.CSI	CSI ECPI ESG China 40 Index	2010-09-17	ESG SELECT
399378.SZ	CNI ESG 300 Index	2010-09-20	ESG SELECT
399550.SZ	CCTV 50 Index	2012-06-06	ESG SELECT
399651.SZ	SZSE SME CSR Index	2012-08-20	ESG SELECT
000846.CSI	CSI CAITONG ECPI ESG China 100 Index	2012-10-16	ESG SELECT
399555.SZ	CCTV 50 CSR	2013-06-06	ESG SELECT
931088.CSI	CSI 180 ESG Index	2018-12-10	ESG SELECT
995002.SSI	SSI Value Delivery Sunshine 100 Index	2019-01-04	ESG SELECT
931148.CSI	CSI ECPI ESG 80 Index	2019-02-27	ESG SELECT
995006.SSI	SSI High Dividend ESG Select Index	2019-04-30	ESG SELECT
931169.CSI	CSI BOC International 300 ESG Index	2019-05-30	ESG SELECT
931168.CSI	CSI Green Value ESG 100 Index	2019-06-27	ESG SELECT
995009.SSI	SSI Dividend & ESG Index	2019-10-16	ESG SELECT
931268.CSI	CSI Sustainable Development 100 Index	2019-11-15	ESG SELECT
931382.CSI	CSI 300 Harvest ESG Leaders Index	2019-11-25	ESG SELECT
931463.CSI	CSI 300 ESG Index	2020-04-30	ESG SELECT
931465.CSI	CSI 300 ESG Leaders Index	2020-04-30	ESG SELECT
931476.CSI	CSI ESG 120 Strategy Index	2020-04-30	ESG SELECT
931466.CSI	CSI 300 ESG Value Index	2020-04-30	ESG SELECT
999101.SSI	SSI ESG Index	2020-06-09	ESG SELECT
999102.SSI	SSI ESG Leaders Index	2020-06-09	ESG SELECT
931525.CSI	CSI CISC ESG Earnings 100 Index	2020-08-06	ESG SELECT
931565.CSI	CSI CMB Wealth Management Satellite Luminous ESG Index	2020-08-27	ESG SELECT
931478.CSI	CSI CUFE-SZRCB Suzhou Green Development Index	2020-09-25	ESG SELECT
992021.SSI	SSI DM Large Cap ESG Index	2021-02-26	ESG SELECT
992022.SSI	SSI DM Middle Cap ESG Index	2021-02-26	ESG SELECT
931598.CSI	CSI BOC International 300 ESG Index	2021-03-05	ESG SELECT
931648.CSI	CSI 500 ESG Index	2021-04-12	ESG SELECT
931649.CSI	CSI 500 ESG Leaders Index	2021-04-12	ESG SELECT
931651.CSI	CSI 800 ESG Leaders Index	2021-04-12	ESG SELECT
931661.CSI	CSI 500 ESG Value Index	2021-04-12	ESG SELECT
931662.CSI	CSI 800 ESG Value Index	2021-04-12	ESG SELECT
931735.CSI	CSI CITIC-Wealth Coastal Core Economic Belt ESG Select 100 Index	2021-08-19	ESG SELECT
931799.CSI	CSI CLAMC ESG Green Low-Carbon 100 Index	2021-12-13	ESG SELECT

