

Product Profile | Fixed Income

An innovative approach to benchmarking Canadian credit risk

The FTSE Canada Bank Credit Spread Index Series

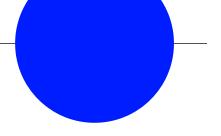
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FTSE RUSSELL An LSEG Business

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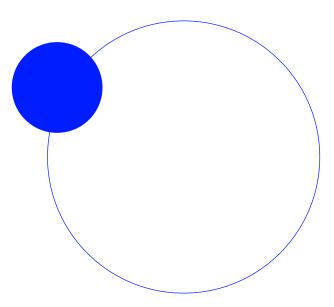
Introduction

FTSE Russell is introducing an innovative index solution that is designed to capture the dynamics of Canadian corporate credit risk. Through extensive research and in-depth analysis, we have constructed a liquid, simple and transparent benchmark that isolates the credit spread component in Canadian bank bonds to provide a standardised gauge of credit market conditions in Canada.

The FTSE Canada Bank Credit Spread Index Series captures the yield differential (spread) between a basket of domestic Canadian bank bonds and benchmark Government of Canada securities, serving as a measure of Canadian financial sector credit risk.

The indices within the series are transparent and designed to be replicable, with individual security holdings, prices and spreads disclosed daily. In this way, the index series addresses the need for representative spread products focused on the Canadian fixed income market.

In this paper, we show how the design of the index series balances capacity, tradeability and the accuracy of spread measurement. We explain the indices' construction methodology and look at simulated past performance, showing that the FTSE Canada Bank Credit Spread Index can act as a hedge for a broad range of corporate bond exposures.



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Functions of bank credit spreads

Corporate bonds' credit spreads are often used as leading indicators for economic activity because of the relationship between the quality of borrowers' balance sheets and their access to external finance¹.

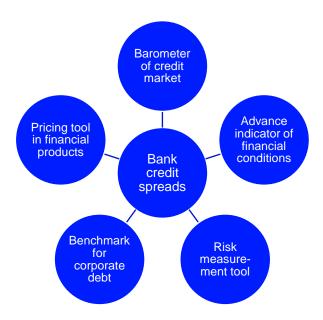
For example, credit spreads started to rise sharply from summer 2007 onwards², over a year before the default of Lehman Brothers, serving as an advance warning of deteriorating financial market conditions.

Within the corporate bond sector, banks' credit spreads merit particular attention. Given the high repeat issuance levels and relatively higher liquidity of bank-issued corporate bonds, market shocks or periods of credit spread compression are usually captured more quickly in banks than in the broader corporate bond universe.

This is especially true of Canada, where banks represent a large proportion of the overall corporate sector of the FTSE Canada Universe Bond Index³, a flagship measure of the Canadian bond market.

An index that guickly reflects market perceptions of bank credit risk therefore serves as a valuable tool not just for corporate bond investors, but for the broader financial markets. Such an index can serve as a benchmark for broader credit market conditions, a key risk measure in asset allocation models and as a pricing tool in other financial contracts (such as listed derivatives).

Exhibit 1: Functions of bank credit spreads



Source: FTSE Russell.

¹ <u>Credit spreads, economic activity and fragmentation</u>. ² See <u>Timeline: The credit crunch of 2007/2008</u> | <u>Reuters</u>.

³ On average, we observed that financial bonds represent 44.7% of the all corporate sector of the FTSE Canada Universe Bond Index, where bank bonds represent 29.4% and 65.9% of the all corporate and financial sectors, respectively, based on daily data for the period 31 December 2003 through 31 May 2025. Source: FTSE Russell.

Design principles for a bank credit spread index

FTSE Russell is committed to fostering evolution in the markets we serve. We have been working closely with key industry partners to support the development of credit risk transfer solutions for the Canadian market. Through extensive research and in-depth analysis, we have designed a liquid, simple and transparent benchmark that isolates the credit spread component in bank-issued corporate debt to provide a standardised gauge of credit market conditions in Canada.

To ensure broad adoption and ease of use across a variety of market applications, FTSE's approach to constructing the FTSE Canada Credit Spread Index series was guided by several considerations:

Liquidity: the basket of index securities should be highly liquid;

Simplicity: the index's construction methodology and weight allocation should be easy to understand; and

Transparency: the index's selection methodology should be replicable by index users and the index data should be available for access.

