Industry White Paper
July 2021

VANCOUVER ECONOMIC COMMISSION

Sustainable Mortgage-backed Securities and Retrofit Financing

Current state and future directions

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Summary

- **Sustainable mortgage-backed securities** (SMBS) are a class of asset-backed securities used by some financial institutions (public and private) to create additional liquidity in retrofit finance markets. The process bundles multiple retrofit projects, securitizes them and trades them as bonds – essentially making non-liquid assets liquid. The US's Federal National Mortgage Association (commonly known as Fannie Mae) is the world's largest issuer of sustainable bonds, successfully deploying this kind of financing through its **green rewards** program.

- **The Canadian Mortgage and Housing Corporation** (CMHC) recently announced the development of a **sustainable finance framework** that could provide new funding for retrofits. However, there is significant research to suggest that overall availability of capital is not the problem in scaling retrofit financing markets. CMHC and others, such as the Canadian Infrastructure Bank (CIB), need to help address information gaps, decision-making challenges, and technical capacity gaps if these kinds of financial mechanisms will be utilized effectively.

- As it stands, the mortgage industry in Canada isn't currently suited for SMBS to be a relevant source of retrofit financing, especially as a means of encouraging private investor participation. However, depending on the success of the Canadian Infrastructure Banks's (CIB) **$2.5 billion funding** to in "crowd-in" private investors, that could soon change.

- Further work needs to be done to engage CMHC and ensure retrofit financing options are included as part of their sustainability framework. Members of the public also need to be proactively engaged and guided on the benefits and financing options available, to ensure the efficient distribution of funds.

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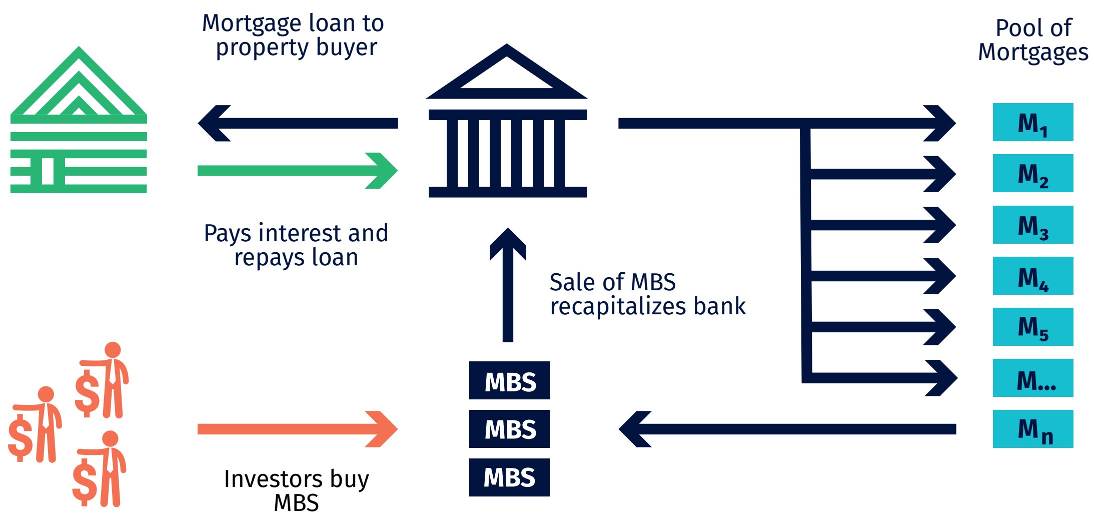
Introduction

Sustainable mortgage-backed securities (SMBS) are asset-backed securities (i.e. tradable financial products) comprised of individual mortgages that are aggregated and sold by financial institutions to investors.

SMBS carry the potential of providing long-term, steady and sufficient capital to fund the deep retrofits needed in Canada. The country is headed in the right direction, with the Canadian Infrastructure Bank (CIB) recently announcing plans to provide $2.5 billion in funding for large-scale retrofits. Meanwhile, the Canada Mortgage Housing Corporation (CMHC) is developing a framework to sell sustainable debt securities through its government-backed National Housing Act mortgage-backed securities (NHA MBS) program.

Once implemented, sustainable debt securitization could help solve the financing problems deep retrofits are currently facing in Canada, and will be most effective if private investors are also involved.

Mortgage backed securities explained



Source: Invesco, Mortgage-Backed Securities and their function.

