June 2024

HONG KONG

Green and Sustainable Debt Market Briefing 2023

Green theme dominated GSS+ bonds issued and arranged in Hong Kong

USD18.2bn aligned volume of GSS+ debt originating in HK in 2023, a year-on-year increase of 236%

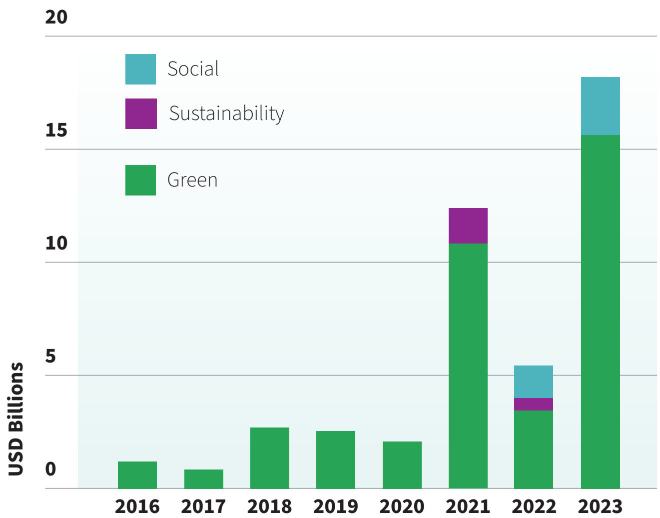
This is the sixth iteration of the Climate Bonds Hong Kong Sustainable Debt Market Briefing, produced by the Climate Bonds Initiative (Climate Bonds), in association with the Hong Kong Monetary Authority (HKMA) and Hong Kong Green Finance Association (HKGFA), and with support from Standard Chartered Bank. Using Climate Bonds' green, social, sustainability, (GSS) and sustainability-linked bond (SLB) (collectively GSS+) datasets based on place of risk, this series of reports provides a comprehensive overview of Hong Kong's sustainable debt market at the end of 2023.

Hong Kong has formulated its own climate goals and strategies in response to the Paris Agreement and the Central People's Government decarbonisation agenda. This originated with the launch of Hong Kong's Climate Action Plan 2030+ in 2017, which set three decarbonisation targets: absolute emissions, per capita emissions, and per GDP emissions. In 2021, the updated Hong Kong Climate Action Plan 2050 consolidated these targets into reducing absolute emissions by 50% against a 2005 baseline by 2035, and neutrality before 2050. In conjunction, the HKSAR Government committed approximately HKD240bn (USD31bn) to climate change mitigation and adaptation over the next 15 to 20 years.

The HKSAR sustainable debt market has achieved significant growth in both relative and absolute terms. In 2023, aligned volume of GSS+ debt originating from HKSAR reached USD18.2bn, representing a year-on-year (YOY) increase of 236%. Most of this debt (USD15.6bn) was issued under the green theme, while the social theme accumulated USD2.6bn.

In 2023, the HKSAR Government was the fourth largest source of aligned government green bonds (behind the United Kingdom, Germany, and Italy), and is the fifth largest cumulative government green bond issuer. It issued 92% of the green bond volume (USD14.4bn), while the remaining portion originated from financial corporate entities.

Hong Kong GSS+ volumes reach new highs in 2023



Source: Climate Bonds Initiative

At the policy level, the HKSAR Government has introduced various initiatives to support decarbonisation efforts and further capital mobilisation for green activities. The Zero-Carbon-Ready Building Certification Scheme was launched in 2023 by the **Hong Kong Green Building Council (HKGBC)** to help mobilise financing towards green building projects with clear and credible decarbonisation targets. The HKSAR Government's green bond programme has made it the largest government green bond issuer in the Asia-Pacific region, funding initiatives such as the recently launched hydrogen-fuelled bus pilot schemes within public transportation.

This report is based on data captured by Climate Bonds as of 31 December 2023. Notes on the scope of data, and changes to reporting practices, are available in Appendix 1.

About the Climate Bonds Initiative

Climate Bonds is an international organisation working to mobilise global capital for climate action. It promotes investment in projects and assets needed for a rapid transition to a low-carbon, climate-resilient, and fair economy. The mission focus is to help drive down the cost of capital for large-scale climate and infrastructure projects and to support governments seeking increased capital markets investment to meet climate and greenhouse gas (GHG) emission reduction goals. Climate Bonds conducts market analysis and policy research; undertakes market development activities; advises governments and regulators; and administers a global green bond Standard and Certification scheme.

Hong Kong sustainable debt scorecard

Year	Green	Social	Sustainability
<2019	7.31bn		
2020	2.08bn		
2021	10.84bn		1.55 bn
2022	3.45bn	1.43 bn	0.54 bn
2023	15.63bn	2.56 bn	
Total	**39.30 bn**	**3.99 bn**	**2.10 bn**

Note: These figures are representative of deals in alignment with Climate Bonds database methodologies (Appendix 1).

1. Green

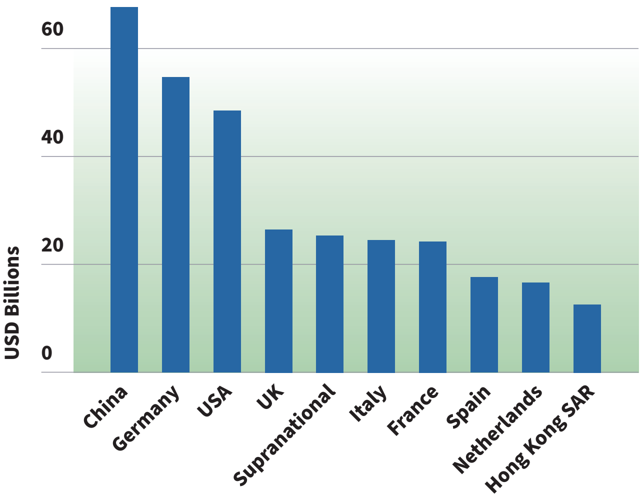
Overview

Green bonds are debt instruments used to finance projects that have positive environmental or climate benefits. Most bonds issued under the green theme have green Use of Proceeds (UoP) which will be used to finance or re-finance eligible green projects. Internationally accepted green bond standards include the International Capital Markets Association Green Bond Principles (ICMA GBP) and the Climate Bonds Standard Version 4.1.

Market analysis

In 2023, USD15.6bn of green debt originating from Hong Kong was confirmed to be in alignment with the Climate Bonds GBDS Methodology (aligned). Mainland China maintained its lead as the largest source of aligned green bonds globally for the second consecutive year.

