

How to Build China's Green Bond Standard System under the Background of "Double Carbon"

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Abstract: "Carbon peaking" and "carbon neutrality" have been released as a signal that China is on the path of green and low-carbon development. As one of the green finance tools, green bonds play an important role in green and low-carbon technological innovation and industrial development. Although the release of Catalogue of Green Bond Support Projects (2021) has become a milestone in the unification of China's green bond classification standards, they are still incompatible with international standards, which lead to 'green washing' and high overseas issuance costs problems. After comparing the bond classification standards at home and abroad, this paper puts forward policy suggestions for development of the construction of green bonds in China.

Keywords: Double Carbon; Green Bond; Classification Standards

1. Introduction

Green finance refers to the economic activities that support environmental improvement, respond to climate change and save and use resources efficiently, that is, providing financial services for investment and financing, project operation, risk management, etc. of projects in the fields of environmental protection, energy conservation, clean energy, green transportation, green buildings, etc. ^[1] Green finance plays a vital role in promoting the financial industry to use its characteristics and status to achieve its own sustainable development and guiding the economy to achieve sustainable development. As one of the important tools of green finance, On March 27th, 2015, the International Capital Market Association (ICMA), together with more than 130 financial institutions, defined green bonds as various types of bond instruments that use raised funds or equivalent amounts exclusively to provide partial/full financing or refinancing for new and/or existing qualified green projects, of which qualified green projects should help achieve such goals as climate change mitigation, climate change adaptation environmental objectives such as natural resource protection, biodiversity protection and pollution prevention^[2]

At present, China has become the second largest green bond issuer in the world. ^[3] The market participants are growing, the issuance varieties are increasingly rich, and the support for the real economy is increasing. However, there is still a big gap between China's and the international green bond development. China's green bond market is challenged by the challenges from the transition period of economic development, the problems brought by the top-down reform and the pending problems as an emerging market, which restrict the development space of green bonds. ^[4] To be specific, China's green bond market has a series of problems such as nonstandard development, "green washing", ^[5] small market size, ^[6] inconsistent evaluation criteria, ^[7] low enthusiasm of issuers, inactive market transactions, lack of attractiveness to investors, ^[8] and short bond maturity, which cannot meet the financing needs of long-term investment projects. ^[9]

The development of green bonds is an effective way to build an ecological civilization. It can effectively solve the financing difficulties and high financing costs of green enterprises, and is conducive to financial institutions to speed up business adjustment, expand business space, and meet the investment needs of responsible investors. ^[10]

2. Comparisons of Overseas green bond classification standards

The green finance classification standard is a system that systematically classifies and defines economic activities or investments that meet priority environmental goals. It is the basis for countries around the world to achieve their key climate, environment and development goals by mobilizing public

and private resources in the financial field. Scientific and rigorous green classification standards can effectively guide market participants to identify qualified green and sustainable assets, reduce the risk of "green washing", support further policy actions, and promote the effective expansion of green financing scale.^[1]

At present, there are two kinds of international mainstream green bond standards: one is the market oriented, spontaneously formed and highly accepted green bond issuance principles by international organizations, including the Climate Bonds Initiative (CBI) issued at the end of 2011, the 3.0 version of the *Climate Bonds Standard* (CBS) revised in 2019 and the International Capital Market Association (ICMA) issued at the beginning of 2014, *Green Bond Principles (GBP)* revised in June 2021; Second, green bond standards formulated and implemented by regions or countries in combination with local economic development stage, resource endowment, energy structure and other characteristics, such as those promulgated by Japan in April 2021 *Basic Guidelines on Climate Transition Finance*, and the *European Green Bond Standard (EU GBS)* issued by the EU on July 6th, 2021. In general, such standards are adapted to local conditions and conform to the actual situation of the countries or regions where they are issued, but inevitably there is a problem of inconsistency with international standards.

2.1 Climate Bonds Standard

In October 2020, the *Climate Bond Standard* increased the proportion of the raised funds invested in green projects from 95% to 100%, which meant that only bonds that fully invest all the expected net income in green projects or activities could be identified as climate bonds. The classification of green bonds in the *Climate Bond Standard* mainly includes eight industries, including energy and information and communication technology, and distinguishes them according to the availability of certification standards, the ongoing development of certification standards, and the upcoming launch of certification designation.

