



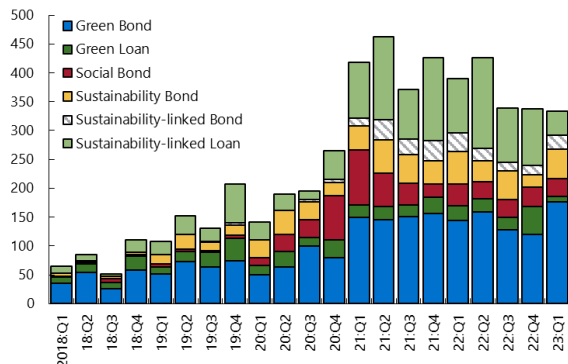
## CLIMATE FINANCE MONITOR HIGHLIGHTS

- **Sustainable debt issuance volume in Q1 2023 reached a comparable level as H2 2022 but stood lower than in Q1 2022. However, market participants expect issuance to rebound in 2023 as positive climate policy developments should continue to support supply and demand fundamentals .** Three trends were prominent during the Q1 2023:
  - Very dynamic activity in the green bonds market and increased use of sustainability bonds in Europe, Asia, and by supnationals.
  - Strong investors' appetite for sovereign sustainable bonds, across advanced economies (primarily in Asia and in Europe, notably with the roll-over of the inaugural green Treasury Bill in Austria that saw strong demand) as also in emerging market and developing economies (EMDEs) (India and Turkey).
  - A potential turning point for the sustainability-linked instruments market due to slower growth in issuance in Q1 2023. This trend reversal compared with 2022 issuance levels may reflect market participants' perceptions around greenwashing and the credibility of the asset class to drive companies to meet sustainability targets.
- **Sustainable debt issuance showed signs of weakness in EMDEs, dropping by 44 percent compared to Q4 2022 with the largest drop in the Asia Pacific region.** Prospects remain positive, with growing share of local currency denominated bond issuance, positive traction in the sovereign debt market, promising policy developments and increasing interest from investors in sustainable sovereign debt issuance.
- **ESG funds started 2023 on a positive trend, attracting US\$19 billion new money over the quarter, despite a massive outflow in March due to banking sector concerns.** ESG equity fund flows were positive in Q1 2023, driven by increasing demand by asset owners and retail investors for a sustainable fund asset class. Sustainable equities resumed the long-standing trend of outperforming global non-ESG peers in Q1 2023.

## Global Sustainable Debt Issuance in Q1 2023 Volume Was Comparable to H2 2022, with Global Green Bond Issuance Expected to Rebound this Year amid Supportive Policies.

After recording a decrease in 2022, issuance of sustainable debt plateaued in Q1, with use-of-proceeds instruments accounting for the vast majority of issuance.

### 1. Global Sustainable Debt Issuance by Instrument (Billions of U.S. dollars; as of March 31, 2023)

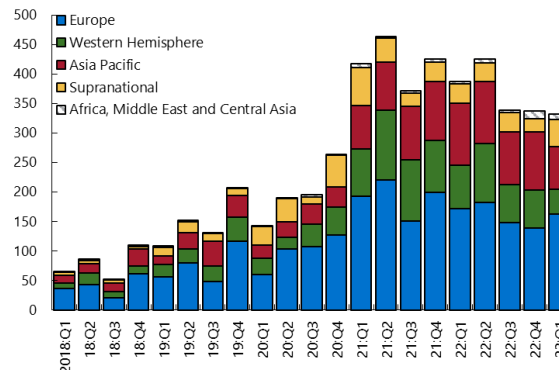


Sources: BloombergNEF and IMF staff calculations.

- Q1 2023 issuance amounted to US\$333 billion, roughly in line with issuance seen in the previous two quarters, but lower than issuance in Q1 2022.
- Green bond issuance saw the largest quarter over quarter increase, making up 53 percent of total Q1 2023 issuance while majority of other types issuance declined - amid difficulties in primary markets in March 2023 due to the banking sector turmoil in the United States and Europe ([IMF GFSR, 2023](#)).
- Market participants expect sustainable issuance to return to growth in 2023 ([S&P, February 2023](#)). Supportive policies and transparency initiatives should drive investor demand and issuer appetite. Besides, market focus on filling the financing gap for climate change mitigation and adaptation should continue to support the dynamic in addition to various policy headway ([recent political agreement](#) on the European Green Bond Regulation; China's updated Green Bond Principles that bring standards for domestic green bond issuance closer towards international practices; new taxonomy projects emerging (e.g., [Australia](#), [Canada](#)); Inflation Reduction Act in the U.S, and the European Green Deal – soon to be reinforced with the [Green Deal Industrial Plan](#)).
- Sustainability-linked instruments may be reaching a turning point, due to [increasing scrutiny](#) on whether or not SLLs/SLBs incentivize issuers to achieve ambitious sustainability targets (see [IMF GFSR Chapter 2, October 2022](#)).

