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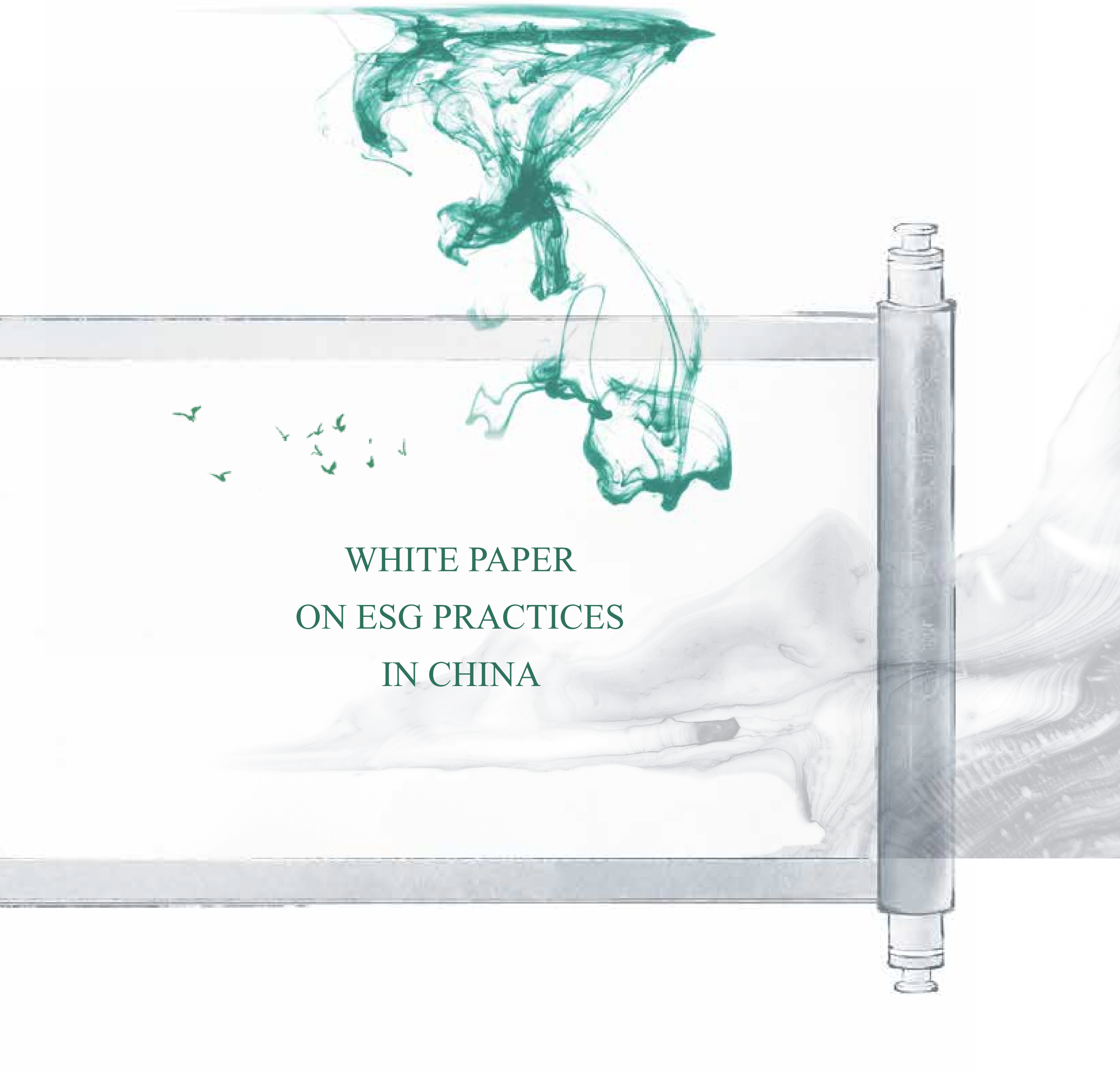
ICMA
International Capital Market Association

WHITE PAPER ON ESG PRACTICES IN CHINA



WHITE PAPER ON ESG PRACTICES IN CHINA

Message from Chairman of CCDC

All good principles should adapt to changing times to remain relevant. Since the concept of ESG was first put forward, its practice has gradually become an effective way of promoting sustainable development and a global trend. China has always been an advocate, participant and promoter of global sustainable development. Guided by policies, China's ESG practice is in the ascendancy. More and more enterprises and financial institutions have incorporated environmental and social benefits into their business objectives, striving to achieve long-term sustainable development with win-win results for all parties.

Adhering to the original mission as a key financial institution, CCDC responded to *the national "14th Five-Year Plan"* and *the strategic goals of "carbon peaking and carbon neutrality"*. We released a series of green-themed products, researched and established the Green Bond Environmental Impact Disclosure Indicator System, as well as innovated green bond collateral management services. We have been continuously improving the sustainable financial services system and have been widely recognized by authorities and market institutions. Since 2020, CCDC has launched an ESG evaluation system that takes into account international standards and specifications as well as the characteristics of the domestic market. This system pioneers the full coverage of Chinese bond issuers and other listed companies, and comprehensively assists with the high-quality development of China's financial market.

After many years of dedication in the field of sustainable finance, this year the CCDC and the International Capital Market Association (ICMA) jointly compiled the "White Paper on ESG Practices in China", summarizing the efforts of participants in the ESG ecosystem such as regulators, real enterprises and financial markets. This white paper comprehensively, objectively and fairly demonstrates China's ESG practice, shares China's ESG-related experience, and provides case studies as reference for advancing sustainable development globally.

Although the journey ahead may be long and arduous, with sustained actions, we will eventually reach our destination and embrace a brighter future. CCDC will continue its role as an important national financial market infrastructure. We will continue to contribute to the high-quality development of China's financial market, work together with all stakeholders to meet the opportunities and challenges brought about by the trend of sustainable development, and promote the development of ESG.

水汝庆

Shui Ruqing
China Central Depository & Clearing Co., Ltd

Message from CEO of ICMA

The global agenda to mobilize financial capital towards sustainable development is clear. Since the ratification of *the Paris Agreement in 2016,* the theme of sustainability in the financial markets has become a core part in the agenda of public and private sectors around the globe. In order to achieve this goal, the market needs to properly account for sustainability risks, and consensus needs to be built by global market participants and stakeholders to identify sustainable economic activities.

As a frontrunner and global standard setter in the space, ICMA's mission has been to help guide effective regulation through direct engagement with the regulatory community globally to preserve the robustness, credibility, and quality of the market. Through the development of *the Green Bond Principles, Social Bond Principles, Sustainability Bond Guidelines* and *Sustainability-Linked Bond Principles,* as well as disclosure frameworks such as *the Climate Transition Finance Handbook,* ICMA has helped harmonise best practices and transparency expectations in the sustainable bond markets, ensuring investor confidence and a credible growth trajectory for sustainable issuance.

With one of the world's largest financial markets, China has an important role to play. In China's sustainable finance market, growth of onshore and cross-border issuance has been largely attributable to national green finance policies to achieve the government's "dual-carbon" goals of reaching carbon peaking by 2030 and carbon neutrality by 2060. China's international cooperation in sustainable finance can be seen with initiatives such as *the Common Ground Taxonomy,* which maps commonalities between *the EU Taxonomy* and *the China Green Bond Endorsed Project Catalogue,* and *the China Green Bond Principles,* which further harmonize green bond regulations in the domestic bond markets and adopt the 100% use-of-proceeds approach in line with the global Green Bond Principles.

In partnership with the CCDC, we have put together a comprehensive summary of all ESG-related policies that have been issued by financial regulators in China to provide better clarity on national regulatory developments in the space. In addition, we examined the development of ESG practices in China's financial market to better inform international market participants and stakeholders. It is hoped that this white paper may facilitate further discussion to improve the usability and effectiveness of sustainable finance regulations and practices in the global markets.

Bryan Pascoe
ICMA

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Introduction

ESG is an acronym for Environmental, Social, and Governance. It was first proposed by the United Nations Environment Programme as a concept in 2004, providing a complementary perspective for evaluating company performance and management in addition to financial performance. Its goal is to promote sustainable development.

Sustainable development is a global issue. The international community has worked together to promote sustainable development by creating inter-governmental cooperation, concluding international conventions, and taking actions. More than 100 countries and regions have announced their sustainable development goals with pledges made by state leaders or by passing legislation pertaining to their own situations. They have also promoted the creation of ESG development strategies and implementation plans.

ESG concepts have also received positive feedback in China. From the Chinese proverb that "the laws of Nature govern all things and that man must seek harmony with Nature." China has pursued economic development commensurate with its population, resources, and the environment. It has also emphasized the need to "comprehensively strengthen the construction of ecological civilization" and implement new development concepts that emphasize "innovative, coordinated, green, and open development for all." Combining these factors with China's pledge of "peaking carbon emission by 2030 and achieving carbon neutrality before 2060," China takes the concept of sustainable development seriously. Currently, China has been pursuing economic developments considering the quality of GDP growth, harmony between humanity and nature, and common prosperity for all. It has focused on promoting prosperity in rural areas, promoting coordinated regional development, upholding and acting on the principle that nature is invaluable, accelerating green transition, enhancing pollution prevention and control, encouraging diversity, stability and sustainability in our ecosystem, and ultimately achieving the goals of peaking carbon emissions and reaching carbon neutrality. All these have profoundly shown that the concepts of sustainable development and ESG have been adopted by China and served as significant guidelines for promoting its high-quality economic development.

At the same time, we have observed that although ESG is developing rapidly, it still lacks uniform standards. Different countries, industry organizations, and financial institutions are exploring and practicing ESG according to their own situations. Against this backdrop, China Central Depository & Clearing Co., Ltd. (CCDC) and the International Capital Market Association (ICMA) jointly wrote the White Paper on ESG Practices in China (the “White Paper”), which details the ESG development trends in China and provides ESG case studies in China.

We believe that the development of ESG would not be possible without the participation and efforts of relevant policy makers, business entities, financial institutions, and third-party service institutions. It is necessary for these entities to interact with each other and work together to form an effective ESG ecosystem and forge a synergy that promotes ESG development. Therefore, this White Paper focuses on two aspects. First, it presents the policy framework and implementation progress. It introduces China's ESG related policies, especially those related to financial markets, for the purpose of providing a reference for all participants in this field to understand China's ESG policy system. On this basis, it reviews the policy implementation and progress made by business entities and in financial markets respectively. Second, this White Paper demonstrates the efforts of business entities and the innovation of financial markets. From the perspective of the real economy, it presents the actual situation of ESG information disclosure and ESG performance of Chinese enterprises based on widely collected company-level data. The data covers not only listed corporations, but also issuers in China's domestic bond market, providing an overview of Chinese enterprises’ ESG development. From the perspective of financial markets, this White Paper summarizes the progress in China's ESG investment and financing instruments and third-party services, and it demonstrates the achievements in China's financial markets supporting the real economy to contribute to sustainable development.

In summary, this White Paper is divided into four parts as follows. Part 1-3 summarize efforts by regulators, enterprises, and financial markets, respectively, regarding China’s ESG ecosystem. The fourth part proposes the direction for further ESG development in China.

Overview of China's ESG-related Policy

- ESG-related policies
- ESG-related policies in the financial market
- Requirement on ESG-related information disclosure

In recent years, China's ESG-related policies have continued to develop, which has promoted the creation and development of China's ESG practice. This part intends to take stock of China's ESG-related policies, including financial market-related policies, and introduce the information disclosure policies, to demonstrate the progress made by China in promoting ESG practice and provide reference for domestic and foreign investors that participate in ESG investment and financing in China.

ESG-related policies

In recent years, China's ESG-related specific policies have emerged rapidly.The policies cover for business entities, financial institutions, and financial instruments. Content-wise, the policies can be divided into three categories. The first category is "high-level guidance," which guides the business entities or financial institutions to understand the concept of ESG. The second category is the "incentive mechanism," which provides preferential policies for the business entities and financial institutions that adopt ESG in financing. The third category is "information disclosure," which aims to improve the transparency of ESG-related practices through improving information disclosure mechanisms (see Figure 1-1 for China's sustainable policy framework). The policies cover all three aspects of environment, social, and governance.

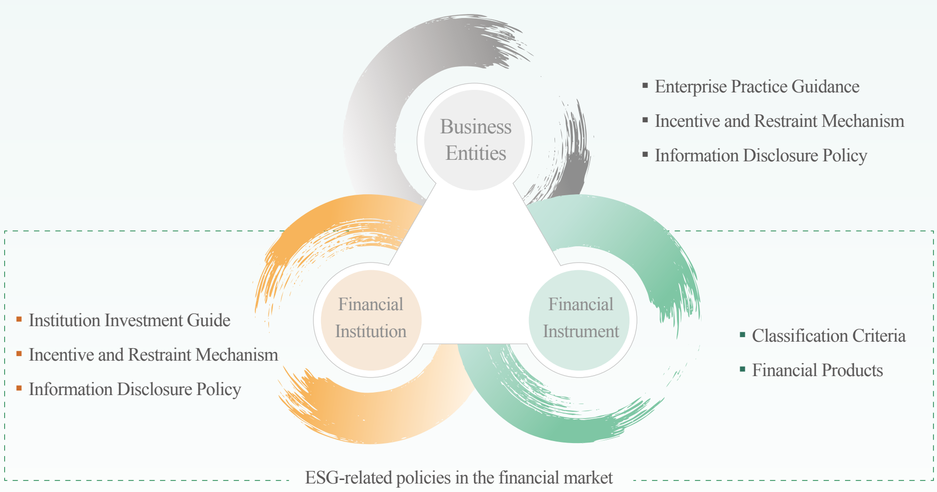
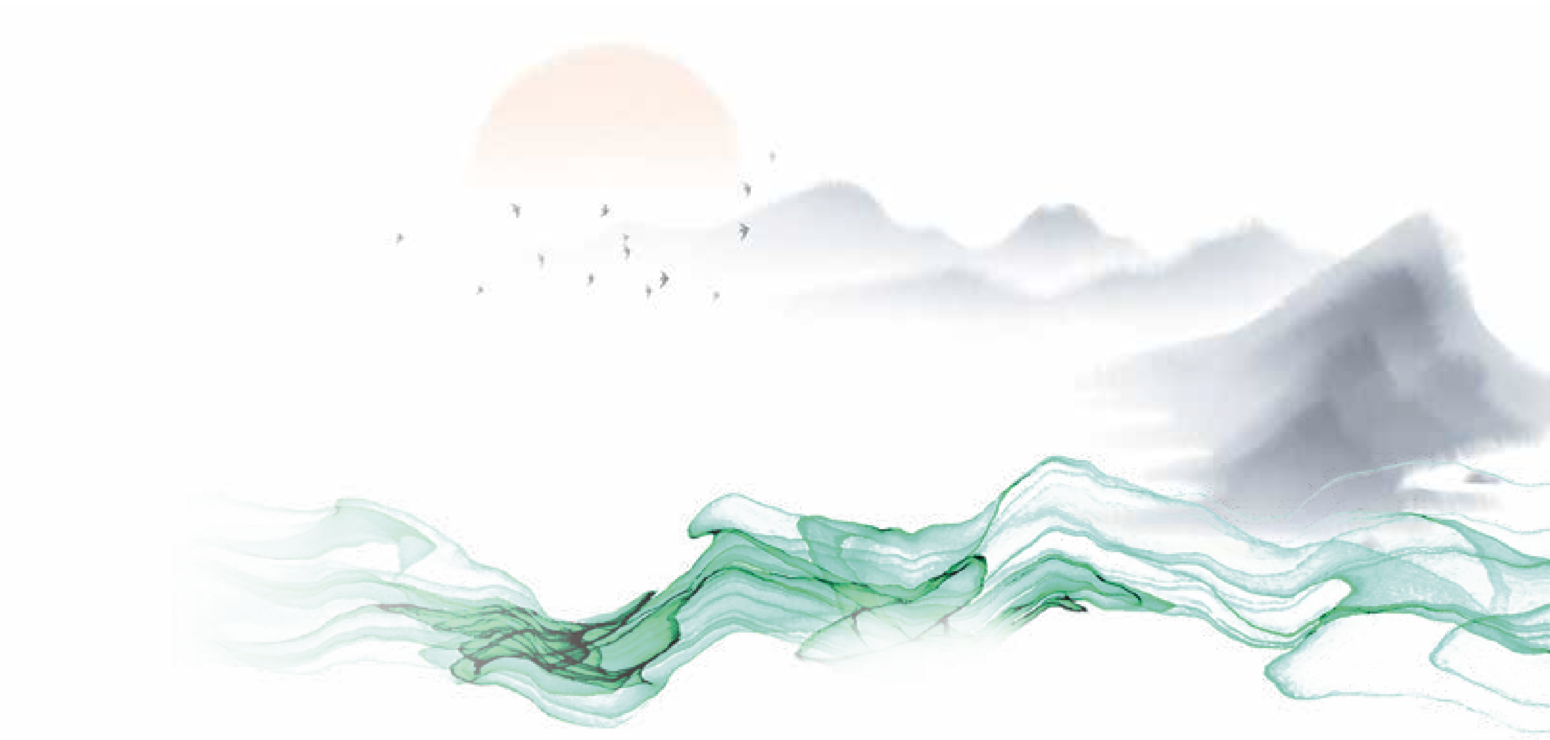


