

SUSTAINABLE DEBT MONITOR

Poised for a Rebound

January 26th, 2023

Khadija Mahmood, Economist, kmahmood@iif.com

Emre Tiftik, Director of Sustainability Research, etiftik@iif.com

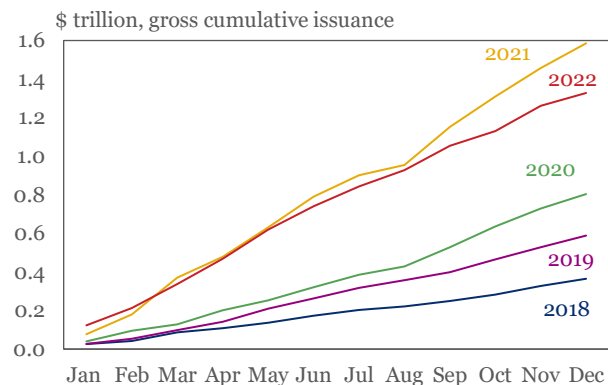
Editor: Sonja Gibbs, Managing Director, sgibbs@iif.com

- The ESG debt universe is fast approaching the \$5trn mark, up from \$3.4trn in 2021.
- While rising global rates weighed on issuance in 2022 (\$1.3trn, down from a record high of over \$1.5trn in 2021)...
- ...issuance in emerging markets remained strong, reaching an all-time high of \$260bn—mostly driven by China.
- We expect total ESG debt issuance to hit \$1.7trn in 2023 and \$2trn in 2024.
- As commercial banks continue to advance in implementing net-zero commitments and natural capital financing gains traction, we foresee a strong expansion in ESG loan markets this year.
- ESG bond issuance is also expected to pick up in 2023, though it may not match the record of \$1.2trn seen in 2021.

Temporary slowdown in 2022: Amidst higher interest rates and ongoing [ESG backlash](#) in the U.S., total sustainable debt issuance (bonds and loans) was softer in 2022, coming in at \$1.3 trillion, down from \$1.5 trillion in 2021 (Chart 1). This marked the first slowdown in market growth since 2015, with total issuance over 25% below our [baseline projections](#) made at the start of 2022 (see below). Despite this substantial loss in momentum, ESG debt issuance in emerging markets and developing countries surged to a new record of some \$260 billion in 2022, led by China, Turkey, and Mexico. The surge in green bond issuance in China—as the government seeks to hit targets for peak emissions by 2030—was particularly striking, topping \$110 billion. With cumulative green bond investment reaching the \$2 trillion mark, the size of the ESG debt universe expanded to a record \$4.8 trillion in 2022, up from \$3.4 trillion in 2021. Of note, the U.S., France, and Germany represents nearly 35% of the global ESG debt market (Table 1).

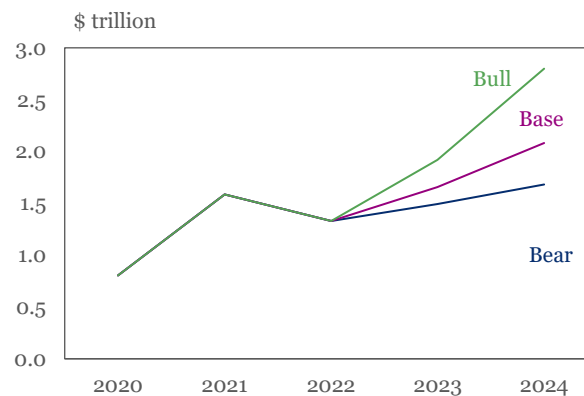
Brighter outlook ahead: Despite subdued issuance last year, we anticipate a strong rebound in 2023 as demand for ESG debt continues to surge. With a softening U.S. dollar—and easier global financial conditions anticipated—international funding pressures should ease further. Our current baseline projection suggests that global ESG debt issuance will hit a fresh high of \$1.7 trillion in 2023 and reach \$2 trillion in 2024 (Chart 2). With banks increasingly facing [high expectations for progress](#) on portfolio decarbonization, we

Chart 1: Global ESG debt issuance amounted to some \$1.3 trillion in 2022, down over 15% from 2021



