MONTRÉAL EXCHANGE

LGB®: Potential Strategies for Investors

As with the launch of 5-year (CGF®) and 2-year (CGZ®) bond futures contracts in recent years, the continued evolution of the 30-year physical delivery Government of Canada bond futures contract (LGB) on the Montréal Exchange creates another valuable point along the Canadian derivatives yield curve for market participants. In this piece, we identify potential uses for the contract that we believe will appeal to Portfolio Managers, whether they manage real money portfolios or participate in pure, leveraged, speculative strategies.

LGB as a Hedging Instrument

Many investors who do not always participate in alpha generation or speculative strategies will nevertheless find opportunities to utilize the LGB contract.

Long Bond Sector Hedging

For cash and speculative investors alike, perhaps the most obvious use for a 30-year bond contract is to substitute for the bonds that make up the long end of the Canadian government bond yield curve. Investors who want to track this sector's performance without using cash or who want to transact quickly and electronically could buy LGB contracts rather than cash bonds in the long end.

To demonstrate how an investor might utilize the LGB contract in this manner, we used each bond's market value outstanding to construct the market-value-weighted benchmark portfolio of $20 million market value shown in Figure 1. In that figure, each row represents a Canadian bond with a maturity greater than 25 years, and the initial column shows the notional amount held by the benchmark portfolio. To track this portfolio, we calculated regression coefficients between each security and the cheapest-to-deliver (CTD) bond for the LGBZ26 contract. The resulting regression coefficients are shown in the column labelled "Beta" and, when multiplied by the bond DV01, produce the futures equivalent DV01 in the final column of Figure 1.

FIGURE 1

PORTFOLIO NOTIONAL	ISSUER	COUPON	MATURITY	YIELD	DV01	HEDGE INSTRUMENT	BETA	TOTAL DV01	FUTURES EQUIVALENT DV01
8,627,000	CDA	2.000%	01-Dec-51	4.195%	11.911	LGB	1.01	10,275	10,344
5,328,000	CDA	1.750%	01-Dec-53	4.201%	11.733	LGB	1.00	6,251	6,280
4,787,000	CDA	2.750%	01-Dec-55	4.197%	13.903	LGB	1.00	6,655	6,647
166,000	CDA	3.500%	01-Dec-56	4.192%	15.624	LGB	1.01	259	261
5,827,000	CDA	3.500%	01-Dec-57	4.193%	15.839	LGB	1.00	9,229	9,229
999,000	CDA	3.750%	01-Jun-59	4.203%	16.668	LGB	0.99	1,665	1,652
1,457,000	CDA	2.750%	01-Dec-64	4.210%	15.000	LGB	1.01	2,185	2,201
27,191,000								**36,522**	**36,615**

Source: Bank of Canada, BMO Capital Markets[i] Fixed Income Sapphire database

After finding the futures equivalent DV01 for each bond, the sum of the DV01s can be replicated with futures contracts. Figure 2 shows that just 211 LGBZ26 contracts would be required to replicate the expected DV01 of the $20 million market value portfolio of long bonds with a single instrument. If the regression coefficients calculated in Figure 1 are similar in the future, the portfolio would be replicated in the simplest way possible with a single instrument exposure to changes in both the level of long-end interest rates and the slope[1] of the curve within the long-end sector of the Canadian bond market.

1 The slope is replicated through the beta coefficients, although in this case they are very close to 1 indicating that there has been no real slope exposure in the long end of the yield curve during the lookback period used to generate the coefficients.

FIGURE 2

CONTRACT CODE	CONTRACTS	CTD COUPON	CTD MATURITY	DV01 /CONTRACT	TOTAL DV01
LGBZ26	211	3.500%	01-Dec-57	17.375	36,661
					36,661

Source: Author Calculations

Full Portfolio Hedging

Of course, with three other physical delivery bond futures contracts available in Canada, investors do not have to limit themselves to hedging only long-end exposure. By additionally using the liquid 2-year (CGZ), 5-year (CGF), and 10-year (CGB®) Government of Canada bond futures contracts, one can use the same methodology to create a portfolio of just four securities that tracks a Canadian bond portfolio of issues ranging in maturity from 2 to more than 30 years.

Figure 3 uses the same methodology as the example above to construct a $100 million portfolio that includes all Canadian bonds maturing between late 2028 and 2064: the Canadian government bond universe, excluding the shortest maturity bonds. In each case, as in Figure 1, we calculate a regression coefficient for the appropriate futures contract CTD bond and use that coefficient to calculate the interest rate sensitivity (DV01) required for each futures contract.

