Sustainable bond volumes resilient in Q2 despite tighter financial conditions

28 JULY 2022

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Summary

Global sustainable bond volumes totaled $225 billion in Q2 2022 despite market headwinds. Second-quarter volumes were down 19% from the second quarter of last year, but up a modest 2% from the first quarter of 2022. Across the four segments, there were $136 billion of green bonds, $34 billion of social bonds, $35 billion of sustainability bonds and $20 billion of sustainability-linked bonds (SLBs). Aggregate volumes totaled $447 billion in the first half of the year, a 21% decrease from H1 2021. Despite challenging financing conditions so far this year, sustainable bond volumes are down less than the broader market and represented 15% of global total issuance in the second quarter, the highest quarterly share on record. The sustainable bond market is therefore proving resilient, suggesting a high likelihood of a swift bounce in volumes once market conditions improve. We continue to forecast an increase in sustainable bond volumes in the second half of the year and maintain our expectations of around $1 trillion issuance for all of 2022.

Updates to International Capital Market Association (ICMA) Principles best practice documents will support SLB standardization and enhance market integrity. Following the annual general meeting of the ICMA Principles in June, ICMA announced the publication of new and updated documents that will support the continued maturation of the sustainable bond markets. These updates are largely refinements rather than material changes to the Principles themselves, although some of the new documents make significant strides in providing support to burgeoning market segments. For example, the updates around the SLB market – including an illustrative registry of over 300 key performance indicators (KPIs) and a supporting Q&A document – aim to address significant market concerns around the credibility of the instrument.

Emerging market (EM) sustainable bond outlook remains positive despite second-quarter issuance decline. Although EM sustainable bond volumes were fairly resilient in the first quarter of 2022 (at $34 billion), volumes slipped in the second quarter to $25 billion. For the first six months of the year, EM issuance totaled $59 billion, accounting for approximately 13% of global sustainable bonds, a share roughly in line with the first six months of 2021. Despite EM sustainable bond volumes trailing the record highs achieved in the second and third quarters of 2021, we expect the market will rebound as issuance conditions turn more favorable and sustainable development needs remain high in these economies.

Rapidly evolving policy and regulatory landscape to influence trajectory of sustainable bond market. Beyond the continued growth and diversification of sustainable bonds, there are many policy, regulatory and market-driven developments with implications for volumes. Notable developments in recent months include the classification of some nuclear and gas projects as eligible under the EU taxonomy, updates to the Common Ground Taxonomy, a US Supreme Court ruling on greenhouse gas emissions regulation and the European Central Bank tilting its corporate bond portfolio toward greener companies.
Global sustainable bond volumes totaled $225 billion in Q2 2022 despite market headwinds

Global issuance of green, social, sustainability and sustainability-linked (GSSS, or sustainable) bonds totaled $225 billion in the second quarter of 2022, down 19% from the second quarter of last year, but up a modest 2% from the $221 billion issued during the first quarter of this year (see Figure 1). Across the four segments, there were $136 billion of green bonds, $34 billion of social bonds, $35 billion of sustainability bonds and $20 billion of sustainability-linked bonds. The combined $225 billion represented the fifth-highest quarterly issuance of sustainable bond volumes on record, but the first quarter-on-quarter increase in volumes since the first quarter of 2021. Volumes across the four labels totaled $447 billion in the first half of the year, a 21% decrease from the $563 billion issued in the first half of the record-breaking 2021.

Figure 1  Sustainable bond issuance held up in Q2 2022 against backdrop of greater market volatility

Quarterly issuance of GSSS bonds since 2019, US$ billions

According to data from Dealogic, overall global bond volumes were approximately 26% lower in the first half of 2022 than during H1 2021, contributing to the lower volumes of labeled GSSS bonds. Despite global headwinds continuing to affect the bond markets, however, sustainable bond issuance is down less than the broader market in the first half of the year and represented 15% of global total issuance in the second quarter, the highest quarterly share on record. The sustainable bond market is therefore proving resilient in the face of challenging market conditions, suggesting that the trend of issuers linking their capital market financing activities with their sustainability objectives will persist. We continue to expect an increase in GSSS bond volumes in the second half of the year and are maintaining our revised forecast of approximately $1 trillion issuance for all of 2022, which would imply second-half issuance to be approximately 24% higher than the first half of the year. The forecasted $1 trillion in full-year 2022 volumes would be roughly flat compared with full-year 2021 issuance.