Regional distribution remained similar, with Europe and China making up 56 percent of the total, especially on the sovereign side.

### 2. Global Sustainable Debt Issuance by Region (Billions of U.S. dollars; as of March 31, 2023)



Sources: BloombergNEF and IMF staff calculations.

- Regional distribution remained consistent in recent several quarters. Europe accounted for the largest portion of total sustainable debt issuance, representing 49 percent of Q1 2023. The Asia Pacific region followed as the second largest contributor to the issuance, mostly driven by China.
- Several sovereign debut issuances in Q1 2023 illustrated the growing dynamism in sustainable debt issuance across regions.

In [early 2023](#), the Irish government received orders for a green sale worth US\$3.68 billion in its first syndicated offering (ten times the anticipated amount). In [February 2023](#), the rollover of Austria's inaugural Treasury Bill in green format, that was launched [in October 2022](#), saw strong interest with a bid-to-cover ratio of 2.2. Austria is the first sovereign to issue short-term green debt instruments with issuance amounting to €1 billion. Officials noted that the rolling of green T-bills was a key link to allow short-term investors to invest in longer-dated investments. The majority of investors in the inaugural issuance were MMFs and central banks. In [March 2023](#), the European Commission issued €6 billion of NextGenerationEU green bonds in its fourth syndicated transaction for 2023. Proceeds will be used to finance the Member States' national Recovery and Resilience plans. Italy issued €10 billion in its third green government bond via a bank syndicate [early April](#).

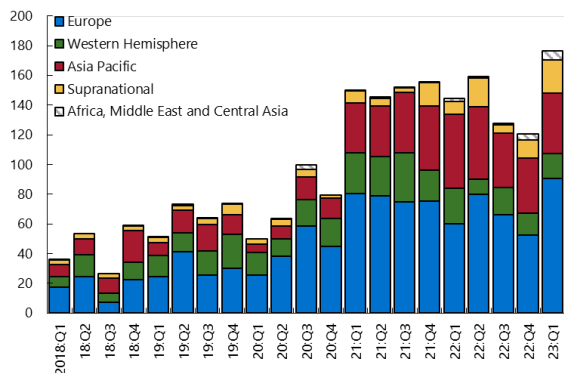
- Innovation also marked this start of the year, with Hong Kong SAR issuing the first tokenized green bond globally in [February 2023](#), under its Green Bond Framework .

### Issuance of Green Bonds Saw a Sharp Increase in Q1 2023, led by New Sovereign Issuances.

European issuers continued to dominate green bond issuance, while issuance in other regions was more subdued.

Government and Financials continued to lead green bond issuance.

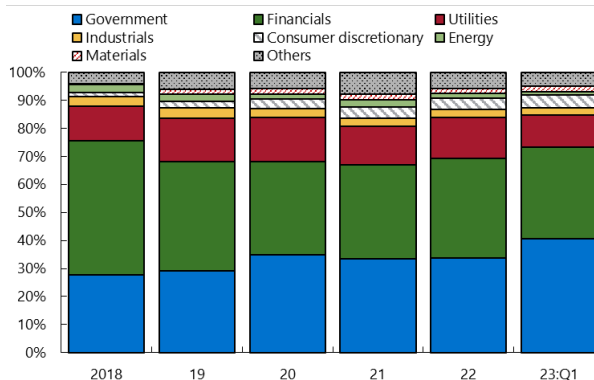
#### 3. Global Green Bond Issuance by Region (Billions of U.S. dollars; as of March 31, 2023)



Sources: BloombergNEF and IMF staff calculations.

- Despite the recent banking turmoil, the green bond market experienced a surge to the highest quarterly bond issuance on record in Q1 2023, reaching US\$176 billion.
- Looking ahead, analysts expect 2023 global green bond issuance to rebound, supported by policy measures and more certainty around the interest rate outlook (see above).

