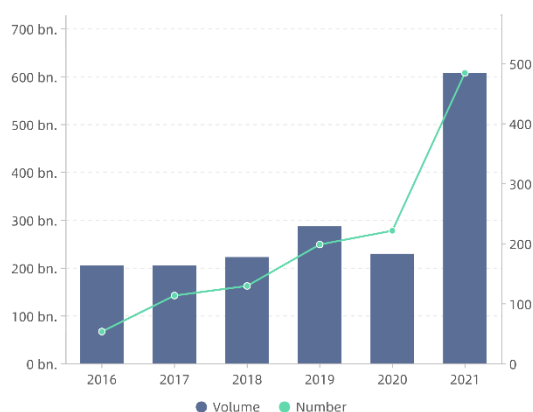


China Green Bond Report 2021

Volume and number of green bond issuance (2016-2021)

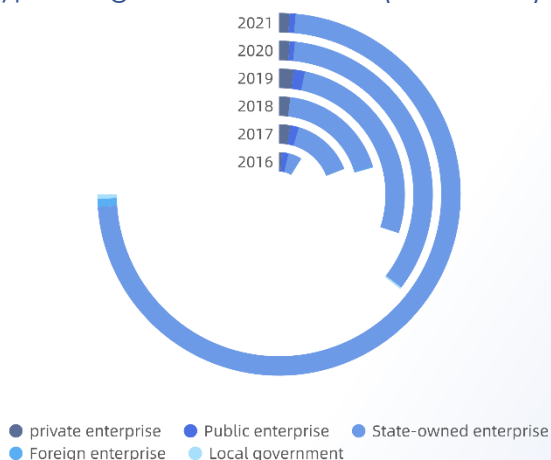


Green bond ratings (2016-2021)

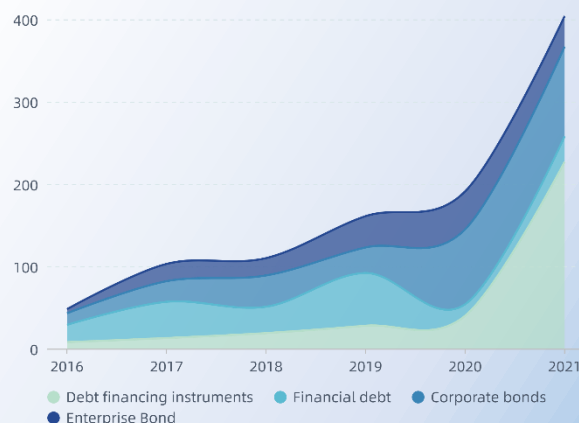


RMB 607.242 billion
issued in 2021

Types of green bond issuers (2016-2021)



Different green bond types (2016-2021)



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Review: Cui Ying

Data provider: Qiao Shinan; Zhang Yijing

Translation: Alyssa Shang, Ola Janus

Progress in the construction of green bond system

(i) Green financial standards

Updated Green Bond Endorsed Projects Catalogue (2021 Edition) unifies the criteria for the recognition of China's domestic green bonds. The “Green Bond Endorsed Projects Catalogue (2021 Edition)” (hereinafter refers to as “Green Bond Catalogue (2021)”) was jointly announced by the People's Bank of China (PBOC), the National Development and Reform Commission (NDRC), and the China Securities Regulatory Commission (CSRC) in April 2021. The Green Bond Catalogue (2021) unifies the definition of green bonds. Green bonds refer to marketable securities that use raised funds specifically to support green industries, green projects, or green economic activities that meet specified conditions, and are issued under legal procedures and repay principal and interest according to agreements. The Green Bond Catalogue (2021) also specifies the six sectors of green bonds, including energy-saving and environmental protection industry, clean production industry, sustainable upgrade of infrastructure, clean energy industry, ecology and environment-related sector, and green services. The catalogue provides important support for achieving China’s carbon neutrality goal.

The Guidance on Taxonomy of Climate Investment and Financing establishes a reference for the identification of climate projects. In October 2021, the publication of the “Guidance on Taxonomy of Climate Investment and Financing” (T/CSTE 0061-2021) (hereinafter referred to as the "Guidance") was approved by the Chinese Society of Technology Economics, mainly led by the Climate Investment and Finance Association of the Chinese Society for Environmental Sciences. According to the Guidance, climate investment and financing projects are the ones where funds are mainly used on delivering response to climate change. Climate change mitigation projects refer to projects that can reduce greenhouse gas emissions or increase greenhouse gas removals, (e.g., low-carbon industrial systems, low-carbon energy, pilot demonstrations of carbon capture, control of greenhouse gas emissions from non-energy activities, and increasing carbon sinks). Climate change adaptation projects address actual or expected climate impacts to reduce the vulnerability of natural and human systems to mitigate the adverse effects of climate change, (such as the improving climate change adaptation capacity in key areas, developing infrastructure capacity etc).

Common Ground Taxonomy: Climate Change Mitigation supports international cooperation in the green finance between China and EU. In November 2021, under the International Platform on Sustainable Finance (IPSF) both parties released the "Common Ground Taxonomy: Climate Change Mitigation" which analyzes approaches of the EU and China taxonomy and finds commonalities and differences between some features of the two taxonomies. The current version covers 61 major economic activities in the six sectors of energy, manufacturing, construction, transportation and storage, waste management, and forestry. The Common Ground Taxonomy can provide a reference for the issuance or investment of green bonds and other green finance-related products at home and abroad, promote exchanges and cooperation between China and Europe on green finance, and enhance China's external influence in the field of green finance. It is an important step to facilitate green finance cooperation and green investment between China and the EU.

(ii) Construction of market order

The Operational Rules for Market Evaluation of Green Bond Evaluation and Certification Institutions (for Trial) and supporting documents have regulated the market for third-party evaluation and certification services for green bonds. The Green Bond Standards Committee issued the trial rules and related supporting documents in September to standardize operations of green bond certification agencies. The third-party service providers will be evaluated according to the market-based evaluation application mechanism, and those who qualify will be registered with the Green Bond Standard Committee before they can carry out evaluation and certification of green bonds in the interbank and exchange markets. The issuance of this set of documents will further enhance the overall quality and credibility of third-party service agencies and promote the standardization of the green bond market.

