



 WHITE PAPER

# **Financing the Mid-Transition: Exploring the Potential of Sustainability-Linked Bonds for Canada's Transition**

JUNE 2025

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## Acknowledgements

The authors would like to thank Colleen Kaiser, Caelan Welch and Paige Olmsted for their feedback and discussions on initial drafts. The authors would also like to thank Ulf Erlandsson (Anthropocene Fixed Income Institute) Gireesh Shrimali and José Reséndiz (Oxford Sustainable Finance Group) for initial discussions on the topic.

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## Suggested Citation

Saravade, V., & Islam, A. (2025). *Financing the Mid-Transition: Exploring the Potential of Sustainability-Linked Bonds for Canada's Transition*. Smart Prosperity Institute.

June 2025

## With support from

This project was undertaken with the financial support of:  
Ce projet a été réalisé avec l'appui financier de :



Environment and  
Climate Change Canada

Environnement et  
Changement climatique Canada

*This report does not necessarily reflect the views of the funder, nor any of the reviewers. Any errors remain the sole responsibility of the authors.*

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## Executive summary

Canada stands at a critical juncture in its climate transition, navigating a “mid-transition” period where high- and low-carbon sectors must coexist. As a G7 country with a resource-intensive economy, Canada needs innovative and flexible financial tools to support its orderly and inclusive path to decarbonization.

This white paper explores the potential of sustainability-linked bonds (SLBs) as a complement to green bonds and other sustainable finance products in helping finance the low-carbon transition. While green bonds dominate the sustainable finance landscape, they are often limited to project-specific use. Sustainability-linked bonds, by contrast, offer general-purpose financing linked to sustainability performance targets. This makes them better suited to support entity-level transitions in hard-to-abate or emission-intensive sectors such as energy, mining and heavy industry.

Canada’s SLB market is still emerging, but early issuances—particularly in emissions-intensive sectors—signal potential for growth. Sustainability-linked bonds provide flexibility in use-of-proceeds, reward measurable sustainability outcomes and can integrate broader sustainability goals such as diversity, equity and inclusion. However, without strengthened regulatory oversight, standardization and credible design features, SLBs risk increasing greenwashing and diminishing existing investor confidence in these markets.

To ensure SLBs serve as credible and effective tools in Canada’s sustainable finance ecosystem, this white paper calls for coordinated policy leadership and evidence-based research. It outlines critical questions to evaluate under what conditions SLBs could meaningfully support Canada’s low-carbon transition, and how best to align their use with national climate and economic objectives.

## Introduction

Canada’s strong, yet resource-dependent, small and open economy faces a critical challenge: financing a transition to a low-carbon, climate-resilient future while continuing to rely on established carbon-intensive sectors, such as oil, gas and mining among others. The country’s economic prosperity is closely tied to these industries, mainly through the export of these resources, making low-carbon transitions urgent and complex. Furthermore, with decarbonization becoming essential to mitigating the worst effects of climate change, Canada must navigate not only the physical risks posed by a warming planet but also the increasing transition risks associated with phasing out high-carbon sectors (Grubert & Hastings-Simon, 2022).

Even under ambitious scenarios, decarbonization will take decades, necessitating a recognition of the “mid-transition” period. During this time, conventional fossil fuel-based systems will continue to operate beside emerging low- or zero-carbon technologies. This coexistence marks a critical phase in which a gradual but deliberate decoupling from high-carbon assets must occur, giving way to a more climate-resilient and sustainable economic model (The Coalition of Finance Ministers for Climate Action, 2023).

The mid-transition will be capital-intensive as there will be a focus on investing in emerging clean technologies and transitioning or phasing out existing fossil fuel-based assets (Greig, Keto, Hobart, Finch & Winkler, 2023). To stay on track, global low-carbon investments need to rise from US\$900 billion in 2020 to US\$5 trillion annually by 2030 (Black, Jaumotte & Ananthakrishnan, 2023). One key avenue to support the immediate and long-term financing needs of this transition is sustainable finance. Global capital markets linked to sustainable finance (like the green bond and others) are increasingly aligning traditional financial flows with environmentally sustainable investments, offering Canada a way to finance its transition while managing the unique complexities of its economic structure.