#### 4. Global Green Bond Issuance Industry Breakdown (In percent, as of March 31, 2023)



Sources: BloombergNEF and IMF staff calculations.

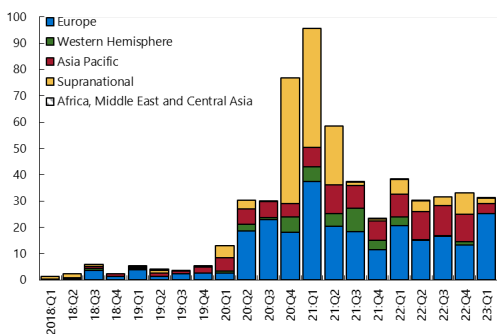
- Financials and governments remained the largest issuers (over 73 percent share in Q1 2023), primarily thanks to continuous access to market by SSAs while corporate supply was difficult amid volatile market conditions.
- Worth noting the inaugural green bond of U.S.-based media company [Comcast](#), which issued a US\$1 billion 10-year bond, with proceeds aimed at supporting its environmental sustainability goals.

### Social Bond Issuance Was Flat after Hitting a Record High in Mid-2021, with Government-Backed Issuance Retaining a Strong Share.

Social bond issuance remained stable, with significant changes in regional distribution.

Governments supplied most social bonds in Q1 2023.

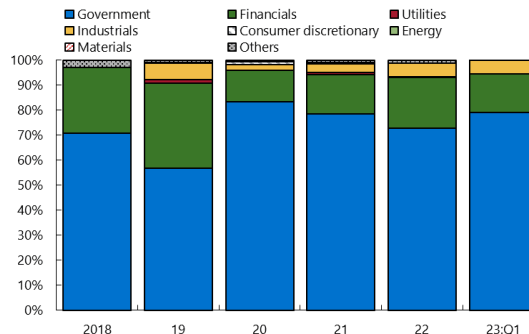
#### 5. Global Social Bonds Issuance by Region (Billions of U.S. dollars as of March 31, 2023)



Sources: BloombergNEF and IMF staff calculations.

- After extraordinary growth in 2020-21 to finance pandemic relief, issuance slightly contracted (after plateauing over the past five quarters). The underlying composition pointed to stronger presence by European issuers, witnessing upticks of 91 percent compared to last quarter of 2022.

#### 6. Global Social Bond Issuance Industry Breakdown (In percent, as of March 31, 2023)



Sources: BloombergNEF and IMF staff calculations.

- The market was characterized by its concentration, having mostly been driven by local governments and agencies. [Market participants](#) expect sustainability disclosures and the design of just transition and affordable housing programs in Europe and Asia to potentially sustain current issuance levels.

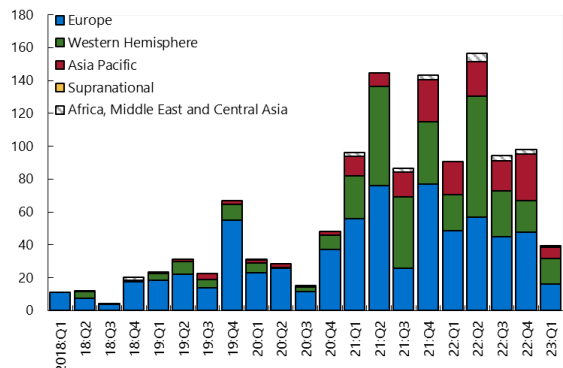
## The Sustainability-linked Loan (SLL) Market Declined Sharply in Q1 2023, Driven Mostly by Lower Issuance in Europe and Asia.

*Sustainability-linked loan issuances saw a steep decline despite promising market developments.*

*Higher diversification of sustainability-linked loan supply in Q1 2023, with lion's share in the utilities industry.*

### 7. Global Sustainability-linked Loan Issuance by Region

(Billions of U.S. dollars as of March 31, 2023)

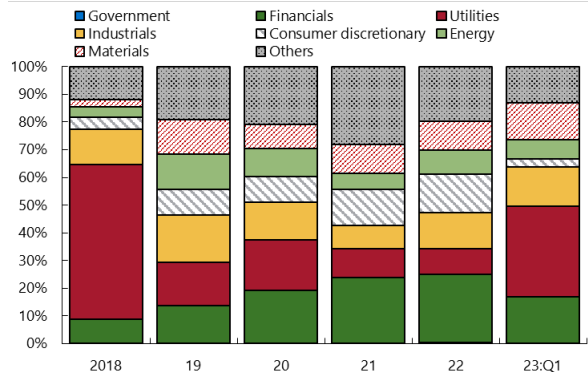


Sources: BloombergNEF and IMF staff calculations.

