2023 Review & 2024 Outlook

Sustainable Finance

INFORMATION, INSIGHTS, AND IDEAS

January 2024

2023 Trends & Year in Review

Global ESG-Labelled Bond Volume Surpasses $1T for Second Time

- Global ESG-labelled bond issuance ticked up slightly YoY, surpassing the $1T mark for the second time ever, but fell below 2021's record year.

Focus on Green Bonds

- Green bonds made up 64% of ESG-labelled bonds, with volumes meeting the prior 2021 record for green bond issuance.
- Issuers expanded eligible green project categories in 2023 to include nuclear power, carbon capture and storage, and clean hydrogen, among other projects, as government policy for clean energy investment grows.

More Sovereigns Step into Market

- Sovereigns demonstrated their support for the sustainable finance market in 2023 through the release of numerous regional taxonomies including from Mexico and Brazil, as well as new or updated financing frameworks from Canada, Australia, Japan, and Argentina.

Continued Evolution of Sustainability-Linked Finance

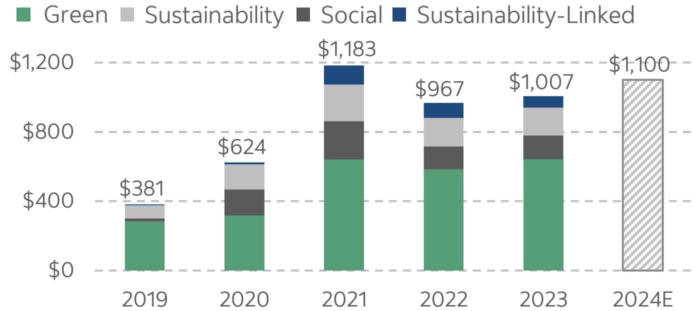
- SLBs and SLLs continued to face pressure in the market, as they fought for their credibility with more robust structures emerging focused on meaningful KPIs.

A Shift from Voluntary to Mandatory ESG Reporting

- 2023 was another landmark year for ESG reporting regulations, with the publication of the International Sustainability Standards Board's (ISSB) first two disclosure standards. Across jurisdictions globally, companies are expected to place unprecedented focus on ESG data collection, verification, and reporting in preparation for mandatory reporting.

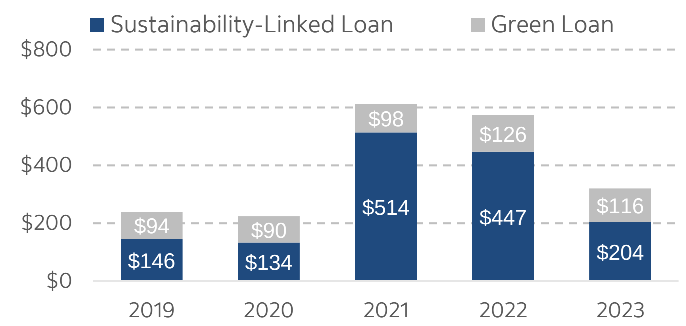
Annual Global ESG-Labelled Bond Volumes

USDeq. | ESG-Labelled Bonds | 2019-2024E



Annual Global ESG-Labelled Loan Volumes

USDeq. | ESG-Labelled Loans | 2019-2023



2024 ESG & Sustainable Finance Outlook

Annual Global ESG-Labelled Bond Growth

- Supported by broader market growth, notable repeat and inaugural sovereign issuers, and ongoing market innovation, Scotiabank is forecasting a 5-10% increase in ESG-labelled bond volumes in 2024.

Product Innovation Embraced

- 2024 looks poised to build upon recent innovation, as existing issuers become more comfortable with their sustainable finance portfolios and expand to include new financial products (e.g., sustainability-linked deposits, debt-for-nature swaps) or combine labels (e.g., Green-SLBs) in order to differentiate their programs.

Evolving Greenium as Inflation Stabilizes

- The prospective resurgence of the greenium, dependent upon broader market conditions, would provide added incentive to issue ESG-labelled debt, complemented by policy incentives and ESG regulation that add credibility, certainty, and robustness for labelled products.

When Transition Plans Meet Financing

- Transition planning will take full force, as corporates further articulate the implementation pathways toward their 2030 goals.
- Financing alternatives beyond ESG-labelled debt ease the cost burden of pursuing new transition-oriented technologies or offer new streams of revenue, like carbon credits.