Source: Bloomberg, BNEF, IIF

Chart 2: ESG debt issuance is projected to climb to \$1.7 trillion in 2023 and near \$2 trillion in 2024



Source: IIF

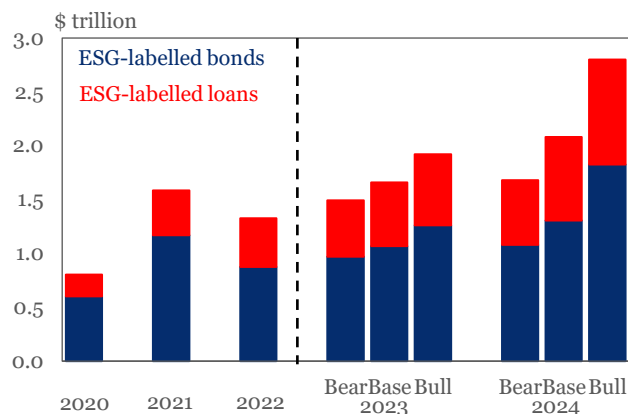
expect ESG-labelled loan issuance to top \$590 billion in 2023, up from \$450 billion in 2022 (Chart 3). Under our baseline scenario, we project ESG-labelled bond issuance to reach over \$1 trillion in 2023. While this would be a solid recovery from soft 2022 levels, still-high borrowing costs are likely to keep ESG bond issuance below the record \$1.2 trillion seen in 2021, in line with trends in fixed-income markets more broadly.

Biodiversity in focus: As governments start adopting the global [biodiversity framework](#) agreed to at COP15, we expect creditor and borrower interest in ESG debt instruments with nature-based KPIs to surge in 2023. Since end-2020, over \$380 billion of ESG debt issuance (14% of total) had a biodiversity KPI or a biodiversity-related project category—like terrestrial and aquatic biodiversity conservation, among other categories.

Tough year for bond markets...The ESG debt market slowdown in 2022 was primarily led by bond markets: overall ESG-labelled bond volumes declined by 25% to \$875 billion (Chart 4), compared to the record high of \$1.2 trillion in 2021. With corporates accounting for a significant portion of the global ESG bond issuance (Chart 5), higher borrowing costs have become a major obstacle for market growth in recent quarters. Case in point, green bond issuance shrank by almost 20% to nearly \$470 billion while the contraction in social bond issuance was over 40%.

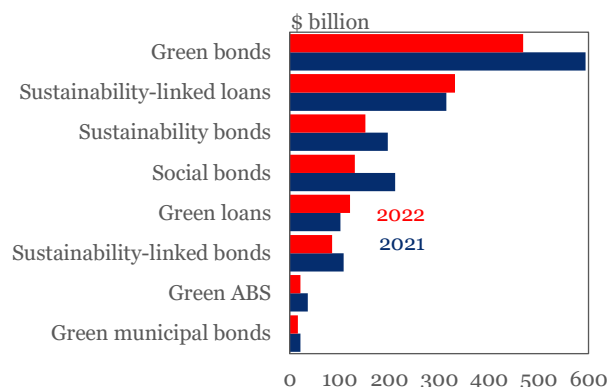
...but loan markets were more robust in 2022: ESG-labelled loan issuance increased by some 10% to over \$450 billion in 2022, bringing the total ESG loan market size to over \$1.5 trillion. Green loans were the fastest growing segment of the market, albeit from a lower base: total issuance

Chart 3: ESG debt issuance projections by instrument



Source: Bloomberg, IIF

Chart 4: Bonds faltered in 2022, but ESG loans grew



Source: Bloomberg, IIF

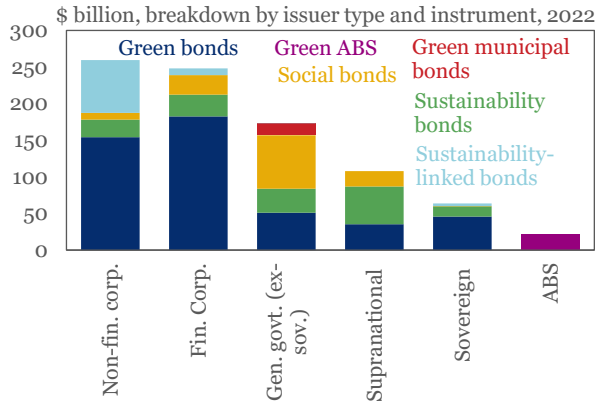
reached \$120 billion—up 20%—led by the utilities and financial sectors. Meanwhile, sustainability-linked loan issuance rose to some \$330 billion in 2022, up from \$315 billion in 2021. At present, the U.S., France, and Germany have the largest sustainability-linked loan markets.