The Climate Bond Initiative is one of the more authoritative Second Opinion institutions in the world. This will not only ensure the integrity and depth of information disclosure of green bonds, but also attract investors as the green bond market becomes more attractive. The *Climate Bond Standard* cooperates with the certification authority to supervise the certification process. The certification mark procedure of climate bonds consists of three stages, which is convenient for issuers to use the certification mark of climate bonds in the pricing and marketing of bonds, loans or other debt instruments, and also ensures that the certification mark remains true and reliable after the issuance of bonds, loans or other debt instruments and after the net raised funds are in place. The Issuer shall be responsible for preparing the annual report on time and publishing it to the Climate Bond Initiative and bondholders in a timely manner. If it is updated within the duration of the bonds, it shall disclose the situation to the public in a timely manner.^[1]

2.2 Green Bond Principles

According to the *Green Bond Principles*, qualified green projects include ten categories, such as renewable energy, land and water ecological diversity protection, etc. The issuer of green bonds shall evaluate the whole process of bond operation in accordance with the standard process, indicating that the projects to which the raised funds are invested fully meet the requirements of the green bond standard.

A special account is set up to record the funds raised by green bonds and the subsequent income. The issuer establishes an internal audit mechanism, strengthens the management of direct funds, and ensures the efficient operation of funds. At the initial stage, it can timely invest in the corresponding green projects. During the operation, it can continuously track and ensure the reasonable use of funds. The Issuer shall update the report on the use of funds at least once a year before the end of the investment of raised funds, make records and keep them, and submit an update report if any major event occurs in the process. If the investment project fails to meet the green bond standard due to special circumstances, it shall be adjusted in time to ensure the green investment direction of funds.

The *Green Bond Principles* strongly recommends that the issuer confirm that the green bond or the plan and/or framework comply with the four core elements of the Green Bond Principle through third-party institutions such as external auditors before issuing bonds. It encourages bond issuers to use external certification during the duration of bonds, and review the use of funds through third-party institutions. The Issuer shall disclose the external review opinions publicly on its official website and/or through other appropriate and feasible channels. However, the Green Bond Principles do not certify the qualifications of third-party institutions.^[2]

2.3 European Green Bond Standard

The *European Green Bond Standard* is open to all EU and non-EU bond issuers, including enterprises, sovereign states, financial institutions, guaranteed bonds and asset-backed securities. The goal is to become a voluntary gold standard for the issuance and operation of green bonds. It hopes to send a signal to EU investors that their environmentally sustainable bonds meet the EU green bond standard. Therefore, it can be labeled as "European green bond".

The *European Green Bond Standard* requires that bonds can only be issued to the EU public when the fact sheet has been approved by external reviewers. After issuance, the issuer must prepare an annual distribution report of *European Green Bonds* in accordance with the format specified in the European Green Bond Standard until the net income of bonds has been fully distributed. Thereafter, the issuer must draft a final distribution report and provide it to the external reviewers within 30 days after the end of the year referred to in the report for the post release review of this report. The external reviewers shall issue the post release review within 90 days after receiving the distribution report. Finally, after the full distribution of net income (and at least once during the duration of the bond), the issuer must draft a report on the impact of European green bonds on the environmental impact of income use in accordance with the format prescribed by the regulations.^[12]

3. The Development Status and Challenges of China's Green Bond Market

The first green bond in China began with the first five-year medium-term note linked to carbon income issued by CGN Wind Power Co., Ltd. in May 2014. In December 2015, the People's Bank of China issued the *Announcement on Issues Related to Issuing Green Financial Bonds in the Inter-bank Bond Market* and the *Catalogue of Green Bond Support Projects* to guide the issuance of green bonds, marking the official launch of China's green bond market.

3.1 Definition and classification of green bonds in China

In April 2021, the People's Bank of China, the Development and Reform Commission and the Securities Regulatory Commission issued the Notice on the *Catalogue of Green Bond Support Projects (2021)*, which is the first update of the catalogue version of China's green bond support projects. The three departments jointly issued the catalogue to achieve the unification of China's green bond market catalogue. The notice clearly defines green bonds. Green bonds refer to securities issued in accordance with legal procedures and repaying principal and interest as agreed, including but not limited to green financial bonds, green enterprise bonds, green corporate bonds, green debt financing instruments and green asset-backed securities, which are used to support green industries, green projects or green economic activities that meet the specified conditions.^[13]

In general, the international green standards focus on curbing climate degradation, while China focuses on environmental protection and resource conservation. This determines that there is a big difference between the size of green bonds issued in China to meet the CBI green definition and the size that does not meet the CBI green definition. The use of land, biology and marine resources under the general principle of foreign countries has not been listed in the directory of green bond support projects in China. China supports the issuance of bonds in such fields as green consulting technology services, and in such sub industries as biomass energy that CBI cannot pass the green bond certification for the time being. These are not the development direction of foreign green bonds. Energy conservation and pollution prevention under the old version of the first level classification are merged into the energy conservation and environmental protection section under the new directory, and green services are new additions. Under the secondary directory, the classified contents of green agriculture and unconventional water resources utilization are added. In the description/conditions, green bonds will no longer support high carbon emission projects such as coal, and "without significant impact on the ecological environment" will become a prerequisite for the use of hydropower, nuclear power and other projects.

