

The Canadian sustainable bond market report

Assessing a decade of Green, Social, Sustainability, and Sustainability-Linked issuances and prospects for the future of sustainable investing

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EXECUTIVE SUMMARY

This study is a resource for issuers, investors, and policymakers to understand one of the most important financial instruments for investing in positive environmental and social outcomes. It reviews the Green, Social, Sustainability, and Sustainability-Linked (GSS+) bonds issued by Canadian corporate and government entities from 2014 to 2023 and provides a clear view of the maturation of the market, key trends, issuer profiles, and allocation of proceeds.

The story of the GSS+ bond market in Canada is one of dramatic growth followed by a marked slowdown in 2023:

- 2021 witnessed a market boom, reaching US\$21.3 billion (98% YoY) in issuance volume. The GSS+ bond market remained robust in 2022 (US\$20.3 billion) but experienced a slowdown in 2023 (US\$14.8 billion, -27% YoY). The inaugural deal counts in 2023 dropped to six, less than half of the previous two years.
- Over the last decade, 193 Canadian issuers have tapped into the GSS+ bond market, totalling US\$88.7 billion in cumulative issuance, around 88% of which are currently outstanding. This represents 1.6% of the global GSS+ market as of the end of 2023.
- The high-interest rate environment in Canada, along with broader economic uncertainty in North America, may have constrained Canadian GSS+ bond issuance. While this market faced reduced activity, the overall Canadian debt market remained robust, growing by 4.36% year-on-year in 2023.
- The biggest issuers of GSS+ bonds are regional governments (US\$21.4 billion), Corporate Financials (US\$16.8 billion) and pensions (US\$13.2 billion), which together represent over half of the cumulative issuance volume.

Several policy priorities emerge that have the potential to stimulate the market:

The forthcoming green and transition taxonomy launch in Canada is expected to foster market confidence and encourage new growth around GSS+ labelled instruments. A comparable and interoperable Canadian taxonomy can provide a standardized approach for classifying GSS+ financial instruments and attract institutional investors in Canada and abroad.

Federal, regional and local governments act as powerful catalysts by issuing government GSS+ bonds. Government issuances can have a "halo effect" on the market. Governments should continue to take the lead in GSS+ labelled bonds and potentially the first clearly labelled transition bond¹ in Canada.

Mandatory sustainability disclosure requirements and clearer guidance can mitigate green/transition-washing risks. Lawmakers and regulators should provide clear guidance, with reference to best practices, for public companies in the context of GSS+ bond issuance and overall sustainability claims.

Tax incentives and direct subsidies for issuers and investors can accelerate the development of the GSS+ bond market in Canada. Governments can offer tax incentives to bondholders, either in the form of tax credits or interest income tax exemption or subsidize a portion of the interest payments, lowering issuers' overall borrowing costs.

Encourage financial institutions to calculate and disclose taxonomy-aligned asset ratios. This provides a starting point to understand Canadian banks' capital alignment with Canada's low-carbon and sustainable commitments. Indirectly, it can also drive investments in the GSS+ labelled bond market.

¹ In 2021, Seaspan, a British Columbia-based marine transportation company, raised \$750 million from a blue transition bond to fund low-carbon container-ship construction and develop low-carbon fuels for marine vessels – see <u>framework</u>. This is the only "transition bond" and "blue bond" hybrid that came to market.

1. INTRODUCTION

Over the past decade, the Green, Social, Sustainability², and Sustainability-Linked³ (GSS+) bond market has emerged as a significant source of financing for a low-carbon and sustainable future. Canadian companies and governments are tapping into the GSS+ bond market to pursue their net-zero targets and sustainable development agenda.

Canada's GSS+ bond market is dynamic and evolving rapidly. It is crucial for Canadian issuers, investors, and policymakers to gain insights into the current state of the market:

- For Canadian issuers, either public or private, this report helps digest market trends and inform best
 practices, from outlining GSS+ bond frameworks to reporting. It may also be useful for issuers to structure
 attractive GSS+ bond offerings and, potentially, achieve cost savings compared to conventional borrowing.
- For Canadian and international bond investors, this report informs the GSS+ bond market fundamentals, trends, currency distribution, and potential portfolio diversification opportunities. This comprehensive overview aims to help investors make educated decisions aligned with their financial and sustainability goals.
- For Canadian policymakers, understanding the GSS+ bond market can help inform policy frameworks and regulations. The forthcoming Canadian Taxonomy⁴ is expected to provide a standardized approach and set screening criteria for green and transition activities. In addition, tax incentives and taxonomy-aligned asset ratio disclosure, among other policy drivers, may also be worth exploring to stimulate the GSS+ bond market.

Overall, this report provides a comprehensive analysis of Canada's GSS+ bond landscape, including market trends, issuer profiles, and allocation of proceeds. It also examines the challenges of green/transition-washing and proposes policy recommendations to catalyze further market development.

This report is organized as follows — Chapter 2 provides an overview of the GSS+ bond market; Chapters 3, 4 and 5 take a deep dive into each bond type, highlighting market trends and other key observations; Chapter 6 concludes with five policy areas for Canada to stimulate GSS+ bond market growth.

Green, Social, and Sustainable/Sustainability bonds are use-of-proceeds debt instruments where the funds are earmarked for projects with environmental, social benefits and a combination of both, respectively.
 Sustainability-Linked Bonds (SLBs) are not associated with specific projects and differ from the useof-proceeds bonds in its structural characteristics - the interest payment to bondholders particularly depends upon the issuers' achievement of distinct sustainability targets. SLBs net proceeds can be utilized towards general corporate purposes, thus offering wider flexibility than use-of-proceeds bonds.
 The Sustainable Finance Action Council (SFAC) released the <u>Taxonomy Roadmap Report</u> in March 2023, outlining a framework for creating standardized, science-based criteria for climate-compatible investments.

2. MARKET SNAPSHOT

(US\$ billion)		Global	Canada
Total Issuance Volume Green by Label		575 (61.24%)	63.43 (71.53%)
	Social	135 (14.38%)	2.2 (2.51%)
	Sustainability	161 (17.15%)	14.17 (15.98%)
	SLB	68 (7.24%)	8.85 (9.98%)
2023 Total Issuance		939 (3% YoY) ^{<u>i</u>}	14.88 (-26.6% YoY)

OVERVIEW OF THE GSS+ BOND MARKET

CUMULATIVE VOLUME

As of 2023, the issuance volume of Canadian GSS+ bonds amounts to US\$88.68 billion – 1.6% of the global cumulative volume⁵. Considering Canada's strong economic position⁶ and commitment to sustainability, this relatively small global market share suggests significant growth potential for Canadian Issuers in this market. Canada ranks 13th in the Global ranking of Cumulative GSS+ Bond Issuanceⁱⁱas of Q3 2023, a demotion from 11th place in Q1 2021ⁱⁱⁱ. This reflects Canadian entities' focus on addressing climate change and the green bond market's maturity due to its early emergence. Against the backdrop of the total Canadian debt securities market, the GSS+ bond market comprises only 0.07%, based on 2014 to 2023 estimates.^Z

MARKET TRENDS

The GSS+ bond market in Canada grew steadily in 2020 despite the COVID-19-induced economic slowdown that led to a decline in Canadian firm values⁸?. The annual issuance volume reached US\$10.75 billion, with the majority issued under the green label (US\$9.33 billion).

The market witnessed remarkable growth in 2021, reaching US\$21.3 billion (98% YoY). As economies recovered from the initial shock of the COVID-19 pandemic, there was a surge in ESG considerations from both investors and issuers^w. This shift potentially led to significant growth in sustainable investments. 2021 also marked the introduction of SLBs in Canada, which accounted for 12% of the annual market volume. As of 2023, SLBs continue to gain traction, having nearly doubled their deal size compared to their initial offerings.

The GSS+ bond market experienced a significant slowdown in 2023, with annual issuance volume scaled down to US\$14.88 billion (-27% YoY). This trend aligns with the broader contraction in GSS+ bond issuance observed across North America during the year^y. In contrast, other regions, particularly Europe, experienced increased market activity. In the global context, this pattern suggests a possible geographical shift rather

⁵ By the end of 2023, Climate Bonds recorded US\$ 5.5 trillion of cumulative GSS+ volume.