Green bonds rebounded to 2021 levels in the second quarter as European issuance surged

Green bond volumes rebounded strongly in the second quarter to $136 billion, 28% higher than the $106 billion issued in the first quarter of the year, and roughly in line with the second quarter of 2021 (see Figure 2). The $243 billion of green bonds in the first half of the year is 10% lower than the corresponding period last year, when green bond issuance more than doubled during a breakout year for sustainable bonds. We forecast that green bond volumes will continue to grow during the second half of this year but expect full-year volumes will remain flat compared with last year’s issuance at around $550 billion.

European issuers returned to the green bond market in force in the second quarter, with $87 billion accounting for 64% of the global total. This total represented a substantial 82% growth in issuance from the first quarter of the year, when European green bonds totaled just $48 billion, the lowest total since Q4 2020. Through the first six months of the year, European green bonds accounted for 55% of the global total, in line with the region’s 56% share of issuance during 2021. Asia-Pacific and North American issuers followed Europe with 21% and 10% of global issuance in the second quarter, respectively. The leading countries for green bond issuance through the first six months of 2022 were Germany with $32.5 billion (13% of the global total), the United States with $27.9 billion (11%), China with $26.3 billion (11%) and France with $17.3 billion (7%).
Second-quarter green bond issuance was diverse from a sectoral standpoint, with nonfinancial corporates holding a leading share of green bond issuance in the second quarter with $40 billion representing 29% of the global total (see Figure 3), a significantly lower leading share compared with 50% in the first quarter. Financial institutions accounted for 26% of issuance in the second quarter, in line with their first-quarter share, followed by sovereign issuers at 25%, a notable jump from just 8% in the first quarter. Nonfinancial corporates and financial institutions are leading green bond volumes through the first half of the year with $93 billion and $63 billion of issuance, accounting for 38% and 26% of the global total, respectively.

Leading issuers in the second quarter included the European Union ramping up its NextGenerationEU program with one of the largest green bond issuances at €6 billion in April 2022 contributing to the EU’s total $14.6 billion in issuance during Q2 2022. The EU was followed by the Government of the Netherlands with $5.2 billion in issuance, coming to market a second time as a sovereign issuer after its debut issuance in 2019, and the European Investment Bank, with $4.4 billion in issuance bolstered by its first Climate Awareness Euro-Area Reference Note in May 2022.

Social bond issuance moderated in the second quarter following first-quarter spike

Social bond issuance declined in the second quarter of 2022, in line with our expectations, as some of the segment’s largest issuers were less active in the market than in previous quarters following the winding down of pandemic-related programs. Issuance totaled $34 billion during the quarter, 30% lower than the first quarter of the year and 40% lower than the $56 billion issued during the second quarter of 2021 (see Figure 4). Although the social bond market experienced an uptick in the first quarter of 2022, the volumes experienced in the second quarter are more indicative of the current state of the market following the pandemic-fueled highs achieved during 2020 and 2021.

Key agency issuers continued to support the social bond market in the second quarter with issuances from CADES, Korea Housing Finance Corporation and Fannie Mae accounting for $15 billion, nearly half of total quarter issuance. Global social bond issuance stands at $82 billion through the first six months of the year, lagging the $149 billion issued in the first half of 2021 but eclipsing the $52 billion during the same period of 2020. We believe issuance will remain largely muted in the second half of the year given continued headwinds buffeting fixed income markets and the social bond segment being relatively more concentrated than other GSSS bond segments.

Social bond volumes have been largest in Europe so far this year, with issuers in the region accounting for over $40 billion in the first half of 2022, just below half of global issuance. Social bonds from Asia Pacific issuers come next with around $23 billion (28% of total), followed by North American issuers with around $14 billion in issuance (17% of total). There remains significant concentration in the market from a sectoral standpoint (see Figure 5) with agency issuance of around $45 billion in H1 2022 accounting for 55% of the global total. While we anticipate that social bonds will remain a viable alternative for issuers in many sectors, we expect volumes to remain lower in this space compared with the quarterly records achieved during the height of the pandemic given the relatively concentrated nature of the social bond segment and the reduced need for extraordinary social spending to counter the effects of the pandemic.
Sustainability bond issuance slowed in the second quarter but on track to reach $175 billion by year end

Sustainability bond issuance slowed in the second quarter with $35 billion of global issuance, dropping 13% from the first quarter of the year (see Figure 6). Second-quarter issuance was also down 36% from the nearly $55 billion issued during the second quarter of 2021, and the $75 billion of issuance through the first six months of the year is down around 30% from the $107 billion issued during the comparable period last year. Despite the relative softness in volumes during the first half of the year, a greater focus on broad corporate sustainability and issuers seeking to highlight both their environmental and social objectives will continue to support sustainability bond issuance moving forward. As such, we expected a rebound in issuance in the second half of the year and believe global issuance will approach $175 billion for all of 2022.

