Sustainable Debt Market Summary H1 2023

August 2023

Key figures

- **GSS+ debt crossed the USD4tn mark.** By the end of the first half of 2023 (H1 2023), Climate Bonds Initiative (Climate Bonds) had recorded cumulative volume of **USD4.2tn** of green, social, sustainability, transition, and sustainability linked (GSS+) debt in alignment with its screening methodologies (aligned).
- This figure included **USD448bn of aligned GSS+ debt** captured in H1 2023 marking a 15% year-on-year (YoY) decline compared to H1 2022.
- **Green bonds** accounted for **62% of aligned volume**, with **USD278.8bn** recorded in H1. This was followed by social and sustainability debt contributing 15% and 14% respectively.
- **February** was the most prolific month with total aligned GSS+ volume of **USD81bn.**
- **EUR** was the dominant currency of aligned GSS+ deals with 47% of the H1 volume (**USD210.9bn**). This was the sixth consecutive year that EUR topped the currency chart.

H1 at a glance

Green issuance took a leap forward in the first half.

Green was the predominant theme in H1 2023, with 62% of the total aligned GSS+ debt (USD278.8bn). Financial corporates contributed the largest share of aligned green volumes with 29% (USD79.6bn) including USD5.5bn from Intesa San Paolo spread over five deals in GBP and EUR.

GSS+ bonds captured by Climate Bonds

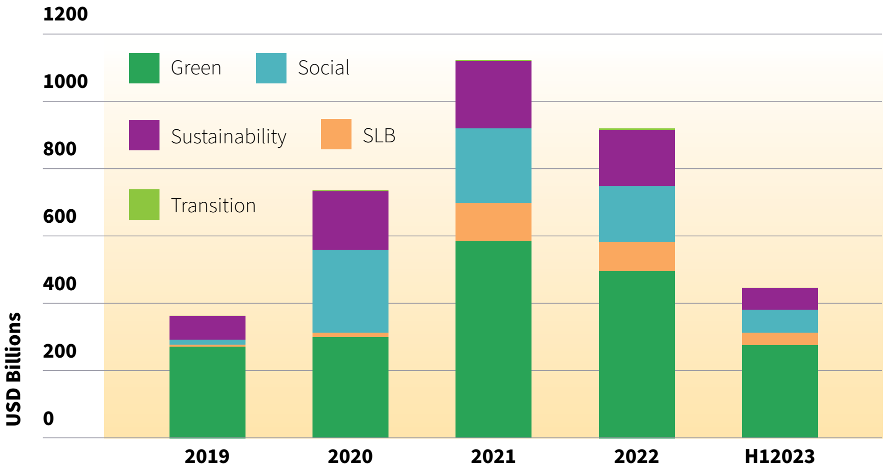
Bonds meeting the requirements outlined in Climate Bonds screening methodology qualify for inclusion in the datasets and are classified as **aligned**.

Labelled bonds for which there is not enough information to determine eligibility for database 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.

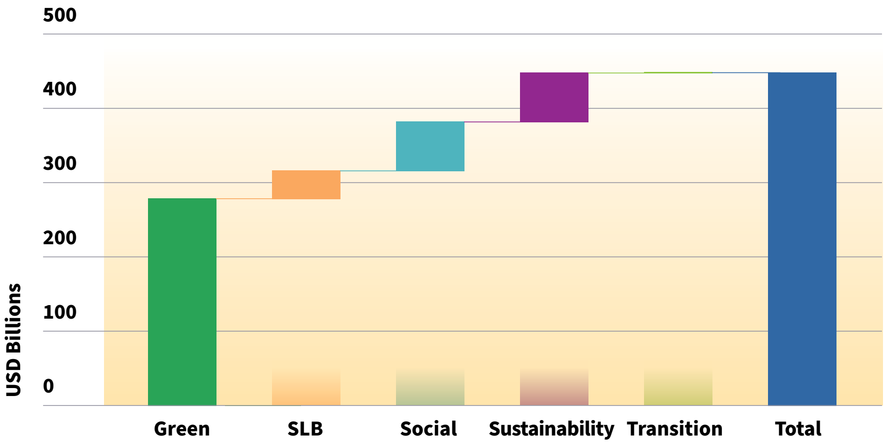
	Aligned	Pending	Non-aligned
Cumulative as of 30/6/2023	USD4.2tn	USD86.9bn	USD571.2bn
H1	USD448bn	USD53.8bn	USD105.2bn
Q2	USD220.7bn	USD36.0bn	USD67.2bn

Cumulative aligned GSS+ volume reached USD4.2tn in H1 2023



Source: Climate Bonds Initiative

Aligned GSS+ issuance reached USD448bn in H1 2023



Source: Climate Bonds Initiative

Non-financial corporates including Orsted (four deals worth EUR2.0bn/USD2.2bn), Mercedes (two bonds worth EUR2.0bn/USD2.2bn), and EDP (two deals worth EUR1.75bn/USD1.9bn) contributed to volumes of USD68.7bn from that segment of the market (25%). Sovereigns was the third largest issuer type, with nine countries contributing to its total green volume of USD52.4bn (19%).

GSS+ bonds exhibit a decreasing US presence.

Aligned GSS+ volume originating from the United States fell sharply in H1 2023 to USD39.8 billion, compared to USD65 billion in H1 2022. The anti-ESG political rhetoric in the United States may have contributed to this 39% decline in volume.