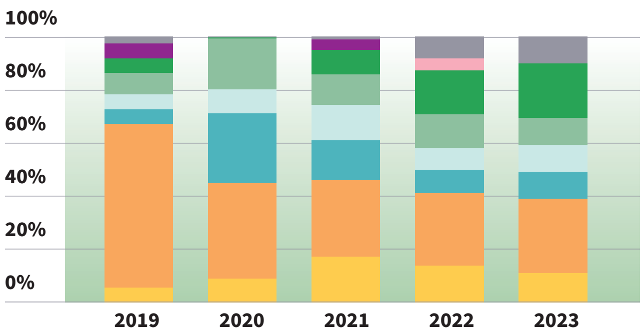
Hong Kong reaches top ten by USD volume in 2023



Source: Climate Bonds Initiative

While there was a reduction in green bond volume YOY in key markets including China, the USA, the Netherlands, as well as supranational issuers, HKSAR's debt market exhibited the largest growth relative to its historical performance. Its aligned volume in 2023 reached the global top ten for the first time with impressive YOY growth of 173.3%. As of the end of 2023, the cumulative aligned volume of green debt originating from Hong Kong stood at USD39.3bn; while the USA remained in the cumulative volumes top spot with USD454.4bn followed by China with USD372bn.

Buildings and Land Use remain most popular use of proceeds categories



Source: Climate Bonds Initiative

Low-Carbon Buildings and Land Use UoP are the primary beneficiaries of Hong Kong issuers in 2023 with green buildings making up nearly a third (USD4.4bn) of the volume. However, the greatest YOY increase in volume was in debt earmarked for **Land Use UoP, which grew 468% to USD3.2bn from USD0.56bn in 2022.**

Climate Bonds Green Bond Dataset Methodology

Climate Bonds screens all self-labelled debt instruments against the Climate Bonds Green Bond Dataset (GBDS) Methodology (Appendix).[3] Inclusion in Climate Bonds GBDS indicates that there is publicly available evidence to support the bond's general alignment (aligned green bonds) to the Climate Bonds Taxonomy. By applying the standard methodology, this screening exercise allows cross-market comparison and global application.

Green bond indices

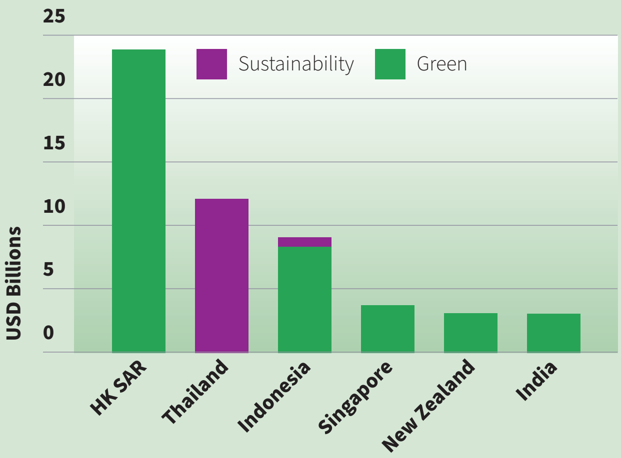
Various index providers have created green bond indices whose composition is informed by inclusion in the Climate Bonds GBDS. Examples include the J.P. Morgan ESG (JESG) indices, Solactive Green Bond indices, FTSE Chinese (Onshore CNY) Green Bond Index, and the Ping An Asset Management China Green Bond fund.[4,5,6,7] Inclusion into the GBDS indicates general alignment of securities with the Climate Bonds Taxonomy, an internationally recognised standard for green projects, activities, and expenditures. By doing so, it ensures that all bonds are assessed on an equal basis.

Spotlight: HKSAR Government Green Bond Programme (GGB Programme)

The HKSAR Government has led the government GSS+ market in the Asia Pacific region and dominates its own market. This is significant because government issuers can influence the shape of their local GSS+ markets, as they tend to issue at scale and facilitate the entry of private capital. HKSAR Government green bonds have generated the immense growth in aligned volume originating from Hong Kong in 2023, accounting for over USD14.4bn and cumulative volume of over USD24.2bn.

In 2023, HKSAR GSS+ volume was driven by growth in non-financial corporate issuance volume of 31.8% YoY, and record single year growth of USD1.4bn in HKSAR Government volume, which comprised 92.4% of the total volume.

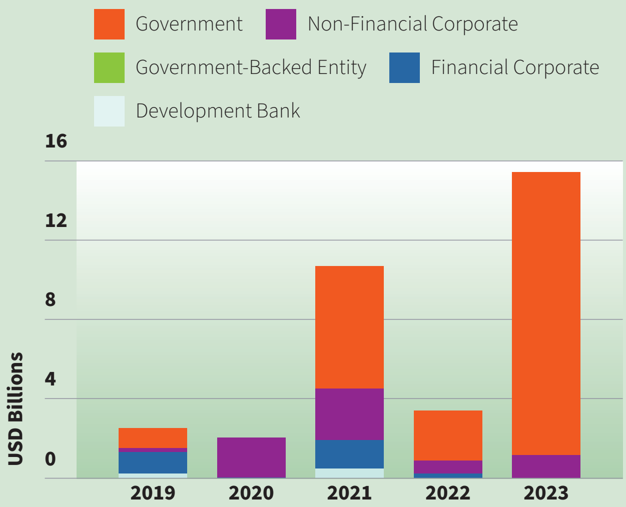
HKSAR leads cumulative government issuance across Asia-Pacific



Source: Climate Bonds Initiative

Although the phasing-out of pandemic restrictions depressed the macroeconomic environment and contributed to low issuance of non-government volumes in 2022 and 2023, historically, HKSAR has always had a diverse issuer base. Beyond government green issuance, Climate Bonds also recorded near USD1.2bn worth of volume from non-financial corporate issuers. **AMPD Energy** also issued a green loan worth USD8m to help reduce on-site carbon footprint within the construction sector by financing battery storage systems to decrease the usage of on-site diesel generators.

HKSAR non-government debt volume grows 31.8% while government debt increases 466.8%



Source: Climate Bonds Initiative

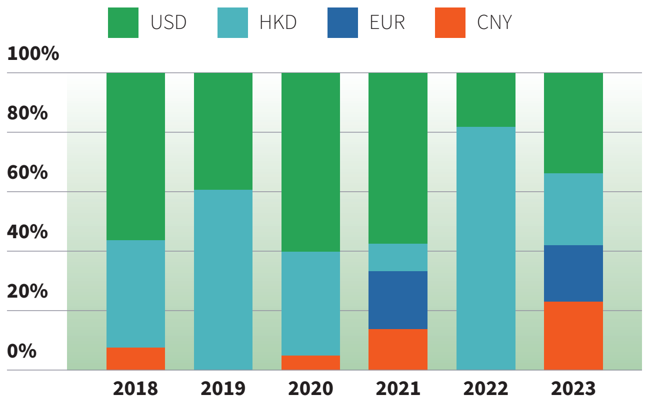
This suggests the update to Climate Bonds GBDS methodology in 2022, stipulating higher green building standards, has had an impact. The 2 Star China Green Building Label is no longer considered sufficiently ambitious, and a 3 Star rating is now required. Additionally, the premier Hong Kong green building standard, BEAM Plus, would need a minimum rating of gold to be deemed eligible for inclusion in the GBDS.