European issuers overtook supranational issuers to become the leading regional contributor to the sustainability bond market in the second quarter, with $12 billion of issuance accounting for 35% of the global total. Supranational issuers brought $8 billion to market in the second quarter and accounted for 23% of the total. There was a noticeable uptick in North American issuance in the second quarter, rising to $7 billion from just above $3 billion in the first quarter. Notable first-time issuers in the second quarter included American Express, which issued its debut $1 billion sustainability bond in May. Through the first six months of the year, supranational issuers lead with $21 billion (28% of the global total), followed by European issuers with $19 billion (25%), Asia-Pacific issuers with over $16 billion (22%) and North America issuers with $10 billion (14%).
Issuance continues to be diverse from a sectoral perspective as well, with nonfinancial corporates, municipal issuers and supranationals all accounting for at least 20% of global issuance in the second quarter, and collectively more than three-quarters of issuance (see Figure 7). The most notable increase in the second quarter came from municipal issuers, which brought more than $8 billion of sustainability bonds to market, up from under $1 billion in the first quarter. Municipal issuers were led by German state North Rhine-Westphalia, which brought an aggregate $3.7 billion to market in the second quarter.

Sustainability-linked bond issuance tempers in volatile market conditions after a breakout year in 2021
Sustainability-linked bond (SLB) volumes totaled $20 billion in the second quarter of 2022, a 31% decline from the first quarter of the year (see Figure 8). Despite the decline, however, issuance in the first six months of the year remained above the comparable period last year at just under $47 billion, 21% higher than the $39 billion in the first half of 2021. Despite heightened investor scrutiny of SLB targets and net zero commitments, SLBs continue to emerge as an instrument of choice for many issuers aiming to tap the sustainable bond markets while maintaining the flexibility of general corporate purposes borrowing. We anticipate growth in issuance will resume in the second half of the year, as there remains significant appetite from issuers to tie their organization’s funding to sustainability-related key performance indicators, especially when an issuer is unable to create enough green or social projects to warrant funding from a benchmark-sized use-of-proceeds bond.

European issuers remain the driving force behind sustainability-linked bond volumes, accounting for a leading 63% share of issuance in the second quarter with issuers in North America and Asia Pacific following with 16% and 15% share of market, respectively. For the first six months of the year, European issuers hold a strong 63% share of issuance followed by issuers in Latin America (14% of total), North America (11%), Asia Pacific (8%) and the Middle East & Africa (5%). Enel continues to be a leading issuer of SLBs with an aggregate $4.4 billion brought to market in the second quarter. Nearly all SLBs have been issued by non-financial corporates to date, with $143 billion of the cumulative $153 billion issued since 2019 (see Figure 9). In the second quarter of the year, however, issuance from financial institutions grew to $3.6 billion, accounting for an 18% share of the market, representing the most diverse quarter for SLBs from a sectoral standpoint.

We expect increasing diversification of issuers as the SLB market matures – as evidenced by the first sovereign SLB issuance from the Republic of Chile in the first quarter of 2022. Increased guidance from organizations such as the World Bank and International Capital Market Association (ICMA) may serve to encourage such diversification of issuers and standardization of best practices in the SLB market. For example, we discuss the updated SLB guidance and accompanying Q&A document from ICMA later in this report.
Updates to International Capital Market Association (ICMA) Principles best practice documents will support SLB standardization and enhance market integrity

Following the annual general meeting of the ICMA “Principles” – the Green Bond Principles (GBP), Social Bond Principles (SBP), Sustainability Bond Guidelines (SBG) and Sustainability-Linked Bond Principles (SLBP) – in June, ICMA announced the publication of new and updated documents that support the continued growth and maturation of the sustainable debt markets. These initiatives are aimed at supporting the market’s integrity and fostering its long-term development, as concerns around the quality of some sustainable bond instruments has grown alongside sustainable bond volumes. As the market has continued to evolve, the number of resources provided by ICMA to assist market participants has multiplied, as seen in Figure 10 below.