EUR remains the preferred currency for aligned GSS+ deals

EUR and USD accounted for 71% of the aligned volume in H1 2023 (USD322.3bn). EUR remained the preferred currency in the first half of 2023 with 47% of aligned GSS+ volumes (USD210.9bn). Europe has the most advanced policy regulations which motivate issuers to price transparent and ambitious deals, while a quorum of investors with dedicated mandates makes the currency attractive to issuers of GSS+ debt from around the globe.

Deals originating from the USA contributed 32% to the USD volumes. While GSS+ issuance from the region did decline in H1 2023, overseas issuers from 42 countries chose to price their deals in USD, including Supranational issuers (9%) and many from South Korea (8%).

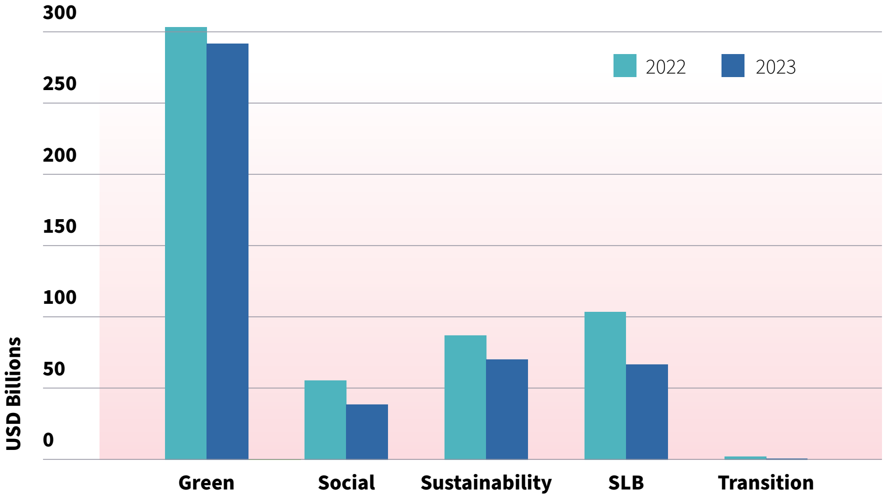
CNY issuance dropped YoY from USD45bn to USD36bn with most of the aligned volume coming from green Use of Proceeds (UoP) deals. Volumes may remain low going into H2 reflecting a slowdown in China's economy due to weaker global demand, ongoing real-estate crisis, and the onshoring of global supply chains.[1,2]

Green bond issuance overtakes fossil fuel deals in H1 2023.

Bloomberg reported that deals supporting low-carbon energy amounted to more than those originating from fossil fuel companies in H1 2023.[3] Meanwhile, 58% (USD263.6bn) of the aligned volume recorded by Climate Bonds in H1 2023 was earmarked for renewable energy UoP.

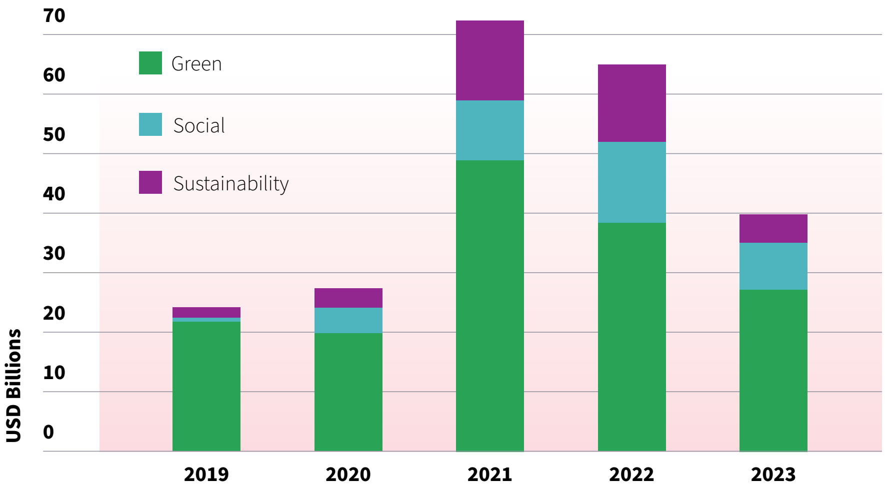
A crucial decarbonisation lever for entities operating in almost all sectors is access to low-carbon energy. Electric vehicles, energy-efficient buildings, and even production processes in the hard-to-abate sectors such as steel and cement rely on access to low-carbon energy as part of entity-level strategy to achieve net-zero given their high energy needs and consumption. Therefore, green deals with Low Carbon Energy UoP overtaking those from fossil fuel companies is a significant milestone suggesting that financing to support clean energy expansion is being scaled.