## Context and problem statement

Despite progress in sustainable finance, Canada still faces a substantial shortfall in the capital needed to support its “mid-transition.” Recent estimates peg the annual financing gap at C\$115 billion (Government of Canada, 2022), while actual capital flows from public and private sources remain significantly lower, rising from just \$15 billion to \$22 billion in 2023 (Royal Bank of Canada, 2023). This leaves a gap more than four times larger than current investment levels.

Although the Government of Canada has committed more than C\$160 billion since 2016—through policies, funding mechanisms, investment tax credits and sovereign green bonds totaling C\$11 billion—public spending alone is not enough to deliver a low-carbon, climate-resilient economy by 2050. Achieving this goal will require massive investment from domestic sources and, increasingly, international capital markets. Yet, delays in action are driving up the costs of transition financing. Rising capital costs, compounded by global economic and geopolitical uncertainty (IMF, 2024), further complicate an already difficult task for Canada.

While public financing plays an essential role, closing Canada’s mid-transition financing gap will depend heavily on mobilizing private-sector capital, particularly through sustainable finance capital markets (Moheildin & Fugla, 2024). Existing instruments, such as green bonds, have made important contributions to sustainable finance flows but face structural limitations. For example, their strict use-of-proceeds requirements limit funding to discrete green projects rather than enabling strategic company-wide change, thereby impeding a transformational shift at the sectoral level (Saravade & Weber, 2024; Lehmann & Martins, 2023; Saravade, Weber & Vitalis, 2025). In trade-dependent, resource-intensive economies like Canada, where hard-to-abate sectors such as energy, mining and heavy industry remain economically central, there is a pressing need for financial instruments better suited to supporting credible and orderly transitions in these sectors at scale.

Sustainability-linked bonds are one such potential tool in the broader sustainable finance landscape that remains underused by companies in transition. Unlike green bonds, SLBs are general-purpose instruments tied to sustainability performance targets, linking sustainability outcomes with financial incentives or consequences. For Canada, SLBs could offer more flexible financing to support broader corporate transition strategies rather than one-off projects while also creating new investment opportunities.

## Sustainability-linked bonds: a potential tool for sustainability transitions

As Canada navigates the tension between its resource-based economic foundations and the need for accelerated climate action, strategic, evidence-based policy choices will be essential. They will be needed to ensure that new financial instruments like SLBs, if pursued, are designed to support credible, sector-wide transitions. Proactive policymaking, including iteratively drawing lessons from international initiatives and other districts, could help Canada operationalize its mid-transition plan. In doing so, it could avoid the escalating costs of delayed action and unlock long-term growth opportunities in the low-carbon economy (Ameli, Kothari & Grubb, 2021).

However, the effectiveness of SLBs in driving real-world outcomes remains an open question, especially given concerns linked to the SLB design and their potential misuse, which have tempered market confidence in SLBs in recent years (Chouhan, Harrison & Muldoon, 2024). To scale their use, building trust through strong policy frameworks, standardized practices and effective oversight is essential. Therefore, policymakers and the market must determine whether SLBs could be credible in sectors prone to maintaining the status quo (e.g., “hard-to-abate” or carbon-intensive industries) and, if so, identify which policy frameworks and oversight mechanisms would be most effective in strengthening their credibility.