Table 1: Outstanding Sustainable Debt Securities, Q4 2022

\$ billion	Debt securities	Green bonds	Green ABS	Sustainability bonds	Social bonds	Green municipal bonds	Sustainability-linked bonds	Loans	Green loans	Sustainability-linked loans	Total
Global markets	3223	1755	78	580	530	89	191	1562	530	1031	4785
Mature markets	2211	1283	75	269	352	89	143	1212	337	875	3423
Emerging & frontier markets	449	302	4	74	24	0	45	232	144	88	682
Offshore centers	38	30	0	3	2	0	3	117	49	68	155
Supranationals	525	139	0	235	152	0	0	0	0	0	525
Top 7 MMs	1522	850	73	165	243	89	102	902	229	673	2424
Top 7 EMs	353	249	4	43	20	0	38	131	71	60	484
2 offshore centers	37	30	0	3	2	0	3	110	49	61	147

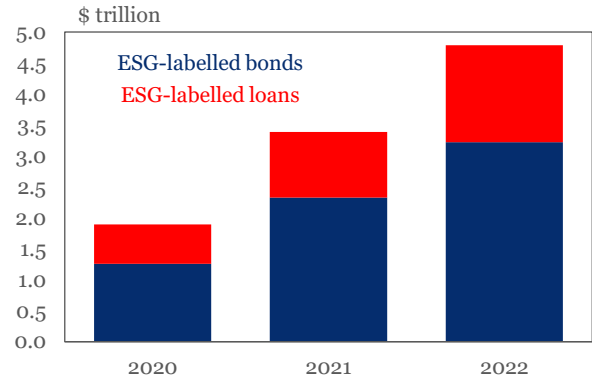
Source: Bloomberg, BNEF, IIF; top 7 mature markets by size include the U.S., France, Germany, the UK, Spain, Italy, and the Netherlands; top 7 emerging markets by size include China, Chile, India, Mexico, Brazil, Turkey, and the UAE; the 2 offshore centers by size include Singapore and Hong Kong; *compiled by country of risk

Chart 5: Corporates are the biggest issuers of ESG-labelled bonds, accounting for nearly 60% of the total



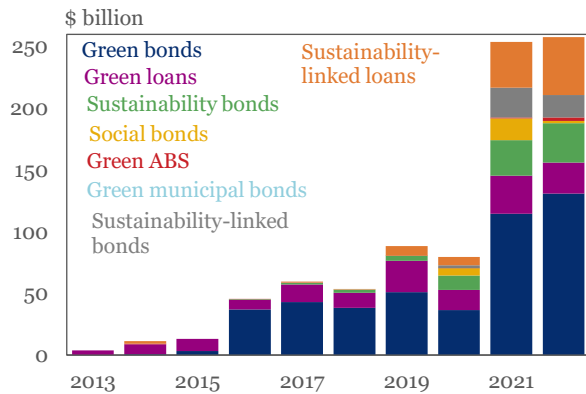
Source: Bloomberg, IIF

Chart 6: Sustainable debt universe reached \$4.8trn in 2022, up from \$3.4trn a year ago and \$1.9trn in 2020