In 2022, Canada was ranked the 9th largest economy globally, with a GDP of approximately US\$2.14 trillion. In 2023, Canada's real GDP grew by 1.2%, showing positive economic expansion despite challenges including tight monetary policy, sustained inflation, and climate-change-related events. More information can be found <u>here</u>.
 The Statistics Canada database reports that the total debt securities issued

from 2014 to 2023 amounts to US\$132 trillion (CA\$179 trillion).

⁸ Between February and March 2020, the value of Canadian firms trading on the Toronto Stock Exchange (TSX) dropped by US\$ 1 trillion because of the Covid-19 crisis. The reason for this decline stems from the firm's future earnings forecast plummeting due to the evolution of the pandemic. More information can be found <u>here</u>.

⁹ In 2020, the global GSS+ bond market saw record issuance of US\$ 700 bn (approximately 50% year-on-year growth), with cumulative issuance reaching US\$ 1.7tn. This surge in investment is a testimony to the emergence of labelled issuances into the mainstream.

than an overall downturn in this market¹⁰. The high-interest rate environment in Canada, along with broader economic uncertainty in North America, may have constrained Canadian GSS+ bond issuance. While this market faced reduced activity, the overall Canadian debt market remained robust, growing by 4.36% year-on-year^{vi}.

FIGURE 1

Annual Growth of GSS+ Bonds by Label

Canadian GSS+ bond issuances surged in the year 2021

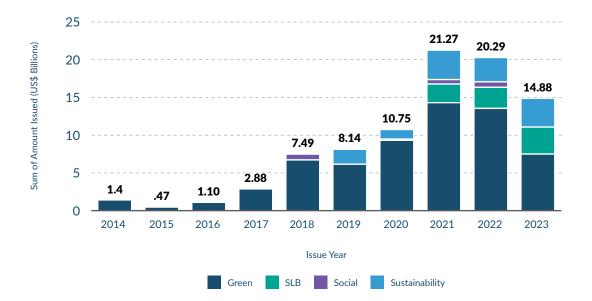
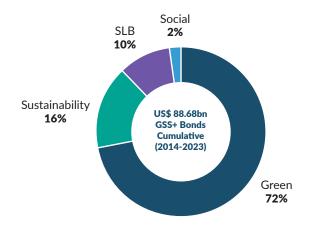


FIGURE 2

GSS+ Bond Issuance Volume by Label

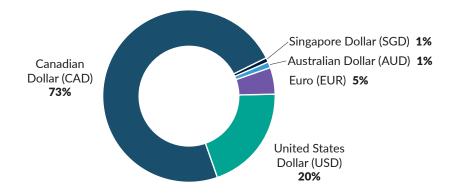
Green bonds dominate the Canadian GSS+ bond market



¹⁰ Europe represented 46% of the total aligned GSS+ debt instruments with volume of US\$ 405 billion, thus making it the largest source. More information can be found here.

Currency Distribution of GSS+ Bond Issuances

The Canadian Dollar is the leading currency denomination in GSS+ bonds issuance, followed by the United States Dollar and Euro

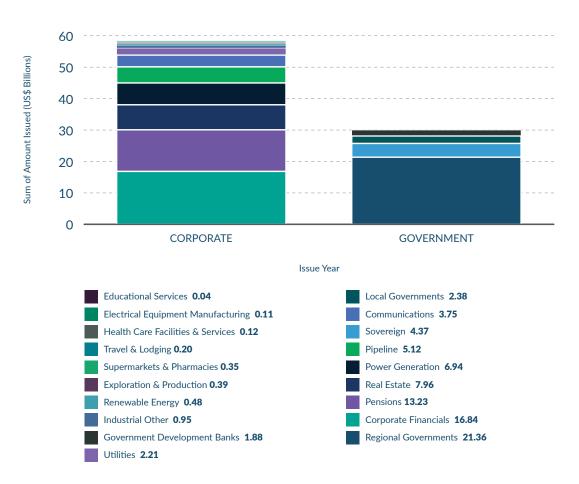


The majority of GSS+ Bonds in Canada are denominated in Canadian Dollars, accounting for 73% of the cumulative issuance. The presence of off-shore hard currencies – such as the United States Dollar (20%) and Euro (5%) – indicates strong demand from international investors for Canadian GSS+ bonds. Further, the use of multiple currencies also enables Canadian issuers to tap into larger, more liquid markets, potentially achieving better pricing and higher issuance volumes.

GSS+ BOND ISSUERS

FIGURE 4

Distribution of GSS+ Bond Issuances by Government and Corporate Issuers, Classified by Sector



Corporate issuances nearly double government issuances

This diverse issuer base reflects the widespread adoption of GSS+ bonds across different sectors of the Canadian economy. The corporate financial sector contributed 19% of the total market share through the issuance of green, social, and sustainability-labelled bonds from 14 financial institutions. Major pension funds, including CPPIB Capital Inc., OMERS Finance Trust, Ontario Teachers' Finance Trust, and PSP Capital Inc., are the key players in the GSS+ market, having collectively issued US\$ 13.23 billion from 2018-2023. The significant participation of Pension Funds underscores the growing importance of ESG considerations in long-term investment strategies.

Regional Governments held the largest portion of issuance volume at US\$ 21.35 billion, representing 36.37% of the cumulative total. This reflects strong interest and commitment from sub-national entities towards sustainable finance initiatives. Sovereign issuance, though smaller in volume at US\$ 4.37 billion, is crucial, as it establishes standards and benchmarks for the broader Canadian market.

Canadian issuers have predominantly offered "investment-grade¹¹"-GSS+ bonds, accounting for 62% of the total bonds. These ratings signify the issuers' creditworthiness and likelihood of meeting financial obligations. In contrast, 34% of the bonds are "unrated," implying higher risk and uncertainty. Consequently, investors must often rely on their own assessments to make informed investment decisions regarding unrated bonds.

¹¹ BBB- rating and above.

3. GREEN BONDS

Green bonds are a use-of-proceeds bond instrument — the raised funds should be used exclusively for projects with clear environmental benefits. Prior to the issuance, issuers should outline a green bond framework that defines the use of proceeds, the process for project evaluation and selection, management of proceeds, and reporting.

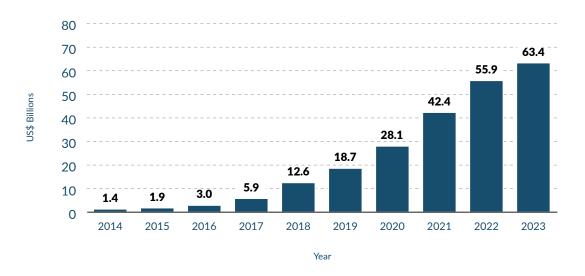
GREEN BOND MARKET TRENDS

The green bond market in Canada expanded from 2014 to 2023. Cumulative issuance had reached US\$63.4 billion by the end of 2023, (see Figure 5) representing around 2.3% of the global green bond market size (US\$ 2.8 trillion¹)

FIGURE 5

Cumulative Green Bond Issuance (US\$ billion)

Cumulative green bond issuances in Canada reached US\$63.4 billion by the end of 2023



The annual issuance volume and deal number (see Figure 6), 2018 saw the first significant hike, doubling the amounts of previous years. After gradual overall growth, the market soared to all-time highs in 2021 (53% year-on-year growth in issuance volume) and remained robust in 2022.

In 2023, the market contracted to the levels before the surge, and the number of inaugural issuances dropped to one, showing early signs of a mature market¹². Elevated interest rates throughout 2023 may have also contributed to the decline. This could also be a reaction to the forthcoming launch of a green and transition taxonomy in Canada, which is set to provide much-needed clarity and foster market confidence. Smaller, less sophisticated Canadian issuers who begin entering the market might lean more on a taxonomy to ensure the credible selection of green projects.

¹² Issuers who are eager to tap into the green bond market may have done so already. Therefore, the initial expansion might be followed by some declines, signalling a relatively mature market.