Public – Private Partnerships on Blended Finance

- Noting a funding gap of US$3.3-4.5tn to achieve the 2030 UN SDG Agenda alongside public commitments made at past COP climate conferences to provide loss and damage funding for vulnerable countries impacted by natural disasters, the prospects of increased blended financing solutions are strong.

Progress in Biodiversity and Natural Capital

- Leading up to COP16 on Biodiversity, nations will be focusing on devising revised action plans, as mandated in the Global Biodiversity Framework. This increased attention is expected to drive further funding towards biodiversity conservation, through both Use of Proceeds and natural capital centered KPIs.

All figures in USDeq. unless otherwise noted
Sources: Bloomberg Finance L.P., BloombergNEF, Scotiabank

Scotiabank

1 Global Sustainable Finance Market Summary: 2023

Green Bonds Lead 2023, $1.1 Trillion Forecasted for 2024

Green bonds excelled in 2023, with annual volume totaling US$eq. 643bn, aligned with 2021's record and exceeding 2022 volume by over 10%, while comprising 64% of 2023's aggregate ESG-labelled bond issuance.

- Policies such as the U.S. Inflation Reduction Act, Canadian CCS tax credits and EU Green Deal support green capex.
- Issuers included newer technologies as 'green' in 2023, such as green hydrogen and ammonia, carbon capture & storage, and new nuclear power projects.

Scotiabank forecasts global ESG-labelled bond issuance to see a modest increase of 5-10% in 2024 and remaining over a $1 trillion.

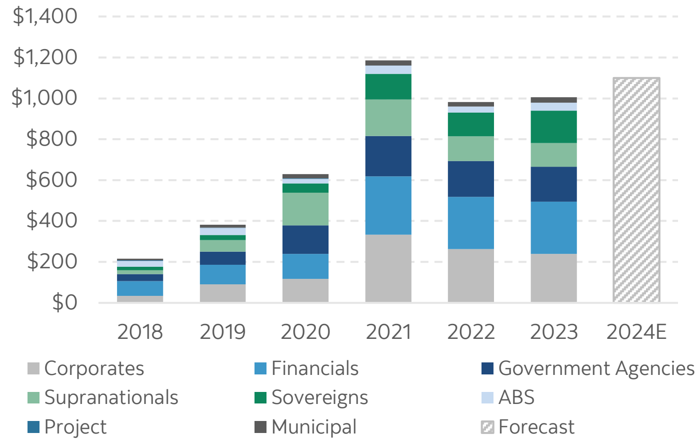
- The uptick is expected to be supported by increased issuance in the broader market overall, continued momentum for the green label and strength in regions such as Europe and Latin America.
- We expect sovereign issuance in particular to be strong globally, with large issuance plans announced by Germany (€19B / US$21B) and Japan (¥1.6T+ / US$11B+), repeat issuance from sovereigns, such as Canada and Chile, and a boost from new entrants to the sovereign ESG market.
- The U.S. ESG-labelled bond market faces another year of uncertainty as the anti-ESG movement continues into an election year, leading to heightened policy and regulatory uncertainty.
- Headwinds to our forecast include the potential for "higher for longer" interest rates, weaker economic conditions and further polarization in ESG regulation, while the potential return of a consistent 'greenium' and the development of key guidance on transition and science-based targets for remaining sectors would provide for potential tailwinds.

For Corporates & Financials specifically, support for cleantech investment and expansion of eligible projects may support slight increases in the percentage supply that is ESG labelled in 2024. Key factors for this prediction include:

- **Canada:** viable energy transition investments and growing fiscal support with varied provincial sentiment towards ESG in emissions-intensive sectors.
- **U.S.:** concentrated sectoral adoption of ESG bonds (i.e., utilities, energy, chemicals, autos) coinciding with a growing pool of green capex, supported by policy.
- **Europe:** EU Green Bond Standard; acceptance of robust SLBs in hard-to-abate sectors by issuers and investors.

