

Co-publishers



Supporting Organisations



# Enhancing Innovation and Growth Potential of Hong Kong's GSS+ Bond Market



# Foreword

The strategic position and distinctive advantages of the Hong Kong Special Administrative Region (HKSAR) as an international financial center have gained prominence due to accelerated developments in the green economy. As a pivotal platform for cross-border transactions and capital allocation, Hong Kong serves as a critical nexus for the innovation of green financial instruments, standard-setting, and market connectivity, significantly influencing the development trajectory and evolutionary dynamics of sustainable finance both regionally and globally.

**This whitepaper highlights the prominent role of green finance in Hong Kong which is underpinned by a highly globalized financial ecosystem and evolving green standards.** As the world's largest offshore center for Renminbi (RMB), with its advanced capital markets infrastructure, a suite of forward-looking policies and standards, a significant presence of international financial institutions, and specialized professional services, Hong Kong has established itself as a solid foundation for Green, Social, Sustainability and Sustainability-Linked (GSS+) bond issuances.

**Furthermore, the whitepaper assesses the innovation potential of the GSS+ bond market in Hong Kong.** Hong Kong's efficient regulatory processes and scalable market infrastructure enables innovation and reinforces its growing function as a green finance hub under the Belt and Road Initiative (BRI). From the issuance of the world's first Common Ground Taxonomy (CGT)-labelled bond and the launch of an international carbon trading platform – Core Climate, to groundbreaking initiatives such as tokenized green bonds and green Real-World Assets (RWA), Hong Kong has consistently advanced the development of innovative green finance instruments. The exploration of new applications of technologies such as blockchain and artificial intelligence in green finance has the potential to further improve market efficiency and facilitate cross-border climate finance transactions.

**This white paper aims to identify the innovation opportunities and make market and policy recommendations with a view to further enhancing Hong Kong's GSS+ Bond market growth.** In the short term, efforts could focus on fostering innovation in GSS+ bond instruments which aligns with international standards (e.g., CGT), upgrading trading infrastructure to improve market liquidity, as well as mutual recognition and alignment with international standards. Over the medium term, Hong Kong can explore the feasibility of applying blockchain technologies to GSS+ bond issuance and trading. These initiatives are expected to help market participants to design pilot projects and seize emerging opportunities, and to strengthen Hong Kong's leadership role in regional green finance cooperation.



Dr. Ma Jun  
Chairman and President of Hong Kong Green Finance Association  
Chairman of the Green Finance Committee, China Society for Finance and Banking



# Acknowledgements

This publication is a joint effort of China Galaxy Securities, China International Capital Co. Ltd and Lianhe Green Development, and was developed with the coordination of Hong Kong Green Finance Association (HKGFA).

**We would like to express our special thanks to Dr. Ma Jun, Chairman and President of HKGFA, for his guidance and support on this research.**

**We are deeply grateful to all those who offered valuable support and assistance during the preparation of this paper. In particular, we extend our sincere appreciation to the following individuals for their contributions in reviewing, providing professional contributions and valuable insights, and assisting with the translation of draft versions of this research.**

Special Advisor	
Ma Jun	Hong Kong Green Finance Association (HKGFA)

Research Leads			Contributing Organizations	
CGS International Holdings Ltd	China International Capital Co. Ltd	Lianhe Green Development	Hong Kong Green Finance Association	Guangdong Green Finance Committee
Jun Zhang	Dafei Huang	Melody Tong	Tsun Chen	Sirui Xiao
Ivan Li	Angdi Lv	Sherry Li	Flora Xu	Chuyi Qiu
Loran Chen	Zhuowei Liu	Kathleen Liu		

Reviewers (in alphabetical order by institution/university name)	
China Asset Management (Hong Kong) Limited	Claire Chan, Michael Wang
China Galaxy Securities Co. Ltd, CGS International Holdings Ltd	Zongming Ma, Ruirui Liu, Mingjing Liu, Kira Zhang, Rili Zhu
China International Capital Co. Ltd, China International Capital Co. (International) Ltd	Wei Pan, Jishen Zhou, Kui Liu
Chinese University of Hong Kong, Shenzhen Institute of Data Economy (CUHK-SIDE)	Wu Haifeng, Zhao Junhua
Green Development Institute	Philip Ng
Hong Kong University of Science and Technology (GZ)	Qianqian Wei, Beijinni Li
Individual specialist	Yiming Lu
Individual specialist	Ada Dai
Lianhe Green Development	Ryan Lin
University of Hong Kong	Yongjun Tang (Dragon)
Vivien Teu Law Practice	Vivien Teu

\*CGS International Holdings Ltd. is a wholly owned subsidiary of China Galaxy Securities Co. Ltd.

\*China International Capital Co. (International) Ltd. is a wholly owned subsidiary of China International Capital Co. Ltd.

Foreword	01
Acknowledgements	02
Table of Contents	03
Executive Summary	04
Glossary	05
<b>Overview of GSS+ Bonds</b>	<b>06</b>
Current Development of International GSS+ Bonds	07
Current Development of Hong Kong's GSS+ Bond Market	09
<b>Policy Requirements for GSS+ Bond Issuance in Hong Kong</b>	<b>14</b>
<b>Developmental Opportunities: Hong Kong GSS+ Bonds Market Exhibits Multi-Dimensional Potential for Liquidity Improvement</b>	<b>16</b>
GSS+ Bond Standards: Existing Advantages and Persistent Constraints	18
GSS+ Bond Market Ecosystem Could be Diversified	19
Infrastructure Could be Further Strengthened	20
Policy Regulatory Frameworks and Evaluation Standards Enhancements	20
<b>Policy and Market Recommendations</b>	<b>21</b>
Adoption and Application of a Common Green Standard	22
Encourage Diverse Issuer Participation	23
Suggested GSS+ Bond Product Innovations to Enhance Market Vitality	24
Optimize Infrastructure to Enhance Trading Efficiency	26
Policy Recommendations Summary	28
<b>Appendix A: Domestic and International Cases of Innovative GSS+ Bond</b>	<b>32</b>
<b>Appendix B: Overseas Cases of GSS+ Bond Policy Incentives and Optimization of Disclosure and Assessment Standards</b>	<b>37</b>
<b>References</b>	<b>39</b>

# Executive Summary

With strong policy encouragement and support from the Hong Kong Special Administrative Region (HKSAR) Government, the sustainable bond market in Hong Kong has developed considerably in recent years. This growth not only reflects Hong Kong's commitment to the global climate agenda but also establishes a solid foundation for innovation in sustainable debt instruments.

Since China introduced its "dual carbon" goals – peaking carbon emissions by 2030 and achieving carbon neutrality by 2060 – a range of supportive policies have been rolled out to leverage green finance in catalyzing the transition to a sustainable economy. Hong Kong is well-positioned to provide diversified financing solutions to support net-zero transitions as China charges ahead on this journey. Learning from innovative practices in global green and sustainable bond markets, this report offers a comprehensive analysis of product developments in the field.

Through an examination of the Green, Social, Sustainability, and Sustainability-Linked (GSS+) bond markets, this report identifies opportunities to further develop Hong Kong's GSS+ bond market. Actionable market and policy recommendations are presented across four key dimensions: standards adoption, issuer diversification, product innovation, and market infrastructure. These insights are intended to serve as a reference for investors, businesses, and policymakers. Furthermore, by analyzing international case studies, the report aims to support Hong Kong in capturing emerging opportunities in the GSS+ bond space.

Against a backdrop of mounting climate-related economic pressures, geopolitical uncertainty and macroeconomic volatility, bond market participants have become increasingly risk-averse, particularly towards high-yield instruments. Despite these challenges, GSS+ bond issuances in Asia have demonstrated resilience. Bolstered by proactive policy support, Hong Kong has also pioneered digital bond issuances, bringing renewed innovation and momentum to its sustainable finance market.

Hong Kong plays a central role in Asia's sustainable bond landscape. It accounts for approximately one-third of the region's sustainable-themed bond issuances in the primary market and serves as the leading offshore listing venue for bonds issued by Chinese entities. However, secondary market liquidity for green and sustainable bonds remains weak. Illiquid conditions may constrain both primary issuance and secondary market functioning, creating a negative feedback loop. Market makers continue to provide most liquidity via over-the-counter (OTC) trades. While Hong Kong's GSS+ bond market has made notable progress, enhancing liquidity remains a priority.

In recent years, "bond basket" products have gained traction in China's interbank bond market which have created liquidity, efficiency, and flexibility in bulk trading, which has in turn supported overall market depth. Such portfolio-level products have yet to be introduced in Hong Kong but represent a promising innovation, particularly within the green bond segment. This report presents integrated policy measures spanning product design, incentives, assessment, and infrastructure to facilitate the adoption of bond portfolios in Hong Kong and ultimately improve liquidity. Leveraging its policy advantages and drawing on international precedents, Hong Kong can furthermore promote digitally enabled innovations in trading mechanisms and tools to support bulk investment, portfolio management, and mark-to-market trading.

## To address liquidity challenges, the report proposes the following recommendations:

- **Enhance bond trading infrastructure** to support the circulation of innovative GSS+ bond products, such as thematic sustainable bond portfolios. The Hong Kong Securities and Futures Commission (SFC) is advised to lead the development of regulatory frameworks for bond portfolios. Building on the experience of China's interbank bond market, the SFC could establish a dedicated platform for bond portfolio trading, supported by the Hong Kong Monetary Authority (HKMA)'s Green and Sustainable Finance Grant Schemes. Such efforts would incentivize trading, third-party evaluation, and industry innovation – collectively boosting liquidity while creating a centralized pricing and trading service environment.
- **Promote the adoption of international standards** – such as *the Common Ground Taxonomy (CGT)*, *Multi-jurisdiction Common Ground Taxonomy (MCGT)*, and *the Hong Kong Taxonomy for Sustainable Finance* – in the design of sustainable bond portfolio products. Criteria may include label type, use of proceeds, issuer ESG ratings, and disclosure levels. This will facilitate cross-border transactions between Mainland China, Hong Kong, and international markets.
- **Support the use of blockchain technology** to improve accessibility and efficiency in GSS+ bond issuance and trading. Specifically, the HKMA is encouraged to support the tokenization of bond portfolios to enable on-chain secondary market trading. The HKMA and SFC should also collaborate with research institutions and industry experts to explore the feasibility of issuing HKD stablecoin-denominated GSS+ bonds, leveraging existing initiatives such as the *Digital Bond Grant Schemes (DBGS)* and the *Project Ensemble Sandbox*. Issuers should be encouraged to adopt tokenization for efficiency and transparency purposes. The HKMA could further strengthen DBGS to support issuers, arrangers, and market institutions in adopting technologies such as blockchain, remote sensing, AI and IoT for project monitoring. Market participants should also be supported in piloting of digital green bonds and carbon credit applications.
- **Strengthen policy frameworks** by refining GSS+ bond market standards e.g., encouraging issuers to regularly disclose emissions reduction performance and developing a recognized GSS+ bond labeling system; continuously improving supporting infrastructure, including incentives and disclosure platforms, to enhance data transparency and price discovery; and advancing capacity building and raising the quality of professional services.

**In summary**, this report assesses the current state of Hong Kong's GSS+ bond market, identifies key challenges and opportunities, and provides near-, medium-, and long-term recommendations to support its next phase of growth. A more liquid, standardized, diversified, and transparent GSS+ bond market will not only meet rising investor demand for sustainable assets but also reinforce Hong Kong's role as a leading international financial center and green finance hub. As these standards become embedded in derivatives pricing, asset allocation, and policy incentives, market participants will be intrinsically motivated to improve disclosure practices. This self-reinforcing cycle will position Hong Kong to shape global sustainable finance standards and build a world-class sustainable finance ecosystem.

# Glossary

- **CBI:**

Climate Bonds Initiative (CBI), an investor-focused international organization dedicated to mobilizing debt capital markets to promote green bond market development.

- **CGT:**

The *Common Ground Taxonomy (CGT)*, launched in 2021 by the International Platform on Sustainable Finance (IPSF) co-initiated by China, the EU, and other economies, identifies 72 economic activities under climate change mitigation goals by comparing Chinese and EU green finance classification standards, providing a unified benchmark for green financial products. In November 2024, during COP 29, IPSF officially released the updated version of CGT as well as the *Multi-jurisdiction Common Ground Taxonomy (M-CGT)*, jointly developed by China, the EU, and Singapore, covering 110 mutually recognized sustainable economic activities.

- **Digital Finance :**

Refers to the extensive application of digital technologies in financial services and operations, including IT, internet, and mobile technologies, fully leveraging data as a production factor to build a digital financial ecosystem for the digital economy era.

- **Dual Carbon Goals:**

In September 2020, China announced the Dual Carbon goals, aiming to peak carbon emissions by 2030 and achieve carbon neutrality by 2060. This report refers to these goals as the Dual Carbon Goals.

- **Green Finance:**

Refers to financial activities supporting environmental improvement, climate change response, and resource utilization efficiency. The Five Priority Areas proposed at the 2023 Central Financial Work Conference—as the National Strategy of "Technology-enabled finance, Green finance, Inclusive finance, Pension finance, and Digital finance"—require financial institutions to provide stronger support for high-quality economic development through these directions.

- **GSS+ Bonds:**

Referencing CBI's definition, "GSS+" in this report refers to green, social, sustainability, and sustainability linked bonds (SLBs).

- **Hong Kong Taxonomy for Sustainable Finance:**

In May 2024, the HKMA officially released the *Hong Kong Taxonomy for Sustainable Finance* (the "Hong Kong Taxonomy"), marking the issuance of Hong Kong's own green classification framework, covering 12 economic activities across four sectors (power generation, transportation, construction, and water and waste treatment).

- **ICMA:**

International Capital Market Association (ICMA), focusing on primary and secondary bond markets and repo markets, providing its members and regulatory authorities with international capital market guidelines, rules, standard legal documents, legal and regulatory services, and best practices.

- **Project Ensemble Sandbox<sup>1</sup>:**

On August 28, 2024, the Hong Kong Monetary Authority (HKMA) officially launched the Project Ensemble Sandbox, focusing on four themes (including fixed income and investment funds, liquidity management, green and sustainable finance, and trade and supply chain finance) as the first-phase testing priorities. Project Ensemble aims to explore innovative financial market infrastructure based on blockchain platforms, using wholesale central bank digital currency (wCBDC) to facilitate seamless interbank settlements with tokenized currency.

- **Sustainable Finance Action Agenda:**

Announced by the HKMA in October 2024, outlining its vision for supporting Hong Kong's development as a sustainable finance hub.

- **STAGE:**

On December 1, 2020, HKEX launched Asia's first multi-asset sustainable finance instrument platform—the Sustainable and Green Exchange (STAGE)—aiming to become Asia's leading information hub for sustainable and green financial products, providing investors with comprehensive information and resources.

<sup>1</sup> Hong Kong Monetary Authority (HKMA), HKMA Launches Project Ensemble Sandbox to Promote Tokenization Applications, [https://www.hkma.gov.hk/gb\\_chi/news-and-media/press-releases/2024/08/20240828-3/?sessionId=446961818](https://www.hkma.gov.hk/gb_chi/news-and-media/press-releases/2024/08/20240828-3/?sessionId=446961818)



# 01

## Overview of GSS+ Bonds

# Current Development of International GSS+ Bond Market

## Background

Since the beginning of the 21<sup>st</sup> century, the climate crisis has evolved from a latent risk to a systemic existential threat. According to data from the World Meteorological Organization (WMO), the years 2015-2023 marked nine consecutive years of record-high temperatures, with the frequency of extreme weather events increasing fivefold compared to 50 years ago (WMO, 2021-2023). The economic impact of climate change is evident in projections showing the global annual climate financing needed rising to US\$9 trillion by 2030, then exceeding US\$10 trillion per year throughout 2031-2050. (WEF, 2024). By the end of 2022, the global green finance market had reached US\$30.3 trillion (GSIA, 2023). Among green finance instruments, green bonds dominate the market as the most mature and widely utilized product. Their advantages manifest in three key dimensions:

1 Maturity Alignment: By matching bonds' medium-to-long-term structure with low-carbon infrastructure lifecycles, they resolve capital recovery cycle mismatches.

2 Risk Mitigation: Through multilateral credit enhancement tools, they optimize project risk-return profiles and lower financing barriers for emerging market entities.

3 Standardization & Liquidity: Internationally established principle-based guidelines and technical standards enhance environmental benefit verification and market liquidity.