As a result, market participants in HKSAR have been quick to adapt and improve their green building finance mobilisation. The Hong Kong Green Building Council (HKGBC) launched the Zero-Carbon-Ready Building Certification Scheme in the third quarter of 2023 to encourage and mobilise capital towards improved green building projects.[1]

Despite these initiatives, recent reports highlight the growing energy and emission footprint of technology companies, especially those listed in Hong Kong, and the need to finance the decarbonisation of the ICT sector.[2] Most of the emission footprint from data centres and other ICT infrastructure that the technology companies rely on derives from electricity usage, which is driving the need for additional renewable energy supplies to keep pace with growth in scale and energy consumption.

In 2023, USD-denominated green debt made a resurgence, surpassing HKD as the most popular currency choice for Hong Kong issuers relative to 2022, with for over a third of issuance volumes. It also leads cumulative issuance volumes, accounting for 42.6% since 2018, followed by HKD with approximately 29.2%. In third position, CNY-denominated issuance rose to a record 23.2% in 2023.

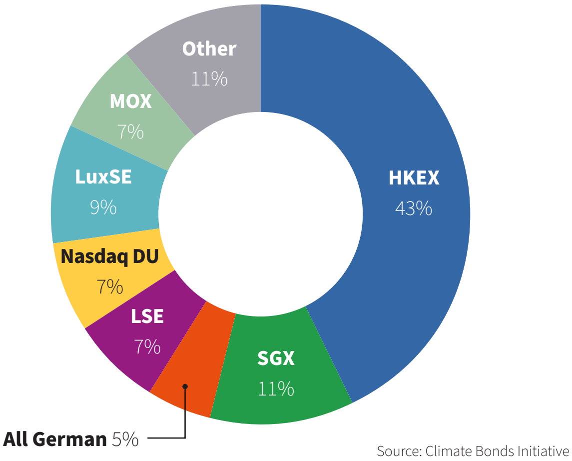
USD regains position as the currency of choice for issuers



Source: Climate Bonds Initiative

The Hong Kong Stock Exchange (HKEX) remains the most popular destination for offshore Chinese green bond listings in 2023. Over 43% of Chinese offshore issuances were listed in the HKEX in 2023, including some of 2023's biggest offshore issuances, such as a USD1bn deal from the Industrial and Commercial Bank of China (ICBC), financing solar, wind and clean transportation projects. A further ICBC deal valued at USD900m financing hydropower, biomass, clean transportation, waste management, and energy efficiency projects, as well as a USD600m bond financing subway construction, were also included.

HKEX is the preferred venue for offshore Chinese green bonds in 2023



Source: Climate Bonds Initiative

Continued adoption of the Common Ground Taxonomy

As a joint initiative of the **People's Bank of China** (PBOC) and the **European Commission** under the International Platform on Sustainable Finance, the Common Ground Taxonomy (CGT) was an in-depth comparison exercise between the green classification systems (taxonomy/ green bond catalogue) of China and the European Union (EU). It mapped out the commonalities and differences between the two taxonomies, creating an important piece of policy infrastructure.

Transition bonds and updates to Climate Bonds' screening methodology

Historically, Climate Bonds tracked but did not screen bonds bearing the transition label. As of January 2024, Climate Bonds regards them as a sub-set of the green label. Climate Bonds now screens them against its GBDS Methodology, for inclusion in its GBDS.

While transition bonds were originally intended for hard-to-abate sectors such as cement, steel, and mining, Climate Bonds has expanded its Taxonomy to define green assets, activities, and measures for these hard-to-abate sectors. Accordingly, the Climate Bonds GBDS Methodology was updated to reflect the new coverage of the steel, cement, and basic chemical sectors.

Since then, several governments and regulators in Asia have launched dedicated transition finance programmes, engaging with hard-to-abate issuers, and utilising a combination of government and corporate bond issuance to raise financing for the transition. One notable example of this is in Japan, where both corporates and the government have used the transition label for this purpose. In February 2024, Climate Bonds announced that the JPY1.6tn (USD11bn) Japanese government Climate Transition bond is certified under the Climate Bonds Standard, and thus is also included in the Climate Bonds GBDS.

Regardless of the label used, or the issuer's sector classification, if the instruments are labelled green or transition and meet the Climate Bonds GBDS methodology UoP requirements, they are eligible for inclusion.

In 2023, Climate Bonds recorded 19 transition labelled deals worth USD3.3bn globally, of which three deals worth USD560m originated from China. This brings the cumulative global total to 83 deals worth USD15.2bn.

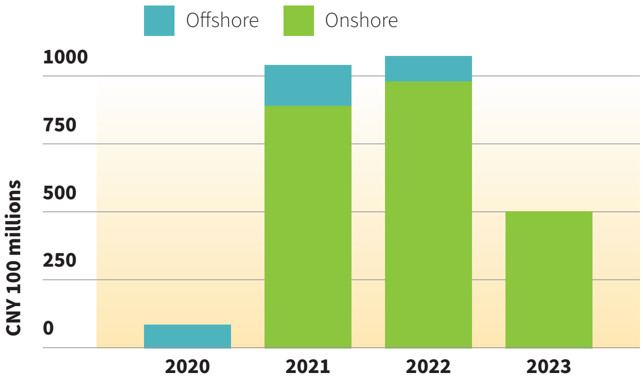
The market has seen more use cases of the CGT being incorporated into onshore and offshore green products. Since the first use by the **Construction Bank of China Macau Branch** in its December 2021 green bond, there have been 216 green bonds that meet the CGT standards, with combined volume of CNY297.4bn (USD41.9bn).8 Among those, 59 deals worth CNY54.1bn (USD7.6bn) were priced in 2023.

In May 2024, the HKMA published and launched the Hong Kong Taxonomy for Sustainable Finance, with Climate Bonds' support, facilitating interoperability with the CGT, as well as the respective EU Taxonomy and Chinese Green Bond Project Catalogue.[9] Climate Bonds expects more market applications of the CGT as it is further integrated into policy measures. In July 2023, China Foreign Exchange Trade System (CFETS) began publishing lists of certified CGT green bonds to support the growth of CGT-compliant issuance and secondary market financial product development.

All but one of the CGT-compliant green bonds issued in 2023 listed by CFETS are considered aligned in Climate Bonds' GBDS.[10] This further demonstrates the credibility of the CGT, and its alignment with international standards.

With the arrival of the Hong Kong taxonomy and its interoperability with the CGT, Hong Kong is poised to play a powerful role in connecting Chinese and European capital and issuance, in particular through its Northbound and Southbound bond connect trading infrastructure. The rise of relevant secondary market instruments will generate demand in the primary market for issuers which adhere to and utilise the label and standard.

Majority of CGT issuance so far is based onshore, not offshore



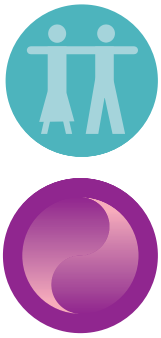
Source: Climate Bonds Initiative, CFETS

To date, the vast majority of CGT issuance has been onshore and exclusively CNY-denominated, which presents an opportunity for Hong Kong underwriters and international investors to attract Chinese projects to offshore markets. To succeed in building the demand and supply for such a market, the CGT should be further targeted towards Hong Kong-based and international green or dark green investors, such as Article 9 funds in the EU.

