

Sustainable Mortgage Bonds – Why are they so relevant to the housing industry in Canada?

Introduction

Current challenges

CMHC has the aspirational goal of ensuring every household in Canada has a home that they can afford and that meets their needs. To achieve this goal CMHC works with other participants such as housing proponents (e.g. provincial/municipal governments, housing associations), developers and investors to meet two main challenges facing the housing industry in Canada.

- **A funding gap for affordable housing.** Some studies estimate a gap ranging from \$77 billion to \$120 billion¹, representing more than 3 million units per year starting in 2016 for the next decade. This gap is strongly influenced by the need for resources to address the following: replace or renovate the existing social housing stock; assist Canadians in core housing need; minimize waiting lists; and increase the supply of social and affordable housing. Furthermore, COVID-19 makes housing even more challenging, particularly for those most vulnerable and households with the lowest level of income.

- **The environmental impact of the housing sector on climate change.** Among all sectors in Canada, the residential sector consumes the most energy (23.8%) and contributes significantly to greenhouse gas (GHG) emissions (18.8%)². This represents building, retrofitting and renovating as well as consumption by dwellers. As the effects of climate change become more disruptive, the effect of the housing sector on the environment will inevitably become more relevant.

CMHC research project

To address these challenges, CMHC undertook a study of sustainable mortgage bonds (SMBs) and their potential implications for the housing industry in Canada. Our objectives were as follows: explain the opportunities presented by SMBs; raise awareness of their positive environmental, social and economic impacts; and, explore the potential role of government in materializing these positive outcomes.

CMHC conducted internal research and commissioned the services of a global professional services firm. The firm conducted literature reviews, econometric analysis and a series of consultations with key industry players.

¹ HPC Housing Investment Corporation. "HPC Housing Investment Corporation: Background." <https://www.housinginvestment.ca/background>

² Statistics Canada, "Canadian System of Environmental-Economic Accounts", September 2019

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Research insights are summaries of our research reports.

These insights:

- identify a housing research issue, gap or need
- provide an overview of the research project undertaken to address it
- present major findings of the research

The research presented in this series explore the areas of Housing Need, Housing Finance, Housing Supply and Outcomes of the National Housing Strategy.

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Reporting on this project

This initial article presents a primer on SMBs. It covers their foundational principles, market size, and examples of frameworks relevant to the housing sector in Canada.

Articles in this series:

- **Sustainable Mortgage Bonds – Why are they so relevant to the housing industry in Canada?**
- Sustainable Mortgage Bonds expected performance, investor's motivations and econometric analysis.
- Sustainable criteria for residential projects and role of government.

Defining SMBs in the Context of ESG Bonds

Defining SMBs

SMBs are a subcategory of ESG (Environmental, Social, Governance) bonds that are:

- backed by insured or uninsured sustainable mortgages.
- used to finance or refinance housing projects with environmental, social, and governance outcomes.
- could include public and private residential mortgage bank securities (RMBS) and covered bonds.

A defining factor is that the underlying mortgages or collateral of these bonds are **sustainable**, meaning that these mortgages are related to projects expected to produce green outcomes (e.g. energy savings), social outcomes (e.g. affordable housing) or a mix of both. Issuers need to demonstrate to investors that the proceeds from bond issuances are used to achieve ESG outcomes as intended.

For projects in the housing industry, social bonds and green bonds can also be backed by residential mortgage assets.

SMBs may include the following³:

- **Public Mortgage Backed Securities (MBS), also called NHA (National Housing Act) MBS**, are securities backed by a pool of insured mortgages where CMHC guarantees timely payment of principal and interest (P&I) to investors;

³ For more detailed definitions please refer to CMHC's Residential Mortgage Industry Report, September 2020 edition: <https://www.cmhc-schl.gc.ca/en/data-and-research/publications-and-reports/residential-mortgage-industry-report>.

- **Private MBS** are issuances backed by uninsured pools of mortgage loans without CMHC’s timely payment guarantee.
- **Covered bonds** are secured debt issued by lenders that are backed by a dual recourse: a segregated pool of mortgage assets and the lenders themselves.

Defining ESGs

ESG bonds are financial products used to fund projects with environmental, social and governance (ESG) outcomes across various industries, including banking, financial, industrial and housing, among others. These bonds include various labels relevant to SMBs: green bonds, social bonds and sustainability/ sustainability bonds. Other than the type of outcome, most of the attributes mentioned above for SMBs may also apply to some (not all) ESG bonds.