GSS+ bonds have developed rapidly in recent years, becoming an important part of the international bond market. In terms of standards and principles, the most widely adopted for sustainable bond issuances are the voluntary guidelines developed by the International Capital Market Association (ICMA), including *the Green Bond Principles (GBP)*, *Social Bond Principles (SBP)*, *Sustainability Bond Guidelines (SBG)*, *Sustainability-Linked Bond Principles (SLBP)*, *Climate Transition Finance Handbook*, and other related guidance documents. These are referenced by over 97% of global sustainable bond issuances. Additionally, the Climate Bonds Initiative (CBI) has developed industry-specific standards such as the Climate Bonds Standard whilst in China, *the Green Bond Endorsed Projects Catalogue (2021 Edition)*, jointly released by the People's Bank of China, the National Development and Reform Commission, and the China Securities Regulatory Commission, has unified domestic green bond standards and shown alignment with international standards. Coupled with the *Common Ground Taxonomy (CGT)* (and now, with the inclusion of Singapore, the *Multi-jurisdiction Common Ground Taxonomy (MCGT)*) co-published with the European Union, China is playing an increasingly pivotal role in promoting cross-border interoperability of green finance standards. From a policy perspective, many countries are promoting and improving green finance market development through tax incentives, issuance subsidies, mandatory disclosures, etc. Global trends focus on transition finance, unified disclosure standards, and cross-border collaboration to actively promote the development of GSS+ bond markets to meet climate financing needs.

## Overview of the International GSS+ Bond Market

According to CBI statistics, the global issuance of aligned green, social, sustainability and sustainability-linked bonds reached US\$1.05 trillion in 2024, representing an 11% year-on-year increase over the US\$946.9 billion raised in 2023. Cumulative issuances of aligned GSS+ bonds reached US\$6.9 trillion by end of 2024, representing over 50,425 distinct bond instruments. In 2024, green bonds accounted for 64% of the market, with issuances reaching US\$671.7 billion. The international sustainability bond market further increased by 31%, to reach a market size of US\$206.3 billion in 2024.

Figure 1 | Global GSS+ Bond Market Scale

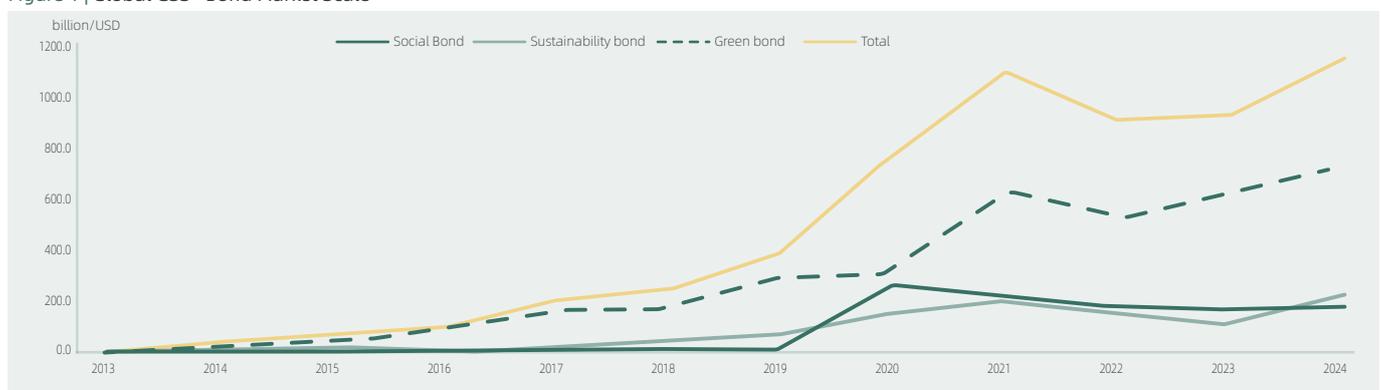
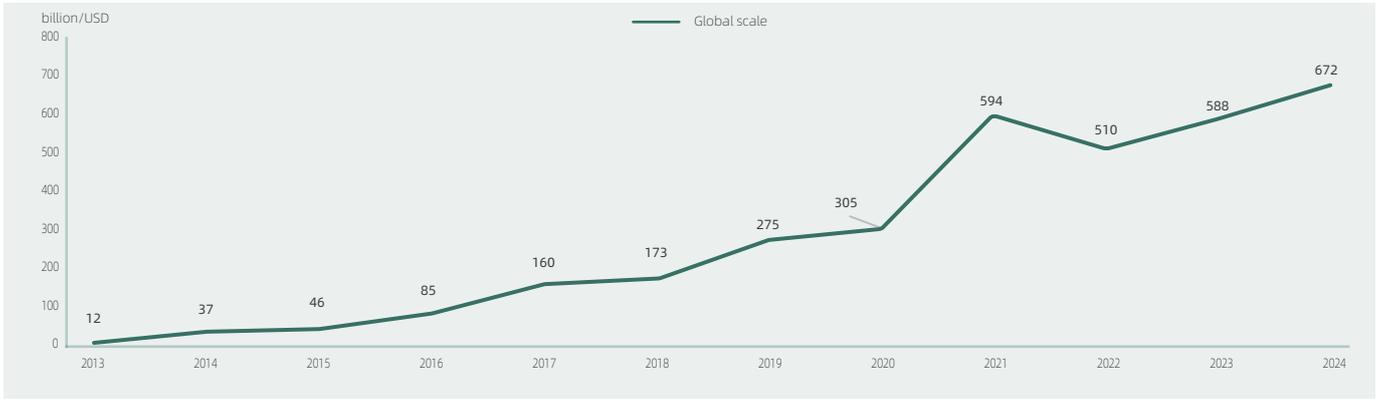
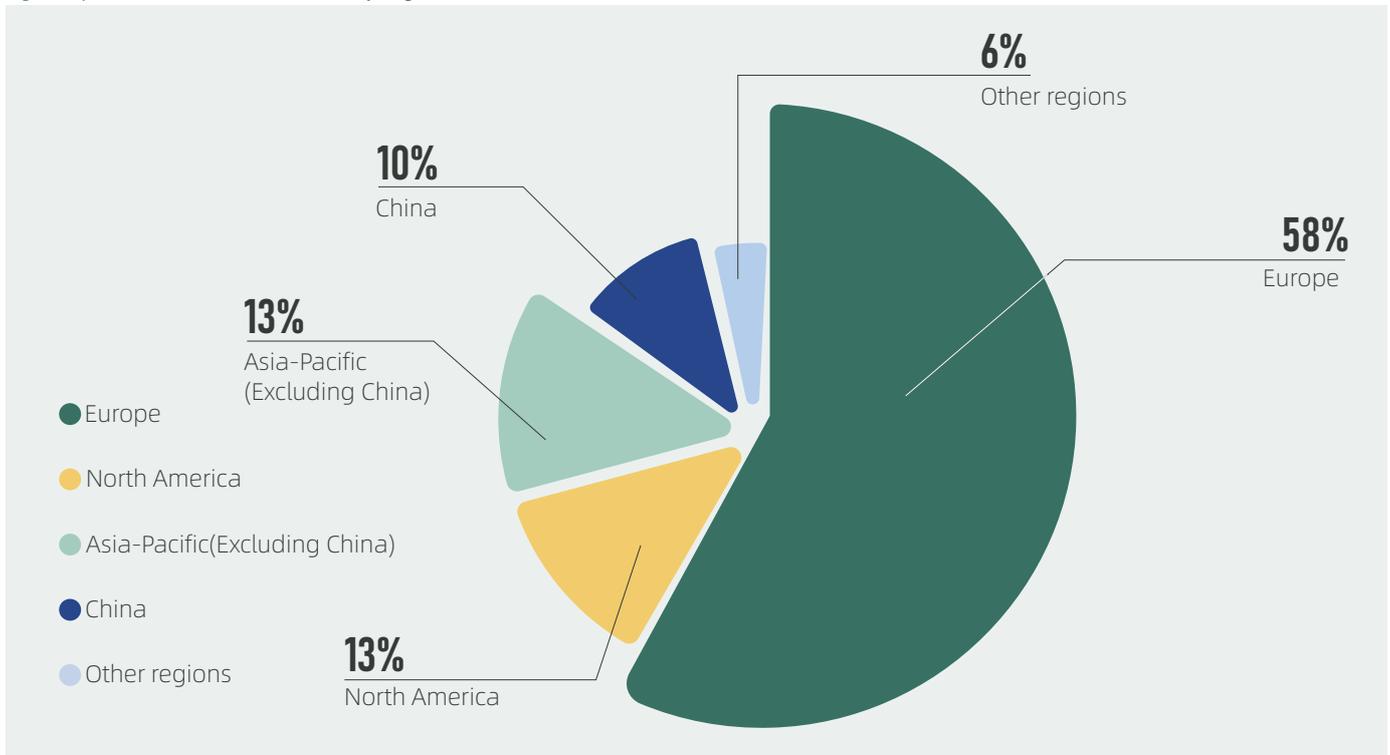


Figure 2 | Global Green Bond Market Scale



In 2024, the international green bond market exhibited **significant regional divergence, with the European Union and Asia-Pacific emerging as the primary issuance markets.** The Asia-Pacific region accounted for a quarter of the global green bond issuances (US\$160 billion), ranking as the world’s second-largest issuing region. Within Asia-Pacific, China contributed 43% (US\$68.9 billion) of the region's issuance, representing 10% of the global total.

Figure 3 | Global Green Bonds Issuance by Region



**In terms of issuer types, the green bond market is dominated by the private sector,** reflecting its pivotal role in scaling sustainable finance. In 2024, over half of the market share (approximately 51%) came from the private sector, totaling US\$344 billion. Non-financial enterprises accounted for 30%, with issuances of US\$103.2 billion, while financial enterprises accounted for 21%, with issuances of US\$72.2 billion. **Financial institutions dominate the green bond market, with banks,** particularly Chinese banking entities, leading the way. Notably, the issuances by Industrial and Commercial Bank of China and China Construction Bank Corporation placed them in the top three largest private sector financial-corporate issuers in 2024.

In terms of maturity, the tenor of green bond issuances is typically aligned with the duration of financed projects, ranging from 3 to 10 years. Short-term bonds (e.g., 3-years) are primarily used for small-scale environmental projects. Long-term bonds (e.g., 10-years or longer) are suited for infrastructure or energy transition projects requiring extended return horizons. For example, in China, green bonds are predominantly characterized by short to medium-term maturities, with 93.8% of CBI-aligned green bonds featuring issuance tenors of up to 5 years.

# Current Development of Hong Kong's GSS+ Bond Market

Asia-Pacific's prominence in the global sustainable bond market is rising rapidly, cementing its role as a critical growth engine for climate-aligned finance. Since 2020, Asia's share of global sustainable bond issuances has consistently increased, rising from 7% to over 20% by 2022, significantly exceeding the global average of 9% outside Asia in 2024<sup>2</sup>, reflecting the region's substantial influence in advancing sustainable finance. Recognized as Asia's premier international financial hub and green finance center, Hong Kong leverages its well-established regulatory infrastructure and dynamic capital markets to accelerate sustainable finance flows.

It is also one of the cities within the Financial Centres for Sustainability (FC4S) network launched by the United Nations Environment Programme (UNEP) in September 2017. Hong Kong which leads other Greater Bay Area cities in green technology development, and the internationalization of green certification and standards, **is well-positioned to become the leading global green finance center.**

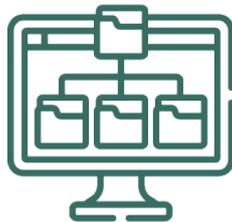
## From a top-down design perspective, Hong Kong has introduced a series of policies to support the green and sustainable bond market.

At the end of 2020, the HKSAR Government announced its goal to achieve carbon neutrality by 2050 in the *Chief Executive's 2020 Policy Address*. Concurrently, the Hong Kong Stock Exchange launched the Sustainable and Green Exchange (STAGE) platform to promote the standardization and interconnectivity of green bonds and carbon finance instruments. In 2021, the HKSAR Government introduced the *Green and Sustainable Finance Grant Scheme*, encouraging the issuance of green bonds through subsidies to cover certain issuance costs. In terms of standards, the CGT/MCGT currently provides a mature framework to guide and support cross border green and sustainable finance activities. Meanwhile, the HKMA released the *Hong Kong Taxonomy for Sustainable Finance* in May 2024 to align with international mutual recognition frameworks (e.g. CGT/MCGT) and provide a guidance for project financing. In October 2024, the HKMA launched the Sustainable Finance Action Agenda, which outlines goals across banking, investing for a sustainable future, and net-zero financing to further solidify Hong Kong's position as a regional sustainable finance centre. In terms of regulatory coordination, the Green and Sustainable Finance Cross-Agency Steering Group (CASG) has set strategic directions, with a focus on advancing sustainable disclosure systems and transition finance in 2025.

### Infrastructure upgrades have formed three pillars:



The STAGE platform under the HKEX enhances transparency in green bond disclosures



The Hong Kong Taxonomy for Sustainable Finance, launched in 2024, achieves mutual recognition with the China-EU CGT and establishes an internationally compatible assessment system



The comprehensive implementation of the International Sustainability Standards Board (ISSB) standards by 2028<sup>3</sup> will strengthen the disclosure and comparability of ESG data

On policy incentives, the *Green and Sustainable Finance Grant Scheme* has been extended to 2027 and expanded to include transition bonds and loans, covering 80%-100% of issuance costs (capped at HKD 1 million) to reduce financing costs<sup>4</sup>. As of early December 2024, training programs have supported over 5,200 professionals, demonstrating significant market cultivation efforts.

2 ICMA. (2025). The Asian international bond markets: Issuance trends and dynamics (Fifth edition). International Capital Market Association. <https://www.icmagroup.org/assets/documents/About-ICMA/APAC/ICMA-Report-The-Asian-International-Bond-Markets-Issuance-Trends-and-Dynamics-Fifth-Edition-March-2025-110325.pdf>

3 Hong Kong Financial Services and the Treasury Bureau (FSTB). (2024). Hong Kong Sustainable Disclosure Roadmap: Goals-Verification-Implementation. [https://www.fstb.gov.hk/fsb/tc/publication/report/docs/FSTB\\_Roadmap2024\\_eBooklet\\_TC.pdf](https://www.fstb.gov.hk/fsb/tc/publication/report/docs/FSTB_Roadmap2024_eBooklet_TC.pdf)

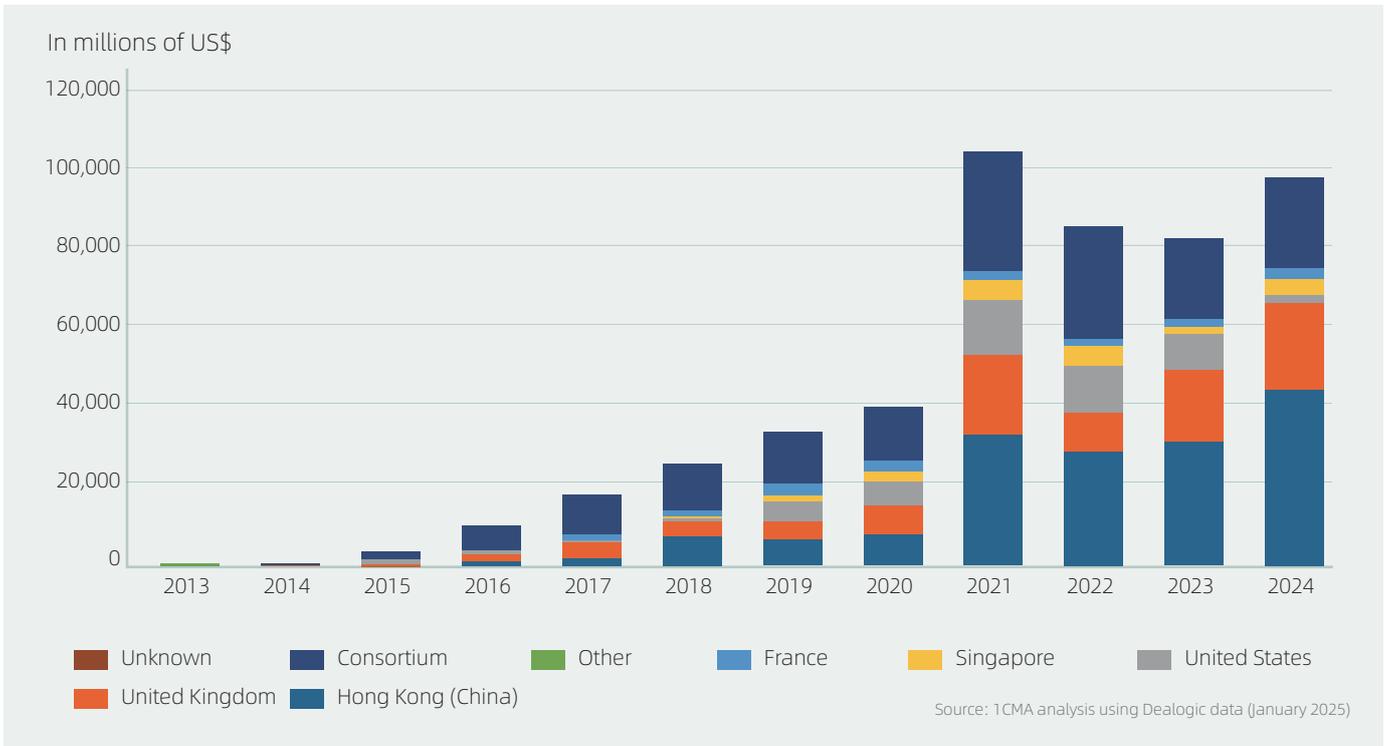
4 Hong Kong Monetary Authority (HKMA). (2024). 2024-25 Budget: Guideline on the Green and Sustainable Finance Grant Scheme. [https://www.hkma.gov.hk/media/gb\\_chi/doc/key-information/press-release/2024/20240503c7a1.pdf](https://www.hkma.gov.hk/media/gb_chi/doc/key-information/press-release/2024/20240503c7a1.pdf)

## Primary Market

### Hong Kong leverages its robust regulatory infrastructure and dynamic capital markets to accelerate sustainable finance.