Annual Green Bond Issuance by Issuance Volume (US\$ billion), Counts of Total and Inaugural Issuances

29 15 30 23 Sum of Amount Issued (US\$ Billions) 25 12 19 20 17 of bonds 16 9 15 12 Count \bigcirc 10 6 \bigcirc \bigcirc \bigcirc C 3 5 2 1 \bigcirc n 0 2014 2015 2016 2017 2018 2023 2019 2020 2021 2022 Issue Year Sum of Amt Issued Count of total green bonds Count of inaugural issuances

Green bond market in Canada grew significantly in 2021 and 2022, slowed down in 2023

The issuances are done in all sizes. Cumulatively, 62% (80 out of 129) of deals are US\$300 million and above; 26% (33 out of 129) are US\$500 million and above. **In particular, US \$300-500 million is the most common issuance size** (47 deals), accounting for US\$17.6 billion or 28% of the total issuance amount. As of the end of 2023, the largest issuance is the Province of Ontario's 1.55% green bond, totalling US\$4.4 billion and maturing on November 1, 2029.

70% of green bond issuances have a tenor of up to 10 years – 33% have a tenor of 5 years or shorter, and 37% between 5 and 10 years. The ones with a tenor between 5 and 10 years account for 58% of the total issuance volume.

GREEN BOND ISSUERS

In Canada, many private and public entities have tapped into the green bond market. Among all types of issuers, **regional governments (US\$18 billion) and pensions (US\$12 billion) combined account for nearly half of the issuance volume** (see Figure 7).

Within the regional governments, the Province of Ontario alone had issued US\$12.8 billion by the end of 2023, of which US\$11.2 billion is currently outstanding.

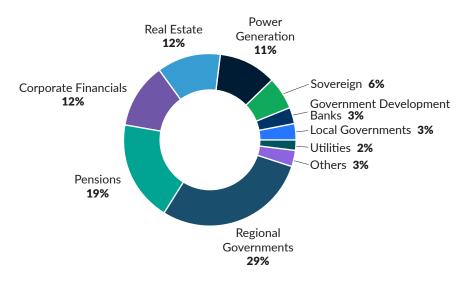
Noticeably, Canadian pension funds are active as investors and issuers in the green bond market. The strong credit ratings of Canadian pension funds allow them access to a larger pool of global capital at a lower borrowing cost. In 2018, the Canada Pension Plan Investment Board (CPPIB) issued its debut green bond, a CA\$1.5 billion 10-year offering, setting a precedent for other pension funds in Canada and globally. The proceeds were invested in eligible green assets such as renewable energy and green buildings^{viii}.

Corporate financials (US\$7.9 billion), real estate (US\$7.7 billion) and power generation (US\$6.9 billion) sectors each occupy a little over 10% of the total issuance volume.

As a sovereign issuer, the Government of Canada launched its CA\$5 billion (US\$3.6 billion), 7.5-year, inaugural green bond in March 2022. This is the largest Canadian dollar-denominated green bond to date. The offering saw strong investor demand — the final order book was over CA\$11 billion, more than two times oversubscribed. It aims to mobilize private capital to support Canada's net-zero transition while catalyzing sustainable finance in Canada.

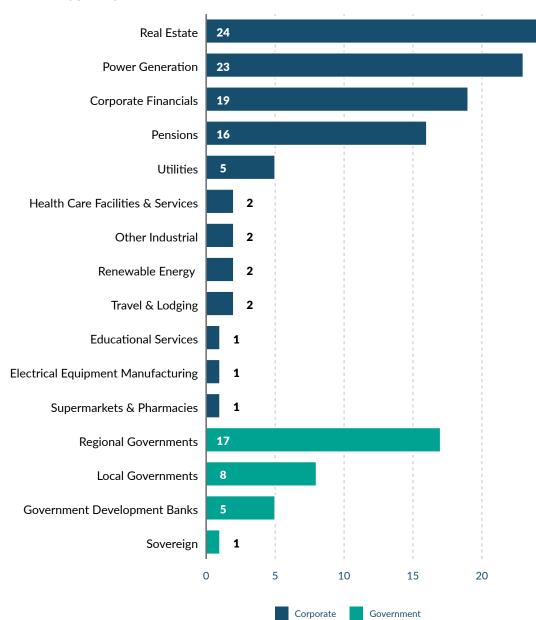
Issuer Type by Share of Green Bond Issuance Volume (%)

Regional governments and pensions combined contributed nearly half of the issuance volume



Note: the sector breakdowns are according to Bloomberg classifications. For simplicity, the diversified banks, life insurance and other financial services are all combined in the "Corporate Financials" sector. "Pensions" (referring to public pension funds) are added as a standalone category. The "Others" include other Industries, Renewable Energy, Supermarkets & Pharmacies, Travel & Lodging, Health Care Facilities & Services, Electrical Equipment Manufacturing, and Educational Services.

Interestingly, corporate issuers led the green bond deal counts (see Figure 8). The real estate (24), power generation (23), and corporate financial (19) sectors combined account for over half of the deal counts. In comparison, the government entities had issued fewer green bonds, and their issuance size tends to be larger.



Issuer Type by Number of Green Bond Issuances

GREEN BOND FRAMEWORKS, ALLOCATION OF PROCEEDS AND REPORTING

Around 85% of green bond issuers have a bespoke framework (see Figure 9) that defines the use of proceeds, the process for project evaluation and selection, management of proceeds, and reporting. Most follow the Green Bond Principles, a voluntary guideline set by the International Capital Market Association (ICMA).

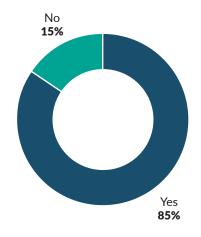
Due to the absence of a Canadian taxonomy, issuers can set their own criteria and threshold for the green activities they deem eligible for the proceeds. Many claim to be informed by international standards (e.g., Climate Bonds Taxonomy) and best practices in other jurisdictions (e.g., EU Taxonomy). However, aligning with a common classification system would provide much-needed consistency and comparability, attracting domestic and international institutional investors.

Most issuers refreshed their green bond frameworks at least once over the last decade. It is noteworthy that a **few issuers, including the Government of Canada, added nuclear energy to the list of eligible green activities** after the EU Taxonomy adopted it as a transitional technology. Nuclear energy contributes around 14% of Canada's electricity generation, a crucial clean energy source for Canada to reach net-zero by 2050.^{ix}

FIGURE 9

Green Bond Frameworks (%)

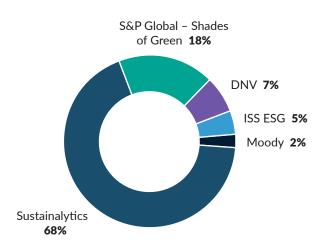
85% of green bond issuers have a bespoke framework



All the green bond frameworks obtained second-party opinions (SPOs) – a form of external review to assess alignment with the ICMA's Green Bond Principles. 68% were provided by Sustainalytics (see Figure 10).

Second-Party Opinion (SPO) Providers of Green Bond Frameworks (%)

All the frameworks obtained second-party opinions - 68% were provided by Sustainalytics



Eighty-five percent of the green bond proceeds¹³ went to clean transportation (US\$22.8 billion), clean energy¹⁴ (US\$19.2 billion), and green buildings (US\$11.7 billion) (see Figure 11).

In Canada, the transport, energy (oil and gas, and electricity) and buildings sectors combined represent over 70% of the total GHG emissions.¹⁵ Green bonds play a key role in mobilizing private investments toward decarbonizing these high-emitting sectors.

Other categories attract smaller amounts, such as energy efficiency, environmentally sustainable management of living natural resources and land use, and sustainable water and wastewater management. Particularly, only 0.5% of the proceeds were allocated to climate adaptation projects, in contrast with the heavy capital flows toward mitigation activities (e.g., clean transportation and clean energy). Around 3% of proceeds allocation cannot be tracked.