FIGURE 3

PORTFOLIO NOTIONAL	ISSUER	COUPON	MATURITY	YIELD	DV01	HEDGE INSTRUMENT	BETA	TOTAL DV01	FUTURES EQUIVALENT DV01
3,006,000	CDA	2.750%	01-Aug-28	3.324%	1.786	CGZ	1.00	537	537
2,186,000	CDA	3.250%	01-Sep-28	3.334%	1.875	CGZ	0.99	410	405
1,203,000	CDA	3.000%	01-Nov-28	3.374%	2.017	CGZ	1.00	243	243
2,952,000	CDA	4.000%	01-Mar-29	3.412%	2.355	CGZ	0.98	695	678
1,159,000	CDA	5.750%	01-Jun-29	3.417%	2.654	CGZ	1.01	308	311
1,345,000	CDA	2.250%	01-Jun-29	3.397%	2.515	CGZ	1.01	338	342
3,280,000	CDA	3.500%	01-Sep-29	3.467%	2.786	CGZ	1.01	914	922
547,000	CDA	2.250%	01-Dec-29	3.464%	2.941	CGZ	1.01	161	162
3,608,000	CDA	2.750%	01-Mar-30	3.501%	3.180	CGF	0.99	1,147	1,142
4,832,000	CDA	1.250%	01-Jun-30	3.515%	3.285	CGF	1.00	1,587	1,580
4,592,000	CDA	2.750%	01-Sep-30	3.544%	3.597	CGF	1.01	1,652	1,667
4,373,000	CDA	0.500%	01-Dec-30	3.529%	3.608	CGF	1.00	1,578	1,579
4,592,000	CDA	2.750%	01-Mar-31	3.571%	4.004	CGF	1.01	1,839	1,852
4,592,000	CDA	1.500%	01-Jun-31	3.590%	4.068	CGF	1.01	1,868	1,886
4,373,000	CDA	3.000%	01-Sep-31	3.598%	4.430	CGF	1.00	1,937	1,937
3,498,000	CDA	1.500%	01-Dec-31	3.615%	4.433	CGF	1.00	1,551	1,545
383,000	CDA	3.000%	01-Mar-32	3.620%	4.823	CGF	1.00	185	184
2,624,000	CDA	2.000%	01-Jun-32	3.653%	4.857	CGF	1.00	1,274	1,274
2,296,000	CDA	2.500%	01-Dec-32	3.684%	5.293	CGF	0.99	1,215	1,204

2 For additional discussion and analysis on using futures contracts as a substitute for cash bonds, refer to "CGB as Substitute for 10y Benchmark Bonds - Strategy Comparison: 2011-2020" published by Montréal Exchange in June 2020.

1,311,000	CDA	5.750%	01-Jun-33	3.720%	6.291	CGB	1.01	825	837
2,077,000	CDA	2.750%	01-Jun-33	3.702%	5.697	CGB	1.01	1,183	1,196
2,296,000	CDA	3.250%	01-Dec-33	3.724%	6.159	CGB	1.00	1,414	1,412
656,000	CDA	3.500%	01-Mar-34	3.737%	6.397	CGB	0.99	420	418
3,717,000	CDA	3.000%	01-Jun-34	3.753%	6.444	CGB	1.00	2,395	2,392
3,280,000	CDA	3.250%	01-Dec-34	3.782%	6.845	CGB	1.00	2,245	2,245
4,264,000	CDA	3.250%	01-Jun-35	3.817%	7.168	CGB	1.00	3,056	3,053
4,592,000	CDA	3.250%	01-Dec-35	3.850%	7.481	CGB	1.00	3,435	3,421
219,000	CDA	3.250%	01-Mar-36	3.858%	7.639	CGB	0.97	167	163
4,482,000	CDA	3.250%	01-Jun-36	3.880%	7.784	CGB	0.99	3,489	3,448
1,640,000	CDA	3.500%	01-Dec-36	3.909%	8.180	CGB	0.95	1,342	1,274
1,337,000	CDA	5.000%	01-Jun-37	3.928%	9.147	CGB	1.00	1,223	1,228
1,513,000	CDA	4.000%	01-Jun-41	4.039%	10.978	CGB	0.98	1,661	1,635
1,782,000	CDA	3.500%	01-Dec-45	4.097%	12.541	LGB	1.01	2,235	2,249
1,629,000	CDA	2.750%	01-Dec-48	4.151%	12.499	LGB	1.02	2,036	2,073
5,665,000	CDA	2.000%	01-Dec-51	4.195%	11.911	LGB	1.01	6,747	6,793
3,498,000	CDA	1.750%	01-Dec-53	4.201%	11.733	LGB	1.00	4,104	4,123
3,143,000	CDA	2.750%	01-Dec-55	4.197%	13.903	LGB	1.00	4,370	4,364
109,000	CDA	3.500%	01-Dec-56	4.192%	15.624	LGB	1.01	170	171
3,826,000	CDA	3.500%	01-Dec-57	4.193%	15.839	LGB	1.00	6,060	6,060
656,000	CDA	3.750%	01-Jun-59	4.203%	16.668	LGB	0.99	1,093	1,085
957,000	CDA	2.750%	01-Dec-64	4.210%	15.000	LGB	1.01	1,435	1,446
108,090,000								**70,545**	**70,539**