As Asia-Pacific's sustainable finance hub, Hong Kong captured 33% of regional bond issuances between 2021-2023 and expanded to 45% in 2024<sup>5</sup>. Additionally, the Hong Kong Stock Exchange remains the primary choice for overseas bond issuances by Chinese institutions, with 78% of offshore green bonds listed on the Hong Kong Stock Exchange<sup>6</sup>. Hong Kong's role as the regional hub for green bond issuances, underwriting, and trading is becoming increasingly prominent, and its role as the super connector between the Chinese Mainland and international green capital markets will become even more important, offering broad growth potential and development opportunities for the green bond market.

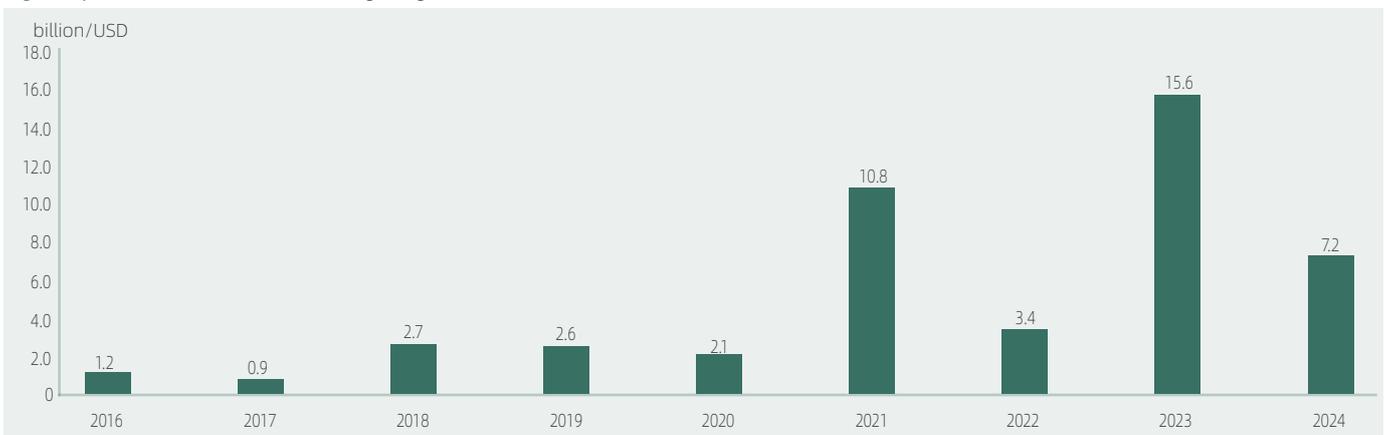
Figure 4 | International Sustainable Bond Issuance in Asia (deal nationality)



### In terms of market development potential, Hong Kong's sustainable finance market, particularly the green bond market, has accelerated in recent years.

While green bond issuances from China, the United States, and supranational issuers have contracted, Hong Kong has demonstrated strong growth. According to CBI's *2024 Hong Kong Sustainable Debt Market Briefing*, the total issuance volume of GSS+ bonds in Hong Kong exceeded US\$43.1 billion in 2024, marking a 43.2% year-on-year growth and accounting for 45% of Asia's international GSS+ bond market<sup>7</sup>. Of this total, US\$7.2 billion was issued under a green bond theme. By the end of 2024, the cumulative volume of qualified green debt issued by Hong Kong issuers reached US\$46.4 billion.

Figure 5 | Green Bond Market Size in Hong Kong

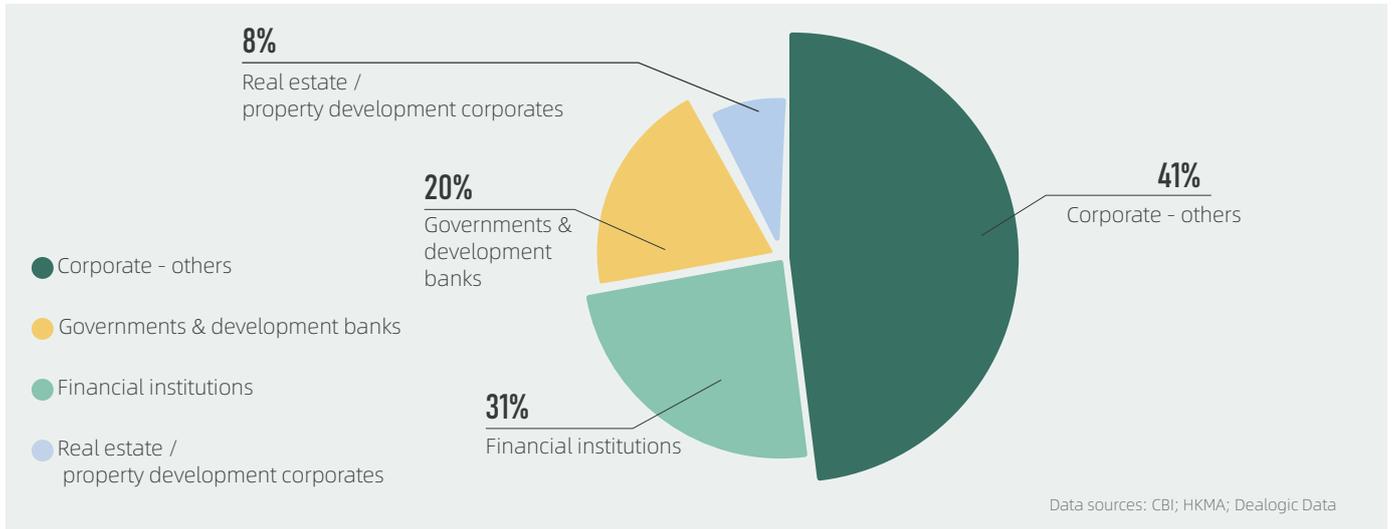


5 ICMA (2025). The Asian International Bond Markets: Issuance Trends and Dynamics, Fifth Edition. Issuance regions are determined based on the registered location of the lead underwriter; if two regions are involved, the nominal amount is averaged.

6 International Institute of Green Finance, Central University of Finance and Economics. (2025). 2024 Green Bond Progress Report. <https://iigf.cufe.edu.cn/info/1012/9691.htm>

7 Climate Bond Initiative (CBI), (2024) Hong Kong Sustainable Debt Market Briefing 2024. [https://www.climatebonds.net/files/documents/publications/Climate-Bonds\\_Hong-Kong-State-of-the-market-briefing-2024\\_July-2025.pdf](https://www.climatebonds.net/files/documents/publications/Climate-Bonds_Hong-Kong-State-of-the-market-briefing-2024_July-2025.pdf)

Figure 6 | Hong Kong GSS+ Bond Issuance by Issuer Type (2024)



**In terms of issuer composition, financial institutions represent almost one-third of Hong Kong's GSS+ bond market.**

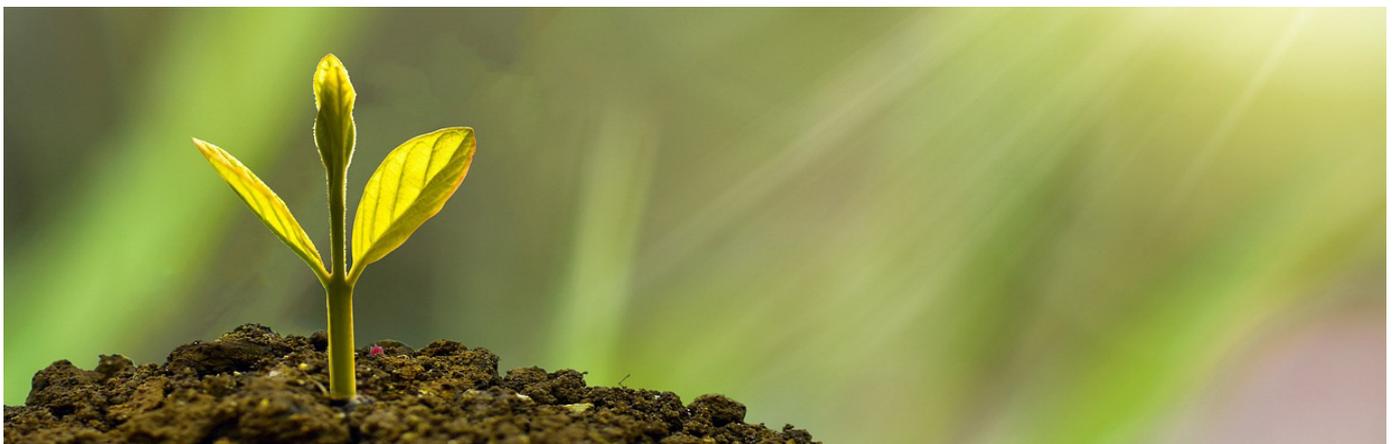
According to data from the HKMA<sup>8</sup>, corporates (excluding real estate/property companies) accounted for 41% of GSS+ bonds issued in Hong Kong. Financial institutions ranked second with a 31% share, whilst governments and development banks followed with 20%. Non-financial corporate issuers collectively contributed 49%, with the real estate sector accounting for 8% – highlighting industry diversification of issuers. As disclosed by the HKMA, institutional investors comprised over 80% of participants in Hong Kong's green bond market in 2024.

**In terms of standards application, the alignment and mutual recognition of standards remain areas of focus.**

Domestically, the *Green Bond Endorsed Projects Catalogue* serves as a green industry classification framework, differing in mechanism from the ICMA Green Bond Principles (GBP) and the CBI certification system. Statistical reporting also varies: ICMA GBP emphasizes principle-based requirements such as transparency in the issuance process and disclosure of fund usage, providing a non-exclusive list of eligible projects; CBI refines climate benefit quantification and third-party verification standards on the basis of ICMA GBP, while China's catalogue focuses on defining the boundaries of green economic activities. Based on comparable data in the market, under the CBI-framework, GSS+ bond volumes reached US\$18.2 billion in 2024, whereas the volumes were approximately US\$16 billion under the ICMA framework, highlighting differences between the systems. Whilst it is common for issuers to comply with multiple frameworks to gain broader market recognition, doing so incurs additional costs. Coupled with insufficient granularity in ESG disclosures, investors bear additional due diligence costs to identify "greenwashing" risks, which creates issuer hesitation and resistance to issuing GSS+ bonds over traditional bond instruments.

**From the perspective of GSS+ bond disclosure, Hong Kong's "green-labeled" bond disclosures require strengthening.**

According to statistics from the *Green Bond Development Report 2024*<sup>9</sup>, only 42.9% of "green-labeled" bonds in Hong Kong disclosed environmental benefit information during their tenure in 2023, lower than Guangdong (68.3%) and Shenzhen (71.5%), and also lower than its own level in 2022 (47.9%). Inadequate disclosures can undermine investor confidence, market appeal and ultimately liquidity.



8 HKMA, The Hong Kong Bond Market in 2023, <https://www.hkma.gov.hk/media/eng/publication-and-research/quarterly-bulletin/qb202403/fa1.pdf>

9 Shenzhen Green Finance Association. (2024). Greater Bay Area Green Bond Development Report (2024).

Retrieved from [https://www.szgfa.com/clients\\_view.aspx?nid=19&typeid=50023&id=1823](https://www.szgfa.com/clients_view.aspx?nid=19&typeid=50023&id=1823)

## Secondary Market

### **Secondary market demand reveals strong institutional preference for bond assets, with notably heightened appetite for GSS+ bonds—reflecting their dual appeal as yield-generating and impact-aligned instruments.**

Driven by high-interest rates and risk aversion, there was a US\$4.874 billion net inflow of retail funds in Hong Kong from January to April 2025, with bond funds accounting for US\$1.246 billion (25.56%), ranking second only to money market funds. Moreover it was the only asset category beyond money market funds that maintained net inflows throughout the January-April period<sup>10</sup>. In respect of trading volumes, GSS+ bonds (US\$5.4 billion in 2024) accounted for over 10% of total bond trading volumes in Hong Kong, higher than the global average of around 4%<sup>11</sup>.

### **Secondary market liquidity for Hong Kong's GSS+ bonds remains underdeveloped versus mainstream markets, as evidenced by wider bid-ask spreads.**

These spreads inversely correlate with liquidity efficiency: narrower spreads signal stronger consensus on asset valuation among market participants, enabling frictionless trading – a key indicator that Hong Kong must improve to solidify its hub status. Bloomberg data<sup>12</sup> shows that the average bid-ask spread for bonds in Hong Kong is 0.24, higher than the U.S. (0.18) but better than Europe (0.37) and Singapore (0.29). In contrast, the average spread for green bonds in Hong Kong is around 0.37, above the global average of 0.29 and higher than the U.S. (0.15) and Europe (0.35). Weak secondary liquidity forces investors to demand higher liquidity risk premiums during primary issuance, increasing financing costs for issuers, dampening issuance willingness and market supply, and exacerbating liquidity challenges.

### **Asia's reliance on fragmented OTC trades for individual bonds—without bulk trading protocols—constrains secondary liquidity.**

Asia's bond markets operate through over-the-counter (OTC) transactions, with market makers remain the main providers of secondary market liquidity, and request for quote (RFQ) for individual bonds as the most common electronic trading mode in the market. Accelerating digitization, standardized block-trading platforms, and centralized clearing could unlock scale. Currently, alternative trading modes, such as portfolio trading, are also demonstrating growth in electronic execution. In the U.S., portfolio trading accounts for about 5% of all cash bond trading volume, attracting market attention and practice<sup>13</sup>. Within Hong Kong's internationally aligned bond market, buy-side participants can request quotes for bond portfolios, while market makers can execute trades for the entire portfolio. However, such activities remain market-driven, and the limitations of individual bond liquidity somewhat constrain the long-term development of this model. "Bond portfolio" products have not been formally defined by official authorities, and corresponding liquidity management mechanisms have not yet been established.

In China's domestic bond market, a bond portfolio trading model, known as "bond baskets," has emerged in recent years. It enables investors to execute strategic trades or track indices via portfolio trades in China's interbank bond market. It has garnered strong market engagement, attracting over a hundred global participants since 2023<sup>14</sup>. Currently, bond basket trading is utilized by domestic banks, fund houses, securities firms, and large overseas banking institutions, with some institutions innovating green and CGT-themed bond basket products (Appendix A). Bond basket services align with asset managers' bulk trading demands and effectively meet overseas institutions' diversified allocation demands in China's bond market.