¹³ Net proceeds = gross proceeds - issuance-related fees. If issuers report the percentage rather than the total

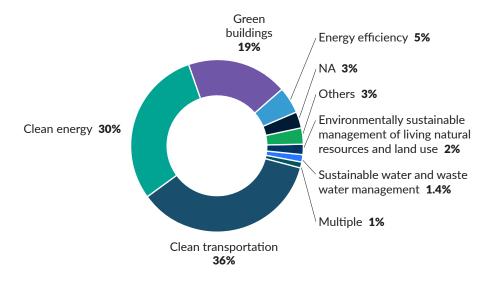
amount for each category, the authors multiply their issuance amounts (gross proceeds) by the percentages.

¹⁴ Clean energy includes renewable energy and nuclear.

¹⁵ Greenhouse gas sources and sinks in Canada: executive summary 2023.

Green Bond Use of Proceeds (%)

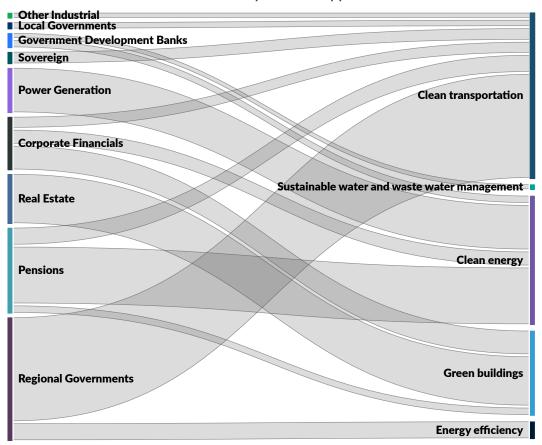
85% of the proceeds are in clean transportation, clean energy and green buildings



Note: The "Others" include Pollution prevention and control projects (0.7%), Climate change adaptation projects (0.5%), Terrestrial and aquatic biodiversity conservation projects (0.3%), Eco-efficient and/or circular economy adapted products, production technologies and processes (0.3%), unallocated (0.003%). The authors made some reasonable assumptions when mapping the proceeds allocation.

Evidently, the use of proceeds differs among issuers, depending on their core businesses and mandates (see Figure 12). For example, the power generation sector finances clean energy projects through green bonds, just as the real estate sector finances its green building construction and retrofits.

Over two-thirds of the proceeds earmarked for clean transportation come from green bonds issued by regional governments. Sustainable water and wastewater management projects received the most financing from Export Development Canada.



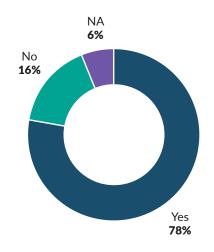
Green Bond Use of Proceeds by Issuer Type

Note: each flow represents the cumulative amount from one type of issuer toward one green project category. For easier visualization, only US\$500 million and above deal flows are shown.

Seventy-eight percent of the green bonds have at least one use of proceeds and impact report (see Figure 13). To enhance transparency, the ICMA's Green Bond Principles require that issuers disclose such information annually until total allocation. Reporting is missing for 16% of the green bonds. Six percent of the green bonds were issued less than a year ago, with disclosures yet to be made available.

Green Bond Use of Proceeds and Impact Report (%)

78% of the green bonds have a use of proceeds & impact report

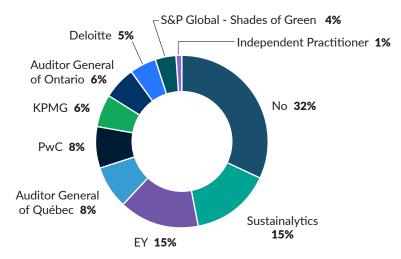


The Green Bond Principles also recommend that issuers obtain independent assurance for the reports. **However, about one-third of the reports lack an external review** (see Figure 14). For those that comply with the recommendations, key assurance providers include Sustainalytics and S&P Global's Shades of Green, along with the Big 4 (i.e., EY, PwC, KPMG, Deloitte). The regional government bond reports receive assurance audits from their respective Office of the Auditor General.

FIGURE 14

Assurance Providers of Green Bond use of Proceeds and Impact Reports (%)

32% of the reports do not have an independent assurance



4. SOCIAL BONDS AND SUSTAINABILITY BONDS

SOCIAL BONDS

Social bonds are a use-of-proceeds debt instrument — the raised funds should be exclusively used for projects with social and community benefits. As with green bonds, issuers are required to outline a social bond framework that defines the use of proceeds, the process for project evaluation and selection, the management of proceeds, and reporting.¹⁶

SOCIAL BOND MARKET TREND

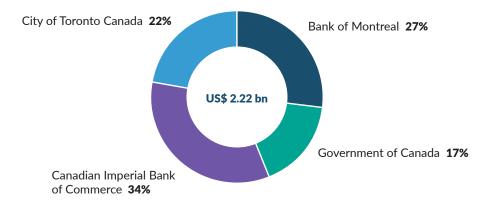
The Social Bond market in Canada constitutes a small segment, representing only 2.5% of the total GSS+ bond market. By the end of 2023, four issuers issued five social bonds, resulting in a cumulative issuance of US\$2.26 billion. Canada represents 0.27% of the global social bond market size (US\$821 billion¹²).

SOCIAL BOND ISSUERS

FIGURE 15

Social Bond Issuances in Canada: Issuers and Issuance Volume

Canadian financial institutions contribute over half of the social bond issuances



Canadian Financial Institutions, namely the Canadian Imperial Bank of Commerce (CIBC) and Bank of Montreal (BMO), have demonstrated a strong commitment to women's empowerment through their social bond issuance. In 2018, CIBC launched its Women in Leadership Bond, allocating proceeds towards lending to companies with women in executive positions. In 2021, BMO introduced the Women in Business Bond, focusing on lending to women-owned businesses across both SME and non-SME categories.

Among Government issuers, the City of Toronto distinguished itself by becoming Canada's first and only local government to establish a Social Debenture Program. Its issuances aimed to fund eligible social projects supporting social and affordable housing, affordable basic infrastructure, access to essential services, and socioeconomic advancement and empowerment. Notably, the City of Toronto's 2021 issuance was 2.5 times oversubscribed, with participation from 30 institutional investors across both Canadian and international markets. In 2022, the Government of Canada issued its inaugural social bond, the Ukraine Sovereignty Bond, valued at US\$371 million. The net proceeds from this bond are intended to provide essential services to Ukrainians amid the ongoing invasion by Russia.

¹⁶ The Social Bond Principles (June 2023) from International Capital Market Association.

¹⁷ Climate Bonds Initiative, "Sustainable Debt - Global State of the Market Report 2023," May 2, 2024

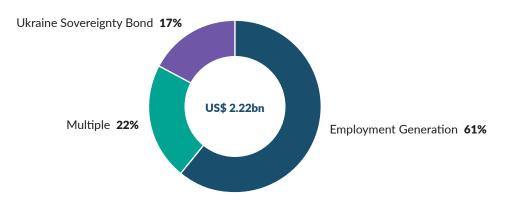
SOCIAL BOND FRAMEWORKS AND ALLOCATION OF PROCEEDS

Four of the five social bonds have well-defined frameworks accompanied by second-party opinion and allocation reports. The issuers developed frameworks and reporting systems based on ICMA's Social Bond Principles.

FIGURE 16

Social Bonds – Allocation of Net Proceeds

Employment generation is the main social focus



Note: Some allocated projects belong to more than one eligible category; therefore, they are categorized under "Multiples". The authors made some reasonable assumptions when mapping the proceeds allocation.

Employment Generation received the largest portion (61%) of total proceeds. Twenty-two percent of the total proceeds are allocated to projects with multiple social categories, while 17% is allocated to funding the Ukraine Sovereignty Bond Program. These figures highlight a commitment to both domestic job creation and international support.

SUSTAINABILITY BONDS

Sustainability bonds are use-of-proceeds debt instruments — the raised funds are exclusively allocated to projects that offer both green and social benefits. The principles and processes of issuance resemble those of green and social bonds.