Figure 1-1 China's ESG-Related Policy Framework



In general, China's ESG-related policies demonstrate the following characteristics:

◎ **First, China's ESG related policies are mainly composed of departmental regulations and industry self-discipline rules.**

The policies originate from various national ministries, industry associations, and self-regulatory organizations. The policies usually are initiated to promote sustainable development in a certain industry or field and form a more practical implementation plan.

◎ **Second, China's ESG-related policies started late but developed rapidly.**

At present, the types of ESG-related policies include high-level guidance, implementation guidelines, incentive and restraint mechanism, applied to business entities and financial institutions.

◎ **Third, ESG-related policies for business entities and financial sector go hand in hand and develop in a coordinated manner.**

Business entities are the main vessels for implementing the concepts of ESG, and ESG-related policies for business entities were the first to be released, focusing on pollution prevention and low-carbon transition. As an important force for resource allocation, the financial market is an important channel for promoting the implementation of ESG concepts. ESG-related policies for financial institutions and financial instruments have emerged rapidly as a result. ESG-related policies in the financial market are thus also the focus of this White Paper.

ESG-related policies in the financial market

In 2016, the People's Bank of China, the Ministry of Finance, the National Development and Reform Commission, the former Ministry of Environmental Protection, the former China Banking Regulatory Commission, China Securities Regulatory Commission, and the former China Insurance Regulatory Commission jointly issued *the Guidelines for Establishing the Green Financial System,* which established the top-level structure of China's green financial system. Since this establishment, various types of high-level guidance, incentive and restrictive mechanisms, information disclosure systems, and financial instrument guidance have been introduced, covering the main aspects of the ESG investment and financing process. The ESG-related policy system in China's financial market has continued to develop.

High-level guidance has been launched to guide the flow of funds to ESG

China's ESG-related guidelines concentrate on commercial bank credit. In order to promote the implementation of the national energy conservation and emission reduction strategy, banks started in 2007 to take into account, when conducting credit reviews, whether and how the corporate borrowers have implemented environmental protection policies. In 2012, the former CBRC issued *the Guidelines for Green Credit* to encourage banks to actively grant green loans. In 2022, the CBIRC issued *the Green Finance Guidelines for Banking and Insurance Sectors* to further guide banking and insurance institutions to incorporate environmental, social, and governance requirements into their management processes and comprehensive risk management systems from a strategic perspective. At the same time, policies for guiding bank loans to small and micro enterprises and rural revitalization continued to be introduced in order to encourage financial institutions to fulfil their social responsibilities.

After 2018, various ESG-related investment guidelines for asset management products were issued. In 2018, the Asset Management Association of China (AMAC) issued *the Green Investment Guidelines (For Trial Implementation)* and in 2019, and China Trustee Association (CTA) issued *the Green Trust Guidelines,* to promote standardization, normalization, and sustainability among ESG-related asset management products.

Table 1-1 ESG-related investment guidance documents in recent years

Year	Institution	Document Name	Document Content
2012	Former CBRC	Guidelines for Green Credits	Banking and financial institutions are required to actively promote green credits and increase financial support for the green economy, low-carbon economy, and circular economy.
2022	CBIRC	Green Finance Guidelines for Banking and Insurance Sectors	Banking and insurance institutions are required to promote green finance from a strategic perspective. This is the first time that banking and insurance institutions should incorporate environmental, social, and governance (ESG) requirements into their management processes and comprehensive risk management procedures.
2018	PBC, CBIRC, CSRC, NDRC, MOF	"Opinions on Further Deepening Financial Services for Small and Micro Enterprises" and other documents	Financial institutions are required to invest more funds in key economic and social fields and weak areas such as small and micro enterprises.
2019	PBC, CBIRC, CSRC, MOF, MOA	"Guidelines on Finance Serving Prosperity in Rural Areas" and other documents	Financial institutions are required to invest more funds in rural revitalization.
2018	AMAC	Green Investment Guidelines (For Trial Implementation)	The guidelines define green investment, encourage the fund industry to conduct green investment, and encourage fund managers to use the published green standards to screen investment targets when conducting green investment.
2019	CTA	Green Trust Guidelines	The guidelines provide a clear definition of green trusts, encourage trust companies to develop green trusts, and require trust companies to follow the published green standards to screen investment targets when developing green trusts.

Source: Compiled from policy documents in the public domain

[1] In this white paper, the "National Development and Reform Commission" abbreviated as "NDRC", the "Ministry of Industry and Information Technology of the People's Republic of China" abbreviated as "MIIT", and the "Ministry of Finance of the People's Republic of China" abbreviated as "MOF". "Ministry of Natural Resources of the People's Republic of China" abbreviated as "MNR", " Ministry of Ecology and Environment of the People's Republic of China " abbreviated as "MEE", and " Ministry of Housing and Urban-Rural Development of the People's Republic of China" abbreviated as "MOHURD", " The People's Bank of China" abbreviated as "PBC ", "China Banking and Insurance Regulatory Commission" abbreviated as "CBIRC", "China Securities Regulatory Commission " abbreviated as "CSRC", "National Energy Administration" abbreviated as "Banking and Insurance Regulatory Commission", "National Energy Administration" abbreviated as "NEA". The former "Ministry of Environmental Protection of the People' s Republic of China" abbreviated as the former "MEE", the former " China Banking Regulatory Commission" abbreviated as the former "CBRC", and the former "China Insurance Regulatory Commission" abbreviated as the former "CIRC". "National Association of Financial Market Institutional Investors " abbreviated as "NAFMII", " Asset Management Association of China " abbreviated as "AMAC", "Insurance Asset Management Association of China" abbreviated as "IAMAC", "Shanghai Stock Exchange" abbreviated as "SSE", and "Shenzhen Stock Exchange" abbreviated as "SZSE"

Various incentive mechanisms introduced to spur interest in ESG-related investments

First, by incorporating ESG in the performance evaluation for financial institutions.

After 2012, the former CBRC, the PBC, and the MOF successively released *the Green Credit Key Performance Indicators, Green Finance Assessment Plan for Banking Institutions, Performance Evaluation Rules for Commercial Banks* and other documents. With these documents, the framework for evaluating banks started to take into account their contribute to ecological civilization and social responsibilities . The scale of green loans, green bonds, small and micro enterprise loans, and rural revitalization loans have become performance evaluation indicators for banks (see Table 1-2).

Second, by promoting policies such as tax incentives and interest discounts.

These policies include preferential tax policies to exempt value-added tax on interest income from and offer pretax deduction of provisions for loans granted to small and micro enterprises and rural areas. The policies also include the implementation of preferential deposit reserve ratios for qualified banks and the creation of relending and rediscounting policies for loans supporting the development of agriculture, small and micro enterprises, and carbon emission reduction projects.

Third, by continuing to improve the financial statistical system.

Since 2013, the former CBRC and the PBC have established the green credit statistical system and continuously revised it to gather data for green finance-related incentive policies and to monitor financing support for a green low-carbon economy (see Table 1-3).

Fourth, by introducing local incentive policies.

A number of local governments and financial regulators have encouraged the development of green finance by introducing local incentive policies, such as providing financial incentives, conducting reviews and evaluation, introducing rewards and punishments, and establishing local green finance innovation pilot zones.

Table 1-2 ESG-related financial institutions' performance evaluation incentive policies

Year	Institution	Document Name	Document Content
2012	Former CBRC	Notice of the China Banking Regulatory Commission on Issuing the Supervisory Guidelines for Performance Appraisal of Banking Financial Institutions	Banking institutions are required to set social responsibility indicators to evaluate their support for energy conservation, emission reduction, and environmental protection.
2014	Former CBRC	Notice of the China Banking Regulatory Commission on Key Performance Indicators of Green Credit Implementation	All banking institutions are required to facilitate and thoroughly carry out self-assessment of their green credit implementation following the requirements of the Green Credit Key Performance Indicators, and submit the results of the self-assessment to the former CBRC.
2018	PBC	Notice on Conducting Green Credit Performance Evaluation of Banking Depository Financial Institutions (repealed)	Green credit performance evaluation is carried out on national banking deposit financial institutions, and the evaluation results are incorporated into the macro prudential assessment (MPA).
2021	PBC	Green Finance Assessment Program for Banking Institutions	The scope of quantitative assessment is expanded to green loans, green bonds and other financial institution businesses to guide financial institutions in increasing the allocation of green assets.
2020	MOF	Performance Evaluation Rules for Commercial Banks	The construction of an ecological civilization and loans for small and micro enterprises are included among the evaluation indicators.
2021	PBC, CBIRC	Measures for Evaluation and Assessment of Services of the Financial Institutions for Rural Revitalization	Financial institutions' support for rural revitalization is evaluated through loan scale, structure, system construction, financial innovation, etc.
2022	CBIRC	Measures for Supervision and Evaluation of Commercial Banks' Financial Services for Small and Micro Enterprises (trial)	The support of commercial banks to small and micro enterprises is evaluated through loan growth, loan cost, asset quality, and the design of policies and procedures.

Source: Compiled from policy documents in the public domain

Table 1-3 Statistical Policies of ESG-Related Financial Institutions

Year	Institution	Document Name	Document Content
2013	Former CBRC	Notice of the General Office of CBRC on the Submission of Green Credit Statistics Form (repealed)	Collect statistics on loans for 12 types of energy conservation and environmental protection projects and their impacts on energy conservation and emission reduction.
2020	CBIRC	Notice on the Policies for the Green Financing Statistical System	Expand the scope of statistics to include both on and off balance sheet financing and collect statistics on low-carbon economy financing, circular economy financing, climate financing, environmental equity financing, etc.
2018	PBC	Notice on Establishing a Special Statistical System for Green Loans (repealed)	Clarify the statistical dimensions, coverage, standards, and implementation requirements of green loans.
2020	PBC	Notice on Revising the Special Statistical System of Green Loans	Expand the statistical scope of green loans and add metrics from the Guiding Catalogue of Green Industries (2019 Edition).

Source: Compiled from policy documents in the public domain

Relevant classification standards are gradually harmonised, and sustainable bonds emerge quickly

The first edition of the Green Bond Principles were published by ICMA in 2014, representing the global consensus for the issuance of green bonds. Subsequently, China's green bond market started in 2015. Using the concept as defined by the global standard, a number of Chinese authorities issued multiple guidelines to encourage corporates and financial institutions to issue green bonds. In summary, green bonds in China's onshore market are regulated by different authorities and subject to different rules respectively. The different authorities imposed two different sets of definitions of green for green bonds and different requirements on the percentage of proceeds that should be used for green projects. To unify the definitions of green for green bonds and gradually achieve convergence with global standards, the PBC, the NDRC, and the CSRC jointly issued *the Green Bond Endorsed Projects Catalogue (2021 Edition)* in 2021. In a call for further harmonisation of the domestic green bond regulations, the China Green Bond Standard Committee announced *the China's Green Bond Principles (China GBP)* in July 2022. Based on the ICMA *Green Bond Principles,* the China GBP clearly stipulates the definition of green bonds and the four core components of green bonds and articulates that 100% of the proceeds of a green bond should be used for green projects.

Over the years, guidance documents for various subtypes of sustainable bonds have also been published, further enriching China's ESG sustainable financial product system (see Table 1-4). NAFMII published in May 2021 a *Q&A guidance for sustainability-linked bonds* based on ICMA's *Sustainability-Linked Bond Principles* and in November 2021 a *Q&A document for piloting social and sustainability bonds* in the interbank bond market based on ICMA's *Social Bond Principles and Sustainability Bond Guidelines.*

[2] Established under the guidance of PBC, CSRC and other authorities, China Green Bond Standard Committee consists of self-regulatory organisations and selected private sector institutions.