(iii) Product innovation

1. Exchange Centers

The Exchange added innovative green bonds such as carbon-neutral corporate green bonds and blue bonds. In July 2021, the Shanghai Stock Exchange and the Shenzhen Stock Exchange revised Rules for the Examination and Listing of Corporate Bonds Issued by the Shanghai Stock Exchange¹ and the Business Guidelines for Innovative Corporate Green Bonds² (Revision 2021) to clarify the Exchanges' requirements regarding the use of proceeds and the environmental information disclosure of carbon neutrality bonds and blue bonds. It provides standard reference and behavior guidance for market institutions to participate in the innovation of green corporate bonds, and has important practical significance for promoting the development of green bond market and serving the national carbon peak and carbon neutralization goals.

2. National Association of Financial Market Institutional Investors

The National Association of Financial Market Institutional Investors (NAFMII) launched an innovative "carbon neutrality bond" to implement the national carbon peaking and carbon neutrality strategy. In March 2021, under the guidance of the People's Bank of China, NAFMII launched an innovative carbon neutrality bond to support green projects with carbon emission reduction benefits. NAFMII has drafted the specific guidelines regarding the use of funds, project evaluation and selection, management of proceeds, information disclosure for the carbon neutrality bonds. The aim is to encourage and guide financial institutions issue carbon neutrality bonds and guide more funds towards green and low-carbon areas.

NAFMII launches innovative sustainability-linked bonds (SLBs) to facilitate low-carbon transition for high-carbon industries under the carbon peaking and carbon neutrality targets. In April 2021, under the guidance of the People's Bank of China, NAFMII launched SLBs, which are debt financing instruments that link the terms of the bond to the issuer's sustainability goals. The

¹ 《上海证券交易所公司债券发行上市审核规则适用指引第 2 号—特定品种公司债券》

² 《公司债券创新品种业务指引第 1 号—绿色公司债券（2021 年修订）》

regulator doesn't set any special requirements on the use of the proceeds, and generated funds can be used for general corporate purposes as long as the company achieves its pre-defined KPIs. The launch of the first SLBs can provide financial support to enterprises in the traditional carbon intensive sectors on their pathway to achieve low-carbon transformation.

NAFMII promotes the innovation of panda bonds and implements the principles of sustainability. In November 2021, NAFMII issued Pilot Program for Overseas Issuers to Issue Social Bonds and Sustainability Bonds in China for overseas entities issuing social bonds and sustainability bonds in China. During the pilot phase, foreign governmental agencies, international development institutions, and overseas non-financial enterprises can register with NAFMII to issue social and sustainability bonds in China

China's Green Bond Market

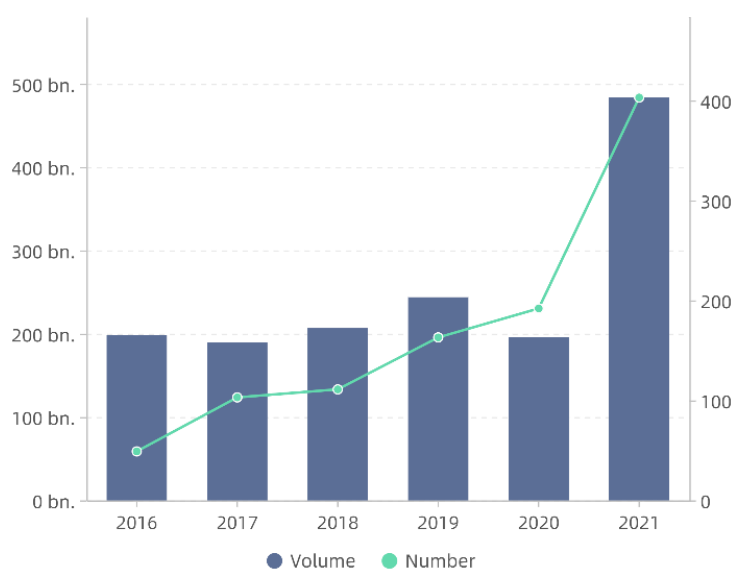
In 2021, the total amount of new green bonds issued in China (excluding green local government bonds) reached about RMB **607.242** billion, representing 0.98% of the total national bonds; the number of issuances amounted to **484**, representing 0.90% of the total national bonds' issuances in 2021. In addition, the total amount of non-labelled green bonds issued reached RMB **1.86 trillion**, and the issuance number was **561**. The volume of green bonds issued in China in 2021 has expanded rapidly, and the number of green bond innovations has increased.

(i) Domestic labelled green bonds (excluding Debt Financing Instruments)

1. Surge in the issuance amount and volume of labelled green bonds

In 2021, the issuance volume of China's labelled green bonds market jumped. The issuance volume of new labelled green bonds in China reached RMB **483.574** billion in 2021. The total volume was up by 139.07% compared with the final 2020 figure. The issuance number reached **403**, up by 108.33% compared with 2020. In addition, three new green local government bonds were issued in 2021, raising RMB2.461 billion to fund green, low-carbon projects.

Volume and number of domestic green bond issuance in 2021 (In addition to asset-backed securitization



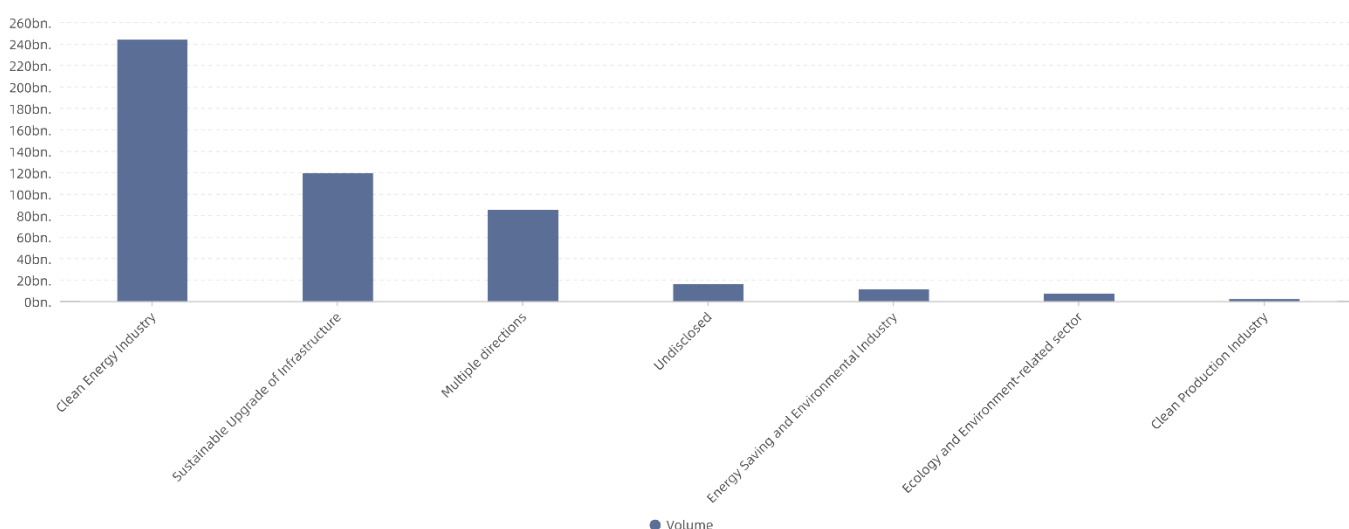
products)