62% of aligned issuance was green in H1 2023



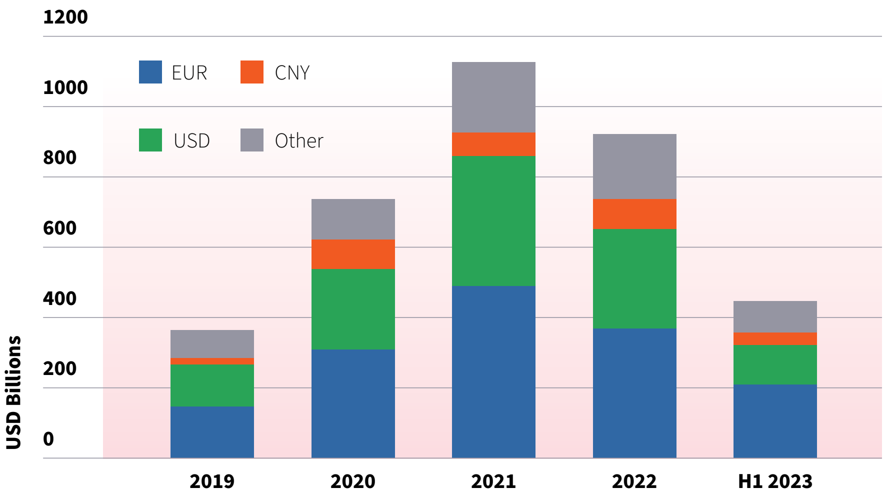
Source: Climate Bonds Initiative

H1 aligned volume from the USA declined in 2023



Source: Climate Bonds Initiative

EUR takes at least 40% of aligned GSS+ volumes



Source: Climate Bonds Initiative

Green

In H1 2023, Climate Bonds recorded aligned volume bearing the green label of USD278.8bn, a slight decline of 4% vis-à-vis the USD290bn recorded in H1 2022. Germany and China were the largest sources of green bond volumes, leading the market share with 14% (USD39.2bn) and 13% (USD37.4bn) respectively. Despite a drop in total volume from China, issuance bearing the green label maintained its growth making it the second largest source of green volumes. March was the busiest month for aligned green volumes with USD51.2bn.

Sovereigns were responsible for 18% of the aligned green volume (USD52.4bn). Germany priced the largest volume of green sovereigns with USD15bn spread over two new deals and three reopenings. This was followed by Italy and the United Kingdom with deals amounting to USD13bn and USD9.8bn respectively. EUR was the preferred currency for aligned sovereign green bonds taking a 73% share (USD38bn).

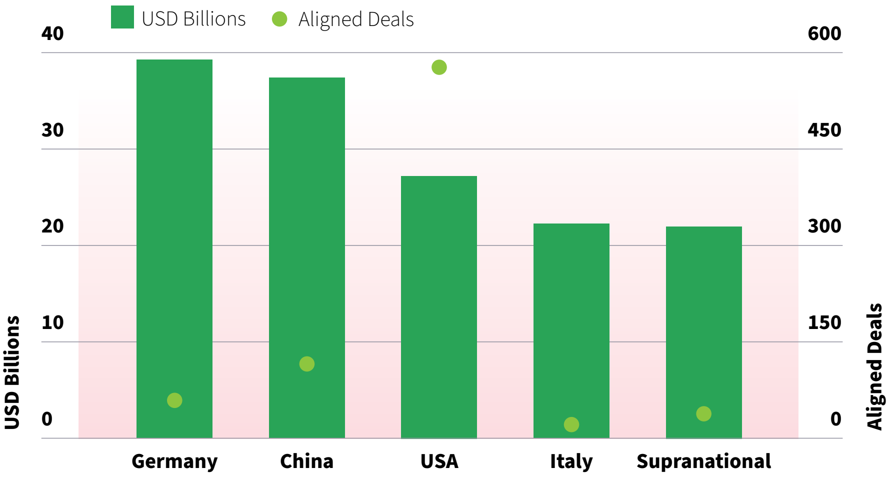
Social

Europe dominated aligned social issuance, accounting for 54% of the volume in H1 2023. Half of the debt was issued by government-backed entities while financial corporates were the second largest issuer type with USD10bn of aligned debt.

French social security provider Caisse d'Amortissement de la Dette Sociale (CADES) was again the largest source of aligned social volume, responsible for 30% of the H1 total (USD19.9bn).

The supply from CADES, with UoP earmarked for Healthcare, Employment, and Social Equality, was responsible for most of France's USD23.6bn (35%) contribution to social issuance in H1, the largest country source. South Korea and the United States followed with USD8.9bn and USD7.9bn, respectively. The second largest social issuer, BNG Bank NV priced USD4.8bn over four aligned bonds with UoP earmarked for Healthcare, Affordable housing, Education and Employment Generation.

Germany was the most prolific source of aligned GSS+ deals in H1



Source: Climate Bonds Initiative

Ten largest issuers of aligned green bonds H1 2023

Issuer name	Country	Volume
Germany	Germany	USD15.0bn
EIB	Supernational	USD13.2bn
Italy	Italy	USD13.0bn
United Kingdom	United Kingdom	USD9.8bn
KFW	Germany	USD7.3bn
European Union	Supernational	USD6.5bn
Austria	Austria	USD6.4bn
Intesa Sanpaolo SpA	Italy	USD5.6bn
Gaci First Investment Co PIF	Saudi Arabia	USD5.5bn
Bank of China	China	USD4.4bn

Ten largest issuers of aligned social bonds H1 2023

Issuer name	Country	Volume	Aligned bonds
CADES	France	USD19.9bn	5
BNG Bank NV	Netherlands	USD4.8bn	4
Korea Housing Finance Corp	South Korea	USD4.2bn	15
Chile	Chile	USD3.4bn	1
NWB	Netherlands	USD2.5bn	3
Council of Europe Development Bank	Supernational	USD2.2bn	3
Central American Bank for Economic Integration	Supernational	USD1.8bn	6
Region Wallonne Belgium	Belgium	USD1.6bn	2
La Banque Postale Home Loan SFH SA	France	USD1.4bn	1
UNEDIC ASSEO	France	USD1.1bn	1

Spotlight: Social housing best practice

The social bond label describes bonds with UoP focused on delivering positive social outcomes. Better living conditions for vulnerable groups can contribute to improving their living standards. Affordable Housing is among the most frequently cited eligible project categories in social and sustainability bonds.