Source: Bank of Canada, BMO Capital Markets[i] Fixed Income Sapphire database

With the resulting coefficients, we calculate a tracking portfolio of futures contracts that should closely replicate the performance of the 41 bonds in the Canada government bond universe shown in Figure 3. The resulting portfolio of just four contracts is shown in Figure 4. The imposing transaction costs associated with buying and selling the entire universe of bonds, especially the off-the-run and old far off-the-run bonds, can be avoided, perhaps at the expense of some marginal tracking error, by constructing or replacing the entire portfolio with just four bond futures securities. Of course, a futures portfolio uses considerably less cash than a cash bond portfolio, so the substitute futures portfolio also frees up institutional cash for investment in other assets that are more difficult to replicate via derivatives.

FIGURE 4

CONTRACT CODE	CONTRACTS	CTD COUPON	CTD MATURITY	DV01 /CONTRACT	TOTAL DV01
CGZZ26	191	2.750%	01-Aug-28	1.882	3,594
CGFZ26	314	3.000%	01-Sep-31	5.049	15,853
CGBZ26	275	3.250%	01-Dec-34	8.274	22,753
LGBZ26	163	3.500%	01-Dec-57	17.375	28,321
					70,522

Source: Author Calculations

Duration Management / 10yf20y

Managers of cash portfolios may choose to use the LGB contract for duration management and would probably construct a trade very similar to a speculative trade on long-term forward rates by doing so. For example, a manager who wishes to lengthen the duration of their portfolio may choose to, in lieu of transacting in the cash market, buy LGB and sell CGB in amounts that reflect equal notional amounts of bonds. This trade would, of course, lengthen the portfolio's duration while roughly preserving its market value. Interestingly, it is the identical trade construction a speculative manager might take to construct a trade that is long the 10-year forward 20-year (10yf20y or the 20-year interest rate starting in 10 years) interest rate.

We show a plot of the 10yf20y rate in Canada[2] over the past five years in Figure 5 and note that the rate, which can often closely tracks market expectations of inflation, has risen significantly and steadily from a low of about 2% to around 4.5% in mid-September 2026. The duration extension trade, or the identical speculation on 10yf20y, would be profitable if inflation expectations and the implied long-term Canada interest rate were to fall back to lower levels, probably due to the resumption of expectations that inflation will remain under control in the far future.

FIGURE 5

Canada Bond 10yf20y Rate

Source: BMO Capital Markets[i] Fixed Income Sapphire database

A trade construction to be long the 10yf20y rate or to lengthen duration in a cash portfolio would replicate, in futures contracts, the sale of some notional of 30-year bonds to buy the same notional of 10-year bonds. Since the futures conversion factors for the CTD of the 10-year (CGB) contract and the 30-year (LGB) contract differ, the futures trade is not a 1:1 construction, but rather one that replicates the DV01 of a cash bond transaction. The construction is shown in Figure 6, where the investor generates a long exposure to 10yf20y rates of $20,000. The trade is mathematically identical, except for contract rounding, to buying $22.5 million notional value of 30-year bonds and selling the same notional value of 10-year bonds.

2 No observable 10yf20y yield exists. We derive the time series from constant maturity 10-year and 30-year Canada bond yields.

FIGURE 6

Lengthen Duration (Buy 30y to Sell 10y)/10yf30y Rate

POSITION	TICKER	CTD COUPON	CTD MATURITY	FUTURES CONVERSION FACTOR	DV01 /CONTRACT	TOTAL DV01	CTD NOTIONAL EQUIVALENT
-186	CGBZ26	3.250%	01-Dec-34	0.8273	8.3	-15,372	-22,482,775
205	LGBZ26	3.500%	01-Dec-57	0.9116	17.4	35,585	22,487,933
						20,213	5,158

Source: Author calculations

LGB for Alpha Generation

We anticipate ample opportunities for speculative investors to be involved in LGB to generate alpha in leveraged speculative portfolios as well.

