Rethinking bonds: how bond financing can advance circularity

Building a better working world

Contents

Authors

Mark Weick, Nicole Ray

Contributors

Elizabeth Tual, Kristin Bianca, Lorraine Jiang, Litzy Gastelum Arguelles and Niklas Ugalde

The circular economy (CE), a systems-based framework grounded in extending lifecycles and recovering materials for reuse, has the potential to unlock $4.5t worth of economic opportunities.[1] A transition away from linear models generates multiple societal benefits, including job opportunities, supply chain resilience and major reductions in greenhouse gas emissions.[2] However, major investments are needed to drive this transition.

With the ever-growing stakeholder sentiment and scrutiny around environmental, social and governance (ESG) topics, the notion of sustainable financing has become mainstreamed. The sustainable finance market is estimated to exceed $50t by 2025, representing over a third of global assets under management.[3]

Current discourse on green financing centers on decarbonization, to which many circular initiatives contribute. While CE champions may spearhead the ecosystem transition with designated funding, a wider suite of market participants can be mobilized to contribute toward systemic changes through embedding circularity into existing initiatives, financial products and workstreams. One such instrument that can be leveraged to finance circularity is bonds.

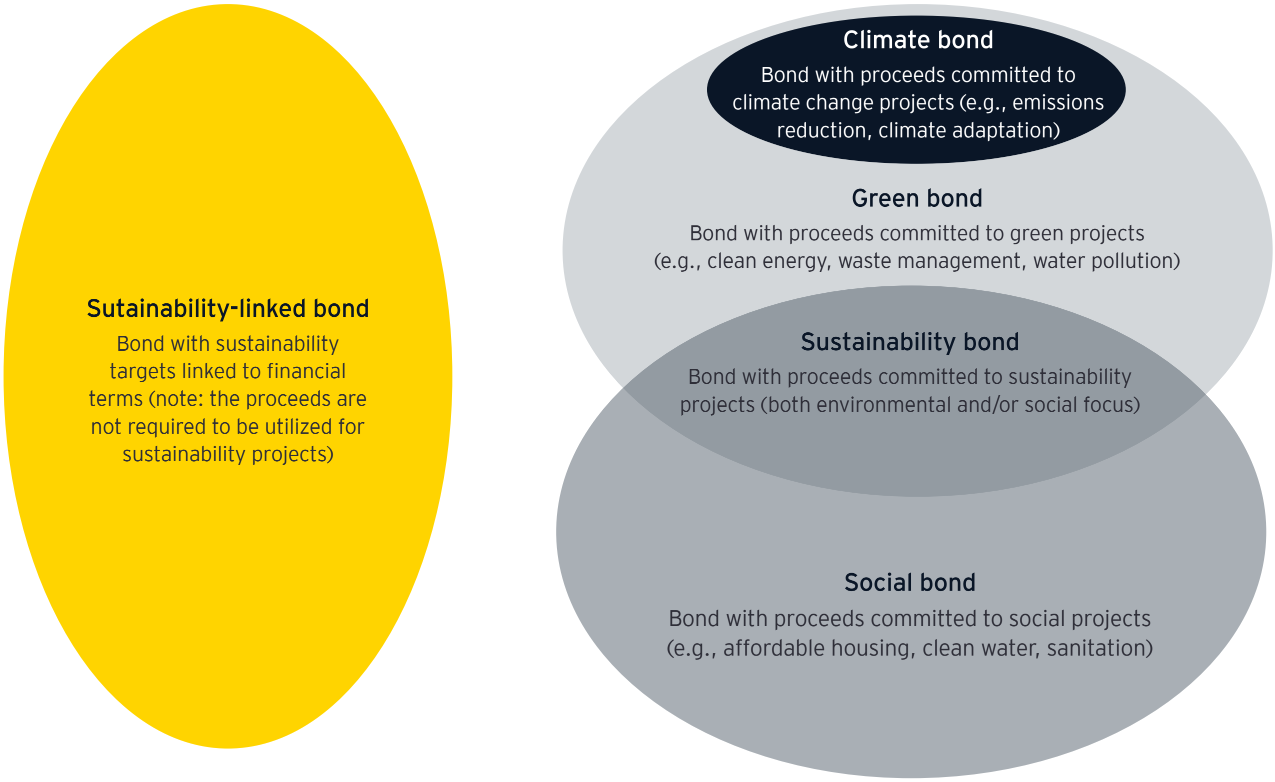
The sustainable bond market lends us a viewpoint to explore how the growing sustainable finance market can be tapped to support the capital needs for a circular transition. By building this understanding, the finance industry and businesses can continue to assess the applicability of other sustainable finance instruments toward circularity.

