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## How to Make the World Safe for (and from) Covered Bonds

by  
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- Outside of financial circles, few Canadians probably have heard of covered bonds, but they are emerging as an important and efficient funding channel for Canadian mortgage lending. Issued by banks, these high-quality bonds are fully backed by the issuing bank and “covered” by underlying mortgage assets held by a guarantor, typically a limited partnership. The mortgage assets are out of reach of creditors, and of the federal deposit insurer, in the event of a bank failure, thereby increasing certainty for bond investors. This channel will become increasingly important as the federal government tightens access to taxpayer-backed mortgage insurance guarantees and securitization and bond guarantees.
- Covered bond issuance in Canada has a regulatory limit of 4 percent of bank assets, lower than in most advanced economies. This E-Brief explores the case for expanding that limit.
- One complication is that expanding the regulatory limit on covered bond issuance would affect federal deposit insurance. Expansion would further limit the deposit insurer’s access to recoverable assets in the event of a bank failure, and potentially require an increase in the insurance premiums that depositors pay. This E-Brief suggests, therefore, a quid pro quo: changing the deposit insurance assessment base from insured deposits to consolidated assets less tangible equity, to more evenly spread the costs of deposit insurance across all banking activity.

Covered bonds have come to occupy a place near the heart of the Canadian financial system, and housing finance in particular. Recent regulatory and legislative changes have raised the costs of other funding channels, such as securitizations, raising the question of accessibility within the

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financial system to effective alternatives (Canada 2015). This E-Brief explores how large a role covered bonds could or should play, given that an efficient and stable housing finance system is socially desirable, and discusses changes to Canada's deposit insurance system that might be required to accommodate a growing covered bond sector.

Covered bonds are called “covered” because typically they are backed by high-quality, or low loan-to-value ratio, mortgage loans. While not classified as an asset-backed security, they carry some of the characteristics thereof. Canadian banks issue the bonds, and create bankruptcy-remote “special purpose vehicles” (SPVs) that are guarantors, and which hold the mortgage loans. The covered bonds have terms that normally range from three to seven years, and are sold to foreign and domestic investors, mainly institutional.<sup>1</sup> The stream of interest and principal payments on the mortgage loans funds the principal and interest payments for these covered bonds, and the issuing bank's full faith and credit lies behind them. Should the issuer fail, legal title to the mortgages is transferred to the guarantor, the special purpose vehicle, which is separately capitalized and carries the highest possible credit rating.

Covered bonds have interesting stability and financing features. The cover pool is always over-collateralized, meaning that the face value of the mortgage assets exceeds the value of the bonds they back; in Canadian practice overcollateralization is typically in the range of 5 to 10 percent of the bond issue. Because all or almost all the underlying mortgages have loan-to-value ratios that are less than 80 percent, their default rate is very low, meaning the assets backing the bonds are of extremely high quality.<sup>2</sup>

Because the issuing bank's full faith and credit lies behind the bonds, a feature formally recognized under Canada's bankruptcy law since 2012, Canadian covered bonds universally carry the highest possible credit ratings, and can be sold at very low spreads over Bankers Acceptances or comparable Government of Canada bonds – less than 50 basis points over comparables in current markets.<sup>3</sup> This is an important feature, because the underlying mortgages have no government backing, in contrast to mortgage assets insured by the Canada Mortgage and Housing Corporation and private mortgage insurers.<sup>4</sup>

So the covered bond structure ensures that banks are exposed to the risks of the loans they write, which remain listed as assets on bank balance sheets, while selling the bonds they back at very low yields. This is the shortest possible securitization chain – in contrast to “originate-to-distribute” mortgages and the

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- 1 Canadian covered bonds issued to date are primarily denominated in US dollars and euros; other issuance currencies are British pounds, Australian dollars, Swiss francs and Canadian dollars. Issuers use currency swaps and other tools to hedge exposure in Canadian dollar terms.
  - 2 Many covered bond covenants include provisions that require mortgages in arrears to be swapped out of the cover pool in favour of higher quality mortgage assets. The cover pool is dynamic, in that mortgages that age out are replaced by mortgages of a similar range of quality. If the issuer fails, the cover pool becomes static, and its wind-down is managed by the guarantor, the special purpose vehicle.
  - 3 Recent spreads have been much lower, owing to asset purchases in the European central banking system.
  - 4 The April 2012 federal budget implementation bill introduced legislative recognition for covered bonds in bankruptcy priority, and charged CMHC with establishing a covered bond registry (<http://www.parl.gc.ca/HousePublications/Publication.aspx?Docid=5697420&File=674#215>). The legislation also prohibited future use of individually insured mortgages or portfolio-insured bundles of mortgages as collateral in cover pool issues. CMHC's role in maintaining a covered bond registry increases transparency and reliability in the marketplace; the lack of such features contributed to collapses in the market, for example, early in US financial history (Snowden 2010).

