



Investment Insights

Corporate Bond Market Trends: BBB Rated Bonds Gaining Importance

The Canadian corporate bond market has undergone a number of material changes in the last 20 years, and as a result has grown exponentially over that period in terms of both dollar size as well as diversity of issuer. In 1995, the total market value of outstanding investment grade corporate bonds in Canada stood at \$37 billion. Within ten years, this figure had risen to \$170 billion, and by 2015 it reached \$405 billion.¹

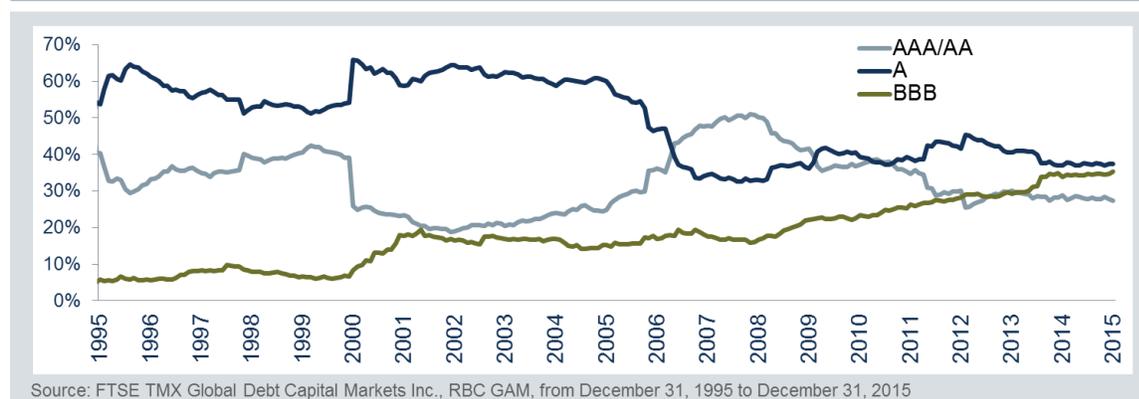
The proliferation of the Canadian fixed income market was supported by a significant increase in the number of issuing companies, which rose from 85 to 141 between 1995 and 2005, and reached 199 by 2015.² This expansion of issuers, in turn, provided increased diversity in the composition and credit quality of Canada’s fixed income market relative to its historical structure.

In this paper, we will outline the changes in the Canadian corporate bond market that have occurred over the past two decades, with a focus on the growing importance of BBB rated issues to the overall market, and we will examine the diversification benefits and return-enhancing properties this segment of the market can offer to institutional investors.

Market overview

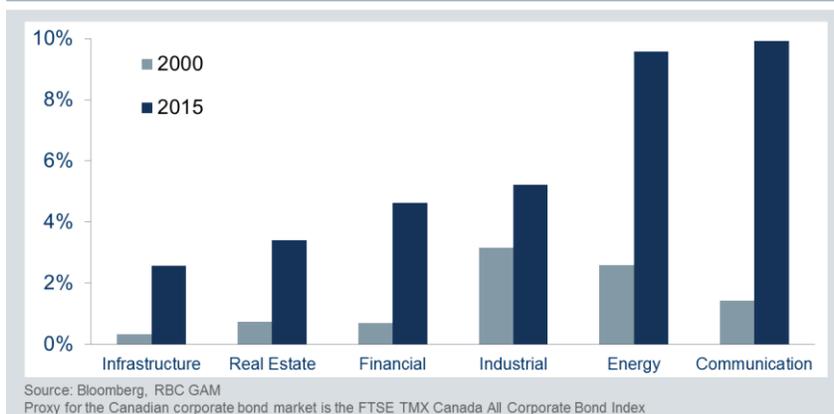
The most significant outcome of the growth in the Canadian fixed income market is that it provided investors with more selection among issuers, industries, and credit ratings. Much of this expansion has been driven by bonds rated BBB, as can be seen in Figure 1.

Figure 1: Canadian Corporate Bond Market Composition by Rating



¹ FTSE TMX Global Debt Capital Markets Inc.; market values as of December 31, 1995, 2005, and 2015.