Two examples of bonds priced in H1 2023 from Thailand and Peru are highlighted for their adherence to best practice.[4,5] Firstly, the eligible project categories are clearly defined and include sufficient detail to determine alignment with Climate Bonds *Social & Sustainability Bond Database Methodology*.[6] Stated targets include details of the vulnerable populations who will benefit from the expenditures. Secondly, the issuers are the governments of EM countries with high income inequalities and associated housing challenges. Thirdly, the relatively large deal sizes demonstrate the potential for projects with prominent social benefit. Finally, the expected environmental and social benefits are clear, material, measurable, and the issuers have committed to reporting on the impact of the eligible expenditures in their allocation, impact and post-issuance reports.

Issuer name	Thailand government bond	Peru government bond
ISIN	TH0623A3H605	PEP01000C5I0
Label	Sustainability	Sustainability
Issue date	31/03/2023	12/06/2023
Maturity date	17/06/2037	12/08/2033
Amount issued	THB105bn (USD2.8bn)	PEN9.185bn (USD2.5bn)
Social UoP	Healthcare, Employment, Education, Microfinance, Food security, Affordable housing, Equality, Social AnR	Healthcare, Employment, Education, Microfinance, Food security, Affordable housing, Equality, Social AnR
Green UoP	Energy, Buildings, Transport, Water, Land use	Energy, Buildings, Transport, Water, Waste, Land use, Industry, Green AnR
SDGs	SDG1, SDG2, SDG3, SDG4, SDG6, SDG7, SDG8, SDG10, SDG11, SDG14, SDG15	SDG1, SDG2, SDG3, SDG4, SDG5, SDG6, SDG7, SDG8, SDG9, SDG10, SDG11, SDG12, SDG13, SDG15
Social housing project description	The development and/ or provision of affordable and low-income housing.	Financing for the acquisition, repair, expansion, improvement of social housing (via schemes such as capped rent/ rent control and other affordable home schemes to support home ownership).
Targeted group	Those registered under state welfare earning less than THB35,000 per month (USD980).	The definition and identification of vulnerable populations is conducted through the Household Targeting System (SISFOH). The SISFOH utilises a combination of socioeconomic, geographic, and intervention-specific criteria to identify people, households and groups in situations of poverty, vulnerability or exclusion.
Impact indictors	Of people with access to safe, affordable, and sustainable housing.	• Number of beneficiaries living in poverty. • Number of beneficiaries living in extreme poverty. • Number of jobs created as related to education, housing and health infrastructure. • Number of homes built, disaggregated by new or improved homes.

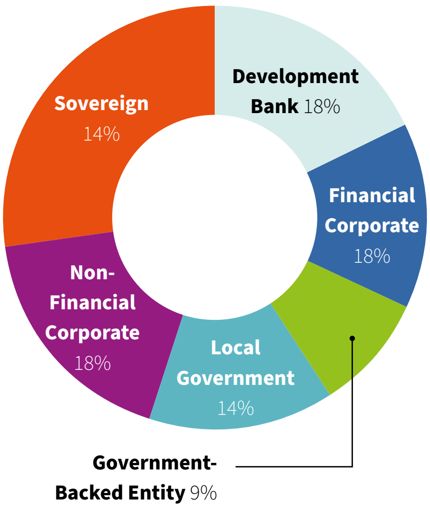
Sustainability

Sovereigns were responsible for 30% (USD19bn) of the sustainability bond volume in H1, with YOY growth of 47%. Development banks and non-financial corporates recorded a decline of 56% and 27% respectively in issuance volume as compared to H1 2022.

Mexico experienced exceptional YoY growth of 173%, with total aligned volume of USD8.2bn originating from five issuers, 62% of which came from the sovereign. Aligned deals from supranationals decreased, falling to USD7bn from USD26.4bn YoY.

The sustainability theme attracted three newcomers into the aligned issuance league, with United Arab Emirates, the Czech Republic, and Cyprus issuing their debut sovereign sustainability bonds for USD2bn, USD539mn, and USD1.1bn respectively.

USD70.5bn of aligned sustainability debt was priced in H1 2023



Source: Climate Bonds Initiative

Ten largest issuers of aligned social bonds H1 2023

Issuer name	Country	Volume	Aligned bonds
Mexico	Mexico	USD5.1bn	4
IBRD	Supernational	USD5.0bn	2
Thailand	Thailand	USD2.8bn	1
Peru	Peru	USD2.5bn	1
Malaysia	Malaysia	USD2.2bn	1
NRW	Germany	USD2.1bn	1
Government of Sharjah	UAE	USD2.0bn	2
Banco Nacional de Obras Y Servicios (Banobras)	Mexico	USD1.9bn	2
Agence Francaise de Developpement	France	USD1.6bn	1
Nissan Motor Co Ltd	Japan	USD1.5bn	3

Transition

Aligned bonds bearing the transition label amounted to USD772.6m in H1 2023, compared to USD2bn in H1 2022. The overall issuer count dropped to 10 from 21 YoY, however, the issuer pool remained the same with deals originating from China, Japan, and EBRD (Supranational).