Provincial Spreads

A large supply of long-maturity provincial bonds exists in Canada as provinces have funded ever-larger budget deficits in recent years. Until the launch of LGB, an investor had two options to hedge the directional interest rate exposure when trading long-end provincial spreads: Canada bonds or, perhaps, a swap if a willing counterparty could be found. Both markets have drawbacks, and liquidity is not always what one would like it to be. Speculative investors and certain cash portfolios could use the LGB contract to hedge the interest rate exposure of the 30-year provincial[3] spread, whether in widening or tightening trades efficiently.

As an example, examine the 5-year history of the British Columbia 30-year benchmark bond spread in Figure 7. Recent history shows the spread has fluctuated between about 65 and 105 basis points, with high prints repeatedly exceeding 100 tested as markets recovered from the COVID-19 panic of March 2020. However, the figure appears to show that, despite ever-larger financial burdens placed on the province over the past half-decade, BC long bond spreads have now tightened to about average levels.

FIGURE 7

BC 30-year Spread

Source: BMO Capital Markets[i] Fixed Income Sapphire database

3 We use a provincial bond example here but some investors may also utilize other credit products such as long-term corporate bonds.

An investor wishing to capitalize on a reversal that once again tests the 100-basis-point level without taking directional interest rate exposure could always sell BC bonds and hedge by purchasing Canada bonds with roughly the same maturity and interest rate sensitivity. Of course, long bond transactions sometimes have significant costs, especially if one needs to finance the trade by borrowing cash to buy the Canada bonds in the repo market. While trading and financing costs for the BC bond are unavoidable, an investor may be able to mitigate some of the DV01 hedge costs by using the LGB contract as shown in Figure 8. A purchase of just 86 LGB contracts would hedge a $10 million short position in BC 2057 bonds[4], and the hedge is self-financing, with no need to transact in the funding markets.

FIGURE 8

BC Spread Widener

POSITION	INSTRUMENT	CTD/BOND COUPON	CTD/BOND MATURITY	FUTURES CONVERSION FACTOR	DV01	TOTAL DV01
86	LGBZ26	3.500%	01-Dec-57	0.9116	17.358	14,928
-10,000,000	BC	4.600%	18-Jun-57	NA	14.871	-14,871
						57

Source: Author calculations

5-30 or 10-30 slope

Another popular interest rate strategy that can be enhanced with a liquid LGB contract is slope trades in 5-30 or 10-30[5]. Figure 9 shows the yield difference, or slope of the yield curve, between 5-year and 30-year constant maturity bond yields since mid-2021, a five-year history. The current slope of 60 basis points appears high relative to the range examined, but investors may still hold a view on steepening, or at the very least, on not flattening. That view is probably closely tied to their view on future inflation, but investors in a steepening trade currently enjoy very positive carry and rolldown[6].

FIGURE 9

Canada 5-30 Slope

Source: BMO Capital Markets' Fixed Income Sapphire database

4 $10 million of notional bond value results in a spread widening position of about $15,000 per basis point.

5 2-30 is also possible but we suspect fewer investors will be interested.

6 Not shown here but refer to "Canada Yields: A Good Time for Passive Management?" published August 2026 by Montréal Exchange.

In any event, an investor with a view that the slope of the 5-30 yield curve will not flatten or will steepen could construct the trade shown in Figure 10. The transactions shown in the figure create a $15,000 DV01 position to profit from an increase in the slope, or steepening of the curve, without transacting any cash bonds and without any requirement to raise cash or borrow bonds in the funding markets.

