CGZ	Two-Year Government of Canada Bond Futures
CGF	Five-Year Government of Canada Bond Futures
CGB	Ten-Year Government of Canada Bond Futures
LGB	Thirty-Year Government of Canada Bond Futures

MONTRÉAL EXCHANGE

M25-U25

Roll Update

May 2025

TMX

QUARTERLY ROLL Summary

In our update for the March roll, written in early February, we predicted that President Trump would start a global trade war that would disrupt global trade in ways not seen for over eight decades. Faithful readers, and virtually anyone who keeps abreast of financial markets, will realize that our opening statement this quarter is 100% untrue. We start with such a falsehood to draw attention to the fact that 1) predictions of any sort are subject to failure, more so now than at any other time, perhaps, 2) so much has happened during the time the M25 contracts were the active contract that we cannot possibly summarize everything here, and 3) just a single quarter of a 16-quarter presidency has elapsed so participants bothered by the increased volatility this quarter need to find a way to hang on for considerably more time.

First notice for June futures contracts is May 30th, a business day prior to first delivery on the next business day, June 2nd, 2025. There are no holidays to distort the usual roll dates this quarter[1] and the liquid dates of the roll from June to September contracts should occur between May 27th and 29th.

The overnight repo rate is about 2.75% and has remained there since mid-March but is expected to fall another quarter point, or so, by the September delivery dates. Importantly, the Montréal Exchange fixed income contracts with a delivery period (all except the 30-year) have cheapest-to-deliver (CTD) bonds with coupons between 2.75% and 3% so the timing option, the option where the short futures position can choose to deliver early or late, will have a tendency toward late delivery since small amounts of carry can be earned by waiting.

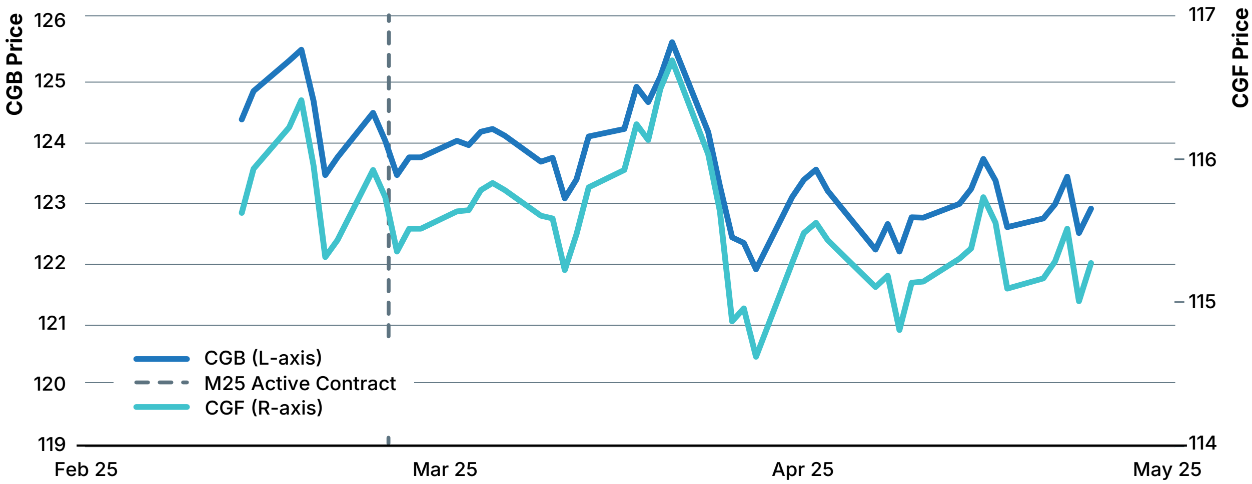
1 Except for the US Memorial Day on Monday May 26th that may slightly impact the CGB roll, which usually starts a few days prior to the other contract rolls.

Speculative Positioning

Whatever one's politics, it is hard to argue that the tariff policy in the U.S. has been kind to trend-following models. The price action of both the Five-Year Government of Canada Bond Futures (CGF™) and the Ten-Year Government of Canada Bond Futures (CGB™) June contracts is shown in Figure 1 where very few multi-day trends can be observed, even with 20/20 hindsight, in the market chop that has been a characteristic of pricing since late January.