Bonds as sustainable finance instruments

Sustainable bonds have various objectives

Over the past decade, bond instruments have evolved to accommodate increasing investor and business interest around ESG, which has resulted in the emergence of various sustainable bonds, such as green bonds (including climate bonds), social bonds, sustainability bonds and sustainability-linked bonds. The proceeds of these bonds are earmarked for sustainability projects, with the exception of sustainability-linked bonds, whose financial terms are linked to the achievement of predetermined sustainability targets.

Exhibit 1: Sustainable bond types



The growing interest in ESG has resulted in the emergence of sustainable bonds that have different impact criteria and areas of focus.

The sustainable bond market is poised for growth

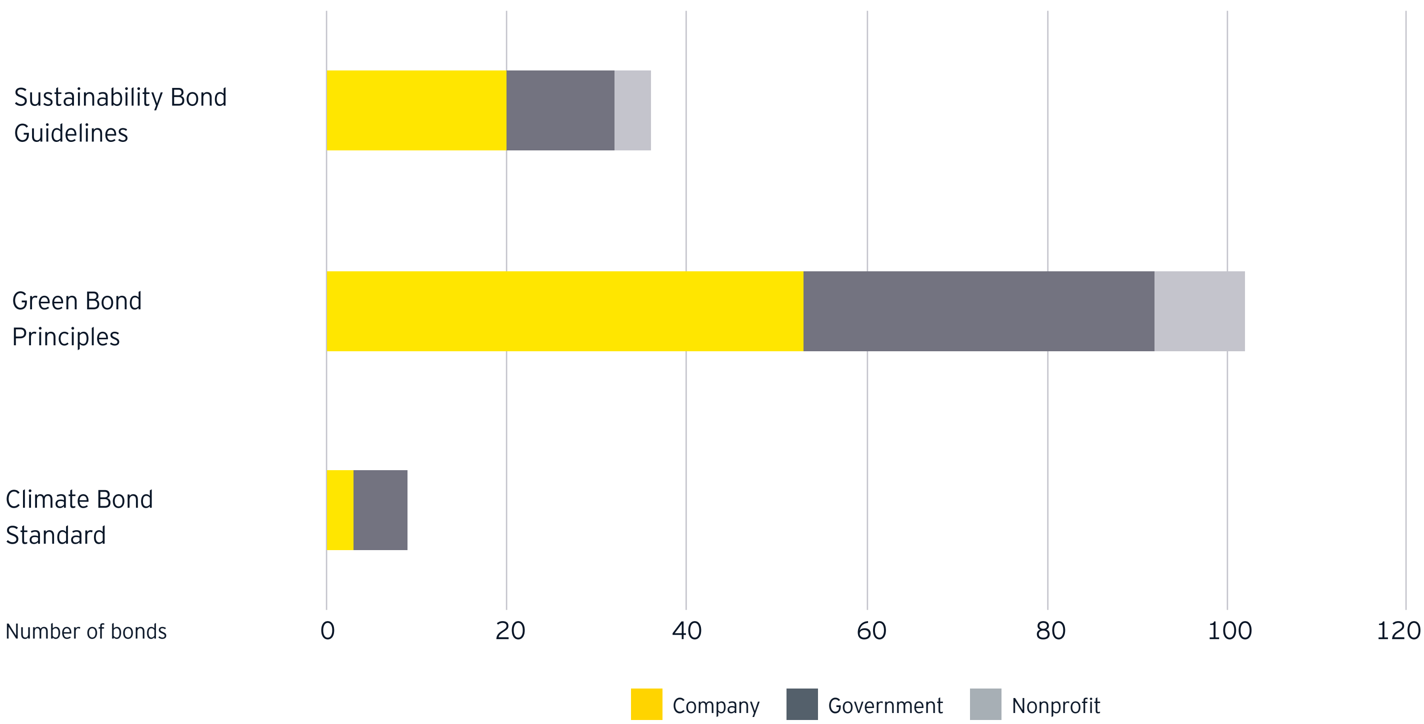
The cumulative value of green bond issuances in the United States exceeded $334b in the first half of 2022, with $90b issued in 2021 alone.[4] Similarly, sustainable bonds have grown exponentially in the United States over the past decade, reaching over $54b in cumulative value by 2022, of which $28b was issued in 2021. Based on historical growth rates, we could expect two to three times growth in the cumulative US green bond market by 2025 and a potential seven to eight times growth of the US sustainable bond market over the same period.