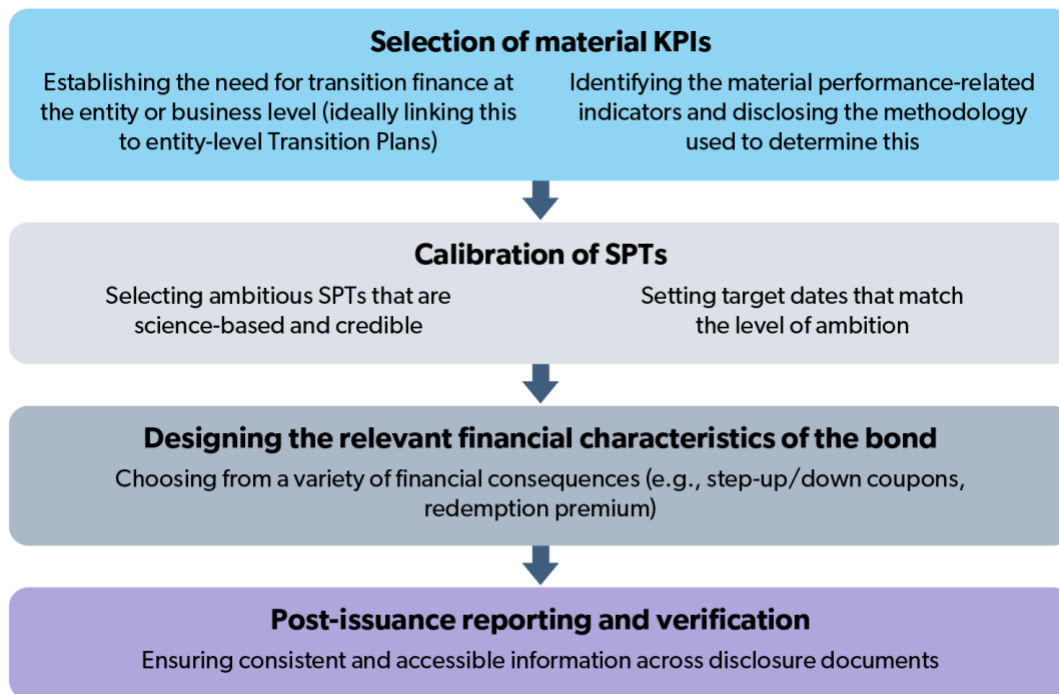
Based on these considerations, this white paper explores the potential of the SLB market in advancing Canada’s mid-transition agenda. Rather than advocating for its expansion, this white paper uses the following sections to introduce how an SLB operates, assess the current state of the market, highlight any key opportunities and challenges, and identify the policy and research priorities essential for building a credible, transparent and effective SLB framework tailored to Canada’s unique transition financing needs.

### What makes SLBs unique?

An SLB is a borrowing instrument where the financial and/or structural characteristics (e.g., coupon, maturity, repayment amount) are contingent upon the issuer achieving specific sustainability-related outcomes within a specified time. According to the International Capital Market Association’s (ICMA)’ SLB Principles (SLBP), there are five core components associated with issuing an SLB (Figure 1). The first step is selecting the material key performance indicators (KPIs) that are then measured using specific targets known as sustainability performance targets (SPTs). Once the issuer has put in place these characteristics for the bond, the financial consequences of meeting or not meeting the targets based on a specified period are then set (for a detailed list of several types of consequences, refer to Table 1 in the appendix). The remaining measures of post-issuance reporting and verification are like those used in the green bond market. However, an additional emerging best practice involves linking the SLB to the issuer's broader entity-level transition plans, though this remains uncommon in current disclosures.



Figure 1. Main Elements of an SLB issuance



Source: Authors' construction.