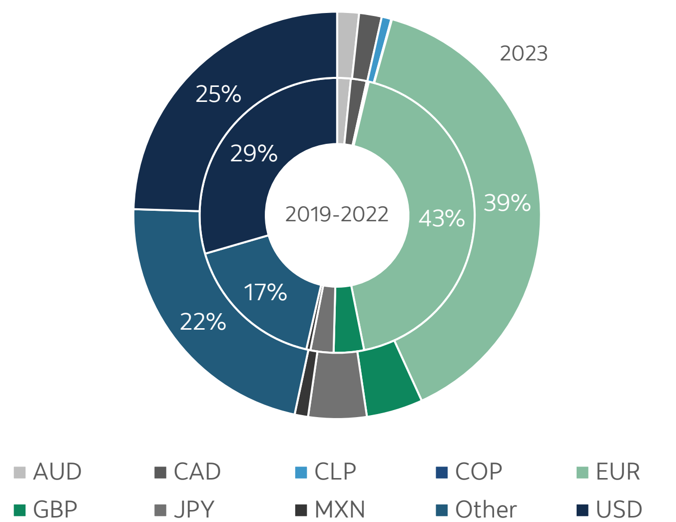
Global Annual ESG-Labelled Bond Volumes

USD Billions | Global ESG-Labelled Bonds | 2018-2024E



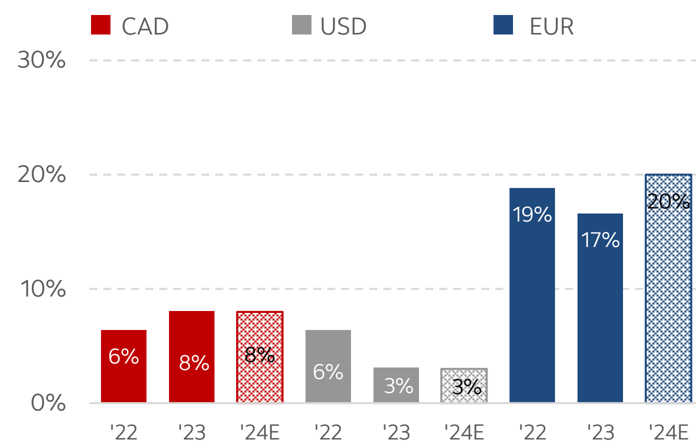
Global ESG-Labelled Bonds By Currency

USD Billions | Global ESG-Labelled Bonds | 2019-2023



Corporate & Financial ESG Bonds as a % of All Issuance

% | Corp & Fin IG ESG-Labelled Bonds | 2022-2023



Sources: Bloomberg Finance L.P., BloombergNEF, Scotiabank.
As at December 31st, 2023

1 Global Sustainable Finance Market Summary: 2023

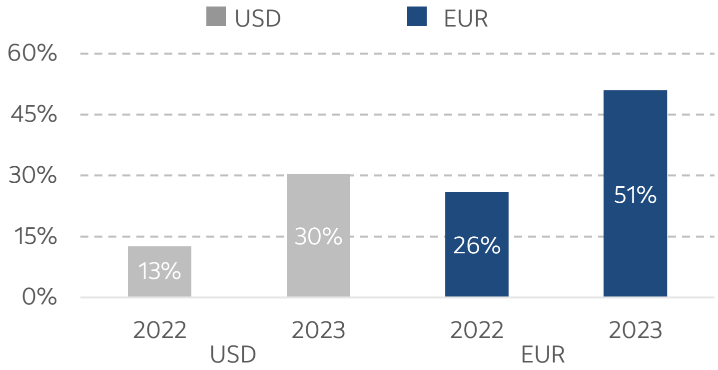
Despite SLB Slowdown, Material Structure Emerge

Despite low volumes in 2023, -24% YoY to US$67Bn, investor expectations continue to improve the quality of structures.

As an illustration of this, the proportion of SLBs with Scope 3 (including partial Scope 3) targets increased in both USD and EUR markets in 2023 as we saw more supply from energy and industrials sectors than previous years. Scope 3 materiality and its inclusion in SLBs remains a top 'ask' from investors. The publication of market standards, including the CBI's SLB certification and ICMA's SLB Principles, will support the market's rigor overtime. Despite fewer SLBs, we expect structures that do come to market to be more robust.