Financing the CE transition with bonds

Voluntary guidelines and standards are frequently used by bond issuers

Following the rapid market growth and a lack of clear regulatory requirements on sustainable bonds, various voluntary guidelines and standards (e.g., Green Bond Principles, Sustainability Bond Guidelines, Climate Bond Standard) have emerged to standardize eligible impact areas. By analyzing over 135 company-specific bond frameworks and impact reports for green and sustainability bonds issued in the US between 2015 and 2022 from the International Capital Market Association (ICMA) database,[5] we found that most bond frameworks in the United States align with the Green Bond Principles, followed by the Sustainability Bond Guidelines and the Climate Bond Standard.

Exhibit 2: Bond issuances by framework referenced



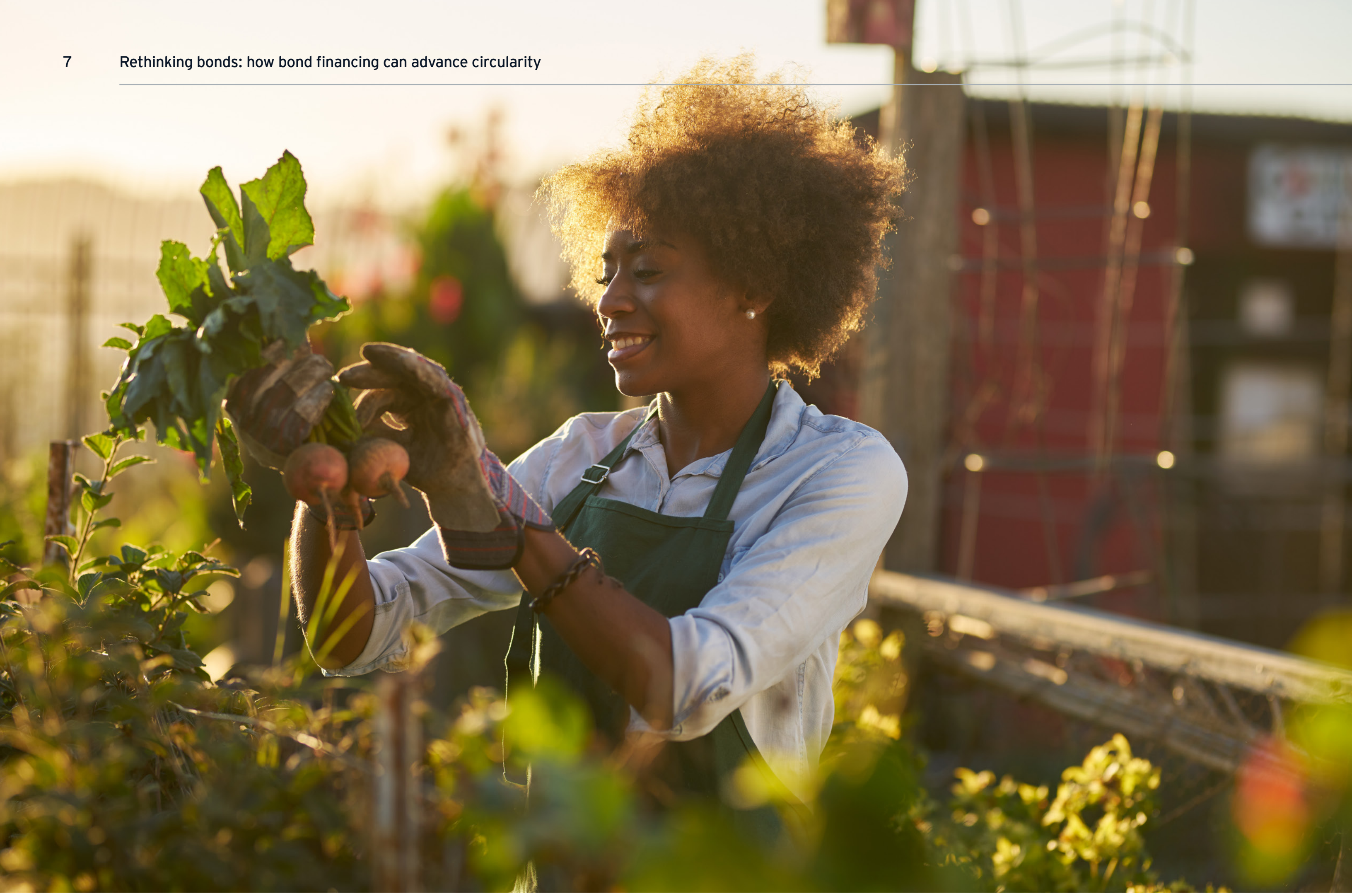
Most bond frameworks in the United States adhere to the Green Bond Principles as their primary alignment, with the Sustainability Bond Guidelines and the Climate Bond Standard being followed as secondary standards.