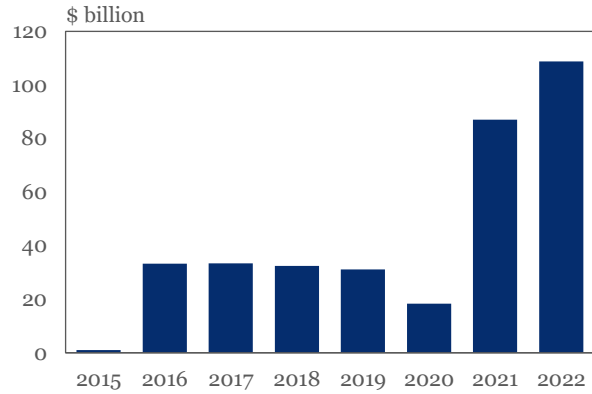
Source: Bloomberg, IIF

Chart 7: ESG debt issuance in EM and FMs surged to \$258 billion in 2022,



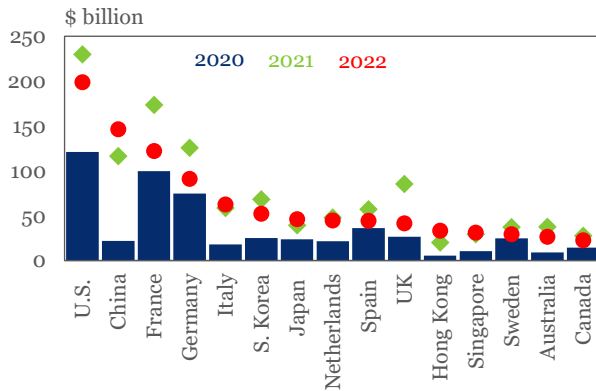
Source: Bloomberg, IIF

Chart 8: ...driven largely by green bond issuance in China



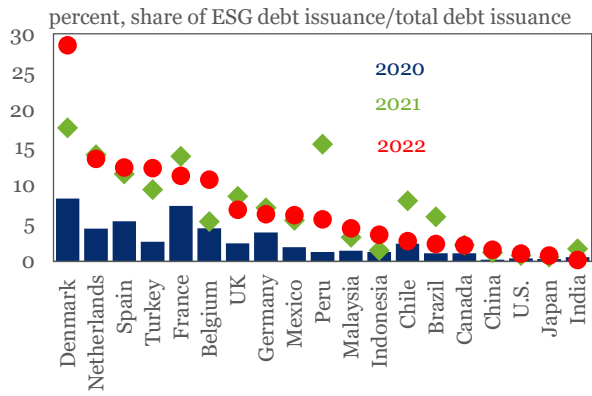
Source: Bloomberg, IIF

Chart 9: The U.S., China, and France are the top 3 ESG debt issuers in 2022



Source: Bloomberg, IIF

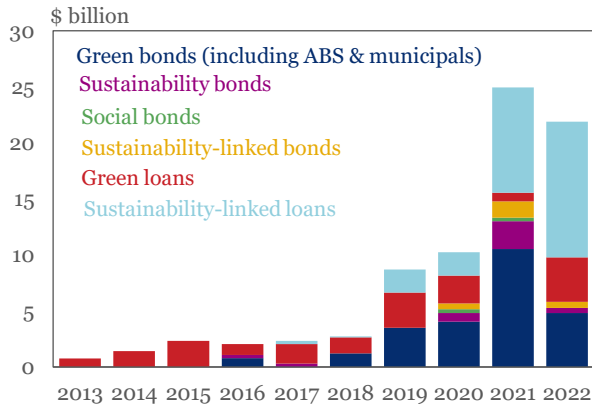
Chart 10: ...but the share of ESG debt issuance in total debt issuance within these countries is still less than 15%



Source: Bloomberg, IIF; includes ST & LT securities

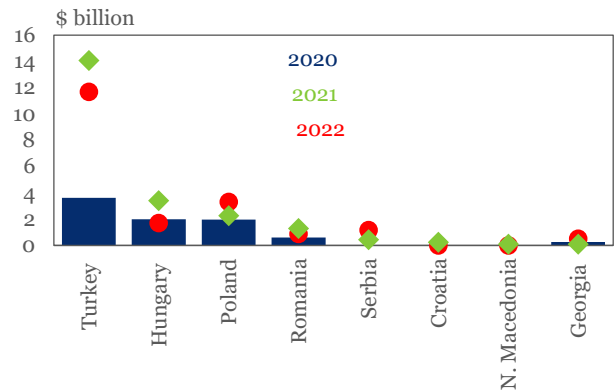
Chartbook: ESG Debt Markets in EM Europe

