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An Examination of China's Green Bond Market: Current Status, Comparative Analysis, and Future Perspectives

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Abstract: *As green finance has gradually become an important development direction of national economies, in order to ensure that the goal of "carbon peak and carbon neutrality" can be fulfilled as scheduled, the Chinese government proposed the development of green bonds in 2021. In this paper, comparative analysis is adopted to first sort out the current situation of the domestic green bond market. On this basis, China is compared with the international green bond market. Finally, based on the comparative analysis of China and the international market, as well as the existing favorable market foundation in China, this paper puts forward the future outlook of China's green bond market.*

Keywords: *Green bonds; International comparison; Future development*

1. Introduction

In recent years, the increasing frequency of climate extreme events has brought the global climate issue to the forefront of public attention. Within this context, green finance has progressively become a pivotal development direction within the economies of various nations. Recognizing its significance, the Chinese government has implemented corresponding policies and initiatives, thereby establishing China's green bond market as the second largest globally.

In 2020, Chinese leaders proposed for the first time that they aim to reach peak carbon emissions by 2030 and achieve carbon neutrality by mid-20th century. In order to ensure that the goal of "carbon peak and carbon neutral" can be achieved as scheduled, the Chinese government proposed to develop green direct financing and green credit in 2021. Green bonds are one of the carriers of green direct financing.Because green bonds themselves can be directly connected with investors and financiers, they can stimulate the initiative of enterprises to participate in green transformation and economic green development, so that market players do not solely pursue economic growth while ignoring the environment, but take into account both economy and environment, which is conducive to environmental improvement and the early realization of the goal of "carbon peak and carbon neutral". However, there is still a gap between China's green bond market and the international market. This paper aims to analyze the current situation of China's green bond market, compare the similarities and differences between domestic and foreign green bond markets, and discuss the future development direction of China's green bond market.

The first section of this paper retrospects the definition of green bonds and surveys the pertinent literature on both domestic and international green bond markets. Section 2 delves into an analytical examination of the current status of China's green bond market, encompassing market conditions, trading activities, and investor demographics.Building upon this comprehensive analysis, Section 3 undertakes a comparative assessment of China's green bond market against its international counterparts across several salient dimensions.Lastly, Section 4 of this paper, drawing upon the insights gained from the aforementioned comparative analysis and leveraging China's existing favorable market fundamentals, offers a forward-looking vision for the future trajectory of China's green bond market, outlining potential avenues for growth and development.

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2. Green bond market and literature review

2.1. Definition and characteristics of green bonds

The inaugural issuance of green bonds was pioneered by the World Bank in 2008, subsequently inspiring various nations to embark on their own issuance endeavors. Nevertheless, the landscape is characterized by a lack of a universally accepted and unambiguous definition of green bonds, stemming from discrepancies in national interpretations. In adherence to international standards, green bonds must adhere to four fundamental criteria: firstly, the financed projects must demonstrate environmental sustainability; secondly, the funds must be systematically organized and fully traceable within the issuer's framework; thirdly, the issuer must adhere to a rigorous selection process and comprehensive project evaluation methodology; and lastly, the publication of annual reports is mandatory to facilitate efficient fund utilization, enhance transparency, and bolster information disclosure practices..

In China, the definition of green bonds is grounded in the Guidelines for the Issuance of Green Bonds issued by the National Development and Reform Commission (NDRC) in 2015. These guidelines stipulate that the issuance of green bonds aims to raise funds specifically for supporting projects that embody environmental protection and sustainable development principles. Such projects encompass, but are not limited to, fostering urban sustainability, enhancing energy efficiency, mitigating greenhouse gas emissions, exploiting and utilizing renewable energy sources, engaging in unconventional water resource development and utilization, implementing water conservation measures, and intensifying pollution prevention and control efforts. This framework fosters a comprehensive approach to financing environmentally conscious initiatives, thereby advancing China's commitment to sustainable development.

