

Labeled Bonds: Quarterly Market Overview Q2 2023

August 2023





Jakub Malich
Vice President, MSCI Research



Anett Husi
Analyst, MSCI Research

Contents

Executive summary4

Introduction.....5

Labeled-bond issuance and market statistics5

 Bond characteristics 6

 Label type 6

 Currency..... 8

 Issuer characteristics..... 8

 Issuer type 8

 ESG profile..... 12

 Geographic overview 13

 Performance overview 15

Conclusion17

Appendix18

Executive summary

In our quarterly series dedicated to [labeled bonds](#), we break down the latest issuance trends and the overall market by multiple bond and issuer characteristics to identify key developments in this rapidly growing and increasingly diverse market.¹

Key takeaways for Q2 2023:

- The market added USD 172 billion (net) worth of labeled bonds during the second quarter of 2023, bringing the total outstanding amount to USD 3.2 trillion at the end of the quarter.² Looking at issuance trends over the last five years, we estimate full-year issuance for 2023 between USD 0.8 and 1 trillion, subject to market conditions which may be stressed by the possibility of recession in several major economies.
- Green bonds continued to dominate the market, accounting for 67% of new issuance and 55% of all outstanding labeled bonds. They were followed by sustainability bonds (15% of issued, 19% of outstanding), social bonds (13% of issued, 20% of outstanding) and sustainability-linked bonds (5% of issued, 6% of outstanding).³
- In line with a long-term trend, around 90% of the newly issued labeled bonds were denominated in just three currencies – EUR (44% of all), USD (24%) and CNY (14%).
- Corporate issuers brought USD 119 billion worth of labeled bonds to the market (53% of total) during the quarter, while supranational, sovereign and agency (SSA) entities issued USD 105 billion (47%).
- ESG leaders (issuers with MSCI ESG Rating of AAA or AA) issued 44% of all new labeled bonds, while ESG laggards (MSCI ESG Rating of B or CCC) issued only 2%. This was in line with longer-term issuance trends, as 44% of all outstanding labeled debt on the market belonged to ESG leaders vs. 3% to ESG laggards at the end of the quarter.
- Cumulative labeled-bond issuance at a regional level can be used to assess a market's efforts in financing the transition to a low-carbon economy. Markets lagging in issuance may either need to increase issuance or use other means of financing their transition. Issuers based in Europe, the Middle East and Africa (EMEA) dominated the market and those in Asia-Pacific (APAC) lagged.
- Labeled bonds' year-to-date performance largely copied the wider bond market (with more pronounced movements during market upturns and downturns) and was primarily driven by traditional fixed-income risk and return drivers.

¹ Based on Refinitiv Eikon data, as of June 30, 2023. Labeled bonds used in this report have not been assessed by MSCI ESG Research. The categorization is based on the assessment available on Refinitiv Eikon and includes bonds flagged as green, blue, pandemic, self-certified green, social, sustainability, sustainability-linked bonds (SLB) and vaccine. We aggregated these types into four main categories used in the report: green, social, sustainability and SLB. The objective of this report is not to provide a qualitative assessment of the individual labeled bonds, but to display high-level market trends.

² Presented data is subject to reclassifications, so there can be discrepancies with data presented in previous editions of the report.

³ Refer to footnotes on pages 6 and 7 for the definition of each labeled-bond type used in the report.

Introduction

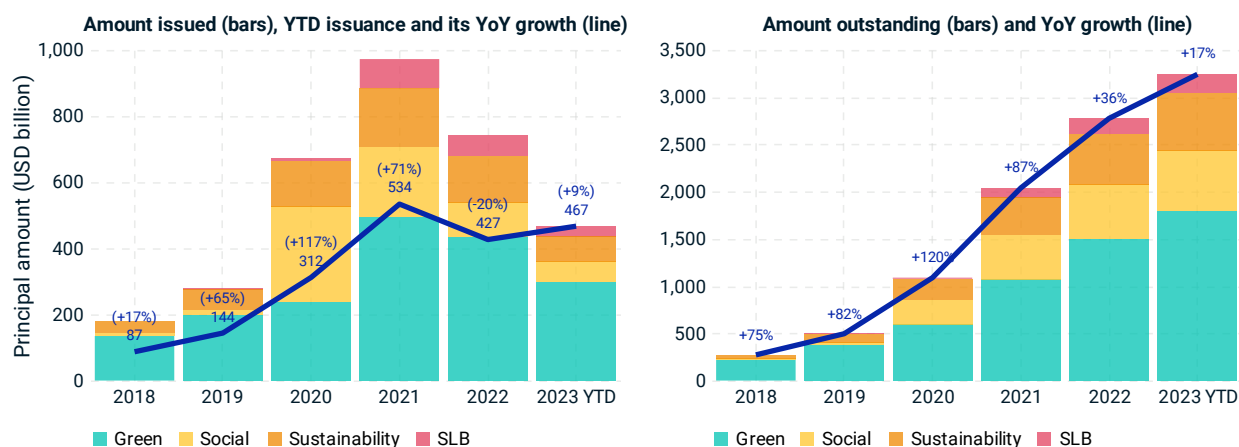
The labeled-bond market brings together issuers that may wish to raise capital to finance various environmental and social commitments and build rapport with ESG and sustainability-oriented investors. In turn, these investors tend to look for opportunities to expose their portfolios to projects that accelerate, for example, the transition to a low-carbon economy. Labeled bonds offer one avenue of adding such exposure to a portfolio without markedly altering its credit characteristics. This is because, all else equal, labeled bonds offer credit risk similar to conventional bonds from issuers of comparable credit quality (excluding instruments with embedded links to performance indicators or those that provide direct exposure to the funded projects, the bond's repayment obligation does not vary with the projects' success or failure).⁴ A limitation for investors is that many self-labeled bonds haven't been [assessed independently for their alignment with recognized external frameworks](#) and may have little to no contribution to sustainability-related investment objectives.

Labeled-bond issuance and market statistics

The market added USD 172 billion (net) worth of labeled bonds during the second quarter of 2023, which brought the outstanding principal amount of labeled bonds on the market to USD 3.2 trillion.⁵

After a very strong Q1 2023, gross issuance decreased 7% quarter-over-quarter (QoQ) in Q2 2023, but it was up 12% year-over-year (YoY) and cumulative H1 2023 issuance was up 9% YoY (Exhibit 1).

Exhibit 1: Gross labeled-bond issuance and amount outstanding (last five years and year to date)



Data as of June 30, 2023. YTD = year to date. Source: Refinitiv, MSCI ESG Research

⁴ "Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds." International Capital Market Association (ICMA), June 2021 (with June 2022 Appendix 1).