% of EUR & USD SLBs With Scope 3 KPIs

% | 2022-2023



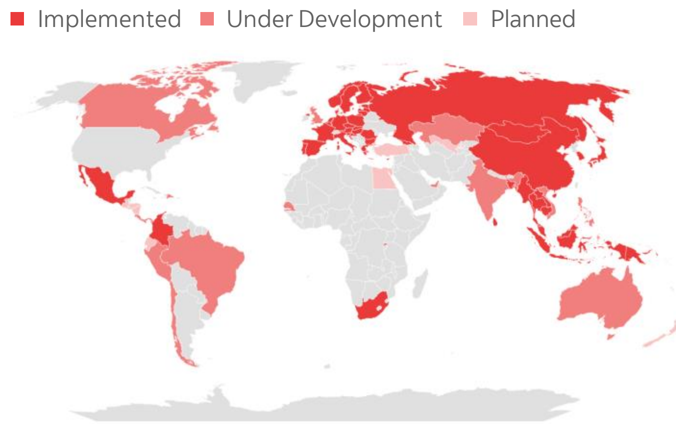
Source: Bloomberg Finance L.P., Scotiabank. As at December 31st, 2023

Momentum from Sovereign Issuers

Continued support for the sustainable finance market was illustrated by sovereigns globally in 2023 through the development of numerous regional taxonomies, as well as financing frameworks.

- **APAC:** The Australian and Japanese governments both released respective sustainable financing frameworks at the tail end of 2023.
- **North America:** The Canadian Green Bond framework was amended in November 2023, notably including new and existing nuclear power generation.
- **Latin America**: Mexico released the world's first Sustainable Taxonomy inclusive of social criteria relating to gender equality, while both Brazil and Argentina released their inaugural Sovereign Sustainable Bond Frameworks.

Global Sustainable Finance Taxonomies



Source: Center for Clean Air Policy (CCAP)

ESG Loan Market Stalls

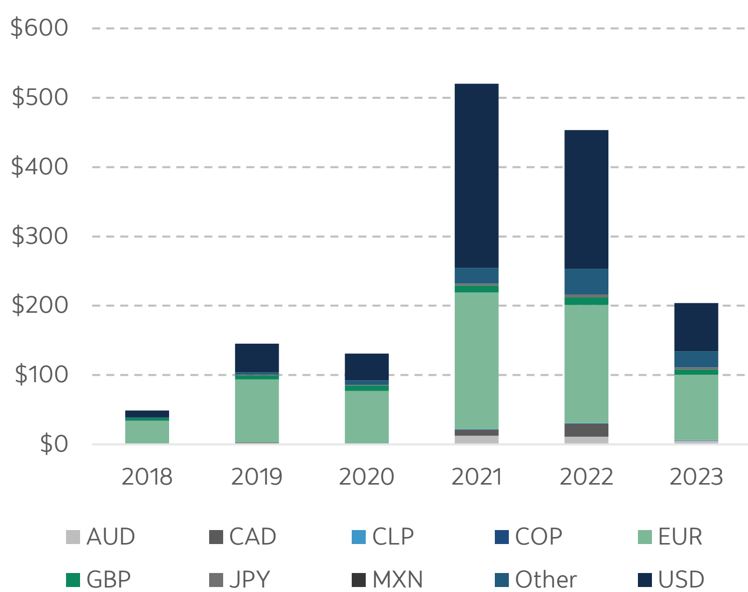
Global loan markets slowed in 2023 amidst a challenging interest rate environment, leaving many borrowers focused more on execution than ESG factors. Per BloombergNEF, total ESG loan volume fell ~44% YoY, with the most pronounced drop-off for U.S. SLLs. However, per Refinitiv LPC data, the change in the percentage of ESG vs total loan volume dipped just ~2% YoY to 14.8% over 1-3Q 2023 from 16.7% over 1-3Q 2022.

More stringent guidance from the LMA, LSTA and APLMA, and lenders' focus on mitigating greenwashing risk have highlighted the importance of baseline verification, performance validation, and science-based emissions pathways. Moreover, many lenders now have internal committees to approve SLL structures.

Looking ahead, many SLLs structured in 2019-2021 with maturities in 2025-2027 will likely refinance in 2024-2025. Meanwhile, more jurisdictions, including the U.S., are considering mandating ESG disclosures which would enhance reporting capabilities and prepare borrowers for the heightened SLL guidance. As a result, we may see fewer, but more robust SLLs moving forward.