structured securitizations and derivatives built around them, which went badly wrong in the US in 2007-08. The arrangement distributes risks among informed investors who are able and willing to bear them, rather than centralizing risks within the financial system (Shin 2010). These are forces for stability, and for efficient financial intermediation.<sup>5</sup>

And the covered bond market may help deal with other pressures on Canada's financial system. The federal government, through CMHC, has limited banks' access to guarantees for the securities that fund a large part of the residential mortgage market – new guarantees for National Housing Act Mortgage-Backed Securities (NHA-MBS) are limited to \$80 billion annually for 2015, and guarantees for Canada Mortgage Bonds are limited to \$40 billion. Market participants indicate that they would be willing to finance more, if permitted, through these channels. Further, effective April 1, 2015, the guarantee fees for large NHA-MBS issuers have been raised, reducing the attractiveness of the guaranteed financing channel – a funding squeeze.<sup>6</sup>

These moves typically are portrayed as part of a prudential or stability-enhancing agenda, one aimed at cooling the flow of funds toward a housing market often described as overheated (OECD 2014, IMF 2015).<sup>7</sup> Other objectives, “to increase market discipline in residential lending and reduce taxpayer exposure to the housing sector,” and, “to restrain the growth of taxpayer backed mortgage insurance and securitization,” are also at play (Canada 2013, 2015).

Amid these constraints, and given that a so-called private-label MBS market does not much exist in Canada, the role of covered bonds as a non-government backed funding alternative is ever the more salient.<sup>8</sup>

The rub, however, is that rules set in place by the Office of the Superintendent of Financial Institutions, OSFI, limit covered bond issuance to 4 percent of bank assets.<sup>9</sup> While only one bank is practically constrained by that limit (Table 1), it will begin to bind, particularly if Canada's policy goal remains aimed at restraining government or taxpayer support for home lending.

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5 At the time of writing, Canadian issuers have about \$102 billion in covered bonds outstanding; about 70 percent of those have been issued since summer 2013, under the then new legislative framework. They represent about 10 percent of the issuers' residential mortgage loan assets. Holdings of Canadian covered bonds also count as high-quality liquid assets under the internationally agreed liquidity coverage ratio requirements for large financial institutions. They are classified as level 2(a) assets, meaning under EU rules covered bonds cannot account for more than 40 percent of liquid assets (the final rules are at [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:JOL\\_2015\\_011\\_R\\_0001&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:JOL_2015_011_R_0001&from=EN), paragraph (9); the assets are subject to a 15 percent haircut in calculating the liquidity coverage ratio; Article 11(2)).

6 Details at [http://www.cmhc-schl.gc.ca/en/hoficlincl/mobase/upload/MBS\\_Advice\\_Guarantee\\_Fee\\_Increase-Dec-1-2014.pdf](http://www.cmhc-schl.gc.ca/en/hoficlincl/mobase/upload/MBS_Advice_Guarantee_Fee_Increase-Dec-1-2014.pdf).

7 Effective June 1, 2015, CMHC is also increasing, by about 15 percent, the retail fee for residential mortgage insurance coverage for borrowers presenting less than a 10 percent downpayment ([http://www.cmhc.ca/en/corp/nero/nere/2015/2015-04-02-1605.cfm?WT.cg\\_n=TWT\\_MLI](http://www.cmhc.ca/en/corp/nero/nere/2015/2015-04-02-1605.cfm?WT.cg_n=TWT_MLI)).

8 One reviewer pointed out that the development of a private label MBS market would limit the need to search for alternatives. This is correct, and the recommendations here are not intended to supplant the development of such a market in Canada.

9 The rules are issued by way of a letter from the Deputy Superintendent, Regulation Sector, at OSFI (<http://www.osfi-bsif.gc.ca/Eng/fi-if/rg-ro/gdn-ort/adv-prv/Pages/cvbnds2014.aspx>). See discussion in BAML (2014).