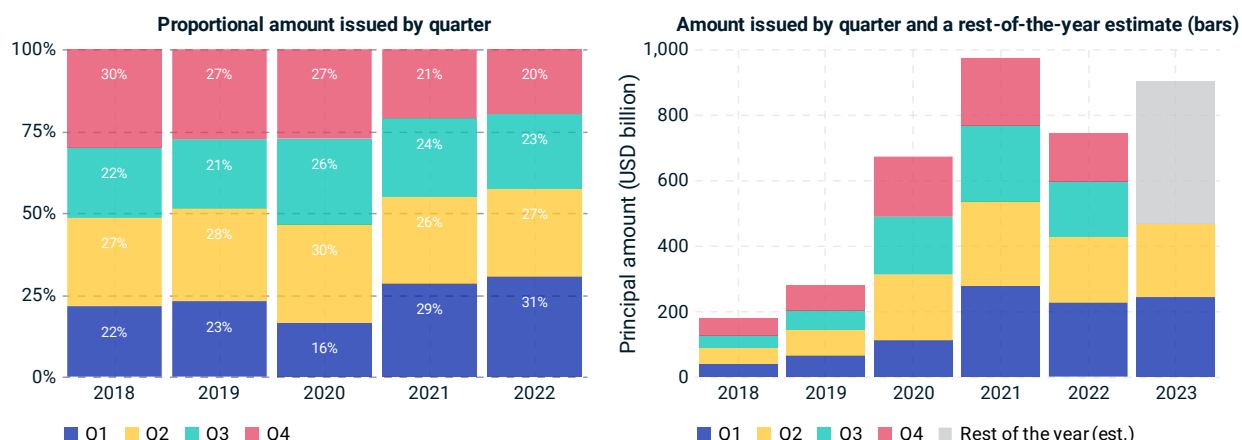
"Sustainability-Linked Bond Principles: Voluntary Process Guidelines." ICMA, June 2023.

⁵ Only bonds with a principal amount equal to or higher than USD 100 million were included in the report. Matured or called bonds were mostly excluded from data and charts (except sections focused on cumulative issuance), as the focus is on labeled debt available to investors as of the report date.

Looking at the issuance trends over the last five years, on average, 52% of the annual issuance came in the first half of the year (with a standard deviation of 5%). If this trend holds, the market could add around USD 0.9 trillion (estimated range of USD 0.8 to 1 trillion) of labeled bonds in 2023. As new issuance slowed in Q2, this estimate was down from USD 1 trillion (USD 0.9 to 1.2 trillion) we projected based on Q1 2023 numbers. The market would therefore have to see a strong issuance in the second half of 2023 to beat the record USD 1 trillion issuance set in 2021.

Naturally, this projection is subject to market conditions and the actual full-year number can deviate significantly, especially in light of potential recession in several major economies.⁶

Exhibit 2: Labeled-bond issuance quarterly trends and rest-of-the-year issuance estimate



The issuance estimate for FY 2023 is based on annualized five-year average issuance in the first two quarters of the year. Data as of June 30, 2023. Source: Refinitiv, MSCI ESG Research

Bond characteristics

Label type

As Exhibit 3 (bar chart) shows, green bonds continued to be the most frequently issued label (USD 150 billion, 67% of all labeled bonds issued in Q2 2023) and the only one whose new issuance increased on both a QoQ (+1%) and YoY (+16%) basis.⁷ Issuance of social bonds dropped slightly QoQ (-1%) and increased 27% YoY.⁸ Issuance of sustainability bonds dropped 21% QoQ, but it was

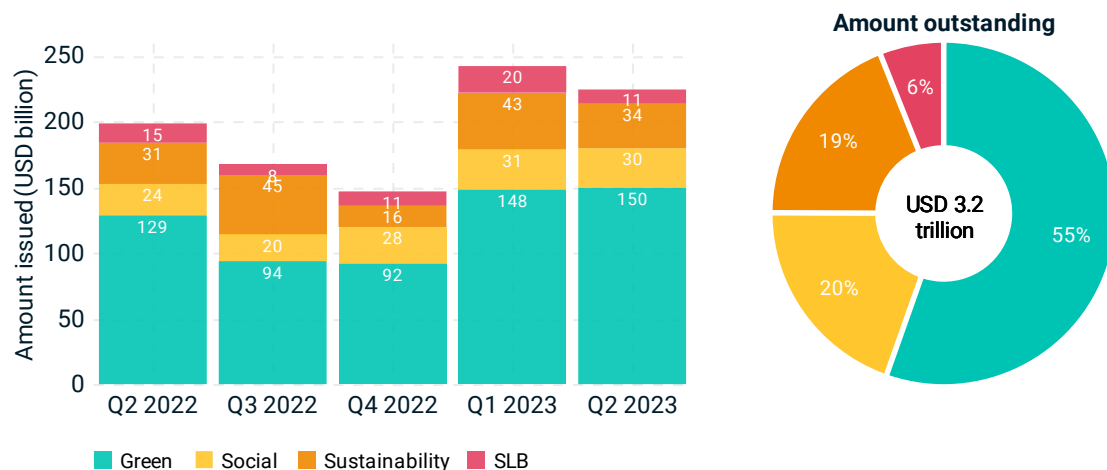
⁶ Gayle Markovitz and Spencer Feingold. "Recession in 2023? That depends on where you are in the world." World Economic Forum, January 2023.

⁷ The Refinitiv Green Bonds Guide defines green bonds as climate-related fixed-income instruments, which allow investors with mainstream financial mandates to participate in climate financing and raise awareness on climate-related risk in addition to making a sound investment. The assessment follows ICMA's Green Bond Principles (GBP).

⁸ The Refinitiv Social Bonds Guide defines social bonds as fixed-income instruments where the proceeds finance or refinance social projects or activities that achieve positive social outcomes and/or address a social issue. The assessment follows ICMA's Social Bond Principles (SBP).

still 8% higher than a year ago.⁹ Issuance of sustainability-linked bonds (SLB) saw the sharpest drop (-47% QoQ and -26% YoY).¹⁰

Exhibit 3: Issuance trends and market breakdown by label



Data as of June 30, 2023. Source: Refinitiv, MSCI ESG Research

As Exhibit 3 (pie chart) shows, the market remained heavily dominated by green bonds (55% of the outstanding principal amount). Social bonds were still the second-largest label in the market (20%), but sustainability bonds (19%) surpassed social bonds in new issuance in 2022 and so far also in 2023 (USD 77 billion vs. USD 61 billion). If this trend continues, sustainability bonds could become the second-largest label in the market by outstanding volume by the end of the year. This label commits to use the proceeds for both green and social purposes and therefore give issuers more flexibility in projects to finance.