Index Ticker	Index Name	Index Release Time	Strategy Type
931809.CSI	CSI High Dividend Yield ESG Index	2022-01-20	ESG SELECT
950223.CSI	SSE 50 ESG Index	2022-01-24	ESG SELECT
950224.CSI	SSE 180 ESG Index	2022-01-24	ESG SELECT
950225.CSI	SSE 380 ESG Index	2022-01-24	ESG SELECT
950226.CSI	SSE 180 ESG Leaders Index	2022-01-24	ESG SELECT
950227.CSI	SSE 380 ESG Leaders Index	2022-01-24	ESG SELECT
999103.SSI	SSI Large Cap ESG Index	2022-04-20	ESG SELECT
999109.SSI	SSI Mid Cap ESG Index	2022-04-20	ESG SELECT
999110.SSI	SSI Small Cap ESG Index	2022-04-20	ESG SELECT
999111.SSI	SSI Mid-Small Cap ESG Index	2022-04-20	ESG SELECT
970029.CNI	Shenzhen Component ESG Top Index	2022-07-25	ESG SELECT
970030.CNI	Shenzhen 100 ESG Top Index	2022-07-25	ESG SELECT
970031.CNI	ChiNext ESG Top Index	2022-07-25	ESG SELECT
970032.CNI	Shenzhen Component ESG Enhanced Index	2022-09-29	ESG SELECT
970033.CNI	Shenzhen 100 ESG Enhanced Index	2022-09-29	ESG SELECT
970034.CNI	ChiNext ESG Enhanced Index	2022-09-29	ESG SELECT
999112.SSI	SSI STAR&CHINEXT ESG Index	2022-10-24	ESG SELECT
997512.SSI	SSI STAR&CHINEXT ESG Leader Index	2022-10-24	ESG SELECT
997612.SSI	SSI STAR&CHINEXT ESG Preferred Index	2022-10-24	ESG SELECT
399322.SZ	CNI Corp. Governance Index	2005-12-12	Corporate Governance Select
399328.SZ	SZSE CORP Governance Index	2006-01-24	Corporate Governance Select
000019.SH	SSE Corp. Governance Index	2008-01-02	Corporate Governance Select
000021.SH	SSE 180 Governance Index	2008-09-10	Corporate Governance Select
399650.SZ	SZSE SME Corp Governance Index	2012-08-20	Corporate Governance Select
399554.SZ	CCTV 50 GOVERNANCE	2013-06-06	Corporate Governance Select
950081.CSI	SSE 180 Carbon Efficient Index	2015-10-08	Green and Low Carbon Select
983011.CNI	CUFE-CNI Shenzhen-Hong Kong Stock Connect Green Selection Index	2017-12-18	Green and Low Carbon Select
931037.CSI	CSI 300 Green Leading Stock Index	2018-01-04	Green and Low Carbon Select
995035.SSI	SSI State Grid Carbon Neutral Index	2021-04-30	Green and Low Carbon Select
995036.SSI	SSI State Grid Carbon Neutral 300 Index	2021-04-30	Green and Low Carbon Select
931742.CSI	CSI ICBCWM Carbon Neutral Asset Allocation Index	2021-07-12	Green and Low Carbon Select
931755.CSI	CSI SEEE Carbon Neutral Index	2021-10-21	Green and Low Carbon Select
931772.CSI	CSI Carbon Neutral 60 Index	2021-11-09	Green and Low Carbon Select
931859.CSI	CSI 300 Carbon Neutral Index	2022-03-07	Green and Low Carbon Select
980021.CNI	CNI-CUFE Carbon Neutral 50 Index	2022-04-11	Green and Low Carbon Select
931854.CSI	CSI BOCOM Wealth Management Low-Carbon Earnings 100 Index	2022-07-08	Green and Low Carbon Select
999106.SSI	SSI Common Wealth Index	2022-03-31	Social Select
999107.SSI	SSI Public Welfare Index	2022-03-31	Social Select
999105.SSI	SSI Impact Index	2022-03-31	Social Select
931846.CSI	CSI 500 ESG Select Strategy Index	2022-03-21	ESG EXCLUSION
931650.CSI	CSI 800 ESG Index	2022-07-08	ESG EXCLUSION