- Despite strong momentum in the sustainable debt market, the volume of SLLs issued in Q1 2023 fell to its lowest level since 2020, contracting by 60 percent compared to last quarter.
- The [SLL Principles and Guidance](#) have been revised by the industry in Asia, with [tighter requirements for management of proceeds](#). All SLLs originated, extended or refinanced after 9 March 2023 must fully align with this new version. The impact on issuance is yet to be clarified.

### 8. Global Sustainability-linked Loan Issuance Industry Breakdown

(In percent, as of March 31, 2023)



Sources: BloombergNEF and IMF staff calculations.

- Sustainability-linked loan issuances continued to be well-spread across industries in Q1 2023, with the share of utilities (33 percent) surpassing financials (17 percent), becoming the largest issuers.

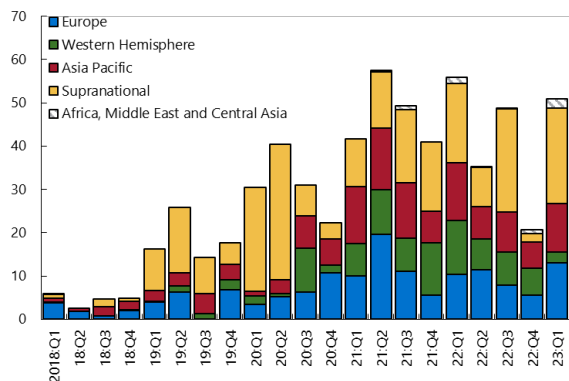
## Growing Interest in Sustainability Bonds May Be Led by Increasing Synergies Between Climate and Social Projects and Government-led Issuance.

*Sustainability bonds rebounded in Q1 2023, with Governments represented the most significant share of supranationals and Europe leading the way.*

*Governments represented the most significant share of sustainability bond issuance in Q1 2023.*

### 9. Global Sustainability Bond Issuance by Region

(Billions of U.S. dollars as of March 31, 2023)

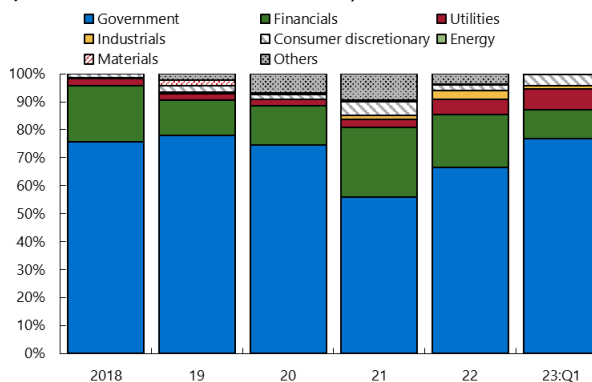


Sources: BloombergNEF and IMF staff calculations.

- After a downward trend in 2022, issuance rebounded in Q1 2023, reaching US\$13 billion. Market participants expect issuers to increasingly consider synergies between social and climate projects.

### 10. Global Sustainability Bond Issuance Industry Breakdown

(In percent, as of March 31, 2023)



Sources: BloombergNEF and IMF staff calculations.

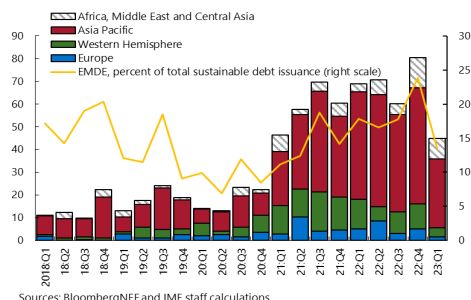
- Government (77 percent) and financials (11 percent) continued to supply the bulk of sustainability bonds in Q1 2023.