Example use case of CGT in 2023

Issuer	Issue date	Funded projects
Postal Savings Bank of China Co.,Ltd.	March 2023	Low carbon rail projects
Nanchang Railway Group Co.,Ltd	Jan 2023	Low-carbon rail projects (metro construction)
CPI Ronghe Financial Leasing Co.,LTD	Feb 2023	Low-carbon energy (wind and solar projects)
Xinhua Hydropower Company Limited	June 2023	Low-carbon energy (wind and solar projects)

2. Social and Sustainability



Climate Bonds traditionally focuses on climate-related investments and issues, but climate change also exacerbates social inequalities with disadvantaged groups vulnerable to the physical and transition risks.

To ensure global just transition to a low-carbon economy and fulfil the 17 United Nations Sustainable Development Goals (SDGs), a range of persistent inequalities need to be addressed. A rapid transition to a sustainable economy requires the support of all sectors of society and substantial financing, for which the capital markets can be mobilised to support such initiatives through social or sustainability bonds.

Following the ICMA Social Bonds Principles, social bonds are those with UoP exclusively earmarked to finance or refinance eligible social projects.[11] Sustainability bonds refer to bonds with proceeds earmarked to support a combination of green and social project categories.

Climate Bonds Social and Sustainability Bond Database Methodology

Climate Bonds screens all self-labelled debt instruments to from over 80 jurisdictions against the Climate Bonds Social and Sustainability Bond Database (SSBDB) Methodology to inform inclusion in the Climate Bonds SSBDB. The SSBDB complements the Climate Bonds GBDS to provide a more complete snapshot of the GSS+ debt market.

Climate Bonds SSBDB and social and sustainability bond indices

The Climate Bonds SSBDB is used to inform inclusion in social and sustainability bond indices, an additional reason for issuers to align with Climate SSBDB methodology. Examples include J.P. Morgan ESG (JESG) indices, Solactive Social and Sustainability Bond indices and others.[12,13] Inclusion in Climate Bonds' database also increases visibility in the global market, and remains a key indicator of credibility.

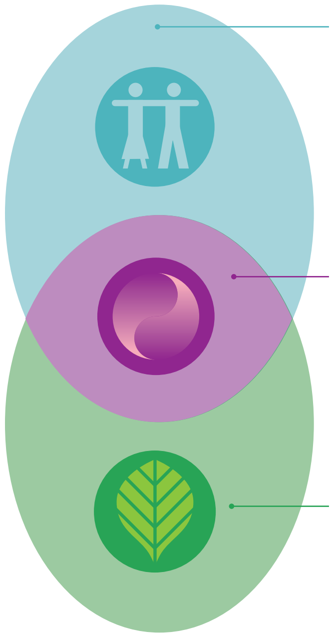
Market analysis

Social and sustainability (S&S) issuance volumes from Hong Kong issuers grew for the third consecutive year in 2023 to USD2.56bn but was dominated by the social theme. Climate Bonds has recorded S&S issuance originating from Hong Kong since 2021, and all bonds are aligned with Climate Bonds SSBDB methodology, including the four that were issued in 2023.

In September 2023, mortgage financing company **Hong Kong Mortgage Corp**, wholly-owned by the HKSAR Government through the Exchange Fund, priced the year's largest aligned social bond in the Hong Kong market and in Asia, and is the first Hong Kong issuer to simultaneously issue HKD, CNY, and USD-denominated tranches. The UoP of the HKD20bn (USD2.5bn) triple-tranche deal was earmarked to finance or refinance loans under the SME Financing Guarantee Scheme's Special 100% Loan Guarantee. Other UoP categories included Healthcare, Education, Micro Finance, Affordable Infrastructure and Housing, and Equality. **Chong Hing Bank** was the only other HK issuer of S&S debt in 2023, raising HKD50m (USD6.4m) to finance the same range of UoP categories.

Hong Kong S&S issuance grew for third year; dominated by social issuance

Source: Climate Bonds Initiative, CFETS



The **Social Bond** label includes bonds where proceeds have a focus on delivering positive social outcomes. The labels used to describe the bond may range from 'Pandemic' to 'Gender inclusion' but all are covered within the Social label.

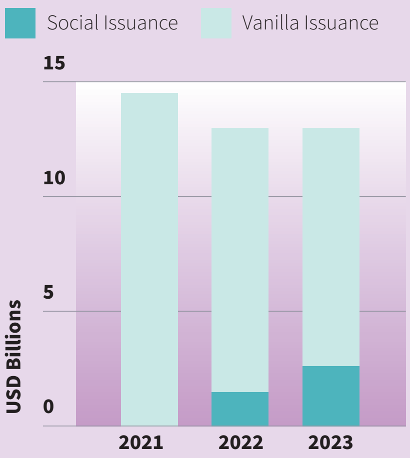
The **Sustainability Bond** label covers bonds with proceeds directed to a mix of both green and social projects. Labels include Sustainable Development Goals, Sustainable and Responsible Investments etc,

The **Green bond** label describes bonds with proceeds dedicated to environmental and climate outcomes. Labels may include 'climate, green, etc'

Spotlight: Hong Kong Mortgage Corp sustainable finance framework

The Hong Kong Mortgage Corporation Limited (HKMC) priced its first social bond in October 2022, and has issued five social bonds so far, of which all are considered aligned with the Climate Bonds SSBDB. In 2023, social bond issuance increased 77.6% YOY.

Hong Kong Mortgage Corp is increasing its presence in the social theme



Source: Climate Bonds Initiative, HKMC

Hong Kong Mortgage Corp's social bond issuance	Issue date	Maturity date	Amount issued
	25/10/2022	25/10/2024	HKD8bn (USD1bn)
		25/10/2025	CNY3bn (USD415.8m)
	12/09/2023	12/09/2025	HKD9.5bn (USD1.2bn)
		12/09/2026	CNY5bn (USD686m)
	13/09/2023	12/09/2028	USD650m

Climate Bonds screened social UoP	**Healthcare:** affordable basic healthcare services to the public; emergency medical response and disease control services; **Education:** schools or other education centres that expand access to education and/or for targeted minority; **Micro Finance:** Loans under the Special 100% Loan Guarantee of the SME Financing Guarantee Scheme for qualified SMEs; **Affordable Housing:** Financing to support various local affordable housing schemes in Hong Kong to promote wider home ownership amongst low and moderate income groups; **Affordable Infrastructure:** infrastructure projects which provide affordable basic infrastructure and services; **Equality:** projects (mentioned above) that improve income-inequality or help vulnerable groups.
Climate Bonds SSBDB SDG mapping	G1: No poverty G3: Good health and well-being G4: Quality education G6: Clean water and sanitation G8: Decent work and economic growth G9: Industry, innovation, and infrastructure G10: Reduce inequalities G11: Sustainable cities and communities

All five bonds were issued under HKMC's Social, Green and Sustainability Financing Framework. The framework was structured under the relevant ICMA principles, helping to ensure best practice for the following reasons:

1. Issuing sustainable debt under the sustainable finance framework can help integrate sustainability into the firm's ESG and business strategy. HKMC is committed to its core missions of promoting stability of the banking sector, wider home ownership, development of the local debt market, and development of the retirement planning market in Hong Kong. Given the organisation's mission, there is strong overlap with the mission of the social debt market. Using social bonds, HKMC can support the growth of assets or projects with social benefits. The HKMC also established an ESG committee to oversee the implementation of the strategies, further integrating sustainability into its governance.