Index Ticker	Index Name	Index Release Time	Strategy Type
931891.CSI	CSI ESG 300 Growth Index	2022-07-18	ESG EXCLUSION
970026.CNI	Shenzhen Component ESG Index	2022-07-25	ESG EXCLUSION
970027.CNI	Shenzhen 100 ESG Index	2022-07-25	ESG EXCLUSION
970028.CNI	ChiNext ESG Index	2022-07-25	ESG EXCLUSION
995119.SSI	SSI A Share Energy Select 100 Index	2022-08-12	Green and Low Carbon Exclusion
995120.SSI	SSI A-HK Share Energy Select 100 Index	2022-08-12	Green and Low Carbon Exclusion
399358.SZ	CNI EP Index	2008-01-02	Energy Conservation and Environmental Protection Theme
931798.CSI	CSI Photovoltaic Top 30 Index	2009-06-16	Energy Conservation and Environmental Protection Theme
000941.CSI	CSI CN Mainland New Energy Index	2009-10-28	Energy Conservation and Environmental Protection Theme
000977.CSI	CSI China Mainland Low Carbon E conomy Index	2011-01-21	Energy Conservation and Environmental Protection Theme
H11113.CSI	China Low Carbon Index	2011-02-16	Energy Conservation and Environmental Protection Theme
000114.SH	SSE Sustainable Development Industry Index	2011-08-22	Energy Conservation and Environmental Protection Theme
399638.SZ	SZSE Environmental Protection Index	2011-11-15	Energy Conservation and Environmental Protection Theme
000158.SH	SSE Environmental Protection Industry Index	2012-09-25	Energy Conservation and Environmental Protection Theme
000827.SH	CSI Environmental Protection Industry Index	2012-09-25	Energy Conservation and Environmental Protection Theme
931897.CSI	CSI Green Electricity Index	2012-12-21	Energy Conservation and Environmental Protection Theme
H30139.CSI	CSI Urbanization Green Cities Index	2013-08-26	Energy Conservation and Environmental Protection Theme
H30141.CSI	CSI Urbanization Intelligent Transport Index	2013-08-26	Energy Conservation and Environmental Protection Theme
H50031.SH	SSE Urbanization Green Cities Index	2013-08-26	Energy Conservation and Environmental Protection Theme
H50032.SH	SSE Urbanization Transport Index	2013-08-26	Energy Conservation and Environmental Protection Theme
399412.SZ	CNI New Energy Index	2014-05-16	Energy Conservation and Environmental Protection Theme
399556.SZ	CCTV Ecology Industry Index	2014-06-06	Energy Conservation and Environmental Protection Theme
399806.SZ	CSI Environmental Governance Index	2014-07-21	Energy Conservation and Environmental Protection Theme
399417.SZ	CNI New Energy Vehicles Index	2014-09-24	Energy Conservation and Environmental Protection Theme
399976.SZ	CSI New Energy Vehicles Index	2014-11-28	Energy Conservation and Environmental Protection Theme
399438.SZ	CNI Green Electricity Index	2014-12-30	Energy Conservation and Environmental Protection Theme
399808.SZ	CSI New Energy Index	2015-02-10	Energy Conservation and Environmental Protection Theme
980032.CNI	CNI NEV Battery Index	2015-02-17	Energy Conservation and Environmental Protection Theme
930614.CSI	CSI Environmental Protection Industry 50 index	2015-04-07	Energy Conservation and Environmental Protection Theme
931555.CSI	CSI NEV Power Battery Thematic Index	2015-06-11	Energy Conservation and Environmental Protection Theme
930698.CSI	CSI Water Resources Index	2015-07-31	Energy Conservation and Environmental Protection Theme
931800.SZ	CSI Green Ecology Index	2015-10-21	Energy Conservation and Environmental Protection Theme
930771.CSI	CSI New Energy Industry Index	2015-12-16	Energy Conservation and Environmental Protection Theme
930835.CSI	CSI Metasequoia Environmental Protection Patents 50 Index	2016-05-18	Energy Conservation and Environmental Protection Theme
930853.CSI	CSI Sponge Cities Index	2016-07-20	Energy Conservation and Environmental Protection Theme
930854.CSI	CSI Water Environment Treatment Index	2016-07-20	Energy Conservation and Environmental Protection Theme
399695.SZ	SZSE Energy Conservation Index	2017-04-28	Energy Conservation and Environmental Protection Theme
930956.CSI	CSI Green Investing Index	2017-05-26	Energy Conservation and Environmental Protection Theme
930997.CSI	CSI New Energy Vehicles Industry Index	2017-07-19	Energy Conservation and Environmental Protection Theme
931022.CSI	CSI Atmospheric Protection Index	2017-10-17	Energy Conservation and Environmental Protection Theme
983085.CNI	CNI Shenzhen-Hong Kong Stock Connect Energy Conservation Index	2018-03-08	Energy Conservation and Environmental Protection Theme