FIGURE 1

CGF & CGB Price, M25s

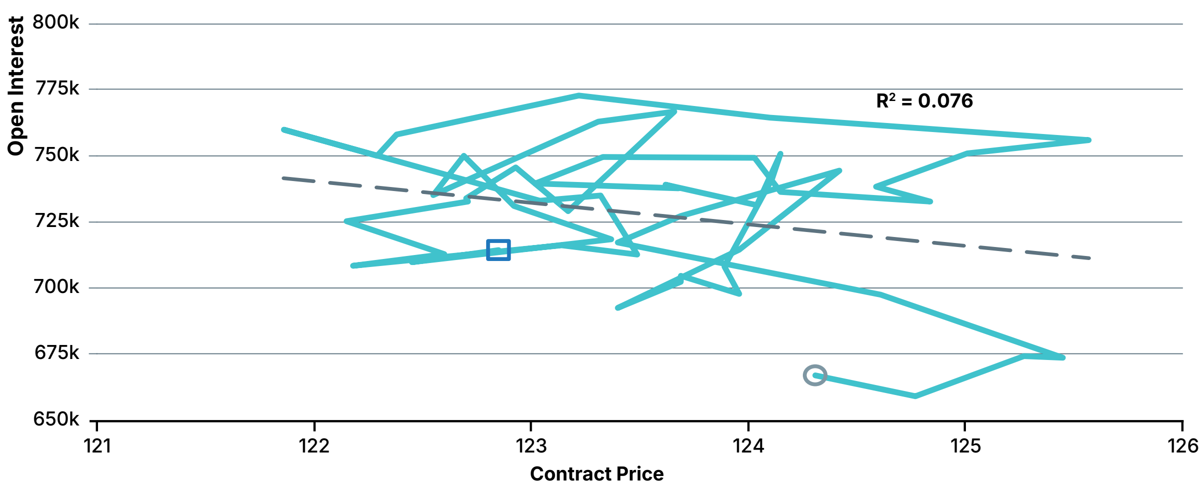


Source: Montréal Exchange

We speculate that trend following models are at low risk levels, perhaps waiting for trends to be established or recovering from losses sustained during some of the extreme reversals during the quarter. Our usual method of measuring the correlation between open interest and contract price, on the assumption that high correlation means algorithmic models were steadily adding positions if prices trended, yields no insight this quarter. The "no insight" conclusion corroborates our initial conjecture that trend models are only lightly positioned, if at all. Correlation between CGBM25 (10-year) price and open interest, for instance, has been observed during heavily trending markets at over 80% but this quarter is an extremely low 8%, as shown in Figure 2.

