MONTRÉAL EXCHANGE

U25-Z25 Roll Update

Q3 / August 2025

QUARTERLY ROLL Summary

The first notice for September futures contracts is August 29th, a business day prior to first delivery Tuesday, September 2nd, 2025, which falls on the next business day following the Labour Day holiday. The holiday might prompt early contract roll trades as managers and dealers attempt to close their September contracts early and head to cottage country, whether in Muskoka, the Laurentides, or the Lakes District. As a result, the liquid dates of the roll from September to December contracts should occur between August 25th and 27th. For similar reasons, dealing desks staffed by less experienced managers sometimes experience more volatile roll pricing as larger risk takers are out of the office for the late summer roll trade.

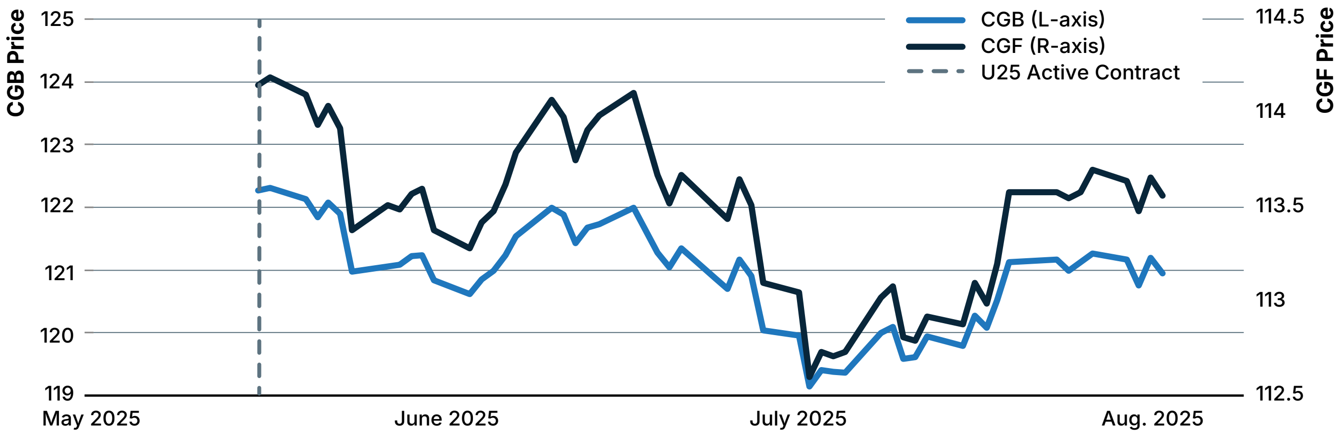
The overnight repo rate is 2.76% and has remained there for over five months as the Bank assesses the impact of trade policy in the U.S. Although it is still expected to fall another quarter point, only about a 50% chance of a 25-basis point cut in the Bank of Canada Target rate is priced in (at the time of writing) for the December contract delivery dates. The December Two-Year Government of Canada Bond Futures (CGZ™) and Five-Year Government of Canada Bond Futures (CGF™) contracts have cheapest-to-deliver (CTD) bonds with coupons of 2.5% and 2.75%, respectively, so the timing option, the option where the short futures position can choose to deliver early or late, will be in play during the coming quarter for at least one of those contracts.

Speculative Positioning

There were a couple of medium-term (weeks, not months) trends established during the current quarter that speculative accounts may have embraced. Specifically, a 15-session sell-off between the end of June and mid-July was reversed into a strong rally, which may still be in play, as shown in Figure 1.