Annual Sustainability-Loan Volumes

USDeq. | Sustainability-Linked Loans | 2018-2023



Source: Bloomberg Finance L.P., BloombergNEF, Scotiabank. As at December 31st, 2023

2 Sustainable Finance Market Summary – The Americas

Canadian Sustainable Finance Market

2023 Review

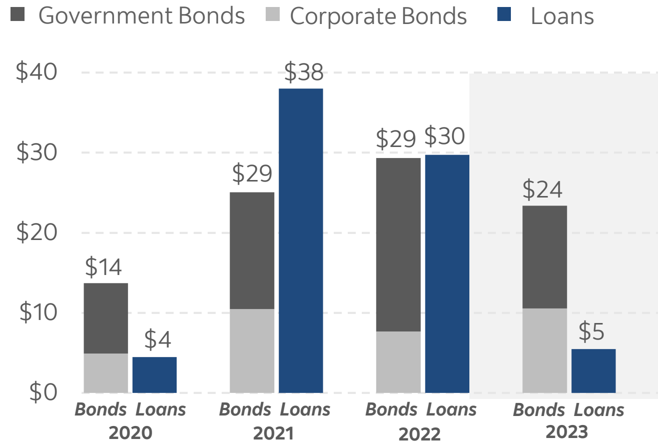
Despite notable growth in corporate ESG-labelled debt, government issuance lagged 2022 volumes due to the Government of Canada delaying their Green Bond issuance as well as an unfavourable currency environment for SSAs. Meanwhile, the labelled loan market was challenged, mirroring the broader credit environment.

2024 Outlook

Following the inclusion of new and existing nuclear power generation in the updated frameworks of the Government of Canada and Bruce Power, nuclear power is expected to continue to be embraced as an eligible green use of proceeds. Further, the SLB market is expected to see a breakthrough in new entrants to join existing issuers, Telus and Enbridge.

CAD-Dominated ESG-Labelled Debt Volumes

CAD Billions | CAD ESG-Labelled Bond and Loans Volumes



US Sustainable Finance Market

2023 Review

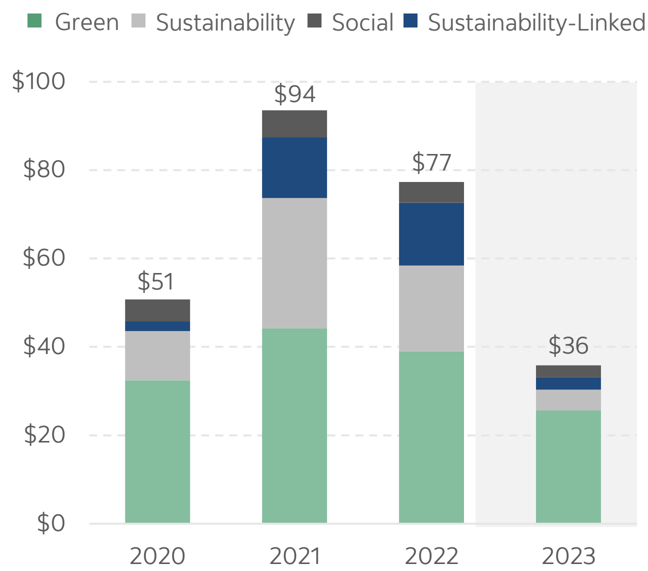
In the U.S. index eligible investment grade market, both total volumes and the proportion of ESG vs conventional debt fell by just over 50% YoY amidst more stringent debut issuer requirements, diminished pricing benefits vs prior years, delays in final SEC requirements on climate-related disclosures, and growing anti-ESG rhetoric. ESG-Labelled bond execution remained strongly competitive, outperforming conventional bonds in both new issue concession (4.2 bps vs 7.0 bps) and oversubscription rates. (4.7x vs 3.5x).

2024 Outlook

With U.S. investors becoming increasingly sophisticated on ESG, demand for labelled bonds is expected to remain high and contribute to strong execution. Supply may continue to be limited, however, due in part to the absence of the SEC's guidance on climate-related financial disclosures, now expected no sooner than April 2024, and the upcoming election year. In particular, as was the case in 2023, major US Financials are expected to have a relatively quiet year in terms of ESG bond issuance.