Table 1-4 Relevant Policies of China's ESG Themed Bonds

Year	Institution	Document Name	Document Content
2015	PBC	Regarding the Issuance Management of Green Financial Bonds	Encourage financial institutions to issue green bonds and clarify the requirements for bond issuance.
2015	NDRC	Guidelines on the Issuance of Green Bonds	Define and classify green bonds; encourage companies to issue green enterprise bonds and clarify bond issuance requirements.
2016	SSE	Notice on Launching the Pilot Program of Green Corporate Bonds	Encourage companies to issue green corporate bonds and clarify the requirements for bond issuance.
2016	SZSE	Notice on Launching the Pilot Program of Green Corporate Bonds	Encourage companies to issue green corporate bonds and clarify the requirements for bond issuance.
2017	CSRC	Guiding Opinions of the China Securities Regulatory Commission on Supporting the Development of Green Bonds	Clarify the requirements on green corporate bond issuers, use of proceeds and disclosure.
2017	NAFMII	Green Debt Financing Instrument Business Guidelines for Non-financial Enterprises	Encourage companies to issue green debt financing instruments and clarify bond issuance requirements.
2021	PBC, NDRC, CSRC	Green Bond Endorsed Projects Catalogue (2021 Edition)	The document unifies the two sets of definitions of green for green bonds
2021	NAFMII	Notice on Clarifying the Carbon Neutral Bonds Mechanism	Clarify the definition and issuance requirements for carbon neutral bonds.
2021	NAFMII	Ten Questions and Answers on Sustainability-Linked Bonds (SLB)	Based on ICMA's Sustainability-Linked Bond Principles, clarify the definition and issuance requirements for Sustainability-Linked Bonds.
2021	NAFMII	Q&A on Piloting of Social Bonds and Sustainability Bonds	Based on ICMA's Social Bond Principles and Sustainability Bond Guidelines, clarify the definition and issuance requirements for social bonds and sustainability bonds.
2021	SZSE	Business Guidelines for Innovative Corporate Bonds No. 1 - Green Corporate Bonds (Revision 2021)	Provide definition and issuance requirements for carbon neutral green corporate bonds and blue bonds in the SZSE bond market.
2022	SSE	Guidelines for the Application of the Examination Rules for the Issuance and Listing of Corporate Bonds of the Shanghai Stock Exchange No. 2—Corporate Bonds of Certain Varieties (revised 2022)	Provide definition and issuance requirements of ESG-themed bonds such as carbon-neutral green corporate bonds, blue bonds, and transition bonds in the SSE bond market.
2022	NAFMII	Notice on Conducting Pilot Innovation Related to Transition Bonds	The document provides the definition and issuance requirements for transition bonds.
2022	Green Bond Standards Committee	China Green Bond Principles	Stipulate four core elements of green bonds: use of proceeds, project evaluation and selection, management of proceeds, and information disclosure. It also clearly requires 100% of the proceeds of green bonds to be used for green projects.

Source: Compiled from policy documents in the public domain

Requirement on ESG-related information disclosure

Requirement on information disclosure is an important part of the ESG-related policy system. With the mainstreaming of the ESG concept in China, ESG-related information disclosure policies have been developed. This section summarizes the information disclosure policies, and the details are shown in the appendix.

The entities disclosing ESG-related information are mainly high-polluting enterprises, centrally adminis tered state-owned enterprises and security issuers

The national environmental protection bureaus were the first to issue relevant policies, which required the environmental information disclosure from key pollutant discharging enterprises, listed companies, and bond issuers. The China Securities Regulatory Commission (CSRC) and the Shanghai and Shenzhen Stock Exchanges also issued relevant guidelines requiring listed companies to disclose information according to the requirements of the environmental protection bureaus and to clarify the disclosure requirements in terms of social responsibility and corporate governance. The authorities regulating green and sustainable bonds also issued relevant guidelines, requiring bond issuers to disclose information on use of proceeds, environmental impacts, etc. In addition, State-owned Assets Supervision and Administration Commission of the State Council (SASAC) has successively issued policies to guide centrally managed state-owned enterprises to fulfill their social responsibilities, improve corporate governance, and encourage regular issuance of social responsibility reports or sustainable development reports.

There are increasing requirements for financial institutions to make ESG-related information disclosure

In 2021, the People's Bank of China (PBC) issued *the Guidelines for Environmental Information Disclosure by Financial Institutions, the Work Plan for Promoting Environmental Information Disclosure of Financial Institutions in the Green Finance Reform and Innovation Pilot Zone, the Operating Manual for Environmental Information Disclosure of Banking Financial Institutions (trial), the Technical Guidelines for Carbon Accounting of Financial Institutions (trial),* and other documents to encourage financial institutions to actively disclose environmental risk management, environmental impacts, and carbon emissions generated by business operations.

There are relatively more mandatory information disclosure requirements on environmental performance and corporate governance, and disclosure of social responsibility information is encouraged

In terms of "environment", according to *the Administrative Measures for the Legal Disclosure of Enterprise Environmental Information,* key pollutant discharging units, companies that implement mandatory cleaner production audits, and other enterprises that may have a greater impact on the environment must disclose information including pollutants, carbon emissions, and information of violating ecological environment laws. Companies that issue securities in the securities market must disclose relevant information on climate change, environment protection, and other related information of the projects they finance and use the funds raised according to the requirements of the securities market. Issuers of carbon neutral bonds need to disclose environmental information on the underlying projects, focusing on environmental impacts, calculation methods, and reference points. In terms of "governance", the mandatory information required to be disclosed include ownership structure, board composition and performance of duties, salary structure, related party transactions, and internal control system. In terms of "social", enterprises are encouraged to disclose information on employee protection, product quality, community relations, etc. in social responsibility reports.

ESG information disclosure policies applied with incentives and penalties

According to *the Administrative Measures for the Legal Disclosure of Enterprise Environmental Information,* the relevant competent authority may impose a fine of RMB10,000 to RMB100,000 on enterprises that do not disclose environmental information in accordance with the provisions of the Measures or disclose untrue or inaccurate environmental information. Enterprises with good social responsibility and enterprises that actively disclose corporate social responsibility reports can be preferentially included in the corporate governance segment of the Shanghai Stock Exchange, becoming more attractive to investors.

BOX: Comparison of ESG information disclosure policies among the European Union, the United States and China

In general, the European Union, the United States and China have developed ESG-related information disclosure policies, which specify the disclosure entities, disclosure contents, the degree to which such disclosures are compulsory, and potential penalties.

The EU, the US and China have gradually expanded the disclosing entities from business entities to financial institutions.

The EU and the US have set more specific and mandatory information disclosure requirements for financial institutions. Financial institutions should disclose the impact of ESG factors on asset returns and the ESG impacts of investments in investment documents and official websites. China's disclosure regulations for financial institutions are voluntary, focusing on the environmental risk management of financial institutions and the possible impact of invested assets on the environment.

In terms of content for disclosure, there are differences in the mandatory disclosure content required by the EU, the US and China.

The mandatory disclosure metrics of the EU and the US mainly include greenhouse gas emissions, pollutant emissions, insider control, corruption, transparency of proxy voting system, human rights and rights of employees, etc. China's mandatory disclosure metrics focus on internal control systems related to an enterprise's environmental management, pollution prevention, performance of directors and supervisors, and related transactions, etc.

Table 1-5 Major Policies in EU Related to ESG Information Disclosure

Year	Document name	Main content
2007	Shareholders Rights Directive (SRD), (revised in 2017, known as SRD II)	Listed enterprises are required to disclose matters related to the company' s voting and details of related transactions.
2011	A Renewed EU Strategy 2011-14 for Corporate Social Responsibility	Enterprises are required to pay attention to the disclosure of information related to environment and corporate social responsibility.
2014	Non-financial Reporting Directive(NFRD)	Enterprises are required to disclose information related to the environment, anti-corruption, human rights protection, etc.
2019	Regulation 2019/2088 on sustainability‐related disclosures in the financial services sector (SFDR)	Financial products must disclose ESG-related information, including the environmental benefits of financial products in terms of carbon emission reduction, greenhouse gas emission reduction, and the characteristics of assets in corporate social responsibility.
2020	Regulation 2020/852 on the establishment of a framework to facilitate sustainable investment (Taxonomy Regulation)	Classification regime for sustainable investment of financial institutions
2020	Regulation 2019/2089 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks (CBR)	Usage of benchmark index, data and other information for sustainable investment disclosure.
2021	Corporate Sustainability Reporting Directive (CSRD) (Under development)	Building on NFRD, the scope of disclosing entities will be expanded to all large and listed enterprises, and more detailed requirements for information disclosure will be introduced.
2022	European Sustainability Reporting Standards (ESRS) (Draft for Comments)	It will introduce disclosure requirements for sustainability report. Corporates in scope are required to publish sustainability report starting from 2024.

Table 1-6 Major Policies in the US Related to ESG Information Disclosure

Year	Document name	Main content
1977	Regulation S-K (Last revised in 2020)	Security issuers are required to disclose information related to corporate governance in periodic reports providing specified content in specific formats.
2009	Mandatory Greenhouse Gas Reporting Rule	The majority of upstream production entities and downstream emitters (large facilities with annual CO2 emissions of 25,000 metric tons or more) are required to report GHG emissions.
2010	Guidance Regarding Disclosure Related to Climate Change	Provides guidance for securities issuers to assess risks related to climate change in periodic reports and disclose information such as the necessary capital expenditures to reduce greenhouse gas emissions.
2012	Mine Safety Disclosure (Section 1503 of the Dodd-Frank Wall Street Reform and Consumer Protection Act)	Issuers operating mines are required to disclose information on incidents, including the extent to which mine safety and employee health are compromised, illegal or administrative penalties that are related to coal mines or other mining operations.
2017	ESG Reporting Guide	Provides guidelines for ESG information disclosure of listed companies.
2022	The Enhancement and Standardization of Climate-Related Disclosures for Investors (proposed rules)	Proposes that securities issuers be required to disclose business-related climate risks, risk management measures, GHG emissions and other information in their registration materials and annual reports.

Overview of ESG Practices by Chinese Enterprises

- The Status Quo of ESG information disclosure by Chinese enterprises
- ESG performance of Chinese enterprises

This part analyse two aspects: the ESG information disclosure and ESG performance of Chinese companies. In terms of ESG information disclosure, this part analyses how many companies disclose ESG-related reports, and what the companies disclose. In terms of ESG performance, it mainly analyses the actual ESG performance of Chinese companies in recent years based on the data disclosed by the companies. The scope of companies being analysed are the issuers of publicly offered credit bonds in China's domestic bond market and A-share listed companies from 2018 to 2021. There are a total of 8,660 sample companies, including 5,069 bond issuers and 4,070 listed companies[3].

[3] There are 479 enterprises that are both listed companies and bond issuers.

The Status Quo of ESG information disclosure by Chinese enterprises

The proportion of enterprises disclosing ESG-related reports has increased year by year

In addition to periodic reports such as annual reports and issuance documents, ESG-related reports are the main carriers for enterprises to proactively disclose ESG information. Statistics show that the proportion of companies making ESG disclosures[4] has increased from 16% in 2018 to 19% in 2021, and companies' willingness to disclose actively has increased. In 2021, the disclosure ratio of listed companies is higher than that of bond issuers, which was 28% and 16% respectively (see Figure 2-1). Among the ESG-related reports published by enterprises, more than 80% of the disclosure came from corporate social responsibility reports, while the proportion of other types of reports such as environmental, social and governance reports is increasing.

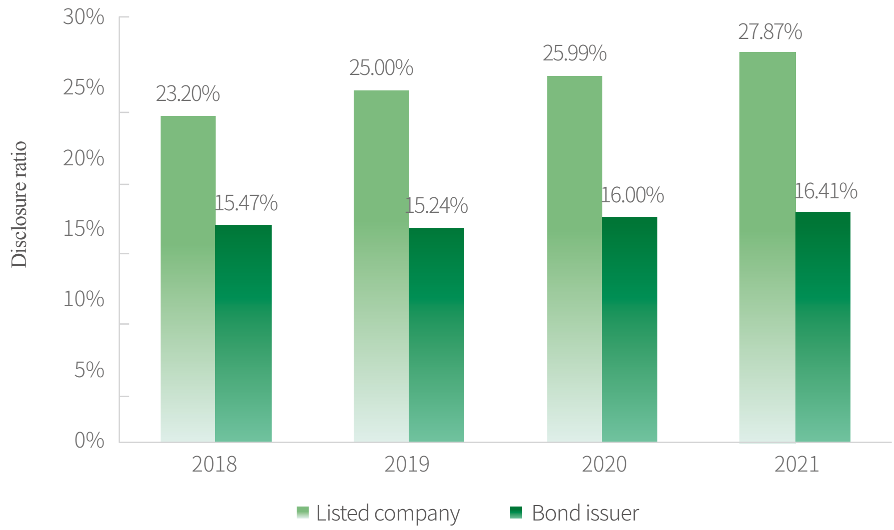


Figure 2-1 Enterprise ESG Disclosure

Data source: CCDC

[4] The social responsibility report, the environmental social and governance report, the sustainability report and the environmental report are the types of ESG-related reports that the enterprise has actively disclosed. Among them, the Environmental, Social and Governance Report is the report prepared by the enterprise according to the Guidance on Environmental, Social and Governance Reports of HKEX; the other three reports are ESG-related information disclosure made by enterprises according to their own conditions, and there is no uniform requirement for the disclosure content.

ESG-related reports need to be disclosed in a more timely manner

Enterprises usually publish ESG-related reports for a specific year in the first four months of the following year. In 2021, the proportion of listed companies and bond issuers that issue their ESG-related reports within four months were 95% and 69% respectively. Additionally, nearly 20% of bond issuers published their reports in the fourth quarter of the following year. The proportion is higher in 2021 than in 2018. The timeliness of these disclosures needs to be improved (see Figure 2-2).

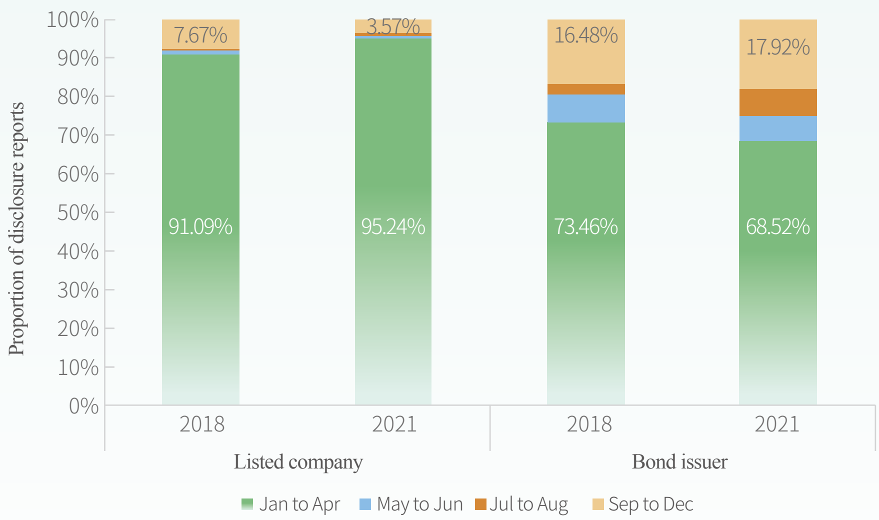


Figure 2-2 Time Distribution of Enterprise ESG Report Disclosure

Data source: CCDC

The disclosure ratio of ESG-related reports in different industries varies greatly

Instructed by policy, the disclosure ratio of bond issuers in the eight energy-intensive industries is higher than the average level of bond issuers(For example, the disclosure ratio in the petrochemical and building materials industries exceeded 50%, and other industries exceeded or approached 30%) (see Table 2-1).The disclosure ratio of listed companies in eight energy-intensive industries is higher than the average disclosure ratio of all types of listed companies (see Table 2-2).