FIGURE 2

CGBM25 Price versus Open Interest

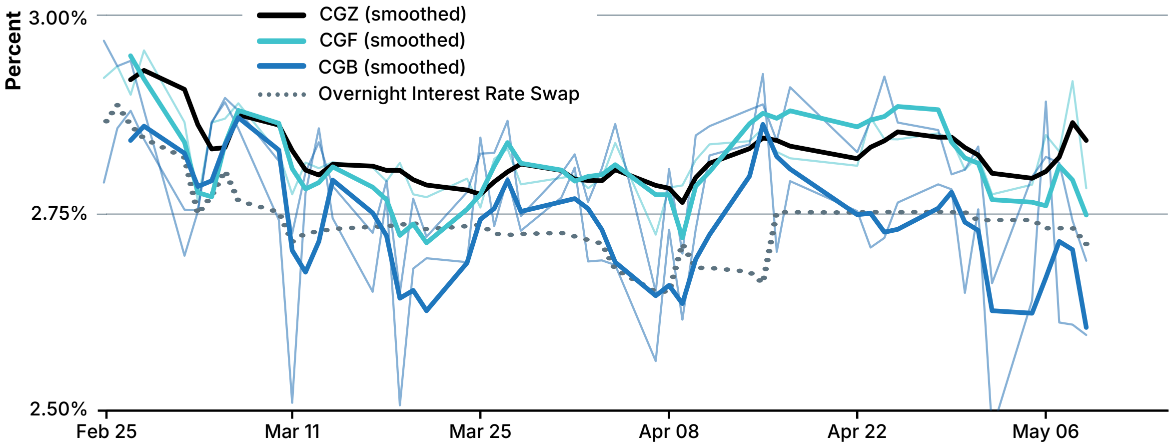


Source: Montréal Exchange

Another source of information we sometimes rely on is the behaviour of the basis market during the quarter. 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 are participating en masse. There is a little evidence to support the notion that algorithmic models, or other price-insensitive traders, were buying in the Canadian fixed income futures markets after the large mid-April reversal from plunging prices. We can deduce this from the fact that futures contracts were driven very rich (implied repo too high relative to the overnight interest rate swap market) between April 9th and April 30th as seen in Figure 3. This breakdown in the futures versus bond relationship will have some bearing on how many portfolios attempt to capitalize on the wildcard option in the June delivery month, as we will discuss below.

FIGURE 3

Implied Repo: CGZ, CGF, CGB



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

Cheapest-to-Deliver Switch

Although always a possibility, a cheapest-to-deliver (CTD) switch is not a factor in all Canadian physical delivery futures contracts this quarter. Our speculation that the 2057 would become the CTD for the LGBM25 (30-year) contract did come to pass and it should remain the CTD for that contract for many quarters.

For completeness, we include Figure 4, which shows our sensitivity testing results for the CGBU25 (10-year) contract, and, as usual, potential switches to the CTD are very remote possibilities. It would take a 100 basis point selloff combined with a historic steepening of the curve such that there was about 8 basis points of yield pickup from the December 2033 to the June 2034 to achieve a CTD switch. Unlike in prior years when such volatility was unimaginable, this scenario is, at least, imaginable even though it remains implausible since curves generally flatten as rates rise rather than the other way around.

2 The Montreal Exchange recently published an advisory notice to provide more clarity over the LGB June basket.

FIGURE 4

	Dec33 Yield															
SLOPE	2.49%	2.64%	2.79%	2.94%	**3.09%**	3.29%	3.49%	3.69%	3.89%	4.09%	4.29%	4.49%	4.69%	4.89%	5.09%	5.29%
-5.0	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33
-3.3	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33
-1.6	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33
0.2	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33
1.9	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Jun34
3.6	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Dec33**	**Jun34**	**Jun34**	**Jun34**
4.9	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Jun34	Jun34	Jun34	Jun34
6.2	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Dec33	Jun34	Jun34	Jun34	Jun34	Jun34
7.4	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Dec33	Dec33	Jun34	Jun34	Jun34	Jun34	Jun34	Jun34
8.7	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Dec33	Jun34	Jun34	Jun34	Jun34	Jun34	Jun34	Jun34	Jun34
10.0	Dec33	Dec33	Dec33	Dec33	**Dec33**	Dec33	Dec33	Jun34	Jun34	Jun34	Jun34	Jun34	Jun34	Jun34	Jun34	Jun34