Source: International Institute of Green Finance

2. Proceeds of labelled green bonds go to the clean energy industries

In 2021, the proceeds of China's green bonds were mainly used to support the development of the clean energy industry, with 50.38% (RMB 243.631 billion) of the total funds raised from green bonds directed to construction and operation of renewable energy facilities such as wind power generation and solar energy utilization facilities. The second most popular use of proceeds was green upgrading of infrastructure, with the volume of funds used being about RMB119.196 billion, representing 24.65% of the total funds raised from green bonds. Projects were mainly related to green transportation, green buildings. In addition, the volume of funds used to support energy-saving and environmental protection industries such as pollution prevention and control and energy-efficient equipment manufacturing was RMB 10.902 billion, representing 2.25% of the total funds raised from green bonds; the volume of funds used to support ecological and environmental industries such as natural ecological protection and restoration was RMB 7.1 billion, representing 1.47% of the total funds raised from green bonds; the volume of funds used to support clean production industries such as industrial pollution control was RMB 1.4 billion, representing 1.5% of the total funds raised from green bonds. There are also about 51 bonds with an amount of RMB 85.08 billion with multiple uses, and about 33 bonds with an amount of RMB 15.865 billion without disclosing the exact use of proceeds.

Figure 2 Investment volume of funds raised by green bonds in 2021



Source: International Institute of Green Finance

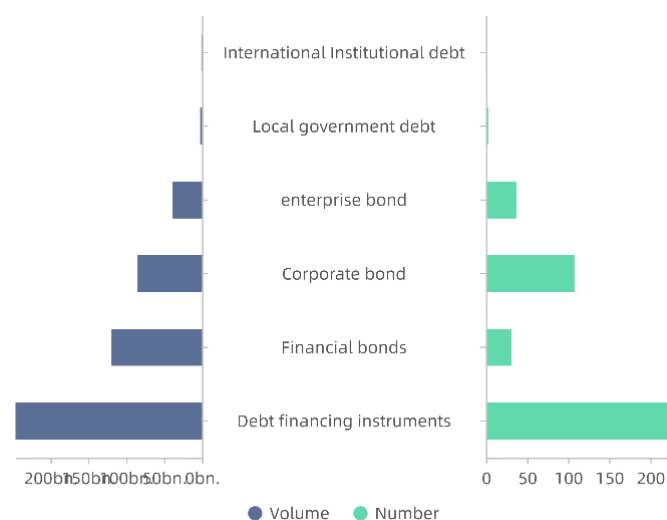
3. The increase in issuance of labelled green debt financing instruments

In 2021, the issuance type of bonds in the labeled green bond market was dominated by debt financing instruments. The issuance number was about **227** and the year-on-year growth rate of 511.23%, and the issue amount was about RMB **246.327** billion with a year-on-year growth rate of 511.23%. This was followed by green financial bonds, with the issuance number being about **31** and the year-over-year growth rate of 121.43%, and the issue amount being about RMB **113.055** billion with a year-on-year growth rate of 251.10%. The third place was taken by corporate green bonds, with the issuance number being about **108** and the year-over-year growth rate of 19.78%, and the issue amount reaching about RMB **85.332** billion with a year-on-year growth rate of 16.56%. In addition, the number of enterprise bonds issued was about **37** with a year-on-year decrease rate of 19.57%, and the issue amount was about RMB **38.860** billion with a year-over-year decrease rate of 18.60%.

4. Medium-term bonds account for more than 80% of the total issuance in labelled green bonds

In 2021, the most popular were mainly medium-term green bonds. **334** bonds (representing 85.36% of the total issuance number,) had the maturity of 1-10 year and the

Figure 3 Green bond issuance types in 2021 by volume and issuance number



Source: International Institute of Green Finance

total volume amounted to **410.704** billion yuan, (representing 84.93% of the total volume). There were **195** 3-year green bonds issued in 2021, (representing 48.39% of the total

issuance number), and with the year-over-year growth rate of 191.04%; the volume reached RMB **267.022** billion (representing 55.22% of the total volume) and with the year-on-year growth rate of 229.95%. There is a significant increase in the issuance and volume of the 3-year green bonds. The short-term bonds of less than 1 year took the third place with **57** green bonds being issued in 2021 (representing 14.14% of the total issuance number); the issue volume reached RMB **69.870** billion (14.45% of the total volume). In addition, there were **2** long-term bonds with the maturity period of over 10 years, the issue volume being RMB **3** billion, (accounting for 0.62% of the total amount).

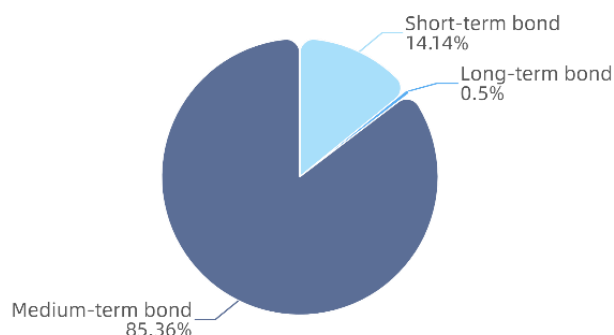
5. The issuer and debt ratings of green bonds were mainly AAA

About 40% of the green bonds issued in 2021 were rated AAA a proportion similar to last year's. In general, green bonds with debt ratings of AA+ or above represented about 64% of the total issuance number, with the year-on-year decrease rate of 10.81%; in addition, about 11% of the bonds were not rated at all. The ratings of green bonds issuers in 2021 were also dominated by AAA, (36%) of the total issuance number and with the year-on-year growth rate of 5.88%; the number of green bonds with AA+ or above represented about 56.00% of the

Although long-term green bonds can provide stable funding support for green and low-carbon development projects, the relatively small number and low volume have limited impact on improving the mismatch between green projects and maturity of funds.