Table 2-1 Disclosure Ratio of ESG-Related Reports of Bond Issuers in Eight energy-intensive Industries

	2018	2019	2020	2021
Petrochemical	75.00%	75.00%	75.00%	75.00%
Building material	70.00%	55.00%	55.00%	55.00%
Aviation	33.33%	51.85%	51.85%	51.85%
Steel	46.67%	46.67%	46.67%	46.67%
Paper and pulp	40.00%	40.00%	40.00%	40.00%
Nonferrous metal	53.85%	38.46%	38.46%	38.46%
Electricity	35.79%	36.84%	36.84%	36.84%
Chemical industry	25.53%	29.79%	29.79%	29.79%
Bond issuers from all industries	15.47%	15.24%	16.00%	16.41%

Data source: CCDC

Table 2-2 Disclosure Ratio of ESG-related Reports of Listed Companies in Eight energy-intensive Industries

	2018	2019	2020	2021
Steel	44.12%	61.76%	61.76%	61.76%
Paper and pulp	48.15%	59.26%	59.26%	59.26%
Electricity	47.89%	54.93%	54.93%	54.93%
Petrochemical	45.45%	45.45%	45.45%	45.45%
Nonferrous metal	44.68%	42.55%	42.55%	42.55%
Aviation	29.69%	31.25%	31.25%	31.25%
Building material	25.93%	27.16%	27.16%	27.16%
Chemical industry	18.34%	22.19%	22.19%	22.19%
Listed companies from all industries	23.20%	25.00%	25.99%	27.87%

Data source: CCDC

The disclosure ratio of ESG-related reports of large enterprises is higher

Bond issuers with larger balance sheet show a higher disclosure ratio of ESG-related reports. For bond issuers with assets of more than RMB200 billion on their balance sheet, the disclosure ratio of ESG-related reports was found to be more than 50% in 2021, significantly higher than in 2018. The disclosure ratio of ESG-related reports of bond issuers with total assets of less than RMB50 billion was about 10% (see Figure 2-3). The disclosure ratio of ESG-related reports of listed companies with a market value of more than RMB100 billion exceeded 90% in 2021. For listed companies with a market value of less than RMB10 billion, this was less than 30% (see Figure 2-4).

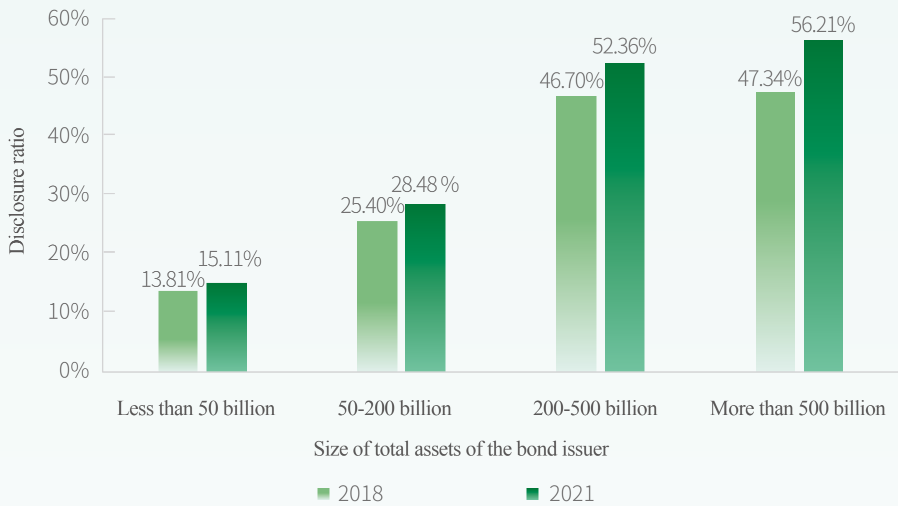


Figure 2-3 Disclosure Ratio of ESG-Related Reports of Bond Issuers with Different Sizes of Balance Sheets

Note: Disclosure ratio of a bond issuer with certain size of total assets = total number of enterprises with ESG-related reports disclosed with this size of total assets /total number of enterprises with this size of total assets
Data source: CCDC

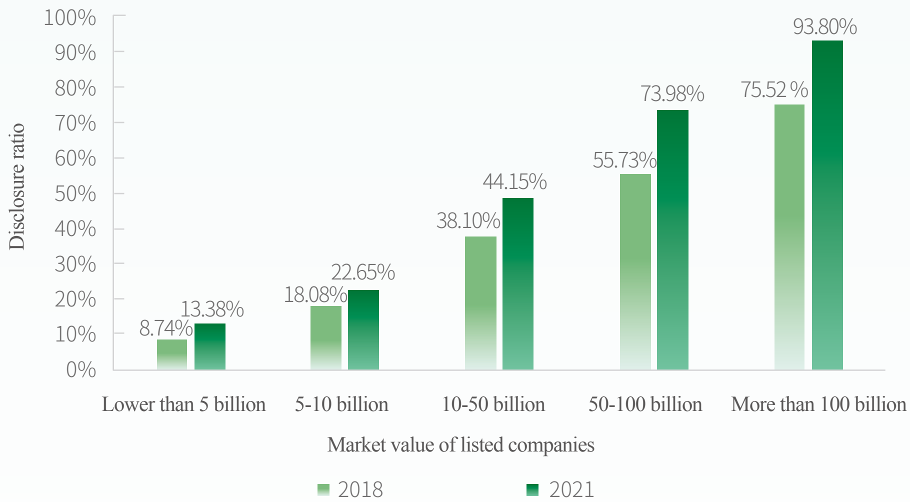


Figure 2-4 Disclosure Ratio of ESG-Related Reports of Listed Companies with Different Market Values

Note: Disclosure ratio of listed companies with certain market value = total number of enterprises with ESG-related reports disclosed with this market value /total number of enterprises with this market value
Data source: CCDC

Environmental performance and social responsibility disclosure sources are largely corporate social responsibility reports and annual reports, and corporate governance disclosure are mainly in the annual reports[5]

Corporate social responsibility reports and annual reports account for about 90% of the ways enterprises disclose environmental and social related information. The ratio of other types of reports issued by enterprises, however, has increased significantly (see Figure 2-5 and Figure 2-6). Information related to corporate governance is mainly disclosed through the annual report.

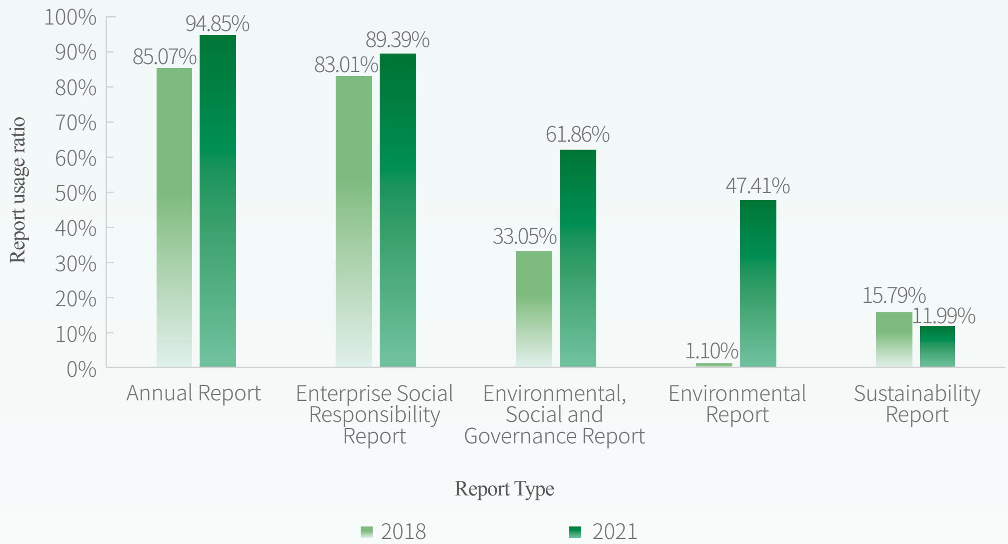


Figure 2-5 Environmental-Related Disclosure - Breakdown by Source

Data source: CCDC

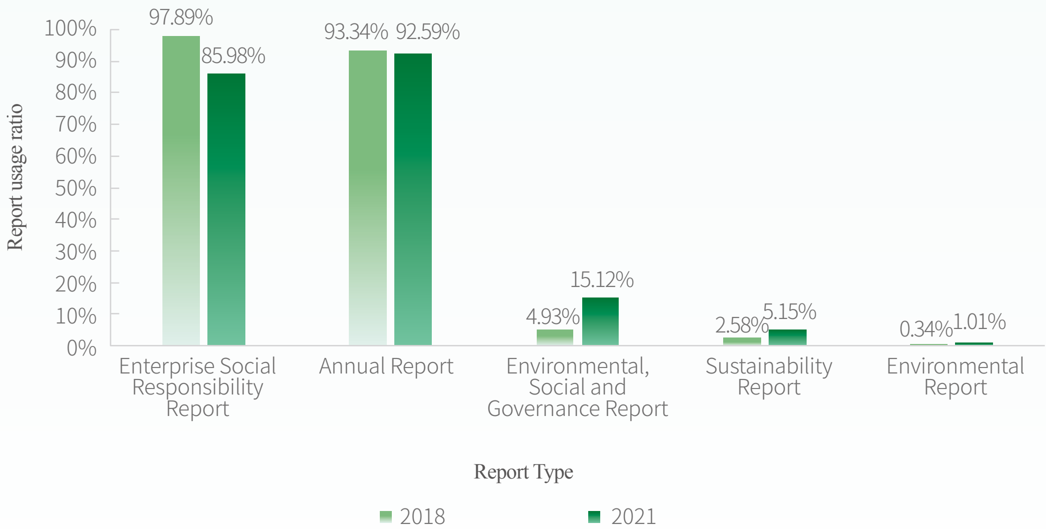


Figure 2-6 Social-related Disclosure - Breakdown by Source

Data source: CCDC

[5]In this white paper, information related to environmental performance refers to information disclosed by companies with regard to their environmental management ability, green development, resource utilization, pollution prevention and ecological protection; social responsibility related information refers to the information disclosed by the enterprise to protect the rights and interests of employees, suppliers, customers, investors, communities, society and other stakeholders. Finally, corporate governance related information refers to the protection of shareholders' rights and interests, the governance ability of directors, supervisors and senior executives, incentive mechanism, information disclosure and management standardization disclosed by enterprises.

The disclosure ratio of environmental and social-related topics has increased, and the depth of governance related disclosure continues to improve

In terms of environmental performance, companies' disclosure of environmental strategy and planning, green business, water resources utilization and carbon emission has increased compared with 2018. In 2021, the disclosure rate of the above topics was about 10% (see Figure 2-7). The disclosure rate of topics related to energy utilization, pollution prevention and control was relatively low. In terms of social disclosure, the disclosure rate was around 15% (see Figure 2-8), higher than that in 2018. The disclosure rate of governance-related information is relatively high, and the depth of disclosure has continued to improve, as the number of indicators disclosed about a single topic has increased.

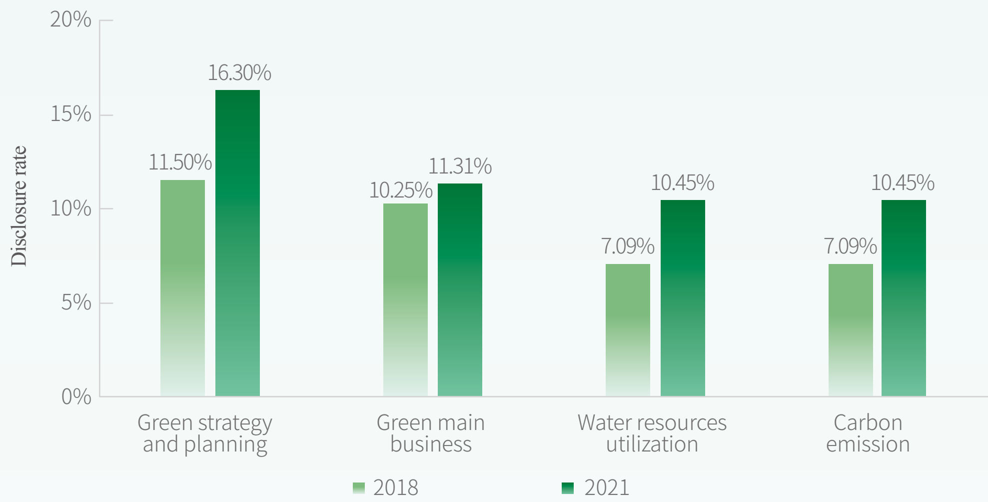


Figure 2-7 Disclosure rate of Environmental-Related Information

Note 1: This figure shows the environmental related topics that have good level of disclosure
Note 2: the disclosure rate on a specific topic = the total number of enterprises that disclose at least one metric about this topic /the total number of enterprises to which the said topic is relevant
Data source: CCDC

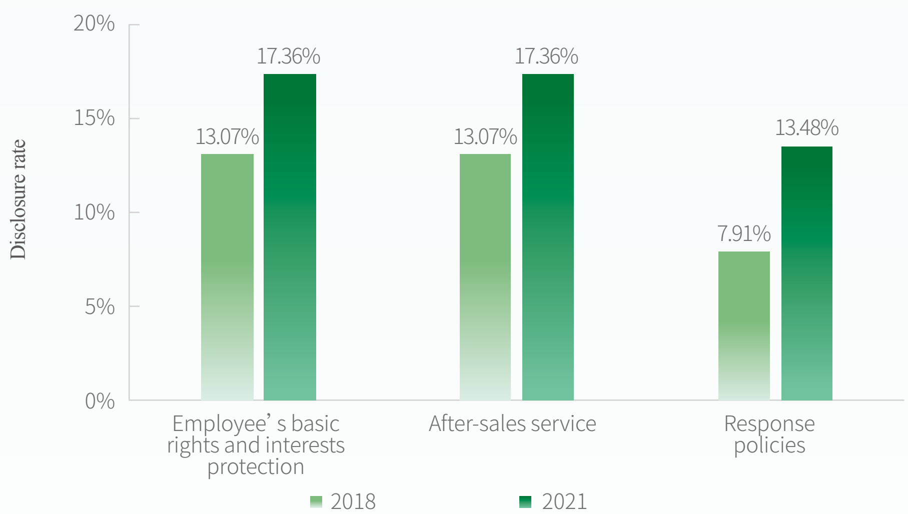


Figure 2-8 Disclosure rate of Social Related Information

Note: Due to the trivial difference in the disclosure rate of social related topics, this figure shows the disclosure rate of representative topics in three dimensions, namely employee, supplier and customer, community and social contribution.
Data source: CCDC

ESG performance of Chinese enterprises

In terms of environmental performance, the environmental management capabilities, energy conservation and emission reduction, and pollution prevention performance of the sample enter-prises have improved significantly

At present, addressing environmental pollution and controlling carbon emission intensity are two of the major tasks facing China.