**Table 1: Covered Bonds Issued and Permitted; Millions of Canadian Dollar Equivalent**

As of June 2015	CIBC	RBC	BMO	BNS	NBC	DESJAR-DINS	TD	TOTAL
Issued prior to Registration under the Legacy Covered Bond Program	5,274		3,506	8,974	2,019	2,481	8,021	30,274
Issued under the Legislative Covered Bond Program	5,862	27,602	4,199	10,385	5,329	2,969	14,995	71,341
Total	11,136	27,602	7,705	19,359	7,348	5,450	23,016	101,615
OSFI Limit*	17,470	42,397	24,711	33,629	8,149	6,963	39,756	173,075
Current Unused Issuance Capacity	6,334	14,795	17,007	14,271	800	1,514	16,739	71,459
Issuance Capacity With a 6% limit	15,069	35,993	29,362	31,085	4,874	4,996	36,617	157,997
Issuance Capacity With an 8% limit	23,804	57,192	41,718	47,900	8,949	8,477	56,495	244,534

Note: The regulatory cap on Desjardins issuance is set by the Autorité des marchés financiers at five billion euros.

\*AMF cap for Desjardins.

Source: Issuer statements.

The remainder of this E-Brief discusses the issues to be addressed, should policymakers consider raising the regulatory limit on covered bond issuance.

### Raising the Cap – What is Implied?

Canada's covered bond issuance limit of 4 percent of bank assets is extremely low compared to other developed nations, mostly in Europe, that have active covered bond markets (Table 2, BAML 2012, IMF 2015). The number seems to have been chosen after historical practice in the United Kingdom, and the rationale for that choice of number has never been clarified there or in Canada.

Those facts alone, however, do not make a case for raising the limit. In Denmark, for instance, where there is no limit on covered bond issuance, the stock of such bonds exceeds 150 percent of gross domestic product,

Table 2: Covered Bond Issuance Limits Are Low in Canada

Jurisdiction	Covered Bond Issuance Limits
Australia	Value of cover pool must not exceed 8 percent of total assets.
Austria	None.
Belgium	Value of cover pool must not exceed 8 percent of total assets.
Canada	Outstanding covered bonds must not exceed 4 percent of total assets.
Denmark	None.
Finland	None.
France	None.
Germany	None.
Greece	20 percent of assets (unclear whether cover pool or covered bonds).
Italy	No limitations for banks with: Tier 1 capital ratio $\geq$ 7 percent and total capital ratio $\geq$ 11 percent. Up to 60 percent of total eligible assets can be used as cover assets for banks with: Tier 1 capital ratio $\geq$ 6.5 percent and total capital ratio $\geq$ 10 percent. Up to 25 percent of total eligible assets can be used as cover assets for banks with: Tier 1 capital ratio $>$ 6 percent and total capital ratio $>$ 9 percent.
Ireland	None.
Luxembourg	None.
Netherlands	Subject to balance sheet health as determined by the Dutch Central Bank.
New Zealand	Value of cover pool must not exceed 10 percent of total assets.
Norway	None.
Portugal	None.
Spain	None.
Sweden	None.
Switzerland	None.
United Kingdom	Case-by-case limit determined by the Financial Conduct Authority.

Source: ECBC (2014), country regulators.

which implies that a shock to the Danish housing market, as occurred over the course of the recent financial crisis, could seriously harm the national financial system, an independent source of risk.<sup>10</sup>

However, the funding squeeze I described above provides a motive for raising Canada's limit, which is indeed the most stringent, other than Singapore's, among jurisdictions involved in this market. From a stability perspective, low LTV residential mortgages are a reliable backing for covered bonds,<sup>11</sup> and covered bonds are an efficient funding source – one that could be seen as partially displacing the government-backed funding streams that currently are being squeezed. Raising the limit to 6 percent, for example, currently would increase the potential private funding channel by \$87 billion worth of bond issuance, and at an 8 percent cap that number would double to \$173 billion (see Table 1) – and it is a sellers' market for such assets.

The main obstacle to raising the limit arises over access to the mortgage assets in the event a bank fails: the cover assets are held in a bankruptcy remote vehicle, the characteristic of surety that makes covered bonds a relatively secure asset. In other words, and by design, should the sponsoring bank enter bankruptcy, claimants on the bank have no access to the cover pool assets.<sup>12</sup>

Should a Canadian bank fail, depositors will be compensated, up to their insured account limits, by the Canada Deposit Insurance Corporation (CDIC). In turn, CDIC acts as the resolution authority and, after paying insured claims, will seek recovery from the failed institution – but without access to the cover pool assets held by the SPV.

Because the bank assets that are recoverable by CDIC are reduced by the amount of mortgage assets held in the SPV's cover pool (which, because the bonds are overcollateralized, is larger than the bond issue), the risk to the federal insurer is higher than otherwise. On an actuarial basis, therefore, CDIC would be required to raise premiums, a cost likely to be borne entirely by depositors. That would trim the benefits I described above, otherwise associated with a larger covered bond channel.