According to data from the China Foreign Exchange Trade System (CFETS), since the official launch of interbank bond portfolio trading in June 2023 to the end of May 2025, 63 institutions have offered quotes for 171 "bond baskets," covering themes such as green bonds, sustainable development, interest rate bonds, regional local bonds, and spread strategies, providing diversified portfolio trading options for domestic and international investors who recognize its benefits for improving trading efficiency, reducing liquidity risk, and enhancing portfolio management flexibility.

10 Hong Kong Investment Funds Association data, latest as of April 2025.

11 Bloomberg data, statistics based on bonds issued by Hong Kong-registered entities.

12 Bloomberg data, as of July 1, covering corporate bonds, government bonds, municipal bonds, and mortgage bonds. Bid-ask spreads are derived from Bloomberg's Liquidity Assessment Tool (LQA) as the difference between sell and buy prices (as a percentage of bond face value), excluding currency units. Due to large sample sizes, data for Europe's top five economies are used.

13 Opportunities and Challenges of Bond Portfolio Trading Business. China Money Market, November 2024, Issue 277.

14 CfetsOnline. (2023, October 12). The Era of Interbank Market 2.0: A Guide to Bond Baskets. [https://mp.weixin.qq.com/s/sZThNayyzdSEFN0z\\_p2v1A](https://mp.weixin.qq.com/s/sZThNayyzdSEFN0z_p2v1A)

Table 1 | Comparison of Bond Portfolio Trading Characteristics in Domestic and Overseas Markets

	Hong Kong	Chinese Mainland
Formal products and supporting infrastructure for portfolio trading	No, bond portfolio trading is primarily viewed as a market-driven product	Yes, CFETS launched bond baskets in the interbank bond market
Bond portfolio creators	Bond buyers seeking to purchase multiple selected bonds	Market makers and active institutions (banks and securities firms) with strong bond investment and trading capabilities
Bond portfolio quoting	Dealers provide quotes based on buyer requests, subject to market liquidity or no quotes at the time of request, with no continuous quoting mechanism	Continuously provide two-way quotes
Bond portfolio liquidity	No liquidity guarantee mechanisms, reliant on market liquidity with uncertainty	Creators must continuously provide two-way quotes for bond baskets, ensuring liquidity

Portfolio trading innovations in mature markets offer a blueprint for Asia: since 2019, platforms like Tradeweb, Bloomberg, and MarketAxess have deployed optimized corporate bond portfolio trading, enabling bulk execution at speed. In 2021, Denmark's ATP (Europe's fourth-largest pension fund) leveraged this via Tradeweb to efficiently construct a €1 billion green credit bond portfolio – meeting sustainability targets in days versus months. ATP now extends this functionality across sub-funds, demonstrating institutional scalability absent in Asia's fragmented OTC markets.

**The application of financial hedging tools is generally limited.** HKEX offers various index futures and options (e.g., Hang Seng Index futures) for broader market risk hedging<sup>15</sup>. According to disclosures by the HKMA, in 2024 the trading volume of interest rate swaps and options in Hong Kong reached approximately 10% and 20% of the stock market's volume respectively<sup>16</sup>. The utilization ratio of hedging instruments remained relatively limited. Additionally, the application scope of such hedging tools remains constrained – e.g., limited to specific currencies – while their existing features demonstrate inadequate compatibility with the characteristics of GSS+ bond market. Such mismatch has led to limited adoption of these hedging tools in the GSS+ bond market.

**Overall, Hong Kong's GSS+ bond market is playing an increasingly important role in regional and global supply, while further potential remains to be unlocked in areas such as participant diversity, standards alignment, and information disclosures. Given Asia's OTC-dominated secondary markets, which experiences liquidity constraints through fragmented single-bond trades, introducing diversified trading modes and tools is critical to meeting institutional allocation demands and energize market depth. By leveraging its policy flexibility and status as Asia's financial gateway, Hong Kong is uniquely positioned to pioneer next-generation mechanisms for GSS+ bonds. By adapting global innovations (e.g., portfolio trading platforms) and domestic digital solutions, it can inject transformative liquidity into the region's sustainable finance ecosystem.**

15 Hong Kong Exchanges and Clearing Limited. (n.d.). Hang Seng Index Futures. Retrieved from [https://www.hkex.com.hk/Products/Listed-Derivatives/Equity-Index/Hang-Seng-Index-\(HSI\)/Hang-Seng-Index-Futures?sc\\_lang=en](https://www.hkex.com.hk/Products/Listed-Derivatives/Equity-Index/Hang-Seng-Index-(HSI)/Hang-Seng-Index-Futures?sc_lang=en)

16 Hong Kong Monetary Authority. (n.d.). Economic and Financial Data for Hong Kong. Retrieved from [https://www.hkma.gov.hk/gb\\_chi/data-publications-and-research/data-and-statistics/economic-financial-data-for-hong-kong/#financialSector](https://www.hkma.gov.hk/gb_chi/data-publications-and-research/data-and-statistics/economic-financial-data-for-hong-kong/#financialSector)

An aerial photograph of a tropical coastline. The top half of the image shows a dense, lush green forest. Below the forest is a narrow strip of white sand beach, scattered with dark, jagged rocks. The water is exceptionally clear, showing a gradient from light turquoise near the shore to a deeper, darker blue further out. The overall scene is serene and natural.

# 02

## Policy Requirements for GSS+ Bond Issuance in Hong Kong

In 2019, the Hong Kong government launched the Government Green Bond Programme, issuing green bonds denominated in USD, EUR, and CNY to finance eligible green projects (e.g., renewable energy, energy-efficient buildings, and waste management). This initiative is a milestone, providing a critical new benchmark for other potential issuers both in Hong Kong and across the region. A landmark demonstration of this commitment was the Hong Kong government's 2021 issuance of the world's first 30-year HKD-denominated green sovereign bond. This pioneering transaction played a critical dual role: it significantly extended the local-currency green yield curve and established a vital long-term benchmark for the entire Asian market.

Compared to conventional bonds, GSS+ bond issuances mandate specific requirements on the use of proceeds or on the issuer's overall sustainability performance. Market practices show that offering circulars typically include detailed eligibility criteria for funded projects or set sustainability performance targets (SPTs) closely aligned with the issuer. Most issuers would reference the issuance against a recognized green or sustainability-linked bond framework and seek certification from external reviewers that the bond meets the relevant framework. GSS+ bonds issued in the market must include the following core elements:

Table 2 | Core Components of GSS+ Bond Issuance

By Use of Proceeds	Use-of-Proceeds Bonds			General Corporate Purpose Bonds
By Labeling Type	Green Bonds	Social Bonds	Sustainability Bonds	Sustainability-Linked Bonds (SLBs)
Core Components	1. Use of proceeds 2. Project evaluation and selection process 3. Management of proceeds 4. Reporting			1. Selection of Key Performance Indicators (KPIs) 2. Calibration of Sustainability Performance Targets (SPTs) 3. Bond characteristics 4. Reporting 5. Verification

To enhance credibility and stakeholder confidence, GSS+ bonds generally require external reviews, including:

- Pre-issuance external review: Second-party opinion (SPO), pre-issuance certification
- Post-issuance external review

To ensure integrity and alignment with global standards, external reviewers rigorously assess whether issuers' frameworks, bond allocations, and use of proceeds comply with international principles (e.g., ICMA) or local taxonomies. Transparency is facilitated through platforms like Hong Kong's STAGE, which hosts voluntary disclosures of core bond information – including name, issuer, ISIN, and adherence to principles – as well as critical documents such as green frameworks, offering circulars, external review opinions, and post-issuance reports.





# 03

**Developmental Opportunities:  
Hong Kong GSS+ Bonds Market  
Exhibits Multi-Dimensional Potential  
for Liquidity Improvement**

Hong Kong has made significant strides in the development of the GSS+ bond market in recent years, though secondary market activity and liquidity remain areas for further improvement. Bond market liquidity is typically characterized by the ease with which investors can buy or sell bonds without significantly impacting their prices. Sufficient market liquidity is critical for effective price discovery, reducing transaction costs, and maintaining overall market efficiency.

**Liquidity influences the market's development potential through two channels:** In the primary market, stronger liquidity lowers investors' demand for a liquidity risk premium during subscription, leading to lower issuance rates and reduced financing costs for issuers<sup>17</sup>. This, in turn, boosts their willingness to issue and increases bond supply. The expanded supply rebalances market equilibrium (GSS+ bonds face structural supply constraints due to stricter disclosure requirements and inadequate investment incentives for green investments<sup>18</sup>), enhances liquidity (reducing investors' reluctance to sell), and initiates a virtuous cycle. In the secondary market, improved liquidity lowers barriers to entry for GSS+ bond allocation and trading (meeting liquidity risk management requirements for bond portfolios), and enhances resilience amid market volatility, stabilizing prices and improving price discovery efficiency.

As a result, enhancing GSS+ bond liquidity is essential to the long-term, sustainable development of the GSS+ bond market in Hong Kong. **Market liquidity is collectively influenced by multiple factors with varying degrees of impact, including the application of GSS+ bond standards, market ecosystem structure, infrastructure, and policy and regulatory frameworks. These are discussed in the following sections.**

17 Secondary Market Liquidity and Primary Market Pricing of Corporate Bonds, by Michael A. Goldstein, Edith S. Hotchkiss and David J. Pedersen <https://www.mdpi.com/1911-8074/12/2/86>

18 The impact of liquidity risk on the yield spread of green bonds, by Wulandari Febi, Dorothea Schäfer, Andreas Stephan, Chen Sun <https://www.sciencedirect.com/science/article/abs/pii/S1544612317307171>

# GSS+ Bond Standards: Existing Advantages and Persistent Constraints

## Universal standards for GSS+ bonds continue to evolve.

Hong Kong's GSS+ bond market has made notable progress in aligning with international sustainable bond standards and frameworks while refining local systems. However, divergent definitions of "green" and "sustainable" among market participants remain a core challenge, with no unified standards or mature mutual recognition mechanisms in place. Fragmented taxonomies perpetuate transparency issues stemming from framework discrepancies, requiring additional due diligence and added costs and resources in order to manage cross-jurisdictional regulatory-coordination mechanisms, and interoperability gaps. Currently, GSS+ bonds in Hong Kong operate under multiple frameworks, resulting in challenges for comparability and transparency, which complicates investor due diligence. As outlined in Chapter 1, CBI and ICMA reported differing GSS+ bond market sizes for Hong Kong in 2024, due to differences in framework adherence. Issuers may need to adjust disclosures repeatedly to meet different framework requirements, increasing costs and dampening their willingness to issue in the future. For investors, "fragmented" standards complicate screening and due diligence, requiring significant effort to interpret and compare offering documents and assessment reports based on varying criteria. This not only raises the difficulty of evaluating bonds' true sustainability credentials but also increases the complexity of compliance and risk management. When a single bond adheres to multiple frameworks to cater to diverse investors, overlapping data and varying disclosure priorities make cross-bond or portfolio-level sustainability performance assessment and integration exceptionally challenging, adding uncertainty to investment decisions.

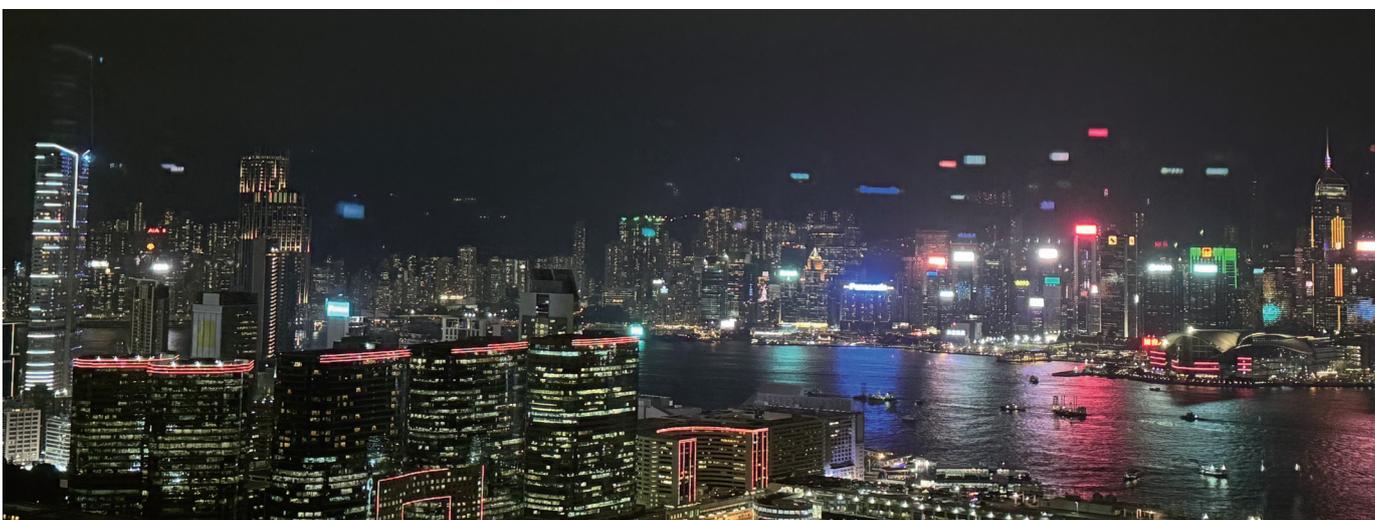
## Issuers face resource-intensive pre-issuance green assessments for GSS+ bonds.

GSS+ bond issuances require robust preparatory work. As pre-issuance requirements, companies must complete project evaluations, certifications, and legal/compliance consultations, covering costs such as green rating fees and reporting expenses. While Hong Kong offers subsidies and policy support for GSS+ bonds, pre-issuance assessments and certifications involve more steps than conventional bonds, demanding greater coordination for external reviews and incurring additional labor and time costs. This reduces some issuers' willingness to adopt GSS+ labels, creating downward pressure on GSS+ bond supply and market liquidity.

## GSS+ bond disclosures remain inadequate, and external reviews need strengthening.

Disclosures for Hong Kong's GSS+ bonds are primarily voluntary, with second-party opinions on financing frameworks being common practice. However, post-issuance information disclosure remains limited, particularly among one-off issuers, without long-term or strategic GSS+ bond issuance programs, who often lack incentives for ongoing disclosures. As noted in Chapter 1, the proportion of green-certified bonds disclosing environmental benefits has declined. Even among disclosing issuers, few seek third-party verification for their post-issuance information. As such, the lack of sustained tracking and reporting on fund allocation, project progress, and quantifiable environmental/social benefits, coupled with issuers' reluctance to engage independent third-party institutions, hampers effective post-investment management and impact assessment. Incomplete, opaque, and unverifiable post-issuance information disclosure increases the potential risk of greenwashing.

**As a key international financial hub, Hong Kong plays a pivotal role in advancing the GSS+ bond market. The promotion of a unified standard and high-quality, post issuance disclosures (aligned with GSS+ bond standards) would lead to greater transparency, increased liquidity and confidence, which would further enhance Hong Kong's competitiveness in sustainable finance.**



# GSS+ Bond Market Ecosystem Could be More Diversified

## **GSS+ bond issuances tend to be highly concentrated in certain industries.**

While Hong Kong's GSS+ bond market has expanded, its issuer profile remains limited. As detailed in Chapter 1, corporates were the primary issuers of GSS+ bonds in 2024, followed by financial institutions, government and development banks in roughly equal proportions. Overall, Hong Kong's GSS+ issuer base still offers plenty of opportunity and potential for expansion.

## **GSS+ bond investors are concentrated and tend to hold long-term positions.**

Given the complexity and specialization of GSS+ bonds, bondholders are primarily large institutional investors and funds, with minimal retail involvement. Green bond investors tend to have longer-term investment horizons, leading to lower trading frequency<sup>19</sup>. Additionally, government green bonds – favored for their sovereign credit advantages – are often held to maturity. Coupled with their large issuance share, this dynamic may limit the tradable supply of GSS+ bonds in the secondary market.