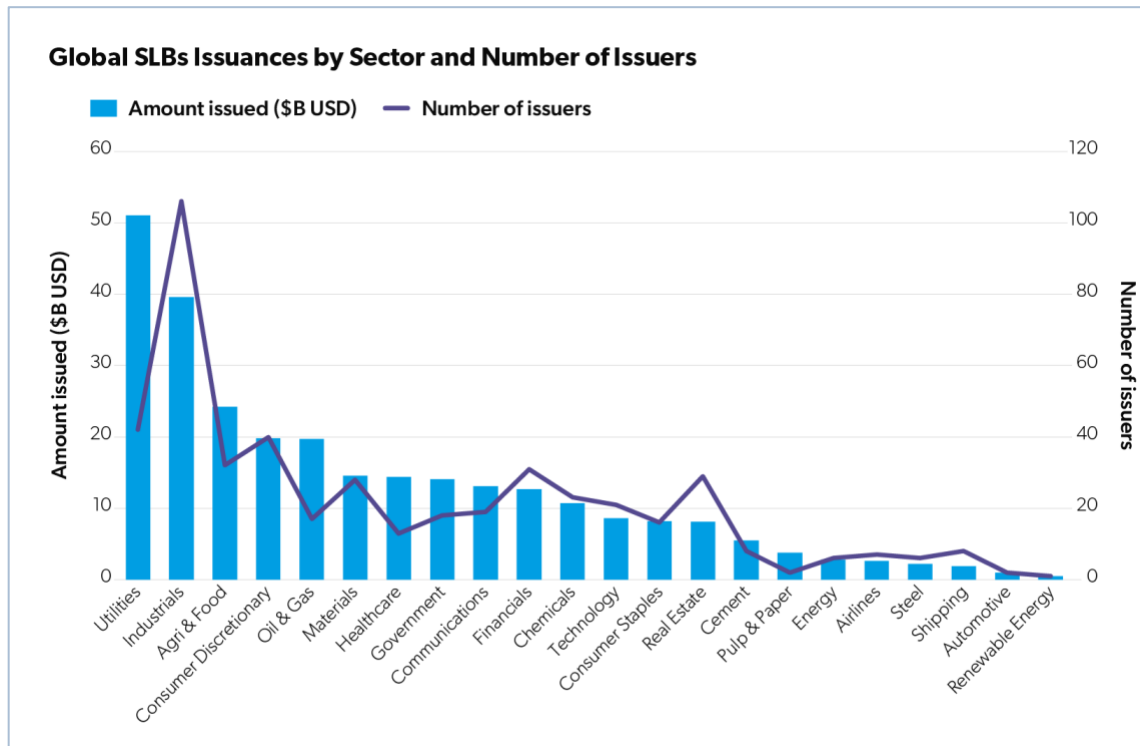
The two main differentiating attributes of SLBs compared to other bonds (like green bonds) are that the **funds are general purpose rather than ring-fenced** (i.e., proceeds are not limited to specific projects), and **they allow issuers to select material<sup>1</sup> sustainability targets and link financial consequences** (mechanisms like the step-up/down coupon among others) to them. This is done through the selection of KPIs and the SPTs under them. Examples of SPTs include percentage reduction of greenhouse gas (GHG) emissions relative to a baseline year or improving the representation of women within organizations—which are then linked to broader KPIs of climate mitigation or gender diversity, respectively.

### SLB market snapshot

Given the flexible nature of the market and its focus on improving the additionality of investments through entity-level change, the SLB market has attracted participation from various issuers across different sectors. ENEL SpA, an Italian electricity and gas company, issued the first corporate SLB in 2019—a US\$1.5 billion bond with a five-year maturity. The bond issuance was linked to the company's ability to reach 55% power generation from renewable energy sources by 2021. An important note here is that after issuance, ENEL missed one of its SPTs in 2023. It had to pay an annual step-up penalty of 25 basis points on its coupon rate, demonstrating the enforceability of financial consequences in SLB structures at a time when concerns about accountability and greenwashing remain high.

Issuances have also come from a range of stakeholders, with countries such as Chile<sup>2</sup> and Uruguay<sup>3</sup> having issued sovereign SLBs, while the city of Helsingborg, Sweden<sup>4</sup> issued the first city-level SLB in Europe. Most importantly, SLBs have a high level of global issuances from issuers in hard-to-abate sectors like utilities, industrial sectors, agri-food, consumer-related and oil & gas (Figure 2).

*Figure 2. Cumulative global SLB issuance amounts and numbers of issuers per sector*



*Source: Authors' construction using global Climate Bonds Initiative data until March 2024.*

Globally, market interest is reflected in its overall growth trends as cumulative issuances surpassed US\$250 billion since its inception in 2019 (Almeida, 2024). Notably, issuances started to ramp up in 2021, driven by post-COVID market recovery and increased investor interest. However, more recently, issuances have dropped owing to a combination of global market conditions (macroeconomic conditions like higher interest rates) and a variety of critiques that are either instrument-specific or more structural in nature and related to the market ecosystem (Dywer, 2023).

In Canada, the SLB market remains small, with only four issuers to date—Enbridge, TELUS, Tamarack Valley Energy and St. Mary's Cement—collectively issuing 15 SLBs totaling US\$9.71 billion since 2021 (ICMA & Luxembourg Stock Exchange Data, 2025). As with global patterns, Canadian issuances are across key transition-oriented sectors namely, energy, materials and communications. This early activity signals an opportunity for Canadian policymakers to engage more robustly with transition-relevant sectors and issuers. However, there is also a need to explore how to encourage greater participation from transition-focused sectors and ensure that transition finance remains accessible to smaller issuers, particularly those who may lack the resources to track and report on SLB targets.



The following sub-sections examine the benefits and critiques of SLBs in detail to inform policy and research directions that can assess whether, and under what conditions, SLBs might serve as a credible and effective tool in Canada's broader transition finance architecture.