Therefore, this white paper has selected total energy consumption, pollutant emission and carbon emission reduction measures as the key indicators to analyse their environmental performance at the corporate level. From 2018 to 2021, the level of total energy consumption, wastewater and waste gas emissions and other indicators representing pollution prevention and control has declined year by year. In the 8,660 samples, the number of companies that set carbon emission targets and measures has increased from around 840 to nearly 1,400. Chinese firms have worked to meet policy requirements with increasing emphasis on low-carbon transition.

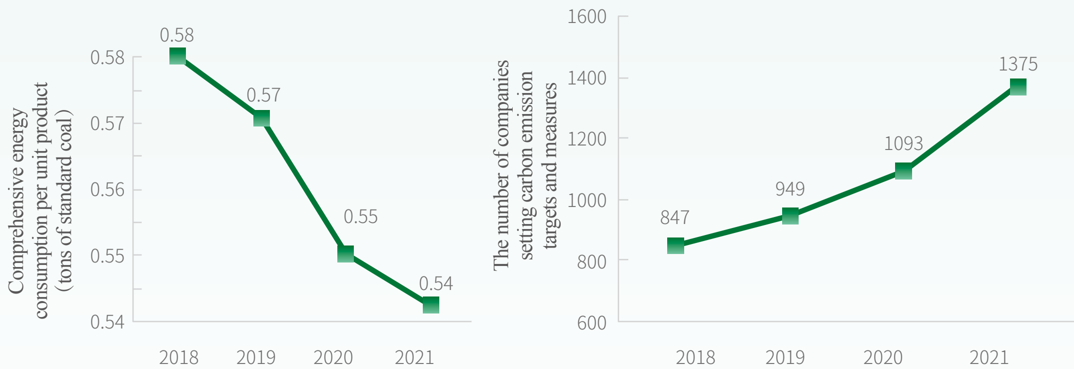


Figure 2-9 Trends of indicators representative of enterprises' environmental performance

Data source: CCDC

In terms of social, the protection of the rights and interests of stakeholders has been enhanced

According to the data, companies have enhanced the protection of employees, customers, suppliers, communities, creditors and other stakeholders. From 2018 to 2021, the proportion of enterprises organising labor union activities, customer satisfaction surveys, supplier social responsibility assessments, and investment and construction projects for the community continued to increase (see Figure 2-10).

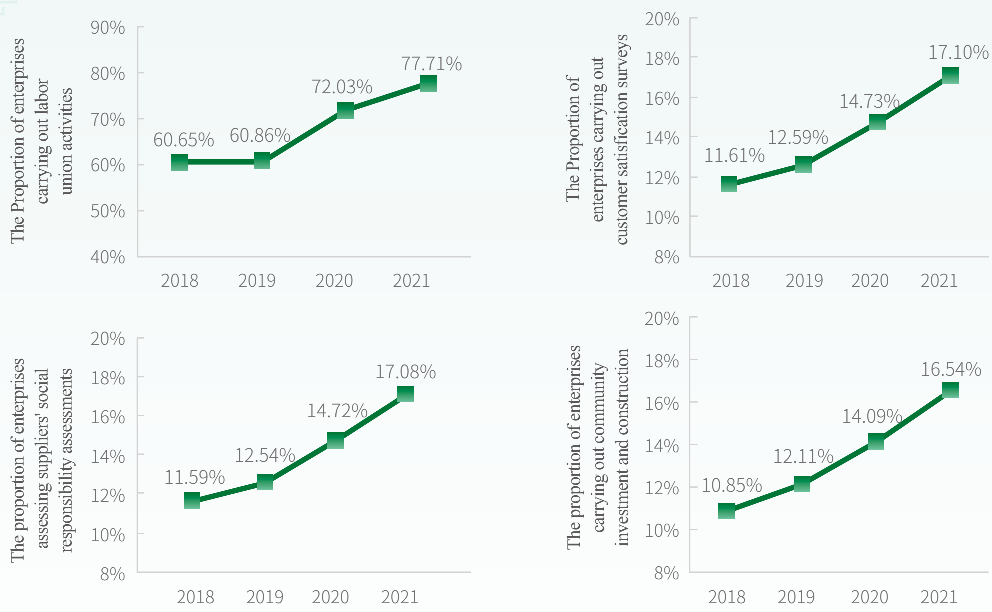


Figure 2-10 Trends of indicators representative of social performance

Data source: CCDC

With increasing number of defaults in China's bond market, question of whether bond issuers have set up investor protection clauses has become an important indicator. In recent years, the types of investor protection clauses in China have been continuously enriched, from four types to 21 types. Among them, cross-default clauses and conditions precedent are the most important types of clauses, and the set-up ratio is at about 20% (see Figure 2-11).

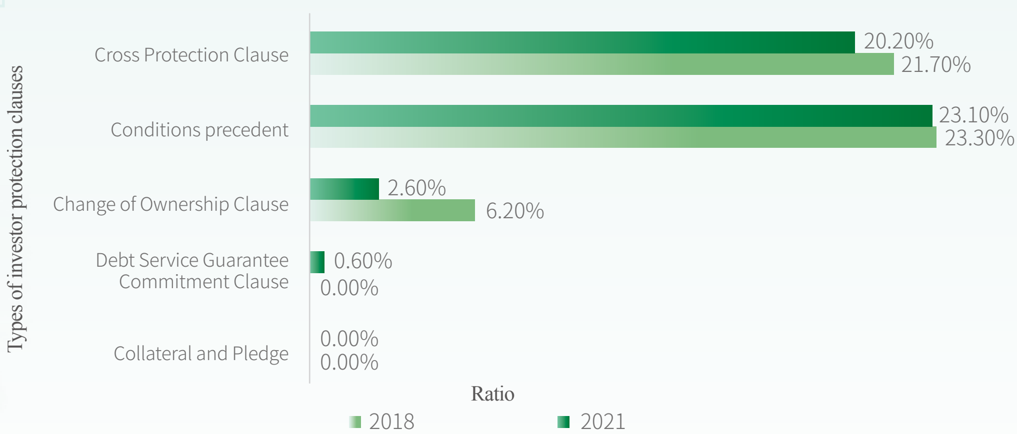


Figure 2-11 Setting up investor protection clauses in the bond prospectus

Note: The data of this figure is about credit bonds publicly issued in 2018 and 2021, including corporate bonds, medium-term notes, short-term financing bonds, ultra-short-term financing bonds, and financial bonds other than inter-bank deposit receipts.
Data Source: CCDC

In terms of governance, the adoption of corporate governance practices and the quality of information disclosure have been improved

From the data disclosed by the enterprises in scope of this research, the majority of Chinese listed companies have established the framework of "three meetings" (the shareholders' meeting, board of directors, and board of supervisors), and the quality of the "three meetings" has improved; the proportion of bond issuers having independent audit committee and remuneration committee has been rising(see Figure 2-12). The proportion of enterprises that disclose externally audited periodic reports on time with unqualified opinions has generally increased (see Figure 2-13).

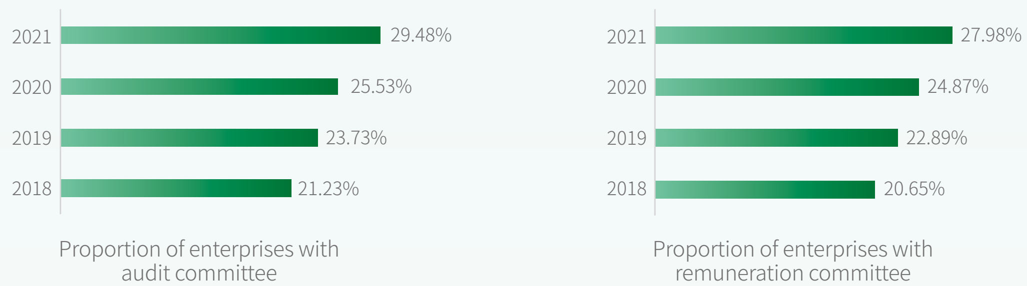


Figure 2-12 Proportion of Bond Issuers Having Independent Committees

Data source: CCDC

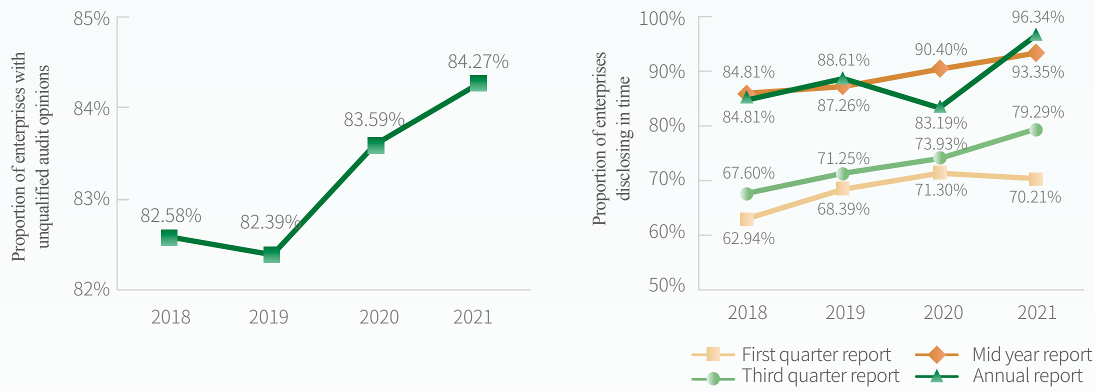


Figure 2-13 Reliability and Completeness of Enterprise Information Disclosure

Note: if the first quarter report, the mid-year report, the third quarter report and the annual report of an enterprise are published before April 30, August 31, October 31 of the current year and April 30 of the next year, it is considered to be a timely disclosure.
Data source: CCDC

Overview of ESG

Practices in China's Financial Markets

- ESG investment
- ESG-related financing instruments
- ESG-related third-party evaluation and data service

ESG considerations have developed rapidly in China's financial market owing to government policy action. The types of ESG-themed funds, bank wealth management products and other asset management products continue to develop, and the scope of such products has also expanded. Meanwhile, ESG-related financing tools are becoming increasingly diversified. Domestic third-party ESG service also have evolved.

ESG investment

ESG concepts are gradually recognized by Chinese financial institutions

In recent years, the number of Chinese financial institutions that have announced adoption of ESG principles in their investments has grown rapidly. By the end of 2021, a total of 83 institutions in China signed the PRI[6], including 4 asset owners, 62 investment managers and 17 information service providers (see Figure 3-1). In addition, there has been rapid and sustained growth in the number of institutions that are signing the Equator Principles[7] , Principles for Sustainable Banking[8], and Principles for Sustainable Insurance[9]. Chinese investors are playing an increasingly important role in responsible global investment.

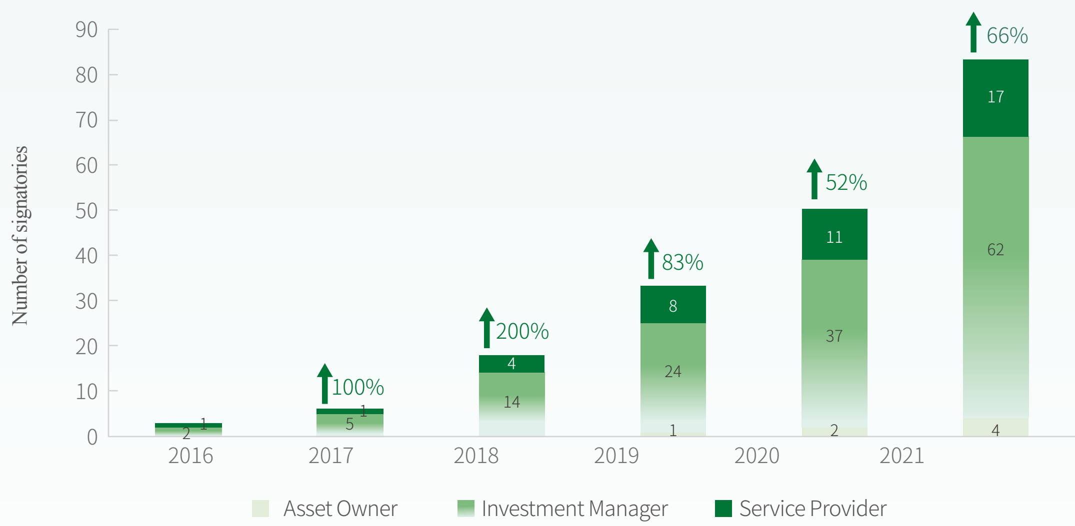


Figure 3-1 Number and Growth Trend of PRI Signing Institutions in Mainland China

Data source: CCDC

[6] Principles for Responsible Investment, abbreviated as PRI
[7] Equator Principles, abbreviated as EP
[8] Principles for Responsible Banking, abbreviated as PRB
[9] Principles for Sustainable Insurance, abbreviated as PSI

The scale of ESG-related funds[10] has rapidly increased, primarily in the area of equity funds

Since 2020, the scale and number of ESG-related funds have increased rapidly. By the end of 2021, there were more than 160 public ESG-related fund products, with nearly RMB400 billion in assets under management (see Figure 3-2). In 2021, 68 ESG-related funds were launched, which was four times the number launched in 2020, including 10 newly launched funds with ESG in the name.