2. The use of this framework, and its relevant reporting commitments, build transparency and credibility between the issuer and its stakeholders. As a result of the development of the sustainable debt framework, the company's financial control department has created an independent allocation register to record, track, and report on the allocation of the proceeds to eligible assets. This is then communicated to the public through its allocation and impact reporting for each instrument. Given the role HKMC plays in civic society, this strengthened public disclosure improves the public's understanding of the entity's role.

Spotlight: The role of stock exchanges in promoting high quality sustainable debt

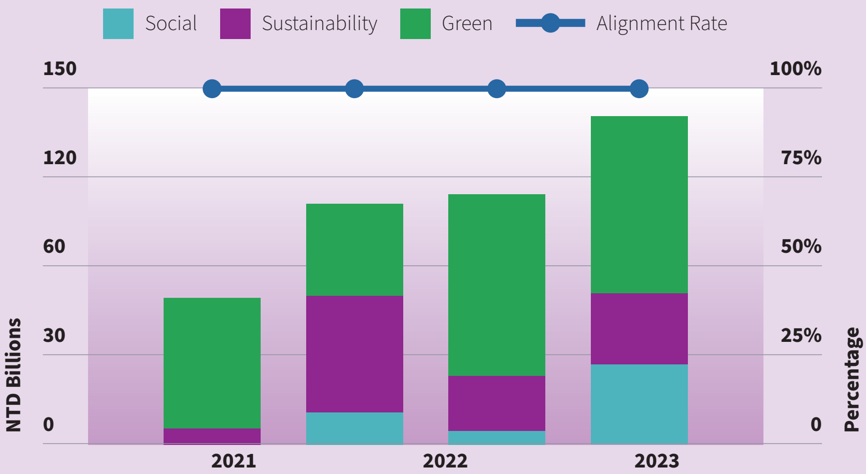
The role of stock exchanges facilitates the development of a high-quality sustainable finance market. To effectively combat climate change and to further involve investors, the sustainable bond market must achieve significant scale and reduce the risk of greenwashing. Governmental support, primarily through policies and government issuance, plays a crucial role in this endeavour. Stock exchanges are essential to the provision of market liquidity for larger investor involvement. In addition to improving transparency, they play a vital role in enforcing regulations, providing investors with the assurance that the sustainable bonds they purchase can be exchanged and have the required credentials. Stock exchanges use three levers to support the growth of a credible sustainable debt market:

1. Implement market education and foster dialogues. Educational recourses such as guidance, training, and tools for investors, enable exchanges to help investors to better understand climate risks and opportunities, and sustainable debt issuance. The existence of unlabelled sustainable debt shows the potential for green bond market growth across the world. Exchanges can identify existing and potential issuers, fast-growing markets, as well as large and new sectors for green bond issuance. Moreover, the market's advancement can be expedited through the establishment of performance benchmarks such as indices. These benchmarks serve to assist investors in identifying sustainable finance investment opportunities more effectively, thus accelerating the development of the market.

2. Provide access to a wide range of investors: The visibility and credibility offered by listing a GSS+ deal on a stock exchange can help issuers to diversify their investor base. This extends to a wide array of participants, ranging from substantial institutional investors such as pension funds, mutual funds, and insurance companies, to smaller and medium-sized institutions, and even individual investors with a preference for sustainable debt.

3. Promote market transparency: The disclosure of UoP and post issuance reporting of sustainable bonds supports transparency. Exchanges can leverage existing standards and guidelines such as the ICMA Principles and the Climate Bonds methodologies to highlight international harmonisation and comparability.

TPEx GSS bond volumes continue to grow



Source: Climate Bonds Initiative, Taipei Exchange

Case study: The Taipei Exchange's high quality sustainable debt market

The Taipei Exchange (TPEx) has played an active role in supporting the green bond market since 2017 and has since established S&S and SLB segments, between 2020 and 2022.

Sustainable debt listed on TPEx has grown YOY since 2017. In May 2023, the outstanding volume exceeded NTD400bn (USD13.5bn).

Lack of alignment with international standards is often a problem for nascent sustainable debt markets, hindering scale and ambition of issuance. However, all green, social and sustainable bonds listed on TPEx to date are considered aligned with Climate Bonds database methodologies.

To achieve this high level of alignment, TPEx deploys a three-tiered execution strategy for its key stakeholders, with engagement strategies targeting the real economy, capital market participants, and internal stakeholders.[14] For capital market participants, TPEx has guided funds to target climate and transition-focussed products and services. For real economy participants (issuers), TPEx has directly advised and assisted entities to strengthen their ESG and sustainable debt frameworks and disclosure, in order to strengthen their competitiveness. Lastly, for its own development, it has aligned with international standards and engaged with public net-zero policies, deepening collaboration to support the transition of entities.

TPEx has used its influence with issuers and investors to develop and mature its sustainable finance market by:

1. Strengthening corporate governance: TPEx supports the use of international standards such as IFRS Sustainability Disclosure Standards and SASB. It introduced localised guidance on IFRS Sustainability Disclosure Standards Alignment and a Sustainability Roadmap to help listed companies understand the impact and opportunity of disclosing sustainability-related financial information.

2. Creating sustainable products and mechanisms: In collaboration with financial data and research companies FactSet and Entelligent, TPEx introduced Taiwan's first pure climate index series, the TPEx FactSet Smart Climate, in 2023. This initiative provides investors with tools to prioritise sustainability in their portfolios, educate stakeholders about climate risk, and encourage sustainable investments in exchange-traded products.

3. Sustainability-linked bonds

Market analysis

The first sustainability-linked bond (SLB) was issued in China in 2018 by **Beijing Infrastructure Investment Co**. Since then, issuers around the world have utilised performance-linked debt instruments to demonstrate their commitment to decarbonisation. In 2023, Climate Bonds did not record any SLBs from Hong Kong issuers, but two SLB issuance opportunities and best practice examples are highlighted here.

To date, there have been three issuers of SLBs from Hong Kong: **New World Development**, **Seaspan Corp**, and **Towngas**. Together, they have priced six deals with collective volume of USD1.3bn. However, none of these deals have been tied to issuer GHG targets and are thus not aligned in the Climate Bonds Sustainability-Linked Bond Database (SLBDB).