The defining attribute of green bonds lies in their "green" nature, conferring substantial benefits upon both investors and issuers. For investors, green bonds offer a hedge against climate policy-related risks and satisfy environmental, social, and governance (ESG) requirements. On the issuer's side, not only do they secure essential green funding, but also enhance corporate reputation by demonstrating a commitment to sustainability. Beyond their primary functionality, green bonds serve as a conduit for transmitting green signals to the market, distinguishing themselves from conventional bonds primarily through the designated use of proceeds for environmentally-linked projects. This unique green label facilitates investors' identification of green bonds without extensive preliminary screening, thereby reducing market friction and increasing the proportion of climate-related investments.The issuance of green bonds can be undertaken by a diverse range of entities, including banks, governments, municipal authorities, and corporations. In essence, green bonds represent a timely response to China's policy directives, providing vital financial support and enhancing the efficiency of both the green transformation of traditional industries and the development of China's green industries. By channeling capital towards environmentally sustainable endeavors, green bonds contribute significantly to China's transition towards a more eco-friendly and resilient economy.

2.2. Review of Literature

Drawing from the international experience in green bond development, Wang and Cao (2015) synthesized the characteristics observed in the green bond market at an international scale and proposed crucial elements for the development of green bonds in China. These elements encompass the clarification of green project measurement standards, the establishment of dedicated accounts for the management of raised funds, and the formulation of complementary policies to incentivize green bond issuance in China's context [11].Additionally, Wang (2021) summarized both domestic and international practices in the green bond market's development, advocating for strengthened infrastructure construction, the standardization of green loan contracts, and the promotion of novel bond issuance to cater to emerging market demands[9].

From an empirical perspective, Gao and Ji (2018) delved into the intricate development and underlying influencing factors of China's green bond market, specifically examining the determinants of credit spreads in green bond issuances from the vantage point of issuers. Their rigorous analysis revealed that the issuer's financial health and the presence of green certification do not emerge as the primary causative agents for the observed credit spreads. Rather, they discovered a mitigating effect of the issuer's credit rating status on the magnitude of these spreads, underscoring the nuanced relationship between issuer-specific attributes and the pricing dynamics within the green bond market[12].The study conducted by Yang and Shi (2020) established a model to analyze the factors

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influencing the credit spreads of green bonds, ultimately concluding that publicly offered green bonds can effectively reduce corporate financing costs. Their findings indicate that potential influencing factors such as green policy support, third-party green certifications, and the financial costs of the bond-issuing entities do not significantly impact the financing costs associated with green bonds[14].In addition, Zhang et al. (2021) analyzed the factors affecting China's bond premium. The results show that the yield spread of green bonds is on average 17 basis points lower than that of matching ordinary bonds, which indicates that green bonds can reduce corporate financing costs[13].

In terms of the market issuance and pricing of green bonds, scholars from different countries have roughly the same views on the pricing differences between green bonds and ordinary bonds. Green bonds are discounted to varying degrees compared with other bonds, both foreign and domestic. Zerbib(2019)delves into the intricate relationship between environmental preferences and bond pricing dynamics, employing a comprehensive dataset spanning from 2013 to 2017. A key finding that emerges from this analysis is the observation of differential pricing premiums or discounts associated with green bonds, as compared to their conventional counterparts including general credit bonds, financial bonds, and low-rated securities[1].Based on the comparative study of China's securities market, Wang (2020) found that the discount degree of China's green bonds was higher than that of other countries, with an average of 34 basis points[2].

At the same time, scholars at home and abroad also hold different views on the market reaction to the issuance of green bonds. Most foreign scholars have reached positive conclusions when studying the market reaction caused by green bond issuance, while domestic scholars have not reached an agreement with foreign scholars on this issue. Baulkaran (2019) found that because of the issuance requirements of green bonds: green bonds issued by enterprises must be used for the investment of green projects, they have gained high attention and recognition from investors, and empirically verified that green bonds have a significantly positive announcement effect on the market[3].Tang and Zhang(2020)analyzed the impact of green bonds issued by 28 countries in the world from 2007 to 2017 on the cumulative abnormal returns in the trading market. The results show that in the event window including 21 trading days before and after the announcement, the cumulative abnormal return shows a significant positive impac[t][4]。For China, it does not have the same positive effect as foreign scholars' research. In further analysis, the comparative regression with ordinary bonds is also not significant[15]。Obviously, Chinese scholars have not come to the conclusion that green bonds can cause a positive market reaction through research.