FIGURE 1

CGF & CGB Price, U25s



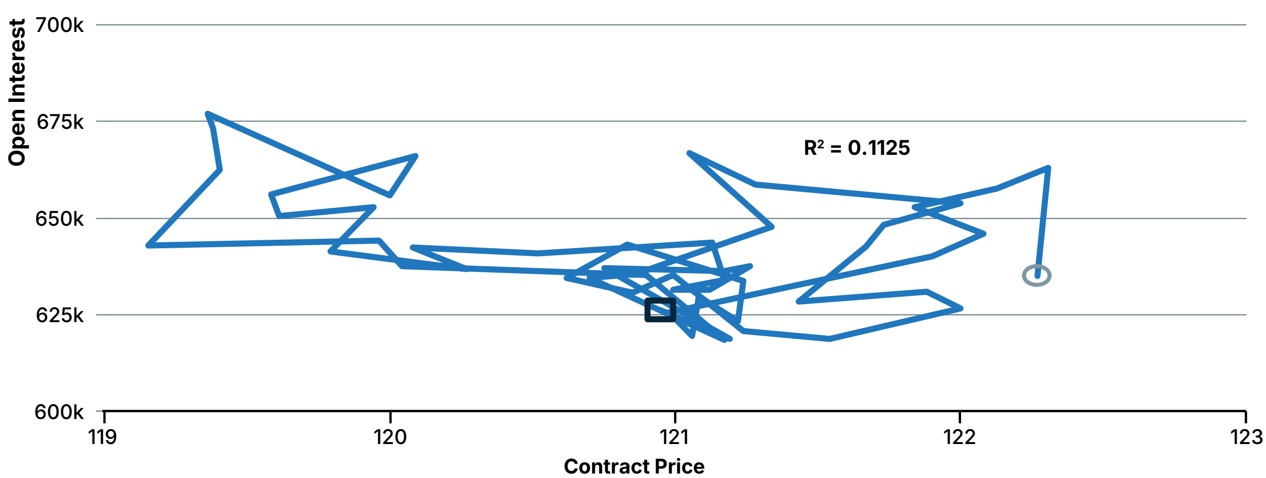
Source: Montréal Exchange

Trend-following models, which are usually indifferent to the relative value between bonds and futures contracts, are probably still long at the Canada 5-year or 10-year points since the recent bull trend has been paused but not broken. Sophisticated models may be capable of reducing risk since the positions have not been making profits recently, but we suspect most models have not triggered an exit.

Measuring the correlation between open interest and contract price, assuming that high correlation means algorithmic models steadily added positions if prices trended, yields no new insights this quarter. In Figure 2, we plot the contract price versus the open interest and find that, while the r-squared of 0.11 is higher than last quarter's, it remains well below that observed in previous quarters when this measure was a good predictor of speculator positioning.

FIGURE 2

CGBU25 Price versus Open Interest



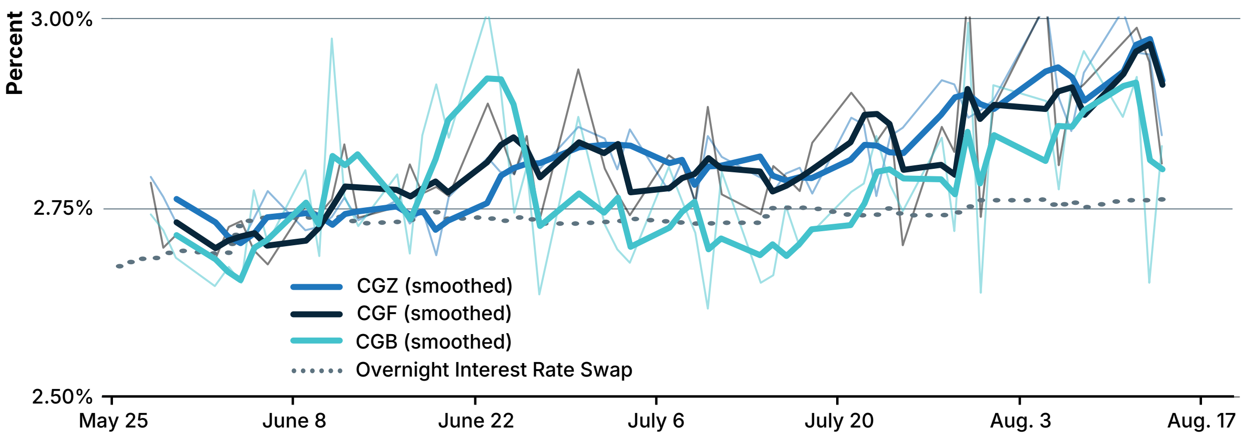
Source: Montréal Exchange

One source of information that we use to understand the possible positioning of algorithmic models is the basis market. Algorithmic models are unlikely to incorporate information about the futures basis (essentially the relative value of futures contracts relative to bonds) in their buy/sell decisions and can drive this arbitrage market to unusually rich or cheap levels if they participate extensively.