The updates published in June are largely refinements rather than material changes to the Principles, although some of the new documents make significant strides in providing support to burgeoning market segments. For example, the updates around the SLB market – including an illustrative registry of over 300 key performance indicators (KPIs) and a supporting Q&A document – aim to address significant market concerns around the credibility of the instrument. Other key updates include additional definitions and clarifications of market best practices for green securitizations, an updated climate transition finance methodologies registry and guidance for external reviewers surrounding climate transition finance. These annual updates and additional guidance will assist continued market development while maintaining the core tenets of the best practices established to date.

The guidance documents and updates published by ICMA in June include the following:

» Publication of illustrative examples for the selection of KPIs for sustainability-linked bond issuers, underwriters and investors, guidance that constitutes a non-exhaustive and exemplary registry of sustainability-linked bond KPIs. The registry includes 300 KPIs that are mapped to sectors and/or sub-sectors and are categorized as “Core” or “Secondary” based on their relevance to different sectors. The updated SLB guidance also includes a Q&A document that aims to address market concern over the integrity of SLB instruments and describes best practices in determining KPI materiality and sustainability performance target (SPT) ambition, ensuring the meaningfulness of adjustments to SLB financial characteristics (e.g. around callable bonds), and the use of external market and official sector initiatives in structuring SLBs.

» Release of new definitions for green securitization (Secured Green Collateral Bond, Secured Green Standard Bond), clarifying terminology and market practice, notably for collateral. A Q&A has been published alongside the definitions, in addition to similar guidance relating to social bond securitization. These updates should provide clarity to a still-nascent market, setting the stage for further growth in labeled thematic securitizations over time.

» An update to the registry of Climate Transition Finance (CTF) methodologies containing a list of tools to assist market participants in validating emission reduction trajectories/pathways as “science-based.” Similarly, in order to guide the assessment of alignment with the existing Climate Transition Finance Handbook (CTFH), ICMA published an update to the Guidelines for External Reviews. Given the focus on climate mitigation financing, both in the use-of-proceeds and sustainability-linked markets, the registry should facilitate the robust evaluation of credible transition pathways.

» An update of the Pre-Issuance Checklist for Green Bonds/Green Bond Programmes, which aims to guide on the steps to establishing a green framework or bond in accordance with the Green Bond Principles. Despite the growth of the sustainable debt markets, there remains untapped potential for new issuers, many of which will need technical support to launch their debut sustainable bonds.

» Publication of Suggested Impact Reporting Metrics for Environmentally Sustainable Management of Living Natural Resources and Land Use, and an enriched list of social indicators and impact confirmation on target population, documents that provide core indicators and reference reporting templates for both green and social eligible project categories. These add to the collection of documents already provided by ICMA that aim to enhance the robustness and comparability of impact reporting.

» Publication of a Green, Social, and Sustainability Bond Index Service Mapping Supporting Paper for providers of such indices, with guidance for interactions between index providers and data providers and the flow of information from issuers to data providers and index providers. The guidance document aims to support and encourage transparency of information on impact reporting, index criteria, benchmarking methodologies and exclusionary criteria. The paper was accompanied by a proposed information template for Green, Social, and Sustainability Bond Index Service Mapping.

» Update to the Green, Social and Sustainability Bonds: A High-Level Mapping to the Sustainable Development Goals with mapping of 16 of the UN SDGs to closely associated GBP and/or SBP categories and example indicators for such projects.
Emerging market sustainable bond outlook remains positive despite fall in second-quarter issuance

Broader fixed income market conditions have adversely impacted sustainable bond volumes so far in 2022, as the Russia-Ukraine military conflict has impaired global economic growth prospects, stoked existing inflationary pressures and heightened the prospects for accelerated monetary policy tightening. Although emerging market (EM) sustainable bond volumes were fairly resilient in the first quarter of 2022, volumes slipped in the second quarter to $25 billion, down from the $34 billion issued in Q1 2022 (see Figure 11). For the first six months of the year, EM issuance totaled $59 billion, accounting for approximately 13% of global sustainable bonds, a share in line with the first six months of 2021. Despite EM sustainable bond volumes trailing the record highs achieved in the second and third quarters of 2021, we expect the market will rebound as issuance conditions turn more favorable.