Source: Author Calculations

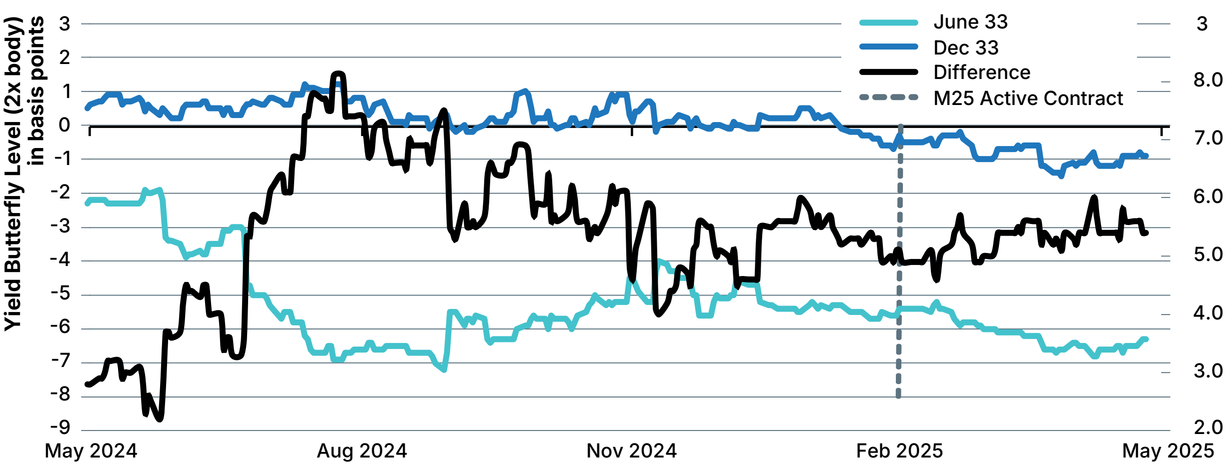
Relative Value of the CTD Bonds

Given the large open interest and general dominance of the CGB (10-year), the semi-annual change of the CTD is often important for many portfolio managers. This quarter, the contract cheapest-to-deliver changes from the June 2033 to the December 2033, and there is a 3.9% increase in the DV01 for the contract as a result, which is not very significant.

There is often a liquidity effect as a new bond becomes the CTD for the CGB contract – the new bond becomes the best possible hedge and the counter-instrument in basis trades so trading activity in the bond increases when it holds CTD status – but there is not much to see this quarter. Although the December 2033 has richened versus its peers on a yield butterfly measure, as shown in Figure 5, much of the small 1-2 basis point move was accomplished between mid-January and mid-April, well in advance of the roll from June to September contracts.

FIGURE 5

Jun33 v. Dec33 Yield Butterfly



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

Another point worthy of mention in the relative value space this quarter is the relative richness of the futures contract versus the hedging bond this quarter. As depicted in Figure 1, fixed income volatility and frequent reversals in price trends brought futures contracts to rich levels versus the slower-trading bonds; a situation observed in Figure 3 for the Two-Year Government of Canada Bond Futures (CGZ™), CGF (5-year) and CGB (10-year) contracts in mid-April. Participants who sold contracts when they were particularly rich relative to bonds may have entered basis trades where they were able to purchase a valuable wildcard option at a negative price.

Key Metrics & Notes

As usual, we show tables of key metrics for each contract this quarter in Figure 6, Figure 8, Figure 10, and Figure 11. We used closing prices on May 9th but all September 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.

CGBM25 to CGBU25

The roll from CGBM25 to U25 will usher in the 3.25% December 2033 bond as the new cheapest-to-deliver when the 2.75% June 2033 drops out of the deliverable basket. The duration extension is minor at less than 4%.

Trend following algorithms, typically price insensitive and unable to go into the delivery period with active positions, are probably at minimal risk currently for reasons described above. Futures basis positions carry positively for the long basis holder (short futures position) so there will be little reason for anyone to be desperate to close positions. We expect the roll to be orderly and trade close to fair value for much of the roll period.

We suspect that a lot of CGB positions will be taken into delivery for wildcard plays since sophisticated players were likely accumulating long basis positions when the wildcard option was trading at negative prices (implied). These managers may close positions early now that the contract is closer to fair value but, if not, will be unwilling to roll at disadvantageous prices.