## Benefits of SLBs

Sustainability-linked bonds could play a complementary but critical role beside other debt instruments, such as green bonds, which are already popular globally. Some of the benefits associated with SLB issuances are as follows:

- **Unlike green bonds, the proceeds from an SLB issuance do not have to be earmarked (“ring-fenced”) for dedicated expenditures.** Issuers must use the bond proceeds for general corporate purposes (or for budgetary purposes for sovereign SLBs). The flexibility allows issuers to use capital for purposes that may not easily fall within the “green” category but will have a meaningful sustainability impact. Hence, SLBs can be used to finance capital expenditures to decarbonize operations of “hard-to-abate” sectors such as mining, steel and cement, which may not qualify under green bond criteria but are well-represented among SLB issuers globally (Anthropocene Fixed Income Institute, 2024).
- **SLBs offer issuers a platform to demonstrate their commitment to broader sustainability objectives—not just climate-related goals.** By setting up forward-looking SPTs, issuers can undertake express improvements in their sustainability performance while reducing their cost of capital at the same time (Chen, Hinker & Löffler, 2023). This type of incentive structure is not necessarily available with other debt instruments. For example, with the more traditional green bonds, issuers can fund wind turbines through the “green” use of proceeds and simultaneously turbocharge investments in fossil-fuel production. In contrast, SLBs reward issuers for achieving tangible results on their overall corporate-level transition plan, such as lowering GHG emissions across their entire operations rather than a specific asset. Furthermore, given the ability to incorporate a range of sustainability objectives, including social and governance-related ones, it allows issuers to focus on not just the climate aspects of transition but also incorporate social aspects of sustainability. For instance, Enbridge’s SLB issuance introduced a diversity-hiring KPI to increase the percentage of racial and ethnic diversity in its workforce (Enbridge, 2021). While questions may arise about the materiality of this KPI (Erlandsson, 2021) given the current political and corporate climate that is not entirely supportive of DEI objectives in the workforce (Sands & Ferraro, 2025), the inclusion of measurable social targets still provides a tangible mechanism for investors to support firms committed to advancing broader sustainability goals.
- **Investors can hold issuers accountable for sustainability objectives, which is not always possible for other types of debt instruments.** For example, failure to implement “green” projects typically offers limited enforcement options, as it does not trigger an “event of default” (Agostini, 2024). In contrast, some SLBs introduce a built-in penalty mechanism (or a coupon step-up) that creates financial penalties for missed targets. This structure creates a clearer pathway for investors to evaluate issuer follow-through on sustainability commitments while also offering a potential upside in the form of higher returns when companies miss their targets.

This challenges the notion that institutional investors cannot meet their fiduciary duties by investing in SLBs when, in fact, these instruments can potentially enhance financial returns while providing a mechanism to hold issuers accountable for progress on their sustainability commitments.

## Challenges with SLBs

The novelty of the SLB market means that voluntary expectations, best practices and supporting regulations are still under development globally. Without careful attention to design and oversight, SLBs risk becoming a tool for symbolic sustainability rather than real impact, undermining market credibility, investor confidence and climate goals. At the micro level, there are instrument **design challenges** that raise concerns about SLB credibility, misuse and greenwashing. At the macro level, there are **market challenges** associated with a missing climate and sustainability-linked information architecture that inhibits the growth potential of SLB issuances. Below we examine the key design-related challenges before outlining the market-specific ones:

### Design challenges

- **Increased risk of greenwashing, especially if SLB issuers opt for a selection of low-hanging fruits or easy-to-achieve KPIs and SPTs.** Sustainability-link bond issuers could benefit from a “free lunch,” seen as a financial benefit despite not reaching the target (Kölbel & Lambillon, 2022). Similarly, issuers could benefit from achieving an easy-to-reach KPI or SPT based on the omission of a baseline year or a non-ambitious target. This raises the perception of greenwashing as it implies such SLB issuers are more concerned by the marketing element of SLBs along with the cheap capital that accompanies a “sustainium” (positive premium on SLBs) (Feldhütter, Halskov & Krebbers, 2024), rather than achieving additionality in their impact. Apart from setting weak targets, greenwashing aspects could also emerge if issuers have subsequent issuance of SLBs bonds with no external oversight, inconsistent application of review standards (review for one issuance but not subsequent ones) and shopping for more favourable assessments from alternative reviewers (Dywer, 2023).
- **Taking advantage of the design loopholes, like callable option or having an observation date close to maturity of bond.** By taking advantage of a callable option, issuers can “call” or buy back the bond before maturity in the event the institution does not meet its SPTs or KPIs. Similarly, having an observation date close to maturity allows issuers to pick easy-to-reach targets, which further undercuts the commitment of the issuer to transition (Hinsche & Klump, 2023).