As the newest of the four main labels, SLBs accounted for the smallest fraction of the market (6%) in Q2 2023. They differ from the other three labels, which are all use-of-proceeds bonds, in that their characteristics can vary depending on whether the issuer meets predefined sustainability-related key performance indicators (KPIs). One of the reasons why SLBs have gained popularity among issuers is the [flexibility to align the bond's KPIs](#) with the company's overall strategy, rather than tying the bond's proceeds to eligible projects, which may be scarce in certain industries. However, many SLBs have been a target of criticism, mostly related to their relatively unambitious KPIs combined with mild penalties (usually a coupon step-up) for not meeting them.¹¹ We found that only 54% of the 149 issuers (52% in Q1 2023) with an SLB on the market had at least one carbon-emissions reduction target approved by the Science-Based Targets initiative (SBTi).¹²

⁹ The Refinitiv Sustainable Bonds Guide defines sustainability bonds as fixed-income instruments where the proceeds finance or refinance a combination of green and social projects or activities.

¹⁰ ICMA's Sustainability-Linked Bond Principles defines SLBs as any type of bond instruments for which the financial and/or structural characteristics can vary depending on whether the issuer achieves predefined sustainability/ESG objectives.

¹¹ Jacqueline Poh. "The Booming ESG Bond That's Facing Growing Skepticism." Bloomberg, September 2022.

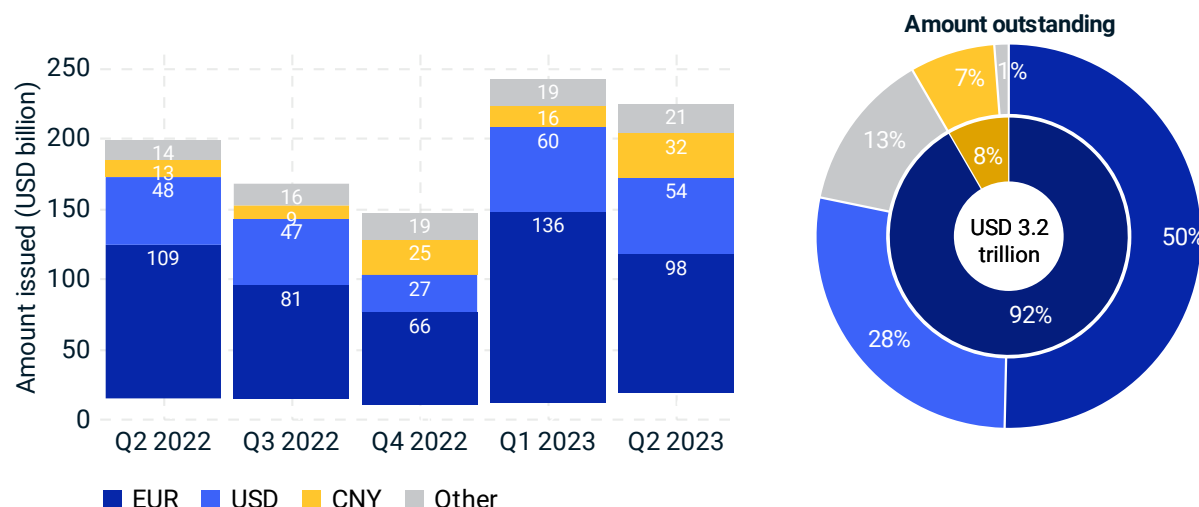
¹² According to data provided by the SBTi and aggregated by MSCI ESG Research, as of June 30, 2023.

Currency

As the bar chart in Exhibit 4 shows, developed-market (DM) currencies dominated the market, with 68% of all new issuance in EUR and USD in Q2 2023.¹³ Most of the new issuance in emerging-market (EM) currencies typically came in CNY (14% of all new issuance), which has continued to solidify its place as the third-most popular currency for labeled bonds. No bonds in a frontier-market (FM) currency were issued in Q2 2023.

As the pie chart in Exhibit 4 shows, this was in line with the long-term trend and the outstanding market breakdown by currency looked very similar. Over 90% of all outstanding labeled bonds were denominated in DM currencies (50% in EUR and 28% in USD), with only 8% in EM currencies (mostly CNY) at the end of the quarter. Other notable currencies on the market included GBP (4%), JPY (2%), CAD (2%), AUD (2%) and SEK (1%).

Exhibit 4: Issuance trends and market breakdown (by currency)



Data as of June 30, 2023. DM currencies in blue, EM in yellow. Source: Refinitiv, MSCI ESG Research

Issuer characteristics

Issuer type

Corporate issuers

More than 110 unique corporate issuers brought a combined USD 119 billion worth of labeled bonds (53% of total) to the market in Q2 2023.¹⁴ This took the number of unique corporate issuers with

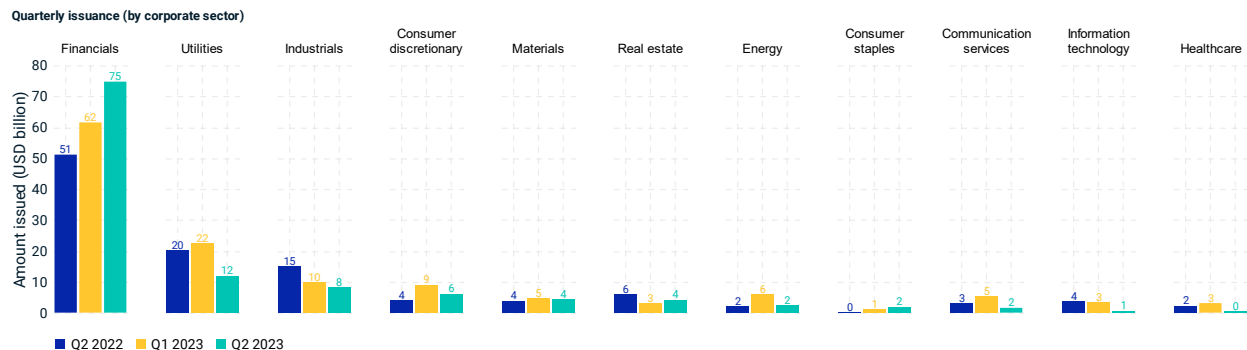
¹³ DM, EM and FM classifications are based on [MSCI Market Classification](#). For the purposes of this report, FM includes markets classified as standalone markets and all non-classified markets.

¹⁴ We define unique issuers as those within MSCI ESG Rating coverage not mapped to another issuer. The count may include multiple issuers within one corporate group, so the count of unique issuers without any cross relationships may be lower.

outstanding labeled debt in the market to more than 830, spanning all 11 [Global Industry Classification Standard \(GICS®\)](#)¹⁵ sectors.

As Exhibit 5 shows, financial companies were customarily the most active among corporate issuers (USD 75 billion, or 63% of issuance by corporates in Q2 2023), followed by utilities (USD 12 billion) and industrials (USD 10 billion). Communication services (USD 1.6 billion), information technology (USD 600 million) and health-care (USD 350 million) companies issued the least during the quarter.