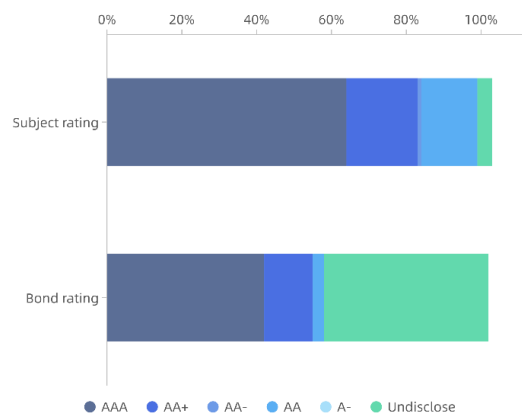
Figure 4 Proportion of the green bonds issued in 2021 according to maturity period

Source: International Institute of Green Finance



issuance number, (year-on-year growth rate of 3.47%); in addition, about 7.00% of green bonds did not announce their issuer ratings.

Figure 5 Rating of green bonds issued in 2021



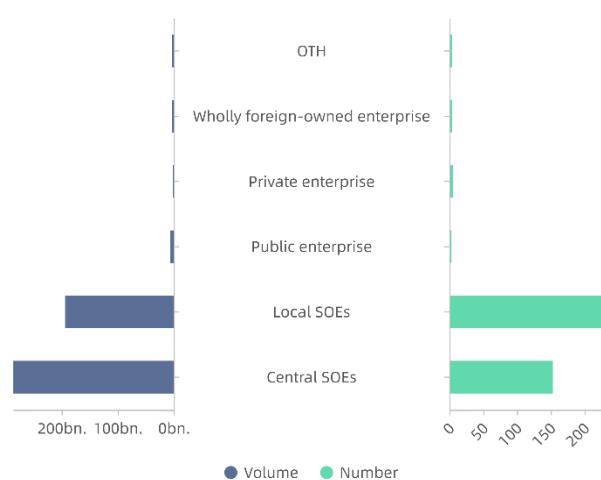
Source: International Institute of Green Finance

6、The green bonds issued by SOEs accounted for as much as 99%

The main issuers of green bonds in 2021 were still mainly state-owned enterprises (SOEs). Last year about 373 green bonds, (volume of 480.634 billion yuan) were issued by the SOEs, representing 92.56% of the total issuance number and 99.39% of the total volume. Among them, the central SOEs lead in the volume of the bonds issued (RMB 286.811 billion, representing 59.31% of the total volume); on the other hand, local SOEs had the largest issuance number of green bonds (238 in total, representing 59.06% of the total issuance number).

In addition, some public and private enterprises, and wholly foreign-owned enterprises were also actively involved in green and low-carbon development, through the issuance of green bonds.

Figure 6 Green Bond Issuers in 2021



Source: International Institute of Green Finance

7. Green bond issuers are mainly concentrated in the three areas: Jing-Jin-Ji Metropolitan Region, Yangtze River Delta, AND Guangdong-Hong Kong-Macao regions

There were approximately **249** domestic issuers of labelled green bonds in 2021, spread across **27** provinces. Among them, China Development Bank was the largest single issuer of green bonds with an issue amount of RMB **19.2** billion, while China Three Gorges

Corporation issued **16** green bonds and had the largest issuance number.

Green bond issuers in 2021 were concentrated in the Jing-jin-ji Metropolitan Region, Yangtze River Delta, Guangdong-Hong Kong-Macao regions. Among them, Beijing had **91** issues and became the city with

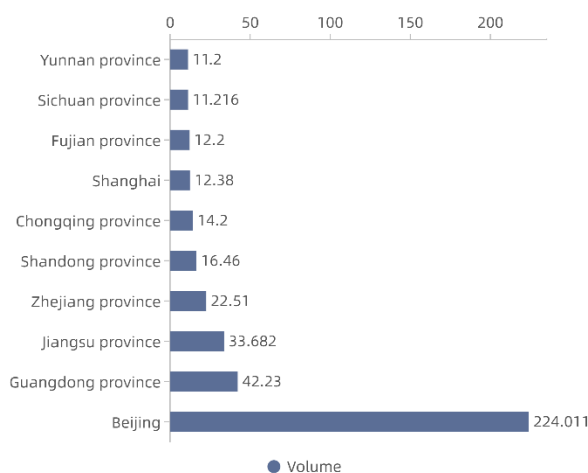
the biggest green bond issuance in 2021, representing 18.80% of the total issuance number. It followed by Jiangsu Province and Guangdong Province, with 11.16% and 8.68% of the total issuance number respectively. Beijing also led in the green bond issue amount, which reached RMB **238.511** billion, representing approximately 49.33% of the total amount, followed by Guangdong Province and Jiangsu Province, accounting for 8.73% and 6.79% of the total amount respectively.

(ii) Green Asset-backed securitization products

1. Types of products

As of the end of 2021, China had issued a total of **173** green asset backed securitization products (642 units), with a cumulative volume of approximately RMB **231.674** billion. Among them, **81** new green ABS were issued in 2021 (216 units), with a year-on-year growth rate of 179.31%. The issue amount was RMB **123.668** billion, with a year-on-year growth rate of 175.70%. In 2021, **43** corporate green ABS were issued, representing approximately 53.09% of the total issuance number of green Asset-backed securitization products. The issue amount was RMB **57.027** billion, representing approximately 46.11% of the total volume of green asset backed securities (ABS). In terms