The USD772.6m came from six issuers from Asia-Pacific and Supranational.

The lacklustre growth in deals bearing the transition label is due to absence of clarity and established standards for the label, making its application confusing for issuers. Clear policy support in Japan and China in the hard-to-abate sectors is contributing to the momentum of transition bonds.

What is a transition bond?

Climate Bonds regards bonds bearing the transition label as a sub-set of green bonds but records them separately. Transition bonds are UoP bonds mainly used to finance sectoral or regional technology roadmaps developed in hard-to-abate sectors. A different label was developed in acknowledgment of the high GHG emission of these sectors combined with the transitional nature of the activities being financed. However, when linked to a Paris-aligned roadmap, these bonds are a subset of green bonds. The UoP must be aligned with a 1.5°C pathway.

Issuers of transition bonds H1 2023

Issuer Name	Country	USD Million	Aligned bonds
Chugoku Electric Power Co Inc/The	Japan	143.34mn	1
EBRD	Supranational	96.96mn	1
Japan Airlines Co Ltd	Japan	140.98mn	1
Osaka Gas Co Ltd	Japan	252.04mn	3
Tohoku Electric Power Co Inc	Japan	110.08mn	2
Wuxi Huaguang Environment & Energy Group Co Ltd	China	29.22mn	1

The sovereign GSS+ bonds club

Aligned sovereign GSS+ volume amounting to USD74.8bn was recorded by Climate Bonds in H1, 63% of which (USD47bn) was priced in Q2. This was the most prolific half year period for aligned sovereign GSS+ debt so far, representing a 35% increase compared to the USD55.6bn captured in H1 2022.

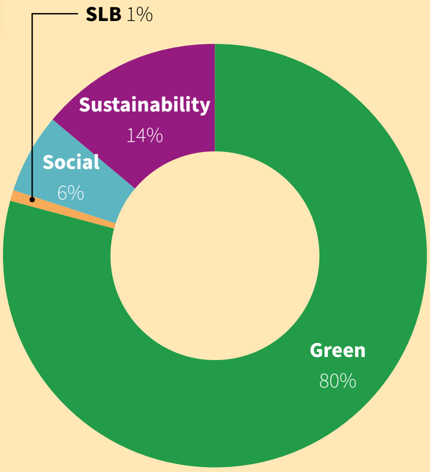
Twenty sovereigns issued aligned green, social, or sustainability bonds in H1, five of which issued debut deals (**Israel**, **India**, **Malaysia**, **UAE**, and **Cyprus**). By the end of H1, Climate Bonds had captured aligned GSS+ deals from 49 sovereigns, with cumulative volume of USD395.1bn beginning with **Poland's** debut green bond in December 2017. Green is the label of choice for sovereigns, with 30 pricing a total of USD314.9bn, followed by sustainability which has attracted liabilities of USD53.8bn from 20 sovereign issuers.

Climate Bonds is looking for the fiftieth aligned sovereign issuer in the third quarter as governments act on the urgent need to address climate challenges. The process of pricing a sovereign GSS+ deal was described in Climate Bonds 2021 *Sovereign Green, Social, and Sustainability Bond Survey* research report and once the commitment to issue has been established, it typically takes nine months to bring the first deal to market.[7]

Aligned sovereign GSS+ debt priced in Q2

	Theme	USD bn
New Deals (Total USD33.9bn)		
Austria	Green	4.9
Cyprus	Sustainability	1.1
Ecuador	Sustainability	0.7
Germany	Green	10.7
Indonesia	Sustainability	0.1
Italy	Green	10.9
Mexico	Sustainability	2.9
Peru	Sustainability	2.5
Reopenings (Total USD13.2bn)		
Chile	Social	3.4
France	Green	2.9
Germany	Green	1.1
Mexico	Sustainability	2.1
UK	Green	3.7
Total		**47.0**

80% of cumulative aligned GSS+ sovereign volume is green



Source: Climate Bonds Initiative

Eight issuers priced aligned bonds in Q2, while five reopened existing deals (including Germany and Mexico who did both). **Ecuador** added an innovative blue bond through an SPV to address biodiversity through debt restructuring (see spotlight on page 7). The USD641m sinking structure will be fully amortised in 2041.

Germany was responsible for the largest volume of aligned sovereign GSS+ debt in Q2, pricing EUR10.8bn (USD11.8bn) split between two new deals and one tap, increasing its number of green deals to seven. The first of the new deals was a green Bund (10-year) priced in late April. Orders for the EUR5.25bn (USD5.8bn) syndicated transaction covered the deal size by 2.8 times. The second deal was a EUR4.5bn (USD4.9bn) 30-year priced in mid-June, and attracted an order book that covered the deal size by 6.4 times. Both followed the twin bond structure, whereby a vanilla bond is issued, closely followed by a green bond sharing similar characteristics. Even in a rising interest rate environment, each bond priced 0.5bps inside its vanilla twin demonstrating enduring demand for the green label. In early June, Germany also tapped its 2025 Bobl (5-year) for EUR1bn (USD1.1bn), extending the size to EUR7.5bn (USD8bn).

Italy brought the largest single aligned sovereign GSS+ deal in Q2, its third deal bearing the green label. The EUR10bn (USD10.9bn) 8.5-year maturity, priced via syndicate in early April. Interest in the deal reached EUR52.9bn, enabling 2bps of spread compression. By the end of Q2, Italy had issued cumulative green bonds totalling EUR33.5bn (USD37.5bn) amounting to 1.4% of its outstanding liabilities.