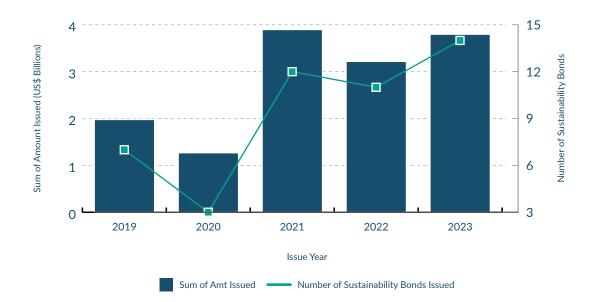
SUSTAINABILITY BOND MARKET TRENDS

As of December 31, 2023, the cumulative issuance of Sustainability bonds in Canada amounts to US\$14.17 billion, around 1.8% of the global sustainability bond market (US\$ 768 billion¹⁸).

FIGURE 17

Annual Sustainability Bond Issuance by Issuance Volume (US\$ billion) and Number of Issued Bonds

Canadian sustainability bond market grew substantially in the years 2021 and 2023



Since its inception in 2019, the sustainability bond market has shown consistent growth. 2021 witnessed a significant surge in issuance size (US\$ 3.9 billion; YoY 32.6%), doubling the amounts from the inaugural year.

In 2023, Canadian entities issued 14 sustainability bonds, the highest number to date, totalling US\$ 3.79 billion. This milestone underscores the increasing interest among various issuers in financing projects that offer both environmental and social benefits. The overall trend of issuances and issuance volume from 2019 to 2023 highlights a growing commitment among Canadian issuers to advance decarbonization initiatives and support a just transition. Over half of the sustainability bond deals are within US\$500 million – \$1 billion size brackets. In 2021, the Bank of Nova Scotia made a notable issuance of 0.65%, a three-year sustainability bond amounting to US\$ 1 billion, making it one of the most significant issuances in the sustainability bond markets.

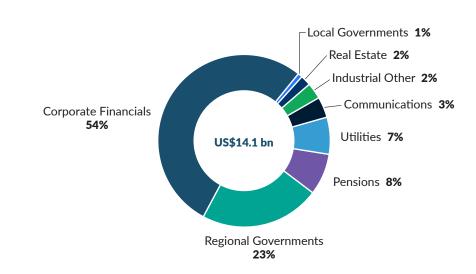
Thirty percent of the deals mature before five years, accounting for 48% of the total issuance volume. In contrast, **long tenors of 20 to 30 years and beyond 30 years collectively constitute a small portion of the issuance volume (US\$ 953 million).** These figures suggest that investors are cautious about committing funds for extended periods in this relatively new market. From the issuers' perspective, the preference for shorter maturities may indicate a need for frequent refinancing opportunities.

18 Climate Bonds Initiative, "Sustainable Debt - Global State of the Market Report 2023," May 2, 2024

SUSTAINABILITY BOND ISSUERS

The Canadian sustainability bond market has witnessed participation from diverse issuers across public and private sectors. Among these, **corporate financial issuers (US\$7.58 billion) account for over half of the issuance volume** (Figure 18). In 2022, OMERS Finance Trust issued 10-year (3.5%) and 30-year (4%) sustainability bonds with a cumulative volume of US\$ 1.1 billion. This marks the commencement of the Pension Fund's participation in the market while establishing a benchmark for other funds¹⁹. Among the Government issuers, the Municipal Finance Authority of British Colombia issued the highest number of bonds (7) from 2021-2023, with a cumulative issuance volume of US\$ 3.3 billion²⁰. National Bank of Canada (NBC) has been an early adopter of sustainability bonds among Canadian financial institutions. Since starting in 2019, the bank has issued 19 sustainability-labeled bonds to finance projects that advance the UN Sustainable Development Goals.

FIGURE 18



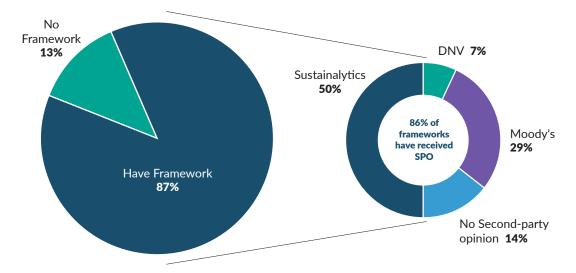
Distribution of Sustainability Bond by Industry and Issuance Volume

Canadian sustainability bonds have garnered recognition in Environmental Finance's global competition. In 2022, the City of Vancouver won the "Sustainability Bond of the Year – Local Authority/Municipality award"²¹, while Dream Impact Trust received the "Sustainability Bond of the Year – Corporate award in 2023"²².

¹⁹ As of December 31, 2023, the net proceeds from 'OMERS Finance Trust' issuances were allocated to eligible green (Energy Efficiency, Renewable Energy, Green Buildings) and social (Affordable Basic Infrastructure) categories.
20 The net proceeds from bonds issued by 'Municipal Finance Authority of British Colombia' were primarily allocated to social project categories, including Access to Essential Services and Affordable Basic Infrastructure, and green project categories, including Pollution Prevention and Control. Further, a part of net proceeds was invested in projects that fall under both green and social project categories ('Multiples').
21 The initiatives of this Canadian Local Government are viewed to assist the city's sustainability goals, including achievement of carbon neutrality by 2050, transformation to a zero-waste city by 2040 and a commitment to affordable housing. More information can be found on Environmental Finance.
22 Dream Impact Trust was awarded "sustainability bond of the year 2023" for developing a proprietary scorecard with environmental and social metrics that measure the direct and indirect positive impact of each investment. More information can be found on Environmental Finance.

SUSTAINABILITY BOND FRAMEWORKS, ALLOCATION OF PROCEEDS AND REPORTING

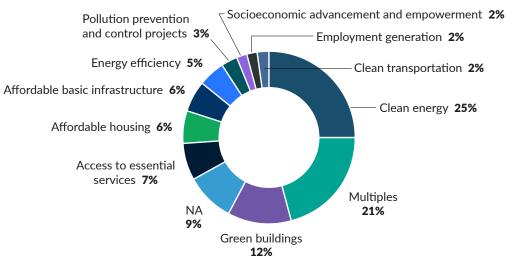
FIGURE 19



Sustainability Bond – Framework and Second-Party Opinion

Around 87% (14 issuers) of the sustainability bond issuers have a bespoke Sustainability Bond framework (see Figure 19). These frameworks have primarily followed ICMA's Green Bond Principles and Social Bond Principles to define the use of proceeds, the process for project evaluation and selection, management of proceeds, and reporting. Additionally, most frameworks have disclosed the alignment of their projects with the UN Sustainable Development Goals²³.

FIGURE 20



Allocation of Net Proceeds – Sustainability Bonds

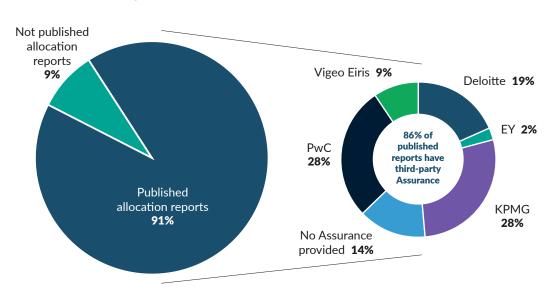
Note: Some allocated projects belong to more than one eligible category; therefore, they are categorized under "Multiples". The authors made some reasonable assumptions when mapping the proceeds allocation.

23 Alignment with the UN SDGs provides issuers with globally recognized framework for sustainability efforts. This standardization enhances the bonds' credibility, facilitates easier comparison between different projects and issuers, and demonstrates issuers' commitment to internationally agreed upon sustainability goals. The net proceeds with the highest allocation in green eligible projects are in Clean Energy (24.71%), followed by Green Buildings (12%) and Energy Efficiency (5%). Among the social eligible project categories, the largest allocation is in Access to Essential Services (6.73%) while the lowest is in Employment Generation (2%).