Table 1 offers an overview of the key features of ESG bonds. Note that SMBs share the features of sustainability/ sustainability bonds.



Table 1: Overview of ESG bonds: Green, Social, and Sustainable

	Green Bonds	Social Bonds	Sustainability/ Sustainable Bonds
ESG Bonds			
Outcomes	Bonds in which proceeds are used to fund assets or projects with positive environmental impacts .	Bonds in which proceeds are used to fund assets or projects that support social outcomes .	Bonds in which proceeds are used to fund assets that support projects with both social and/or green outcomes.
Examples	<ul style="list-style-type: none"> • Green buildings* • Renewable energy* • Energy efficiency* • Clean transportation • Climate change adaptation • Water and wastewater management • Pollution prevention/control • Sustainable management of natural resources and land use • Biodiversity conservation • Eco-efficient products, production technologies and processes 	<ul style="list-style-type: none"> • Affordable housing* • Affordable housing infrastructure* • Access to essential services* • Savings on utilities* • Poverty reduction* • Initiatives targeting vulnerable/marginalized populations* • Health care • Food security • Employment generation • Specific social issue* (e.g., victims of COVID-19) 	<p>Same projects as for green and/or social bonds.</p> <p>*Example items noted in bold apply to SMBs.</p>

Global ESG Bond Market and Frameworks

The global ESG market has traditionally been dominated by green bond issuances, as illustrated in the following table.

Table 2: Green and social bonds: 2019 Growth (proxies); top countries and issuers

	Green Bonds	Social Bonds
Size	USD \$250 billion ⁴ gaining momentum	USD \$42 billion ⁵ ; much smaller, but also gaining momentum
Y/Y Growth	51%	60%
Top issuer countries/regions	USA, China and France with Canada ranked eighth	Europe is the top issuing <i>region</i> ; Canada accounts for only 2% of the total market
Top issuers	Fannie Mae (traditionally)	Nederlandse Waterschapsbank NV (NWB Bank)

Framework determines bond label

Prior to issuing a bond, issuers must set up an ESG framework, laying out its key goals and objectives and the nature of the projects to be funded. The nature of the framework will determine the label (green, social, sustainability/sustainable) that a bond may use. Thus, sustainable bond frameworks have the potential to offer more flexibility to issuers as both green and social bonds, or a combination of the two, may be issued under this single framework.

ESG frameworks of potential relevance to Canada

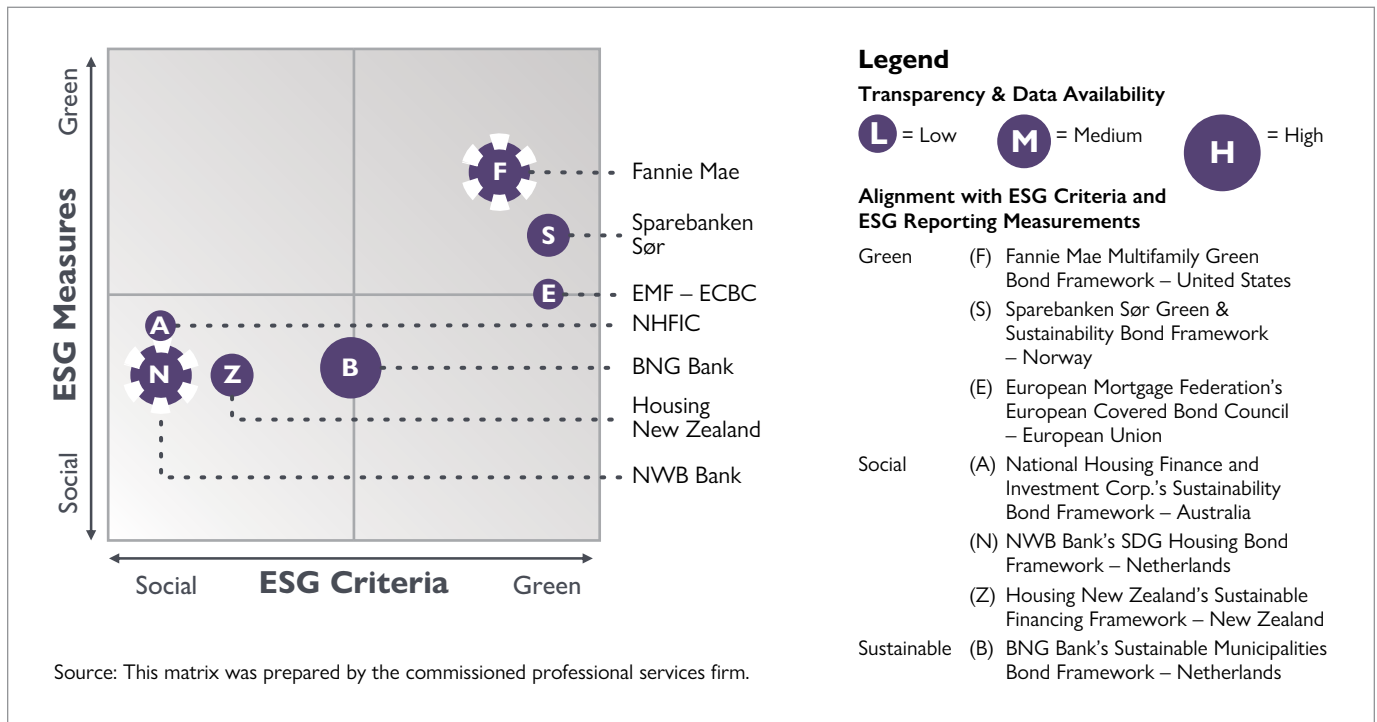
We assessed key frameworks for their potential relevance to resolving the issues in Canada's housing industry, both the funding gap and the environmental impact. We selected seven global ESG frameworks for further review due to their nature and academic or market relevance. Figure 1 indicates the type of framework, and its data transparency and availability. It also illustrates how each framework aligns with social/green eligibility criteria (x axis) and social/green reporting measurements (y axis). For example, the ESG frameworks in the bottom left quadrant lean more towards achieving social outcomes, whereas those in the top right quadrant aim more towards achieving green objectives. The one in the middle (BNG Bank) offers the best balance between both social and green goals. All types could offer lessons for Canada.