### Market challenges

- **Broad market uncertainty.** Although the global SLB market saw strong growth following its introduction, it experienced a significant decline in the first half of 2024 compared to the same period in 2023. This decline was likely driven by a combination of market complexity and broader macroeconomic conditions. On the one hand, credibility concerns, such as information asymmetries between issuers and investors and the absence of reliable sector-level baselines to

benchmark corporate ambition, have created uncertainty about the integrity of SLB issuances (Dywer, 2023). On the other hand, a challenging financial environment, including persistently high interest rates, has further dampened issuance activity (Cochelin, Popoola, Ornelas & Volland, 2025).

- **Lack of standardization around entity-level transition plans.** Transition plans are a critical component for maintaining credibility in the SLB market. They provide the strategic context against which sustainability performance can be assessed (Resendiz & Shrimali, 2024). The absence of such plans—or inconsistent standards for what constitutes a credible plan—undermines investor confidence and hampers the ability of issuers to participate across different jurisdictions. For example, issuers in the EU or the UK will have different investor expectations linked to entity-level transition planning compared to those in North America. This highlights the need for greater interoperability and guidance on how SLBs can be credibly linked to broader transition strategies so that investors can meaningfully track progress and issuers can meet expectations across jurisdictions.
- **Transaction costs arising from limited disclosure guidance and credible data needs.** Like other sustainable finance instruments operating without a clear taxonomy or disclosure framework, SLB verification and reporting vary significantly across issuers and are largely left to market self-regulation. This lack of consistency increases transaction costs, as issuers must navigate a patchwork of voluntary guidelines or best practices that differ by region or sector. Smaller or first-time issuers are particularly disadvantaged, as they may lack the resources to compile extensive documentation or comply with evolving reporting expectations—especially in the absence of policy supports to offset these burdens (Saravade & Weber, 2024). Additionally, the absence of agreed-upon definitions and guidance for what constitutes credible, decision-useful data in SLB reporting adds another layer of complexity and cost.

While these design- and market-level challenges raise valid concerns about the credibility and scalability of SLBs, they also offer a window into how policy, regulatory clarity and strategic market engagement could shape a more robust path forward. Effectively addressing these issues is critical not only to avoid reputational and financial risks but also to ensure that SLBs serve as a credible complement to Canada’s sustainable finance toolkit. The evolving global landscape—coupled with early lessons from international issuances—underscores the importance of developing context-specific approaches that balance ambition with accountability.

As Canada looks to expand its sustainable finance architecture, a clearer understanding of the enabling conditions for SLBs—supported by targeted research and policy innovation—will be essential. The following section outlines potential next steps for research and policy action that could help advance SLBs as a viable (though not yet guaranteed) solution for financing Canada’s mid-transition.

## Policy implications and future research

In conclusion, SLBs offer a promising yet underused way to finance Canada’s mid-transition, particularly in hard-to-abate sectors that are central to its economic structure. This instrument’s flexibility,

alignment with broader sustainability strategies and capacity to reward ambition over compliance position SLBs as a potential complement to traditional green finance instruments. However, realizing their full potential in Canada will require more than market interest. It demands a coordinated policy response to foster a credible, transparent and cost-effective SLB market framework.

The challenges outlined, ranging from greenwashing risks to a fragmented information architecture, are not insurmountable. They point to the need for a strategic policy response: one that sets clear standards, ensures interoperability of transition plans, reduces transaction costs and provides incentives for ambitious performance targets. Furthermore, government participation—through regulatory guidance, market facilitation or even sovereign issuance—could significantly boost market confidence and attract transition-oriented capital at scale. One example is Chile’s sovereign SLB issuance, which was designed to have a “Most Favoured Nation” (MFN) clause, which allowed them to tie the KPIs and SPTs of current SLBs to include and be adjusted to meet similar KPIs and SPTs in the future if national targets became more ambitious (Giráldez, Lagos & Tomei, *n.d.*). This SLB structure has been championed by the global market stakeholders as it signals clear ambition in terms of ensuring robust KPIs and SPTs that further mitigate greenwashing risks.