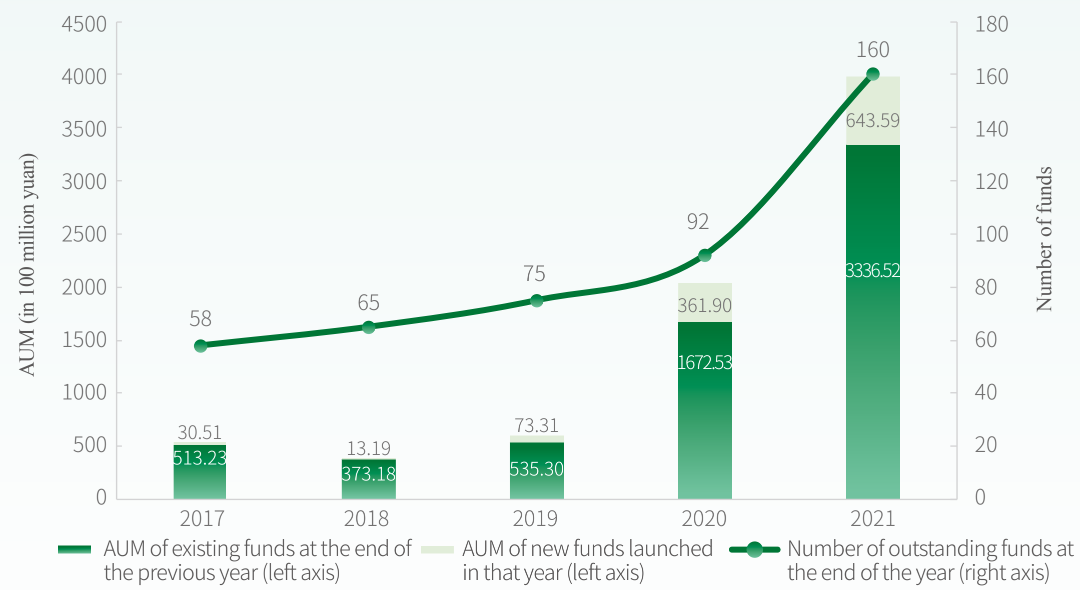


Figure 3-2 Statistics on the Number and Scale of Public ESG Funds in China

Data source: Wind, CCDC

From the perspective of product varieties, by the end of 2021 more than 98% of the funds were equity and multi-asset funds, and there were three fixed income funds, with a total size of RMB4.189 billion, accounting for 1% of all public ESG-related funds. The majority of ESG-related funds are actively managed funds. By the end of 2021, there were 98 active funds among 160 public ESG-related funds, accounting for 80% of the total, and the scale of passively managed funds is also expanding gradually (see Figure 3-3).

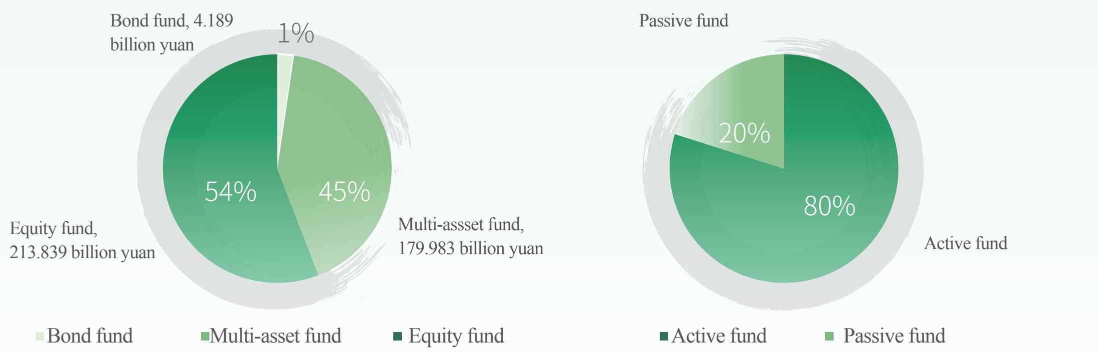


Figure 3-3 Distribution of China's public ESG related funds

Data source: Wind, CCDC

[10] Since there is no clear definition of ESG funds, this white paper estimates the size of ESG funds by screening keywords in fund names and investment objectives. Working off of the relevant statements in the socially responsible investment chapter of the 2021 China Securities Investment Fund Industry Public Fund Industry Social Responsibility Report (I) issued by the AMAC, this white paper mainly selects through specific ESG keywords: ESG, social responsibility, low carbon, new energy, clean, environmental protection, environmental governance, ecology, carbon neutrality, green, sustainable, beautiful China, corporate governance, etc.

ESG-themed bank wealth management products[11]developed rapidly and became an important force promoting ESG investment

Since April 2019, when the first ESG-themed wealth management product was launched in China, to the end of 2021, roughly 17 Chinese commercial banks or wealth management subsidiaries[12]have launched more than 103 ESG-themed wealth management products (see Figure 3-4). According to the Annual Report on China's Banking Financial Market (2021), the scale of funds from bank wealth management products invested in green bonds exceeded RMB220 billion, and funds raised by new ESG-themed bank wealth management products launched in 2021 raised exceeded RMB60 billion, with an outstanding volume of RMB 96.2 billion.

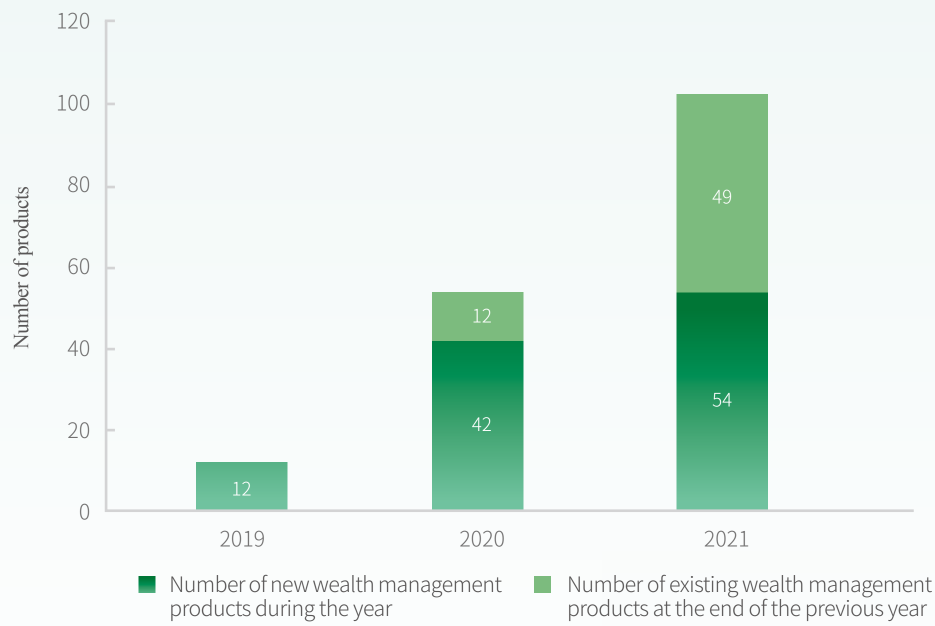


Figure 3-4 Number of ESG-themed Wealth Management Products Issued by Banks in China

Data source: Wind, CCDC

Increasing adoption of ESG in long-term investment

Insurance companies, sovereign funds and other long-term fund owners now actively explore and launch ESG-related products. According to the data from IAMAC, the funds from the insurance industry supporting green industry development exceeded RMB1 trillion by the end of 2021. In 2022, the China Investment Corporation (CIC) issued Sustainable Investment Policy, and the National Council for Social Security Fund of the People's Republic of China (NSSF) issued *the Guidelines for Industrial Investment,* announcing that they will incorporate ESG factors into all aspects of investment, practice the concept of sustainable investment and explore sustainable investment practices.

Diverse ESG-themed investment strategies

With the ESG in the mainstream, the improved availability of ESG data and transparency, ESG-themed investment strategies brought to market are becoming more diverse. More and more investment institutions have gradually shifted from the use of a single ESG methodology such as positive screening, negative screening, industry screening, to the comprehensive application of multiple ESG methodologies, from simply tracking ESG hot spots for thematic investment to an in-depth integration of ESG factors into the whole investment decision making process.

[11] According to the Measures for the Supervision and Administration of the Wealth Management Business of Commercial Banks issued by the CBIRC in 2018, the wealth management business of commercial banks refers to financial services in which commercial banks accept the entrustment of investors to invest and manage the entrusted investors' assets according to the investment strategy and risk bearing income distribution method that investors and banks agree upon in advance. The investment scope of bank wealth management products includes deposits, bonds, and stocks.

[12] According to the Measures for the Administration of Financial Management Subsidiaries of Commercial Banks issued by the CBIRC in 2018, commercial bank subsidiary companies refer to non-bank financial institutions established by commercial banks whose main business is wealth management.

BOX: Analysis on the trends related to ESG bond indices

In recent years, more financial market institutions are practicing ESG investment by following ESG indices. ESG has been recognised as a "Smart Beta" in the passive investment field. Broadly speaking, China's ESG-themed bond indices have the following characteristics:

First, most ESG fixed income indices apply negative exclusion or positive optimization.

On one hand, it is a common practice for financial institutions to exclude bond issuers with low overall ESG ratings from the index, and some institutions will additionally exclude bond issuers with a low rating in one particular aspect of ESG, such as governance. On the other hand, a common methodology is to select bond issuers with high ESG scores for ESG indices.

Second, an ESG strategy can be further integrated with other strategies to form a bond index.

Presently, ESG evaluation scores and other related factors, such as credit ratings, term structure, the investment strategy of a specific client, have been combined in the bond screening and weight distribution when constructing Chinese ESG indices, which reflects the customisation of the ESG strategy in financial institutions' index investments. In addition, bond indices released with ESG strategy combined with other themes, such as regional development and green bonds, further diversify the methodologies of applying ESG themes to bond indices.

ESG-related financing instruments

The scale of green bonds continues to grow rapidly, and China ranks among the largest green bond markets globally

Since the first green bond was issued in 2016, the cumulative issuing volume of green bonds in China's domestic markets has reached RMB1,729.037 billion by the end of 2021, with an average annual growth rate of nearly 25% over five years (see Figure 3-5). The outstanding balance at the end of 2021 exceeded RMB1 trillion. When ordered by type, green medium-term notes are the largest category, accounting for about 28%, followed by green asset-backed securities, green financial bonds and green corporate bonds; by industry breakdown, electricity, heat, gas and water production and supply, finance, transportation, warehousing and postal services are the major issuer industries in 2021 (see Figure 3-6).

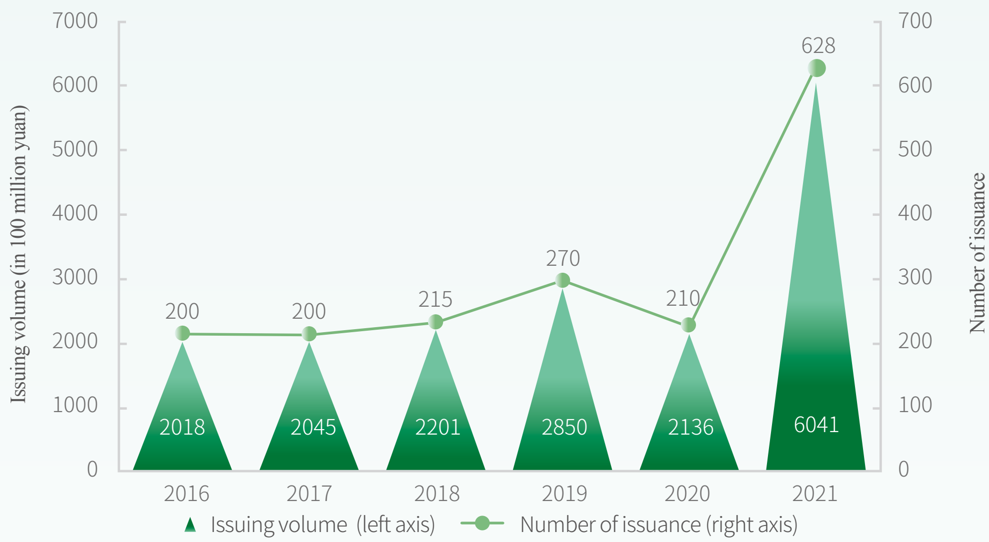


Figure 3-5 China's Green Bond Issuance Volume

Data source: CCDC

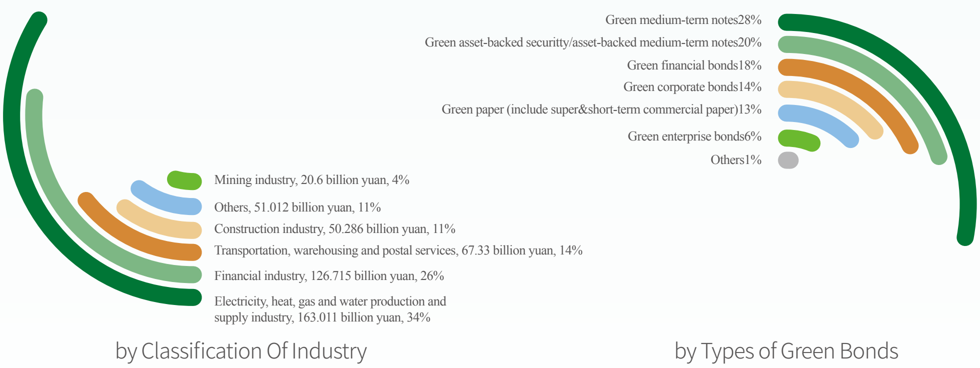


Figure 3-6 Category Distribution of China's Green Bond Issuers

Data source: CCDC

The rapid emergence of sustainable bonds and the continuous enrichment in investment varieties

In addition to green bonds, sustainable bonds in China currently include sustainability-linked bonds, social bonds and sustainability bonds. Among them, sustainability-linked bonds refer to bonds that link the bond terms with whether the issuers reach their pre-determined sustainability targets. If the sustainability performance targets are not reached within the agreed time limit, the adjustment of bond terms will be triggered. By the end of 2021, 26 sustainability-linked bonds were issued in China, with the issuance amount of RMB36.8 billion and the balance of outstanding bonds at RMB36.8 billion. Social bonds and sustainability bonds refer to bonds in the inter-bank market whose proceeds are 100% used for social projects or green and social projects.

China's bond market has also introduced sub-types of green bonds, including blue bonds, which finance projects related to marine protection and sustainable utilization of marine resources, and carbon neutral bonds dedicated for green projects contributing to carbon emission reduction. Both blue bonds and carbon neutral bonds should comply with *the Green Bond Endorsed Projects Catalogue (2021 Edition).* By the end of 2021, 7 blue bonds were issued in China, with an actual issuing amount of RMB3.9 billion and the balance of outstanding bonds of RMB3.9 billion; there were 234 carbon neutral bonds, with an actual issuing amount of RMB335.037 billion and the balance of outstanding bonds of RMB294.417 billion.

In addition, China's bond market has also introduced its own definition of transition bonds. Transition bonds in China refer to bonds that raise funds specifically for low-carbon transition to support climate change mitigation and adaptation. The funds raised should be specifically used for low-carbon transition of enterprises, focusing on aiding traditional industries as they transition and transform their business models. The proceeds of transition bonds under China's definition are used for clean production and efficient use of coal, clean energy use of natural gas, energy conservation and carbon reduction in key areas of high-energy consuming industries.