This matrix illustrates a directional analysis of how each framework aligns to the social and green eligibility criteria and reporting measurements relevant to Canada, as well as the transparency and availability of data in each framework. This alignment was based on our review of Canada's green and social/affordable building initiatives and objectives (e.g., National Housing Strategy, Canada's Buildings Strategy, 2030 Agenda for Sustainable Development, Affordable Housing Initiative, etc.).

⁴ Climate Bonds Initiative, Green Finance State of the Market, 2019

⁵ Bloomberg LLP

Figure 1: Selected Global SMB Frameworks: Transparency & Data Availability, ESG Relevance



This analysis led us to select Fannie Mae and NWB Bank frameworks for a deeper dive given the plausible lessons learned to be considered by Canadian SMB issuers (to be addressed in our subsequent release). Fannie Mae embodies the green aspects of the framework while NWB Bank embodies the social aspects. Together, both can inform the green and social aspects of a sustainable mortgage funding framework in Canada. They offer various

potential environmental, social and economic benefits for key challenges facing the housing market. Among the more relevant are:

- **The funding gap.** SMBs support social housing projects that provide affordable and accessible housing solutions to groups that are vulnerable: seniors, refugees, victims of domestic violence, people with disabilities, etc.
- **Environmental impact of housing.** SMBs support the development and/or retrofitting of green buildings to reduce the residential sector's environmental footprint.

Foundational ESG Principles and Guidelines and Their Relevance to SMBs

Various principles and guidelines exist in the international arena to walk issuers through the setting of ESG frameworks, the most relevant to the Canadian context follow.

International Capital Market Association (“ICMA”) principles and guidelines

Description	Relevance to SMBs
<p>ICMA is a global capital markets non-profit association that outlines best practices for green⁶, social⁷ and sustainable bonds⁸.</p> <p>There are four guiding principles⁹ that have provided a consistent method for comparing ESG frameworks across issuers and jurisdictions:</p> <ol style="list-style-type: none"> 1. use of proceeds; 2. process for project evaluation and selection; 3. management of proceeds; 4. and reporting. <p>ESG bond frameworks around the world, including in Canada, are generally developed based on these principles.</p>	<ul style="list-style-type: none"> • Provide a foundation to set up clear objectives, a robust process for project evaluation, and transparent and clear reporting when issuing green, social and sustainable bonds. • Contribute to promoting transparency and minimizing information asymmetry. • ICMA also recommends that issuers obtain external reviews of their frameworks to ensure proper alignment with their embedded objectives. This has resulted in the emerging importance of ESG rating firms to add further transparency and increase investor trust.