Index Ticker	Index Name	Index Release Time	Strategy Type
983087.CNI	CNI Shenzhen-Hong Kong Stock Connect New Energy Vehicle Index	2018-03-08	Energy Conservation and Environmental Protection Theme
931149.CSI	CSI Environ-Governance Quality Index	2019-01-31	Energy Conservation and Environmental Protection Theme
931150.CSI	CSI Green Industry Quality Index	2019-01-31	Energy Conservation and Environmental Protection Theme
931151.CSI	CSI Photovoltaic Industry Index	2019-04-22	Energy Conservation and Environmental Protection Theme
931554.CSI	CSI Yangtze River Protection Theme Index	2020-08-19	Energy Conservation and Environmental Protection Theme
995020.SSI	SSI Clean Energy Index	2020-12-31	Energy Conservation and Environmental Protection Theme
931671.CSI	CSI NEV Advantage 30 Index	2021-04-29	Energy Conservation and Environmental Protection Theme
931672.CSI	CSI Wind Power Industry Index	2021-04-29	Energy Conservation and Environmental Protection Theme
931673.CSI	CSI SH-HK-SZ Wind Power Industry Index	2021-04-29	Energy Conservation and Environmental Protection Theme
999108.SSI	SSI SIIFC Climate Investment and Financing ESG Index	2021-06-28	Energy Conservation and Environmental Protection Theme
980052.CNI	CNI Xiangmi Lake Green Finance Index	2021-08-02	Energy Conservation and Environmental Protection Theme
931733.CSI	CSI Green Energy Index	2021-08-19	Energy Conservation and Environmental Protection Theme
931732.CSI	CSI Solar Power 30 Index	2021-08-24	Energy Conservation and Environmental Protection Theme
399030.SZ	SZSE ChiNext Carbon Neutral Technology Power Index	2021-09-26	Energy Conservation and Environmental Protection Theme
399060.SZ	CNI CIKD Carbon Neutral Technology Power Index	2021-09-26	Energy Conservation and Environmental Protection Theme
931730.CSI	CSI SH-HK-SZ Photovoltaic 30 Index	2021-09-27	Energy Conservation and Environmental Protection Theme
931731.CSI	CSI SH-HK-SZ Solar Power 50 Index	2021-09-27	Energy Conservation and Environmental Protection Theme
931747.CSI	CSI Energy Storage Thematic Index	2021-10-15	Energy Conservation and Environmental Protection Theme
983160.CNI	CNI CECEP Carbon Neutral Technology Power Index	2021-10-18	Energy Conservation and Environmental Protection Theme
995073.SSI	Power and Electrical Low Carbon Index	2021-11-08	Energy Conservation and Environmental Protection Theme
995075.SSI	SSI A-share Green Power Thematic Index	2021-12-02	Energy Conservation and Environmental Protection Theme
931792.CSI	CSI New Energy Vehicles 15 Index	2021-12-13	Energy Conservation and Environmental Protection Theme
950194.CSI	SSE New Energy Vehicles Industry Index	2022-01-24	Energy Conservation and Environmental Protection Theme
950220.CSI	SSE New Energy Theme Index	2022-01-24	Energy Conservation and Environmental Protection Theme
931851.CSI	CSI Green Power 50 Index	2022-05-09	Energy Conservation and Environmental Protection Theme
931890.CSI	CSI Lithium Battery Index	2022-07-08	Energy Conservation and Environmental Protection Theme
997202.SSI	SSI Green Manufacturing Index	2022-08-12	Energy Conservation and Environmental Protection Theme
997203.SSI	SSI SRDI & Green Manufacturing Index	2022-08-12	Energy Conservation and Environmental Protection Theme
970035.CNI	SZSE Photovoltaic Index	2022-09-29	Energy Conservation and Environmental Protection Theme
970036.CNI	SZSE Energy Storage Index	2022-09-29	Energy Conservation and Environmental Protection Theme
931994.CSI	CSI Ultra-High Voltage Industry Index	2022-10-11	Energy Conservation and Environmental Protection Theme
950238.SH	SSE Photovoltaic Industry Index	2022-10-11	Energy Conservation and Environmental Protection Theme
950239.SH	SSE Solar Power Industry Index	2022-10-11	Energy Conservation and Environmental Protection Theme
997204.SSI	SSI Energy Storage Index	2022-11-03	Energy Conservation and Environmental Protection Theme
980068.CNI	CNI Blue 100 Index	2020-10-14	Marine Economy Theme
930982.CSI	CSI Poverty Alleviation Development Index	2017-06-14	Rural Revitalization Theme
997201.SSI	SSI Rural Revitalization ESG Leader Index	2022-07-20	Rural Revitalization Theme
997200.SSI	SSI Rural Revitalization Thematic Index	2022-07-20	Rural Revitalization Theme