Most sustainable bonds directly or indirectly contribute to circularity

To understand the contribution of sustainable bonds toward circular systems, we analyzed company-specific bond frameworks and impact reports across all 135 bonds in the ICMA data set. Among the commonly seen use of proceeds (UoP) categories, Circular Economy, Pollution Reduction and Other have the most detailed eligibility criteria fully aligned to the CE, such as use of circular materials, landfill diversion and habitat restoration. Renewable Energy, Energy Efficiency and Transportation criteria mostly contribute to CE (e.g., via mass transit). The complete results of our alignment analysis can be found in Exhibit 3.

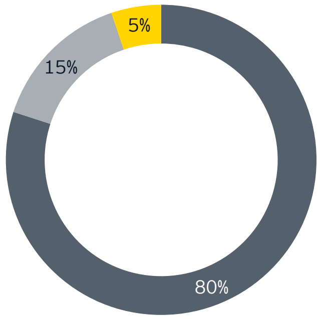
Exhibit 3: CE alignment per UoP category among surveyed bonds and examples of fully aligned eligible projects

Different sectors exhibit various levels of alignment and contributions to circularity when it comes to green bonds.



At the bond level, we found that 80% of the surveyed bonds have eligibility criteria that contribute to building more circular systems, while only 5% of the surveyed bonds have all eligibility criteria in full alignment* with the CE. The results illustrate the vast potential of aligning sustainable bonds more effectively with CE practices.

Exhibit 4: CE alignment of surveyed bonds across UoP categories



Full alignment	Proceeds are used for CE-aligned activities.
Contributing	Proceeds are partially used for CE-aligned activities or fully used for activities that contribute to CE.
No alignment	Proceeds do not directly or indirectly benefit a CE transition.