Chart A: ESG debt issuance in EM Europe has remained robust despite the market disruption in 2022



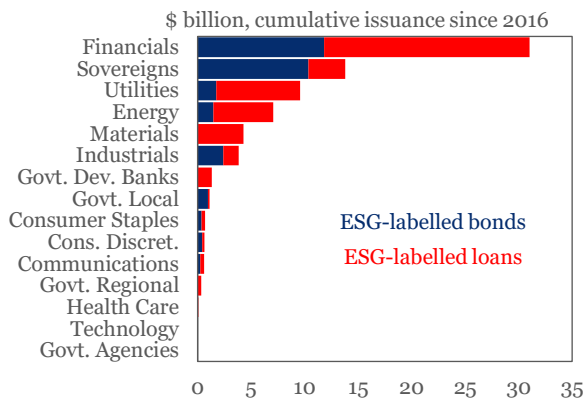
Source: Bloomberg, IIF

Chart B: In 2022, Turkey, Hungary and Poland were the top ESG debt issuers in the region



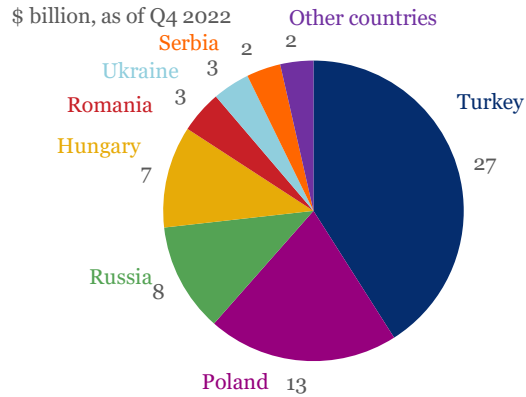
Source: Bloomberg, IIF

Chart C: Since 2016, the financial sector accounted for 40% of total ESG debt issuance



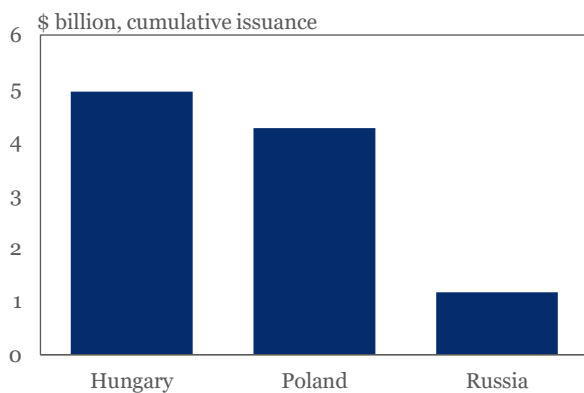
Source: Bloomberg, IIF

Chart D: Turkey, Poland, and Russia have the largest ESG debt markets in EM Europe—accounting for 70% of the total



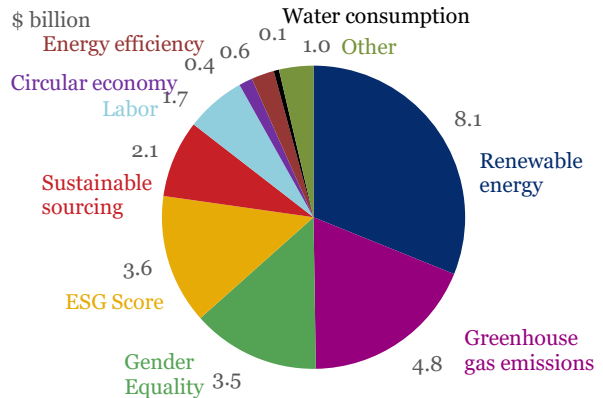
Source: Bloomberg, IIF

Chart E: Hungary, Poland and Russia are the only sovereign ESG bond issuers



Source: Bloomberg, IIF

Chart F: Renewable energy and greenhouse gas emissions are the top two sustainability-linked KPIs for loans