This quarter, especially since the break in the early July sell-off and subsequent rally in bond prices, futures contracts have reliably traded rich to bonds, as shown in Figure 3, where the implied repo rate for the contract has consistently been above the Overnight Interest Rate Swap (OIS) rate. Note that, unlike previous quarters, the "correct" implied repo for CGF and Ten-Year Government of Canada Bond Futures (CGB™) contracts is not below the OIS rate but almost exactly on it due to the lack of any option value—more on that subject in the appropriate section below. Nonetheless, contracts have traded expensive to bonds since mid-July, almost exactly when the price reversal occurred. We suspect that trend-following models began accumulating positions and still hold most of them. Oddly, this phenomenon is also observed in the CGZ contract, which usually trades very close to the OIS and experienced less of a price reversal in mid-July.

FIGURE 3

Implied Repo: CGZ, CGF, CGB



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

Cheapest-to-Deliver Switch

A cheapest-to-deliver (CTD) switch is extremely unlikely for any contract this quarter, especially for the CGZ and CGF contracts, which have only one bond eligible for the delivery basket at this time. Eligible bonds will be issued during the quarter, but they are unlikely to become CTD for some time.

For completeness, we include Figure 4, which shows our sensitivity testing results for the CGBZ25 (10-year) contract. As usual, potential switches to the CTD are very unlikely, requiring a huge sell-off, probably combined with an uncharacteristic steepening of the yield curve.

FIGURE 4

Dec33 Yield																
SLOPE	2.71%	2.86%	3.01%	3.16%	**3.31%**	3.51%	3.71%	3.91%	4.11%	4.31%	4.51%	4.71%	4.91%	5.11%	5.31%	5.51%
-5.0	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33
-3.1	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33
-1.2	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33
0.6	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33
2.5	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33
4.4	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Jun34**	**Jun34**
5.5	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Jun34	Jun34	Jun34
6.6	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Jun34	Jun34	Jun34
7.8	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Jun34	Jun34	Jun34	Jun34
8.9	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Jun34	Jun34	Jun34	Jun34	Jun34
10.0	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Jun34	Jun34	Jun34	Jun34	Jun34	Jun34