FIGURE 6

CGB Key Metrics

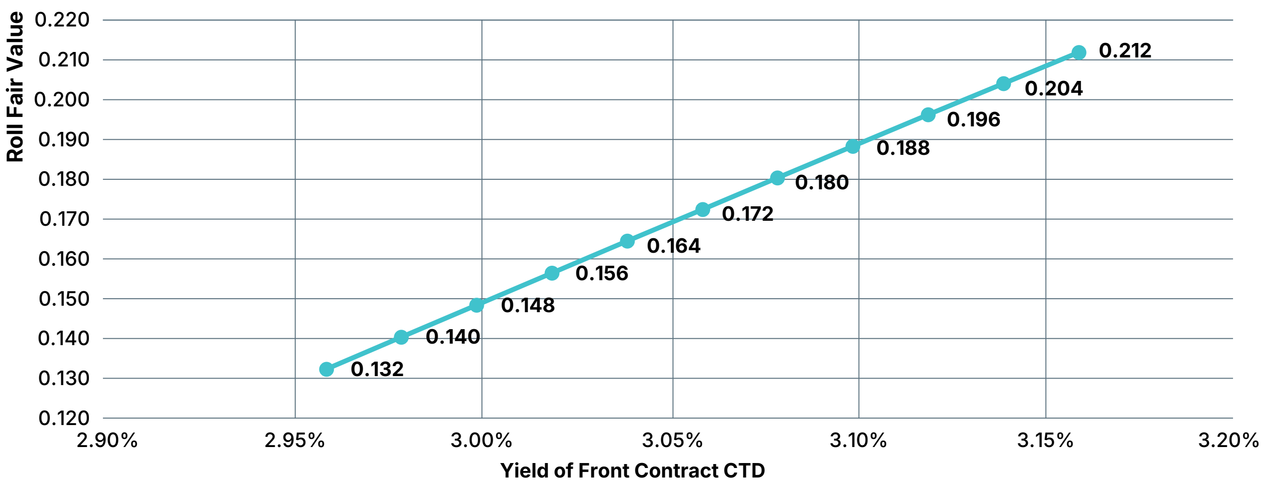
9-MAY-2025	CGBM25	CGBU25	DIFFERENCE
Closing Price	122.850	122.830	0.020
Cheapest-to-Deliver (CTD)	CAN 2.750% Jun 2033	CAN 3.250% Dec 2033	Change!
CTD Conversion Factor	0.7959	0.823	
Probable Delivery Date	30-Jun-25	29-Sep-25	
Gross Basis (cents)	3.1	13.4	
Net Basis (cents)	2.7	-3.0	
Implied Repo (to Prob. Delivery)	2.60%	2.88%	
DV01/100 of CTD	7.0	7.5	7.4%
Open Interest	714,299	0	
CTD Outstanding (millions)	19,000	21,000	2,000
Front OI Multiple of CTD	3.8x	3.4x	

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

Managers should keep in mind that the roll, due to the DV01 extension, is not as stable intraday as it is when there is no change to the CTD. Although the extension is small this quarter, volatility intraday can change the fair value of the roll by up to a few cents or more, as shown below for our calculated fair value as of May 9th. Recall that this instability has nothing to do with changing market expectations for short-term rates – that is an additional risk factor, of course – but is simply how the fair value of the roll changes as 10-year interest rates fluctuate during the day.

FIGURE 7

CGBM25/CGBU25 Roll Fair Value v. Rate Level, May 27/25



Source: Author Calculations

CGFM25 to CGFU25

Both the June CGF contract and the September have the same cheapest-to-deliver bond, which is also the 5-year benchmark. A long basis position carries very slightly positively (overnight rates and the CTD coupon are both 2.75%) so short futures positions might wait to collect all the carry income rather than forego it by delivering early. While managers technically should wait for the final delivery date, many 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 about a cent per futures contract, but we do not expect that many managers, outside of perhaps a few natural hedgers like dealing desks, will participate in the delivery period in this manner.

With no concentration in positions built up by algorithmic models, we predict balanced trade flow as no side, long or short, appears to have strong incentives to trade.

Additionally, fair value of the roll[2] should be very stable intraday as the two contracts have virtually the same DV01. For example, as of May 9th, we project that the May 27th fair value would be 0.87 and that a change of 10 basis points upwards or downwards would not change the fair value at all. Leaving standing orders this quarter is likely safe and will contribute to a roll price that trades close to fair value.

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.