The funds raised from green bonds in China mainly flow to the six green industries classified in the first level of the *Catalogue of Green Bond Support Projects (2021)*. In 2021, up to 88.3% of the funds raised in China's green bond market were invested in renewable energy, low-carbon transportation and low-carbon buildings.

3.2 Scale and proportion of capital investment

In recent years, the issuance scale of green bonds in China has increased year by year. According to the statistics of the WIND information database, China has issued 975 green bonds in 2021. Although the total amount of green bonds issued will decrease slightly compared with 2020, it has still reached 1159.8 billion yuan, which has become a financial product in China's green financial market second only to green credit.

However, according to the statistics of green bonds conforming to the green definition of CBI, the annual issuance of green bonds in China jumped from the fourth place in 2020 to the second place in 2021.

In terms of the proportion of capital investment, according to the top-level design on corporate bonds, financial bonds, etc. issued by relevant institutions in China, 80% of the total investment in green corporate bonds can be obtained by raising funds, of which the funds used to repay bank loans and supplement working capital and other funds used to optimize the debt structure of the issuing entity shall not exceed 50%; Green corporate bonds require that no less than 70% of the raised funds be invested in green projects, including the construction, operation, purchase and repayment of debts for green projects. For companies with green as the main business, the specific green projects may not be specified when applying for issuing corporate bonds, but it is necessary to ensure that the raised funds are invested in the company's green industry, and continue to disclose the relevant information about the raised funds used for green projects during the duration of the bonds; Green financial debt and green debt financial instruments emphasize that all funds are invested in green projects. China has relaxed restrictions on the use of funds for green bonds, resulting in the funds raised flowing into non green areas, and some green bonds are "green washing".^[14]

3.3 Information disclosure system

China's green corporate bonds require the issuer to disclose the use of funds raised by green corporate bonds, the progress and environmental benefits of green industrial projects, etc. in accordance with the provisions of the *Administrative Measures for Corporate Bonds*, *the Listing Rules for Corporate Bonds*, *the Interim Measures for Non-public Issuance of Corporate Bonds* and other rules or in the regular reports disclosed during the duration of the green corporate bonds. The issuer of green bonds shall disclose the use of raised funds to the market in the form of quarterly reports. The deadline for the disclosure of the annual report and special audit report on the use of raised funds in the previous year is April 30th of the next year. This information also needs to be submitted to the People's Bank of China at the same time. However, China's green corporate bonds have no mandatory information disclosure requirements. The regulatory authorities encourage the issuers of green corporate bonds to publish the evaluation opinions or certification reports issued by independent professional evaluation agencies or certification agencies every year during the duration.

At present, China's green bond information disclosure requires higher frequency of disclosure, but is relatively simple in terms of specific content compared with international standards. *The Green Bond Principles* and the *Climate Bond Standards* stipulate that the environmental benefits of the use of green bonds must be disclosed, but China only has this requirement in the notice of green corporate bonds pilot. *The Green Bond Principles* suggest that qualitative indicators be used to evaluate the use of green bond funds, and quantitative indicators be used to evaluate green gas emission reduction, the number of people benefiting from clean energy and other data, but there is no such requirement in China at present.

3.4 Third party certification

In order to regulate the conditions and processes for third-party evaluation institutions to conduct business, the People's Bank of China and the CSRC in October 2017 jointly formulated the *Guidelines for the Evaluation and Certification of Green Bonds (Provisional)*.

The third-party certification and evaluation system of green bonds in China has not been established yet. The issuance of green bonds does not require third-party certification. At present, the third-party certification process is still actively promoted, but it is still in the voluntary stage. The wording is mainly "Encourage". The green corporate bonds encourage issuers to submit green industry projects that are proposed to be invested by independent professional assessment institutions or certification institutions with raised funds, issue evaluation opinions or certification reports. During the duration of green financial bonds, the issuer is encouraged to disclose the evaluation report issued by an independent professional

evaluation institution or certification institution to the market every year. The issuer needs to continuously track and evaluate the development of green industry and its impact on the environment after being supported by green financial bonds. There is also no provision for certification of green corporate bonds. At present, the third-party certification and evaluation agencies of green bonds in China mainly include credit rating agencies, such as CCXGF, accounting firms, such as Ernst & Young, etc. There are certain differences among the agencies in the evaluation and certification process, content and report form.