Although projects related to Indigenous community development and women's empowerment are included in most frameworks, only a few bonds' net proceeds are invested in these initiatives. The net proceeds from Bank of Montreal's 2.05%, 3-year sustainability bond were partly allocated to Indigenous peoples and community lending (11%) and women-owned business lending (42.4%)²⁴. In 2021, the Bank of Nova Scotia issued 0.65%, US\$1 billion sustainability bond, with 6% of the net proceeds allocated to lending to women-owned businesses". In 2023, Hydro One Inc., issued three sustainability bonds with 9.5% of the net proceeds allocated to financing the Socio-Economic Advancement of Indigenous Peoples. These issues reflect the growing interest among Canadian entities to tangibly support socially beneficial initiatives through their sustainability bonds.

Of 14 frameworks, 86% have received an SPO, with Sustainalytics providing SPOs for half of these issuers' frameworks.

FIGURE 21



Sustainability Bonds – Allocation Reports and Third-Party Assurance

Ninety-one percent of the sustainability bonds have at least one use of proceeds or impact report — four out of 47 issuances are not accompanied by an allocation report.

Eighty-six percent of the issuers who published allocation reports had a third-party assurance. Evidently, the Big Four accounting firms (Deloitte, PwC, EY, and KPMG) are actively involved, collectively providing 77% of the assurance services.

²⁴ BMO Financial Group - 2022 Sustainable Bonds Impact Report

5. SUSTAINABILITY-LINKED BONDS (SLBS)

Unlike the use-of-proceeds bonds, the Sustainability-Linked Bond (SLB) is a performance-based instrument that ties the bond terms to the achievement of pre-defined Sustainability Performance Targets (SPTs). The SPT performance is measured by Key Performance Indicators (KPIs). SLB issuers will set target observation date(s) at which the KPIs are assessed. If the issuers fail to meet the target(s), coupon step-ups or other financing cost adjustments might occur.

Critically, SLB issuers can use the proceeds for general corporate purposes, unlike the use-of-proceeds bonds (e.g., green, social, and sustainability bonds). This enables issuers to raise capital for company-wide transition plans.

SLB MARKET TRENDS AND SUSTAINABILITY TARGET-SETTING

The SLB market in Canada is relatively small - 12 issuances with an amount of US\$8.9 billion, 10% of the total Canadian GSS+ bond market.

Canadian issuers entered the SLB market in 2021. Enbridge and TELUS issued their inaugural SLBs in June 2021, with US\$1 billion and US\$0.6 billion in issuance size, respectively. Between 2021 and 2023, an average of four SLBs were issued each year. By the end of 2023, only three Canadian companies – Enbridge, TELUS, and Tamarack Valley Energy (thereinafter "Tamarack"), had issued SLBs. To date, no government entities have broken into the SLB market.

In alignment with ICMA's SLB Principles, all three issuers published their SLB frameworks outlining the selection of KPIs, calibration of SPT, bond characteristics, report, and verification. Sustainalytics, S&P Global, and ISS ESG provided the second-party opinions, respectively.

The SPTs and KPIs chosen by the three companies reflect their medium-term (5-10 year) environmental and social goals. Observation dates occur either at mid-point or closer to the end of the bond tenor.

All three issuers have set a GHG target (Scope 1 and 2) and link their issuances at least partially to its achievement. However, only TELUS's GHG target receives validation and approval from the Science Based Targets Initiative (SBTi). This means the target is science-based and in line with what the latest climate science deems necessary to meet the Paris Agreement goals. Also, only TELUS's target is an absolute target; the GHG targets set by Enbridge and Tamarack are an intensity target.

It is noteworthy that Scope 3 emissions are missing in the GHG target-setting, although they represent the largest share of total GHG emissions for the oil and gas industry.

Enbridge and Tamarack include social commitments in their SPTs, such as underrepresented ethnic and racial groups' representation (including Indigenous) in the workforce and on the Board.

All three issuers report annually on the performance of the KPI in their annual sustainability reports. The reports are externally reviewed by assurance providers.

In terms of progress, Enbridge²⁵ and TELUS²⁶ are on track to meeting their 2030 GHG targets (Scope 1 and 2) - 37% emissions intensity reduction (105% of the target) and 31% absolute emissions reduction (67% of the target).

However, Tamarack disclosed in its 2024 sustainability report²² that the Scope 1 and 2 emissions intensity reached 35.93 in 2023, only a 4.3% reduction from 2020 levels (37.53)[×]. This puts the company at risk of not achieving its 39% reduction target by 2025. Failure to deliver the GHG target will result in a coupon step-up of 75bps for its two issuances, both offered at a 7.25% coupon rate. If so, it will affect the interest payments from and including May 10, 2026, till their maturity on May 10, 2027.

For the social SPTs, both Enbridge and Tamarack are on track to meeting those, according to their 2023 sustainability reports.

²⁵ Enbridge is reported to have reduced GHG emissions intensity (Scope 1 and 2) by

approximately 37% from the 2018 baseline, according to its 2023 sustainability report.

²⁶ TELUS is reported to have reduced absolute GHG emissions (Scope 1 and 2) by

^{31%} from the 2019 baseline, according to its 2023 sustainability report.

²⁷ Tamarack 2024 sustainability report

SLB KEY CHALLENGES AND CRITICISMS

While the SLB market has gained some traction in Canada and globally over the past few years, market participants and observers are concerned about the lack of ambition in GHG target-setting, the absence of outcome-based social targets, and the overall "free lunch" enjoyed by SLB issuers.

Lack of ambition in GHG target-setting – Indeed, SLBs can be a potential outlet for transition-washing when issuers are not genuinely transitioning in alignment with the Paris Agreement. Issuers are often advised to set a science-based target according to the standards and sector-specific pathways developed by SBTi.

The absence of Scope 3 in GHG targets might also indicate a lack of ambition in target-setting. This is particularly relevant for sectors such as oil and gas, automobiles, food and agriculture, where most emissions come from Scope 3.

The Climate Bonds Initiative (CBI) identifies the lack of GHG targets and a partial GHG scope coverage as top reasons for non-alignment with its requirements. As a result, only 17% of the cumulative volume of SLBs meet the ambition and credibility criteria.[±]

Lack of outcome-based social metrics and targets – Output-based metrics track immediate progress; they ensure the desired sustainability impact is achieved. While both are important, ESG investors often consider outcome-based metrics and targets to be more decision useful. Most social targets to date, for example, racial and ethnic group representation in the workforce and women's representation on the Board, are output-based. Meaningful outcome-based social targets, such as equal gender pay and improved retention rates for underrepresented groups, are still lacking.

Failing to achieve targets while enjoying a "free lunch" – Even when the target is robust and science-based, it is highly uncertain whether the issuer can meet it. The Anthropocene Fixed Income Institute, a leading non-profit research center on SLBs, analyzed 24 bonds that will reach their observation dates in 2024. They found that only 58% of the bonds have or are likely to meet their SPTs; three bonds are unlikely to achieve the targets; four bonds have a 50:50 likelihood^{xii}.

For issuers, missing SLB targets will incur financial penalties and reputational risks. However, in some cases, the financial penalties might be relatively weak – the average penalty is less than 12% of the average coupon rate for SLBs with step-up penalties.^{xiii} This is particularly alarming when SLB issuers enjoy a "free lunch," i.e., savings in the cost of debt exceed the penalties.^{xiv}

To incentivize achieving the targets, it is worthwhile for issuers to explore linking senior management and Board performance and compensation to corresponding SPTs.

6. CONCLUSIONS AND OUTLOOK

Overall, the GSS+ bond market has exploded over the last decade. In Canada, a wide range of private and public entities have entered the market, accessing domestic and international capital.

After the boom in 2021, the GSS+ bond market remained robust in 2022 but experienced some slowdown in 2023. This could be an early signal for market saturation, although we suspect some issuers may have been waiting for clarity from a forthcoming Canadian taxonomy.

Among all the labelled bonds, green bonds dominate the market share, contributing 71.5% (US\$63.4 billion) of the total issuance volume. This represents 2.3% of the global green bond market as of the end of 2023. Other use-of-proceeds bonds, including sustainability (16%) and social bonds (2.5%), occupy a smaller market size.

Clean transportation (US\$23.0 billion), clean energy (US\$22.7 billion), and green building (US\$ 13.4 billion) are the top three categories with the most proceeds allocated.