FIGURE 8

CGF Key Metrics

9-MAY-2025	CGFM25	CGFU25	DIFFERENCE
Closing Price	115.270	114.460	0.810
Cheapest-to-Deliver (CTD)	CAN 2.750% Mar 2030	CAN 2.750% Mar 2030	No change
CTD Conversion Factor	0.8673	0.8735	
Probable Delivery Date	30-Jun-25	29-Sep-25	
Gross Basis (cents)	0.6	-0.1	
Net Basis (cents)	0.8	0.5	
Implied Repo (to Prob. Delivery)	2.69%	2.72%	
DV01/100 of CTD	4.5	4.5	0.0%
Open Interest	240,296	0	
CTD Outstanding (millions)	33,000	33,000	0
Front OI Multiple of CTD	0.7x	0.7x	

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

CGZM25 to CGZU25

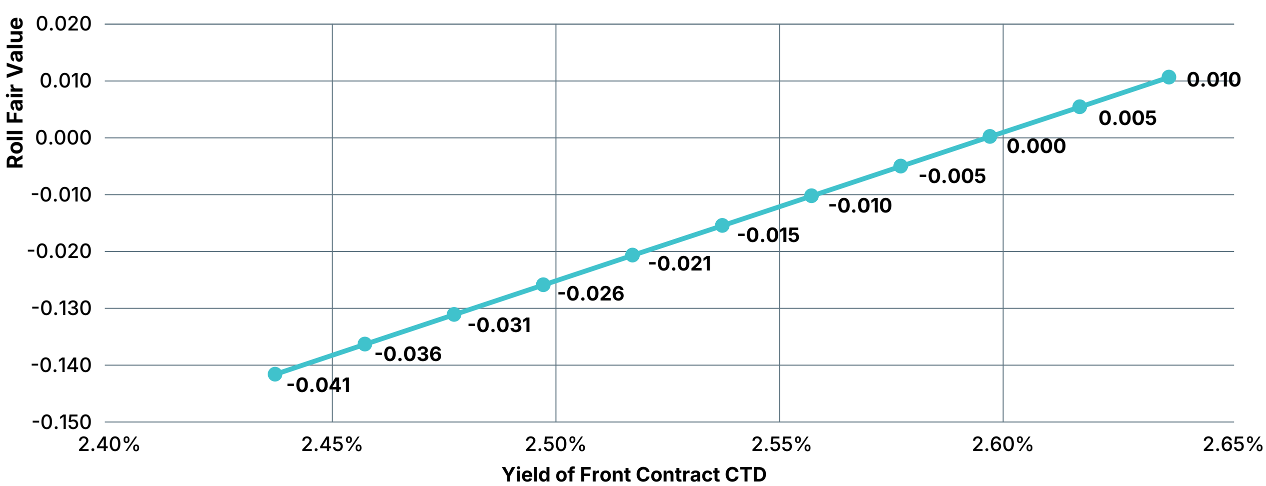
The September CGZ contract (2-year) will have the 2.75% May 2027 bond as its CTD, replacing the 3% February 2027. The June CGZ contract carries positively for long basis positions since overnight rates are now 2.75% and the coupon for the CTD is 3%. As a result, many positions, if they find rolling unfavourably priced, may choose to go into delivery. We believe the client base in the 2-year contract is particularly equipped to do so as speculative models have typically focused on other areas of the curve.

Unlike last quarter, which may have been an anomaly, we found no evidence of large speculative positions from trend following models in the contract this quarter. We anticipate that long futures positions will be slightly more eager to trade and anticipate selling pressure on the CGZM25 relative to the U25 during the roll.

Managers should be careful leaving standing orders this quarter as the CGZ roll fair value pricing can easily fluctuate by a couple of cents intraday as modeled in Figure 9. The 1 or 2 cent price change that is possible with intraday fluctuations of front-end rates is significant for this low duration contract.