For this strategic response to be effective, it must be grounded in evidence. A clear understanding of instrument-specific risks, market design constraints and international best practices is essential to inform ambitious yet workable policy interventions. Targeted research could help illuminate where SLBs can meaningfully contribute to Canada’s transition finance toolkit, and where safeguards or alternative approaches may be warranted. Canada’s success in leveraging this instrument will depend on how it aligns financial innovation with credible transition planning and policy leadership.

The following research questions are intended to support that alignment and help define where policy development, regulatory clarity and market design improvements are most urgently needed.

## Key research questions

To leverage the full potential of SLBs, Canada needs to address challenges at the instrument and market level (instrument design specific and market ecosystem). To this end, focused research is needed at the intersection of Canada’s bond market and sustainable finance policy landscape. Key research questions emerging from this white paper that could help drive our understanding of how to attract more transition finance into Canada using the SLB market are:

1. What types of policy guidance, regulatory tools or standards are needed for SLBs in Canada? Are there international models or practices that could provide lessons in terms of implementing these guidance and standards?
2. If Canada moves forward with implementing its own climate information architecture (Islam, Kaiser & Winstanley, 2025), how can it be used to operationalize and support SLB markets?

3. Can sovereign SLB issuances in Canada help to mitigate some of the instrument-specific and market ecosystem-level challenges and create market confidence? What can we learn from sovereign SLB issuances in other markets?
4. How can Canada mitigate greenwashing risks in the SLB market in a way that supports credible transition outcomes without deterring market participation?
5. What steps can policymakers take to reduce key market barriers, such as transaction costs from disclosure/reporting and challenges in accessing or defining credible data, especially for smaller or first-time issuers?
6. How can Canadian companies in hard-to-abate sectors be engaged credibly to increase their participation in the SLB market, and how can they be encouraged to enhance accountability by selecting material KPIs or SPTs and demonstrating ambition relative to baseline performance levels?

Please get in touch with me or my colleague Anik Islam if you have feedback on this white paper or want to collaborate on this work. Please email [info@smartprosperity.ca](mailto:info@smartprosperity.ca) c/o Vasundhara Saravade and/or Anik Islam.

## Appendix A

*Table 1. A list of various types of financial and design mechanisms for SLBs*

Financial mechanisms	Amount (US\$B)	Bonds	Issuers
Not disclosed	24.2	109	82
Conservation success payment	0.2	1	1
Mandatory early redemption	1.0	7	5
Redemption discount	0.1	1	1
Redemption premium	19.0	82	61
Redemption premium (charity)	5.8	34	19
Redemption premium (emission permits)	0.3	4	4
Redemption premium (green electricity certificate/carbon offset)	0.6	4	4
Redemption premium (green electricity certificate/carbon offset)	1.7	18	4
Redemption premium (green investments)	0.1	1	1
Redemption premium (offset purchase)	1.3	6	5
Step-down coupon	0.7	9	6
Step-up coupon	214.5	447	266
Step-up (offset purchase)	0.4	2	1
Step-up and/or step-down coupon	9.4	43	33
Total	279.3	768	469

*Source: Almeida (Climate Bonds Initiative) as of March 2024*



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## Endnotes

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<sup>1</sup> Material targets and KPIs would allow companies to address the sectors they fall in and target the biggest sustainability challenges they face. For instance, companies in the high-carbon sectors could look at reducing their carbon footprints or those in the forestry sector could enable better stakeholder engagement with communities and geographical areas where they operate in.

<sup>2</sup> <https://www.hacienda.cl/english/work-areas/international-finance/public-debt-office/frequently-asked-questions/sustainability-linked-bonds>

<sup>3</sup> <https://sslburuguay.mef.gub.uy/>

<sup>4</sup> Sundqvist, E. and Bäckström, N. (2024). *Helsingborg sustainability-linked bond report*. City of Helsingborg  
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