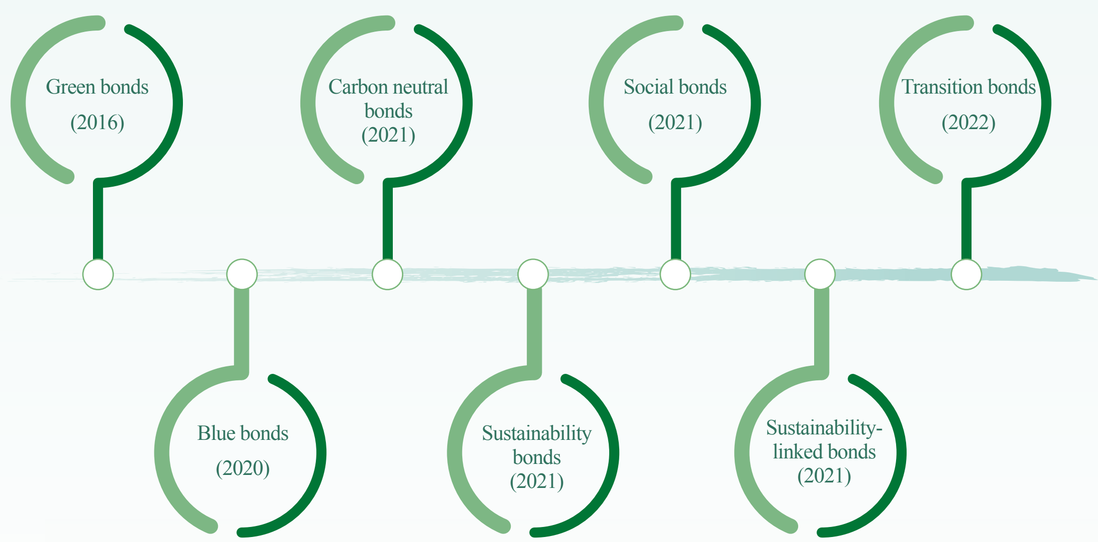


Figure 3-7 Development History of ESG Themed Bonds in China

ESG-related third-party evaluation and data service

Various institutions actively participated, providing ESG evaluation and data services

ESG-related third-party services provide the market with ESG evaluation results and relevant data, providing reference values and data for ESG investment and financing and effectively channeling funds to sustainability. These services are thus an important part of the ESG ecosystem.

At present, there are diverse ESG third-party services available in the market. Institutions that provide ESG services in China include financial infrastructure, professional ESG data providers, comprehensive financial information service providers, credit rating agencies, and academic research institutions. Most third-party ESG evaluation scores and data cover listed companies only, and some institutions can fully cover bond market issuers. Most third-party institutions provide ESG evaluation and ESG data services, while Some institutions also provide analytical tools and solutions such as ESG indices, ESG reporting and ESG consulting services.

China's local ESG evaluation methodologies contain both international practices and Chinese characteristics

In general, although the methodologies of ESG evaluation differ by service providers in China, they have referenced international, influential ESG standards, while also taking into account the characteristics of China's policy environment and capital market.

◎ First, the local evaluation framework refers to relevant international mainstream ESG standards.

The international standards include *the Guidelines for Sustainability Reporting* and *the Sustainability Reporting Standards* issued by Global Reporting Initiative (GRI), *ISO 26000* issued by International Organization for Standardization (ISO), as well as *the Sustainability Accounting Standards* issued by Sustainability Accounting Standards Board (SASB), *Corporate Governance Standards* issued by Organization for Economic Cooperation and Development (OECD) and the *TCFD Recommendations* issued by Working Group on Guidelines for Disclosure of Climate related Financial Information (TCFD).

◎ Second, the ESG evaluation methodologies share common objectives and evaluation dimensions.

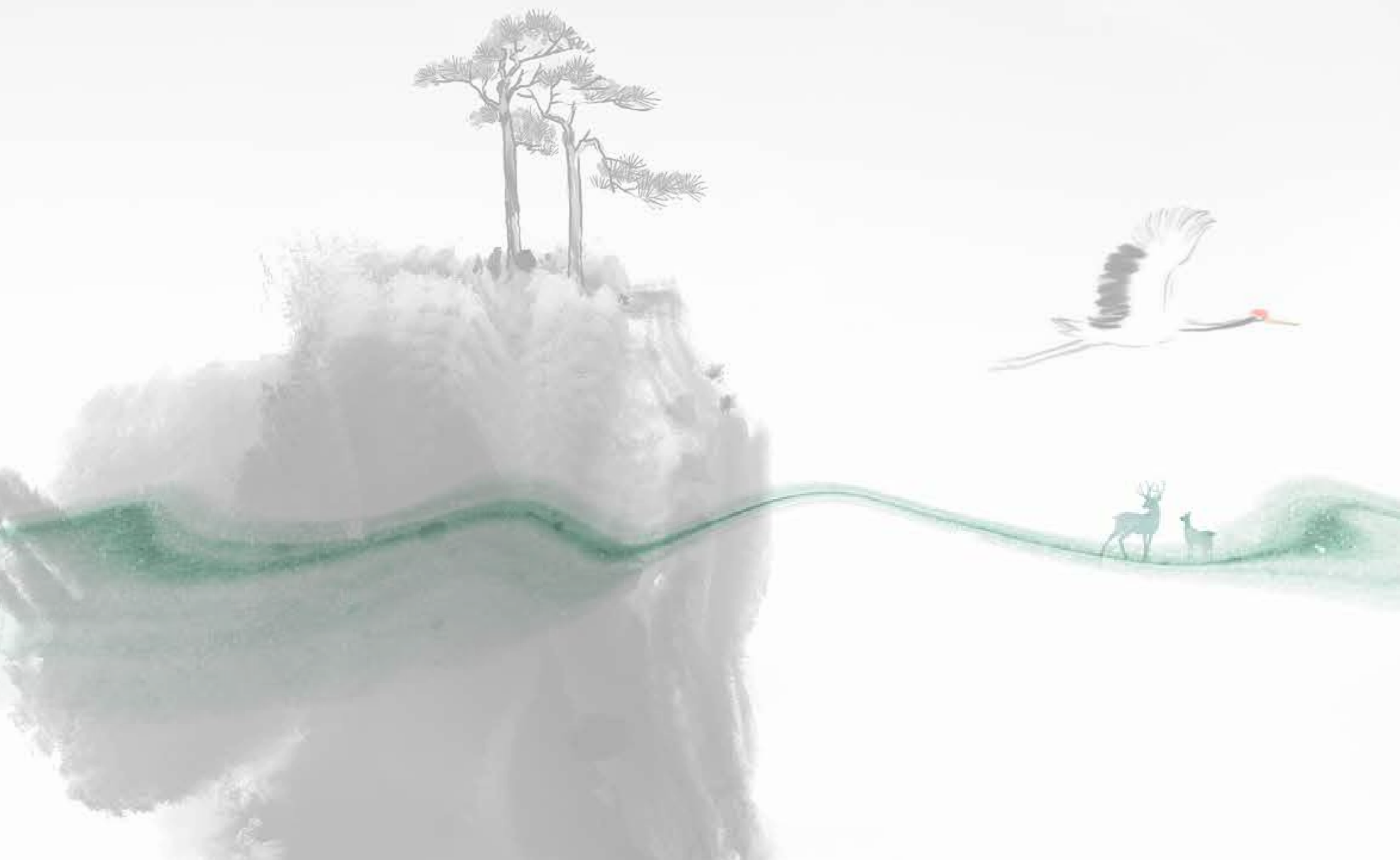
In terms of evaluation objectives, they often investigate the long-term sustainable development capacity of enterprises. In terms of evaluation dimensions, they examine the environmental practices in resource utilisation, pollutant discharge, environment protection, etc.; for evaluating "social" they often take into account the responsibility of enterprises for stakeholders such as employees, customers and suppliers. For "governance" they assess the composition, stability, incentives, as well as checks and balances of enterprise management.

◎ Third, China's local ESG evaluation methodologies consider the nature of China's policy environment, market, and thus include some metrics that reflect the local Chinese context.

This localized methodologies, for example, include key topics such as financial services for poverty alleviation, rural revitalization, and common prosperity and determines the best practice parameters by carefully considering industry differences and referring to the development plans and standards of various industries in China.

Recommendations

- Recommendations for the short term
- Recommendations for the medium and long term



Thanks to the continuous efforts of authorities and all types of market participants, considerable progress has been made in China’s ESG development. We believe that the ESG practices will inject impetus into China’s high-quality development in the future. However, we still have a long way to go in the promotion and application of ESG, which faces many challenges. Thus, suggestions are put forward as follows:

Recommendations for the short term

◎ First, it is necessary to promote the development of China's ESG-related standards system in combination with current ESG practices domestically and internationally.

At present, globally, ESG is still in its relative infancy. While the concept of ESG has received wide recognition, there is no consensus yet with regards to a specific code of conduct or evaluation method, and the relevant standards issued by various international organizations have different emphases. At present, ESG remains in an early stage of development in China. Corporates and financial institutions have made efforts on ESG according to their own understanding of the concept. However, the specific codes of conduct for various entities to engage in ESG policies lack consistency. This has impacted the further expansion and standardisation of China's ESG corporate practice to a certain extent. Therefore, the formulation of relevant ESG standards in China in terms of corporate disclosure, financial institution investment, and third-party institution evaluation is paramount. It is also necessary to guide Chinese enterprises and financial institutions to deepen their engagement with ESG and thereby encourage mechanisms for China and the world to carry out dialogue and investment and financing cooperation in the area of sustainability.

◎ Second, the standardisation of ESG information disclosure shall be accelerated based on the current practice of ESG information disclosure by Chinese enterprises.

From an international perspective, the reliability and standardisation of ESG information disclosure to satisfy international requirements is an important challenge for the ongoing adoption of ESG investment and financing practices. While policy has encouraged progress, the disclosure ratio, the richness, comparability and reliability of the information disclosed should be further improved. Therefore, there is urgent need to continue encouraging this practice at the policy level, to draw upon relevant international disclosure standards, and to issue China's ESG information disclosure standards based on China's ESG standards. It is also necessary to further strengthen awareness of ESG information disclosure, while fully considering the feasibility of information disclosure by enterprises. China could draw on experiences in other markets. It is helpful to provide a uniform disclosure template through financial infrastructures to reduce the cost burden of information disclosure on enterprises as much as possible, and standardise the work related to information disclosure to promote the in-depth development of ESG investment and financing practices.

◎ Third, the role of financial infrastructures shall be fully utilized and the application of ESG third-party evaluations shall be promoted.

At present, China's financial infrastructures, positioned as neutral and objective institutions with the advantage of obtaining data from serving the market over the years, have taken the initiative to fulfill their social responsibilities. They have launched ESG-related services, covering the bond market and A-share listed companies and providing reference indicators for China's ESG investment and financing. In the future, the leading role of financial infrastructures shall be fully utilised, and enterprises and financial institutions shall be encouraged to widely apply ESG evaluations and data in their practices. On that basis, enterprises shall be guided to proactively improve their own ESG levels, while financial institutions shall fully consider ESG factors in their investment decisions to promote capital flow into the field of sustainable development.

Recommendations for the medium and long term

◎ First, ESG concepts need to be further applied to deliver more vivid practices in China for deepening ESG development.

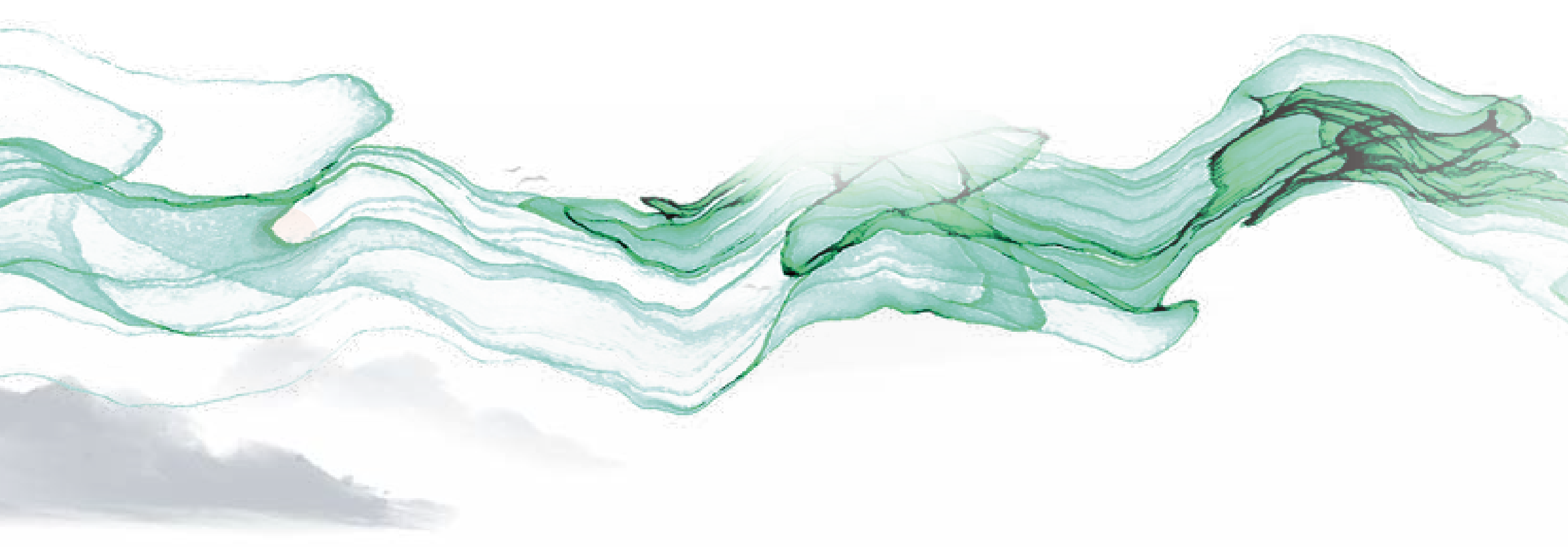
The continuous deepening of ESG practices in China requires advancing the construction of a more effective and diversified ESG ecosystem. Under policy guidance, we need to keep all parties fully motivated; further encourage enterprises, financial institutions, third-party service institutions, and scientific research institutions to engage in extensive participation; explore the establishment of a data co-construction and sharing mechanism; enrich ESG practice scenarios; improve China's ESG evaluation system; and deepen China's ESG theory. Taking these actions will lead to a virtuous circle of proactive policy guidance, proactive actions by enterprises, continuous investment of financial resources, and efficiency improvements in third-party services.

◎ Second, it is necessary to participate in global ESG governance and promote the coordinated development of international sustainable finance.

At present, China and the EU have jointly promoted the convergence in green classification standards and published *the Common Sustainable Finance Taxonomy* for international investors' reference. In the near future, the financial sector should continue to open to facilitate the participation of international investors in China's sustainable finance market, making it more attractive to international investors. Based on China's ESG practices, China needs to leverage the role of international sustainable finance institutions and organizations and participate in the development of international ESG-related rules and relevant international cooperation.