Source: Author Calculations

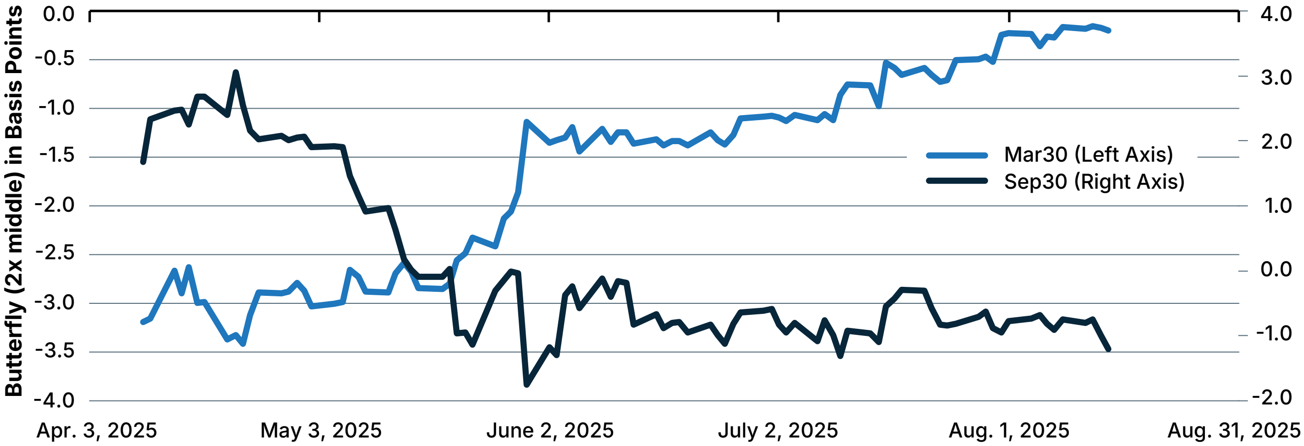
Relative Value of the CTD Bonds

Although the CGB (10-year) is often the most important for many portfolio managers, there is no cheapest-to-deliver change between the U25 and Z25 contracts. However, there is an interesting story unfolding in the CGF contract this quarter that does include a CTD change from the September to December contract.

In Figure 5, we show the divergence between the swap spread butterfly, our favoured relative value measure for bonds, for the March 2030 bond, the CTD for the September CGF contract, and the September bond of the same year, which will be the CTD for the December CGF contract. The March 30 bond has cheapened by about 2.5-3 basis points versus near neighbour bonds while the September 30 bond did roughly the opposite in the leadup to the start of June. We suspect this reflects savvy bond traders positioning themselves, perhaps in anticipation of the CTD change, but also in light of the richening of the auction bond as it becomes the benchmark. The phenomenon is noteworthy for future relative value trades, as we have mentioned repeatedly before.

FIGURE 5

Mar30 v. Sep30 Swap Spread Butterflies



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

Key Metrics & Notes

As usual, we present tables of key metrics for each contract this quarter in Figure 6, Figure 7, Figure 9, and Figure 10. We used closing prices on August 14th, but all December contracts still had zero open interest, so we used the exchange settlement price even though it is usually not a tradeable price before the roll begins.

CGBU25 to CGBZ25

There is no change to the probable CTD between the CGBU25 (10-year) and Z25 this quarter. As a result, the duration extension (actually a tiny contraction) is inconsequential, and the fair value of the roll will be stable during intraday yield changes. Of course, supply and demand for the front versus the back contract will keep the executable roll price dynamic.

Trend-following algorithms, which are typically price insensitive and cannot enter the delivery period with active positions, are likely long the 10-year contract now, as the bullish trend in bonds has not yet broken. One caveat is that the usual analysis, described above, fails to show that positions have been increased as prices increased. Futures basis positions carry very positively for the long basis holder (short futures position) so there will be little reason for these relative value managers to close their positions early.

For the first time in many years, we have calculated a wildcard value for the CGB of less than a cent per contract. This may change the roll dynamic as there is little chance of a wildcard payoff – hedge tails are small and the positive carry foregone is just too valuable compared to the small gains available by delivering early during late afternoon price rallies. If participants behave rationally, fewer CGB positions will be taken into delivery than in all recent quarters, although some dealing desks undoubtedly took advantage of the relatively rich contract (Figure 3) to establish arbitrage positions.

If algorithmic models bought during the rally, they would drive contract prices high enough to entice dealers to enter long basis trades in CGBU25. However, the dealing desk on the other side of those trades has no incentive to unwind the trade since the contract is still trading rich to bonds, and the dealer trade carries very positively in the delivery period. As a result, early sell orders should outstrip demand for the front contract. Watch for patient relative value managers to allow the roll price to fall (September contract price down relative to December price) before they consider unwinding their short contract positions and long bond hedges.