Exhibit 5: Issuance trends by corporate sector



Data as of June 30, 2023. Source: Refinitiv, MSCI ESG Research

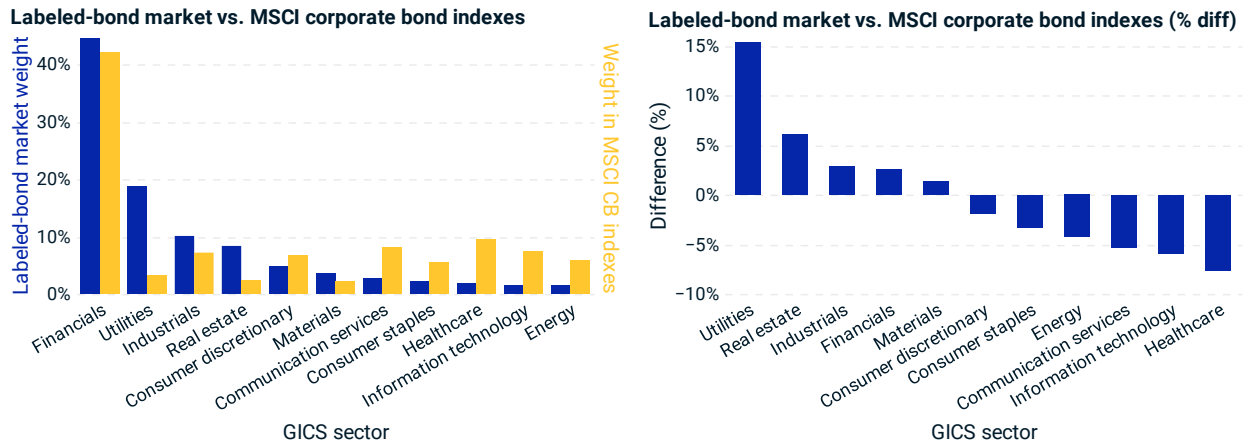
Financials accounted for 45% of the outstanding labeled bonds by corporate issuers, followed by utilities (19%) and industrials (10%) at the end of Q2 2023. Energy, information technology and health care remained the least active sectors, together accounting for just 5% of the outstanding labeled bonds issued by corporates.

As Exhibit 6 shows, however, this distribution to an extent reflects the wider corporate-bond market, as some sectors issue more debt than others.¹⁶ Considering this, notably active in the labeled-bond market were utilities (16% higher presence in the labeled-bond market compared to the wider corporate-bond market) and real estate (6% higher), while the biggest laggards in relative terms were health care (8% lower) and information technology (6% lower).

¹⁵ GICS® is the global industry classification standard jointly developed by MSCI and S&P Global Market Intelligence.

¹⁶ Approximated by the composite of MSCI USD, EUR, GBP and CAD Investment Grade and High Yield Corporate Bond Indexes, as of June 30, 2023. For more information on MSCI's fixed-income indexes, please see [MSCI Fixed Income Indexes](#).

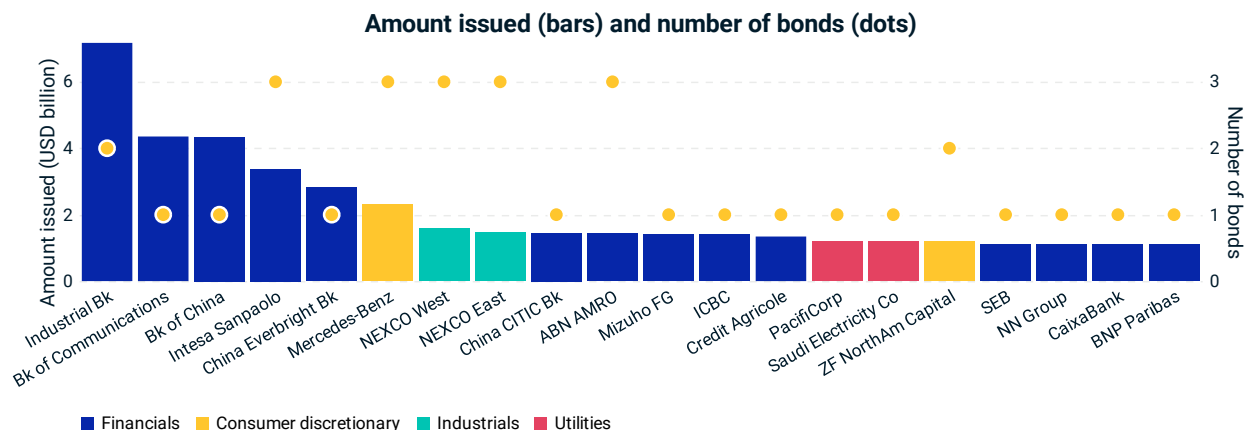
Exhibit 6: Market breakdown by corporate sector



Labeled-bond market presence refers to the total principal amount outstanding and is compared to the respective GICS sector's weight in the composite of the MSCI USD, EUR, GBP and CAD Investment Grade and High Yield Corporate Bond (CB) Indexes. Data as of June 30, 2023. Source: Refinitiv, MSCI ESG Research

Exhibit 7 shows the most active corporate issuers in Q2 2023. Financial issuers dominated new issuance. After a slowdown during the latter stages of the COVID-19 pandemic, issuance from the Chinese banking sector strongly rebounded this year, with four Chinese banks in the top five corporate issuers in Q2 2023. The biggest volumes came from Industrial Bank Co. Ltd (MSCI ESG Rating of A, two CNY-denominated green bonds worth USD 7.2 billion), Bank of Communications Co. Ltd (A, CNY green bond worth USD 4.4 billion) and Bank of China Ltd (A, CNY green bond worth USD 4.3 billion).¹⁷ Notable nonfinancial issuers included the German automaker Mercedes-Benz Group AG (A, two EUR and one CNY green bonds worth USD 2.3 billion), Japanese road operators West and East Nippon Expressway Co. Ltd (A, combined six social bonds in JPY worth USD 3.1 billion) and U.S. power company PacifiCorp (unrated, USD green bond worth USD 1.2 billion).

Exhibit 7: Most active corporate issuers of labeled debt in 2Q 2023



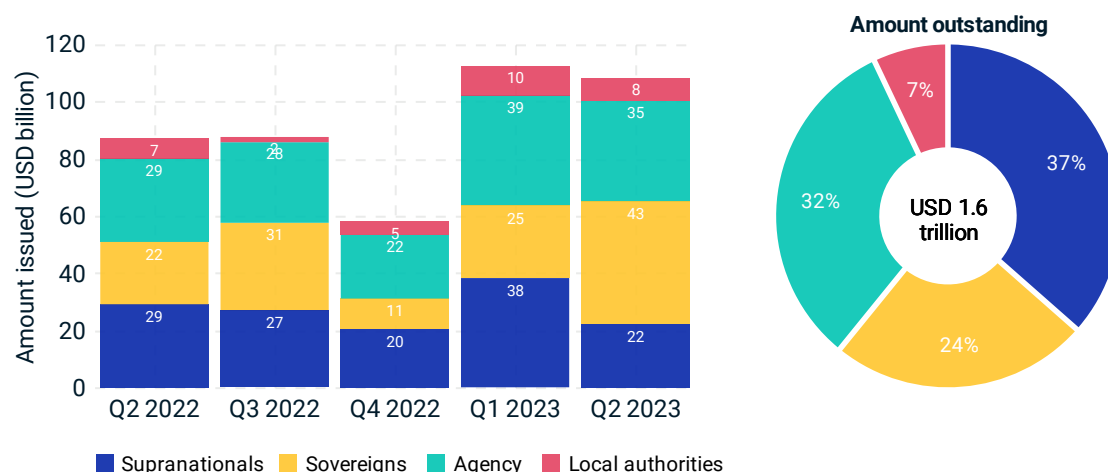
¹⁷ MSCI ESG Ratings used in the report were as of June 30, 2023.