² Ibid.

Figure 2: Growth of BBB Bonds (% of Canadian Corporate Bond Market)

In 1995, BBB rated bonds accounted for less than 10% of the FTSE TMX Canada All Corporate Bond Index (a proxy for the investment grade Canadian corporate bond market). Today, the BBB market segment accounts for more than 30% of this index – a share that is greater than the AAA and AA market segments

combined. In Figure 2, a more detailed snapshot of the current composition of the BBB market segment shows that this growth has been broadly diversified by sector across this segment of the corporate bond market.

Drivers of Market Growth

The impressive growth of the BBB market was driven by a number of forces, including changes in market structure, increased private sector borrowing, a growing appetite for higher-yielding fixed income instruments, industry consolidation, and the effects of accommodative monetary policy in the post-credit crisis era. In the following section, we will address each of these factors in turn.

Market Structure

Prior to the 2000s, Canadian companies that issued BBB rated bonds did so predominantly in the U.S., where the corporate bond market was significantly larger, more liquid, and better diversified by both industry and rating. The Canadian BBB market, meanwhile, had limited domestic issuance and was viewed as a refuge for “fallen angels” because it tended to represent issuers that had been downgraded from a higher rating due to credit quality deterioration.

Amendments to the *Bank Act* – particularly those that allowed for banks to enter the securities business – were instrumental to the growth of domestic capital markets. As interest rates and inflation levels declined through the 1980s and 1990s, domestic corporations increasingly used the Canadian bond and equity markets to source capital needed for growth and expansion, and Canadian financial institutions were well positioned to participate in the securities business given their size and influence in the Canadian markets, and their existing relationships with these issuers.

As the Canadian domestic bond market grew throughout the mid-2000s, a broader spectrum of borrowers became active in Canadian markets. Non-financial and higher-yielding issuers were better able to access capital in Canada, leading to a gradual but persistent increase in the importance of the BBB segment of the market. Issuer and investor familiarity with the U.S.

corporate bond market also had a significant influence on the evolution of Canada's market structure and helped guide the development of domestic fixed income infrastructure.

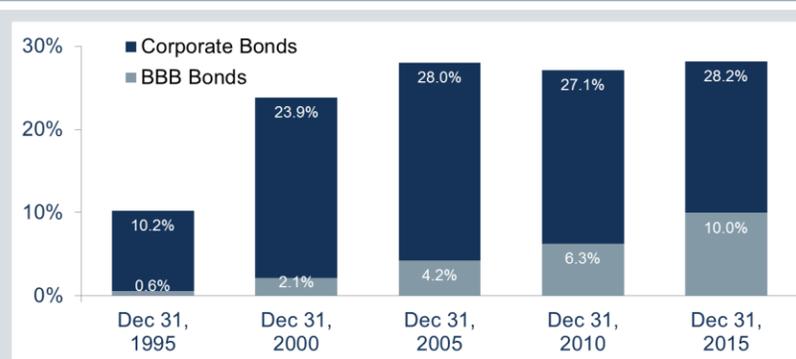
Shift from Public to Private Sector Borrowing

Prior to the late 1990s, the Canadian government was operating with a substantial current account deficit and was financing this deficit primarily through debt issuance. As a result, government issuance dominated the domestic bond market. The cost of servicing this debt began to impact Canada's fiscal health in the mid-1990s,

causing the government to cut spending in order to operate in a budget surplus position and reduce its debt outstanding. The subsequent decline in government issuance helped spur the growth of the corporate bond market. As Canada's fiscal position improved, the difference between Canadian

and U.S. rates narrowed, resulting in better borrowing rates for domestic issuers. By 1998, Canadian private sector borrowing outpaced that of the government for the first time in 25 years, and since then corporate bonds have continued to grow as a proportion of the overall Canadian bond market, as illustrated in Figure 3.