Source: Bloomberg, IIF

Table 2: ESG debt issuance by country*

	ESG 2020	2020 share	ESG 2021	2021 share	ESG Q1 '22	Q1 share	ESG Q2 '22	Q2 share	ESG Q3 '22	Q3 share	ESG Q4 '22	Q4 share
	\$ billion	% of total debt issuance	\$ billion	% of total debt issuance	\$ billion	% of total debt issuance	\$ billion	% of total debt issuance	\$ billion	% of total debt issuance	\$ billion	% of total debt issuance
U.S.	121.1	0.4	229.9	0.8	36.2	0.6	84.4	1.7	48.7	1.0	29.6	0.9
China	22.0	0.2	116.3	1.2	33.9	1.3	47.8	1.8	31.7	1.4	32.9	1.6
France	99.5	7.3	173.6	13.9	31.1	9.0	31.8	10.3	28.3	12.1	30.7	15.9
Germany	74.8	3.8	125.6	7.1	23.1	4.7	25.6	7.0	26.4	8.2	16.0	5.4
Italy	18.0	1.9	58.4	7.1	11.3	7.2	17.1	9.7	24.4	20.7	9.7	7.9
South Korea	25.2	3.5	68.1	9.2	14.4	7.9	15.4	9.4	12.0	7.5	10.3	8.6
Netherlands	21.6	4.3	47.8	14.0	14.0	10.1	18.4	23.7	5.5	10.6	6.8	10.8
United Kingdom	26.7	2.4	85.4	8.6	16.5	9.7	11.2	6.4	9.0	7.6	4.8	3.3
Japan	23.5	0.3	39.5	0.5	13.4	0.8	9.1	0.6	11.4	0.8	12.3	0.9
Spain	36.0	5.3	57.2	11.5	13.5	8.8	10.6	12.8	9.4	15.3	10.8	17.4
Australia	9.2	1.8	37.6	10.1	10.9	10.4	9.5	8.1	2.8	3.7	3.5	4.3
Sweden	24.8	10.2	37.1	13.9	7.7	16.4	8.8	15.7	4.5	10.9	8.4	18.7
Canada	14.5	1.1	27.5	2.2	8.4	2.5	4.0	1.4	2.7	1.1	7.5	4.0
Denmark	6.8	8.3	17.7	17.6	4.4	28.9	5.4	41.8	3.7	32.4	1.3	10.6
Norway	9.9	6.3	19.3	11.2	4.8	10.6	3.8	12.5	4.5	20.4	2.4	10.3
Belgium	8.3	4.4	6.9	5.2	3.3	4.7	2.2	9.9	5.2	20.6	4.3	20.0
Turkey	3.6	2.6	11.7	9.5	3.4	12.5	6.9	27.7	0.3	1.8	3.5	7.6
Mexico	4.8	1.9	14.2	5.4	2.8	3.4	3.4	6.0	3.9	8.9	3.3	8.7
Austria	1.9	0.8	7.8	4.7	0.5	1.3	7.5	25.7	1.9	7.9	2.5	15.2
Switzerland	6.8	2.2	14.1	5.3	4.1	6.4	2.8	4.3	2.0	3.5	2.9	5.5
Luxembourg	5.5	5.6	15.4	11.3	4.3	16.1	1.1	4.6	2.4	5.4	0.3	1.0
Chile	6.4	2.3	24.6	8.0	6.7	15.6	0.5	0.5	0.0	0.0	1.1	1.1
Finland	7.6	6.1	12.7	11.4	2.5	6.5	4.1	10.5	0.3	0.8	1.1	7.0
Portugal	4.2	6.8	5.1	13.9	1.6	11.7	0.5	5.1	3.8	67.8	1.6	42.2
Brazil	2.9	1.1	12.2	5.9	2.2	2.0	1.6	2.0	2.2	3.5	0.6	1.9
India	5.1	0.6	13.8	1.7	2.6	1.5	0.9	0.4	1.3	0.0	2.2	1.4
Indonesia	2.3	1.3	3.4	1.4	0.2	0.4	2.6	5.7	1.7	3.0	2.2	4.8
Ireland	1.8	2.4	7.2	4.6	0.6	4.4	1.1	9.3	2.4	25.8	0.8	8.5