Transition bonds, a use-of-proceeds type, and SLBs, a performance-based type, are critical instruments to unlock transition financing. The transition bond market has been nascent, with nearly zero clearly labelled transition bonds issued by Canadian entities as of the end of 2023²⁸. The SLB market has been getting some momentum (12 issuances with an issuance amount of US\$8.9 billion) over the last three years in Canada. However, both instruments face credibility risks and challenges.

To spur the GSS+ bond market in Canada, these challenges, including green/transition-washing and a lack of standardization and comparability, must be addressed. Although Independent standard-setters and external reviewers provide some level of confidence to investors, government and regulatory bodies still have an important role to play in supporting continued growth.

After assessing the state of play in Canada and around the globe, the authors highlight five policy areas for Canada to catalyze more private capital toward credible, sustainable projects. The first three are policy developments currently underway, and the last two are our policy recommendations.

- 1. The forthcoming green and transition taxonomy launch in Canada is expected to foster market confidence and encourage new growth around GSS+ labelled instruments. A comparable and interoperable Canadian taxonomy can provide a standardized approach for classifying GSS+ financial instruments and attract institutional investors in Canada and abroad. In March 2023, the Sustainable Finance Action Council (SFAC) released its Taxonomy Roadmap Report, which outlines a framework to guide the development of a Canadian green and transition finance taxonomy.
- 2. Federal, regional and local governments act as powerful catalysts by issuing government GSS+ bonds. Government issuances can have a "halo effect" 22 × on the market. The inaugural sovereign green bond issued by the Government of Canada (CA\$5 billion, 7.5-year) in March 2022 and the green bond programs of regional governments such as the Province of Ontario and Quebec are demonstrating strong cases of green bonds for both public and private issuers in Canada. We suggest government entities continue to take the lead in other GSS+ labelled bonds, such as social, sustainability, sustainability-linked, and potentially the first clearly labelled transition bond in Canada.

²⁸ In 2021, Seaspan, a British Columbia-based marine transportation company, raised \$750 million from a blue transition bond to fund low-carbon container-ship construction and develop low-carbon fuels for marine vessels. This is the only "transition bond" and "blue bond" hybrid that came to market.
29 The IMF working paper by Gong et al. (2024) suggests corporate green bond issuances increase in deal count and size after the sovereign green bond debut; the sovereign issuance promotes best practices in green reporting and verification; importantly, an inaugural sovereign green bond also correlates with increased liquidity and smaller yield spread for corporate green bonds.

- 3. Mandatory sustainability disclosure requirements coupled with clearer guidance can mitigate green/ transition-washing risks. It is crucial for investors and other market participants to have accurate information in assessing the credibility of use-of-proceeds and/or company-wide transition plans. Canadian standard bodies and policymakers are preparing the groundwork for mandatory disclosures. The Canadian Sustainability Standards Board (CSSB) is finalizing Canadian Sustainability Disclosure Standards 1 and 2. The Canadian Securities Administrators (CSA), Canada's securities regulator, is considering adopting the CSSB standards as mandatory requirements once they are finalized. In July 2024, the Competition Bureau of Canada made new changes to the Competition Act through Bill C-59, targeting green/transition-washing. For the next step, we suggest that lawmakers and regulators provide clear guidance, with reference to best practices, for public companies in the context of GSS+ bond issuance and overall sustainability claims. To provide a standardized approach, the Canadian taxonomy should be incorporated into policymaking when made available.
- 4. Tax incentives and direct subsidies for issuers and investors can accelerate the development of the GSS+ bond market in Canada. Governments can offer tax incentives to bondholders, either in the form of tax credits or interest income tax exemption, to make GSS+ bonds more attractive to investors. Governments can also subsidize a portion of the interest payments, lowering issuers' overall borrowing costs. For example, in the U.S., the New Clean Renewable Energy Bonds and Qualified Energy Conservation Bonds saw successes in enabling low-cost financing for renewable energy and energy efficiency projects in the U.S. Currently, there are no such incentives in Canada, but we envision governments to consider designing those programs to promote credible GSS+ bonds.
- 5. Encourage financial institutions to calculate and disclose taxonomy-aligned asset ratios. This provides a starting point to understand Canadian banks' capital alignment with Canada's low-carbon and sustainable commitments. Indirectly, it can also drive investments in the GSS+ labelled bond market. For example, the EU regulators require large banks and financial institutions to disclose their Green Asset Ratio (GAR), measured as a percentage of EU Taxonomy-aligned assets in the total covered assets. Canada's financial regulator, the Office of the Superintendent of Financial Institutions Canada (OSFI), has already introduced Guideline B-15 for climate-related disclosures and risk management. After the Canadian taxonomy gets traction in Canada, OSFI can consider adding a metric like GAR in the disclosure requirements. This will reduce green- and transition-washing risks while incentivizing more sustainable investments and lending activities.

APPENDIX A: 15 LARGEST DEALS IN THE CANADIAN GSS+ BOND MARKET (2014-2023)

TABLE 1

15 Largest Deals in the Canadian GSS+ Bond Market (2014-2023)

Issuer Name	Theme	Year of	Tenor	Currency	Deal Size	UoP / KPIs	
		Issue	(Years)		(US\$ Billion)	for SLB	
Province of Ontario	Green	2021	8	CAD	4.42	Clean Transportation; Energy Efficiency & Conservation; Climate Adaptation & Resilience	
Canadian Government Bond	Green	2022	8	CAD	4	Circular Economy Adapted Products, Production, Technologies and Processes; Climate Change Adaptation; Terrestrial and Aquatic Biodiversity; Pollution Prevention and Control; Sustainable Water & Wastewater Management; Renewable Energy; Living Natural Resources & Land Use; Multiple	
Province of Ontario	Green	2020	7	CAD	2.45	Clean Transportation; Energy Efficiency & Conservation; Climate Adaptation & Resilience	
Enbridge Inc	SLB	2023	10	USD	2.3	KPI 1: GHG intensity level, tonnes CO2e/PJ (Scope 1 and 2 emissions); KPI 2: Representation of racial and ethnic diversity as percentage of workforce; KPI 3: Women on Board of Directors.	
Province of Ontario	Green	2023	9	CAD	2.2	Clean Transportation; Energy Efficiency & Conservation; Climate Adaptation & Resilience	
Province of Ontario	Green	2018	7	CAD	2.16	Clean Transportation; Energy Efficiency & Conservation; Climate Adaptation & Resilience	
CPPIB Capital Inc	Green	2018	10	CAD	1.9	Renewable Energy; Green Buildings	
CPPIB Capital Inc	Green	2019	10	EUR	1.14	Renewable Energy; Green Buildings	
Province of Ontario	Green	2016	7	CAD	1.1	Clean Transportation; Energy Efficiency & Conservation; Climate Adaptation & Resilience	

Issuer Name	Theme	Year of Issue	Tenor (Years)	Currency	Deal Size (US\$ Billion)	UoP / KPIs for SLB
CPPIB Capital Inc	Green	2020	7	EUR	1.08	Renewable Energy; Green Buildings
Province of Quebec	Green	2022	10	CAD	1.05	Clean Transportation; Energy Efficiency
Bank of Nova Scotia	Sustainability	2021	3	USD	1	Renewable Energy; Green Buildings; Access to Essential Services, Creating Economic Resilience, Women-Owned Business
CDP Financial Inc	Green	2021	5	USD	1	Clean Transportation
Enbridge Inc	SLB	2021	12	USD	1	KPI 1: GHG intensity level, tonnes CO2e/PJ (Scope 1 and 2 emissions); KPI 2: Representation of racial and ethnic diversity as percentage of workforce; KPI 3: Women on Board of Directors.
Toronto- Dominion Bank	Green	2017	3	USD	1	Renewable Energy; Green Buildings; Clean Transportation; Sustainable Water and Wastewater Management

 Note: UoP stands for "Use of Proceeds"; KPI stands for "Key Performance Indicator"; SLB stands for "Sustainability-Linked Bond".

APPENDIX B: GSS+ BOND SPOTLIGHT

GREEN BOND SPOTLIGHT – THE GOVERNMENT OF CANADA'S INAUGURAL GREEN BOND

On March 22, 2022, the Government of Canada issued its inaugural 7.5-year, CA\$5 billion (US\$3.6 billion) green bond.