## **GSS+ bond products and derivatives require further diversification.**

As outlined in Chapter 1, traditional green bonds remain the dominant green product, while social and sustainability themed bonds are relatively new entrants. For investors seeking bulk GSS+ bond allocations, few mature products balance efficiency, flexibility, and liquidity. Most green bonds feature fixed-rate coupon structures instead of floating-rate, which inherently lack responsiveness to interest rates changes. Since bond prices inversely correlate with yields, rising rates exert downward pressure on bond prices, particularly for longer-tenor bonds sensitive to rate shifts, exposing some medium-to-long-term green bonds to market risk. Amid global market volatility, demand is growing for risk-hedging instruments to mitigate interest rate risks in the GSS+ bond market. Financial instrument such as interest rate swaps and futures are critical for managing bond investment risks in volatile rate environments<sup>20</sup>. Effective hedging mechanisms can attract broader investor participation, especially among risk-averse investors. Thus, insufficient hedging instruments may curb market engagement and harm liquidity. Trading volumes for Hong Kong's interest rate swaps, options, FX forwards, and other derivatives remain low. Consequently, overall usage of hedging instruments is minimal. Existing hedging tools may also be limited (e.g., restricted to specific currencies) or not tailored to the GSS+ bond market's characteristics. This inadequate risk mitigation compels investors to adopt a more cautious approach when trading green bonds, reducing trading frequency and volumes – developments that may exacerbate liquidity shortages.

Beyond traditional interest rate, credit, and liquidity risks, GSS+ bonds introduce unique risk dimensions, making specialized hedging tools especially critical. For instance, "greenium" volatility risk may fluctuate with market sentiment, policies, or supply-demand dynamics<sup>21</sup>. Currently, the market offers only a limited number of efficient and cost-effective hedging instruments for GSS+ bond – specific risk. This shortage increases the complexity of managing investment portfolios, restricts the ability to implement refined strategies such as capturing green alpha, and may discourage large institutional investors, operating under strict risk-management requirements, from entering the market. Developing risk management tools tailored to Hong Kong's GSS+ bond market is essential to enhance resilience, attract diversified investors, facilitate price discovery, and improve overall liquidity. In summary, the GSS+ bond market features relatively homogeneous product types and limited hedging tools, presenting insufficient depth to support investors in managing investment risks.

## **This reflects the need for broader industry coverage, participant diversity, and product innovation in Hong Kong's GSS+ bond market, as a diversified ecosystem has yet to emerge.**

A concentrated industry distribution may hinder risk dispersion and innovation: market-wide risks could arise if dominant sectors (e.g., real estate) face cyclical downturns, affecting related sustainable finance instrument and exerting temporary pressure on the broader market. Issuer concentration restricts sustainable finance applications to specific economic activities, leaving significant untapped potential to align sustainable bonds with Hong Kong's strengths as an international financial hub. Emerging sectors such as advanced manufacturing and digital technology, alongside traditional areas like energy and transport, have yet to become issuance mainstays. On the investment and product fronts, institutional investors remain dominant, while GSS+ bond tools (e.g., low-risk, high-liquidity GSS+ bond portfolios and ETFs) and derivatives catering to diverse preferences still require further development. Meanwhile, the participation of retail investors and smaller institutions holds significant upside potential.

19 Lehmann, A., & Martins, C. (2023). The potential of sovereign sustainability-linked bonds in the drive for net-zero. Bruegel.

<https://www.bruegel.org/policy-brief/potential-sovereign-sustainability-linked-bonds-drive-net-zero>

20 Hong Kong Exchanges and Clearing Limited. (2023). Swap Connect – A convenient access channel to Mainland China's derivatives market for onshore bond investment.

[https://www.hkex.com.hk/-/media/HKEX-Market/News/Research-Reports/HKEx-Research-Papers/2023/CCEO\\_SwapConnect\\_202306\\_e.pdf](https://www.hkex.com.hk/-/media/HKEX-Market/News/Research-Reports/HKEx-Research-Papers/2023/CCEO_SwapConnect_202306_e.pdf)

21 Influencing factors include but are not limited to: green/renewable energy policies and project technology risks, and performance risks tied to ESG target achievement for sustainability-linked bonds (SLBs).

## Infrastructure Could be Further Strengthened

**Enhancement of disclosure infrastructure can support greater liquidity** in the GSS+ bond market which currently emphasizes pre-issuance certifications but lacks robust post-issuance management. As the pre-issuance certification cannot fully verify how fund proceeds will ultimately be deployed, the absence of rigorous post-issuance disclosure oversight could expose issuers to claims of greenwashing. STAGE is a voluntary disclosure platform for regional green and sustainable products, allowing issuers to upload pre- and post-issuance documents. However, these files are presented as webpage links requiring manual downloads, with no intuitive comparative analysis by bond type or industry. In the absence of mandatory requirements and a streamlined, investor-friendly platform for disclosure and tracking, investors may be disadvantaged as access and costs to obtain critical information remains high. Transparency is key to an open and active market. Thus, the GSS+ bond market is in urgent need of stronger disclosure infrastructure to enhance transparency and market efficiency.

### **Trading infrastructure requires refinement.**

The Chinese Mainland offers systematic trading services and quoting methods, such as centralized trading and quoting platforms for green bond baskets and FX via CFETS. Hong Kong may consider such practice as a reference when improving its GSS+ bond secondary market liquidity given OTC trading is now predominant.



## Policy Regulatory Frameworks and Evaluation Standards Enhancements

### **Strengthening top-down look-through supervision would enhance market robustness and participation.**

Under Hong Kong's multi-tier custodial model for sustainable bonds, regulatory authorities face challenges in conducting look-through supervision of underlying assets, resulting in insufficient transparency regarding the deployment of funds to finance specific green projects or activities. Although the Green and Sustainable Finance Framework requires issuers to disclose the use of proceeds in annual reports, such disclosures often remain at the level of "eligible project categories" (e.g., "renewable energy" or "green buildings") without specifying the actual projects funded, their progress, or the environmental benefits achieved.

Furthermore, Hong Kong has not yet established a unified tracking mechanism for sustainable bond funds and lacks mandatory disclosure rules, leading to wide variations in reporting standards, granularity, and quality. Regulators could promote look-through supervision by adopting blockchain and other technologies to supervise bond use of proceed, ensuring funds are used as stated. Meanwhile, clearer disclosure requirements for issuers should be phased in. These measures would not only guide the market to strengthen disclosure accountability but also significantly enhance transparency.

### **Disclosure evaluation standards need improvement.**

Markets lack tools to systematically organize, analyze, or benchmark bond-related sustainability information, undermining effective market evaluation. Ambiguous evaluation standards also fail to guide high-quality market participants toward enhancing disclosures, impeding both market-wide progress and the development of transparency-driven, industry-specific analytical tools.



**04**

**Policy and  
Market Recommendations**

# Adoption and Application of a Common Green Standard

**We recommend prioritizing universal standards—the CGT/MCGT and Hong Kong Taxonomy—as blueprints for the growth in green finance products, solutions and capital allocations.**

**This commitment will simultaneously diversify green assets, catalyze investor demand, and force the development of quoting, trading, and disclosure infrastructure, ultimately cementing Hong Kong's position as a transparent and liquid sustainable finance hub.** Through innovative financial instruments and application of universal standards, market participants can be mobilized whilst strengthening the market ecosystem. With reference to international cases of CGT-themed bond issuances (Appendix A), it demonstrates that green bonds aligned with universal standards command significantly higher market recognition.

**Adoption of a Common Green Standard can encourage market participants to develop innovative financial products aligned with universal GSS+ bond standards for both exchange and OTC markets to meet diverse investment and financing demand, including:**

**1. Diversified Sustainable Bond Indices: Market institutions are encouraged to develop diversified sustainable-themed bond indices that align with the CGT/MCGT/Hong Kong Taxonomy.** As summarized in Chapter 1, the current scale of Hong Kong's green bond market provides a strong foundation for secondary market trading and index product development. Social bonds, sustainability bonds, sustainability-linked bonds, and transition-themed bonds address sustainable development needs across sectors like education and healthcare, which could provide diversified investment options for investors.

**2. Taxonomy-Aligned Bond Portfolios: Creation of bond portfolios aligned with CGT/MCGT/Hong Kong Taxonomy.** Market makers can screen bonds based on multiple criteria – such as alignment of use of proceeds to taxonomy-covered economic activities, contributions to low-carbon transition and sustainable development goals, and disclosure completeness – to construct portfolios for trading. This provides multiple benefits: (i) richer and targeted green investment choices for investors; (ii) easy to evaluate and manage investment targets; (iii) enhanced underlying bond liquidity through market pricing mechanisms; and (iv) incentives for issuers and professional parties to improve disclosure and granularity in order to support secondary trading options. With reference to the EU's disclosure requirements for sustainable-themed asset management instruments (Appendix B), the scale of related theme funds in the market experienced significant growth following the implementation of clear standards, demonstrating how transparent disclosures driven by standards can boost investment demand and underlying asset liquidity. Conversely, to attract capital inflows, underlying assets must meet disclosure requirements, further elevating disclosure standards.

**3. Development of an active green derivatives market to accelerate the launch of risk management products linked to CGT/MCGT/Hong Kong Taxonomy.** Developing index futures products linked to CGT-aligned green and sustainable bond indices that can hedge against price volatility risks in green and sustainable assets, and more importantly, through the price discovery mechanism inherent in derivatives markets, provide real-time market confidence across various projects under the standards.

**To further enhance adoption and application of a Common Green Standard, policy incentives should be considered to support the establishment of a tripartite support mechanism integrating issuance subsidies, investment assessments, and market cultivation, such as:**

**1. Enhance “issuance subsidies” mechanism.** In addition to the existing *Green and Sustainable Finance Grant Scheme*, Hong Kong should enhance subsidies by referencing experiences from markets like Singapore and the EU (Appendix B), covering primary and secondary market costs such as issuance expenses and trading fees to attract enterprises from hard to abate sectors or high emitting industries to issue transition or GSS+ bonds in Hong Kong. For instance, the Hong Kong government could add a CGT/MCGT/Hong Kong Taxonomy-specific arrangement under the existing *Green and Sustainable Finance Grant Scheme*, offering higher subsidies for compliant bonds (including external review costs). A Sustainable Portfolio Product Liquidity Support initiative could also provide capped or restricted subsidies on management fees for GSS+ bond ETFs providers exceeding certain AUM thresholds.

**2. Implement “investment assessments” mechanism.** Hong Kong can take reference from the Chinese Mainland's green bond investment assessment policies for banking institutions (Appendix B), to stimulate market demand and issuance vitality by evaluating institutional holdings of relevant bonds. For example, investment assessments could incentivize banks and asset managers to allocate more capital to green bonds or green assets. Moreover, the government should consider imposing a minimum percentage of proceeds from government green bond issuances be directed to Tier 1 activities under CGT/MCGT/Hong Kong Taxonomy, with annual disclosures of core metrics like project-level carbon intensity reduction rates.

**3. Market cultivation.** Explore additional incentives like streamlined approval processes for qualified GSS+ bonds, cross-border standard mutual recognition pilots with Guangzhou/Shenzhen, and annual sustainable finance open days to elevate market awareness and holistically support GSS+ bond market development.



# Encourage Diverse Issuer Participation

**To unlock its full potential, Hong Kong must foster a diversified GSS+ bond market ecosystem through a tripartite strategy of model innovation, technology empowerment, and regional expansion.**

Hong Kong's unique position as a super-connector between the Chinese Mainland and global capital markets provides an unrivalled foundation for cross-border sustainable finance collaboration. The strategic imperative is now to attract a more heterogeneous mix of industry participants. By expanding issuer categories and strengthening cross-sectoral linkages, Hong Kong can drive transformative breakthroughs in both the breadth and depth of the global GSS+ bonds market.

In 2024, Hong Kong's private GSS+ bond market was dominated by corporates and financial institution issuers. As outlined in Chapter 1, supporting innovative tech enterprises in sustainability fields to issue bonds in Hong Kong aligns with its carbon neutrality goals and vision to become an international tech hub. This would enrich the GSS+ bond landscape and consolidate Hong Kong's status as an international financial center. The *2024 G20 Sustainable Finance Report* notes that SMEs face challenges in accessing information, building infrastructure, and developing technical capabilities, hindering their participation in green and sustainable financing.

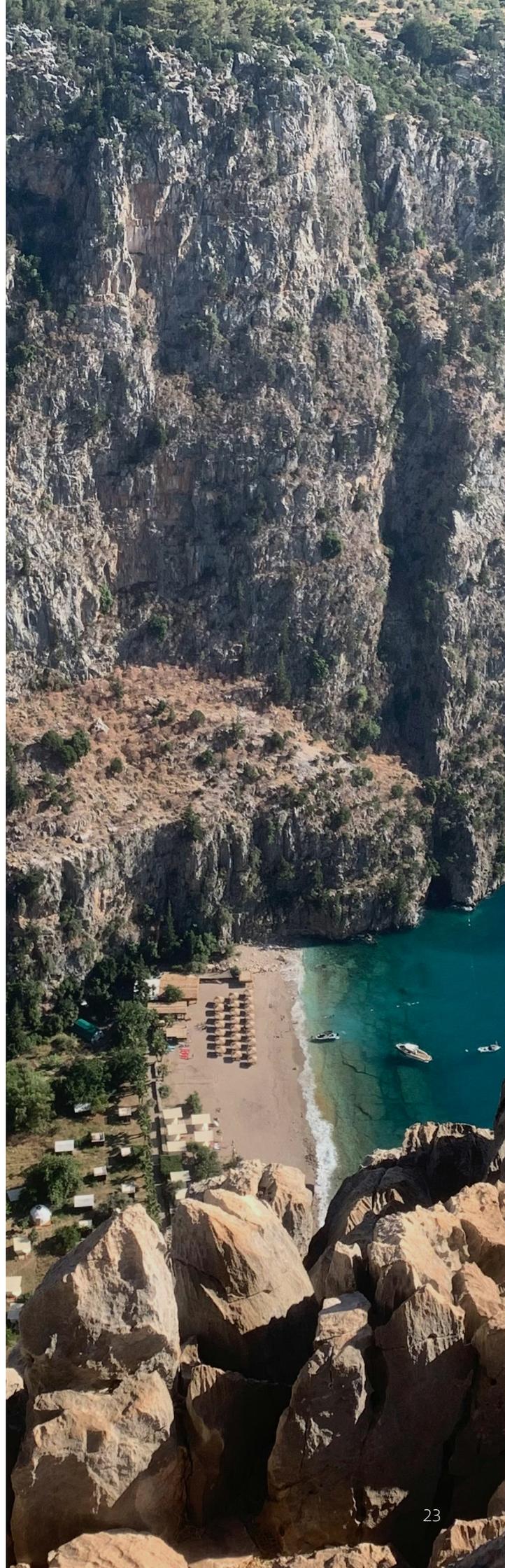
**To catalyze broader market participation, the following initiatives are recommended:**

## **1. Innovation in issuance models:**

The HKSAR government should establish dedicated task forces to provide subsidies, expand the type of bond issuers, and collect policy recommendations from issuers. These taskforces would proactively engage with potential anchor issuers—both domestic and international—leveraging their market influence to create a demonstrative effect and catalyze broader market expansion. Additionally, establish a "Pooled SME Green Bond Issuance Program" for qualified SMEs that have cleared Know Your Customer (KYC) and Anti-Money Laundering (AML) due diligence. This initiative would utilize standardized disclosure templates to enable multiple small and medium enterprises to jointly issue a single, consolidated bond product. This "bond basket" approach significantly reduces per-issuer costs and complexity, democratizing access to sustainable capital for smaller players.

## **2. Leveraging technology for efficiency:**

The HKMA could provide subsidies to support enterprises in developing and deploying AI-powered tools utilizing Natural Language Processing (NLP). These tools would automatically analyze SMEs project characteristics and match them with the requirements of major green bond frameworks and taxonomies. By generating pre-compliance assessment reports, this technology would drastically lower the technical burden and costs associated with disclosure and external review.



# Suggested GSS+ Bond Product Innovations to Enhance Market Vitality

Hong Kong boasts substantial outstanding bonds in HKD and offshore CNY, alongside recent large-scale green and sustainable bond issuances, providing a foundation for diversified green bond portfolios<sup>22</sup>. To further enhance market development, the following recommendations or suggestions are made as ideas for innovation and refinement of existing bond products to grow the primary and secondary market development for GSS+ bonds. Whilst recognizing that such recommendations may incur additional costs and resources across the board, the long term benefits for the market as a whole would offset the initial outlays to enhancing the overall GSS+ ecosystem.

**1. Development of "bond portfolio" products dedicated to improving bulk GSS+ bonds trading convenience, supported by matching management mechanisms, under the SFC and HKMA.** This would align with market demand while fostering bond market development. Building on Chinese Mainland investors' increasing familiarity with "bond baskets," such products could further interconnect the bond markets and facilitate cross-border sustainable capital flows.