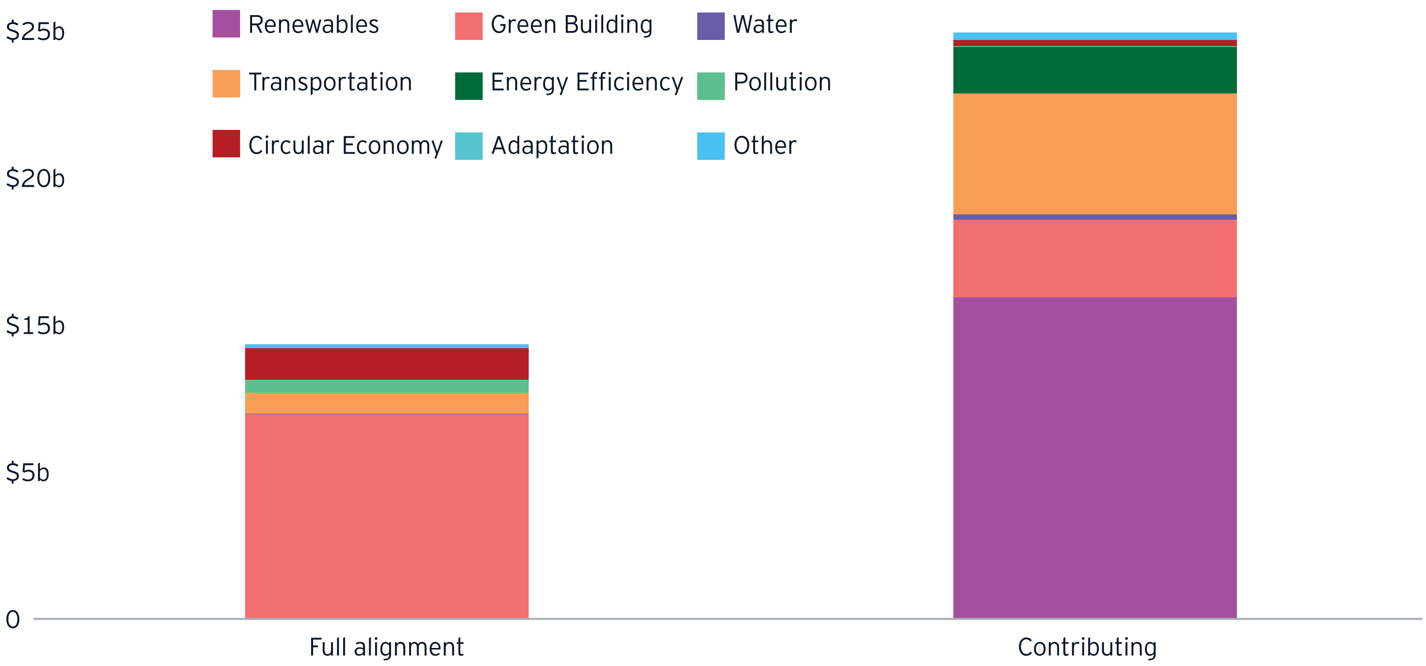
The findings of the analysis demonstrate the significant opportunity to enhance the alignment between sustainable bonds and circular economy practices.

* "Full alignment" indicates that projects directly transform a system into a circular model (e.g., reuse of materials, soil remediation); "Contributing" signifies that eligible projects boost circularity from a linear system but are not sufficient to achieve desirable circularity by themselves (e.g., renewable energy, landfill methane capture); "No alignment" denotes that eligible projects do not directly or indirectly benefit a CE transition.

CE-aligned funding targets specific elements of the transition

Based on publicly available reports, at least $37b of the $55b raised for surveyed bonds has been allocated and disclosed at the time of our research. For CE-aligned projects, approximately $11b, or 20%, of the total analyzed proceeds were in full alignment with the CE, while $24b, or 43%, of the funds contributed to circularity practices. Among the $11b in proceeds fully aligned to the CE, about 74% were allocated to green building projects, 12% to circularity projects and 8% to transportation projects. Our findings show significant opportunity to align highly funded projects, such as renewable energy and transportation, with circular principles. In addition, increased funding for CE-specific projects could enable alignment of UoP with CE principles.

Exhibit 5: Bond amounts allocated across UoP categories by CE alignment



The majority of CE-aligned funding from bonds has been allocated to Green Buildings. While Renewables projects received the largest amount of capital, all projects being financed contribute to circularity only partially.