FIGURE 6

CGB Key Metrics

14-AUG-2025	CGBU25	CGBZ25	DIFFERENCE
Closing Price	120.950	120.170	0.780
Cheapest-to-Deliver (CTD)	CAN 3.250% Dec 2033	CAN 3.250% Dec 2033	No change
CTD Conversion Factor	0.823	0.8273	
Probable Delivery Date	29-Sep-25	31-Dec-25	
Gross Basis (cents)	5.1	17.6	
Net Basis (cents)	-0.9	-0.7	
Implied Repo (to Prob. Delivery)	2.83%	2.78%	
DV01/contract, current CTD	8.7	8.7	-0.5%
Open Interest	626,256	0	
CTD Outstanding (millions)	21,000	21,000	0
Front OI Multiple of CTD	3.0x	3.0x	

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

CGFU25 to CGFZ25

The March 2030 CTD for the CGFU25 contract is not eligible for the December contract basket, so the 2.75% September 2030 will become the CTD for the new active contract. For the September CGF, a long basis position carries very slightly positive (overnight rates and the CTD coupon are both 2.75%), so short futures positions might wait to collect all the carry income rather than forgo it by delivering early, much as they did in June. While managers technically should wait for the final delivery date, some will not, since the carry is so negligible and they will want to redeploy risk to other strategies. The wildcard option this quarter is worth just 0.8 cents per futures contract but we've seen some apparent activity[1] in this strategy, which is unusual for the 5-year contract.

Trend-following algorithms appear, by some measures, to have accumulated positions on the long side during the recent sustained bond rally. They have an incentive to close and will likely become motivated sellers of September contracts. As with the CGB contract this quarter, the futures have traded rich relative to bonds, so dealing desks may have accumulated long basis positions. Unlike the CGB contract, long CGFU25 basis positions are nearly flat so dealers will want to wait for fair pricing on the roll but will be less inclined to go into delivery unless they believe in the wildcard potential to extract additional profits.

The fair value of the roll[2] will be unstable intraday as the DV01 extension is just over 10%. Leaving a standing order with a dealer this quarter will likely get your order filled, but only because the fair value of the roll has changed by up to 3 cents on a 5-basis point yield move intraday. Avoid it if the trade price is important for your portfolio[3].

1 See the June Delivery Summary section below.

2 Refer to the recently published explainer and case study "Calculating Fair Value of the CGB Roll" for an explanation, both theoretical and empirical, of how we arrive at our fair value numbers in these updates.

3 Not a joke. Some portfolio strategies are indifferent to relative prices.

FIGURE 7

CGF Key Metrics

14-AUG-2025	CGFU25	CGFZ25	DIFFERENCE
Closing Price	113.560	114.020	-0.460
Cheapest-to-Deliver (CTD)	CAN 2.750% Mar 2030	CAN 2.750% Sep 2030	Change!
CTD Conversion Factor	0.8735	0.8673	
Probable Delivery Date	02-Sep-25	01-Dec-25	
Gross Basis (cents)	-1.5	-4.3	
Net Basis (cents)	-1.4	-3.9	
Implied Repo (to Prob. Delivery)	2.81%	2.89%	
DV01/contract, current CTD	4.8	5.3	10.6%
Open Interest	242,041	0	
CTD Outstanding (millions)	33,000	26,250	-6,750
Front OI Multiple of CTD	0.7x	0.9x	

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

CGZU25 to CGZZ25

The 2.75% May 2027 bond will exit the deliverable basket as the December contract becomes the active contract and will be replaced by the 2.5% August 2027. With a coupon lower than the current CORRA rate, the new active contract should trade at a negative gross basis and, unless the Bank of Canada cuts its Target Rate during the quarter, will carry negatively in the December delivery period.