Overview of the Canadian mortgage securities market

- **Mortgages in Canada are issued by banks, credit unions, mortgage finance companies (MFCs) or mortgage investment corporations (MICs), and other private lenders.** Of these lenders, banks are federally regulated, while most credit unions and Quebec-based "caisses populaires" are provincially regulated. MFCs are quasi-regulated, and MICs are unregulated; however, the latter is responsible for a tiny fraction of mortgage issuances (1%).
- **Banks are the largest providers of mortgages in Canada, holding 72% of issued mortgages in 2019.** Credit unions, MFCs, MICs and private lenders hold market shares of 14%, 9% and 1%, respectively.[1]
- **67% of the mortgages originated by banks were uninsured, reflecting a growing market trend of uninsured mortgage issuances.** This is partly due to property prices in most markets rising above the $1 million insurance limit for government insurance eligibility.[2]
- **Mortgage-backed securities (MBS) traded in Canada are almost exclusively backed by insured mortgages**, accounting for more than 95% of all MBS traded.
- **The private MBS market in Canada is relatively new, but steadily growing.** In early 2021, TD Bank marketed the first uninsured mortgage-backed securities by a top-six Canadian bank.[3] There is potential for higher issuances in the future, considering the consistent growth in uninsured mortgages and the volume of uninsured mortgages currently held on bank balance sheets ($880 billion in Q1 of 2021).[4]
- **The low volume of private MBS can be attributed to anticipated high interest rates by bondholders, paired with the unwillingness of mortgage holders to match those rates**, making margins too thin to be worthwhile for most investors.
- **SMBS can unlock the private securitization market, but will require policy changes at a federal level to be effective, especially regarding retrofits.** There is also a myriad of issues to be considered when issuing these types of securities.

1 CMHC. *Residential Mortgage Industry Report.* (December 16, 2020) Accessed from: **https://www.cmhc-schl.gc.ca/en/data-and-research/publications-and-reports/residential-mortgage-industry-report**

2 CMHC. "What are the General Requirements to Qualify for Homeowner Mortgage Loan Insurance?" *CMHC*. Accessed from: **https://www.cmhc-schl.gc.ca/en/buying/mortgage-loan-insurance-for-consumers/what-are-the-general-requirements-to-qualify-for-homeowner-mortgage-loan-insurance**

3 Duarte, Estaban. "TD Markets first RMBS from a top-six Canadian Bank," *BNN Bloomberg*. February 14, 2020. Accessed from: **https://www.bnnbloomberg.ca/td-markets-first-rmbs-from-a-top-six-canadian-bank-1.1389782**

4 Statistics Canada. Table 10-10-0134-01 Chartered banks, mortgage loans report, end of period, Bank of Canada (x 1,000,000) DOI: **https://doi.org/10.25318/1010013401-eng**

Key findings

The green debt market in Canada is led by the public sector, with the private sector only now opening up to it. Royal Bank of Canada, TD Bank and Sun Life Financial have all recently developed frameworks for green bonds issuances – an indicator that private sector interest is growing, and will continue to grow in the coming years.

- **CMHC is developing a framework** to start selling sustainable debt securities. This will be done through the NHA MBS program that provides debt securitization for government-insured mortgages.
- Only insured mortgages will be eligible for securitization through the CMHC. Considering a majority of the mortgages generated by financial institutions in 2021 were uninsured, private financing through securitization will be necessary for significant market transformation.
- Private investor involvement in financing retrofits will likely be influenced by perceptions of effectiveness of CIBs $2.5 billion retrofit program.
- Fannie Mae has developed a Green Measurement and Verification service to help overcome the challenges homeowners face in complying with the energy and water reporting requirements for their green mortgages and retrofits programs.

Global trends

1. Current issues faced in the European sustainable bond market

European investors find it hard to identify green loans or mortgages, because there are no standard methodologies or definitions of these concepts across countries in the EU. In addition, different lenders use different energy efficiency standards, which can complicate the process of embarking on a retrofit project from the consumer perspective.

2. Lessons learned from Fannie Mae

- The Federal National Mortgage Association ("Fannie Mae") is a government-sponsored enterprise in the US charged with providing a steady flow of mortgage financing into the economy. The company adds liquidity to the market by purchasing mortgages from loan originators, bundling them together, and securitizing them as MBS, which are guaranteed by the government.
- Fannie Mae also provides liquidity into the retrofit market by issuing green bonds that incentivize energy and water-saving retrofits, accelerating the transition to a low-carbon economy. The company issued $28 billion in multifamily green bonds in 2019, accounting for 32% of multifamily issuances and making Fannie Mae the largest issuers of green bonds globally.
- Fannie Mae has two main programs to facilitate green lending: **Green Rewards** for existing buildings and the **Green Building Certification Pricing Break** for new builds:
- **Green Rewards** is a program finance retrofits in multifamily residences. Under these programs, borrowers must submit a report conducted by a third party to identify opportunities for water and **energy savings**. After receiving funding, they are required to report energy and water usage records on an annual basis.
- Borrowers through Green Rewards have **reported** difficulties coordinating with local utilities, gathering tenant data, and knowing when and how to submit reports. They also didn't know how to verify whether or not the retrofit equipment was being installed properly.
- In response to this, Fannie Mae launched a **green measurement and verification service**. This service provides no-cost assistance to complete annual water and energy reports. It also provides skilled energy auditors to inspect and verify the proper installation of retrofit measures.
- Unlike regular mortgages, green mortgages require adherence to certain certification standards, which change frequently to meet new and stricter energy reduction expectations. Fannie Mae has therefore made its programs flexible, allowing for changes based on **market conditions**.