Building the FTSE Canada Bank Credit Spread Index Series

The construction of the FTSE Canada Bank Credit Spread Index Series involves three stages. These are designed to address the need for a domestic representative spread product that isolates credit risk exposure while focusing on liquid securities, balancing capacity, tradeability and spread movement.

First, we create a **reference basket** of bank bonds, drawing the most liquid components from the FTSE Canada Corporate Financial Bank Bond index, part of the FTSE Canada Universe Bond index.

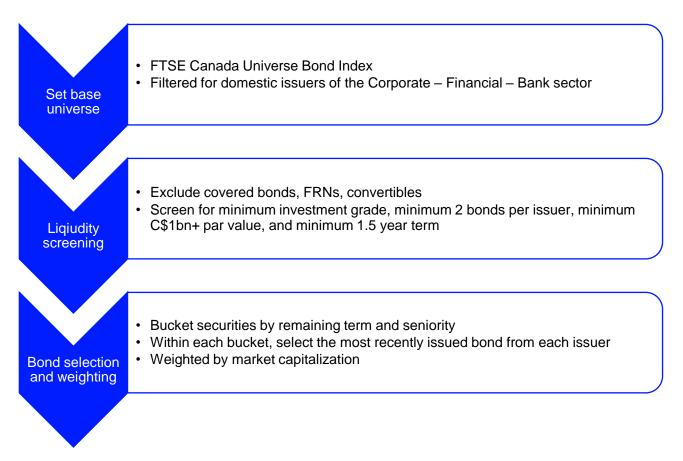
Second, we map the bonds in the reference basket to benchmark Government of Canada bonds.

Finally, we **calculate the FTSE Canada Bank Credit Spread Index** as the spread between the reference basket and the basket of parent bonds.

1. Creation of the FTSE Canada Bank Credit Reference Basket

The selection process for the FTSE Canada Bank Credit Reference Basket is highlighted in the infographic. We set the base universe, narrow it using a series of requirements designed to exclude less liquid or non-homogeneous issues, bucket the remaining securities by term and seniority and then weight them by market capitalisation.





The reference basket is set at the end of February, May, August, and November and remains constant over each following quarter. If a security in the reference basket is subject to a default or a call by the issuer, it is removed on the last business day prior to the effective corporate action and its weight in the basket is reinvested proportionally into the remaining basket securities. If a security is downgraded to below investment grade, it remains in the basket until the next quarterly rebalancing date.

2. Mapping to Government of Canada securities

At the quarterly index rebalancing date, each corporate bond in the reference basket (a "child") is mapped to a benchmark Government of Canada bond (a "parent"). This mapping is based on the parent-child mapping scheme sourced from CanDeal Data and Analytics. The weights of the Government of Canada bonds are set as equal to the mapped corporate bonds, and the mapping is reported in the index files for transparency. A mapping validation is performed before each index rebalancing date to ensure that all bank bonds have a valid Government of Canada benchmark parent at that date.

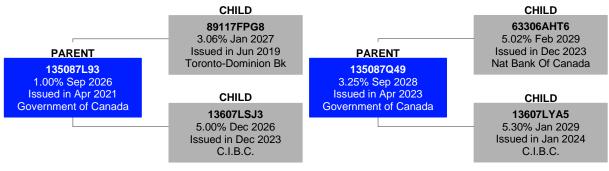


Exhibit 3: Examples of parent-child mapping for FTSE Canada Bank Credit Spread Index

Source: FTSE Russell. For illustrative purposes only.

3. <u>Calculation and aggregation of the FTSE Canada Bank Credit Spread</u> Index

Once the parent-child mapping is complete for the bonds in the FTSE Canada Bank Credit Reference Basket, we calculate the FTSE Canada Bank Credit Spread Index Series as follows:

- Spread value is calculated daily at 4 pm (using mid-market closing price) for each position in the basket;
- Spread is calculated as yield-to-worst (YTW) on bank-issued corporate bond YTW on Government of Canada bond;
- Spread index is the market capitalisation-weighted average spread, based on the weights of the reference basket;
- Spread index value serves as the basis for the listed futures contract on the index (see the section below, "<u>Spread indices as the basis for futures contracts</u>").

Summary statistics for FTSE Canada Bank Credit Reference Basket

A back-test between June 2012 and March 2025 of the FTSE Canada Bank Credit Reference Basket methodology shows that the basket closely tracks the broader Canadian financials sector as measured by yield, spread, and duration. In recent history, the average coupon of the FTSE Canada Bank Credit Reference Basket has reflected the higher prevailing rates for newer bank issuances, given that the reference basket selects the most recently issued bond per issuer within each sector group (the sector groups are categorised by remaining term and seniority).