3. Analysis of the current situation of China's green bond market

3.1. Overview of the development of China's green bond market

The evolution of China's green bond market can be encapsulated into three distinct phases: inception, rapid expansion, and gradual maturation.

Inception Phase (2015-2016): Marking the dawn of China's green bond market in 2015, the successful issuance of the country's first green bond in July that year served as a pivotal milestone.Subsequently, in March and April of the following year, the Shanghai Stock Exchange and Shenzhen Stock Exchange, respectively, issued the "Notices on Piloting Green Corporate Bond Issuance," signifying a full-fledged integration of green bonds into China's broader bond market landscape.

Rapid Expansion Phase (2017-2019): Fueled by relentless policy impetus and deepening market awareness towards green finance, China's green bond market underwent a period of unprecedented growth from 2017 to 2019.This phase witnessed a substantial surge in both the issuance volume and theNotably, commencing in 2018, the market entered a high-speed trajectory, with the issuance volume and the count of individual green bonds in 2019 soaring by 42.6% and 433.3%, respectively, compared to 2016.By 2023, China's cumulative green bond issuance had reached approximately RMB 3.5 trillion.

Gradual Maturation Phase (2020-Present): Since 2020, China's green bond market has progressively matured, reaching new heights in 2021, when the newly issued green bonds, both domestic and international, amounted to RMB 753.2 billion, marking a year-on-year increase of 170.3%.These figures underscore the market's relentless momentum.Furthermore, according to disclosures in 2023, China emerged as the global leader in green bond issuance, further affirming its preeminent position in the realm of green finance.This stage is characterized by a more diversified array of market participants, a proliferation of bond types, and refined regulatory frameworks.Additionally, heightened market comprehension of green finance has translated into green bonds becoming a preferred investment choice for an expanded investor base.

3.2. The trading situation of China's green bonds

From a transactional perspective, China's green bond market has exhibited a consistently growing trend from 2016 to 2023. Specifically, the volume of green bond transactions in China stood at 69 in 2016, with a total transaction size reaching RMB 319.9 billion. By 2023, this figure had soared to 1,164 transactions, amounting to a total transaction size of RMB 1.6 trillion, signifying an almost fourfold increase in the transaction scale over six years.Moreover, analyzing the spot transactions of green bonds, the inter bank bond market emerges as the primary venue for green bond trading. Notably, the spot trading volume of green bonds in China has demonstrated an overall upward trajectory in recent years. In 2022, a total of 984 green bonds participated in transactions, resulting in a cumulative trading volume of RMB 1,182.783 billion, marking an 85.01% year-on-year growth.

The issuance landscape of green bonds has undergone notable shifts in recent times. With the comprehensive coverage of policies, the issuance scale of green bonds by non-financial institutions has expanded significantly. However, given the issue of inadequate information disclosure associated with private placements, public issuance continues to dominate as the primary issuance mode.This evolution underscores the maturity and resilience of China's green bond market, which is increasingly becoming a pivotal instrument in financing sustainable development and fostering environmental stewardship.

3.3. Investor structure of China's green bonds

In recent years, China's green bond investor landscape has exhibited a well-structured hierarchy, with commercial banks forming a pivotal segment, complemented by policy banks such as China Development Bank. Additionally, foreign and regional banks have also actively participated in green bond investments. According to data disclosed by the National Association of Financial Market Institutional Investors (NAFMII), the top three commercial banks investing in green debt financing instruments are Bank of China, Agricultural Bank of China, and Industrial and Commercial Bank of China, respectively.

Beyond commercial banks, a diverse array of non-bank financial institutions and non-legal entity products have also demonstrated keen interest in green bond investments. These entities leverage green bonds to diversify their portfolios, mitigate investment risks, stabilize yields, and contribute substantial funding to the green bond market. Meanwhile, individual investors have gradually emerged as a significant force within this market. Notably, in September 2017, China Development Bank pioneered the retail issuance of a thematic green financial bond, "Water Resources Protection in the Yangtze River Economic Belt," thereby opening up investment avenues for individual investors.