At present, the reports presented by some third-party certification institutions in China are generally lacking in materiality. There are also vicious competitions among bad institutions in the market, such as bundled business promotion and low price contracting of bond projects. With the expansion of the issuance scale of green bonds, some institutions that were not engaged in the certification and evaluation of green bonds are also trying to occupy market shares. In the context of the current lack of standardization of certification standards and certification references, the entry of such institutions will undoubtedly increase the risk of vicious competition.

Looking at the current development of green bonds in China, compared with the internationally accepted recognition standards, there are gaps in the number of bonds issued, the size of issuance and the direction of capital investment. The reason is that there are differences in green bond standards between China and foreign countries.

4. Policy Suggestions on Accelerating the Construction of China's Green Bond Standards

There are many problems in China's green bonds, such as the types of projects that are not supported by the international green bond classification standards, the funds are not invested in green projects or original projects, the lack of adequate information disclosure, and the lack of foreign authoritative third-party certification bodies and standards, which lead to a series of problems in China's green bond market, such as "green washing". In the future, China's green bonds can be further integrated with foreign standard systems from the following aspects:

4.1 In line with the list of international green bond support projects

At present, although China has updated the scope of projects supported by green bonds and formulated the *Catalogue of Green Bond Support Projects (2021)*, the determination of China's green bond directory must still be based on China's national conditions and the characteristics of China's current green industry development. In view of the differences between the current directory of green bond support in China and that in the international directory, it is suggested that China should conduct in-depth exchanges and communication with international standard setting institutions to promote the categories that fit the development characteristics of China's green industry at this stage to be reflected in the international directory of green bond support.

4.2 Increase the proportion of green bond investment and limit "green washing"

In general, the proportion of green bonds invested in green projects in China is lower than 95% - 100% required by international standards, and the difference between different bonds is relatively large. In the future, China should gradually increase the proportion of funds invested in green bond projects. For example, 80-90% of the funds raised from green corporate bonds will be used to invest in green projects; Consider reducing the proportion of funds raised from green corporate bonds used to repay bank loans and supplement working capital to 20% - 30%.

4.3 Establish unified information disclosure standards and systems

In order to strengthen the functional supervision and behavior supervision of green bonds, ensure that China's green bonds are really invested in green projects, and uniformly regulate and eliminate regulatory arbitrage, China must establish a series of reasonable and effective systems and frameworks suitable for the information disclosure of green bonds.

When issuing green bonds, it is necessary to publicly raise funds to invest in industrial project categories, management systems and other relevant information. During the duration of the bonds, the bond issuer shall regularly disclose to the public the information including the investment details, capital investment proportion, income and other information of the raised funds, and employ a third-party

institution to continuously track and evaluate the use of funds. The bond issuing enterprises are required to disclose the information environment, clarify the legal responsibilities of the bond issuing enterprises, and strengthen the environmental risk awareness of the bond issuing enterprises. ^[15]

4.4 Mandatory introduction of third-party certification

In the future, only if the third-party certification becomes one of the necessary processes for green bond issuance and process supervision, can the green bond market develop in a standardized manner, eliminate the "green washing" behavior of "non-green" enterprises, and finally realize the further expansion of the scale of green bonds.

From the perspective of third-party green bond certification institutions, on the one hand, China can introduce foreign institutions with rich third-party green bond certification experience, and use the successful experience of foreign institutions in third-party green bond certification to help third-party green bond certification in China; On the other hand, Policy is appropriate to the existing domestic third-party institutions. Domestic third-party institutions seize the opportunity of vigorously developing green bonds and actively seek cooperation with foreign third-party institutions. While learning and summarizing their own gaps and shortcomings and successful experience, they find out a set of third-party certification standards suitable for our national conditions to provide reliable and credible third-party certification conclusion for our green bonds.

From the perspective of effect, the certification report issued by the third-party certification authority objectively evaluates the environmental performance of the issuer and green projects, certifies the investment and allocation of project funds, tracks the use of funds, and evaluates the effect of bond energy conservation and emission reduction. We will establish and improve a green bond regulatory agency that "prevents in advance, supervises in the process, and supervises after the event", improve the transparency of the investment and use of green bond funds, and promote the high-quality and sustainable development of China's green bond market.

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