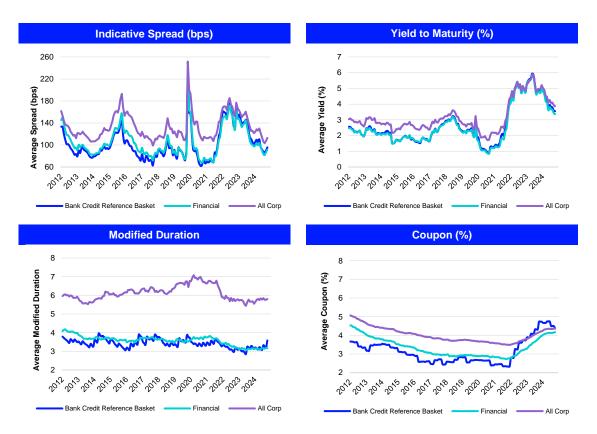


Exhibit 4: Summary statistics for FTSE Canada Bank Credit Reference Basket

Source: FTSE Russell. Data from June 2012 to March 2025. Past performance is not a guide to future returns. See the disclaimer at the end of this document regarding back-tested performance.

Correlations of spread index to financials and corporates

A back-test of the FTSE Canada Bank Credit Spread Index Series methodology over the period from June 2012 to March 2025 also showed high correlations with the Canadian financials sector and with the corporate bond sector overall. This is unsurprising, given that Canadian bank bonds typically represent approximately 70% by weight of the financial sector (while financials, in turn, typically represent approximately 45% of the corporate bond market).

In other words, the implied spread embedded in the FTSE Canada Bank Credit Spread Index serves as a strong proxy for Canada's corporate bond and financial bond sectors, with comparable levels of volatility.

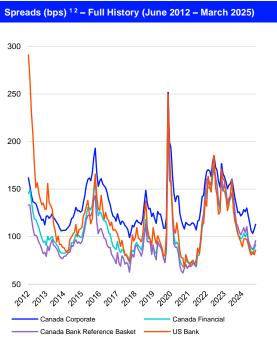


Exhibit 5: Volatility and correlations of FTSE Canada Bank Credit Spread Index

	Canada Corporate	Canada Financial	Canada Bank Credit Reference Basket	Canada Bank Spread Index	US Bank						
Volatility ³ (Monthly)	8.61	11.38	12.26	12.45	12.96						
Implied Spread Volatility ^{3 4 5} (Daily)	1.08	1.17	NA	1.43	2.83						
R ² Matrix of Spreads ¹² (bps) (June 2012 – March 2025)											

r matrix of opreads (bps) (ourie 2012 - match 2020)						
	Canada Corporate	Canada Financial	Canada Bank Credit Reference Basket	Canada Bank Credit Spread Index	US Bank	
Canada Corporate	1.00					
Canada Financial	0.97	1.00				
Canada Bank Credit Reference Basket	0.83	0.92	1.00			
Canada Bank Credit Spread Index	0.87	0.90	0.98	1.00		
US Bank	0.76	0.73	0.69	0.68	1.00	

Source: FTSE Russell. Data from June 2012 to March 2025. Past performance is not a guide to future returns. See the disclaimer at the end of this document regarding back-tested performance. Please note:

1. Spreads for Canada Corporate, Financial, Reference Basket, and US Bank are calculated using month-end index-level OAS measures.

 Spreads for Canada Bank Credit Spread Index are calculated as the weighted average YTW difference between bonds in the Reference Basket and their corresponding Government of Canada bonds.

3. Spread volatility is calculated as the standard deviation of spread change.

4. Implied spreads for Canada Corporate and Financial are calculated as the YTW difference measured against the Short-

Term Federal Non-Agency Bond Index.

5. For US Banks, daily volatility is inferred from monthly volatility, assuming 21 trading days per month

Spread indices as the basis for futures contracts

A new FTSE Canada Credit Spread index series will be created quarterly on the last business day of February, May, August, and November, based on the FTSE Canada Bank Credit Reference Basket. Each spread index series will expire four months after creation, in alignment with the life of the futures contract written on the series.

The futures contracts are expected to originate and settle between International Monetary Market (IMM) dates, which are the third Wednesday of each March, June, September, and December⁴.

⁴ See FTSE Canada Bank Credit Futures (CBC) for more details.