**2. Promote multi-currency GSS+ bond issuances** – leveraging Hong Kong's bond market size and diversity, and issuance of multi-currency green bonds as part of the Government Green Bond Programme, encourage multi-currency GSS+ bond issuances (e.g. HKD, CNY, USD, EUR, etc.) to expand the range of green bond portfolios and strengthen Hong Kong's appeal as an international green financing hub.

**3. Develop multi-asset sustainable ETFs** – encourage Hong Kong to develop ETFs combining various sustainable assets, including GSS+ bonds, transition bonds, ESG equities, and green REITs, catering to investors with different risk appetites and investment objectives.

**4. Allow green bond portfolios to be included as eligible collaterals for the HKMA liquidity facilities.** Market makers may pledge portfolios of green bonds to the HKMA as collaterals to obtain short-term HKD liquidity to manage any unexpected financing shortfalls. This mechanism, by expanding the utility scenarios for green bond portfolios in the market, effectively lowers the carrying costs for market makers.

**Market institutions are encouraged to develop sustainable investment strategies to boost GSS+ secondary market liquidity, whilst regulators can offer policy incentives, subsidies, and increased exposure for innovative GSS+ bond products as motivational measures.**

**1. Developing sustainable-themed investment strategies.** Market institutions in Hong Kong must strengthen cross-border collaboration with Chinese Mainland and international funds/asset managers to encourage development of sustainable-themed strategies like renewable energy, climate change, water management, and biodiversity conservation.

**2. Building sustainable-themed bond portfolios.** Explore weighted allocations of bonds to create sustainable-theme bond portfolios based on bond labels (CGT-themed bonds, GSS+ bonds, transition bonds, etc.), use of proceeds, disclosure granularity, issuer credit ratings, and ESG ratings. To encourage capital allocation toward projects with superior green credentials and enhanced disclosure practices, market makers and the authorities could support bond issuances with dual/multi-green attributes as portfolio components. Bonds included in portfolios would improve liquidity, while issuers would be incentivized to enhance transparency in disclosing environmental impact.

**3. Lowering minimum investment thresholds for bond portfolios.** Policymakers should encourage lower minimum investment thresholds for bond portfolios, facilitating green-themed trades to meet flexible subscription/redemption needs and boost overall market liquidity.

**Continue expanding financing market support for GSS+ bonds.**

As outlined in Chapter 1 of this report, Hong Kong has consistently supported green bond issuances since 2018 through the Government Green Bond Programme, as well as by expanding subsidies schemes.

To further develop the market, support should include:

**1. Enhance subsidies for GSS+ bond issuance.** Hong Kong's GSS+ market should leverage policy advantages to support transition bonds closely tied to net-zero pathways, thereby augmenting low-carbon transition financing products which may face significant funding gaps in the future.

**2. Strengthen the complementary role of transition bonds in GSS+ markets.** HKMA and HKEX should reference ICMA's *Climate Transition Finance Handbook* and CBI's five transition principles to formulate issuance requirements (e.g., sector-specific/industry-based transition bond issuance guidelines and quantified disclosure requirements), providing quantifiable criteria for issuers to assess transition financing.

**3. Implement dynamic industry technology list mechanism.** Under future phases of the Hong Kong Taxonomy, establish a Technology Watchlist to update low-carbon technology maturity assessment reports quarterly by the HKMA and experts to ensure Paris Agreement-aligned transition roadmaps and mitigate greenwashing risks. Examples include:

For steel sector, set primary metrics like "hydrogen-based direct reduced iron (H-DRI) technology", requiring transition bond issuers using such technologies to demonstrate project carbon intensity below industry benchmarks by certain percentages.

For shipping sector, allow bond issuers using decarbonization retrofits during a 3-5-year transition period to issue transition bonds with disclosure of technology pathways in offering circular.

<sup>22</sup> Hong Kong Bond Market in 2023, Mar. 2024, <https://www.hkma.gov.hk/media/eng/publication-and-research/quarterly-bulletin/qb202403/fa1.pdf>

**4. Optimize GSS+ bond tracking mechanisms.** Issuers can adopt third-party transition pathway reviews, requiring annual independent verification to reduce greenwashing risks and ensure their alignment with the Paris Agreement. Failures would trigger the interest rate increase mechanism for bonds, enhancing the credibility of the bond and ensuring that issuers set clear and realistic emission reduction targets and incentives, thereby reducing greenwashing risks and expanding green financings.



### Strengthen the role of digital bonds in Hong Kong.

The HKSAR government strongly supports tokenization within the ecosystem, having successfully issued multi-currency digital green bonds—becoming the world's first government to issue tokenized green bonds—and attracting broad institutional interest, whilst laying solid policy and technical foundation for future efforts<sup>23</sup>. In May 2025, the HKSAR legislature passed the *Stablecoins Bill*, adopting a "multi-currency + value-anchored" regulatory framework to create an international benchmark. The HKSAR government is proactively crafting a forward-looking regulatory environment designed to enable blockchain-empowered GSS+ innovations. This foundational commitment is critical to unlocking the next wave of market efficiency, transparency and product diversification.

**1. Explore tokenized bond portfolios for digital secondary trading.** For existing bonds, issuing tokenized portfolios could improve trading efficiency and transparency via blockchain technology, thereby boosting secondary liquidity. Reference can be made to global practices in tokenized funds such as BlackRock's BUIDL Fund, Harvest's Tokenized Fund and China AMC's HKD Digital Currency Fund. Since tokenization is implemented at the product level without underlying asset tokenization, this approach offers strong operational feasibility.

**2. Promote stablecoins as denomination currency for GSS+ bonds.** The HKMA and SFC should jointly lead feasibility studies on "HKD stablecoin-denominated GSS+ bonds" with research institutions and industry experts and enhance the *Digital Bond Grant Scheme* to support stablecoins pegged to HKD, offshore CNY, and short-term government bonds. Moreover, by drawing on international cases of stablecoin-denominated digital bonds (Appendix A), they can further promote the issuance of GSS+ bonds under the *Ensemble Sandbox*. This will enhance both the GSS+ and stablecoin market development by broadening financing channels while reducing settlement costs, thereby improving liquidity and settlement efficiency.

**3. Promote the application of blockchain technology in GSS+ bonds issuance.** Invite more industry participants to encourage private sector issuers to join the *Ensemble Sandbox*. Prior to bond issuance, support can be given to rating agencies and law firms to access blockchain networks and upload assessment information. This will create more transparent and efficient information chains, enhancing investors' ability to evaluate projects while also improving pricing accuracy in the GSS+ bonds primary market.

**4. Pilot the application of "blockchain + remote sensing + AI" and "smart contracts + IoT" technologies to monitor the emission reduction benefits of bond-funded projects.** Leveraging Hong Kong's digital green bond experience, the introduction of AI and satellite remote sensing for relevant projects and input of observational data and structured imagery into blockchain systems to enable full-process monitoring of energy savings and CO<sub>2</sub> reductions for digital green bond projects would position Hong Kong at the forefront of the GSS+ bond market. By linking project data to smart contracts for real-time monitoring and disclosure, issuers would strengthen fund traceability and compliance. The pilot promotion of the above technology is also conducive to the disclosure of information to global green investors, providing higher transparency, assurance and timeliness.

**5. Innovation of "digital green bond + carbon asset" mechanisms.** For bond financing projects with verifiable emissions reduction, encourage issuance of carbon-price-linked digital GSS+ bonds. These bonds could leverage distributed ledgers technologies (DLT) to convert carbon assets into on-chain data certificates, developing carbon assets for excess reductions according to local methodologies (e.g., Guangzhou's Hydrogen Fuel Cell Vehicle Carbon Methodology, Shenzhen's Distributed PV System Carbon Methodology, Shanghai's Internet Bike Sharing Carbon Methodology). This approach establishes a blockchain-based trading mechanism integrating carbon asset verification and digital GSS+ bond transactions, to support carbon credit and digital bond trading under blockchain technology with real-time updates.

**6. Increase subsidies and incentives.** Under existing Digital Bond Grant Scheme and Ensemble Sandbox initiatives, HKSAR could boost supporting subsidies for issuers, arrangers, and third-party professional institutions to apply digital and blockchain technologies in GSS+ bond issuance, trading, and innovation.

23 Hong Kong Monetary Authority. (n.d.). EvergreenHub: Navigating Bond Tokenisation - Digital Bond Knowledge Repository. <https://www.hkma.gov.hk/eng/key-functions/international-financial-centre/bond-market-development/digital-bond-knowledge-repository/>

# Optimize Infrastructure to Enhance Trading Efficiency

To secure the long-term advancement of Hong Kong's GSS+ bond market, the establishment of a disclosure-centric governance framework is imperative. Such a framework is the cornerstone of market transparency, data comparability, and certification credibility, directly mitigating the risks of information asymmetry. By mandating robust and standardized disclosures, Hong Kong will fortify investor confidence among both domestic and international participants, ensuring the market's sustainable and resilient growth.

## Provide policy guidance to standardize green and sustainable bond markets.

**Standardization of product definitions** by establishing a local Green Label system in Hong Kong. Or referencing the Hong Kong Taxonomy and other universal standards to develop an internationally compatible green bond certification framework with broader applications to enhance project credibility.

**Standardization of measurement methodologies** to strengthen key metrics like carbon benefit disclosures and encourage periodic quantitative disclosures of carbon reduction performance and KPI achievements.

**Standardization of disclosure regimes** with guidelines for bond issuances, implementing tiered requirements for GSS+ bonds to mandate regular disclosures of underlying assets' environmental/social impacts and financial data, normalizing green/sustainable bond disclosure practices. For innovative instruments like green bond portfolios, encourage asset-level disclosures and provide clear regulatory approval guidelines to strengthen market confidence.

## Enhance incentives to mitigate greenwashing risks.

**Improve third-party review oversight:** Strengthen quality control of third-party verifiers to ensure professional competence and impartiality, enhancing market confidence in their assessments, transparency and credibility.

**Mandate quantified sustainability disclosures:** Encourage or require issuers to regularly disclose carbon reduction performance and KPI achievements and integrate these metrics into a "green bond performance scoring" system, with dynamic monitoring and corrective measures. Bonds which pose greenwashing risks should trigger mandatory bond repurchase and corrective measures for non-compliant and related parties, while high-quality disclosures are rewarded with incentives (e.g. subsidy boosts). Additionally, regulators should further clarify the requirements for post-issuance disclosure and external reviews through existing grant schemes. This will lay a foundation for a healthy, market supervision-oriented market.



## Upgrade GSS+ bond disclosure platforms to reduce barriers in tracking green standards application.

As noted in Chapter 2, STAGE currently operates on a voluntary disclosure basis. However, due to limited issuer participation, market stakeholders struggle to assess the comprehensive market insights of GSS+ bond market.

### Gradually strengthen GSS+ bond disclosure requirements:

Leverage the STAGE platform to expand data availability through active guidance (e.g., issuer incentives) and passive collection, exploring transitions from voluntary to mandatory disclosures.

### Elevate STAGE's role in creating a virtuous cycle of "case demonstration - high-quality disclosure - achieve financing."

Leverage platform data to conduct best practice research, guiding market direction with high-quality examples, and publishing analytical reports and industry benchmarks to establish the STAGE as key infrastructure. Optimize data visualization through interactive dashboards (e.g., bond-type/industry comparisons) to build comprehensive databases. Market-driven supervision can incentivize issuers to improve disclosures for industry credibility and reduce financing costs.

### Continuously strengthen bond trading infrastructure.

Aligning with investor and issuer demands, Hong Kong should continue to enhance infrastructure for GSS+ bonds, promoting portfolio trading in OTC markets.

### Introduce a tiered incentives mechanism for bond market makers.

Drawing on existing market maker incentive programs (Appendix B), explore graduated fee rebates or settlement fee reductions for market makers to support CGT/MCGT/Hong Kong Taxonomy-compliant portfolio trades based on monthly volumes.

### Build portfolio trading infrastructure for centralized quoting and trading.

Drawing from the Chinese Mainland's interbank bond basket trading, the SFC could guide infrastructure development and establish a dedicated GSS+ bonds module (to display bond issuance and trading information). Explore expanding cross-border tradable bond varieties via Bond Connect while enhancing existing green bond grant schemes to incentivize issuers, arrangers, and market participants, fostering centralized pricing mechanisms, bilateral quoting environments and settlement services to support connectivity of capital markets between Hong Kong and the Chinese Mainland.

### Leverage synergies between GSS+ bonds and carbon markets.

Facilitate linkages between GSS+ bonds and the Guangdong-Hong Kong-Macao Greater Bay Area and national carbon markets, using carbon prices as GSS+ bonds pricing references (e.g., floating interest rates linked to carbon price).

### Advance digital infrastructure.

Compared to the Chinese Mainland, Hong Kong is developing a robust regulatory framework for virtual assets – including the new virtual asset trading platform licensing regime, the continued expansion of virtual asset market, and reduced restrictions on tokenized securities – is driving deeper integration between digital technologies, virtual assets, and financial services. This environment, coupled with continuous innovation in green fintech, provides Hong Kong with significant advantages in developing digital bonds. With regulatory support it is possible to encourage financial institutions to explore innovations that combine digital assets with GSS+ bonds via, for example, the *Ensemble Sandbox*, leveraging blockchain's decentralization, traceability, and tamper-proof transparency to study feasibility in issuance, custody, trading, post-issuance services, and disclosures, promoting synergies between the development of green finance and Web 3 in Hong Kong.

### Optimize professional service capabilities.

Securities firms are encouraged to actively provide intermediary services for GSS+ bond issuances, while supporting financial institution staffs in participating in training programs on sustainable finance. They are also encouraged to adopt third-party information disclosure platforms operated by the market under government guidance to improve data comparability and transparency for GSS+ bonds.

### Strengthen capacity building to raise market awareness of GSS+ bonds.

**Provide standard implementation guidance:** To demystify the issuance process and ensure market integrity, policymakers must move from high-level principles to actionable clarity. It is recommended that regulators issue detailed technical standards for GSS+ financial products. These standards would explicitly clarify data disclosure requirements, methodologies for impact reporting, and alignment criteria for major taxonomies. Clear guidance is the most effective tool to reduce compliance risks stemming from ambiguous rules and significantly improve issuance feasibility, especially for first-time issuers.

**Intensify capacity building:** Market proficiency is paramount. Industry associations, in collaboration with fintech platforms, should lead a concerted effort in market education and training. This includes:

① **Guidance on Standard Implementation:** Provide application guidance for existing standards, such as issuing regulatory directives on the implementation of these standards in financial products and clarifying technical specifications for data disclosure.

② **Leveraging Technology:** Sharing standardized data templates and case studies via centralized fintech platforms to drastically improve disclosure efficiency and consistency.

③ **Delivering Targeted Training:** Developing tailored programs that equip all market participants (issuers, underwriters, verifiers, investors) with the skills to navigate GSS+ frameworks and, crucially, to identify and mitigate greenwashing risks.

**Promoting Best Practices:** Curating and analyzing real-world case studies of both greenwashing and global excellence to sharpen the market's collective discernment and uphold the credibility of the entire ecosystem.





# Summary of Policy Suggestions



This section summarizes development recommendations for Hong Kong policymakers and market participants in the short- and medium-to-long-term, with the aim of optimizing Hong Kong's GSS+ bond market and enhancing liquidity.