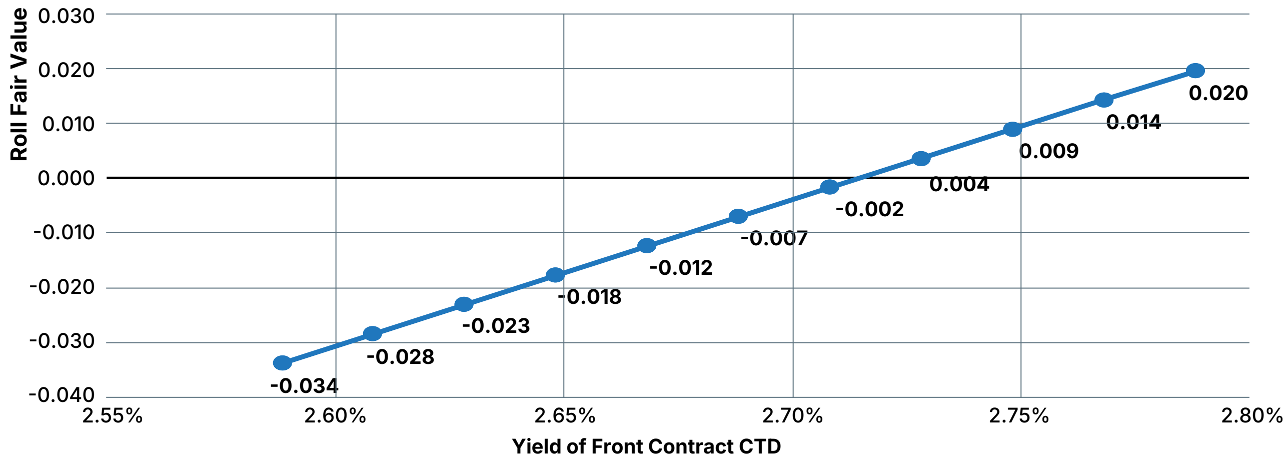
For now, a long basis trade on the September contract has just slightly negative carry, and we suspect most contracts that go into delivery will be delivered on or shortly after the first delivery date as the option value is perpetually low on this contract.

With the large open interest in this successful contract, we wonder whether speculative trend following models are now involved. The fact that the contract has traded rich to bonds, unusual for the front end of the yield curve in Canada, suggests that price-indifferent investors have embraced this contract. If so, they are long contracts and, given the large open interest, may be a driver to cheapen the front contract relative to the December contract as they initiate roll transactions to the new contract or outright unwinds.

As in most quarters, managers should exercise caution when leaving standing orders this quarter as the CGZ roll fair value pricing can easily fluctuate by a couple cents intraday due to the 14.4% DV01 extension per contract, as modeled in Figure 8. Intraday moves of 10 basis points have not been common recently at the 2-year point of the curve but remain a possibility, of course.

FIGURE 8

CGZU25/CGZZ25 Roll Fair Value v. Rate Level, Aug 26/25



Source: Author Calculations

FIGURE 9

CGZ Key Metrics

14-AUG-2025	CGZU25	CGZZ25	DIFFERENCE
Settle Price	105.475	105.495	-0.020
Cheapest-to-Deliver (CTD)	CAN 2.75% May 2027	CAN 2.50% Aug 2027	Change!
CTD Conversion Factor	0.9491	0.9452	
Probable Delivery Date	02-Sep-25	01-Dec-25	
Gross Basis (cents)	-0.6	-7.4	
Net Basis (cents)	-0.4	0.1	
Implied Repo (to Prob. Delivery)	2.85%	2.76%	
DV01/contract, current CTD	1.8	2.0	14.4%
Open Interest	325,382	0	
CTD Outstanding (millions)	28,500	30,000	1,500
Front OI Multiple of CTD	1.1x	1.1x	

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

LGBU25 to LGBZ25

Low open interest and the absence of a delivery period or wildcard option make the LGB roll a non-event for fixed income managers since there is more action in the belly and front end of the curve at the 30-year point to attract much attention currently. Typically, only some contracts are closed during the roll period for the other physical delivery contracts; the open interest does not usually approach zero until a few days before the delivery date midway through the contract expiry month. No contracts entered the delivery period last quarter, but that is atypical.

We expect that, unless there are significant fluctuations in rate expectations that tilt the front end of the Canadian yield curve, 30-Year Government of Canada Bond Futures (LGB™) rolls will be very orderly and trade at or near fair value, as is usually the case. With just a tiny DV01 change between the two contracts, the roll will likely trade within a very narrow range, making it safe to leave standing roll orders at dealers, even if rates move intraday.