## Sustainable Debt Issuance in Emerging Markets and Developing Economies (EMDEs) Showed Signs of Weakness in Q1 2023.

*Sustainable debt issuance in EMDEs lost momentum in Q1 2023. Green bonds remained the largest segment, although the proportion of non-green bonds has increased over time.*

### 11. EMDE Sustainable Debt Issuance by Region

(Billions of U.S. dollars; percent; as of March 31, 2023)

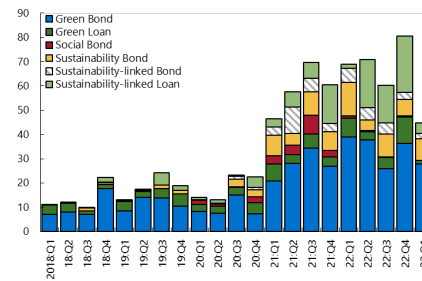


Sources: BloombergNEF and IMF staff calculations.

- Sustainable debt issuance in EMDEs dropped abruptly, about 44 percent, compared to the last quarter of 2022. This weakness was broad-based across all regions; with Asia Pacific contributing to the largest drop (US\$ 21 billion decrease).
- However, prospects for sustainable debt issuance in EMDEs remain positive, amid a greater share of local currency denominated bonds in 2022 and early 2023. Chile and Uruguay 2022 SLB issuances may also have a positive traction for the market. Market participants point out the need of a transition finance framework tailored for EMDEs in order to increase sustainable debt issuance.

### 12. EMDE Sustainable Debt Issuance by Instrument

(Billions of U.S. dollars; percent; as of March 31, 2023)



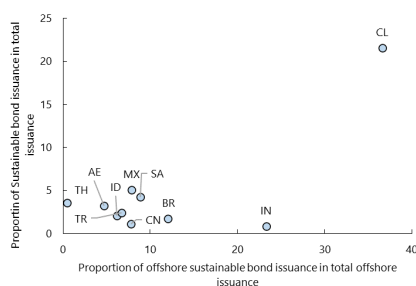
Sources: BloombergNEF and IMF staff calculations.

- Amid growing evidence of higher greenium for EMDE sovereigns ([IMF, April 2023](#)), the sovereign market remained dynamic. [Early 2023](#), India raised a debut and oversubscribed US\$1 billion bond and is expecting to sell an additional US\$3 billion this fiscal year. A forthcoming taxonomy should support development [according to market participants](#). Turkey made a debut in [April 2023](#) with a \$2.5 billion July 2030 green bond.
- Market participants welcomed the increased policy focus on sovereigns (including the [ASCOR project](#) and [current NGFS work](#)).

*Despite recent increases, EMDE sustainable debt issuance remained limited compared to that of AEs.*

### 13. Sustainable Bond Issuance as a Proportion of Total Issuance – Country Level

(Percent; cumulative since 2015)



Sources: Bloomberg Finance L.P. and IMF staff calculations.

- Across EMDEs ex. Chile, sustainable bond issuance still accounted for a relatively small share of total issuance since 2015, averaging just 2.7 percent.
- The offshore market exhibited different dynamics, with India and Brazil sustainable bond issuance amounting to over a 10 percent share.
- This stark contrast between total and offshore market reflects the differences in EMDE countries' ability to access financing needs in USD and EUR versus local currencies.

*Among EMDEs, market shares had known variations over the years and across instruments.*

### 14. EMDE Sustainable Debt Issuance by Instrument by Country

(Cumulative Issuance since 2015)



Sources: BloombergNEF and IMF staff calculations.

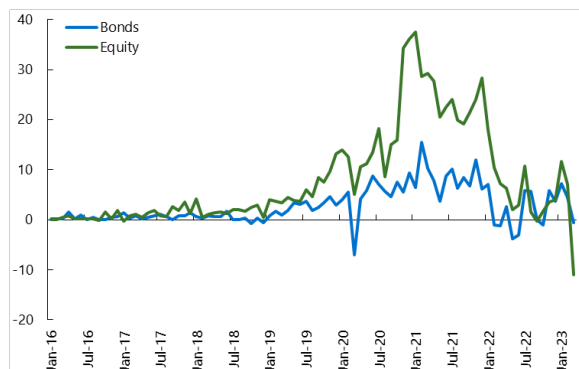
- EMDE markets are characterized by a prevalent richness and variation ([Goel et al. 2022](#)). This is reflected through the product mix. Some countries dominate more than others in specific asset classes: Chile primarily for social bonds, green bonds and sustainability bonds; Turkey for SLLs; Mexico for sustainability bonds and SLLs. This variation over time and among countries reflects the role played by specific policy and regulatory approaches, and the extent of market development within EMDEs.

## ESG Funds Saw Inflows in First Two Months of 2023 but Witnessed Sharp Outflows in March 2023 amid Banking Sector Stress.