FIGURE 9

CGZM25/CGZU25 Roll Fair Value v. Rate Level, May 27/25



Source: Author Calculations

FIGURE 10
CGZ Key Metrics

9-MAY-2025	CGZM25	CGZU25	DIFFERENCE
Settle Price	105.720	105.850	-0.130
Cheapest-to-Deliver (CTD)	CAN 3.00% Feb 2027	CAN 2.75% May 2027	Change!
CTD Conversion Factor	0.953	0.9491	
Probable Delivery Date	30-Jun-25	29-Sep-25	
Gross Basis (cents)	2.3	-6.2	
Net Basis (cents)	-0.4	-5.7	
Implied Repo (to Prob. Delivery)	2.78%	2.90%	
DV01/100 of CTD	1.7	1.9	13.4%
Open Interest	256,771	0	
CTD Outstanding (millions)	27,500	16,500	-11,000
Front OI Multiple of CTD	0.9x	1.6x	

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

LGBM25 to LGBU25

Now that the 3.5% December 2057 has enough notional outstanding to be included in the delivery basket for the 30-Year Government of Canada Bond Futures (LGB™) contract, it will remain the cheapest-to-deliver for that contract for about two years, if history is a guide[3].

The LGB roll will not be urgent for anyone given the low open interest and lack of a delivery period or wildcard option. Contracts are often closed during the roll period for the other physical delivery contracts, but the open interest does not usually approach zero until a few days before the delivery date midway through the contract expiry month. In some quarters, an inordinate percentage of the open interest is delivered, although that was not the case last quarter.

We expect that, absent any large fluctuations in rate expectations that tilt the front end of the Canadian yield curve, LGB rolls will be very orderly and trade at or near fair value, as is usually the case.

3 The length of time is subject to change of bond issuance by the federal government but is quite stable, especially when it comes to long maturity bonds.

FIGURE 11

LGB Key Metrics

9-MAY-2025	LGBM25	LGBU25	DIFFERENCE
Settle Price	155.300	154.800	0.500
Cheapest-to-Deliver (CTD)	CAN 3.500% Dec 2057	CAN 3.500% Dec 2057	No change
CTD Conversion Factor	0.6443	0.6452	
Probable Delivery Date	19-Jun-25	18-Sep-25	
Gross Basis (cents)	8.6	26.9	
Net Basis (cents)	1.2	2.0	
Implied Repo (to Prob. Delivery)	2.70%	2.75%	
DV01/100 of CTD	19.4	19.4	0.0%
Open Interest	705	0	
CTD Outstanding (millions)	5,000	5,000	0
Front OI Multiple of CTD	0.0x	0.0x	

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

December Delivery Summary

Wildcard activity has calmed down a lot in the past few quarters but there are still thousands of contracts held into delivery, especially in CGB futures (10-year) where the wildcard option retains some value each month.

In March, in fact, some sophisticated managers made decent profits, managing to exercise their option[4] on the two optimal days during the delivery period. In Figure 12, about 2.4% of the open interest was taken into delivery and most was delivered on the first and second days for a theoretical profit of almost $700,000. We suspect this activity is a bank dealer desk that accumulated hedged positions during the quarter and extracted some additional profit by monetising the wildcard since a dealing desk would be naturally getting into these positions via other, more profitable, activities. Many of the managers with the level of sophistication required to monetise the wildcard have withdrawn from this market for the time being as potential profits have fallen considerably since early 2024.

4 We use only public information about deliveries and price changes to speculate on whether wildcard options were exercised as we have no access to non-public information. When large deliveries are made on days when it would have been profitable to do so as part of a wildcard play, we assume the manager delivered early to sell their hedge tail at a profit (ie. they exercised their wildcard option).