“Number of bonds” refers to the number of individual bonds issued by each issuer during the quarter and “amount issued” to their cumulative principal value. Data as of June 30, 2023. Source: Refinitiv, MSCI ESG Research

Supranational, sovereign and agency issuers

SSA entities issued labeled bonds worth USD 105 billion (47% of new issuance) during the quarter, increasing the amount of outstanding SSA-labeled debt to USD 1.6 trillion. Whereas labeled-bond issuance used to be in the domain of supranational issuers, such as multilateral development banks, other types of SSA entities have increased their activity in the market in recent years (Exhibit 8).

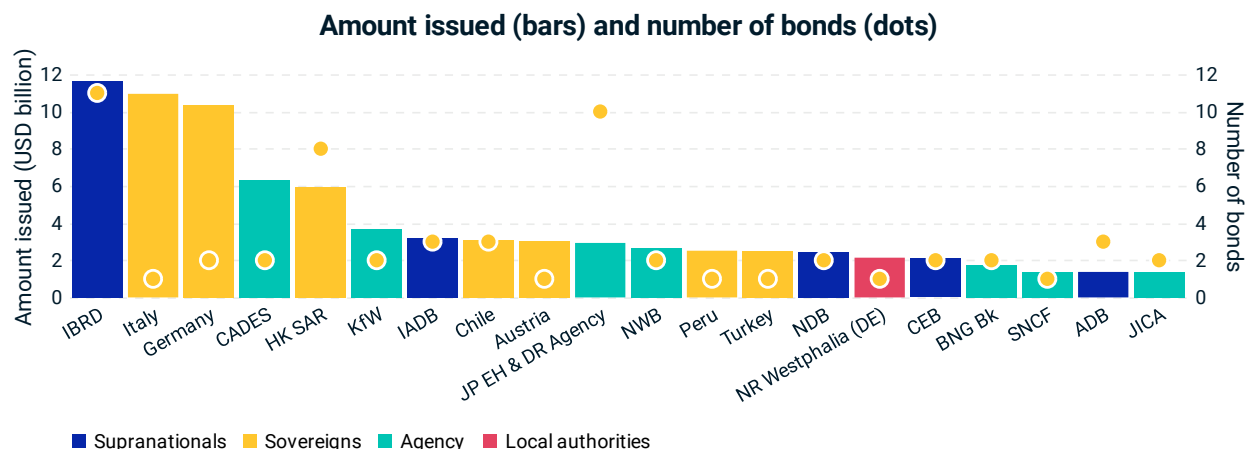
Exhibit 8: Issuance trends and market breakdown by SSA issuer type



Data as of June 30, 2023. Sovereign bonds may include sub-sovereign and state-owned corporate issuers not otherwise classified. Source: Refinitiv, MSCI ESG Research

As Exhibit 9 shows, the largest volume and number of bonds came from International Bank for Reconstruction & Development (AAA, 11 sustainability bonds in multiple currencies with a combined principal amount of USD 11.6 billion). Sovereign issuers were active in Q2 2023, with seven sovereign issuers among the top 20 issuers by volume. In the EM, large amounts came from Chile (BBB, two SLBs in USD and one in EUR worth USD 3.1 billion), Peru (BBB, PEN-denominated sustainability bond worth USD 2.5 billion) and Turkey (BB, USD-denominated green bond worth USD 2.5 billion). The only local authority among the largest issuers was the German state of North-Rhine Westphalia (A) with a EUR-denominated sustainability bond worth USD 2.1 billion.

Exhibit 9: Most active SSA issuers of labeled debt in 2Q 2023

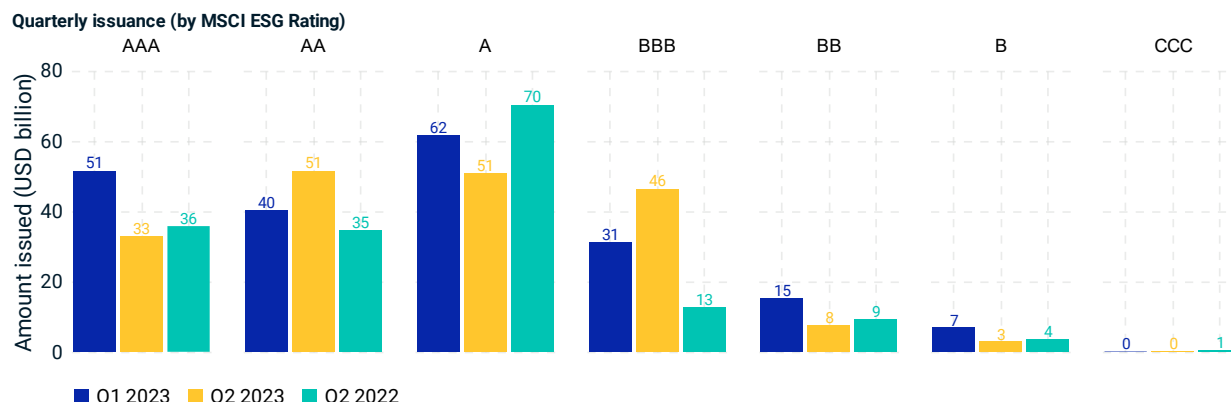


“Number of bonds” refers to the number of individual bonds issued by each issuer during the quarter and “Amount issued” to their cumulative principal amount. Data as of June 30, 2023. HK SAR’s classification reflects the standalone status of its financial system. Source: Refinitiv, MSCI ESG Research

ESG profile

Among issuers with an MSCI ESG Rating, ESG leaders (MSCI ESG Rating of AAA or AA) issued 44% of all new labeled bonds in Q2 2023, while ESG laggards (B or CCC) only 2%.¹⁸ New issuance among the ESG laggards was almost entirely done by B-rated issuers, with minimal issuance by issuers rated CCC (see Exhibit 10).