ESG fund flows saw US\$11 billion of outflows in March 2023, reversing a positive start-of-the-year trend.

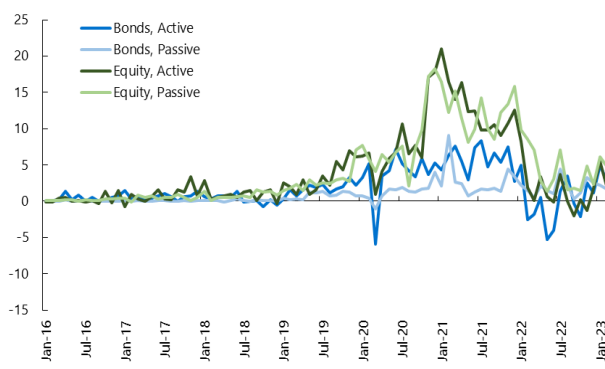
Passive equity ESG/SRI funds experienced most outflows in March 2023, their largest since 2016.

### 15. Equity and Bond Flows into ESG/SRI Funds (Billions of U.S. dollar as of March 31, 2023)



Source: EPFR.

### 16. Equity and Bond Flows into ESG/SRI Funds (Billions of U.S. dollar as of March 31, 2023)



Source: EPFR.

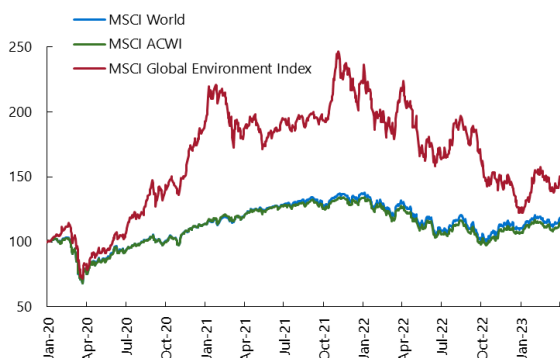
- Global ESG/SRI funds attracted US\$19 billion of net cumulative new money in Q1 2023 (net inflows in January and February).
- The ever-evolving regulatory environment is expected to drive market developments and address greenwashing concerns in 2023, including forthcoming **i) global corporate sustainability disclosures** and a **global assurance framework**, **ii) clarifications** in EU fund contractual disclosure rules, **iii) new fund rules and labels** in the [UK](#), [Canada](#), [Japan](#), [Malaysia](#), [Thailand](#) and potentially in the [United States](#) and [Korea](#).
- While all equity and bond ESG/SRI funds experienced lower net flows in March 2023, overall outflows were mostly driven by significant drawdowns in passive equity ESG/SRI funds.
- Overall however, ESG/SRI funds should continue to gain ground with growing asset owner and retail investor demand.

## Green Equities and Green Bonds Outperformed in Q1 2023.

Green equities resumed the long-standing trend of outperforming global peers in Q1 2023.

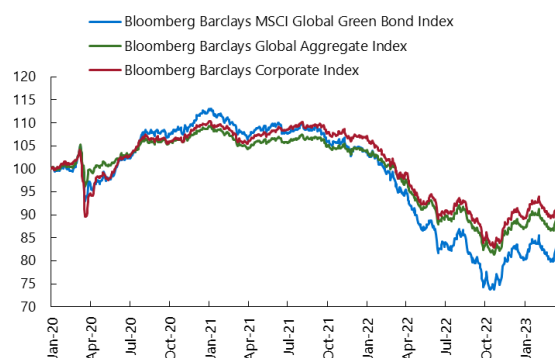
Green bonds mildly outperformed to start 2023, but largely tracking similar movements of its peers.

### 17. MSCI Global Environment Index and Various Global Equity Indices (Normalized to 100 as of December 31, 2019)



Sources: Bloomberg Finance L.P. and IMF staff calculations.

### 18. Bloomberg Barclays MSCI Global Green Bond Index and Various Fixed Income Indices (Normalized to 100 as of December 31, 2019)



Sources: Bloomberg Finance L.P. and IMF staff calculations.

- Despite suffering a pullback from the peak in February 2023, the MSCI Global Environment Index still comfortably outperformed its global peers to start the year of 2023 after a bout of underperformance in the second half of 2022.
- Since the start of the year, the Bloomberg Barclays MSCI Global Green Bond Index outperformed its global peers slightly, mostly tracking their movements during the first quarter.