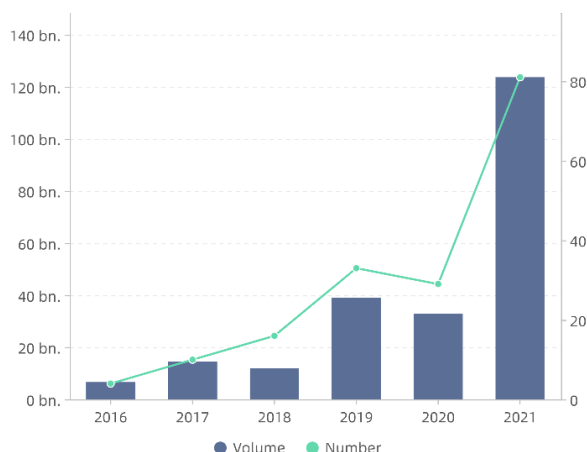
Figure 7 Distribution of green bond issuers in 2021(Top10)



Source: International Institute of Green Finance

of the issuance number of different types, corporate ABS was the largest, with **40** units, representing approximately 49% of the total issuance number; followed by green Asset-Backed Notes (green ABNs), with **38** units, representing approximately 47% of the total issuance number. There were also **3** credit ABS, representing approximately 4% of the total issuance number.

Figure 8 Volume and number of green asset backed securitization products in 2021



Source: International Institute of Green Finance

2. Types of underlying assets

In terms of underlying asset types, in addition to unclassified ABNs, the underlying asset types for green asset-backed securitization products in 2021 were mainly leased assets, representing about 17.72% of the total issuance number of ABS. Issuers were mainly supporting the development of green and low-carbon transformation in the clean energy, green transportation, energy conservation, and environmental protection through direct leasing, sale and leaseback and operational leasing. Secondly, about 11.39% of the green Asset-backed securitization products used collection of the infrastructure fee as the source of underlying assets, with equity types mainly including public transport fee revenues, water fee revenues, and natural gas fee revenues. There were also some green Asset-backed securitization products using infrastructure income rights, leased asset bonds, and accounts receivable as underlying assets, which enriched the underlying asset classes to a certain extent.

3. Original owners of green asset-backed securities

The original owners of green ABS were mainly located in Beijing, Shanghai, and Guangdong. The original owners were mainly central SOEs, with an issuance number of **38**, representing 46.91% of the total ABS issuance number, and the issuance volume of RMB **81.874** billion, representing 66.20% of the total ABS issuance volume. In terms of the distribution the original owners were concentrated in the financial, public utilities, and industrial sectors. In addition, some original stakeholders were scattered in the consumer, energy, consumption, and healthcare sectors.

Figure 9 Original stakeholders of green asset backed securitization products in 2021

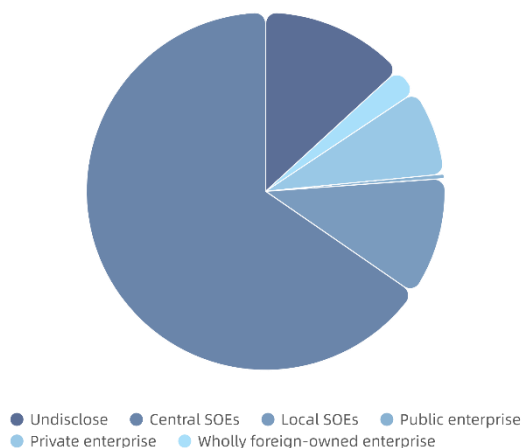
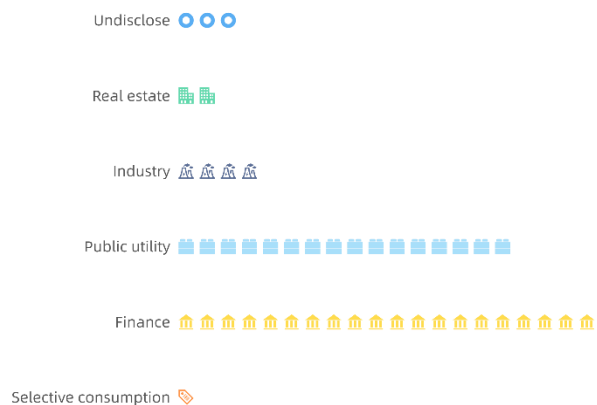


Figure 10 Industry distribution of original stakeholders of green asset backed securitization products in 2021



Source: International Institute of Green Finance

China's Non-labelled Green Bond Market in 2021

The total issuance volume of China's non-labelled green bond in 2021 is about RMB **1,860.576** billion, a year-on-year decrease rate of 46.71%. In terms of **issuance types**, non-labelled green bonds were still mainly local government bonds, with the total issuance number of about **317**, representing about 56.51% of the total issuance number, and the issuance volume was about RMB **1049.391** billion, representing about 56.40% of the total issuance volume; they were followed by financial bonds, with the total issuance number of about **131**, representing about 23.35% of the total issuance number, and the issuance volume was about RMB **604.460** billion, representing 32.49% of the total issuance volume. In terms of **maturity period**, non-labelled green bonds were also dominated by medium-term bonds, with medium-term bonds of 1-10 years representing about 60.20% of the total issuance and long-term bonds of 10 years or more representing about 35.47% of the total issuance.

Figure 11 Non-Labelled green bond issuance

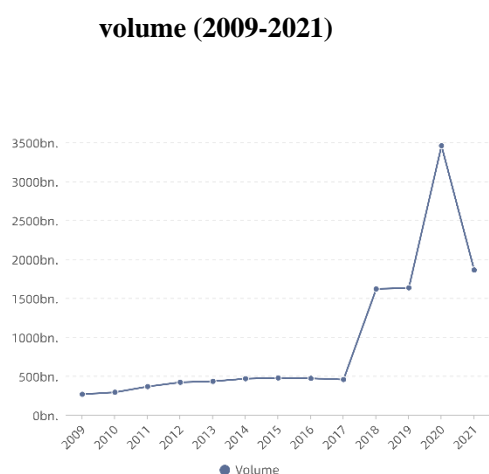
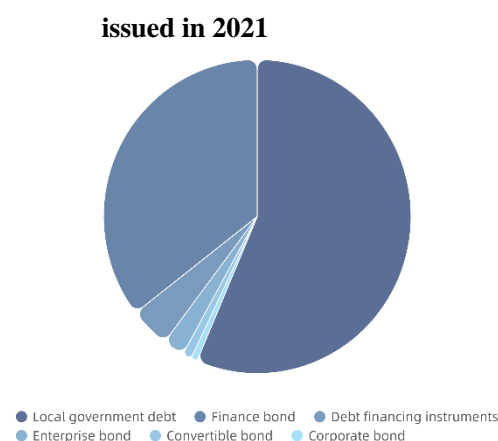