Source: Bloomberg, IIF; ordered by the largest ESG debt issuers in 2022ytd

Table 3: List of Countries in the Sustainable Debt Monitor Database

	Emerging and frontier markets (141)			Mature markets (35)	Offshore centers (24)
Afghanistan	Egypt	Malaysia	Saudi Arabia	Australia	Anguilla
Albania	El Salvador	Maldives	Senegal	Austria	Antigua & Barbuda
Algeria	Equatorial Guinea	Mali	Serbia	Belgium	Aruba
Angola	Eritrea	Marshall Islands	Seychelles	Canada	Bahamas
Argentina	Eswatini	Mauritania	Sierra Leone	Cyprus	Bahrain
Armenia	Ethiopia	Mexico	Solomon Islands	Czech Republic	Barbados
Azerbaijan	Fiji	Micronesia	Somalia	Denmark	Belize
Bangladesh	Gabon	Moldova	South Africa	Estonia	Bermuda
Belarus	Georgia	Mongolia	Sri Lanka	Finland	British Virgin Islands
Benin	Ghana	Montenegro	Sudan	France	Cayman Islands
Bhutan	Guatemala	Morocco	Suriname	Germany	Curacao
Bolivia	Guinea	Mozambique	Syria	Greece	Dominica
Bosnia & Herzegovina	Guinea-Bissau	Myanmar	Taiwan (China)	Iceland	Gibraltar
Botswana	Guyana	Namibia	Tajikistan	Ireland	Grenada
Brazil	Haiti	Nauru	Tanzania	Israel	Hong Kong
Brunei Darussalam	Honduras	Nepal	Thailand	Italy	Lebanon
Bulgaria	Hungary	Nicaragua	The Gambia	Japan	Mauritius
Burkina Faso	India	Niger	Timor Leste	Latvia	Montserrat
Burundi	Indonesia	Nigeria	Togo	Lithuania	Panama
Cabo Verde	Iran	North Macedonia	Tonga	Luxembourg	St. Kitts & Nevis
Cambodia	Iraq	Oman	Trinidad & Tobago	Malta	St. Lucia
Cameroon	Jamaica	Pakistan	Tunisia	Netherlands	St. Vincent & the Grenadines
Central African Republic	Jordan	Palau	Turkey	New Zealand	Singapore
Chad	Kazakhstan	Papua New Guinea	Turkmenistan	Norway	Turks & Caicos Islands
Chile	Kenya	Paraguay	Tuvalu	Portugal	
China	Kiribati	Peru	Uganda	Puerto Rico	
Colombia	Kuwait	Philippines	Ukraine	San Marino	
Comoros	Kyrgyz Republic	Poland	UAE	Slovakia	
Costa Rica	Lao P.D.R.	Qatar	Uruguay	Slovenia	
Cote d'Ivoire	Lesotho	Republic of Congo	Uzbekistan	South Korea	
Croatia	Liberia	Romania	Vanuatu	Spain	
Dem. Rep. of the Congo	Libya	Russia	Venezuela	Sweden	
Djibouti	Macao	Rwanda	Vietnam	Switzerland	
Dominican Republic	Madagascar	Samoa	Yemen	U.S.	
Ecuador	Malawi	Sao Tome & Principe	Zambia	United Kingdom	
			Zimbabwe		

Appendix A: Definitions of Sustainable Debt Instruments

- *Green Bond/Loan*: proceeds from this fixed income security are applied for climate and environmental projects
- *Green Asset-Backed Securities*: instrument's cash flows relate to low-carbon assets or where the proceeds are used in low-carbon asset investments
- *Sustainability Bond*: bond proceeds are applied to environmentally sustainable outcome, a combination of both green and social projects
- *Social Bond*: bond proceeds are applied towards social projects, like promoting social welfare and creating a positive impact within communities
- *Green municipal bond*: bond proceeds enable local government to finance infrastructure projects that help the environment
- *Sustainability-linked bond/loan*: the terms of these fixed income security are aligned with the issuer/borrower's sustainability performance targets with the aim of improving the sustainability profile

Appendix B: Country coverage

Mature markets cover 35 countries, emerging and frontier markets cover 141 countries and offshore centers include 24 countries. See Table 3 for the complete list.