The offering (ISIN: CA135087H973):

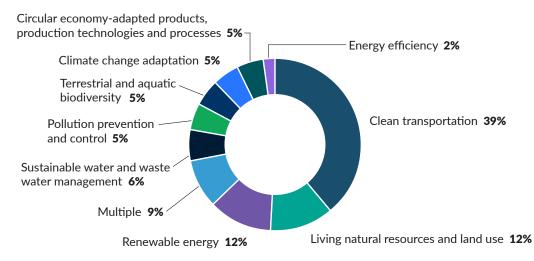
- Size: CA\$5 billion (US\$3.6 billion)
- Maturity date: December 1, 2029
- Coupon rate: 2.25%
- Use of proceeds: Clean transportation; Living natural resources and land use; Renewable energy³⁰; Sustainable water and wastewater management; Pollution prevention and control; Terrestrial and aquatic biodiversity; Climate change adaptation; Circular economy-adapted products, production, technologies and processes; and Energy efficiency.

Investor demand was strong — the final order book was over CA\$11 billion, more than two times oversubscribed. Notably, the investor base is made up of 72% environmentally and socially responsible investors, as well as 45% international investors.^{xvi} The final transaction is 2bps tighter than initial pricing expectations due to robust demand. Overall, the Government of Canada saved around 4bps in borrowing costs from this inaugural green bond issuance — the coupon is 4bps tighter than the 7-year benchmark yield, indicating a positive green premium.

The proceeds were used to (re)finance government investments in green infrastructure and other eligible green projects defined in its Green Bond Framework (2022). Around 39% of the proceeds went to clean transportation, followed by living natural resources and land use (13%), renewable energy (12%), and others (see Figure 222).³¹

FIGURE 22

Government of Canada's inaugural green bond – Allocation by Green Category, Percentage



Note: the information is retrieved from Government of Canada, "Government of Canada Green Bond Allocation Report 2021-22," 2023.

³⁰ In November 2023, the Government of Canada updated its green bond framework. One of the major updates

is to include measures supporting the deployment of nuclear energy to generate electricity and/or heat.

³¹ Government of Canada, "Government of Canada Green Bond Allocation Report 2021-22," 2023

Since successfully issuing the inaugural green bond, the Government has updated its framework to include certain nuclear energy expenditures as eligible green projects in 2023 and issued its second green bond (CA\$4 billion, 10-year) in 2024.³²

SOCIAL BOND SPOTLIGHT - CIBC'S WOMEN IN LEADERSHIP BOND

The offering (ISIN: CA87971MBV42)

- Size: US\$ 500 million (CA\$ 1 billion Deposit Notes)
- Offer date: September 14, 2018
- Maturity Date: September 14, 2021
- Coupon Rate: 2.90%
- Use of Proceeds: Essential Services (Healthcare, Education and Public facilities); Affordable Housing and Basic Infrastructure; Socioeconomic advancement and empowerment; Employment generation; Food security and sustainable food systems.
- Eligibility Criteria:
 - Criterion #1 (A) Minimum of 30% of board positions are held by women; or
 - (B) Minimum of 30% of executive positions are held by women; or
 - (C) Signatory of the Catalyst Accord 2022.
 - AND
- Criterion#2 Minimum of one woman on the board and one woman in an executive position
 - Exclusionary criteria: CIBC refrained from allocating the bond proceeds to finance any corporation whose current principal industry or primary activity includes Alcohol, Tobacco, Gambling, Military Contracting, Predatory Lending, Palm Oil, Adult Entertainment.
 - Present Status: As of July 31, 2020, the net proceeds from the Women in Leadership bond were fully allocated to eligible assets within 18 months of the bond issuance, with monitoring and reallocations conducted according to the Framework^{xvii}.

SLB SPOTLIGHT – TELUS'S INAUGURAL SLB

On June 28, 2021, TELUS successfully closed its inaugural SLB offering of CA\$750 million (US\$608 million) 2.85% senior unsecured SLB due November 13, 2031. TELUS claims the offering to be the first of its kind in Canada.

The issuance is pursuant to the company's SLB framework that outlines the selection of KPIs, calibration of SPT, bond characteristics, report and verification, in alignment with ICMA's SLB Principles. Sustainalytics provides the second-party opinion.

The offering (ISIN: CA87971MBV42)33:

- Sustainability Performance Target (SPT): reducing absolute Scope 1 and 2 GHG emissions by 46% from 2019 levels by 2030
- KPI: company-wide Scope 1 and 2 GHG emission reduction
- Target Observation Date: December 31, 2030
- Coupon step-up: +100bps per annum for interest period thereafter, if TELUS fails to achieve the SPT by December 31, 2030

The Science Based Targets Initiative (SBTi) validates the GHG reduction target to be a science-based target, meaning it is in line with what the latest climate science deems necessary to meet the Paris Agreement goals. SBTi's validation provide credibility behind the target-setting.

³² The second bond is outside of the scope of this report.

³³ Prospectus supplement of the offering can be accessed here.

TELUS commits to report annually on the performance of the KPI in its annual sustainability report. In its 2023 sustainability report, TELUS disclosed it has achieved 31% absolute reduction in Scope 1 and 2 GHG emissions in 2023 from 2019 levels, on track towards its 46% reduction target by 2030 (see Table 2).

TABLE 2

TELUS GHG Emissions (tonnesCO2e)

Company-wide GHG emissions by source	2023	2022	2021	2020	2019	Cumulative performance and commentary
Scope 1	48,366	50,689	51,075	53,002	61,215	On track
Scope 2	159,134	175,268	204,698	200,848	240,919	On track
Total	207,500	225,957	255,773	253,850	302,134	On track

Note: the information is retrieved from TELUS's 2023 Sustainability Report.

ENDNOTES

- i Bloomberg Professional Services Report. February 2024.
- ii Climate Bonds Initiative, "Sustainable Debt Market: Summary Q3 2023", November 2023.
- iii Climate Bonds Initiative, "Sustainable Debt: North America State of the Market 2021", September 2021
- iv Harvard Law School Forum on Corporate Governance, "Survey Analysis: ESG Investing Pre- and Post-Pandemic", October 2020
- v S&P Global, "Global Sustainable Bonds 2023 Issuance to Exceed \$900 Billion", September 2023.
- vi Statistics Canada. <u>Table 36-10-0605-01</u>. Debt securities issues by sector, currency, maturity, type of interest rate and market of issuance (positions), quarterly (x 1,000,000).
- vii Climate Bonds Initiative, "Sustainable Debt Global State of the Market Report 2023," May 2, 2024.
- viii CPPIB, "CPP Investments Green Bond Impact Report 2019," 2020.
- ix Government of Canada, "Government of Canada Green Bond Framework," November 2023.
- <u>x</u> S&P Global's Second Party Opinion, "<u>Tamarack Valley Energy Sustainability-Linked Bond Framework</u>", January 2022.
- xi Climate Bonds Initiative, "Sustainable Debt Global State of the Market Report 2023".
- <u>xii</u> Josephine Richardson and Patricia Hutchinson, "<u>SLBs: A Summary of 2024 Targets</u>". Anthropocene Fixed Income Institute, July 9, 2024.
- <u>xiii</u> Imtiaz Ul Haq and Djeneba Doumbia, "<u>Structural Loopholes in Sustainability-Linked Bonds</u>," October 2022.
- <u>xiv</u> Julian Kölbel and Adrien-Paul Lambillon, "<u>Who Pays for Sustainability? An Analysis of Sustainability-</u> Linked Bonds," SSRN Electronic Journal, 2022.
- <u>xv</u> Cheng, G., Ehlers, T., Packer, F., & Xiao, Y. (2024). <u>Sovereign green bonds: a catalyst for sustainable debt</u> <u>market development?</u>. IMF Working Paper.
- xvi Department of Finance Canada, "Canada Issues Inaugural Green Bond," March 23, 2022.
- xvii 2020 Annual Use of Proceeds Reporting CIBC's Women in Leadership Bond.