Figure 12 Types of non-labelled green bonds



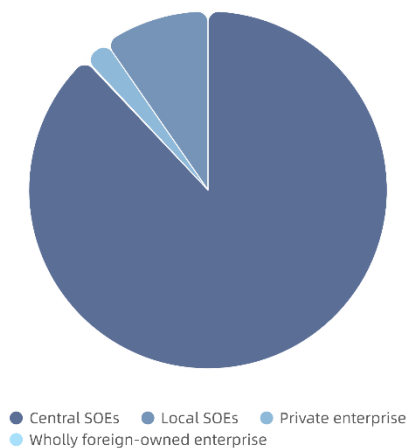
Source: International Institute of Green Finance

In terms of **debt ratings**, except for bonds with undisclosed ratings, non-labelled green bonds are mainly AAA-rated, representing approximately 97.18% of the total issuance volume; in terms of **issuer body ratings**, non-labelled green bonds are also mainly AAA-rated, representing approximately 55.81% of the total issuance volume. In terms of **the nature of the issuers**, non-labelled green bond issuers were mainly local governments and central state-owned enterprises, accounting for 42.51% of the total issuance volume. In terms of the provinces where the issuers are located, non-labelled green bond issuers are mainly located in Beijing, with a total issuance volume of RMB **744.818** billion,

representing 40.03% of the total issuance volume, followed by Guangdong Province, with a total issuance volume of RMB **112.741** billion, representing 6.06% of the total issuance volume.

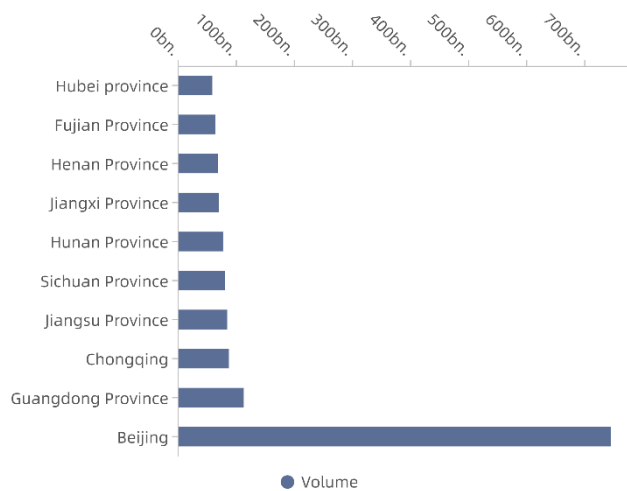
Figure 13 Types of non-labeled green bond issuers

(2009-2021)



Source: International Institute of Green Finance

Figure 14 Regional distribution of non-labeled green bond issuers in 2021 (Top 10)



Source: International Institute of Green Finance

Overview of innovation in bonds

(i) Carbon Neutral Bonds

To implement the national carbon peak and carbon-neutrality strategy, NAFMII launched the carbon neutrality bond in March 2021. According to the Notice on Specifying the Mechanism relating to Carbon Neutral Bonds, carbon neutrality bonds are debt financing instruments that raise funds specifically for green projects with carbon emission reduction benefits. The proceeds from the carbon neutrality bonds should be used exclusively for the construction, operation, acquisition, and repayment of interest-bearing debts of green projects such as clean energy, clean transportation, sustainable construction, industrial low-carbon renovation, etc. The fundraising projects shall comply with the Green Bond Endorsed Projects Catalogue or international green industry classification standards and focus on low-carbon emission reduction. The areas of investment for carbon neutral bonds include, but are not limited to, clean energy projects, clean transportation projects, sustainable building projects, industrial low carbon transformation projects, and other projects with carbon emission reduction benefits. So far a total of **200** carbon neutrality bonds have been issued, representing about 41.32% of the total issuance number, and the issuance volume was about RMB **256.622** billion, representing about 42.26% of the total issuance volume.

In terms of **bond types**, carbon neutrality bonds are mainly debt financing instruments (excluding asset securitization products), with **103** bonds issued, representing 51.5% of the total issuance of carbon neutral bonds; the issuance volume was RMB **121.078** billion, representing 47.18% of the total issuance volume of carbon neutral bonds. In terms of the investment of the proceeds, carbon neutral bonds are mainly used in the clean energy industry, with **95** bonds issued, representing 47.50% of the total issuance number of carbon neutral bonds; the issuance volume was RMB **117.971** billion, representing 45.97% of the total issuance volume of carbon neutral bonds. The fundraising projects were mainly used for photovoltaic, wind power and hydropower, etc. Secondly, the number of carbon neutral bonds issued for green infrastructure upgrades was **42**, representing 21% of the total issuance number of carbon neutral bonds, the issuance volume was RMB **35.046** billion, representing 13.66% of the total issuance volume of carbon neutral bonds. The size of proceeds raised for projects such as

urban rail transit, electrified freight rail and electric bus vehicle replacement accounted for about 11.14%, while the rest of the funds were used for projects such as green buildings.

Figure 15 Types of carbon neutral bond issued in

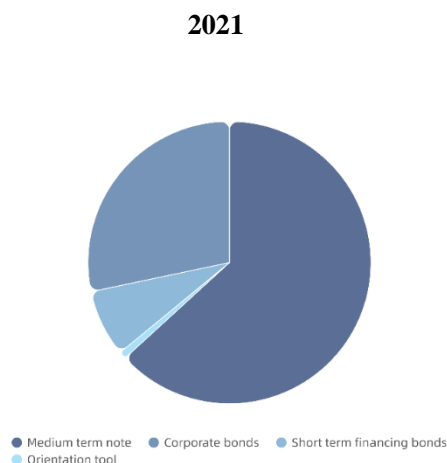
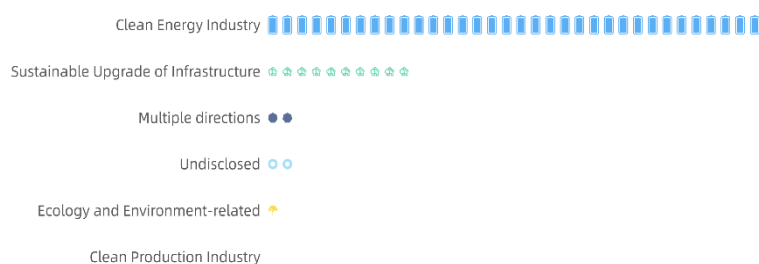