Figure 3: Growth of Corporate Bonds (% of Canadian Bond Market)



Source: FTSE TMX Global Debt Capital Markets Inc., RBC GAM
Proxy for Canadian bond market is the FTSE TMX Canada Universe Bond Index

Growing Appetite for Higher-Yielding Fixed Income Instruments

As this private sector growth was occurring, fundamental changes in investor behavior provided support for further expansion. Individual investors began shifting assets from deposit accounts into higher-yielding mutual funds. Meanwhile, mutual funds became large buyers of corporate debt, as the yield offered was more attractive than lower-risk federal debt. Life insurance companies were likewise active buyers of corporate debt as they sought to support a growing suite of competitive annuity products. As a result of all this activity, the underlying investment infrastructure itself grew – including a proliferation of analysts and other resources dedicated to analyzing the credit quality of issuers in the corporate bond market – and promoted additional interest in corporate bonds.

Industry Consolidation

In the early to mid-2000s, a series of large consolidations in the Canadian telecommunications industry caused a substantial shift in credit ratings. In 2000, the telecom space was occupied by more than ten A rated issuers. Today, there are four investment grade domestic issuers in total, all of which are rated BBB. This downward trend in ratings is a reflection of the increased leverage that was required to facilitate the consolidations that occurred in the industry.

This heightened acquisition activity was not unique to the telecommunications industry; it occurred across other Canadian economic sectors as well, most notably in capital-intensive industries like energy infrastructure. To fuel this growth, Canadian companies increasingly required debt financing and, as mentioned above, a capital structure with bonds rated BBB was targeted as leverage increased.

This downward trend in credit ratings was exacerbated by the expansion of Standard & Poor's (S&P) in Canada via the acquisition of Canadian Bond Rating Service (CBRS) in October 2000. S&P methodology placed an increased emphasis on the cyclicity of the Canadian economy and applied consolidated entity-level ratings to operating companies, meaning that operating companies were not rated on a stand-alone basis, but rather received the rating of their holding company, which was often less favourable. As a result, many A rated domestic issuers were downgraded to a BBB rating following the transition to S&P methodology.

Accommodative Monetary Policy in Post-Credit Crisis Era

During the crisis period of 2008-2009, central banks around the world enacted emergency policy measures to help mitigate damage to the financial system. Much of this accommodative monetary policy remains in place today as central banks continue their efforts to stimulate stagnant economic growth.

As a result of these policies, interest rates in most developed nations fell to record lows, and the opportunity to take advantage of low funding rates enticed numerous entities to issue bonds, including many new and infrequent BBB rated issuers. This trend was further buoyed by strong investor demand for the yield-enhancement qualities of corporate bonds, and in particular those rated BBB.

Many issuers implemented more aggressive financial policies in order to take advantage of these attractive funding conditions, and leverage fundamentals deteriorated as debt was issued to fund shareholder-friendly activities such as share buybacks, mergers, acquisitions, and dividend increases. At the same time, rating agencies became more conservative with respect to their methodologies in the wake of the credit crisis. Combined, these factors led to many downgrades in the post-credit crisis era.

All told, the effects of accommodative monetary policy following the credit crisis prompted significant growth in the BBB segment of the corporate bond market, which more than doubled in size from 17% of the overall corporate bond market in 2008 to 35% today.

Looking Forward

We expect that the BBB rated segment of the market will experience further growth as a number of new structural adjustments take place:

- As legacy bank subordinated debt retires, all new subordinated debt securities issued by Canadian banks must be structured as non-viability contingent capital securities (NVCCs).³

³ Please see our recent paper, *Opportunities in a Changing Market: Bail-In Securities and Non-Viability Contingent Capital*, which covers this topic.

These securities have been rated between A and BBB and, with significant expected issuance, could drive substantial and sustainable growth in the Canadian BBB market.

- Canada has seen increased issuance of public-private partnerships (PPPs) and infrastructure projects, which have historically been A or BBB rated. The Canadian government is expected to allocate substantial capital towards PPP projects for the foreseeable future, which could likewise create material issuance of BBB debt.
- The current low interest rate environment has created incentives for corporate issuers to access low-cost borrowing, which may lead to increased leverage in balance sheets and further credit rating downgrades.