U.S. ESG-Labelled Bond Market

USD Billions | Index-Eligible IG USD ESG-Labelled Bond Volumes



LatAm Sustainable Finance Market

2023 Review

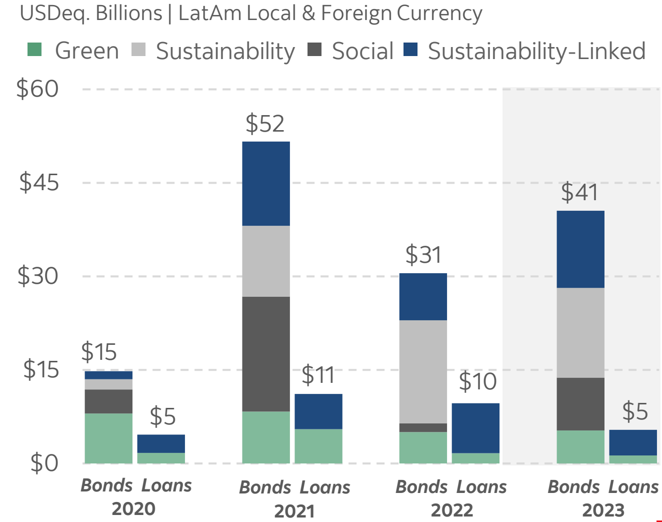
LatAm served as an innovation hub for sustainable finance throughout the year, leveraging combinations of labels and inaugural structures. The region welcomed the development of Mexico's Sustainable Taxonomy as well as numerous inaugural Sovereign Sustainable Bond Frameworks. Finally, sovereign issuers continued to play an instrumental role in the ESG-labelled market with notable offerings across regions.

2024 Outlook

Innovative structures will continue to serve as the trademark of the region, with expectations that issuers will increasingly leverage blended finance instruments. Use of Proceeds and Linked products will also be likely to incorporate concepts of biodiversity and the just transition, as these are material topics in the region. For more detailed information, please refer to our LatAm Sustainable Finance 2024 Outlook.

LATAM Currency Region ESG-Labelled Debt Volumes

USDeq. Billions | LatAm Local & Foreign Currency



Source: Bloomberg Finance L.P., Scotiabank | As of December 31st, 2023

3 Key Trends to Watch in 2024

1

Product Innovation Embraced

2023 saw the emergence of several innovative sustainable finance structures, such as the first combined green-SLB and sustainability-SLB in the Americas (issued by Inversiones CMPC and Aegea Finance, respectively), the energy sector's first convertible SLB, sovereign debt-for-nature swaps, a sovereign transition-labeled bond framework, sustainability-linked deposits, and innovative carbon credit financing structures.

Aiming to underpin sustainability strategies and investments, corporates and sovereigns alike are expected to continue embracing innovative sustainable finance product structures to grow their proportion of sustainable vs conventional financing instruments. Larger eligible pools of green assets position green securitization transactions well to demonstrate growth in 2024.

2

Evolving Greenium as Inflation Stabilizes

The pricing benefit ("greenium") for issuing ESG-labelled debt tends to decrease during times of market volatility and macro-economy uncertainty, which was a common theme throughout 2023. As we look to 2024, global financial markets are expected to stabilize as inflation and geopolitical concerns continue to be managed, with expected rate cuts to take place later this year. If this view comes to fruition, a revived greenium would provide an added incentive to issue ESG-labelled debt, complemented by policy incentives and ESG regulation which add credibility, certainty and robustness for labelled products.

3

When Transition Plans Meet Financing

Traditionally hard-to-abate sectors, such as energy, industrials and shipping / transportation, are increasingly leveraging financing solutions in addition to labelled ESG debt, including monetizing carbon credits (avoidance or removal), investment and production tax credits, tax-equity investments, and grant programs, such as the U.S. DoE's Hydrogen Hub Program (H2Hubs) and the Alberta Carbon Capture Incentive Program (ACCIP).

The expansion of financing options, and in particular the green use of proceeds category, reduces the demand for a dedicated "transition" label in the interim, an area of sustainable finance focus in 2021-22. Issuers will remain focused on executing their 2030 goals and laying the groundwork for a credible transition plan, which includes time-bound action plans, coupled with targets and greater transparency of transition-oriented capital investment across the business model.

4

Public – Private Partnerships on Blended Finance

Blended finance is a strategic option to fund 'ESG positive' projects with higher risk profiles than those traditionally acceptable for private finance alone, with over US$200Bn in capital mobilized in 2023. Common blended finance structures include concessional capital, technical assistance funds, risk insurance and design-stage grants. Noting a funding gap of US$3.3-4.5tn to achieve the 2030 UN SDG Agenda alongside public commitments made at past COP climate conferences to provide loss and damage funding for vulnerable countries impacted by natural disasters, the prospects of increased blended financing solutions are strong. Blended finance solutions will continue to grow as information becomes increasingly standardized, and transparency on deal flows increases.