Green bond issuance by EM issuers totaled $19 billion in the second quarter of 2022 while social bonds and sustainability bonds totaled $0.3 billion and $2.3 billion, respectively. SLBs totaled $3 billion in the second quarter of 2022, the lowest volume for the instrument in EMs since the first quarter of 2021. Green bonds accounted for 77% of all EM GSSS bonds in the second quarter, reaching the highest share of EM issuance since the second quarter of 2020 – a sign that green bonds remain the main driver of the EM sustainable bond market. Although green bonds will remain the largest contributor to EM GSSS bond volumes over the next few years, similar to the broader sustainable bond market, other sustainable bond types will continue to flourish as EM issuers seek to finance a wider array of environmental and social projects. The breakout in SLB issuance observed in recent quarters – albeit hitting a speed bump in the second quarter – will also likely continue given the challenges that some EM issuers face in having sufficient eligible projects to support benchmark use-of-proceeds sustainable bonds.
Emerging market sustainable bond issuance slowed in the second quarter of 2022

Quarterly issuance of EM GSSS bonds since 2019, US$ billions

From a regional standpoint, Asia Pacific issuers led EM volumes in the second quarter with a 75% share of issuance with just under $19 billion, a modest increase from the $18 billion issued in the first quarter of 2022 (Figure 12). Chinese GSSS bond issuance remained the largest component of EM issuance in the second quarter of 2022 at 62% of total. And while we have seen strong issuance from regions such as Latin America in recent quarters, volumes in that region decreased to around $3 billion in the second quarter from $12 billion last quarter. We expect a trend of regional diversification to continue over time as a more diverse array of issuers come to market across the globe, especially in markets that have not been historically active in the sustainable bond space.

Financial institutions led from a sectoral perspective and accounted for $16 billion of EM sustainable bonds in the second quarter of 2022, an increase of 45% from the first quarter of the year. EM issuance volumes decreased in other sectors with non-financial corporates at $7 billion, down from $16 billion in the first quarter, while EM sovereigns issued $2 billion in the second quarter of 2022, down from around $8 billion in the first quarter.

Chinese sustainable bonds continue to drive EM volumes while overall market faces headwinds

Q2 2022 issuance of emerging market GSSS bonds, regional share (%)

Note: China accounts for 62% of total issuance from emerging market issuers.
Sources: Moody’s ESG Solutions, Environmental Finance Data
Despite the decline in EM issuance in the second quarter, we believe the surge in EM sustainable bond volumes observed in 2021 will return in coming years, as issuers in these markets tend to carry relatively higher exposures to environmental, social and governance (ESG) risks and have significant sustainable development needs. Developing economies, for example, tend to be more highly exposed to the effects of physical climate change. Efforts to meet national net-zero commitments will also increase carbon transition risk for the most exposed issuers in emerging markets. A sharp increase in sustainable debt issuance will be critical to finance the carbon transition in emerging markets, which are projected to account for the largest source of energy demand growth under all emissions pathways.

**Rapidly evolving policy and regulatory landscape to influence trajectory of sustainable bond market**

Beyond the continued growth and diversification of sustainable bonds, there are a plethora of policy, regulatory and market-driven developments with implications for volumes going forward. Some notable developments in recent months include:

- **Approval of some nuclear and gas projects as eligible under the EU taxonomy**: In early July, the EU parliament approved the inclusion of certain nuclear and gas projects as eligible under the EU’s sustainable finance taxonomy, paving the way for the adoption of the relevant criteria beginning early next year. The parliamentary vote follows months of debate among EU representatives who were divided around the suitability of such projects under the bloc’s taxonomy. Differing views in the market around the sustainability of certain projects highlights how potential fragmentation of taxonomies across different regions could pose a challenge for investors operating at a global level. This was further evidenced by recent news that the Korean Ministry of Environment will include nuclear power in the K-Taxonomy in September, while the newly published ISO green taxonomy excludes nuclear projects and only includes gas projects utilizing carbon capture and storage. While the debate around these project categories is likely to continue, there are already signs that nuclear in particular may represent a growing share of the sustainable debt markets moving forward, as evidenced by transactions from Canadian firms Bruce Power and Ontario Power Generation, and suggestions from ICMA that nuclear may represent more than 10% of green energy bonds.