Advantages of BBB Rated Bonds

While higher-rated sectors are dominated by companies in the financial services sector, the BBB rated segment of the Canadian corporate bond market provides broad exposure to many Industrial, Communications, Energy, and Infrastructure issuers, allowing for increased portfolio breadth and diversification. Below, Figure 4 outlines the sector and issuer diversification of the Canadian market by credit rating.

The BBB rated segment of the market includes a variety of issuers that range from lower to higher quality. Material gaps in credit fundamentals exist between the two ends of the spectrum. That being said, the higher-quality issuers within the BBB market are often large

Figure 4: FTSE TMX Canada All Corporate Bond Index Issuer Diversification

Rating	Percentage of Index	Number of Sectors	Sectors	Number of Issuers
AAA	3.2%	2	Financial, Securitization	9
AA	24.1%	3	Financial, Infrastructure, Real Estate	15
A	37.4%	6	Communication, Energy, Financial, Industrial, Infrastructure, Real Estate	94
BBB	35.3%	6	Communication, Energy, Financial, Industrial, Infrastructure, Real Estate	102

Source: FTSE TMX Global Debt Capital Markets Inc., RBC GAM, as of December 31, 2015
 Note: The number of issuers shown differs from the total shown in the market overview section, as companies frequently issue bonds in multiple credit buckets

companies with strong fundamentals and long-standing operational records. These companies typically fall into the BBB category because they have higher leverage than is acceptable for an A rated entity, though this is often a function of the market in which they operate. For example, the capital intensity of the Communications sector leads companies to have higher leverage than those in other sectors. The cyclicity of the sector in which a company operates can also influence a company's debt rating, as rating agencies typically assess the sector's risks in addition to those of the issuer when assigning a credit rating. As a result, investing in this market segment does not necessarily expose an investor to materially greater credit risk.

The companies that comprise the higher-quality segment of the BBB market tend to operate in infrastructure-oriented industries such as telecommunications, pipelines, and utilities. Bonds in these industries are typically backed by hard assets and are issued by established companies with steady cash flow profiles, providing a higher level of security to bondholders. The following list highlights some examples of higher-quality BBB rated corporate bonds and the rationale for including them in an investment portfolio:

- **Communications and Pipelines Companies:** Examples of these companies include Rogers Communications, Telus, and Enbridge. They are some of the larger issuers of long-term corporate bonds, and many are either regulated or have revenues tied to long-term supply contracts, which provide stable cash flow. In addition, many of these companies own and operate physical infrastructure assets that are difficult to reproduce, creating high barriers to entry and limiting new competition.
- **Public Private Partnerships / Infrastructure Projects:** These types of projects are often regional infrastructure projects such as the Eglinton Crosstown Light Rail Transit in Toronto (in partnership with Crosslinx Transit Solutions) and the replacement of the Champlain Bridge in Montreal (in partnership with Signature on the St. Lawrence Group). In recent years, the corporate bond market has seen an increase in private financing of public infrastructure assets. Many of these project finance bonds are BBB rated mainly due to construction period risk. However, once the construction period has passed, these bonds are supported by long-term operating contracts with guaranteed revenue from government entities. Consequently, many of these bonds revert to quasi-government-type risk after the construction period is over.
- **Utility Companies:** This industry includes a number of large and regular issuers, such as Nova Scotia Power and FortisBC, whose bonds are backed by the revenue and assets embedded in the core regulated segments of their businesses. Risks in some of the non-regulated growth-oriented segments of these enterprises can lead to BBB ratings due to the use of S&P's aforementioned consolidated entity-level ratings, despite strong covenants and asset protection provided to bonds issued by the core operating companies.

Risks of BBB Rated Bonds

Historically, the default risk inherent in investment grade corporate bonds has been low, and this remains true for the BBB rated segment of the market. Moody's data on U.S. investment grade default rates shows that during the credit crisis of 2008-2009, BBB default rates peaked at less than 1% for the calendar year 2009. As shown in Figure 5, BBB default rates are typically close to those of other investment grade default rates, and are significantly lower than the default rates of non-investment grade bonds (those rated BB or below).