The challenges posed to CDIC are heightened by a proposal, agreed to by the G-20, to implement a “bail-in” debt regime for systemically important financial institutions. Under this proposal, supported by Canada and in the process of implementation, all new unsecured debt issued by such banks is and will be of the convertible flavor (<http://www.fin.gc.ca/activity/consult/tpbrr-rpcrb-eng.pdf>). This means that if the relevant federal authority (OSFI, in Canada's case) deems a bank's viability to be threatened, bondholders' prior claims will be converted to equity shares at current market prices.<sup>13</sup>

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10 <http://www.bloomberg.com/news/articles/2014-01-09/covered-bond-shock-forces-denmark-to-examine-plan-b-for-banks>.

11 The cover pool for RBC's issues, for example, reports that 0.08 percent of mortgages are in arrears 90 days or more (<http://www.rbc.com/investorrelations/pdf/022015cbreport.pdf>), compared to about 0.3 percent for the residential mortgage universe ([http://www.cba.ca/contents/files/statistics/stat\\_mortgage\\_db050\\_en.pdf](http://www.cba.ca/contents/files/statistics/stat_mortgage_db050_en.pdf)).

12 Conversely, should the SPV fail, under Canadian law bondholders are *pari passu* – on equal terms – with other unsecured credits on the sponsor's residual assets.

13 This issue takes on special poignancy in the context of the Financial Stability Board's review of what is known as total loss absorbency capacity which, for large financial institutions, implies a potential doubling of regulatory capital requirements (<http://www.euromoney.com/Article/3408580/TLAC-what-you-should-know.html>).

Because covered bonds are secured debt, they will not be part of the bail-in regime. Further, the bail-in proposal in Canada suggests that in the resolution process, “deposits will be excluded” (<http://www.fin.gc.ca/activity/consult/tpbrr-rpcrb-eng.pdf>), which seems to mean all deposits, insured or not. Taken together, the exclusion of covered bonds and bank deposits from the CDIC’s purview in the event of a failure implies a higher than otherwise risk exposure for CDIC, and a higher than otherwise cost to retail depositors.

## What to Do?

Since there is a link between banks’ financial market performance and deposit insurance, and concerns over the deposit insurance framework raised elsewhere (Poschmann 2014, for example), it is opportune that the federal government in 2014 announced its intention to launch an extensive consultation on Canada’s deposit insurance framework. At the time of writing, that process has not begun, yet doing so would be important in understanding the role of deposit insurance in the housing finance system.

CDIC sets deposit insurance premiums in its bylaws, and premium rates are mildly risk differentiated through a range of qualitative and quantitative features specific to each federally regulated deposit-taking institution. These institutions are divided into four risk buckets; insurance rates currently range from 0.035 to 0.28 percent of insured deposits (<http://www.cdic.ca/ForMI/DiffPrem/Documents/2014DifferentialPremiumsBy-LawManual.pdf>, page 2). The quantitative aspects that go into the risk categorization are complex, yet the application is simple: the premium payable is the assigned premium rate times insured deposits.<sup>14</sup>

The CDIC framework therefore comprises an explicit tax on deposit-taking activity; normal incidence assumptions would lead to the conclusion that it is partially or entirely a tax on deposit-making. For the reasons discussed above, an expanded role for covered bonds would put upward pressure on this tax.

In the US, however, since 2010 and since the passage of the *Dodd-Frank Act*, where once the deposit insurance assessment mechanism was quite similar (and a precursor) to Canada’s, it is now quite different.<sup>15</sup> Deposit insurance is now assessed by the Federal Deposit Insurance Corporation (FDIC) as a percentage of bank assets; specifically, consolidated assets as reported on the institution’s balance sheet, less tangible equity, which means shareholder equity and excludes intangibles.<sup>16</sup> FDIC premiums are also risk differentiated, via a mechanism detailed in the Federal Register, and include categories for large and complex financial institutions (<https://www.fdic.gov/deposit/insurance/11RuleAD35.pdf>); the rates vary from 0.025 to 0.45 percent.

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14 Insurance coverage is limited federally to \$100,000 per eligible account, except in the case of credit union accounts where the credit union has opted for federal as opposed to provincial regulation, in which case the limit matches that of the institution’s home province; at the time of writing no institution falls in this category.

15 *Dodd–Frank Wall Street Reform and Consumer Protection Act*, Public Law 111–203, H.R. 4173: “An act to promote the financial stability of the United States by improving accountability and transparency in the financial system, to end “too big to fail,” to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes.”