The United Nations (UN) Sustainable Development Goals (“SDGs”) ¹⁰

Description	Relevance to SMBs
<p>The UN has outlined 17 SDGs that constitute a blueprint for achieving global prosperity and sustainability by 2030.</p> <p>The SDGs goals have been adopted by 193 UN member states, including Canada.</p> <p>They are also frequently cited in sustainable bond frameworks.</p>	<p>These goals, identified the by the engaged firm, could be of relevance to SMBs and the housing industry:</p> <ul style="list-style-type: none"> • No Poverty (Goal 1): Develop affordable and accessible housing for low income and vulnerable groups • Affordable and Clean Energy (Goal 7): Improve energy efficiency • Innovation and Infrastructure (Goal 9): Upgrade and retrofit existing affordable housing stock • Sustainable Cities and Communities (Goal 11): Ensure safe and affordable living conditions • Responsible Consumption (Goal 12): Reduce waste and fossil fuel consumption • Climate Action (Goal 13): Reduce GHGs

⁶ <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/>

⁷ <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/social-bond-principles-sbp/>

⁸ <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-bond-guidelines-sbg/>

⁹ ICMA, Green Bond Principles, June 2018 and ICMA, Social Bond Principles, June 2020.

¹⁰ United Nations, Sustainable Development Goals, Accessed May 1, 2020: <https://sustainabledevelopment.un.org>

The Climate Bond Initiative¹¹ (CBI)

Description

This initiative provides another global standard that has become mainstream in evaluating green bonds.

The CBI operates through a certification that aligns with ICMA guidelines, UN SDGs, and the Paris Agreement¹².

Relevance to SMBs

- Promotes best practices for internal control, tracking, verifying and reporting to mobilize capital for climate change solutions.
- As of November 2020, Canada did not have any financial instruments certified by this organization¹³.

Various other international reporting frameworks and benchmarks exist to support ESG investors that are noteworthy mentioning, such as:

- the Global Reporting Initiative standards for sustainability reporting (GRI),
- the Principles for Responsible Investment (PRI),
- the Sustainability Accounting Standards Board (SASB),
- Dow Jones Sustainability Index (DJSI),
- the Task Force on Climate-related Financial Disclosures (TCFD) and,
- GRESB's Global ESG Benchmark for Real Assets.

Alignment of Global ESG guidelines and SMBs with the NHS

In the context of the Canadian housing sector, the *National Housing Strategy (NHS)* shows a clear alignment with Sustainable Development Goals; NHS funding will be used to reduce housing need and build new sustainable, accessible, mixed-income and mixed-used housing. The NHS lays out policy objectives that could be clearly met using SMBs, in particular:

- **social initiatives** with the goal of increasing access to affordable housing for vulnerable groups, and
- **green initiatives** aiming at reducing energy/water consumption and GHG emissions.

Assuming the Canadian government sets its own ESG framework and issues SMBs, use of SMBs can help leverage the NHS's \$55+ billion budget. This would help cut chronic homelessness, deliver affordable housing to middle class Canadians and fuel the economy.

Need to increase ESG support and momentum in Canada

Several Canadian institutions have recently begun to structure ESG frameworks and issue green, social and sustainable bonds. However, Canada has been relatively slow compared to its peers in developing a SMB market, especially compared to the US.

- In 2019, the ESG bond market accounted for less than 2.5%¹⁴ of the total Canadian bond market; nonetheless, it shows significant potential for future years.
- By 2020, ESG bond issuances had increased from CAD \$1 billion in 2014 to an estimated CAD \$29.6 billion¹⁵. This increase represents about 25 issuers from various sectors such as banking, industrial, insurance, REITs and others.

Momentum continues as various public and private institutions offer financial products and are setting ESG frameworks that support a range of sustainability projects. During 2020, the COVID-19 pandemic heightened awareness of health and equality outcomes that will support the ESG market. As a result, the focus on ESG bonds—particularly social and sustainable ones—is expected to intensify.

¹¹ <https://www.climatebonds.net/certification/certified-bonds>

¹² <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

¹³ Climate Bonds Initiative, "Certified Bonds Database," <https://www.climatebonds.net/certification/certified-bonds>

¹⁴ Analysis of fixed income market data extracted from Bloomberg and performed by the global professional services firm

¹⁵ Idem

In the Canadian housing market, most of the ESG frameworks of large banks and municipalities started as green, with the use of proceeds targeting the financing of green buildings (among other environmental goals). In 2019 and 2020, this trend shifted more towards sustainable bonds, driven mainly by domestic and international investor demand (see Table 3). Of note is the City of Toronto social bond framework with a greater focus on social and affordable housing.