Opportunities and Challenges for SMBS in the Canadian Context

- MBS backed by uninsured mortgages are relatively new in Canada. The likelihood of green MBS for financing retrofits becoming prolific is low, unless the structure of the bonds represents a more aligned market need, either in terms of return or risk profile.
- The CMHC program currently in development is only relevant to insured properties (valued at less than $1 million and leveraged by less than 20%), which accounts for approximately 40% of all properties. This leaves a large portion of the market unserved.[5]
- Private capital may be hesitant, or avoid altogether, these types of securitization opportunities if they see insufficient volume, or the level of difficulty that existing CIB and CHMC offerings are facing in landing bankable, real projects. Securitization, as a means of maintaining and expanding liquidity, will likely require further significant programmatic (e.g. PACE) and regulatory work (e.g., carbon limits for existing buildings) by all levels of government to be an effective and valuable tool.
- Because of the variety of decarbonization contexts in Canada (e.g., very high and very low carbon electricity grids), the underwriting criteria for the kinds of retrofit loans that qualify for an SMBS will be challenging to standardize. A danger is that a modest greenhouse gas reduction or energy efficiency goal will become common-place across the lending products created.
- Ultimately, building decarbonization in Canada has largely been driven by policy and regulation. Major cities like Vancouver, Toronto, Montreal, and Edmonton are all pursuing more and more aggressive building regulations, which provinces, like BC, will soon follow.[6] Financial incentives, such as carbon taxes or energy-cost reductions, may be compelling to some owners to decarbonize, but absent a larger, transparent regulatory driver, the vast majority of buildings are unlikely to make changes. This means that the success of any retrofit financing initiative requires a substantial regulatory backstop to ensure uptake of different product offerings.

BC's retrofitting needs in context – annual turn-over by building type

30,000
Homes
Pembina, 2018

17,000
Apartment units
Pembina, 2018

3 million m^2
Commercial space
Pembina, 2018

5 CMHC. *Residential Mortgage Industry Report.* (2019). Accessed from: https://www.cmhc-schl.gc.ca/en/media-newsroom/news-releases/2019/mortgage-market-slowing-share-uninsured-mortgages-increasing-new-cmhc-report

6 BC Government. "Existing Buildings Renewal Strategy," Building Codes and Standards. (n.d.) Accessed from: https://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/existing-buildings

Next steps

The potential impact of an SMBS offering in BC remains unclear.

Retrofit financing is a notoriously difficult product to design and implement. Past retrofit finance programs in Canada, and around the world, have struggled to achieve uptake, despite considerable amounts of money on offer. Securitization generally provides support for liquidity by replenishing the money a lender can offer to borrowers by developing a bond for investors. Availability of capital does not appear to be a significant problem in Canada currently, with numerous low- or zero-interest financing programs in place. Uptake for these programs (and for retrofitting in general) remains the single most pressing challenge. SMBS may, for example, play a role in supporting specialized lenders in scaling their work by ensuring ongoing liquidity. However, without a sufficient pipeline of demand for retrofits, any securitization scheme will inevitably fail.

Based on Vancouver Economic Commission's initial research here, further exploration is still needed by many actors in the financing, regulatory, and retrofitting spaces. This work could include:

Stakeholder engagement

» CMHC, cities, economic developers, industry and other associations, and others should work with relevant stakeholders to proactively prepare property owners for the entire universe of financing options, while increasing consumer awareness of their various cost-saving benefits. An online resource hub, for example, could be made available outlining different financing options and resources for customers looking to retrofit properties.

SMBS program design

» Cities, nonprofits, industry associations and economic developers should engage the CMHC to ensure retrofit financing is thoroughly and critically explored in the development of their green securitization framework. An SMBS offering may be needed to fill liquidity gaps, but in many ways these will likely be secondary to other interventions to strengthen engagement with and motivations for, building owners to pursue retrofits.

» Vancouver retrofit actors in particular should continue their work to understand approaches to scaling and aggregating retrofit lending, and the role securitization may play in doing so. They could also investigate specific types of energy upgrades most relevant to the Vancouver market, to guide the future provision of financing. This will ensure the right types of retrofit projects are prioritized and financed.

Standardization and efficiency

» Retrofit advocates, cities, economic developers and industry associations must engage financial institutions, such as the "Big Five" and other banks, in developing or enhancing sustainable financing frameworks. This will help to identify current barriers, develop solutions and encourage program support for deep retrofit projects.

» The national Sustainable Finance Action Council, along with industry associations and others, will develop a sustainable finance taxonomy to structure, classify, and guide relevant green investment streams, which could include the issuance of green mortgages/green MBS. This taxonomy should have a consistent definition of the types of retrofits needed to consider the property "green," such as those in a recent **OECD report on taxonomy design**.

» Housing authorities, retrofit advocates and industry associations should evaluate – and, wherever possible, standardize – the variety of energy efficiency standards available in the market to ensure consistent terminology and measurements across different programs.

» Provinces, financial regulators and industry voluntary groups, should develop a tool similar to the Fannie Mae **green measurement and verification service**, in partnership with energy providers. This will help to streamline and remove barriers related to accessing financing from the Canadian Investment Banks' upcoming retrofit financing program.

Brought to you by

We would like to express our appreciation to all those who were interviewed and consulted with in the process of developing this report. We are grateful for the valuable and constructive insight provided during the planning and development of this research work.

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