## Short-Term Development Recommendations

**1. Encourage application of universal green standards from both supply and demand sides, develop innovative on-exchange and OTC financial products, and continuously explore the potential of GSS+ bond financial instruments and blockchain application to empower Hong Kong's sustainable financing market, thereby boosting market confidence and liquidity.**

### For Market Institutions

- Promote wider application of CGT/MCGT/Hong Kong Taxonomy by creating bond indices
- Develop sustainable investment strategies, bond ETFs, and other on-exchange/OTC fixed income trading products based on criteria such as use of proceeds, alignment with CGT/MCGT/Hong Kong Taxonomy, ESG ratings, etc.
- Launch risk management products linked to CGT/MCGT/Hong Kong Taxonomy, such as index futures contracts and CGT bond indices
- Adopt digital technologies in bond issuances and conduct feasibility studies on blockchain applications for GSS+ bonds in issuance, custody, trading, settlement and operation services, and disclosures through the *Ensemble Sandbox*

### For Policy Makers

- Offer incentives for market institutions to set lower minimum investment thresholds for GSS+ bond portfolios

**2. Strengthen subsidy policies for market participants by establishing "issuance subsidies–investment assessments–market cultivation" framework.**

### For Policy Makers

- Establish dedicated subsidy arrangements for CGT/MCGT/Hong Kong Taxonomy-compliant bonds under current green bond subsidy policies, and provide greater issuance cost waivers for GSS+ bonds, transition bonds, and digital green bonds (including external review fees)
- Offer capped or restricted subsidies on management fees to managers of GSS+ bond ETFs exceeding certain AUM thresholds
- Incentivize fund in-flow by offering investment institutions assessment weighting (e.g. by increasing evaluation metrics such as the weight of capital allocated to green assets) and simplifying approval and registration processes
- Establish mutual recognition pilots of onshore and offshore green standards

**3. Continuously enhance market capacity building and professional service capabilities to guide capital toward sustainable projects.**

### For Issuers & Market Institutions

- Expand professional services offerings by providing GSS+ bond arranging services
- Encourage financial institutions to participate in training to build capacity and encourage product and services development

### For Policy Makers

- The HKMA and SFC should lead joint research with institutions and experts on the feasibility of "issuing GSS+ bonds denominated in HKD stablecoin", and encourage financial institutions to pilot such issuances
- Issue GSS+ bond application guidelines, clarifying technical specifications for data disclosure to enhance operational feasibility and clarity of GSS+ bond issuance
- Conduct training for different groups; provide GSS+ bond market briefing and greenwashing risk identification education, increase market awareness and participant engagement
- Organize annual open events for sustainable finance capacity building

# Medium-to-Long-Term Development Recommendations

## 1. Form a multi-dimensional GSS+ bond market through "model innovation + technological empowerment + regional expansion," encouraging issuer diversity

### For Market Institutions

- Leverage digital technologies by developing AI tools using NLP to auto-match SME project features with taxonomy requirements, generating compliance report previews to reduce SME disclosure costs

### For Policy Makers

- Explore issuance innovation by establishing a SME green bond portfolio issuance program with standardized disclosure templates and policy incentives. By allowing multiple enterprises to jointly issue a bond portfolio, the program would lower the threshold and cost of issuance, and further expand issuance to tech firms, SMEs, etc.
- Implement policy incentives to attract overseas issuers, mitigating regional economic fluctuations on Hong Kong's GSS+ bond market
- Form a GSS+ bond task force to engage potential leading issuers, leveraging their industry influence to drive broader GSS+ bonds market expansion

## 2. Support blockchain technology in GSS+ bond issuance and post-issuance project management, tracking fund allocation, and exploring application of green digital technologies in carbon markets.

### For Issuers / Market Institutions

- Based on the issuance of stablecoins linked to HKD, offshore RMB, and short-term government bonds, promote the issuance of stablecoin-denominated GSS+ bonds
- Prioritize blockchain applications in primary/secondary bond markets, encouraging digital currency settlements via distributed ledger and smart contract technologies, with participation from rating agencies and law firms
- Pilot "blockchain + remote sensing + AI" and "smart contract + IoT" technologies, where relevant, to monitor a project's emissions reductions to support the underlying GSS+ bond
- Explore innovations in "digital green bond + carbon asset", issuing carbon-linked digital GSS+ bonds for projects with emission reductions, developing carbon assets based on local methodologies and converting them into on-chain certificates via distributed ledgers, and establishing a blockchain-based trading framework
- Promote synergies between green bonds and carbon markets, taking carbon prices as GSS+ bond pricing references, and facilitate linkages between Hong Kong's green bond projects and Greater Bay Area/national carbon markets in China





### 3. Improve trading and disclosure infrastructure based on existing platforms to enhance GSS+ bond market efficiency.

#### For Policy Makers

- SFC to lead the establishment of bond portfolio operational guidelines, with reference to the Chinese Mainland's interbank bond basket infrastructure, providing technical supporting for bond portfolio trading infrastructure in Hong Kong
- Strengthen bond trading infrastructure by promoting sustainable-themed portfolio trading in OTC markets to broaden demand
- Explore pathways for tokenized bond portfolios in secondary markets, referencing global tokenized fund (on-chain fund shares) practices
- Study tiered market maker incentives, offering fee rebates for taxonomy-compliant portfolio trades
- Explore expanding cross-border tradable bond varieties via channels like Bond Connect to enhance financial connectivity between Hong Kong and the Chinese Mainland
- Upgrade GSS+ bond disclosure platforms, using STAGE to expand data volume and industry influence, while exploring transitions from voluntary to mandatory disclosures
- Amplify STAGE's role in promoting sustainable financing via quality disclosure, utilizing platform data for best practice research, and gradually releasing in-depth reports and industry standards; refine data presentation by adding "comparable bond disclosure analysis" to incentivize issuers to improve disclosure quality and gain investor/industry credibility

### 4. Ensure orderly development of market via policy guidance, GSS+ bond market standard improvements, incentives, and subsidy measures

#### For Policy Makers

- Standardize bond product definitions, measurement methodologies, and disclosure requirements through policy guidance, with three specific recommendations:
  - 1) Developing a local Green Label with reference to international standards;
  - 2) Streamlining calculation methodologies for key metrics, encouraging issuers to regularly disclose quantitative carbon reduction performance and KPIs achievement; and
  - 3) Formulating post-issuance disclosure guidelines, promoting regular disclosures of underlying asset information for innovative products (e.g., green bond portfolios) and providing clear guidance for innovative products listing
- Continue supporting transition bond issuances through existing green bond subsidies, while increasing GSS+ bond subsidies and establishing quantifiable, sector-specific transition bond requirements; Incorporate a Technology Watchlist in the Hong Kong Taxonomy, creating a dynamic update mechanism for the industry technology inventory, and regularly publish assessment reports on the low-carbon technology maturity, providing clear eligibility criteria for transition bonds
- Refine incentive mechanisms to mitigate greenwashing risks, including:
  - 1) Enhancing third-party oversight to boost market confidence; and
  - 2) Implementing a Green Bond Performance Scoring system to dynamically monitor and reward high-quality disclosures while guiding issuers to adopt long-term financing plans for self-motivated high quality disclosures
- Allow green bond portfolios to be included as eligible collaterals for the HKMA's liquidity facilities to reduce holding costs
- Optimize GSS+ bond tracking by introducing third-party reviews, requiring annual independent verification of issuers' alignment with the Paris Agreement, and implementing pre-agreed interest rate hike for the bonds that fail the pathway reviews

# Appendix A: Domestic and International Cases of Innovative GSS+ Bond

## Case 1: International and Domestic GSS+ Bond Portfolio Innovations (or Bond Baskets)

### International Practice: CGT-ESG Bond Portfolio

CGS International Holdings Limited ( "CGS International" ) and China International Capital Corporation (International) Limited ( "CICC International" ) jointly launched the CGT-ESG bond portfolio. This provides investors with a one-stop solution for rapid allocation to a basket of bonds, meeting overseas institutions' diversified demand for CGT-aligned green bonds investment.

In May 2025, leveraging their experience in innovative bond products and ESG evaluation mechanism, CGS International and CICC International launched an innovative bond assessment framework in Hong Kong that complies with CGT and ESG standards<sup>24</sup>. Based on this framework, they developed the CGT-ESG Bond Portfolio, with both parties executing the first transaction through their subsidiaries. This product is the first bond portfolio in Hong Kong constructed using both CGT and ESG evaluation mechanisms by Chinese securities firms. Lianhe Green Development Co., Ltd. ( "Lianhe Green" ) an external review institution recognized by the Hong Kong Monetary Authority's Green and Sustainable Finance Grant Scheme, issued a second-party opinion (SPO) on the "CGT-ESG Bond Portfolio" .

The CGT-ESG Bond Portfolio consists of four offshore USD green bonds issued by Chinese entities. In terms of use of proceeds, over 50% of the capital is allocated to renewable energy projects. The issuers and funded projects (including eligible green projects like "renewable energy," "clean transportation," "sustainable water resources and wastewater management," and "building energy efficiency") demonstrate significant environmental, social, and governance strengths, establishing certain exemplary effect in the market.

As an external reviewer recognized under HKMA's Sustainable Finance Grant Scheme, Lianhe Green affirmed the portfolio's naming compliance, clarity of ESG objectives and strategy, evaluation and screening process, and the alignment with CGT. It noted the assessment criteria of portfolio's use of proceeds demonstrated advanced practices, which could help mitigate "greenwashing" . The portfolio innovatively refined the granularity of constituent bond screening—all bonds comply with the primary investment objectives outlined in ICMA's *Green Bond Principles (GBP)*, while also meeting the CGT environmental goals like "climate adaptation," "pollution prevention and control," and "sustainable resource utilization," thereby directing capital to green projects and encouraging issuers to enhance disclosures and market confidence.



<sup>24</sup> Note: "CGT Catalog" refers to the 7 key sectors, 16 categories, and 96 activities jointly recognized by China and the EU in the IPSF's Common Ground Taxonomy. "Two ESG systems" denote the ESG rating frameworks designed by the product issuers.

## Domestic Practice: China established Mature Paradigms for Green and Sustainable-Themed Bond Baskets

To facilitate domestic and international investors' bond portfolio allocation and trading, the National Interbank Funding Center launched the bond basket trading services ( "bond baskets" ) on the interbank bond market platform in June 2023. Institutions like CICC have leveraged this instrument to create green and sustainable-themed bond portfolios, deeply integrating investment strategies with the United Nations Sustainable Development Goals ( "SDGs" ). "Bond basket" actively constructed target portfolios, not only demonstrating institutional management capabilities but also serving as an innovative instrument for sustainable investing. Guided by "active impact investing," these portfolios highlight practical value by focusing on green, low-carbon transition entities (e.g., enterprises with consecutive annual carbon intensity reductions), supporting tech innovation and new infrastructure, and targeting allocation of bonds in agriculture, rural areas, and farmers ("Three Rurals") sectors, aligning with the global urgency for sustainable development financing and investment.

The examples of sustainable-themed bond baskets issued in the Chinese Mainland:

Bond Basket	Code	Issuer	# Bonds	Description
China Galaxy Securities-BOB Wealth Management Green Inclusive Bond Basket	BBX013015	China Galaxy Securities; BOB Wealth	3	Transaction unit: CNY 60 million. Selects 5 green financial bonds and debt instruments compliant with China-EU CGT and inclusive finance sectors, creating a balanced portfolio for returns and liquidity.
ABC Three Rurals -Themed Bond Basket	BBX002002	CICC; ABC	3	Transaction unit: CNY 30 million face value. Focuses on "Three Rurals" sector (agriculture, rural areas and farmers), with proceeds funding agricultural procurement, rural infrastructure, and agricultural loans. Component issuers achieved consecutive annual carbon intensity reductions (avg. 58 tonnes/CNY 100 million decline in 2024 <sup>25</sup> ) and incorporates CICC Fixed Income ESG evaluation.
Interbank's First Sustainable Transition Dual-New (new infrastructure and new urbanization) Bond Basket	BBX010005	CICC; CITIC Bank	3	Initial composition: 3 MTNs. Transaction unit: CNY 30 million face value. Proceeds fund equipment upgrades, with estimated annual emission reductions of 17,900 tonnes CO <sub>2</sub> equivalent per unit <sup>26</sup> .
Interbank's First Sustainable Transition Sci-Tech Note Basket	/	CICC; CITIC Bank	3	Initial composition: 3 sci-tech notes. Prioritizes issuers with 3-year consecutive carbon intensity reductions; incorporates CICC Fixed Income ESG evaluation (component issuers' rank in top 30% ESG scores of all subjects evaluated under this rating framework).
CICC Corporate Sci-Tech Bond Active Basket	BBX010008	CICC	3	Initial composition: 3 sci-tech innovation bonds aligned with national tech and carbon goals. Component issuers achieved consecutive annual carbon intensity reductions (avg. 302 tonnes/CNY 100 million decline in 2024 <sup>27</sup> ).
CITIC Securities-ABC Wealth Green Credit Bond Basket	BBX004010	CITIC Securities; ABC Wealth	3	Selects 3 high-quality green-themed MTNs, each with CNY 10 million face value.
BOCOM-JPMorgan Fund CGT Green Bond Basket	/	BOCOM; JPMorgan Fund	3	Invests in CGT-compliant Chinese green policy/financial/corporate bonds, primarily short-to-medium tenor, each with CNY 10 million face value.
GZ Bank Greater Bay Area Green Local Gov Bond Basket	BBX061001	Guangzhou Bank	Multiple	Comprises Greater Bay Area green local bonds with strong green features, regional characteristics, attractive yields, and flexible trading.

25 The relevant data is estimated based on the offering circulars of the underlying bonds in the bond basket and the sustainability reports of the issuers, among other materials. This estimation is for reference only.

26 The relevant data is estimated based on the offering circulars of the underlying bonds in the bond basket, among other materials. This estimation is for reference only.

27 The relevant data is estimated based on the sustainability reports of the issuers, among other materials. This estimation is for reference only.

## Case 2: Innovation in International Market Bond Labeling—The First CGT (2022 Edition)-Based Green Bond

In June 2022, Bank of China Frankfurt Branch issued the first USD 500 million, 3-year green bond based on the *Common Ground Taxonomy (CGT 2022 edition)*, with proceeds funding green projects in China, Germany, the Netherlands, and other countries.

The CGT-compliant green bond attracted strong demand, with 4.4x oversubscription, significantly higher than the 1.3x for a conventional 3-year green bond issued by Bank of China Luxembourg in April 2022<sup>28</sup>. This demonstrates that CGT-labeled bonds issued by Chinese entities overseas are more popular, with higher oversubscription rates<sup>29</sup>.

The funded projects span across wind power, pumped storage hydropower, urban rail transit, electric buses, and high-efficiency equipment manufacturing—the latter being a CGT-added activity using detailed Chinese technical standards as certification criteria. Based on loan-to-project investment ratios, the projects (excluding energy-saving equipment manufacturing) are projected to achieve direct annual CO<sub>2</sub> reductions of 604,100 tonnes of CO<sub>2</sub> emissions and save 291,900 tonnes of standard coal equivalent.

Innovative labeled bond issuance directs capital to green and sustainable sectors while enabling oversight. Dual/multi-labeled bonds play a vital role in supporting emission reduction technologies.

## Case 3: Dual/Multi-Labeled Bonds—China's First Green + Rural Revitalization + Sustainability-Linked Triple-Labeled Perpetual MTN

China Construction Bank (“CCB”) (lead underwriter) and Industrial and Commercial Bank of China (“ICBC”) (co-underwriter) issued Huaneng Lancang River Hydropower's 2022 Phase I Green MTN (Sustainability-Linked/Rural Revitalization) on July 6th, 2022. This CNY 2 billion MTN marked China's first triple-labeled perpetual MTN.

The bond innovatively linked its Sustainability Performance Target (SPT) to the issuer's newly installed clean energy capacity additions, driving Huaneng Lancang River (“Lancang River Co.”) to actively implement carbon neutrality initiatives. Based on project investment ratios, the funded projects are expected to reduce CO<sub>2</sub> by 499,000 tonnes/year and save 299,000 tonnes/year of standard coal equivalent.

The bond also delivers social benefits: Lancang River Co. committed to adding ≥1 GW of clean energy capacity (hydropower/wind/solar) from 2022-2024, with the newly installed capacity of wind/solar power should increase by no less than 100% compared to the end of 2021. The coupon rate for the third interest accrual year will be increased by 10 BPs compared to Year 1 and Year 2, if these predetermined targets failure to meet.

Dual/multi-labeled bonds effectively channel capital to green/sustainable sectors while providing market oversight, playing a critical role in emission reduction innovation.

## Case 4: The First Green Bond certified Using Integrated Drone and Carbon Satellite Technology

On January 24, 2024, Zhejiang Dongyang State-Owned Assets Investment completed an offshore green bond issuance on HKEX, with China Galaxy International Securities (HK) as global coordinator. This pioneering project used innovative technologies to disclose carbon footprints during bond issuance, with proceeds funding green building materials and renewable resource projects.

The drone and carbon satellite technology originated from China Southern Power Grid Shenzhen's research on high-precision carbon traceability. By combining satellite CO<sub>2</sub> concentration data with drone-captured images at varying altitudes, AI algorithms enable comprehensive carbon measurement and disclosure.

This green bond set a new benchmark by applying advanced data collection technologies of carbon emission, significantly improving disclosure comprehensiveness and accuracy. It attracted high-quality institutional investors and received pre-issuance certifications from United Ratings International and second-party opinions from HKQAA and CUHK(SZ) Data Economy Institute (“SIDE”).