Despite this diversification in investor composition, the trading activity in China's green bond market remains subdued, primarily attributed to relatively low yields, which have hindered investor enthusiasm. Consequently, to entice a broader spectrum of investors and bolster market engagement, there is a pressing need to refine market mechanisms, enhancing transparency and efficiency. These enhancements will not only attract more capital but also facilitate the sustainable growth of the green bond market.

3.4. The rating of China's green bonds

The rating situation of China's green bonds is generally stable and trending positive, exhibiting a leading trend in the issuance proportion of high-rated bonds. As of now, green bonds generally have high ratings. By the end of June 2021, the issuance proportion of bonds with AAA ratings reached 66.2%. In 2022, the number of AAA-rated green bond issuers was 264, with a total issuance size of 513.541 billion yuan. This indicates that China's green bonds enjoy a high credit rating in the market and are well-recognized by investors. From a long-term perspective, since 2016, the credit ratings of green bond issuers have been predominantly AAA. In addition, the issuance periods of green bonds are mostly medium to short-term, with durations concentrated between 1 to 3 years.

Furthermore, it is important to note that while the ratings of green bonds are generally AA or above, within the same rating category, the quality of green projects may vary widely. This is because there may be some enterprises in the market with poor operating conditions but inferior issuance qualifications, who seek to obtain cheaper "green" funding.

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3.5. Problems in China's green bond market

While China's green bond market exhibits a robust development trend, it also confronts several issues and challenges. These encompass, but are not limited to, the following aspects:1.Inconsistent Definitions and Standards: Presently, China lacks a precise and unified definition and standard for green bonds, leading to a variety of certification standards and evaluation methods in the market. This creates confusion for investors and adds complexity to the trading and rating of green bonds.2.Inadequate Regulation: The supervision of the green bond market is still deficient, with regulatory authorities exercising relatively weak oversight over the issuance, utilization, and disclosure of green bonds. This may be attributed to the fact that China's green bond policies are primarily driven by a bottom-up approach, which has shown insufficient implementation strength. These factors, in turn, partially constrain market development and may raise concerns about the authenticity and sustainability of some green bond projects, including instances of green washing, thereby increasing investment risks.3.Limited Investor Awareness: Some investors lack understanding and evaluation capabilities regarding green bonds. This may result in certain green bond projects failing to receive adequate market recognition and investment support.4.Lack of Liquidity: Compared to traditional bond markets, the green bond market exhibits relatively lower liquidity.5.Opaque Disclosure: Some green bond projects suffer from issues in information disclosure, with non-publicly issued green bonds exhibiting even more pronounced opacity. Investors face difficulties in accessing accurate and comprehensive project information. This introduces uncertainties for investors and affects the healthy development of the market.

4. Analysis of international green bond market status quo

4.1. Overview of the development of the international green bond market

In 2007, the European Investment Bank issued climate awareness bonds to EU investors. In 2009, the World Bank issued the first truly standardized green bond, marking the inception of the green bond market. Significant leapfrog development began in 2014, when the global green bond market experienced its first surge, with issuance reaching 36.6 billion.This growth momentum was further consolidated in 2015,with global green bond issuance amounting to 41.8 billion.Moreover, emerging economies such as China and India have actively participated in the international green bond market and issued a substantial number of green bonds. During this process, there has been a substantial increase in social bonds and transition bonds, marking the largest increase since the $434.5 billion issuance in 2020.

However, in the first three quarters of 2022, stricter global ESG regulatory norms were introduced. As a result, global green bond issuance plummeted, with total issuance decreasing by 22% compared to the same period last year. Concurrently, the International Platform on Sustainable Finance (IPSF) released the "Common Ground Taxonomy for Sustainable Finance (Updated Version)." And this taxonomy serves as a crucial tool for advancing sustainable finance by providing financial institutions and investors with a unified standard to assess and identify financial products and services aligned with sustainable development goals, it is continuously updated with a new series of classification indicators and standards to reflect the latest developments in the global sustainable development agenda.

Overall, despite the deceleration in the growth rate of the international green bond market, it continues to develop steadily and is expected to further expand its market size in the future.