Real Estate SLBs – International Best practice

The real estate sector has been a keen user of the SLB instrument format since its inception, with 48 bonds totalling USD8.5bn issued against sustainability targets, of which approximately USD1.5bn are considered aligned when assessed against Climate Bonds' SLBDB methodology.

One of the most prominent aligned SLB issuers is **Mitsubishi Estate Co., Ltd**., which has issued 3 deals worth JPY70bn (USD510.3m) considered aligned within the SLBDB.

Mitsubishi Estate's 10Y SLB issued in 2023, and two of its previous deals in 2022, are considered fully aligned with the Climate Bonds SLBDB methodology, as its GHG targets are aligned with the CRREM Real Estate pathways. It is worth noting however, that two of their five deals, are considered not aligned as they are tied purely to renewable energy targets. Climate Bonds stipulates that SLBs are issued with all material emissions represented for the sector, in line with a sector-specific pathway.

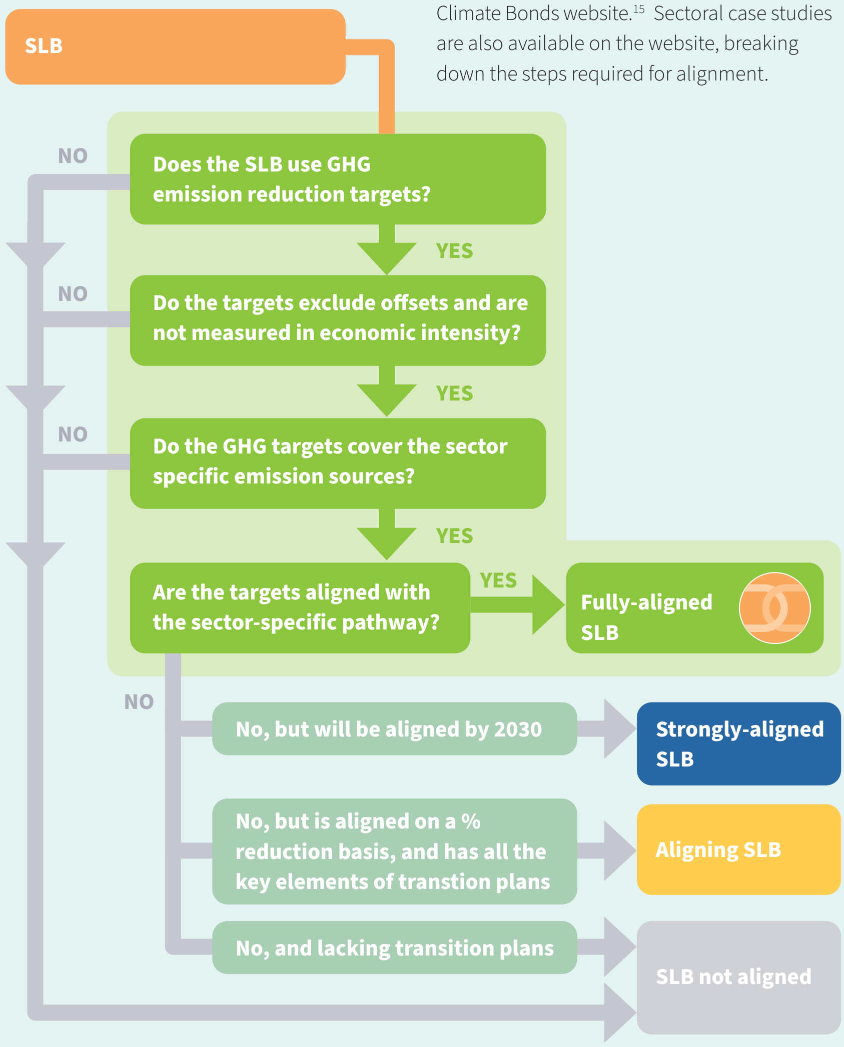
This remains a priority area to improve the credibility of SLB issuance from the Real Estate sector: 58.8% of Real Estate sector SLBs issued globally in 2023 lacked GHG targets attached to their deals. Deals are tied to renewable energy targets, energy efficiency targets, or the proportion of the real estate portfolio certified with green building standards. While Climate Bonds does not discourage the use of these targets, ideally they should be secondary to fundamental decarbonisation targets.

Many real estate companies in Hong Kong already have eligible GHG reduction targets. New World Development and Swire Properties, are notable examples of real estate developers that already have eligible scope 1, 2, and 3 decarbonisation targets. Tying their cost of debt to such targets helps not only to broaden their investor base but also demonstrate their decarbonisation commitment to investors and other stakeholders.

Climate Bonds Sustainability-Linked Bond Database

Climate Bonds screens self-labelled SLBs from all jurisdictions against the Climate Bonds Sustainability-Linked Bond Database (SLBDB) Methodology to inform the size, credibility, and ambition of global SLBs. Aligned deals in the SLBDB evidence issuers who tie their cost of capital to credible and ambitious decarbonisation targets, in line with a 1.5°C transition.

A summary of the assessment process is illustrated below, with the full methodology available in Chinese and in English on the Climate Bonds website.[15] Sectoral case studies are also available on the website, breaking down the steps required for alignment.



Case study - Mitsubishi Estate's 10Y SLB issued in 2023

Amount issued JPY30bn (USD218.3m)

Issue date	2 May 2023	**Maturity date**	2 May 2033
Financial mechanism type: Redemption premium (to Charity): worth 25bps if any target missed			
Key performance indicators (KPIs)	GHG Emissions (scope 1 & 2)	**Sustainability performance targets (SPTs)**	-70% by 2031 against a 2019 baseline
	GHG Emissions (scope 3)		-50% by 2031 against a 2019 baseline
Assessment: Fully Aligned			

Emission sources required by SLB Database Methodology for sector

Scope 1, 2, and 3 or 80% of total emissions

Market dynamics from a broader perspective

To reflect the size of Hong Kong as an international financial centre for green and sustainable debt issuance, the HKMA adopts a different methodology from Climate Bonds in measuring the size of the green and sustainable debt market.

GSS+ debt issued in Hong Kong exceeded USD50bn in 2023 under HKMA's methodology

Instrument type	Issuance volume in 2023 (USD bn)
Bonds	29.9
Loans	22.2
Total	**52.1**

Close to USD30bn of GSS+ bonds were arranged in Hong Kong in 2023, capturing more than one-third of the Asian green and sustainable bond market.

- Against the backdrop of a volatile market environment, the GSS+ bond issuance in Hong Kong grew by 6.9% YOY to USD29.9bn in 2023, equivalent to over one-third of the Asian international GSS+ bond market.
- Green and sustainability bonds collectively made up over 90% of the market. Social bonds and SLBs remained relatively niche segments with around 4% and 2% share respectively.
- Over half of the GSS+ bond issuance in Hong Kong was by private sector issuers, mainly financial institutions and real estate/property development corporates.
- Around half of the GSS+ bond issuances in Hong Kong were denominated in USD (55%), followed by RMB (35%) and EUR (10%).