Figure 5: U.S. Issuer-Weighted Corporate Default Rates by Credit Rating

	AAA	AA	A	BBB	BB	B
1920–2013 (Average)	0.00%	0.06%	0.10%	0.27%	1.07%	3.38%
2004–2013 (Average)	0.00%	0.07%	0.10%	0.19%	0.51%	1.48%
2008–2009 (Peak)	0.00%	0.72%	0.54%	0.94%	2.33%	7.53%

Source: Moody's Investor Service, RBC GAM

Another risk factor to acknowledge is the risk of downgrade, which is especially pertinent to BBB rated bonds. The difference between investment grade and non-investment grade

(i.e., high yield) status can represent a large gap in yield spreads; accordingly, a downgrade to high yield status can have a material impact on the price of a BBB rated bond. This risk can be mitigated through careful issuer selection, especially concerning those issuers that reside in the lower-quality tiers of the BBB segment of the corporate bond market.

One might expect that the credit risk associated with BBB rated bonds would result in increased volatility of returns for this sector of the market compared to higher rated bonds. In fact, Figure 6 shows the standard deviation of returns of A rated and BBB rated bonds over the ten-year period ending December 31, 2015, and the difference in volatility between the two market segments has been minimal.

The data presented in Figure 6 also suggests that the BBB rated corporate bond market can provide more attractive risk-adjusted returns relative to A rated corporate bonds. This is a reflection of the significant diversity of issuers within market sectors in the BBB market, which is illustrated in Figure 7.

Finally, BBB rated bonds are typically less liquid than higher-rated issues, as measured by bid-ask spreads and depth of market, which are both indicators of cost to transact in the market. Part of

the compensation paid to investors, therefore, comes in the form of a premium for accepting a lower level of liquidity, which can be beneficial when investing in high-quality companies with long-term time horizons. All of this suggests that BBB investors are being compensated in large part for the potential for elevated risk levels. This also supports the conclusion that BBB rated bonds can offer improved risk-adjusted returns relative to A rated bonds over the long term.

Yield Characteristics of BBB Rated Bonds

As we've established, the default rates of BBB rated issuers are not significantly higher than those of A rated issuers on a historical basis. As a result, it stands to reason that the yield spreads offered by BBB bonds would not be significantly higher than those offered by A rated bonds, either. As shown in Figure 8 below, outside of major negative market movements, the yield spreads of BBB bonds typically provide attractive incremental compensation relative to their A rated counterparts.

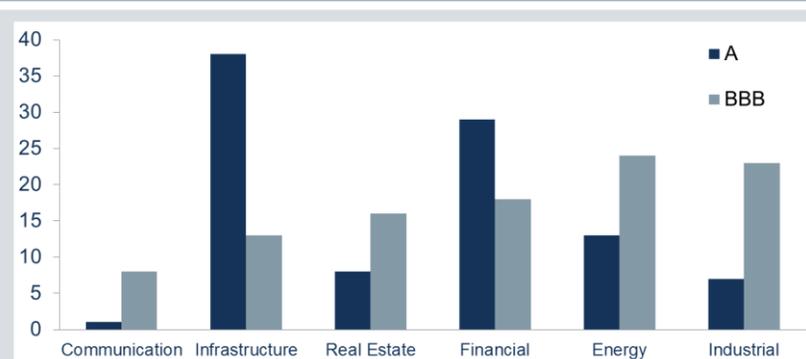
It bears mentioning that during the crisis period experienced between late 2008 and early 2009, spreads on corporate bonds of all ratings categories converged as they increased dramatically, but diverged again once the crisis began to abate. That said, in normal market conditions, the modestly higher risk profile of BBB rated bonds paired with their increased yield spread results in a reward-to-risk profile tilted in favour of the BBB segment of the market.