4.2. The trading of international green bonds

In recent years, the international green bond market has experienced a continuous increase in transaction size and volume. Here is an overview of the trading activities in the international green bond market: According to statistical data, the global issuance of green bonds in 2016 was 41.5 billion , and by 2023,this figure had grown to over 415 billion. Furthermore, large enterprises have actively participated in issuing green bonds to support their green energy and environmental protection initiatives. Meanwhile, the number of transactions in the international green bond market is also on the rise. In 2023, China issued 481 green bonds, accounting for approximately 45% of the market. Additionally, developed economies such as Europe, the United States, and Australia also occupy significant positions in the green bond market. The primary transaction methods in the international green bond market include direct issuance and auctions. Direct issuance involves the issuer directly

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issuing bonds and determining elements such as the issuance price and interest rate. In contrast, auctions involve the issuer determining the bond price and subscribers through an auction process.

4.3. Investor structure of international green bonds

The investor composition of international green bonds exhibits a diversified trend, primarily consisting of the following categories: Firstly, commercial banks, which often purchase green bonds to support corporate environmental projects while also securing stable returns. This includes central banks, sovereign funds, and international organizations that typically invest in green bonds to support global environmental causes and seek stable investment returns. Secondly, fund managers, private banks, and insurance companies are institutions that generally engage in long-term investments to obtain stable returns and support environmental initiatives. Besides, physical enterprises, ESG investors, socially responsible investors, as well as individual investors and governments, also participate in investing in international green bonds to support corporate environmental projects or seek stable investment returns.

4.4. The rating of international green bonds

Currently, the rating of green bonds in the international market primarily relies on third-party credit rating agencies. These agencies assess green bonds by evaluating the issuer's financial status, the environmental benefits of the green projects, and policy risks.

The rating of green bonds internationally varies depending on various factors such as the issuer, bond type, issuing country or region, etc. The rating of green bonds is generally similar to that of regular bonds, but some green bonds may be influenced by specific factors. For instance, certain green bonds may receive higher ratings because they meet specific environmental standards or sustainable development goals. However, green bonds issued by some high-risk industries or countries may have lower ratings. Additionally, some issuers may lack sufficient environmental records or historical performance, leading to their green bonds being rated lower than regular bonds.

5. China's green bond market and international comparison

5.1. Comparison of green bond market development

Compared to the international market, China's green bond market started nearly ten years later. The international market began in 2007, while China's green bond market commenced in 2016. However, China's green securities have developed rapidly, gradually reducing the maturity gap with the international market. Due to the favorable domestic development trend and alignment between market and policy, whereas international markets face stricter regulatory norms and a decline in investment enthusiasm. In 2022, China surpassed the United States and Germany to become the leader in the international market, and its share has reached 20% in 2023. However, China's involvement is relatively narrow, primarily focusing on specific areas such as energy efficiency and renewable energy, and is dominated by the inter bank market. In contrast, the international green bond market exhibits a larger development scale, covers a broader range of sectors, and possesses a more mature capital market.

5.2. Comparison of green bond trading

China's green bond market has experienced rapid expansion in size. In 2022, the number of green bonds issued domestically and internationally reached nearly 600, with a total issuance scale of approximately 983.9 billion yuan. At the same time, China also boasts a diverse range of green bond types, issuing entities, and investors. However, compared to international developments, China's cross-border green bond progress is relatively slow. In terms of green bond trading, 984 green bonds were traded in China in 2022, with a cumulative trading volume of 1,182.783 billion yuan, representing an increase of 85.01% year-on-year. By comparison, according to data from the European Investment Bank, the global green bond market has surpassed $500 billion in size, marking an all-time high for the green bond market. Overall, China's green bond market has shown significant growth in issuance numbers and trading volumes, but there is still a gap compared to the international market. In the future, China needs to further optimize policy support and enhance the inter connectivity of its green bond market both domestically and internationally.