Table 3: ESG Bonds in Canada: Examples with green and social/affordable housing projects as key asset categories

Date Created	Issuer	Date Created	Use of Proceeds (Housing Related)
Green Bond Framework	Toronto Dominion Bank ¹⁶	Sep 2017	New buildings or retrofitted existing buildings that meet regional, national or international third-party environmental certifications (green/sustainable buildings).
	Manulife ¹⁷	Nov 2017	
	City of Vancouver ¹⁸	Jun 2018	
	City of Toronto ¹⁹	Jul 2018	
	RBC ²⁰	Mar 2019	
	Bank of Nova Scotia ²¹	Jun 2019	
	CIBC ²²	Mar 2020	
	City of Ottawa ²³	Nov 2020	
Social Bond Framework	City of Toronto ²⁴	Mar 2020	Development, renovation, maintenance, and accessibility improvements of shelters, social and affordable housing.
Sustainable Bond Framework	National Bank ²⁵	Sep 2018	Construction, development, operation, renovation, and maintenance of affordable housing.
	BMO ²⁶	Sep 2019	
	City of Vancouver ²⁷	Jun 2020	Green/sustainable buildings
	RBC ²⁸	Jun 2020	Groups that are vulnerable (BMO).
	Toronto Dominion Bank ²⁹	Aug 2020	

¹⁶ https://www.td.com/document/PDF/TD_Green_Bond_Framework.pdf

¹⁷ https://www.manulife.com/content/dam/corporate/global/en/documents/pas/MFC_GBF_2017_EN.pdf

¹⁸ <https://vancouver.ca/files/cov/green-bond-framework.pdf>

¹⁹ <https://www.toronto.ca/city-government/budget-finance/city-finance/investor-relations/green-debenture-program/>

²⁰ http://www.rbc.com/investorrelations/pdf/RBC_Green_Bond_Framework.pdf

²¹ https://www.scotiabank.com/content/dam/scotiabank/canada/en/documents/about/investors-shareholders/funding-programs/Scotia_Green_Bond_Framework_FINAL.PDF

²² https://www.cibc.com/content/dam/about_cibc/investor_relations/pdfs/debt_info/cibc-green-bond-framework-en.pdf

²³ <https://ottawa.ca/en/business/research-and-data/investor-relations/green-bonds-city-ottawa>

²⁴ https://www.toronto.ca/wp-content/uploads/2020/05/8df2-Toronto-Social-Bond-Framework-2020_AODA.pdf

²⁵ <https://www.nbc.ca/content/dam/bnc/a-propos-de-nous/relation-investisseurs/fonds-propres-et-dette/2020/nbc-sustainability-bond-framework-2020.pdf>

²⁶ <https://www.bmo.com/ir/files/F19%20Files/BMOSustainableFinancingFramework.pdf>

²⁷ <https://vancouver.ca/files/cov/vancouver-sustainability-bond-framework.pdf>

²⁸ https://www.rbc.com/investor-relations/_assets-custom/pdf/RBC-Sustainable-Bond-Framework-EN.pdf

²⁹ <https://www.td.com/document/PDF/ESG/TD-Sustainable-Bonds-Framework-2020-EN.pdf>

Summary

SMBs offer a great promise for helping CMHC advance its 2030 aspirational goal and helping Canada to achieve various United Nations Sustainable Development Goals relevant to the housing market. While this type of ESG bond might not be the sole solution to address the affordable housing gap, we expect them to become a catalyst for the housing sector. SMBs would also play a relevant role in achieving energy efficiencies and promoting residential developments with green certifications.

The SMB market, while growing, is still nascent, with several issuers getting ready to address investor's preferences for achieving ESG outcomes. The stage is set for SMBs to move into the spotlight in the housing market as they continue to grow and become more mainstream, and as the impacts of COVID-19 continue to materialize. It is thus imperative for issuers, investors, housing proponents and developers to have clarity on what SMBs are and why they could be so relevant for Canada and its housing market.

In this article we looked at what SMBs are, their market size and overall potential relevance to Canada's housing market and the NHS.

In the next article, we will focus on the expected performance of SMBs using qualitative and quantitative analysis. A fundamental driver for success will be the performance of SMBs, as their yields must be reasonable and/or attractive to investors, while they must also demonstrate that green, social and sustainable outcomes could be achieved. We will also discuss the results of our econometric analysis and the potential role that government could have in supporting the ESG market.

Project Manager



Carlos Mandujano
Economics and Research,
Housing Finance
Canada Mortgage and
Housing Corporation

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