Figure 16 Investment of proceeds from carbon neutral bonds in 2021



Source: International Institute of Green Finance

In terms of maturity period, the most popular were 3 year carbon neutrality bonds (excluding asset securitization products), with **153** bonds issued, representing approximately 45% of the total issuance quantity of carbon neutral bonds, and the proceeds reached RMB **95.467** billion, representing approximately 37.2% of the total proceeds from all carbon neutrality bonds. In terms of debt ratings, except for bonds with undisclosed ratings, all carbon neutral bonds were AAA and AA+ rated, of which **94** AAA-rated bonds were issued, representing approximately 47% of the total issuance of carbon neutral bonds, and the proceeds reached RMB **115.370** billion, representing approximately 37.2% of the total proceeds from all carbon neutrality bonds. The **issuers** of carbon neutrality bonds were mainly rated as AAA and AA+. For 130 carbon-neutrality bonds (RMB **156.171** billion) representing 65% of the total issuance of carbon neutral bonds, issuers received AAA-rating.

Figure 17 Maturity period of carbon neutrality bonds issued in 2021

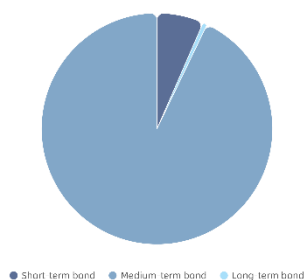


Figure 18 Carbon neutral bond debt ratings in 2021

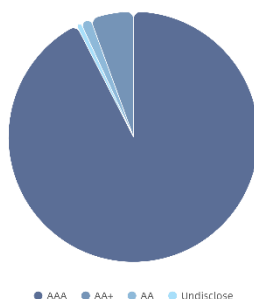
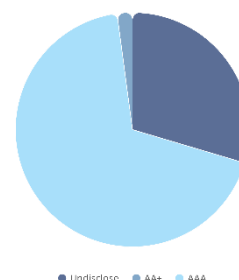


Figure 19 Carbon neutral bond issuer ratings in 2021



Source: International Institute of Green Finance

The issuers of carbon neutral bonds (excluding asset securitization products) were mainly concentrated in Beijing, with a total number of **50** bonds issued, representing approximately 25% of the total issuance of carbon neutral bonds, and the proceeds scale of RMB **65.331** billion, representing approximately 34.48% of the total proceeds raised from carbon neutral bonds. In terms of the issuer industry, carbon neutral bond issuers were mainly concentrated in the electricity, heat, gas, and water production and supply industries. **46** carbon neutrality bonds were issued by such issuers, representing 2% of the total issuance of carbon neutral bonds, with the proceeds scale of RMB **88.471** billion, representing 25.46% of the total proceeds scale of carbon neutral bonds.

Figure 20 Regional distribution of carbon neutral bond issuers in 2021(Top 10)

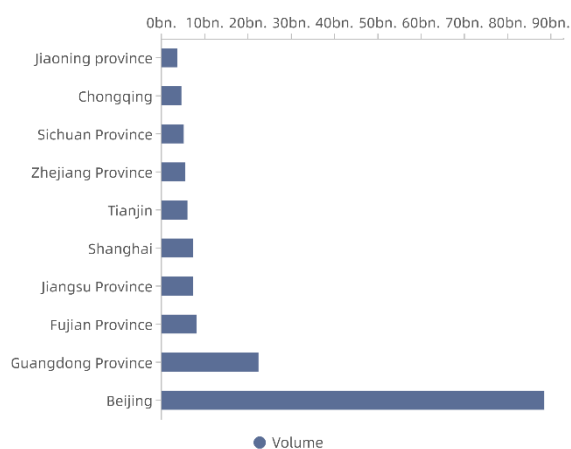
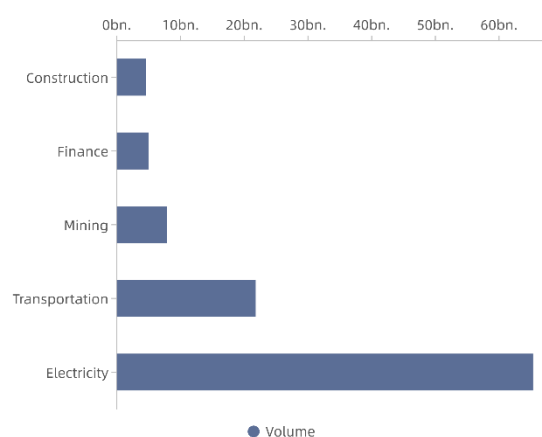


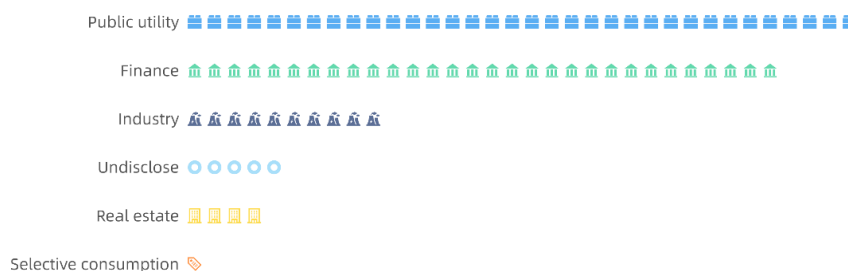
Figure 21 Industry of carbon neutral bond issuers in 2021(Top5)



Source: International Institute of Green Finance

The total number of carbon neutrality bond asset-backed securitization products was **45**, representing about 22.5% of the total issuance number of carbon neutral bonds, and the proceeds scale was about RMB **86.943** billion, representing about 33.88% of the total proceeds scale of carbon neutral bonds. In terms of the types of Asset-backed securitization products, there are mainly two categories, namely green ABN and green ABS. Among them, **27** green ABNs raised RMB **54.904** billion, and **18** green ABS raised RMB **32.039** billion. In terms of underlying asset types, in addition to unclassified ABNs, the underlying asset type of carbon neutrality bond asset-backed securitization products were dominated by receivable accounts, with **5** bonds issued, (RMB **11.580** billion). The original owners of the carbon neutral bond asset-backed securitization products were mainly financial institutions, with **16** products issued, (RMB **30.966** billion). This was followed by public utility institutions, which issued **14** products, (RMB**35.450** billion).