Challenges

Existing bond guidelines and standards are not firmly aligned with CE practices

While existing sustainable bond guidelines and standards address aspects of the CE, they may not be conducive to developing financial instruments that encourage a CE transition. Existing guidance broadly outlines "green" or "sustainable" activities, which reduce environmental impacts without necessarily contributing to a circular economic system. For instance, a waste-to-energy project may increase renewable energy capacity, thus considered "green," but such a project sustains a linear resource flow.

Furthermore, while some guidelines outline eligible activities and indicators under a CE category, they focus extensively on circularity in the technosphere–the human-made environments. This limits the critical circular aspects of the biosphere, the natural systems providing resources and services such as purified water. For instance, a CE will require the use of materials and stocks derived from the biosphere, which necessitates regeneration for closed loop cycles.

Based on the limited definition of CE in existing guidelines and standards, caution is expected to be applied by stakeholders when utilizing these frameworks for circular financing. Due to public outcry of greenwashing from some green bonds, skepticism persists on the impact of green bonds.

US regulation on sustainable finance is lagging other jurisdictions

In the United States, sustainable investments and disclosures are largely governed by voluntary, private sector-led processes, protocols and norms. In response to feedback from stakeholders, the SEC's actions are predicted to be cautious, concentrating on safeguarding ESG investors via the constrained lens of financial materiality with a limited focus on circularity. The limited regulatory guidance in the US on sustainable finance reflects a level of immaturity in integrating circularity in financial mechanisms and leaves investors to their own devices.

In contrast, the EU is taking a methodical and prescriptive approach to climate change and sustainability disclosure. Companies that fall under the Corporate Sustainability Reporting Directive (CSRD) purview will have to conduct a double materiality assessment. As such, businesses that have a significant impact on resource use and waste will have to take accountability for impact and be obliged to have conversations about CE transition and associated financing options. In addition, EU legislators are successfully advancing the creation of an EU Green Bond Standard, which would provide harmonization across the sustainable bond market.

As part of the largest economy, US regulators can generate tremendous impact in creating conducive market conditions to support sustainable financing. Collaborations with other countries and regions on relevant matters, such as harmonizing the definitions of sustainable activities, are important to building cohesion and efficiency in the global financial market, thus funneling more funds into the critical, time-sensitive projects in response to climate change and material depletion. Such collaborations include creating a dialogue in circularity's role in emerging changes in finance.

Stakeholders can drive a path forward for CE finance

Transitioning to a CE likely requires systematic change and financing on each element of the system. Consequently, return on investments for circular projects may be augmented with complementary initiatives that bolster other parts of a circular system. Conversations and constructive collaborations should be started among market participants to bring clarity and synergy into the process.

As noted in Circular Economy: Navigating the evolving global policy landscape, rapid shifts in policy on circularity are underway. Governmental action is expected to hold a key role in the circularity transition by providing standards for transparency around sustainable financial instruments, including green bonds.

As the legislative progress may be lengthy, bond issuers and underwriters should champion circular finance by defining, monitoring and disclosing third-party-verified, CE-related UoP and KPIs while proactively engaging policymakers and industry organizations toward the development of an aligned, more prescriptive framework.

[1]van Houten, Frans and Ishii, Naoko, "It's time for the circular economy to go global - and you can help," *World Economic Forum*, 24 January 2019.

[2]"Completing the picture: How the circular economy tackles climate change," Ellen MacArthur Foundation, 2021, ©2021 *Ellen MacArthur Foundation*.

[3]"ESG assets rising to $50t will reshape $140.5t of global AUM by 2025, finds Bloomberg Intelligence," *Bloomberg*, 21 July 2021.

[4]"The Climate Bonds Interactive Data Platform," *Climate Bonds Initiative*, 2022 (accessed via www.climatebonds.net15 February 2023).

[5]"Sustainable Bonds Database," *International Capital Markets Association*, 2023 (accessed via www.icma.org, 27 February 2023).

EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

2306-4269530
ED None

ey.com