FIGURE 10

Canada 5-30 Slope

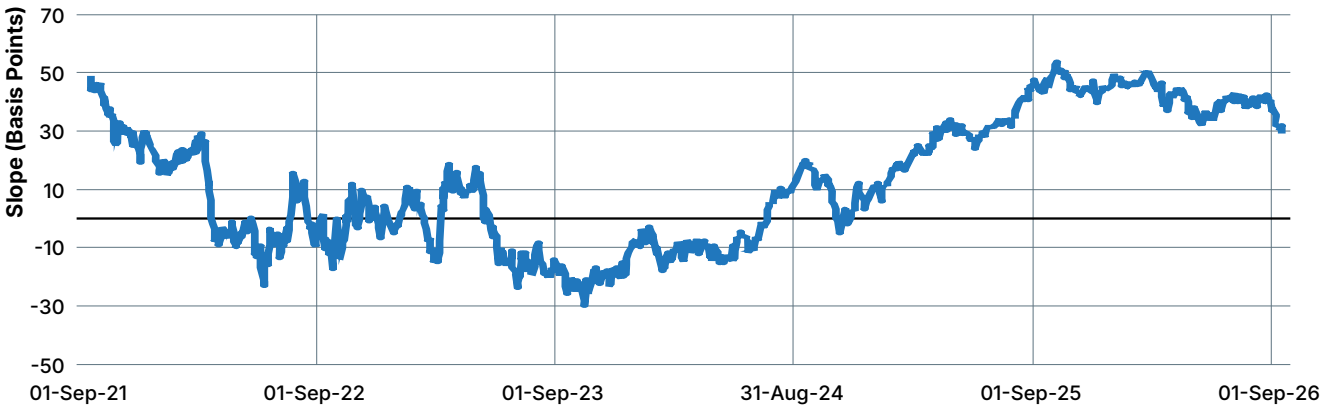
POSITION	TICKER	CTD COUPON	CTD MATURITY	FUTURES CONVERSION FACTOR	DV01 /CONTRACT	TOTAL DV01
298	CGFZ26	3.000%	01-Sep-31	0.8775	5.0	15,021
-86	LGBZ26	3.500%	01-Dec-57	0.9116	17.4	-14,928
						93

Source: Author calculations

Of course, the same methodology could be used to construct a 10-30 flattener, which is shown in Figure 11. Here the investor benefits if the 10-30 slope decreases and is somewhat indifferent to the 5-year rate, except as it affects the 10- and 30-year rates and their relationship to one another. Naturally, the trade is very similar and would be correlated to the trade construction shown in Figure 10, but the existence of several different points on the futures yield curve has now opened the possibility of 10-30, 5-30, 2-30, 2-5, 2-10, and 5-10 steepener and flattener trades for investors who are able to trade futures.

FIGURE 11

Canada 10-30 Slope



Source: BMO Capital Markets[i] Fixed Income Sapphire database

To facilitate the execution of such slope strategies, the Montréal Exchange (MX) allows trading Canadian bond futures curve spreads in a single transaction via a series of Inter-Group Strategies (IGS). These are listed strategies using a predefined ratio for each leg of the trade and are meant to reduce inherent execution risk. The ratios are standardized across expiries and set close to the corresponding DV01-neutral strategies. Figure 12 presents the key slope strategies available for trading:

FIGURE 12

STRATEGY DESCRIPTION	RATIO OF CONTRACTS	STRATEGY CODE (DECEMBER 2026 CONTRACTS)
2Y / 5Y GoC bond futures spread	3 : 1	3CGZZ26-1CGFZ26
2Y / 10Y GoC bond futures spread	11 : 2	11CGZZ26-2CGBZ26
2Y / 30Y GoC bond futures spread	10 : 1	10CGZZ26-1LGBZ26
5Y / 10Y GoC bond futures spread	2 : 1	2CGFZ26-1CGBZ26
5Y / 30Y GoC bond futures spread	7 : 2	7CGFZ26-2LGBZ26
10Y / 30Y GoC bond futures spread	2 : 1	2CGBZ26-1LGBZ26

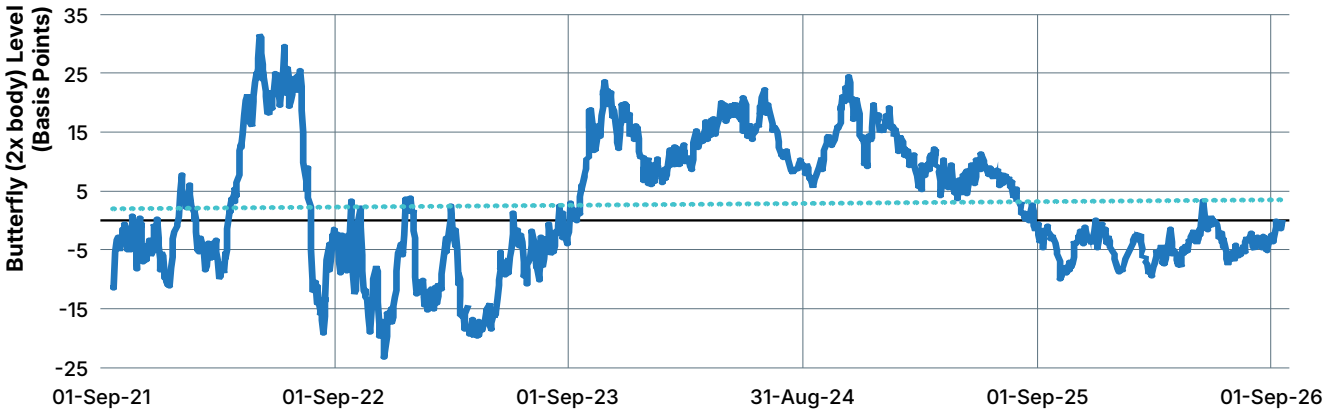
Source: Montréal Exchange

5-10-30 50/50 & Regression Butterflies[7]