Appendix 4 Fund Products that Track ESG Indices

For details, please visit: https://dataexplorer.syntaogf.com/china-sustainable-investment-review-2022

Appendix 5 ESG Funds

For details, please visit: https://dataexplorer.syntaogf.com/china-sustainable-investment-review-2022

Appendix 6 Questionnaire on Individual Investors' Attitudes towards Sustainable Investment

No.	Questions	Answer Choices	Times Selected	Proportion
1	What types of investments do you have? (multiple selections permitted)	Stocks	1775	79.5%
		Bonds	889	39.8%
		Mutual funds	1176	52.6%
		Private funds	274	12.3%
		Others	561	25.1%
2	What is your current portfolio size?	Less than RMB 100,000	810	36.3%
		RMB 100,000 (incl.) to RMB 1 million	1125	50.4%
		RMB 1 million (incl.) to RMB 6 million	264	11.8%
		More than RMB 6 million (incl.)	35	1.6%
3	For how long a term do you often plan for your investment returns?	1 year or less	512	22.9%
		1 to 5 years (incl.)	1371	61.4%
		6 to 10 years (incl.)	205	9.2%
		More than 10 years	146	6.5%
4	Have you heard of "green finance", "sustainable investment" or "ESG"?	Yes and have some understanding	503	22.5%
		Yes but have no understanding	1126	50.4%
		Have never heard of	605	27.1%
5	Do you consider companies' efforts in environmental protection, emissions reduction, climate risk management, labor rights and safety, compliance management and business ethics in making investments?	Always	581	26.0%
		Sometimes	1300	58.2%
		No	353	15.8%
6	What is your reason for considering an investee' s ESG performance when investing? (multiple selections allowed) *[the calculation of proportion excluded those who selected" no" in question No. 5]*	It is in line with my own values	1207	64.2%
		To increase investment returns	1013	53.9%
		To lower investment risks	1244	66.1%
		To encourage companies to pursue sustainable development and create value for society	1279	68.0%
		Support Carbon Neutrality	879	46.7%
		To respond the government's call	870	46.3%
		Recommendations by the media, consulting agencies, relatives or friends	248	13.2%
		Religious beliefs	49	2.6%
		Others	70	3.7%
7	How have your environmental, social and governance considerations changed in your investments compared to 2021? *[calculation excludes those who selected "no" in question No. 5]*	Increased	847	45.0%
		About the same	870	46.3%
		Reduced	93	4.9%
		No knowledge	71	3.8%