Conclusions

Currently, ESG is developing rapidly across the globe. Many international organizations and guidelines focusing on global sustainable development paths and promoting information disclosure have emerged in a short period of time. Large enterprises have proactively adopted ESG concepts, while sovereign funds, banks, and other asset management institutions have also begun to incorporate ESG factors in their investment processes. We can see that promoting sustainable development has become the common mission of all countries. The development of ESG and sustainable development concepts have also been grown rapidly, thanks to the vigorous effort by all parties. On the one hand, despite a relatively late start, ESG policies in China have made enormous progress, with a clearer policy frame, and a better ESG-related taxation, monetary, and investment policies and standard systems. Also, China is actively promoting international cooperation and participating in the formulation of international standards. On the other hand, companies have responded to policy requirements while taking action, boosting their ESG performance on all fronts. In addition, different kinds of sustainable financial instruments have emerged rapidly, making China the global leader in terms of issuance volume of sustainable bonds.



With a focus on major participants in the ESG ecosystem, this White Paper presents the progress in and the implementation results of China's ESG system, the efforts made by business entities and the innovation of financial markets; takes stock of and summarises China's actions and practices in the ESG field; and provides an overview for global investors who are interested in China's ESG development.

China is currently promoting sustainable development to promote a balance of human activities and nature. It is believed that with the endeavors and cooperation of all parties, ESG will play a role in China’s economic development. China will embrace global sustainability concepts while taking local context and situations into account.

Appendix

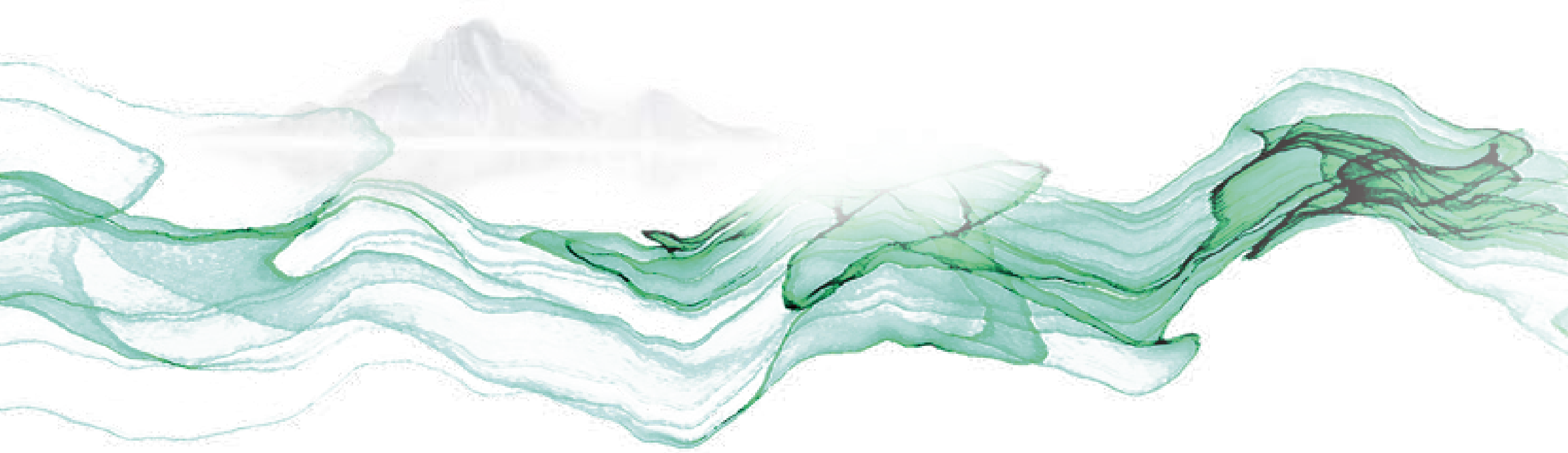
Appendix Summary of Chinese policies that require or encourage the disclosure of ESG information

Year	Issuing authority	Document name	Disclosing entity	Content to be disclosed	Compulsory or not
2007	Former State Environmental Protection Administration(EPA)	Former State Environmental Protection Administration (EPA)Measures for the Disclosure of Environmental Information (for Trial Implementation) (abolished)			
2015	Former Ministry of Environmental Protection (MEPC), National Development and Reform Commission (NDRC)	Guiding Opinions on Strengthening the Construction of Enterprise Environmental Credit System	Key pollutant discharging enterprises	Basic information, information about pollution such as the discharge of major pollutants and characteristic pollutants, environmental quality monitoring of surrounding areas, construction and operation of pollution prevention facilities, environmental protection administrative licensing, emergency plan for environmental emergencies and other information according to the environmental impact assessment report (form) and the response from authorities.	Mandatory
			enterprises that produce or import motor vehicle	Verified emission, technologies applied for pollution control and relevant maintenance technical information of motor vehicle models manufactured and imported.	Mandatory
			All enterprises	The recorded level of the enterprise' s pollutant emission and monitoring records of the impacts on the environment.	Voluntary
2021	Ministry of Environmental Protection (PRC)	Administrative Measures for the Legal Disclosure of Enterprise Environmental Information	Key pollutant discharging enterprises	Basic information of enterprises, including basic information of enterprise production and actions to protect ecological environment; information about enterprise environmental management, including ecological environment administrative permission, environmental protection tax, environmental pollution liability insurance, environmental protection credit evaluation and other information; information on the generation, treatment and discharge of pollutants, including information on pollution prevention and control facilities, pollutant discharge, discharge of toxic and harmful substances, generation, storage, flow, utilization and disposal of industrial solid waste and hazardous waste, and self-monitoring; carbon emission information, including information on emission level and emission facilities; ecological environment emergency information, including emergency plans for environmental emergencies, emergency response in case of poor air quality; information on violation of environmental laws; disclosure of temporary environmental information in accordance with the law this year; other environmental information specified by laws and regulations.	Mandatory
			Enterprises that are required to conduct mandatory audits on clean production	In addition to the contents required to be disclosed by key pollutant discharging enterprises, the following shall also be disclosed: reasons why the enterprise is required to conduct mandatory audit on clean production; implementation, evaluation and acceptance results of mandatory audits on clean production.	Mandatory
			Listed companies and bond issuers	In addition to the contents required to be disclosed by key pollutant discharging enterprises, the following shall also be disclosed: methods of financing, financing amounts, use of proceeds for the year, as well as the information about how the projects being financed contribute to climate change and environment protection.	Mandatory
2008	SASAC	Measures for the Administration of the Law-based Disclosure of Environmental Information by Enterprises	Centrally managed state owned enterprises	Social responsibility report or sustainability report, disclosing the current situation, plans and measures of enterprises to fulfill social responsibility.	Voluntary
2022	SASAC	Work Plan for Improving the Quality of Listed Companies Controlled by Central Enterprises	Listed companies controlled by centrally managed state owned enterprises	Dedicated ESG report.	Voluntary

Year	Issuing authority	Document name	Disclosing entity	Content to be disclosed	Compulsory or not
2002	CSRC	Code of Corporate Governance for publicly listed companies (abolished)			
2006	Shenzhen Stock Exchange (SZSE)	Guidelines on Social Responsibility for Listed Companies	Listed companies	The social responsibility report shall at least include: establishment and implementation of the social responsibility procedures in terms of employee protection, environmental pollution, product quality, community relations, etc.; whether there is a gap between the performance of social responsibility and the Guidelines and the explanation of the reasons for this gap; measures to improve and implementation timelines.	Voluntary
2008	Shanghai Stock Exchange (SSE)	Notice on Strengthening Listed Companies' Assumption of Social Responsibility" and the "Guidelines on Listed Companies' Environmental Information Disclosure."	Companies engaged in thermal power generation, steel, cement, electrolytic aluminum, mining and other industries that have significant impact on the environment	Environmental protection policies, objectives of the year and actual achievement of the year of the company; total amount of resource consumed in a year; investment for environmental protection and development of technology for environmental objectives; type, quantity, concentration and destination of discharged pollutants; construction and operation of environmental protection facilities; the treatment and disposal of waste in the production process, and the recovery and reuse of waste products; voluntary agreements signed with the environmental protection department to improve environmental behavior.	Mandatory
			Listed companies	Practices and achievements in undertaking social responsibility; social responsibility information such as social contribution value per share; environmental protection policies, objectives and actual achievement of the company; total amount of resource consumed in a year; investment for environmental protection and development of technology for environmental objectives; type, quantity, concentration and destination of discharged pollutants; construction and operation of environmental protection facilities; the treatment and disposal of waste in the production process, and the recovery and reuse of waste products; voluntary agreements signed with the environmental protection department to improve environmental behavior; rewards received from the environmental protection department; etc.	Voluntary
2018	CSRC	Code of Corporate Governance for Listed Companies (revised)	Listed companies	Disclose environmental information, implementation of social responsibilities such as poverty alleviation, and information related to corporate governance in accordance with laws and regulations and the requirements of relevant authorities.	Mandatory
				Information that may affect the decisions of shareholders and other stakeholders.	Voluntary
2017	NAFMII	Guidelines for Green Debt Financing Instruments of Non-financial Enterprises	Issuers of green bond financing instrument	Clearly disclose the specific information of green projects, including but not limited to: basic information of green projects; description whether green projects comply with relevant standards; environmental objectives and impacts such as energy conservation and emission reduction brought by green projects; disclose the use of proceeds and the progress of green projects every six months.	Mandatory
2018	People's Bank of China	Specifications for Post-issuance Information Disclosure of Green Financial Bonds	Issuers of green financial bonds	The use of proceeds shall be disclosed quarterly, including but not limited to the amount and quantity of new green projects launched during the reporting period, the due amount and quantity of projects launched, the balance and quantity of projects launched at the end of the reporting period, and a brief analysis of the balance and quantity of projects launched as of the end of the reporting period. The annual report shall comprehensively describe the overall use of proceeds and the expected or actual environmental impacts in the reporting year; the top 10% projects by the amount of funds allocated under the green financial bonds and the projects which received allocation of RMB50 million or more or accounted for 1% or more of the outstanding amount of green financial bonds shall be disclosed individually; other projects can be summarized and disclosed by category. Disclose information such as major pollution accidents or other violations of environmental laws by enterprises or projects being financed by the green financial bonds.	Mandatory

Appendix Summary of Chinese policies that require or encourage the disclosure of ESG information

Year	Issuing authority	Document name	Disclosing entity	Content to be disclosed	Compulsory or not
2018	People' s Bank of China (PBC)	Pecifications for Post-issuance Information Disclosure of Green Financial Bonds	Issuers of green financial bonds	Disclose the methodologies for measuring environmental impacts or the name of verifier; introduce the vision and objectives of their own green financial bonds and explain the progress made; disclose the focus of green financial bonds on which types of projects, key categories for use of proceeds or categories that are explicitly excluded.	Encouraged
2022	Shenzhen Stock Exchange (SZSE)	Shenzhen Stock Exchange Corporate Bond Innovative Business Guidance No. 1 - Green Corporate Bonds (revised 2022)	Issuers of green corporate bonds	Disclose the specific areas in which the proceeds of green corporate bonds are used, the information of green projects and the environmental benefits achieved.	Mandatory
			Carbon neutral bond issuers	Information related to the environmental benefits of the carbon neutral project, with an emphasis on the disclosure of the measurement methodologies and reference points of environmental benefits, and the quantitative measurement of the environmental benefits of the project such as amount of energy saving (based on standard coal) and carbon emission reduction.	Mandatory
2022	Shanghai Stock Exchange (SSE)	Guidelines for the Application of the Examination Rules for the Issuance and Listing of Corporate Bonds of the Shanghai Stock Exchange No. 2 – Certain Types of Corporate Bonds (revised in 2022)	Green corporate bonds (including carbon neutral bonds and blue bonds)	Disclose the information about the green projects being financed, including but not limited to the category of green projects, the criteria or standard for project selection, and environmental benefit objectives; disclose the use of proceeds, progress of green projects, environmental benefits, etc.	Mandatory
			Issuers of carbon neutral bonds	Calculation methodologies and reference points for environmental benefits, and quantitative calculation of amount of energy saving (standard coal), carbon emission reduction and other environmental benefits of the project.	Mandatory
2021	People' s Bank of China (PBC)	Guidelines for financial institutions on environmental information disclosure	Banks, asset management companies, insurance companies, trusts, futures companies, securities companies and other financial institutions	Disclose annually in the environmental information report, social responsibility report or annual report, the environmental related governance structure, environmental related policies and procedures, innovation in the aspects of environmental related products or services, environmental risk management process, the impact of environmental factors on financial institutions, the environmental impact of investment and financing activities, the environmental impact of business activities; data consolidation, verification and protection; green financial innovation and research achievements.	Encouraged



About CCDC

China Central Depository & Clearing Co., Ltd. (CCDC), founded in December 1996. CCDC is the only central financial enterprise to specialize in financial market infrastructure (FMI) services.

Since its establishment, CCDC has faithfully fulfilled its duties as a national financial market infrastructure institution and fully and deeply participated in the cultivation and construction of China's bond market. It has become an important service platform for China's bond market operations, a support service platform for the implementation of national macroeconomic policies, a pricing benchmark service provider for China's financial market, and a main gateway for China's bond market to connect with overseas markets. As of the end of 2021, CCDC managed registered financial assets of over RMB 125 trillion, of which bonds accounted for more than RMB 87 trillion.

ChinaBond Pricing Center is a reliable set of pricing benchmarks that CCDC provides for the financial market based on its unique expertise and neutrality as a CSD. ChinaBond Pricing Center is responsible for compiling and operating ChinaBond Pricing Products. These products fully reflect the prices and risk status of the RMB bond market and are reliable benchmarks for the domestic bond market. Approved and recommended by regulators and widely used in the market, they have become key references for the formulation and implementation of fiscal and monetary policies.

In 2020, ChinaBond Pricing Center launched the world's first ESG evaluation system. This system fully covers issuers in China's bond market, filling a gap in the market. It expanded to cover A-share listed companies in 2021, realizing full coverage of nearly 9,000 domestic bond issuers and other listed companies. The ChinaBond Pricing Center also provides diversified product services including ESG evaluation, ESG database, ESG index, ESG reports and ESG consultancy, thus promoting the practical application of ESG concepts philosophy and high-quality economic and social development.

About ICMA

The International Capital Market Association (ICMA) is an international trade association that is a highly influential voice for the global capital market. ICMA represents institutions worldwide, who are active in the international capital markets on a cross border basis. Founded in 1968, ICMA has its head office in Zurich, with a subsidiary in London and representative offices in Paris, Brussels, and Hong Kong. ICMA liaises closely with regulatory and governmental authorities, both at the national and supranational level, to provide industry-driven rules, principles and recommendations that promote coherent, resilient and well-functioning international cross-border debt securities markets.

ICMA's market conventions and standards have been the pillars of the international debt markets for over 50 years. While ICMA has been most active in the international debt markets, it takes full account of the increasing integration between the debt and equity, cash and derivatives markets.

Membership continues to grow, with currently more than 600 members based in over 60 jurisdictions. ICMA members include global investment banks, commercial and regional banks, brokers, private banks, institutional asset managers, pension funds, central banks, sovereign wealth funds and other institutions with a pronounced interest in the securities market, such as supranational institutions, infrastructure providers, rating agencies, law firms, audit firms and media.

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