FIGURE 10

LGB Key Metrics

14-AUG-2025	LGBU25	LGBZ25	DIFFERENCE
Closing Price	146.200	145.700	0.500
Cheapest-to-Deliver (CTD)	CAN 3.500% Dec 2057	CAN 3.500% Dec 2057	No change
CTD Conversion Factor	0.6452	0.6462	
Delivery Date	18-Sep-25	18-Dec-25	
Gross Basis (cents)	8.1	25.8	
Net Basis (cents)	0.0	-4.1	
Implied Repo (to Delivery)	2.76%	2.88%	
DV01/contract, current CTD	27.6	27.5	-0.2%
Open Interest	639	0	
CTD Outstanding (millions)	14,000	14,000	0
Front OI Multiple of CTD	0.0x	0.0x	

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

June 2025 Delivery Summary

Two unusual events occurred during the delivery period for bond futures in June. First, we saw an exceptionally large early delivery of CGF (5-year) contracts on June 9th after a late-day price increase on June 6th made the exercise of the Wildcard option profitable. This is not too unusual since small wildcard plays have been previously observed (or rather, we think we have observed). Still, a transaction of over 17,000 contracts is highly unusual for this contract, even though we doubt the early delivery resulted in significant profits.

Second, wildcard exercises appear to have occurred in the CGB, which also is not unusual. However, an interesting delivery of over 7,800 contracts occurred when the price of the 10-year CTD surged by almost 14 cents on the afternoon of June 18th. Coincidentally, this was the very last day that the wildcard option could possibly be exercised – the bond market rallied in the final three hours before the expiration of the wildcard. This was an exceptional stroke of luck for a reasonably large wildcard transaction.

Wildcard Option Value

Despite activity in June deliveries, we believe that 2025 and the higher coupon bonds, which have become the cheapest-to-deliver, accompanied by lower CORRA, have eliminated almost all potential profit in wildcard options. Prior to this quarter, there was some minimal value associated with the CGF and CGB contracts, but very little relative to prior years. Higher conversion factors and positive or flat carry during delivery appear to have more than offset the potential for afternoon price surprises since the change of government in the U.S. this year.

The CGFU25 wildcard is worth just less than 0.8 cents per contract. If the wildcard is exercised, it will probably be relatively unprofitable given the 14.5% hedge tail for the contract, a fact that has been true of CGF contracts for a long time. For quite some time in this quarter, sophisticated managers could acquire this option for less than a zero price (futures traded way too expensive relative to bonds), so there could be some participation as basis positions built up at dealing desks are closed out during the delivery period.

Will this quarter mark the complete collapse of CGB wildcard participation? It seems likely that the contract carries very positively during the delivery period, making early exercise expensive as the short position must forgo significant positive carry to deliver early. Additionally, the 3.25% coupon for the CTD bond means the potential payout is a relatively small hedge tail of 21.5%. The combination of these factors results in an option value, arrived via a simulation model, of just 0.3 cents per contract, lower than we have ever calculated in the past. As with the CGF contract, we suspect smart managers accumulated positions at implied negative option values during the quarter, and those positions will be taken into delivery, but we do not expect profitable wildcard exercise this quarter.

LOOKING FORWARD & Opportunities

- Cross-currency opportunities may be attractive, but managers should be wary of a slow decoupling between the Canadian and U.S. markets and economies. This may be a decades-long phenomenon, as we discussed recently[4].
- Swap spreads have become very tight, an anomaly we recently discussed[5]. Participants may want to investigate further if they have not already. Using futures contracts to transact swap spread trades (called an invoice spread when executed in futures contracts) is efficient for many portfolios.
- The yield curve is looking a little steep, given the level of 10-year bonds versus 30-year bonds. This is not a phenomenon confined to Canada though, and we plan to investigate whether it is an attractive opportunity soon.
- Pursuant to a Bank of Canada market notice published in March, the new Standard Terms for Canada's debt distribution framework will take effect on September 2nd. The Bank of Canada is also conducting its annual debt management strategy consultation tour in September/October 2025 to ensure a well-functioning market for GoC securities, which is key to further developments in the GoC bond futures market.

4 "Slow Decoupling Underway" published by Montréal Exchange in May 2025.
5 "Canada Swap Spreads" published by Montréal Exchange in August 2025.

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