Exhibit 10: Issuance trends by MSCI ESG Rating



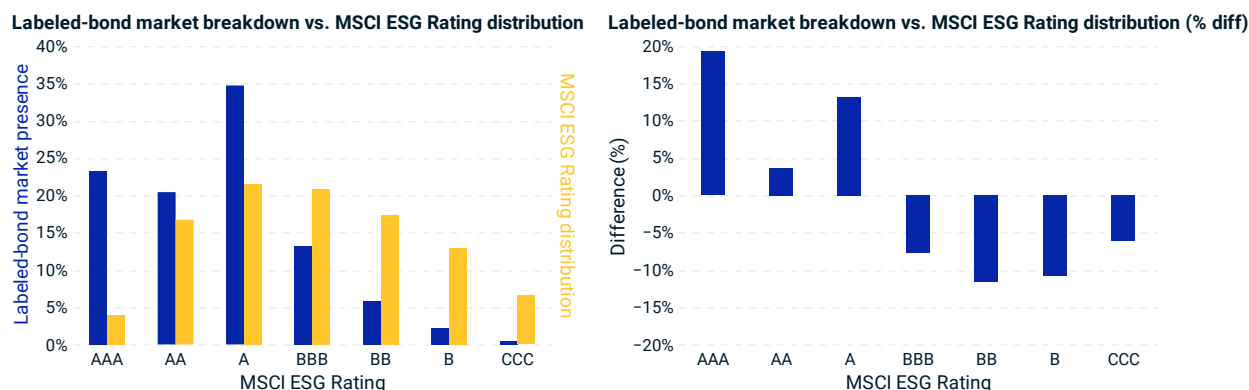
Data as of June 30, 2023. Source: Refinitiv, MSCI ESG Research

Labeled bonds from ESG leaders accounted for 44% of the total outstanding principal amount, but ESG laggards accounted for only 3% of the total (Exhibit 11). The same dynamic held true when

¹⁸ There were 10,642 unique corporate and SSA issuers with an available MSCI ESG Rating, as of June 30, 2023. Issuers of 73% of the bonds (corresponding to 84% of the total principal amount) included in the report were in MSCI ESG Ratings coverage.

controlling for size, as 49% of the outstanding individual bonds were issued by ESG leaders, compared with 3% by ESG laggards.

Exhibit 11: Market breakdown by MSCI ESG Rating



Labeled-bond market presence refers to the total outstanding principal amount per ESG-rating letter grade and is compared with the distribution of MSCI ESG Ratings coverage (n=10,642). Data as of June 30, 2023. Source: Refinitiv, MSCI ESG Research

Among the ESG leaders, the biggest volumes came from supranational development banks IBRD (AAA, 11 sustainability bonds in multiple currencies worth USD 11.6 billion), Inter-American Development Bank (AAA, three sustainability bonds in multiple currencies worth USD 3.2 billion) and Council of Europe Development Banks (AAA, two social bonds in USD and EUR together worth USD 2.1 billion). Among corporates, it was the Finnish paper-mill company Stora Enso Oyj (AAA, two EUR green bonds together worth USD 1.1 billion) and the Irish industrial conglomerate Johnson Controls International plc (AAA, EUR-denominated green bond worth USD 870 million).

Among ESG laggards, the largest issuers were South Korean automaker Hyundai Motor Co (B, two green bonds in USD and CHF together worth USD 1 billion), Indian electrification company Rec Ltd (B, USD-denominated green bond worth USD 750 million) and Spanish railway-infrastructure company Adif-Alta Velocidad (B, EUR-denominated green bonds worth USD 550 million). The only CCC-rated issuer was Power Construction Corp. of China Ltd (CCC, CNY green bond worth USD 145 million).

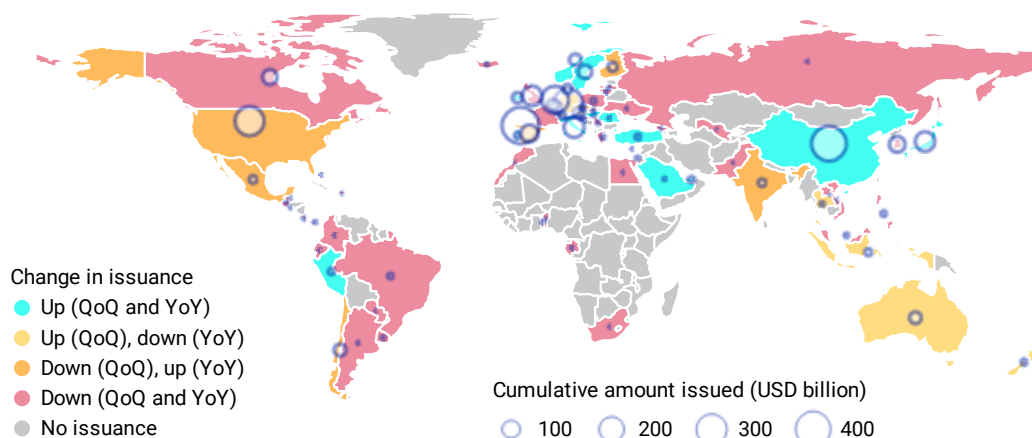
The dominance of issuers with high MSCI ESG Ratings in the labeled-bond market suggests a positive relationship between the issuance of such instruments and the issuers' overall ESG profiles. While labeled-bond issuance does not directly raise the issuer's MSCI ESG Rating – i.e., it is not one of the scored indicators within the [MSCI ESG Ratings Methodology](#) – proper earmarking and use of proceeds to deliver on green, social or sustainability-related goals could contribute to ESG-profile improvement (see Appendix 1 for examples of such a transmission mechanism).

Geographic overview

Monitoring cumulative labeled-bond issuance (Exhibit 12) can provide insight into how different markets may be looking to finance their transition to a low-carbon economy and the feasibility of their nationally determined contributions (NDCs). Higher-emitting markets will likely have to mobilize

more capital to fulfil their targets.¹⁹ Issuance of use-of-proceeds labeled bonds, particularly green and sustainability labels, is one of the ways economies (through local issuers) can earmark capital toward financing their NDCs.