Figure 6: Risk and Reward Characteristics of the FTSE TMX Canada All Corporate Bond Index

10-Year Period Ending December 31, 2015	A	BBB
Average Spread	1.58%	1.94%
Annualized Return	5.68%	6.05%
Standard Deviation	4.03%	4.03%
Return/Risk	1.41x	1.50x

Source: FTSE TMX Global Debt Capital Markets Inc., RBC GAM

Figure 7: Number of Issuers by Sector and Credit Rating



Source: FTSE TMX Global Debt Capital Markets Inc., RBC GAM, as of December 31, 2015.

In today's low-yield environment, the incremental yield spread offered by corporate bonds – and by BBB rated bonds in particular – is much greater than historical levels on a relative basis. Twenty years ago, the yield spread on a corporate bond accounted for roughly 10% of the total yield; in today's environment, the yield spread accounts for almost 60%, as shown in Figure 9.

As investors prepare for a potential increase in global interest rates that will likely accompany tightening monetary policy, this additional yield spread should serve as an important contributor to future performance.

Figure 8: Corporate Bond Yield Spreads Relative to Similar-Term Government of Canada Bonds

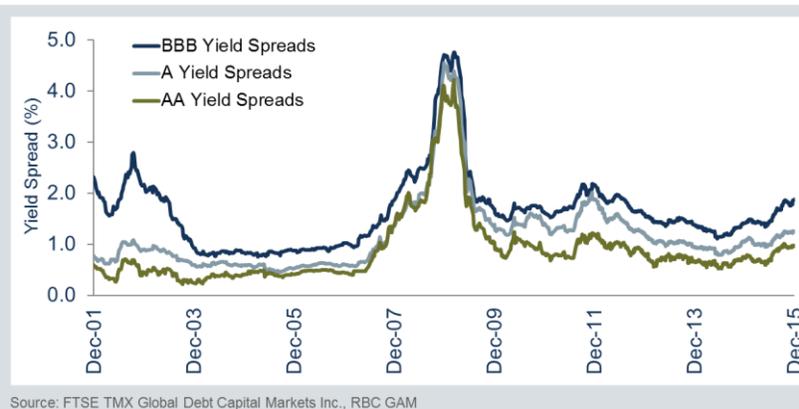
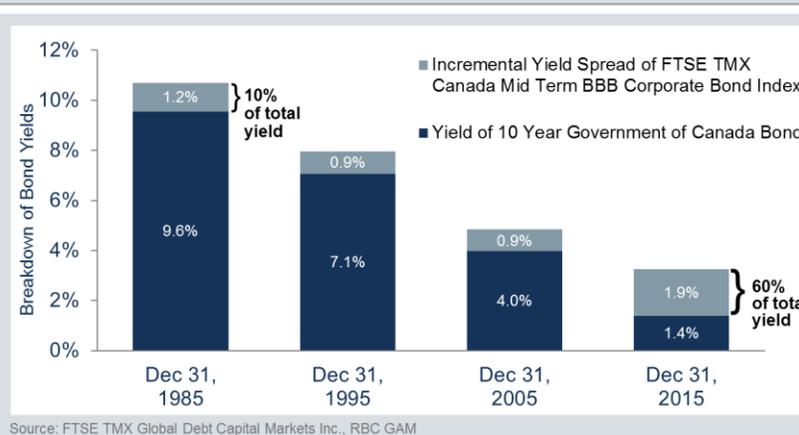


Figure 9: Incremental Yield Spread of Corporate Bonds



Conclusion

The BBB rated segment of the corporate bond market offers appealing reward-for-risk potential relative to other areas of the investment grade bond market, as well as expanded opportunities to diversify across industries compared to higher-quality segments of the corporate bond market, which tend to be more concentrated.

As this segment of the Canadian corporate bond market continues to grow in terms of both size and breadth, it is likely these potential benefits will become more pronounced, offering additional opportunities to add value and generate more attractive risk-adjusted returns over time. Accordingly, we encourage institutional investors to consider whether their investment policies allow sufficient flexibility to incorporate BBB bonds into their portfolio.

For additional details, please contact your PH&N IM institutional portfolio manager, or call 1-855-408-6111 or email institutions@phn.com

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