- **Updates to Common Ground Taxonomy (CGT) published**: In June, the International Platform on Sustainable Finance published updates to the CGT, a project that seeks to identify commonalities and differences among the taxonomies developed by the EU and China. The updated version of the CGT covers 72 climate change mitigation activities that share commonalities between the EU sustainable finance taxonomy and the China green bond endorsed project catalogue, with regard to the “substantial contribution” criteria. The updated version of the CGT only covers the climate change mitigation objective while other environmental objectives will be progressively covered in the future. While the CGT is not a legal document and does not aim to represent a single global standard, it is an important step in considering comparability and interoperability of global existing taxonomies. The CGT appears to be gaining some traction in the market as a helpful tool for market participants, with the Bank of China (Frankfurt Branch) issuing a $500 million transaction in June reported to be the world’s first-ever debt instrument issued in accordance with the updated CGT.

- **US Supreme Court ruling on the Environmental Protection Agency’s (EPA) ability to regulate greenhouse gas emissions**: On June 30, the US Supreme Court issued a ruling that places limits on the federal government’s ability to regulate greenhouse gas emissions from power plants. Under its decision, the Supreme Court ruled that the 50-year-old Clean Air Act does not give the EPA authority to cap carbon dioxide emissions at a level that will force a nationwide transition away from coal-fired power. Instead, Congress would need to pass legislation explicitly allowing the EPA to enact regulations with such a wide-ranging impact, an unlikely outcome given the lack of political consensus on climate policy in Congress. Utilities and companies in other carbon-intensive sectors will likely continue to implement already-established carbon transition plans given growing pressures from investors, consumers and some stringent state-level regulations, suggesting some degree of resilience in US sustainable bond volumes. However, the Supreme Court’s ruling may impair more ambitious climate policy at the federal level, raising the risk of a delayed carbon transition in the US.

- **European Central Bank (ECB) aiming to shift its bond portfolio toward greener companies**: In early July, the ECB announced plans to adjust corporate bond holdings to introduce climate-related disclosure requirements and to enhance its risk management practices. Under the plan, which is set to take effect from October 2022, the ECB aims to gradually decarbonize its corporate bond holdings on a path aligned with the goals of the Paris Agreement, and will tilt these holdings towards issuers with better climate performance, including lower greenhouse gas emissions, more ambitious carbon reduction targets and better climate-related disclosures. With the plan, the ECB aims to incentivize issuers to improve their disclosures and reduce their carbon emissions in the future, which could be a boon for sustainable bond volumes over time as issuers aim to align with these best practices.
Appendix

Sustainable debt instruments defined
Throughout this report, we refer to a variety of sustainable debt instruments. These include: use-of-proceeds green bonds, social bonds and sustainability bonds, whose proceeds are typically earmarked to finance specific eligible environmental and/or social projects; and sustainability-linked bonds, whose proceeds can typically be used for general corporate purposes but whose interest rates are tied to the achievement of various sustainability targets. These instruments include:

» **Green bonds**: Bonds where the proceeds will be exclusively applied to finance or refinance new and/or existing eligible green projects, such as renewable energy, energy efficiency, clean transportation, sustainable water management and green buildings. Typically issued in accordance with the [Green Bond Principles](https://www.greenbondprinciples.org).

» **Social bonds**: Bonds where the proceeds will be exclusively applied to finance or refinance new and/or existing eligible social projects, such as affordable basic infrastructure, access to essential services, affordable housing and food security. Typically issued in accordance with the [Social Bond Principles](https://www.sustainablefinance.net/sbp/sbp-sustainable-bond-principles).

» **Sustainability bonds**: Bonds where the proceeds will be exclusively applied to finance or refinance a combination of new and/or existing eligible green and social projects. Typically issued in accordance with the [Sustainability Bond Guidelines](https://www.sustainabilitybonds.org).

» **Sustainability-linked bonds**: Bonds that incentivize the issuer’s achievement of material, quantitative, predetermined, ambitious, regularly monitored and externally verified sustainability objectives through Key Performance Indicators and Sustainability Performance Targets. Typically issued in accordance with the [Sustainability-Linked Bond Principles](https://www.sustainabilitylinkedbonds.org).

Note on our sources
Our primary source for sustainable debt data throughout this report is [Environmental Finance Data](https://www.environmental-finance.com), with such data referenced in this report downloaded as of 15 July 2022.
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