5

Biodiversity: A Natural Focus Point

Following the Global Biodiversity Framework (GBF) agreement at COP15 on Biodiversity in 2022, nature and biodiversity reporting frameworks and guidance took center stage in 2023. The release of the Taskforce for Nature-related Financial Disclosures' (TNFD) final recommendations, the Science-Based Target Network's (SBTN) inaugural science-based targets for nature, and ICMA's Blue Finance Practitioner's Guide supported increased financing for biodiversity conservation, which as of October, represented ~16% of instruments issued in 2023 compared to only 5% during the same period in 2020.

Nature and biodiversity will stay in the spotlight leading into COP16 in 2024. As outlined in the GBF, all 196 countries are expected to prepare updated biodiversity strategies, including addressing the biodiversity finance gap. These collective commitments and market initiatives should advance global financing efforts in the mitigation of natural capital loss. Specifically, sovereign debt-for-nature swaps in biodiversity-rich emerging market nations may become an increasingly key pillar of biodiversity finance in the coming years. Biodiversity will be an increasingly important topics for all levels of governments that own sovereign natural resources such as Canadian provinces.

4 ESG Regulation Breakdown

As the final versions of standards and regulation are reaching completion, 2024 is expected to be the year that many companies focus on ESG data collection, verification, and reporting.

The Long-Awaited Arrival of Mandatory ESG Reporting

Among the most notable reporting updates was the release of the International Sustainability Standards Board's (ISSB) first two disclosure standards in 2023. Implementation of the standards will begin in January 2024, with the objective of creating a transparent starting point for the development of a unified global reporting standard. Although individual countries maintain control over whether the standards are mandatory, the expectation is for many justifications to integrate the standards into existing regulatory landscapes.

2024 ESG Reporting Outlook

As the Canadian Sustainability Standards Board (CSSB) and Canadian Securities Administrators (CSA) complete consultations for future ISSB adoption, Canadian companies will prepare for the anticipated acceleration of mandatory ESG disclosures.

U.S. companies are expected to place an unprecedented level of urgency towards sustainability data management, as they prepare for compliance with California's climate disclosure bills in 2026 and await clarity on the SEC's climate disclosure proposal, which was delayed again until April 2024. However, the upcoming election year and politicization of ESG in both federal and state governments obfuscates if and when mandatory climate reporting may be implemented.

LatAm

Across the LatAm region several jurisdictions have indicated ambitions for alignment with the ISSB standards. In Brazil, the Ministry of Finance committed to a setting roadmap for voluntary use of the standards in 2024 with mandatory disclosure in 2026. Although the level / type of disclosure varies across regions, Chile, Mexico, and Colombia all also currently require some form of ESG disclosure for issuers.

The Corporate Sustainability Reporting Directive (CSRD) will require adoption by select EU-incorporated companies beginning in January. The directive will continue to be phased out each year, expanding the ESG data reporting requirements in the EU. In October, the text for the Regulation on European Green Bonds was also approved with the mandatory disclosures for labelled bonds beginning in November 2024.

The UK Sustainability Disclosure Standards (SDS), which utilize the ISSB standards as a baseline, are expected to be published by July 2024. The UK Financial Authority Conduct (FCA) also confirmed that it is aiming to update its existing rules on climate-related reporting to align with the forthcoming UK-endorsed ISSB standards.

Incorporating ESG Across Diversified Regulations

Investment Fund Labelling Rules

The EU continues to lead the development of sustainable investment regulations, with the second disclosure cycle of the Sustainable Finance Disclosure Regulation (SFDR) already underway. The SFDR was first applied to June 2023 filings, with new requirements to include detailed emissions data for portfolio companies. In an effort to build trust and transparency in ESG funds, multiple jurisdictions are finalizing their respective regulations, including the U.S.'s Names Rule. In Canada, the CSA published ESG disclosure guidance in January 2022 with the objective to undergo continuous disclosure review.

Financial Institution Climate Risk Reporting

Financial institutions are also under increasing pressure to disclose climate risk considerations and quantify the potential implications. In Canada, the Office of the Superintendent of Financial Institutions (OFSI) published guidelines for climate-related risk disclosures by financial institutions. The guidelines are entering their first year of implementation for major banks and insurance companies, followed by smaller institutions in 2025.

The Federal Reserve in the U.S. is also beginning to deploy climate stress tests, starting with a pilot of the nation's largest six banks. Although no firm-specific information from the pilot will be released, the Fed plans to publish insights from the initiative for potential mandated stress tests in the future.

For more information or to connect with our Sustainable Finance Group, please get in touch with us at: sustainable.finance@scotiabank.com

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