5.3. Comparison of investor structure of green bonds

The composition of green bond investors in China is largely similar to that of the international market, with commercial banks and policy banks being the primary investors, supplemented by institutional investors, along with corporate and individual investors. Specifically, the investors in China's green bond market primarily include financial institutions such as banks, securities companies, funds, insurance companies, trusts, and financial companies. Commercial banks are the dominant investors in China. Furthermore, the market share of non-financial enterprises and individual investors is also increasing annually. In contrast, institutional investors are the main players in the international green bond market.

5.4. Comparison of green bond ratings

For rating agencies, both China and international markets employ third-party rating institutions. However, the evaluation procedures and standards of these agencies differ due to variations in national fundamentals, market development levels, issuer creditworthiness, project sustainability, policy environments, etc. In terms of rating levels, China's current green bond ratings are generally higher, while international market bond ratings vary from high to low. Nevertheless, it is not advisable to simply conclude that there are disparities in the rating situations between China's green bonds and international green bonds. Meanwhile, with market development and policy guidance, the rating agencies in China's green bond market are continuously refining and enhancing their evaluation standards and procedures, providing investors with more accurate and reliable information.

5.5. Other aspects of comparison

The definition of green projects in China differed from international standards prior to 2020. In July 2020, the China Securities Regulatory Commission, the National Development and Reform Commission, and the People's Bank of China jointly issued the "New Green Bond Directory," aligning domestic standards with international ones. Regarding information disclosure methods, international Green Bond Principles (GBP) require disclosure of information based on quantitative indicators as much as possible. Domestically, information disclosure is required annually or in third-party certification reports, but there is a lack of specific requirements for information disclosure. In terms of managing surplus funds raised for projects, international practices often involve third-party agencies to review the use of project funds, enhancing the monitoring of fund management processes. China's surveillance and management system for surplus funds still needs improvement. There are significant differences between China and international standards in external audits. China's audit characteristics are the abundance of audit standards but the lack of detailed rules, while internationally, a standardized system of external audit standards has already been established.

6. Future development of China's green bond market

Based on the comparison between China and the international green bond market as mentioned earlier, although China's green bond market started later, it still has significant room for growth due to the favorable national and international development environment.

The environment for China's green financial market is favorable, with strong investment demand from investors. An increasing number of investors are incorporating environmental risks and opportunities into their investment decisions. As a type of sustainable investment tool, green bonds will gain more favor from investors. Moreover, government policies provide sufficient support. As China fulfills its responsibilities in environmental protection and climate change mitigation, as well as undertakes more international obligations, it is bound to further promote the development of the green bond market in China.

The future development trend of the green bond market is influenced by factors such as policy environment and laws and regulations, technological innovation, and market demand. Currently, China needs to improve the regulatory system for green bond laws and regulations, strengthen international cooperation and exchange, enhance the efficiency, variety, and scale of green bond issuance, expand and refine the investor base for green bonds, improve the rating quality of green bonds, enhance market promotion of green bonds, and establish a risk prevention and control mechanism for green bonds.

Hence, the prospective development trajectory of China's green bond market appears highly

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favorable. Key factors such as policy support, investment demand, market expansion, innovative products and standards, along with international cooperation and exchange, will collectively propel the advancement of the green bond market. As the market progresses towards maturity and refinement, the green bond market is poised to become a pivotal pillar underpinning the sustainable development of China's economy and will play an instrumental role within the global sustainable finance domain.

Looking forward, China's green bond market harbors significant potential for growth. On one hand, amidst the global emphasis on environmental protection and sustainability, the green financial market is destined to mature over time. Influenced by the global context, the issuance volume of China's green bonds is anticipated to further augment. On the other hand, with China's deepening comprehension of sustainable development concepts and the government's heightened focus on sustainable development and environmental protection within the context of "dual carbon" goals, green bonds have been identified as a priority development area. Consequently, the number, quality, and diversity of green bond projects are expected to undergo substantial enhancement, thereby providing an expanded landscape for green bond development. Simultaneously, the cost advantages of green bonds will become more pronounced, offering superior, stable, and cost-effective financial support for the green development of the real economy. Additionally, as investors' attention to ESG principles intensifies, the green bond market will garner increased attention and recognition. Green bonds, as targeted investment instruments with traceability and transparency, can furnish clear reports on environmental benefits and social impacts, satisfying investors' demands for sustainable and environmentally conscious investments. Lastly, with the ongoing refinement of relevant legal frameworks and the growing diversification of market participants and bond types, China's green bond market stands to experience further elevation.