The FTSE Canada Bank Credit Spread Index Series naming convention will include a three-character code indicating the delivery date. This will follow the standard ticker convention observed in the futures market, with the reference letters H, M, U, and Z corresponding to March, June, September, and December, respectively. For example:

- FTSE Canada Bank Credit Spread Index H25 (ticker: CBCH25) for an index series created on the last business day of November 2024 and maturing at the end of March 2025;
- FTSE Canada Bank Credit Spread Index M25 (ticker: CBCM25) for an index series created on the last business day of February 2025 and maturing at the end of June 2025;
- FTSE Canada Bank Credit Spread Index U25 (ticker: CBCU25) for an index series created on the last business day of May 2025 and maturing at the end of September 2025;
- FTSE Canada Bank Credit Spread Index Z25 (ticker: CBCZ25) for an index series created on the last business day of August 2025 and maturing at the end of December 2025.

Exhibit 6: Sample timeline for reference basket rebalancing, index series, and related futures contracts

	2024		2025												
Index	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	Rebalance 11/30			Rebalance 2	Rebalance 2/28		Rebalance 5	Rebalance 5/31		Rebalance 8/31			Rebalance 11/30		
Bank Credit Reference Basket															
Bank Credit Spread		Pre-roll the IMM date	rough Dec	Post-roll after	er Mar IMM da	ate									
ndex H25 March 2025 series)	Selection 11/30					Matures 3/	31								
Ticker: CBCH25)		Fu	ture contract arts	Future conta	ict ends										
Bank Credit Spread					Pre-roll thread	ough Ma	Post-roll after	er Jun IMM	date						
ndex M25 June 2025 series)				Selection 2/28					Matures 6/	30					
Ticker: CBCM25)			220	Future contract starts		Future contract ends									
Bank Credit Spread								Pre-roll t IMM date	hrough Jun	Post-roll af IMM date	ter Sep				
ndex U25 September 2025							Selection 5/31					Matures 9/	Matures 9/30		
series) Ticker: CBCU25)							Future contract starts		Future contract ends						
ank Credit Spread											Pre-roll the IMM date	ough Sep	Post-roll aft IMM date	ter Dec	
December 2025										Selection 8/31					
series)												ture contract	Future cont	tract ends	
Ticker: CBCZ25)															
Bank Credit Spread													Pre-roll thro IMM date	ougn Dec	
March 2026 series)													Selection 11/30		
Ticker: CBCH26)													Future c	ontract starts	

Source: FTSE Russell. For illustrative purposes only.

A risk transfer solution for the Canadian market

FTSE Russell is proud that the FTSE Canada Bank Credit Spread Index Series has been selected by the Montreal Exchange to serve as the foundation for a first-of-its-kind credit derivatives product, the Canada Bank Credit Index Futures (CBC), which will launch in 2026. These futures will provide market participants with a powerful tool to manage credit exposure, hedge risk and implement strategic investment views.

The futures are expected to serve a variety of uses:

- Targeted credit exposure (as a way to gain direct exposure to the credit spread of Canadian banks)
- Expanded yield curve access (by adding new, liquid points to the Canadian-listed yield curve, enhancing curve construction and trading precision)
- Efficient hedging tool (to help manage spread risk, portfolio duration and liquidity needs)
- Versatile trading strategies (to implement tactical credit views, replicate synthetic long/short credit positions or execute relative value trades)

Addressing Canadian client needs

FTSE Russell has created the FTSE Canada Bank Credit Spread Index to address the needs of Canadian financial market participants for a representative spread product that isolates domestic banks' credit risk exposure while focusing on their most liquid fixed income securities. The index's design balances capacity, tradeability and offer insights into credit risk dynamics within the Canadian investment grade market, facilitating informed decision-making for investors.

ABOUT FTSE RUSSELL

FTSE Russell is a leading global provider of index and benchmark solutions, spanning diverse asset classes and investment objectives. As a trusted investment partner we help investors make better-informed investment decisions, manage risk, and seize opportunities.

Market participants look to us for our expertise in developing and managing global index solutions across asset classes. Asset owners, asset managers, ETF providers and investment banks choose FTSE Russell solutions to benchmark their investment performance and create investment funds, ETFs, structured products, and index-based derivatives. Our clients use our solutions for asset allocation, investment strategy analysis and risk management, and value us for our robust governance process and operational integrity.

For over 40 years we have been at the forefront of driving change for the investor, always innovating to shape the next generation of benchmarks and investment solutions that open up new opportunities for the global investment community.

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