Following the publication of its sustainable financing framework in January 2023, **Cyprus** was the only debut issuer of aligned sovereign GSS+ debt in Q2, joining the market with its EUR1bn (USD1.1bn) sustainability bond. The deal attracted an order book of more than 12 times the deal size and achieved spread compression of 15bps. Proceeds from the deal were earmarked for nine project categories, consistent with the six environmental objectives of the EU taxonomy, and seven categories of social expenditures including Food Security, Healthcare, and Equality.

Chile is the largest issuer of aligned sovereign social bonds and returned to the market in April with a 2033 deal. The original size was CLP300bn (USD381m) and attracted bids covering the transaction more than eight times. Three subsequent taps brought the outstanding volume to CLP2.65tn (USD3.4bn) by the end of Q2. The UoP was earmarked for a range of social project categories identified in Chile's 2020 updated sustainable financing framework including Healthcare, Employment and Training, and Food Security. Chile has supported its climate and social rhetoric with strong financial commitment and is the only sovereign to have issued debt in four sustainable themes.

Climate Bonds has recorded three issuers of aligned social bonds: **Chile** (USD21.9bn), **Ecuador** (USD0.4bn), and **Guatemala** (USD0.5bn), and in 2022, no sovereign social deals were added to the data set. As noted, twenty issuers have combined social and environmental UoP under the sustainability label.

Largest issuers of aligned sovereign GSS+ debt

Country	Theme	Total GSS+ priced as of 30/06/2023	% of total liabilities as of 30/6/2023*
France	Green	61.7bn	2.4%
Germany	Green	57.8bn	3.0%
United Kingdom	Green	453.5bn	1.4%
Chile	Green, social, sustainability, SLB	37.9bn	39.2%
Italy	Green	37.5bn	1.4%

Debt-for-nature or debt-for-climate swaps

As the name suggests, debt-for-nature or debt-for-climate swaps are financial agreements to reduce the debt burden of developing countries in exchange for spending on conservation efforts or climate action. Typically, those regions of the world most impacted by extreme weather and threats to biodiversity reside within countries struggling to service high levels of debt. To ensure that debtor nations do not cut back on expenditure designated to protecting natural resources, a portion of a country's foreign currency debt is restructured, diverting debt service payments to support environmental projects and initiatives.

However, these instruments are not without their critics. Despite the overarching goal of promoting conservation and sustainable practices, the specific activities and eligible project categories that receive funding are not always transparent. Additionally, there is often insufficient clarity on how the proceeds will be managed and the governance structures behind these deals. This ambiguity makes it difficult to evaluate the climate or environmental integrity of funded projects when compared to investments that follow a taxonomy approach and that hold structured disclosure practices.

Climate Bonds screens green, social, and sustainable (GSS+) debt instruments to provide transparency on global GSS+ debt, ranging from individual deal-level analysis to identifying general market developments and trends. Debt-for-nature swaps from the Seychelles, Barbados, Belize, and Ecuador were screened using Climate Bonds Green and Social & Sustainability Database Methodologies, which rely on publicly available information.[8] The Ecuadorian deal was priced in May 2023, when the country swapped USD1.6 bn of its debt for a USD656m loan by GPS Blue Financing, a special-purpose vehicle that issued a Galapagos bond, channelling funds to marine conservation. The USD656m, sinking deal will be fully amortised by 2041 and is larger than the other three similar recorded deals combined, which amounted to USD453m.

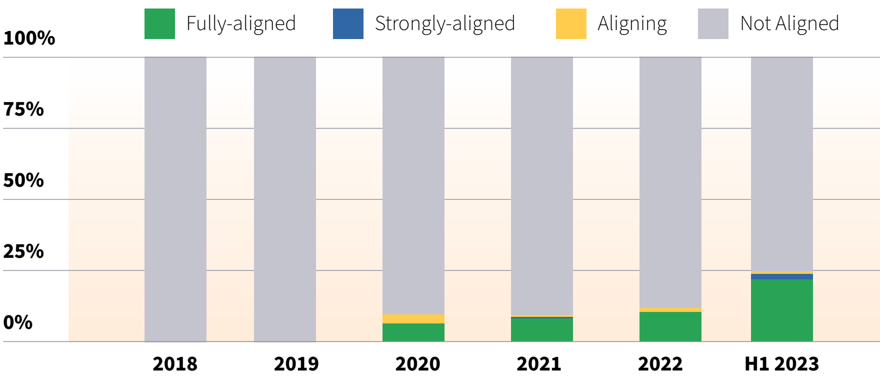
This illustrates how standardised public disclosure is crucial for relevant stakeholders to assess these instruments and to enable the correct classification of financed assets and expenditures within social or environmental categories. While the mentioned debt swaps provided disclosure through press releases and briefings, important components were still missing, such as technical eligibility thresholds and target populations. All the recent deals have been recorded in alignment with the sustainability theme in Climate Bonds' datasets because they describe both social and environmental UoP categories. They were considered in alignment with Climate Bonds' Social and Sustainability (S&S) methodology as they posed no risk to minimum climate safeguards and offered some disclosure regarding fund utilisation. However, the increasing demand for transparency will drive requirements for better disclosure of where these investments are directed.