Exhibit 12: Issuance of labeled bonds by market in Q2 2023

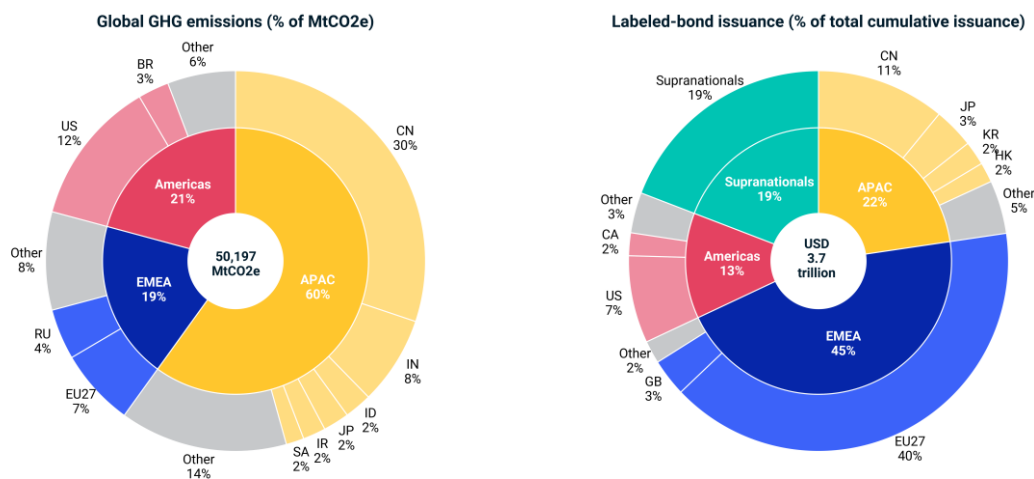


Cumulative issuance refers to the total amount issued by issuers domiciled in each market to date. Issuance by supranational issuers was excluded from the chart. Data as of June 30, 2023. Source: Refinitiv, MSCI ESG Research

As Exhibit 13 shows, EMEA produces about 19% of global GHG emissions, but EMEA-based issuers, chiefly those from the EU, have issued 45% of all labeled bonds to date, as of Q2 2023. Conversely, APAC accounts for 60% of global emissions, but as a region issued only 22% of all labeled bonds. Contributions of the Americas to global emissions and cumulative labeled-bond issuance was somewhat aligned (21% and 13%, respectively). The numbers look similar when excluding social bonds from the analysis, as those are usually not directly linked with environmental objectives (supranationals' share falls to 18% and other regions' share increases slightly).

¹⁹ Shamik Dhar and Brian Davidson. "An investor's guide to net zero by 2050: Understanding the investment risks and opportunities created in what may be the largest redeployment of capital in history." BNY Mellon and Fathom Consulting, October 2022. In their joint study, BNY Mellon and Fathom Consulting estimated the cost of a net-zero transition by 2050 at USD 100 trillion, with the share of investment to be done by each market roughly proportional to their share in production of global emissions of greenhouse gases (GHG).

Exhibit 13: Global GHG-emissions contribution vs. cumulative labeled-bond issuance



GHG emissions data as of fiscal year 2021. Labeled-bond issuance data as of June 30, 2023. Labeled-bond issuance refers to the cumulative amount issued by issuers domiciled in each market. Supranationals include organizations backed by multiple government bodies and founded to have regional or global scope of operations. Source: IMF Climate Change Dashboard, Refinitiv, MSCI ESG Research

Though several EM markets, particularly China, have been stepping up their issuance, the labeled-bond market was still heavily dominated by DM issuers. This difference could be explained by their better access to capital markets.

Yet there may be other options for transition funding for regions that can't or, for various reasons don't, raise transition capital using labeled bonds: transfer of capital from DM to EM in the form of financing from supranational organizations and multilateral development banks, which have issued 19% of all labeled bonds to date and are poised to be increasingly important in financing the EM transition; greening their regional financial systems, which could be another significant source of capital; or other available options.²⁰ All of these options can be complementary and should ideally be assessed concurrently to gain a full picture of if and how different markets are raising and earmarking capital to green their economies.

Performance overview

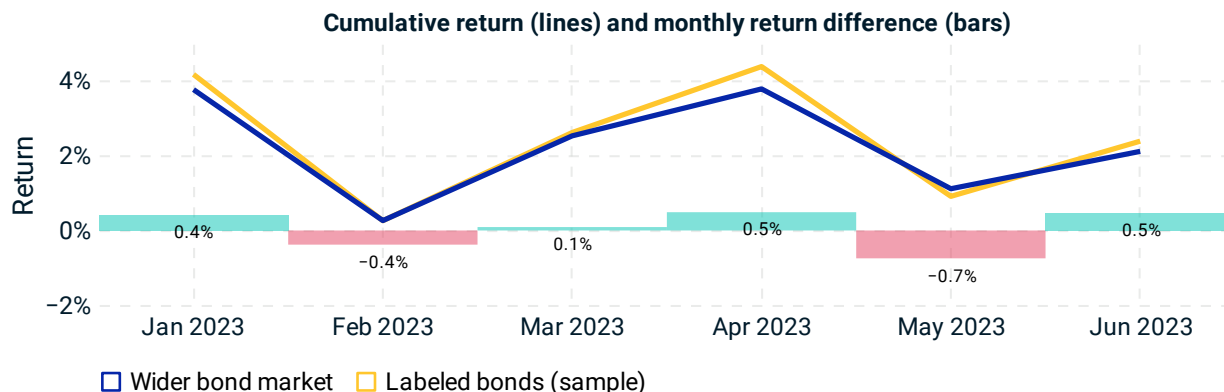
To look at the performance of labeled bonds, we took a subset of the labeled-bond universe that overlapped with our wider-bond-market representation.²¹ As Exhibit 14 shows, the sampled labeled

²⁰ "COP27 Multilateral Development Banks Joint Statement." African Development Bank, November 2022. Network for Greening the Financial System (NGFS), a group of central banks and supervisors created to share best practices to incorporate environmental risk management in the financial sector and mobilize capital to support transition to a sustainable economy, consisted of 127 members and 20 observers, as of June 13, 2023.

²¹ 881 labeled bonds included in the composite of [MSCI Government, Provincial and Municipal and Corporate Bond Indexes](#) in USD, EUR, GBP and CAD.

bonds moved largely in line with the broad market over the last 12 months, with an amplified difference in performance during pronounced market down- and upturns.

Exhibit 14: Cumulative return (YTD) and monthly difference (labeled bonds vs. wider bond market)

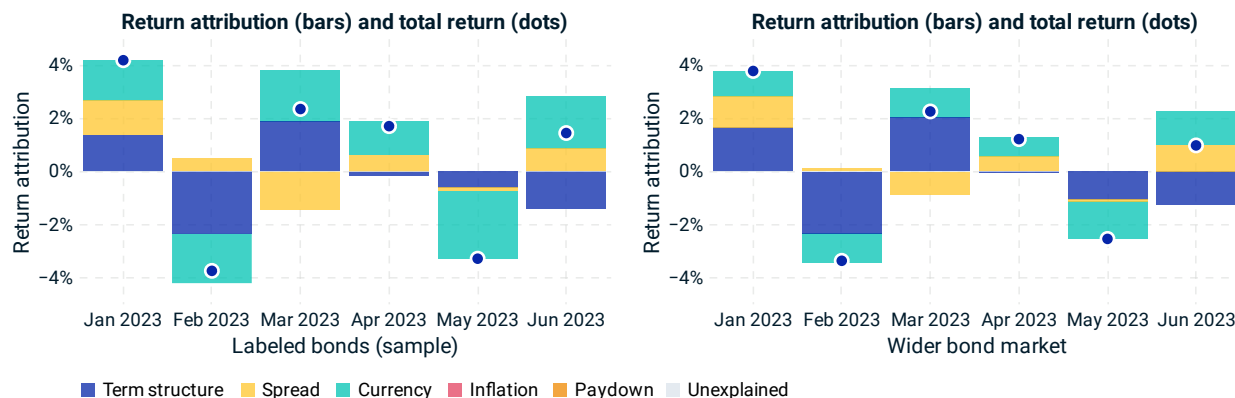


"Wider bond market" refers to bonds that were constituents of [MSCI Government, Provincial and Municipal and Corporate Bond Indexes](#) in USD, EUR, GBP and CAD during the study period (n=13,415). "Labeled bonds (sample)" refers to labeled bonds included in these MSCI bond indexes during the study period (n= 881). Performance attribution was done using [MSCI Fixed Income Factor Model](#) in MSCI's BarraOne® risk- and portfolio-management analytics platform. Past performance does not indicate future returns. Data as of June 30, 2023. Source: MSCI ESG Research