Over USD22bn of GSS+ loans were issued in Hong Kong in 2023.

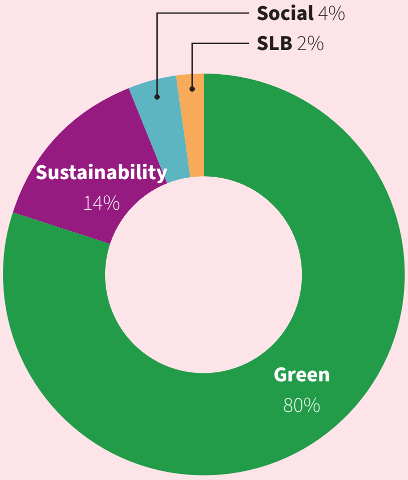
- SLLs accounted for over two-thirds of the GSS+ loan market in Hong Kong.
- Similar to GSS+ bonds, financial institutions and real estate/property development corporates were the major borrower groups, collectively accounting for over 50% of the GSS+ loan borrowing in Hong Kong.
- GSS+ loans issued in Hong Kong were principally denominated in HKD (52%) and USD (39%).

Coverage of GSS+ instruments by Climate Bonds and HKMA in comparison

Data coverage	Climate Bonds Initiative	HKMA
Instrument type	Bonds	Bonds and Loans
Scope	Instruments from Hong Kong issuers[16]	Bonds arranged in Hong Kong[17], and loans issued in Hong Kong[18]

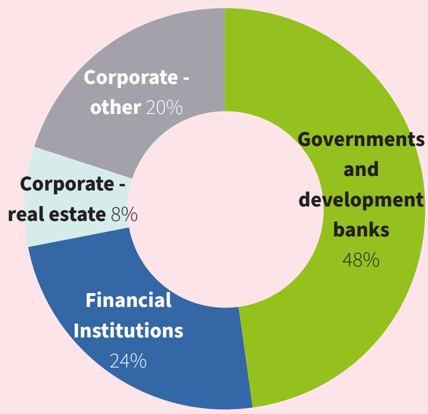
Sources: Dealogic and ICMA (for bonds), LoanConnector and HKMA staff estimates (for loans)
Note: Figures may not add up to the total due to rounding.

Green bonds remained the major instrument type



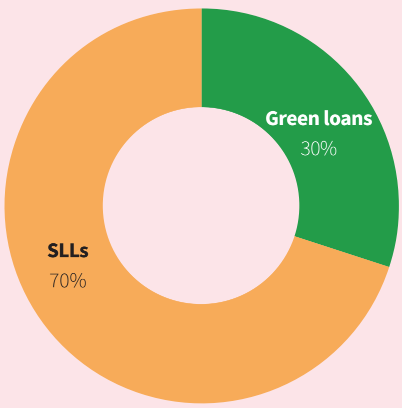
Source: HKMA, based on Dealogic Data

Corporate issuers accounted for more than half of GSS+ bond issuance



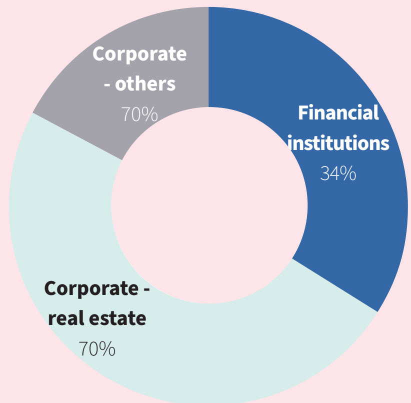
Source: HKMA, based on Dealogic Data

Sustainability-linked loans (SLLs) make up more than two-thirds of loan market



Source: HKMA, based on Dealogic Data

Financial institutions and real estate/property development corporates were the major GSS+ loan borrowers



Source: HKMA, based on Dealogic Data

Spotlight: Provincial transition finance frameworks on the rise in HKSAR and China

Transition finance describes measures to support investments aimed at reducing greenhouse gas emissions in hard-to-abate sectors. This has been gaining visibility among China's financial regulators and market stakeholders despite relatively slow progress in the development of standards and building of consensus around how to ensure credible transitions.

In February 2024, led by the National Development and Reform Commission (NDRC), 10 government bodies jointly published the *Guidance Catalogue for Green and Low-Carbon Transition Industry (2024 Edition)*.[19] This is the first time that elements of low-carbon transition have been incorporated into China's national level taxonomies.

Prior to the introduction of a national transition finance standard in February 2024, local transition finance pilots were gaining traction. In 2023, subnational governments including Huzhou, Chongqing, Tianjin, Shanghai, and Hebei introduced transition finance policy guidance and taxonomies to support the low-carbon transition of their industry bases.[20,21,22,23,24] While each differs in their scope and granularity, this newly introduced local transition finance guidance serves as a pilot for the much-anticipated national sector-specific transition finance standards led by the PBOC, initially covering steel, thermal power, construction materials, and agriculture.

	Policy document					
	NDRC Guidance Catalogue for Green and Low-Carbon Transition Industry (2024 Industry)	Huzhou Transition Finance Support Activity Catalog (2023 trial)	Catalogue of Chongqing Transition Finance Support Projects (2023 edition)	Implementation Guide for Transition Finance in Key Areas of Tianjin Chemical Industry	Shanghai Transition Finance Catalogue (trial)	Guidelines for Transition Finance of Iron and Steel Industry in Hebei Province (2023-2024 edition)
	Publication Date					
Sector coverage	February 2024	July 2023	October 2023	October 2023	December 2023	December 2023
Textiles						
Pulp and paper						
Chemicals	(including petrochemicals and chemicals)	(differentiated by chemical raw materials, products, fibre)		(covers 10 key areas of chemicals industry)	(specifically, petroleum processing, raw materials, products)	
Non-metallic minerals						
Ferrous metals	(specifically, steel)		(specifically, iron and steel)		(specifically, iron and steel)	(specifically, steel)
Non-ferrous metals						
Electric machinery and equipment						
Electric power			(specifically, coal power)			
Heat production						
Agriculture	(agri-food and fisheries)					
Cement						
Water transportation						
Automotive manufacturing						
Air transport						

The regional guidance tends to cover regionally relevant industries such as textiles, oil refining, chemicals, steel and other high-carbon emission sectors. The steel sector is included in most local guidelines while Chongqing stands out as the only city to include the agricultural sector.

HKMA has also commenced phase 2 development of the Taxonomy, which will include trasnition activities. However, Climate Bonds encourages the continued convergence and alignment of standards and guidance to ensure that capital flows unencumbered to finance decarbonisation efforts and measures. The opportunity here for Hong Kong is to engage with and keep abreast of developments abroad and within mainland China, maintaining its position as a sustainable finance hub, and bridge between China and the international community.