A butterfly trade in bonds or swaps seeks to capitalize on a change in the degree of curvature in the yield curve rather than the curve's level or slope. Butterfly strategies with different weights for each bond can be constructed in myriad ways, but a good starting point for investors is the 50/50 butterfly where an investor buys (sells) a bond with a medium term to maturity and sells (buys) 50% of the interest rate exposure in two other bonds with maturities shorter and longer than the medium-term bond. We plot the 5-10-30 butterfly history for the past five years in Figure 13.

FIGURE 13

50/50 5-10-30 Butterfly



Source: BMO Capital Markets[i] Fixed Income Sapphire database

With the LGB contract, butterfly trades such as 5-10-30 can be created entirely in futures contracts[8]. Figure 14 constructs the 50/50 weighted butterfly in Canada futures contracts for 5-10-30 using 5-year Canada bond futures (CGF), 10-year futures (CGB), and the new 30-year futures (LGB). As shown, the trade is short the body of the bond butterfly and would profit if yield curvature becomes more pronounced – the butterfly time series moves higher on the chart. The trade construction requires no participation in illiquid long-term swaps and is self-financing rather than requiring the manager or their firm to continually transact in the repo/reverse repo markets to borrow bonds or cash.

7 Some managers refer to butterfly trades as bullet/barbell trades.

8 For a more complete discussion of a butterfly strategy in futures contracts, refer to "Understanding 2-5-10 Butterfly Trades in Futures" published by Montréal Exchange in May 2021.

FIGURE 14

50/50 5-10-30 Butterfly

POSITION	TICKER	CTD COUPON	CTD MATURITY	FUTURES CONVERSION FACTOR	DV01 /CONTRACT	TOTAL DV01	PERCENT WEIGHTS
198	CGFZ26	3.000%	01-Sep-31	0.8775	5.0	9,980	-49.9%
-242	CGBZ26	3.250%	01-Dec-34	0.8273	8.3	-20,001	100.0%
58	LGBZ26	3.500%	01-Dec-57	0.9116	17.4	10,068	-50.3%
						48	-0.2%

Source: Author calculations

Other trade constructions can mitigate some of the inherent directionality embedded in butterfly trades, though this is less of a factor with a 5-10-30 butterfly than with a 2-5-10 butterfly, for example. The latter has a great deal of sensitivity to the front end of the yield curve, whereas the former is less influenced by Bank of Canada monetary policy expectations. However, Figure 15 shows that, using one year of yield history for the cheapest-to-deliver bonds, an investor could appropriately weight a 5-10-30 butterfly to better compensate for directionality by creating a butterfly with 37.3%/100%/62.5% weights in CGF, CGB, and LGB. The regression-weighted butterfly, like the 50/50 butterfly, is DV01 neutral in total and should have less embedded directionality and less sensitivity to slope than the 50/50 version.

FIGURE 15

Regression Weighted 5-10-30 Butterfly, 1-year

0.592

POSITION	TICKER	CTD COUPON	CTD MATURITY	FUTURES CONVERSION FACTOR	DV01 /CONTRACT	TOTAL DV01	PERCENT WEIGHTS
148	CGFZ26	3.000%	01-Sep-31	0.8775	5.0	7,460	-37.3%
-242	CGBZ26	3.250%	01-Dec-34	0.8273	8.3	-20,001	100.0%
72	LGBZ26	3.500%	01-Dec-57	0.9116	17.4	12,498	-62.5%
						-42	0.2%

Source: Author calculations

As with the previous slope strategies, Montréal Exchange allows trading Canadian bond futures butterflies in a single transaction via IGS functionality. The following table presents the key butterfly strategies available for trading, the predefined weights of the contracts, and an example strategy code for the December 2026 futures contracts:

FIGURE 16

STRATEGY DESCRIPTION	RATIO OF CONTRACTS	STRATEGY CODE (DECEMBER 2026 CONTRACTS)
2Y / 5Y / 10Y GoC bond futures butterfly	6 : -4 : 1	6CGZZ26-4CGFZ26+1CGBZ26
2Y / 10Y / 30Y GoC bond futures butterfly	10 : -4 : 1	10CGZZ26-4CGBZ26+1LGBZ26
2Y / 5Y / 30Y GoC bond futures butterfly	10 : -7 : 1	10CGZZ26-7CGFZ26+1LGBZ26
5Y / 10Y / 30Y GoC bond futures butterfly	7 : -8 : 2	7CGFZ26-8CGBZ26+2LGBZ26

Source: Montréal Exchange

Futures Basis

As with all futures contracts, investors can use LGB contracts and the futures basis[9] to capitalize on the relative difference in value between futures contracts and bonds. A long position in basis, which seeks to profit from an increase in the value of bonds relative to futures contracts, is shown in Figure 17. In this example, the investor buys $20 million of the Canada 2057 bond, the cheapest-to-deliver bond for the LGBZ26 contract, and simultaneously sells 182 contracts in an interest-rate-neutral trade to buy the futures basis. The investor could be motivated by a relatively cheap bond (equivalently, a low gross basis or a high implied repo level for the futures basis) or even by an expectation to exercise the embedded Wildcard option in the short futures position[10].

FIGURE 17

Long Futures Basis

POSITION	INSTRUMENT	CTD/BOND COUPON	CTD/BOND MATURITY	FUTURES CONVERSION FACTOR	DV01	TOTAL DV01
-182	LGBH22	3.500%	01-Dec-57	0.9116	30.566	-55,630
20,000,000	Canada	3.500%	01-Dec-57	NA	27.864	55,728
						98

Source: Author calculations

Invoice Spread

Aggressive investors may choose to trade invoice spreads using LGB contracts. An invoice spread is the all-derivative equivalent of a swap spread trade where the bond is replaced by a physical delivery futures contract[11]. The asset swap level[12] on the Canada 2057 bond for the past 18 months is depicted in Figure 18 and has ranged between about 0 and +20 basis points.

FIGURE 18

Canada 3.5% 2057 Swap Spread

Source: BMO Capital Markets[i] Fixed Income Sapphire database

9 Futures basis is an example of a cash-and-carry arbitrage trade. In this case between the cheapest-to-deliver bond and the LGB contract.

10 For a discussion on the Wildcard option in a different contract, refer to "CGB Case Study: Wildcard Option Exercise" published by Montréal Exchange in 2019.

11 Interested investors can refer to "A Closer Look at Swap/Invoice Spread Opportunities."

12 A yield/yield asset swap in this case. The difference between the yield of the bond in the cash market and the yield of a conventional vanilla swap that expires on the same date as the bond matures.

The spread has moved from a high of +20 basis points in late summer 2025 to about 0 in the third quarter of 2026, leaving about 20 basis points to increase if that trend were to reverse. A Portfolio Manager with such a view could sell bonds and receive fixed in swaps to construct their trade. To remain duration neutral, the manager would sell the same DV01 as they transact in the swap market. In our Figure 19 example, where we substitute LGB contracts for the bond sale, with a swap notional of $20 million CAD, that DV01 is just under $35,000 and is matched with a sale of 199 LGBZ26 contracts. The investor would benefit by approximately $35,000 for each basis point that the spread tightens[13], or moves higher to a more positive value, in Figure 18.

FIGURE 19

Invoice Spread/Swap Spread Tightener

POSITION	INSTRUMENT	CTD/BOND COUPON	CTD/SWAP MATURITY	FUTURES CONVERSION FACTOR	DV01	TOTAL DV01
-199	LGBZ26	3.500%	01-Dec-57	0.9116	17.358	-34,543
20,000,000	IR Swap	4.204%	01-Dec-57	NA	17.291	34,582
						39

Source: Author calculations

Other Possibilities

Intraday Hedging

As we argued when the 2-year (CGZ) bond contract was launched, the fast and easy execution of futures contracts relative to bonds, and especially relative to swaps, makes them an ideal instrument for intraday hedging. For example, imagine a Portfolio Manager who knows that they will receive a cash inflow to their portfolio that needs to be invested today and that some portion of that cash will be allocated to the long end, perhaps to provincial bonds. However, the security selection process can sometimes be slow, so the cash needs to be "parked" temporarily, in a correlated instrument to avoid underperformance if market developments occur before a suitable security is selected for the portfolio. As with CGZ, CGF and CGB, LGB can be utilized by fixed income managers to immunize cash positions against market movements while decisions are being made. A similar argument can be made for bank dealing desks that are making markets in long-term Canadian swaps[14] for speculators or corporate clients.