16 FDIC uses Tier 1 capital, as defined under the Basel rules to define tangible equity; the mechanism implies that, for the most part, the deposit insurance rate base can be determined from entries that banks calculate in any case for regulatory purposes.

Because the FDIC assessment base is keyed to assets, as opposed to deposits, the premiums become less a tax on deposits, and more a tax on size, complexity, and specifically leverage, or the ratio of assets to capital.<sup>17</sup> These features of *Dodd-Frank* are not accidental, and suggest changes for Canada that might help square the actuarial issues regarding CDIC, and the issues of perception or fairness that might bear on a proposal to increase domestic banks' capacities to issue covered bonds.<sup>18</sup>

### Assets as opposed to Deposits?

In Canada, the CDIC collects deposit insurance premiums of about \$280 million annually, implying an average assessment rate relative to insured deposits of about 0.041 percent. Signs point to future increases in premium rates: (i) current policy direction includes growing CDIC responsibility for wind-up and cross-border resolution, including the bail-in debt proposals; (ii) the policy target for the deposit insurance fund is 1 percent of insured deposits, which are approximately \$700 billion (CDIC 2014).<sup>19</sup> Growth in covered bond portfolios would put more upward pressure on this rate.

If Canada's assessment base for the domestic banking system were to shift to consolidated assets less tangible equity, the mortgages underpinning any covered bond issues would be part of the assessment base. Premium revenue similar to current levels could be raised at a premium rate of about 0.007 percent.<sup>20</sup> Rounding to one basis point of assets would quickly boost the federal deposit insurance fund toward its policy goal of 100 basis points of deposits. Yet, in the context of a raised covered bond issuance cap, this cost to the banking sector could be more than offset by the savings that would flow from increased access; access conceivably on the order of \$173 billion (or \$245 billion, adding currently available but unissued capacity), to the very low spreads available in the covered bond market.

### Market Implications and Closing Concerns

My review of the funding market leads to the conclusion that the current cap on covered bond issuance should be raised, to safely lubricate lending and borrowing activity in a manner that does not require, or permit, government backing.

Simply raising the limit, however, would impose most of the costs of that lubrication on depositors, who may not benefit from the gains. However, a shift in the deposit insurance assessment base from deposits to consolidated assets less tangible equity would mitigate some concerns and, if my estimates are correct, do so in a manner that would preserve most of the gains identified.

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17 Setting the assessment base as consolidated liabilities, rather than assets less tangible equity, would achieve a similar but not identical outcome.

18 FDIC documents report that the motivation for the change in the assessment base was to shift some of the burden of deposit insurance from relatively small community banks to larger and more complex financial institutions.

19 The FDIC is on a similar trajectory, with a minimum *ex ante* funding ratio, under *Dodd Frank*, of 1.35 percent of insured deposits.

20 Author's calculation, based on OSFI data and bank financial statements.



Relatively small, federally regulated deposit-taking institutions that do not and will not enter the covered bond markets may object to the proposal.

I make the following observations with respect to that concern:

- Small institutions, under current rules, tend to pay relatively high (risk-based) deposit insurance premiums, in part if indirectly because they are small;
- a shift to assets as opposed to deposits as the base, even under a flat-rate assessment scheme, would favour those institutions that are less leveraged, or otherwise have a lower asset deposit ratio, rather than larger and more complex institutions, whose borrowing and lending activities are large relative to their deposit-taking activities.<sup>21</sup>

On balance, therefore, I conclude that raising the OSFI limit on Canadian covered bond issuance would likely drive benefits that exceeded the costs, conditional on a proper assessment of, and management of the risks to, the deposit insurance system.<sup>22</sup>

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21 By way of example, the total deposits to assets ratio for chartered banks is about 35 percent; for the (provincially regulated and insured) credit union and caisse populaires sector that ratio is about 80 percent.

22 Raising the OSFI covered bond limit may be accomplished by way of a public letter from the Deputy Superintendent, Regulation Sector, at OSFI. The revisions that I propose to the deposit insurance assessment base may be accomplished by way of amendments to the agency's enabling Act (<http://www.canlii.org/en/ca/laws/stat/rsc-1985-c-c-3/112839/rsc-1985-c-c-3.html>) and through related changes to CDIC bylaws, which are set by the CDIC board. The specific value to be assigned to the assessment rate will be determined by CDIC's board, depending on the pace at which it seeks to achieve its target deposit insurance fund level and, if my estimates above are correct, will be in the neighbourhood of 0.01 percent of consolidated assets less tangible equity.

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