No.	Questions	Answer Choices	Times Selected	Proportion
8	What are the possible reasons for you to not consider an investee's ESG performance when investing? (multiple selections allowed) *[the calculation of proportion excluded those who selected"always" in question No.*	Irrelevant to financial returns	145	41.1%
		Lack of evaluation criteria for ESG performance	193	54.7%
		Lack of ESG information sources	208	58.9%
		Not sure whether sustainable investment would promote sustainable development of the society	116	32.9%
		Have limited understanding of sustainable investment	161	45.6%
		No one recommended that to me	78	22.1%
9	Do you agree with the view that the "COVID-19 pandemic" and the "dual-carbon goals", among others, will further manifest the importance of identifying ESG risks and opportunities in a portfolio?	Totally agree	937	41.9%
		Partially agree	1168	52.3%
		Partially disagree	113	5.1%
		Totally disagree	16	0.7%
10	Which of the following issues do you think would discourage you from investing in a publicly listed company?	Environmental pollution	1297	58.1%
		Waste of resources	760	34.0%
		High GHG emission	819	36.7%
		Destruction of ecosystem/species habitat	811	36.3%
		Safety incident	1376	61.6%
		Exposure of multiple client complaints	798	35.7%
		Leakage of customer privacy	617	27.6%
		Product quality issues	1004	44.9%
		Sweatshop	365	16.3%
		Financial fraud	973	43.6%
		Corruption and bribery by senior executives	567	25.4%
		Insider trading	515	23.1%
		Frequent changes in senior management	325	14.5%
		Others	13	0.6%
		None of matters listed above	23	1.0%
11	Which of the following industries do you think have the highest ESG risks? (Pick three industries with the highest risks.) (Question required: 3 at most)	Farming, forestry, animal husbandry and fishery	422	18.9%
		Mining	1322	59.2%
		Food and beverage manufacturing	558	25.0%
		Cultural, educational, arts and crafts, sports and entertaining products	348	15.6%
		Raw material processing and manufacturing	615	27.5%
		Pharmaceuticals	814	36.4%
		Transportation equipment, common equipment and special equipment	166	7.4%
		Automobile	227	10.2%
		Electric Machinery and Household Appliances	157	7.0%
		Production and supply of water, electricity, heat and gas	564	25.2%
		Construction	343	15.4%
		Other services	42	1.9%
		Transportation, logistics, warehousing and postal services	81	3.6%
		Services - Communications, Software,and Information Technology	93	4.2%
		Finance and insurance	286	12.8%
		Real estate	336	15.0%
		Water Conservancy, Environment and Public Utilities Management	188	8.4%
		Health Care	108	4.8%
		Services/Other services	32	1.4%
12	Which of the following sources of information would you like to use for understanding a company's ESG performance? (multiple selections allowed)	Disclosure by regulatory authorities	1820	81.5%
		Voluntary disclosure by the company	1524	68.2%
		News report and business commentaries	1525	68.3%
		Media awards and rankings	903	40.4%
		Sustainable investment-related indices	1204	53.9%
		Research reports and database	1347	60.3%
		Direct communication with the company	558	25.0%
		Others	177	7.9%
		No interest in such information	24	1.1%

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Written by:

商道融绿 SynTao Green Finance

www.syntaogf.com
contact@syntaogf.com

SynTao Green Finance (STGF) is one of the first Chinese organisations to specialise in providing green finance and sustainable investment services, starting ESG data collection and research as early as 2009. STGF ESG data and research on ESG key issues are widely employed to support investment decisions, risk management, policy making, and sustainable finance product innovation. ***STGF STαR ESG Data Platform*** and ***STGF ESG Risk Radar System*** cover the ESG performance and ESG risk events of all A-shares stocks and the Hong Kong market, amounting to 5,000 listed companies. In 2020, STGF launched ***STGF PANDA Climate Data Platform***, providing carbon emission data of Chinese entities based on GHG protocol. STGF ESG ratings (SynTaoGF-ESG) have been onboarding on Bloomberg Intelligence, making it the first Chinese ESG rating agency to have its data displayed on Bloomberg.

CHINA SIF SUSTAINABLE INVESTMENT FORUM
中国责任投资论坛

www.chinasif.org
contact@chinasif.org

China Sustainable Investment Forum (China SIF) was launched in Beijing in 2012, and officially registered as a private non-enterprise entity in Shenzhen in 2016, with the full name of Shenzhen Jifeng Green Finance Promotion Center. China SIF is an international exchange platform focusing on responsible investment and sustainable development. It aims to promote sustainable investment, the environmental, social and governance (ESG) concept, and green finance, facilitating the sustainable development of China's capital market. As a member of Global SIFs Network, China SIF has held ten annual conferences, five summer summits, six sustainable investment week events, and a series of seminars and exchanges since its establishment. Experts, researchers, responsible investment practitioners, representatives of financial institutions and listed companies from home and abroad have been invited to share their research results, working experience and classic cases, to explore and advocate for sustainable investment and green finance in various forms. China SIF has released a series of landmark reports and research results, such as the Annual Sustainable Investment Review in China, and continues to support the dissertation competition on ESG to promote the ESG investment concept and practices. After years of efforts, China SIF has become one of the most influential forums in the area.

Research Team: Valentina WU, Eva CHEN, JU Pengfei, Crystal LI, Barney CHEN, Ellie LI, JI Jiangyu, Chelsey CHEN, GUO Peiyuan, Raymond ZHANG

Research Institution： China SIF, SynTao Green Finance

Supporting Organisation: Sina Finance

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