Figure | Carbon emissions data collected on-site via drone



28 Natixis.com. “Updated Common Ground Taxonomy, the crowbar of international green capital flows?”, Aug 2022, <https://gsh.cib.natixis.com/our-center-of-expertise/articles/updated-common-ground-taxonomy-the-crowbar-of-international-green-capital-flows>

29 China Finance, 2025 Issue 3, <http://www.cnfinance.cn/magzi/2025-02/27-34227.html>

## Case 5: "Twin Bonds" Enhancing Liquidity and Transparency

"Twin bonds" allow conversion to convert them into general government bonds, boosting liquidity and transparency. This instrument primarily funds green projects like renewables, clean transport, and sustainable buildings. "Twin bonds" helps observe capital market pricing preferences for green and conventional bonds, with identical terms but segregated fund use—green proceeds must comply with domestic/international standards (e.g., China's Green Bond Endorsed Projects Catalogue) and need third-party verification.

### International Practice:

The Germany government issued its first €6.5 billion 10-year green federal bond ("Green Federal Securities") using the twin bond structure. These were paired with €24.5 billion zero-coupon conventional bond with identical maturity but different issuance dates/sizes.

### Domestic Practice:

**CCB's Standard-Compliant Green Twin Bonds:** On April 29, 2025, CCB, as lead underwriter, issued China's first standard-compliant green twin bonds for China Southern Power Grid and Huaneng Lancang River Hydropower on the interbank market. These bonds align with China's Green Bond Endorsed Projects Catalogue. The funding projects include Southern Grid's projects (smart grids in Guangdong/Guangxi) and Huaneng's projects (10 hydropower stations), demonstrating 5 BPs and 2 BPs greenium, respectively.

**ADBC's issued CGT-Compliant "Twin Bonds" and Meeting Green Bond Standards:** In March 2025, Agricultural Development Bank of China ("ADBC") issued CNY 6 billion green financial twin bonds on the interbank market, followed by a CNY 2 billion 2-year bond compliant with both CGT and China's Green Bond Endorsed Projects Catalogue (1.5358% coupon, 3.36x oversubscription). With assessment and certification by third-party, it complies with the categories of "electricity/gas/steam/air conditioning supply" in CGT, as well as the categories of the "water/waste management", "clean energy", and "green infrastructure" in China's *Green Bond Endorsed Projects Catalogue (2021)*.

	International Case		Domestic Cases			
	Germany's Green Federal Twin Bonds		CCB's Standard-Compliant Green Twin Bonds		ADBC's Twin Bonds: meet CGT and China Green Bond Catalog	
	German Green Sovereign Bond	German Conventional Sovereign Bond	25 Huaneng Hydropower GN003	25 Huaneng Hydropower SCP002	25 ADBC Green Bond 01	25 ADBC 03 (Add. 9)
ISIN	DE0001030708	DE0001102507	132580039.IB	012581083.IB	2504001.IB	250403Z9.IB
Issue Date	Sep 2, 2020	Jun 17, 2020	Apr 28, 2025		Mar 17, 2025	
Term	10 years		93 days		3 years	
Rate	0%		1.76%	1.78%	1.32%	
Maturity Date	Aug 15, 2030		Jul 31, 2025		Jan 7, 2028	
Size	€6.5 billion	€24.5 billion	CNY 600 million	CNY 200 million	CNY 6 billion	CNY 3 billion



## Case 6: International Experience—Stablecoin-Settled Digital Bonds

### Société Générale's Stablecoin-Settled Digital Bond<sup>30</sup>

Société Générale actively participates in crypto markets through its subsidiary SG-Forge. Clients signing decentralized finance agreements with SG-Forge can access tokenized financing. In 2023, SG-Forge launched a Euro-pegged stablecoin<sup>31</sup>(EUR CoinVertible, EURCV), which, along with central bank digital currencies (CBDCs), was used for settling digital bonds issued by Société Générale.

### Sygnum Bank's Tokenized Bonds Supporting Stablecoin/Fiat Currency/Crypto Settlement<sup>32</sup>

Since 2021, Switzerland's Sygnum Bank has pioneered tokenized bonds with USDC stablecoin coupons/principal payments via smart contracts. In March 2020, Sygnum also launched a Swiss franc-pegged stablecoin (DCHF), fully collateralized by Swiss National Bank (SNB)-held CHF.

Issuer	Bond Type	Stablecoin Type	Platform/Settlement
Société Générale	Public blockchain digital bond	CBDC/EURCV	Ethereum-based CBDC/ stablecoin settlement
Sygnum Bank	Tokenized Bond	USDC	On-chain smart contract, real-time settlement

<sup>30</sup> European Investment Bank. (2021, April 27). EIB issues its first ever digital bond on a public blockchain.

<https://www.eib.org/en/press/all/2021-141-european-investment-bank-eib-issues-its-first-ever-digital-bond-on-a-public-blockchain>

<sup>31</sup> Liu Wenwen, Yin Yuqiao, Shen Jiahao, et al. Blockchain Applications in International Bond Market Infrastructure: Practices and Implications[J]. Bond, 2024(1). DOI: 10.3969/j.issn.2095-3585.2024.01.016.

<sup>32</sup> Sygnum. (2021, September 22). Introduction to bond tokenization.

[https://www.sygnum.com/blog/2021/09/22/introduction-to-bond-tokenization/?utm\\_source=chatgpt.com](https://www.sygnum.com/blog/2021/09/22/introduction-to-bond-tokenization/?utm_source=chatgpt.com)

## Appendix B: Overseas Cases of GSS+ Bond Policy Incentives and Optimization of Disclosure and Assessment Standards

### Case 7: Singapore Exchange (SGX) Sustainable Bond Financing Program

The Singapore Exchange (SGX) has extended its Sustainable Bond Financing Program ("SGX Grant Scheme") until 2028, requiring all issuers applying for subsidies to conduct annual post-issuance external reviews for the first three years after issuance or within the bond's tenure (whichever is earlier). The scheme aims to promote the development of the sustainable bond market by providing financial support and policy incentives.

The scope of the grant has been expanded to transition bonds, provided these bonds meet the definition of transition bonds under the Singapore-Asia Taxonomy or other internationally recognized taxonomies. Issuers must disclose their transition plans, and the external reviews fee are eligible for funding under the grant. Issuers that adopt internationally recognized disclosure standards will receive higher grant, up to maximum of SGD \$125,000. The specific requirements of the SGX Grant Scheme as disclosed by SGX:

<b>Grant Recipients</b>	Bond issuers, eligible for up to two grants per qualified issuance
<b>Grant Items</b>	Costs of pre- and post-issuance external reviews or reports
<b>Grant Amount</b>	Up to SGD 100,000 for issuers not following any internationally recognized disclosure standards Up to SGD 125,000 for issuers following any internationally recognized disclosure standards
<b>Validity Period</b>	June 1, 2023 – December 31, 2028 (inclusive)
<b>Eligible Costs</b>	<ol style="list-style-type: none"> <li>Costs of pre-issuance external reviews to demonstrate compliance with internationally recognized principles, frameworks, or guidelines for green bonds/social bonds/sustainability bonds/sustainability-linked bonds or transition bonds; <ul style="list-style-type: none"> <li><b>For transition bonds</b>, issuers <b>must</b> develop and publicly disclose their transition plans, and the use of raised funds must comply with the requirements of transition bonds under the Singapore-Asia Taxonomy or other internationally recognized equivalent taxonomies;</li> <li><b>For sustainability bonds</b>, issuers <b>must</b> conduct annual post-issuance external reviews or reports for the first three years or within the bond's tenure (whichever is earlier);</li> </ul> </li> <li>Costs of annual post-issuance external reviews or allocation and impact reports, for three years or until the bond's maturity (whichever is earlier);</li> <li>External reviews must comply with the Singapore-Asia Taxonomy or any other internationally recognized taxonomy.</li> </ol>
<b>Eligibility Criteria</b>	<ol style="list-style-type: none"> <li>Conduct <b>pre-issuance external reviews</b> to demonstrate compliance with internationally recognized principles, frameworks, or guidelines for green bonds/social bonds/sustainability bonds/sustainability-linked bonds; more than half of the review service revenue must be attributed to Singapore-based service providers;</li> <li><b>List on SGX and be included in SGX's Sustainable Fixed Income Programme;</b></li> <li><b>Initial issuance amount must be at least SGD 200 million</b> (or equivalent in other currencies) or <b>note programme size must be at least SGD 200 million</b> with <b>initial issuance amount of at least SGD 20 million</b> (or equivalent in other currencies);</li> <li>Non-callable period of at least one year;</li> <li>More than half of the total revenue from bond arrangement must be attributed to licensed financial institutions in Singapore;</li> <li>Sustainable advisory and assessment work must be conducted by Singapore-based financial institutions.</li> </ol>

## Case 8: London Stock Exchange (LSE) Market Maker Incentive Scheme<sup>33</sup>

**The London Stock Exchange (LSE) Market Maker Incentive Scheme ("LSE Incentive Scheme") aims to encourage market makers to provide greater liquidity and tighter bid-ask spreads in the bond market through incentives.**

The LSE Incentive Scheme covers financial instruments such as stocks and exchange-traded funds (ETFs) that are traded on markets as defined in Article 2(1)(17) of EU Regulation 600/2014 (MiFIR). The requirements include, but are not limited to, quotes, prices, size, and pressure market conditions. The eligible market makers registered with LSE who meet the requirements can receive higher order-to-trade ratio (OTR) incentives compared to non-market makers<sup>34</sup>, as well as reductions in trading and settlement fees.

## Case 9: EU Anti-Greenwashing Regulations - Sustainable Finance Disclosure Regulation (SFDR) Clarifies Disclosure Requirements

The Sustainable Finance Disclosure Regulation (SFDR), issued by the EU in November 2019 and implemented in March 2021, aims to enhance transparency and sustainability in financial markets. The regulation requires financial market participants, such as asset managers, investment advisors, and financial service providers, to provide investors with information on the sustainability of their investment products.

From an international perspective, the size of thematic funds in the EU market grew significantly after the application of clear standards. After the SFDR came into effect, the assets under management (AUM) of funds promoting environmental or social investments ("light green" funds under Article 8 of the SFDR) increased from approximately EUR 1.1 trillion at the end of 2020 to about EUR 3.9 trillion by the end of 2021, a rise of 255%.

This demonstrates that the clear standards under the SFDR lead to more transparent information disclosures, driving investment demand and improving the liquidity of underlying assets. At the same time, to attract capital, underlying assets must meet disclosure requirements, thereby raising disclosure standards.<sup>35</sup>

## Case 10: The Chinese Mainland Accelerates Green Finance Layout - Issuance of the Green Finance Evaluation Scheme for Banking Financial Institutions Clarifies Assessment Requirements for Banks

The Chinese Mainland's policy practices for assessing green bond investments by banking institutions were clarified after the People's Bank of China (PBoC) issued the final version of the *Green Bond Endorsed Projects Catalogue (2021 Edition)* in April 2021, unifying the definition of green bonds. In July 2021, the PBoC implemented the *Green Finance Evaluation Scheme for Banking Financial Institutions* (now obsolete), which assessed banking institutions based on their holdings of green credit and green bonds. In January 2025, the PBoC issued the Green Finance Evaluation Scheme for Financial Institutions, which further quantifies the proportion of green bond underwriting and the proportion of green bond holdings, accounting for 20% of the total score.

According to data released by the China Central Depository & Clearing Co., Ltd. (CCDC) in October 2024 in the *China Green Bond Whitepaper*<sup>36</sup>, China's green bond issuance reached CNY 604.1 billion in 2021, up 183% from CNY 213.6 billion in 2020. Additionally, according to data from PBoC, by the end of 2024, China had issued a cumulative total of CNY 4.1 trillion in green bonds. Industry experts generally believe that this was due to the continuous improvement of China's green bond policies and standards, as well as their alignment and mutual recognition with international standards.

33 London Stock Exchange. (n.d.). Market Making Scheme.

<https://docs.londonstockexchange.com/sites/default/files/documents/marketmakingscheme.pdf>

34 The order-to-trade ratio (OTR) measures the number of orders submitted by market participants relative to the number of orders actually executed within a given period. It is an important indicator of market liquidity and trading activity. A higher OTR typically indicates that market participants have submitted a large number of orders but executed fewer trades, reflecting market uncertainty or higher transaction costs.

35 Data sourced from Morningstar.

36 China Central Depository & Clearing Co., Ltd. (2024), China Green Bond Whitepaper.

## References

- [Sustainable & Green Exchange (STAGE)]  
([https://www.hkex.com.hk/Join-Our-Market/Sustainable-Finance/HKEX-STAGE?sc\\_lang=en](https://www.hkex.com.hk/Join-Our-Market/Sustainable-Finance/HKEX-STAGE?sc_lang=en))
- [20200505\_Joint\_Statement\_CHI.pdf]([https://www.sfc.hk/web/files/ER/PDF/20200505\\_Joint\\_Statement\\_CHI.pdf](https://www.sfc.hk/web/files/ER/PDF/20200505_Joint_Statement_CHI.pdf))
- [20200505\_Joint\_Statement\_CHI.pdf]([https://www.sfc.hk/web/files/ER/PDF/20200505\\_Joint\\_Statement\\_CHI.pdf](https://www.sfc.hk/web/files/ER/PDF/20200505_Joint_Statement_CHI.pdf))
- [Hong Kong Monetary Authority - Hong Kong Taxonomy for Sustainable Finance]  
([https://www.hkma.gov.hk/gb\\_chi/news-and-media/press-releases/2024/05/20240503-3/](https://www.hkma.gov.hk/gb_chi/news-and-media/press-releases/2024/05/20240503-3/))
- [Inland Revenue Department : Press Release](<https://www.ird.gov.hk/chs/ppr/archives/25022604.htm>)
- [Hong Kong Monetary Authority - HKSAR Government's First Green Bond Issuance]  
([https://www.hkma.gov.hk/gb\\_chi/news-and-media/press-releases/2019/05/20190522-3/](https://www.hkma.gov.hk/gb_chi/news-and-media/press-releases/2019/05/20190522-3/))
- [The-Principles-Guidance-Handbook-November-2024-041124.pdf]  
(<https://www.icmagroup.org/assets/documents/Sustainable-finance/2024-updates/The-Principles-Guidance-Handbook-November-2024-041124.pdf>)
- [Singapore's Sustainable Bond Grant Scheme Upgraded Again](<https://mp.weixin.qq.com/s/WLjUdelVQKFWuMZ8Rmp-JA>)
- [Greater Bay Area Green Bond Development Report (2024) - Shenzhen Green Finance Association]  
([https://www.szgfa.com/clients\\_view.aspx?nid=19&typeid=50023&id=1823](https://www.szgfa.com/clients_view.aspx?nid=19&typeid=50023&id=1823))
- [20231204172839\_216436\_39483.pdf]([http://www.greenfinance.org.cn/upfile/file/20231204172839\\_216436\\_39483.pdf](http://www.greenfinance.org.cn/upfile/file/20231204172839_216436_39483.pdf))
- [The Principles & related guidance » ICMA]  
(<https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/>)
- [Green Bond Principles » ICMA]  
(<https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/>)
- [Social Bond Principles (SBP) » ICMA]  
(<https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/social-bond-principles-sbp/>)
- [Sustainability Bond Guidelines (SBG) » ICMA]  
(<https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-bond-guidelines-sbg/>)
- [Sustainability-Linked Bond Principles (SLBP) » ICMA]  
(<https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-linked-bond-principles-slbp/>)
- Natixis.com. "Updated Common Ground Taxonomy, the crowbar of international green capital flows?", Aug 2022,
- China Finance 2025, Issue 3,
- China Green Bond Whitepaper (2024),
- Hong Kong Bond Market in 2023, Mar. 2024,
- CfetsOnline, Oct. 2023,
- EvergreenHub: Navigating Bond Tokenisation Digital Bond Knowledge Repository - Hong Kong Monetary Authority, accessed on Mar. 20th, 2025,
- State Administration for Market Regulation, Standardization Administration of China (2025), Green Finance Terminology (GB/T 45490-2025), [National Standard | GB/T 45490-2025]  
(<https://openstd.samr.gov.cn/bzgk/std/newGbInfo?hcno=1B489D445EFBAC02BF4E6F01AE1A395F>)

Co-publishers



Supporting Organisations