"True" Mortgage Hedging

A typical Canadian mortgage with a 30-year amortization and a 5-year reset is difficult to hedge as both the mortgagee and mortgagor have interest rate exposure to forward rates rather than just to spot rates. For example, the bank writing the mortgage should hedge 5-year spot rates, 5yf5y rates[15], 10yf5y rates, 15yf5y rates, etc. to hedge perfectly. Banks are efficient hedgers, of course, but have had to rely on swaps or mismatched maturities, such as CGB, in the past to hedge this exposure, and hedging may not even have been possible for some smaller entities. With the LGB contract, almost any-size entity could create a better hedge to mortgage exposure more cheaply. One could attain exposure, for example, to 5-year spot using CGF, 5yf5y using a combination of CGF and CGB contracts, and 10yf20y using CGB and LGB for a better mortgage exposure hedge than could be attained without the LGB contract.

13 The spread shown here is the asset swap, or the yield of the bond compared to the swap, so +20 means the bond trades at a yield 20 basis points higher than the swap.

14 Or corporate bonds, provincial bonds, etc.

15 5yf5y is the 5-year forward 5-year rate or the 5-year interest rate starting 5-years from today.

Cross currency

The LGB contract can also be utilized to trade the spread between the long end of the Canada yield curve and that of other countries, such as the USA. This strategy seeks to capitalize on relative changes in the interest rate spread between the two countries and can be created easily, much like an investor can buy or sell the 10-year CGB contract against an equivalent foreign 10-year bond futures contract. Note that in order to implement this strategy, an investor must consider the proper exchange rate when determining the number of contracts to trade using the DV01 neutral approach.

Investors interested in this trade should be mindful of the LGB contract's very long-term nature and any differences in embedded option value, of course, and choose their trade construction carefully.

Directional Speculation/Algorithms

The introduction of a liquid LGB contract opens Canada to international participation in long-maturity bonds, as this segment of the cash bond market has historically been dominated by domestic investors. Many international investors have been dissuaded from participating due to the onerous costs associated with financing bond long or short positions in what is sometimes viewed as a niche market relative to much larger bond markets in other developed nations.

When trading the LGB contract, there is no need to fund trades in Canadian dollars or to borrow bonds from Canadian dealers with whom these clients may not even have trading relationships. Eventually, LGB may be incorporated into algorithmic trade models or utilized as a macro trading instrument by international clients who have avoided the Canadian market in the past[16]. New entrants to the Canadian long-bond market via LGB may benefit from the brief Appendix describing the long-maturity bond market in Canada.

16 However, as with the CGF (5-year) and CGZ (2-year) contracts, we expect adoption of the LGB contract by speculative models to take some time before it is observed.

Appendix

An Odd Characteristic of the Long End

If the launch of LGB contracts is an investor's first dalliance with the Canadian long end, we would be remiss not to mention that long-term bond yields sometimes defy logic in Canada.

In the past, we have cited the out-of-vogue Liquidity Preference Theory of interest rates to explain why bonds with long maturity dates trade at lower yields than one would think, and lower yields than our nearest comparator country, the USA. Under this theory, large domestic institutions with conservative holdings (i.e., a lot of government bonds that are bought and held for very long periods), such as pension and insurance companies, value long-term bonds for their immunization properties against long-term liabilities. These institutions can, and often do, buy large portions of each Canada long-term maturity bond not for the yield, but for the follow-on effects that holding assets with durations that match, or almost match, the duration of their liabilities have on the volatility of their funding ratios. This can make some institutions price-insensitive when buying certain bonds and drive yields to levels so low that long-term Canada bonds are no longer a sensible buy-and-hold investment for other investors[17].

A result of the above theory is that Canadian 30-year yields are often lower than those of the United States, and the 10-30 slope is almost always flatter than that of the U.S., sometimes drastically so. For instance, Figure 20 shows the level of 10-30 slope in both countries. In fact, 10-30 in Canada has sometimes been 60-80 basis points flatter than the same yield curve measure in the U.S. and has rarely risen above 70 basis points, while the latter has risen well above 100 basis points for long periods of time.

FIGURE 20

10-30 Slope, Canada & US Constant Maturity Bonds

Source: BMO Capital Markets' Fixed Income Sapphire database

Although currently about equal, perhaps an indication that the niche nature of the long-end Canadian bond market has begun to change, investors new to the Canadian long-end bond market may need to recalibrate their expectations to account for this significant anomaly in the market.

17 For more, refer to "Long Maturity Canada Yields Are Not For You" published by Montréal Exchange in October 2018.

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