One way to enhance transparency in debt-for-nature swaps is to adopt frameworks and external reviews such as those currently used in GSS+ bonds, grounded in the International Capital Market Association (ICMA) Principles of transparency, accountability, and reporting. The establishment of such frameworks and external reviews by independent bodies can verify the alignment of projects with predetermined environmental and social criteria, or with credible objectives through Key Performance Indicators (KPIs) and Sustainability Performance Targets (SPTs).[9] Many recent debt-for-nature swaps target ocean conservation and blue economy areas, and an additional source of guidance is provided by the *IFC Guidelines for Blue Finance* which details blue activities outlined under ICMA Principles.[10] However, rather than exercise disclosure through a variety of different sources involved in debt swaps, establishing a unified document detailing the use and management of proceeds, such as a framework or an external review, would allow easier analysis and evaluation. Moreover, periodical reporting on disbursed funds and project progress using frameworks would facilitate comparability and technical assessments. Adopting these practices would provide assurance to stakeholders, including investors and the public, that the funds were being utilised for impactful purposes.

Sustainability-linked bonds

- In H1 2023, Climate Bonds recorded total SLB volumes of USD37.3bn across 102 deals.
- This represents a fall of 31.9% by volume and 29.2% by deal count YoY.
- H1 2023 was the most promising half-year yet for alignment with the recently published [Climate Bonds SLB Database Methodology](), with aligned SLBs reaching almost one quarter (24.8%) of total issuance count, and a slightly higher percentage by issuance volumes (27.2%).
- This is a marked increase in alignment versus the preceding six months, which totalled 13.05% by issuance count.
- Further information about the SLB Database Methodology can be found in the full document, but in essence SLBs are organised into the following four categories:

H1 2023 was the most promising half-year yet for SLB alignment

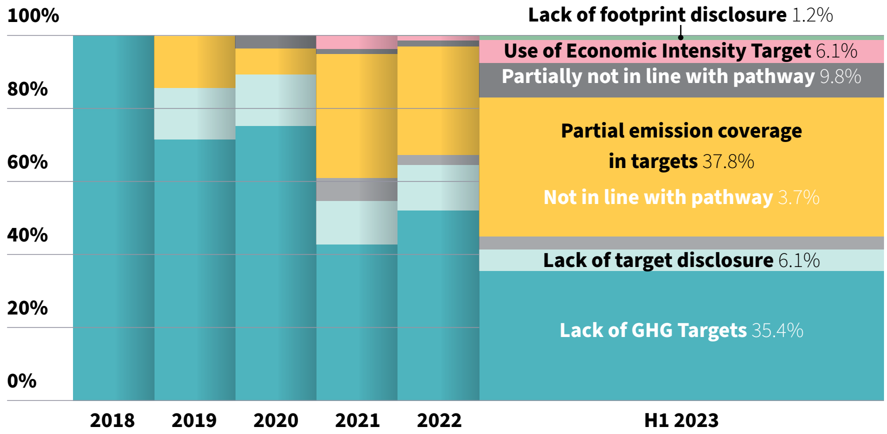


Source: Climate Bonds Initiative

- **Fully aligned**: SLB targets cover all material sources of emissions, and are in-line with the relevant pathway.
- **Strongly aligned**: SLB targets cover all material sources of emissions, and will be in-line with the relevant pathway by 2030.
- **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.
- **Not aligned**: SLB targets fail to meet any of the above criteria, and/or do not meet the other requirements detailed in the SLB Database Methodology.

- Climate Bonds will be transitioning (excuse the pun) its reporting on SLBs to include only aligned SLBs over the next six months, in line with the reporting on green, social, and sustainability bonds, while past reporting (including the numbers used in this report) has included all tracked SLBs.
- The reasons for SLB non-alignment are evolving and improving. While in the past this was due to a lack of GHG targets (just over half of all SLBs in 2022), the main reasons in H1 2023 were partial emission coverage in targets (37.8%), lack of GHG targets (35.4%), followed by partial alignment with the pathway (9.8%).
- While SLBs are very much the younger siblings of green bonds, and have had less time to mature, the need for urgency is clear: fundamentally, companies and governments need to develop transition plans and decarbonise rapidly to align with 1.5°C pathways.

The reasons for SLB non-alignment are evolving and improving



Source: Climate Bonds Initiative

Based on this, Climate Bonds has a call to action for all stakeholders in the SLB market: To get half of all SLB deals in 2023 in alignment!

Climate Bonds is ready to support all SLB issuers, their underwriters, their investors, and SPO providers, to achieve this target.

Case Study: Heathrow SLB

Thus far, we've seen many airports use the SLB format to raise financing: nine airports across 15 deals totalling USD4.2bn, mainly tied to GHG targets (73.3%). However, prior to Heathrow's issuance, none had included emissions in their target relating to the flights they enable.

Hallmark 1: Paris-aligned targets

Targets should be aligned with a sector specific, 1.5°C pathway; cover the short-, mid-, and long-term; and include scope 1, 2, and 3 emissions

As the first airport SLB to include emissions relating to flights, Climate Bonds celebrates the use of targets relating to all material sources of emissions for its sector, as well as the use of absolute emission reduction targets, rather than an intensity-based emission target. While Heathrow's On the Ground target is in line with SBTi's ACA pathway, the In the Air target is used for alignment with the TPI 1.5°C Airlines pathway, which requires a -39.6% reduction between 2019 and 2030. Unfortunately, as a result, this target and this bond, are categorised as Not Aligned. Nonetheless, Heathrow's leadership in using these targets is to be commended, and other Airport SLB issuers are strongly urged to include such targets.