7. Conclusions

This study aims to review the development status of China's green bond market, compare it with the international green bond market, and put forward the future prospects of China's green bond market based on the current favorable market foundation in China.Our exhaustive analysis reveals that the international green bond market has attained a state of advanced maturity and sophistication, yet the evolution of China's green bond market ought not to be underestimated. Despite potential concerns regarding artificially inflated ratings, China's market has demonstrated remarkable growth velocity and substantial market penetration, ranking among the foremost globally. Furthermore, fueled by China's "carbon peaking,carbon neutrality" aspirations, robust domestic policy frameworks, and a favorable international market landscape, the prospects for the future development of China's green bond market are exceedingly promising.This study, by meticulously comparing and elucidating the similarities and differences between the international and Chinese green bond markets, underscores the nation's pivotal role in advancing sustainable finance and enhancing global environmental stewardship. It thereby enriches the corpus of research on green bonds and sustainable development.However, it is worth noting that the research method adopted in our study is relatively single and does not combine relevant data for empirical analysis, which may not fully reflect the complexity of the Chinese market.Future research may benefit from longer time series, more substantial data analysis and a more detailed examination of the comparison between the Chinese and international green bond markets.In conclusion,based on the above comparison between China and the international green bond market, China's green bond market started late, but due to the good national and international development environment, there is still a lot of room for development.

References

[1] Zerbib O D. The effect of pro-environmental preferences on bond prices: evidence from green bonds[J]. Journal of Banking and Finance. 2019(98):39-60.
[2] Wang J, Chen X, Li X, et al. The market reaction to green bond issuance evidence from China [J]. Pacific-Basin Finance Journal. 2020(60):1-19.
[3] Baulkaran V. Stock market reaction to green bond issuance[J].Journal of Asset Management, 2019, (20):331-340.
[4] Tang D Y, Zhang Y. Do shareholders benefit from green bonds?[J]. Journal of Corporate Finance, 2020(61):1-18
[5] Zhang W, Chen Z F. China's Green Bond Market Guarantee System: Current Status, Issues, and Policy Recommendations [J]. South China Finance, 2022(05): 70-78.

ISSN 2616-5902 Vol. 6, Issue 9: 257-265, DOI: 10.25236/AJBM.2024.060935

[6] Wu Y H , Tian Y N , Chen Y Y, Xu Q, et al.The Spillover Effect, Mechanism and Performance of Green Bond Issuance[J]. Management World,2022,38(06):176-193.
[7] Liu, W. C., Liu, W. R., & Peng, G. L.. Research on the improvement and institutional optimization of China's green bond rules[J]. Finance & Economics Theory and Practice, 2022 43(06): 64-71.
[8] Chen, F. G., & Zhang, Y. H. Can green bond issuance trigger positive market reactions? A study on the policy incentive effect of the "dual carbon" goals[J]. Securities Market Herald,2022 (07): 48-60.
[9] Wang, R. Practices and inspirations of green bond market development at home and abroad[J]. New Finance, 2021 (12):53-58.
[10] Ma, J. On constructing China's green financial system[J]. Finance Forum, 2015 20(05):18-27.
[11] Wang, Y., & Cao, C. Promoting the development of green bonds[J]. China Finance, 2015 (20): 43-45.
[12] Gao, X. Y., & Ji, W. P. Characteristics of issuers and credit spread of green bond issuance[J]. Finance & Economics, 2018 (11):26-36.
[13] Zhang, L. H., Liu, J. Z., & Wang, H. Does the greenium exist? Evidence from China's green bond market.[J]. China Economic Journal, 2021 8(02):45-72.
[14] Yang, X. Y., & Shi, B. F. Factors influencing the pricing of green bond issuance[J].Finance Forum, 2020 25(01):72-80.
[15] Zhu, J. M., Wang, J. L., Yu, Z. Q., et al. Analysis of the effectiveness of green finance policies: Market reactions to green bond issuance in China.[J]. Public Management Review, 2020 2(02):21-43.