Though it is tempting to attribute the performance variations to changing investor preferences for labeled bonds during market down- and upturns, it is important to keep in mind that most labeled bonds (excluding instruments with embedded links to KPIs, those that provide direct exposure to the funded projects or those that otherwise distance the bond from the issuer's credit quality) have not differed markedly in their credit characteristics from conventional bonds by the same issuers, so their performance should still be predominantly driven by traditional [fixed-income risk and return drivers](#).

Indeed, as Exhibit 15 shows, the performance of both universes was primarily driven by term structure (interest-rate sensitivity) and currency fluctuations (from a USD-investor's point of view), and only to a lesser extent by spread changes (where the potential pricing differences among labeled and closely comparable conventional bonds would likely materialize).

Exhibit 15: Return attribution



Performance attribution was done on labeled bonds (n=881) that were constituents of the composite of [MSCI Government, Provincial and Municipal and Corporate Bond Indexes](#) in USD, EUR, GBP and CAD (n=13,415) during the study period using [MSCI Fixed Income Factor Model](#) in MSCI's BarraOne® risk- and portfolio-management analytics platform. Past performance does not indicate future returns. Data as of June 30, 2023. Source: MSCI ESG Research

Conclusion

After a very strong first quarter in 2023, labeled-bond issuance slowed down in the second quarter but was still notably higher than a year ago. The market continued to grow in both in size and diversity, as hundreds of new and recurring corporate and government-related issuers brought new labeled bonds to the market, providing ever-more opportunities for investors to select from fixed-income instruments across labels, issuer types and currencies. Most of the newly issued and outstanding labeled bonds were issued by ESG leaders, which provided opportunities for investors to add exposure to labeled bonds, while preserving the overall ESG quality of their portfolios.

We also saw in our analysis that despite their distinctions from conventional bonds, labeled bonds' performance was primarily driven by key fixed-income risk and return drivers, such as credit risk and interest-rate sensitivity. Therefore, while investors may scrutinize bonds' sustainability credentials and their impact on performance, the traditional performance drivers of fixed-income instruments continue to play an important role.

Appendix

Potential effects of labeled-bond issuance within the MSCI ESG Ratings framework

Labeled-bond issuance does not directly lead to a rise in the issuer's MSCI ESG Rating or the environmental- or social-pillar scores; i.e., it is not one of the scored indicators within the [MSCI ESG Ratings methodology](#). However, proper earmarking and use of proceeds to deliver on environmental or social goals could contribute to an improvement of the issuer's environmental and social profile and be reflected in the issuer's ESG rating. Below are a few examples of such a transmission mechanism:

1. A green bond issued to fund decarbonization of production facilities could lead to a reduction in direct CO2 emissions, which is a scored performance indicator in the carbon-emissions key issue under the climate-change theme within the environmental pillar of the MSCI ESG Ratings model.
2. A green bond issued to fund efforts to lower the water intensity of operations could lead to a reduction in water-withdrawal rates, which is a weighted performance indicator in the water-stress key issue under the natural-capital theme within the environmental pillar of the MSCI ESG Ratings model.
3. A social bond issued to fund projects to facilitate access to services, such as health care or finance, and/or targeting various segments of underserved populations, could lead to improvement on different key issues under the social opportunities theme within the social pillar of the MSCI ESG Ratings model.

Contact us

msci.com/contact-us

AMERICAS

Americas	1 888 588 4567 *
Atlanta	+ 1 404 551 3212
Boston	+ 1 617 532 0920
Chicago	+ 1 312 675 0545
Monterrey	+ 52 81 1253 4020
New York	+ 1 212 804 3901
San Francisco	+ 1 415 836 8800
São Paulo	+ 55 11 3706 1360
Toronto	+ 1 416 628 1007

EUROPE, MIDDLE EAST & AFRICA

Cape Town	+ 27 21 673 0100
Frankfurt	+ 49 69 133 859 00
Geneva	+ 41 22 817 9777
London	+ 44 20 7618 2222
Milan	+ 39 02 5849 0415
Paris	0800 91 59 17 *

ASIA PACIFIC

China North	10800 852 1032 *
China South	10800 152 1032 *
Hong Kong	+ 852 2844 9333
Mumbai	+ 91 22 6784 9160
Seoul	00798 8521 3392 *
Singapore	800 852 3749 *
Sydney	+ 61 2 9033 9333
Taipei	008 0112 7513 *
Thailand	0018 0015 6207 7181 *
Tokyo	+ 81 3 5290 1555

* toll-free

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

About MSCI ESG Research Products and Services

MSCI ESG Research products and services are provided by MSCI ESG Research LLC, and are designed to provide in-depth research, ratings and analysis of environmental, social and governance-related business practices to companies worldwide. ESG ratings, data and analysis from MSCI ESG Research LLC. Are also used in the construction of the MSCI ESG Indexes. MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc.

To learn more, please visit www.msci.com.

Notice and disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or disseminated in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. The calculation of indexes and index returns may deviate from the stated methodology. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such, provided that applicable products or services from MSCI ESG Research may constitute investment advice. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Indexes, Analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Limited (UK).

Please note that the issuers mentioned in MSCI ESG Research materials sometimes have commercial relationships with MSCI ESG Research and/or MSCI Inc. (collectively, "MSCI") and that these relationships create potential conflicts of interest. In some cases, the issuers or their affiliates purchase research or other products or services from one or more MSCI affiliates. In other cases, MSCI ESG Research rates financial products such as mutual funds or ETFs that are managed by MSCI's clients or their affiliates, or are based on MSCI Inc. Indexes. In addition, constituents in MSCI Inc. equity indexes include companies that subscribe to MSCI products or services. In some cases, MSCI clients pay fees based in whole or part on the assets they manage. MSCI ESG Research has taken a number of steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings. More information about these conflict mitigation measures is available in our Form ADV, available at <https://adviserinfo.sec.gov/firm/summary/169222>.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P Global Market Intelligence. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P Global Market Intelligence.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at <https://www.msci.com/privacy-pledge>.