Hallmark 2: Foundation

The company needs to have a coherent narrative for the future business model and asset base, identifying changes from the status quo, and actions to achieve this vision.

Heathrow published its transition plan in February 2022, which details a comprehensive transition narrative for its future and how it plans to achieve net-zero. These plans centre on changing processes and technologies, both in the air and on the ground, shaping their own behaviours as well as those of the airlines that operate at Heathrow. Optimistically, it does recognise the challenges it and the aviation sector as a whole will face in decarbonisation, and details a Plan B, should Sustainable Aviation Fuel (SAF) and plans for alternative fuel not commercialise in time. However, this Plan B unfortunately only contains the use of Carbon, Capture, Use and Storage (CCUS) to remove carbon from the atmosphere.

Hallmark 3: Implementation Action

Plans need to be 1.5°C-aligned, cover all material sources of emissions, and include respective financing plans.

Transition Plans: Heathrow's transition plan is divided into two: In the Air and On the Ground. The first plan is centred on optimising airspace and operational efficiency, more efficient conventional aircraft, fuel-switching to SAF, and R&D to prepare infrastructure for zero-carbon flights. The second plan is centred on switching airside and landside vehicles to EVs or zero-carbon vehicles, supply-chain engagement to decarbonise its upstream suppliers, and changes to its buildings and infrastructure. While it appears to be a best in class action plan, there are still notable question marks that remain, in particular about investments in new SAF infrastructure that will prolong the life of fossil fuel infrastructure, and its big bet on new, zero-carbon aircraft being ready for commercialisation soon. Nonetheless, if Heathrow is capable of delivering on its commitments, Climate Bonds will celebrate its emission reductions.

Financing Plans: Heathrow has dedicated £207m (USD265.4m) of capital to decarbonising its processes between 2022 and 2036. This is governed by the Carbon Programme Committee. Climate Bonds celebrates the use of dedicated capex to decarbonise the airport's business activities, but notes that this is a fraction of the £3.5bn total capex Heathrow dedicated to the same period.

Hallmark 4: Governance

Transition needs to be driven, owned, and monitored by senior leadership, with ongoing revaluation and recalibration.

Heathrow has clear and strong governance mechanisms to help drive its decarbonisation: the Board's dedicated subcommittee discusses sustainability issues quarterly; the Carbon and Sustainability delivery committee (which governs the aforementioned Carbon Programme Committee) drives forward each department's sustainability plans; and two executives (Chief of Staff and Carbon, Director of Carbon Strategy) have decarbonisation in their direct remit.

Hallmark 5: Disclosure

Transition KPIs and underlying methodologies need to be disclosed, and receive independent verification.

Heathrow discloses its figures and methodologies for its GHG emission data, including a detailed breakdown for sources of emissions, and emissions from different types of aircraft and operations. This is also assured by an external third party. It also provides a host of related environmental data, on areas including biodiversity and its supply chains.

Endnotes

1. https://www.bbc.com/news/business-66436582
2. https://www.businessinsider.com/companies-leaving-china-diversifying-supply-chains-apple-tsmc-mazda-2023-6
3. https://www.bloomberg.com/news/articles/2023-07-05/green-bonds-take-big-lead-over-fossil-fuel-debt-deals?cmpid=BBD070523_GREENDAILY&utm_medium=email&utm_source=newsletter&utm_term=230705&utm_campaign=greendaily&leadSource=uverify%20wall
4. Kingdom of Thailand, *Sustainable Financing Framework*, July 2020, KOT Sustainable Financing Framework.pdf (pdmo.go.th)
5. Ministerio de Economia y Financias, *Peru Sustainable Bond Framework*, July 2021, Peru_Sustainable_Bond_Framework.pdf (mef.gob.pe)
6. Climate Bonds Initiative *Social & Sustainability Bond Database Methodology,* August 2022, CBI-Social-and-Sustainability-Bond-Methodology-14092022.pdf (climatebonds.net)
7. Harrison, C., and Muething, L., *Sovereign Green, Social, and Sustainability Bond Survey*, Climate Bonds Initiative, January 2021
8. Climate Bonds keeps track of GSS+ debt through a combination of three different databases: the Green Bond Database (GBDB); the Social and Sustainability Bond Database (SSBDB); and the SLB and Transition Bond Database (SLBDB). Each database follows a specific screening methodology, which are living documents that evolve with the sustainable debt market. As of now, only the Green Bond Database Methodology and the Social & Sustainability Bond Database Methodology are publicly available. The SLBDB and associated methodology will be released in 2023.
9. The Green Bond Principles (GBP), Social Bond Principles (SBP), Sustainability Bond Guidelines (SBG), Sustainability-Linked Bond Principles (SLBP), and the Climate Transition Finance Handbook (together, "the Principles") outline best practices when issuing bonds serving social and/or environmental purposes through global guidelines and recommendations that promote transparency and disclosure, thereby underpinning the integrity of the market.
10. The IFC Guidelines for Blue Finance aims to provide a list of eligible use of proceeds to support private investments aligned with the Green Bond Principles and Green Loan Principles and contributing to Goals 6 and 14 of the United Nations Sustainable Development Goals — "Ensure availability and sustainable management of water and sanitation for all," and "Conserve and sustainably use the oceans, seas and marine resources for sustainable development."

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