4. Market Development and Outlook

In 2023, Hong Kong sustainable debt volumes grow to new heights, predominantly through government issuance. By the end of 2023, Climate Bonds had recorded cumulative aligned green bond volume of USD2.8tn. This figure is expected to have exceeded USD3tn by mid-year but the volume of large deals must increase significantly to reach Climate Bonds' target of USD5tn per year by 2025. Hong Kong can leverage its position to mobilise the capital flow required to support both its own transition and that of mainland China, contributing to building a green and sustainable future.

Climate Bonds highlights three drivers of growth for Hong Kong's GSS+ market in 2023 and beyond.

1. HKSAR Government is committed to the achievement of its climate goals and its position as a GSF hub for the region

Tackling climate change has the potential to power vast economic growth. As a leading international financial centre, Hong Kong is a strategically placed GSF financing platform and can galvanise action on transition while addressing its own climate agenda.

By the end of 2023, the HKSAR Government had priced government green bonds with cumulative volume of USD24.2bn. As part of its 2024–25 budget, the HKSAR Government announced its intention to issue approximately HKD95bn to HKD135bn worth of bonds each year from 2024–25 to 2028–29, including green/sustainable bonds.[25] Furthermore, it announced the extension of the Green and Sustainable Finance Grant Scheme until 2027, with an expanded scope of subsidies to cover transition bonds and loans, demonstrating its commitment to supporting the arranging and issuance of sustainable finance in Hong Kong.[26]

2. Clearly define transition to underpin further scale and ambitions in issuance and action

Hong Kong's taxonomy for sustainable finance, led by the HKMA, will facilitate easy navigation between the taxonomies of mainland China and the EU. An acknowledged benefit of a well-defined green taxonomy lies in its ability to eliminate greenwashing and facilitate capital flows across jurisdictions. As part of phase two of taxonomy development, there is a clear need to expand coverage to hard-to-abate sectors, given latest guidance from provincial and national governments in China, and the urgent need to decarbonise these sectors across the globe. The increased clarity will introduce scale from issuers and facilitate the issuance of UoP and SLB instruments.

3. Hong Kong can further scale access to international finance for mainland China

Hong Kong has vast potential to channel the decarbonisation and transition financing needs of mainland China due to its strategic position and high-profile within the international finance community. This power is being further amplified through initiatives such as a local CGT-compliant taxonomy, the Government Green Bond Programme, and the green finance infrastructure that continues to develop. The advent of a CGT-compliant bond list from CFETS could be further supported by a similar list that adopts an ex-China regional focus, including issuance from Hong Kong and abroad.

Appendix A: Climate Bonds dataset/bases and reporting

Scope of analysis

This report includes four sustainable debt themes based on the projects, activities, and expenditures financed: green, social, sustainability, and SLB. The GSS+ themes can be described as follows:

Green: dedicated environmental benefits (captured since 2012).

Social: dedicated social benefits (captured since 2020).

Sustainability: green and social benefits combined into one instrument (captured since 2020).

SLB: changes in coupon (almost always step-ups) linked the fulfilment of key performance indicators (KPIs) against entity level sustainability performance targets (SPTs) (captured since 2021).

Green, social, and sustainability bonds	Aligned	Pending	Excluded
Cumulative USD billion as of 31 December 2023	4.4tn	79.8bn	751.7bn

SLBs	Fully aligned	Strongly aligned	Aligning	Not aligned
Cumulative USD billion as of 31 December 2023	40.3bn	2.2bn	4.7bn	278.9bn

Methodology overview

This report draws on three Climate Bonds databases:

1. Green Bond Database (GBDB)

2. Social and Sustainability Bond Database (SSBDB)

3. SLB Database (SLBDB)

Bonds meeting the requirements outlined in Climate Bonds' screening methodology qualify for inclusion in the datasets/bases and are classified as aligned. Labelled bonds for which there is not enough information to determine eligibility for dataset/base inclusion are classified as pending until sufficient disclosure is available to decide. Bonds failing to meet the requirements of Climate Bonds' screening methodology are classified as non-aligned and are excluded from the datasets/bases.

SLBs are assessed according to Climate Bonds Sustainability-Linked Bond Database Methodology (SLBDM) and classified according to four levels of alignment.[27]

1. Fully aligned: SLB targets cover all material sources of emissions and are aligned with the relevant pathway.

2. Strongly aligned: SLB targets cover all material sources of emissions and will be aligned with the relevant pathway by 2030.

3. Aligning: SLB targets cover all material sources of emissions, are aligned with the pathway on a % reduction basis, and the issuer has the basic tenets of a transition plan.

4. Not aligned: SLB targets fail to meet any of the above criteria, or do not meet the other requirements detailed in the SLB Database Methodology.

As Criteria are developed, Climate Bonds will update its GBDB methodology and then begin screening bonds from issuers in those sectors for inclusion, whether labelled as transition or as green. The Climate Bonds Taxonomy defines the assets and activities that are aligned with a 1.5-degree pathway, accepting financing with either label. In 2024, Climate Bonds will publish new sector Criteria for Electrical Utilities, Agri-food, Deforestation and Conversion Free Sourcing, Hydrogen Delivery and Production, and Basic Chemicals. Climate Bonds Buildings Criteria will also be updated to reflect the differences between new and existing buildings.

Appendix B: Composition of labels in GSS+ themes

Composition of labels in GSS+ themes

Green	Social	Sustainability	SLB
Blue/Water	Affordable Housing	SDG	Sustainability-linked
Climate	Education	Socially Responsible Investing (SRI)	ESG-linked
Carbon Neutrality	Equality	Sustainable development	SDG-linked
Transition/ Climate Transition	Healthcare	Impact/Positive Impact	Low-carbon transition-linked
PACE	Rural Revitalisation	ESG	Transition-linked
Climate Resilience	Youth, Employment		

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16. Climate Bonds refers to the following rule to determine how to assign a country/jurisdiction to each bond. For unsecured bonds, the country/jurisdiction is determined by the issuer's domicile. If it is a wholly-owned subsidiary, it becomes the parent group's domicile. For secured bonds, the location of the assets being used as collateral is considered. However, a parent guarantee or other recourse to a parent company in another domicile would influence the determination. Climate Bonds does not take currency denomination, listing venue, or similar factors into account to determine the country/jurisdiction.
17. Refers to green and sustainable bonds arranged in Hong Kong. In line with the methodology adopted by the ICMA, the main location of arrangement is the jurisdiction where more than 50% of the lead banks of a deal are based. If two jurisdictions tie for a deal, both jurisdictions will be attributed by taking an average of the nominal amount of the bond.
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Supported by the Hong Kong Monetary Authority

Supported by the Hong Kong Green Finance Association

Funding for this publication was provided by Standard Chartered as a Gold Partner.

Authors: Gao Zhan, MacGeoch Matthew, Xie Wenhong, XU Xinru

Editorial support: Stephanie Edghill, Caroline Harrison

Suggested citation: Hong Kong Sustainable Debt State of the Market 2023. The Climate Bonds Initiative. June 2024. .

Design: Godfrey Design, Joel Milstead

www.climatebonds.net