Figure 22 Industry distribution of carbon neutral asset backed securitization products original stakeholders in 2021



Source: International Institute of Green Finance

(ii) Blue bonds

Blue bonds refer to green bonds that raise funds mainly to support projects related to marine conservation and sustainable use of marine resources. In July 2021, the Shanghai Stock Exchange and the Shenzhen Stock Exchange revised and issued the “Guidelines on the Application of the Rules for the Examination and Listing of Corporate Bonds No. 2 – Special Corporate Bonds” and the “Business Guidelines for Innovative Corporate Bond No. 1 - Green Corporate Bonds (Revision 2021)” specifying “blue bonds” as a sub-species under the green bonds section.

By the end of 2021, in total **5** blue bonds had been issued in China, raising RMB 2.6 billion, of which **4** were issued in 2021 (RMB **2.3** billion). From the perspective of bond issuance types, domestic blue bonds are medium-term notes. All domestic blue bonds were medium-term notes. 3-year notes were most popular (53.85% of the total volume). The proceeds of blue bonds are mainly used to support the development of offshore clean energy industry (88.46% of the total volume).

(iii) Sustainability bonds

1. Sustainability-linked bond (SLB)

SLBs are debt financing instruments linked with the issuers' predefined sustainability objectives. In April 2021, NAFMII issued documents relating to the sustainability-linked bond assessment and certification, and key points on information disclosure to clarify the regulations for domestic sustainability-linked bonds. A total of **26** SLBs were issued in 2021, with an issuance volume of RMB **42.624** billion. **25** SLBs were issued in the domestic markets, with an issuance volume of RMB **35.3** billion. In terms of maturity, the SLBs were mainly three-year medium-term bonds, with **19** bonds issued, representing 73.08% of the total issuance number. In terms of the SLBs' sustainability-related targets, the key performance indicators (KPIs) include installed capacity for renewable energy management, nitrogen oxide emissions and integrated energy consumption per unit of output value, among which the number of bonds linked to the installed capacity for renewable energy accounted for the largest issuance number, with **6** bonds issued, representing 23.08% of the total issuance number.

2. Sustainability re-linked bonds

The sustainability re-linked bond (SRLB) refers to relinking the performance of sustainability linked loans (SLLs) to the bond. The corresponding coupon adjustment of the SRLB is adjusted according to the completion of the agreed ESG performance target and the fluctuation of the loan interest rate. In October 2021, the Bank of China (BOC) completed the pricing of a US \$300 million SLRB issuance. The proceeds are to be used to support SLL projects in the tourism, fund, trade, manufacturing, and warehousing sectors. Bank of China made reference to the relevant principles of the International Capital Markets Association (ICMA) and the 2021 Sustainability-Linked Loan Principles and issued the Sustainability Relinked Bonds Management Statement to clarify the BOC's SRLB relinking mechanism and management.

(iv) Green Panda Bonds

Green Panda Bonds are RMB-denominated bonds issued in mainland China by foreign entities such as national governments, local governments, multilateral development agencies, financial institutions, or non-financial enterprises. The proceeds are used to support the construction and operation of green and low-carbon projects. In November 2021, NAFMII issued Pilot Program for Overseas Issuers to Issue Social Bonds and Sustainability Bonds in China to help with the green panda bond market. The first green panda bond was issued in July 2016 by Beijing Enterprises Water Group Limited in Shanghai Stock Exchange. The eight-year bond, with a coupon of 3.25%, raised RMB 700 million. The first renewable energy themed green panda bond was issued in November 2018 by Beijing Enterprises Clean Energy Group Limited in Shenzhen Stock Exchange. The 3+N-year bond, with a coupon of 6.5%, raised RMB 1 billion. The first green sovereign panda bond was issued in December 2021 by Hungary in China Interbank Bond Market. The 3 -year bond, with a coupon of 3.28%, raised RMB 1 billion. The successful practice of green panda bonds has provided strong support for the opening up of China's green bond market. It has potential to attract more foreign entities to participate in the construction of China's green financial market.

Recommendations and Outlook

(i) Promote innovation in green bonds and green bond market

Last year, innovative bonds such as carbon neutrality bonds have effectively supported the development of the green capital market. It shows that the important role of green bond innovation in guiding market practice towards green transition. Therefore, the future actions of financial market regulators should be combined with the “Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy”, one of the key climate policies in China and focus on key areas such as upgrading of industrial structures, construction of a clean, low-carbon, safe and efficient energy system, low-carbon transportation system, green and low-carbon development of urban and rural areas, .

(ii) Information disclosure and stronger regulation of the green bond market

With the unification of the definition standards for green bonds and the restrictions on the use of proceeds, as well as the introduction of the regulatory regime for third-party service providers for green bond assessment and certification, China's green bond market has developed dynamically. At present, financial market regulators should further study and unify the information disclosure requirements for green bonds under various markets, and gradually promote a mandatory information disclosure system for green bonds. In addition, the regulators should also strengthen information disclosure requirements on environmental benefits and risk management for issuers. Additionally, continuously improve social responsibility of corporate entities in the green bond market. It is also recommended that a review mechanism for environmental information disclosure be established, and that the regulation of information disclosure in the green bond market be continually tightened through the random controls on environmental information disclosure documents. In this way, the quality of green bond information disclosure can be improved, increasing the attractiveness of green bonds and improving investors' willingness to invest in green bonds.

(iii) Opening up and international collaboration in green finance

With the publication of the Guidance on Taxonomy of Climate Investment and Financing and the Pilot Program for Overseas Issuers to Issue Social Bonds and Sustainability Bonds in China,

international cooperation in green finance is also being promoted. Under the carbon peaking and carbon neutrality goals, it is recommended that PBOC, CSRC, NDRC, and other regulators promote green finance exchanges and international cooperation. On the one hand, they should continue to promote the convergence of China's green financial standards with international standards and gradually China's role in the international green financial market. On the other hand, they should keep opening China's green bond market to foreign issuers. In this way, more international capital can enter China speeding up decarbonization of the economy and achieving carbon neutrality in the long term.

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