FIGURE 12
CGBH25

NOTICE DATE	DELIVERY DATE	QUANTITY	POSITIVE CARRY REMAINING/ CONTRACT	WILDCARD OPTION VALUE/ CONTRACT	CTD EQUIVALENT WILDCARD EXERCISE THRESHOLD[1]	CTD 3PM-5PM PRICE	THEORETICAL WILDCARD EXERCISE $GAIN[2]
28-Feb-25	03-Mar-25	**12,725**	0.000	0.026	0.096	**0.144**	485,793
03-Mar-25	04-Mar-25	**3,744**	0.000	0.025	0.091	**0.204**	201,655
04-Mar-25	05-Mar-25	0	0.000	0.024	0.089	-0.672	0
05-Mar-25	06-Mar-25	0	0.000	0.024	0.086	-0.204	0
06-Mar-25	07-Mar-25	0	0.000	0.023	0.084	**0.111**	0
07-Mar-25	10-Mar-25	0	0.000	0.022	0.078	**0.111**	0
10-Mar-25	11-Mar-25	0	0.000	0.021	0.074	-0.162	0
11-Mar-25	12-Mar-25	0	0.000	0.020	0.068	0.017	0
12-Mar-25	13-Mar-25	0	0.000	0.018	0.064	0.034	0
13-Mar-25	14-Mar-25	0	0.000	0.017	0.057	-0.043	0
14-Mar-25	17-Mar-25	0	0.000	0.015	0.047	-0.145	0
17-Mar-25	18-Mar-25	0	0.000	0.013	0.038	0.026	0
18-Mar-25	19-Mar-25	0	0.000	0.010	0.025	-0.026	0
19-Mar-25	20-Mar-25	0	0.000	0.007	0.000	-0.085	0
20-Mar-25	21-Mar-25	0	0.000	0.000		-0.128	
21-Mar-25	24-Mar-25	0	0.000	0.000		0.060	
24-Mar-25	25-Mar-25	0	0.000	0.000		-0.068	
25-Mar-25	26-Mar-25	0	0.000	0.000		-0.170	
26-Mar-25	27-Mar-25	0	0.000	0.000		-0.034	
27-Mar-25	28-Mar-25	0	0.000	0.000		-0.038	
28-Mar-25	31-Mar-25	85	0.000	0.000		0.026	
		16,554	← 2.4% of IO				**$687,447**

Source: CDCC Delivery Reports

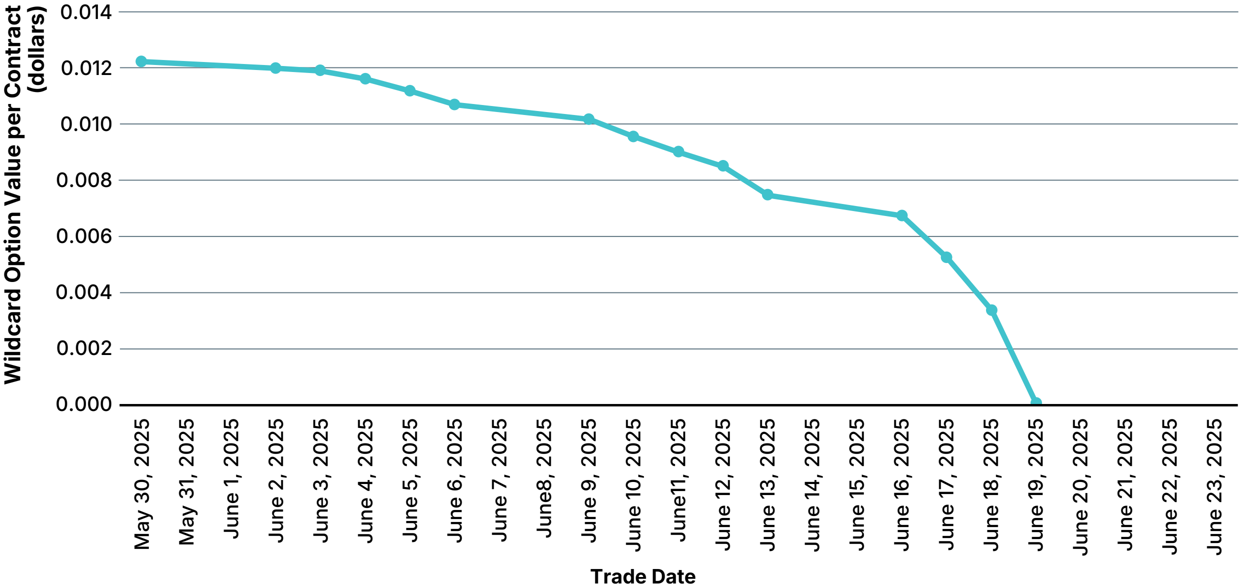
Wildcard Option Value

As mentioned above, the phenomenon of higher coupons on cheapest-to-deliver bonds has resulted in few wildcard opportunities on Montréal Exchange futures contracts. Two years ago, we regularly calculated the value of the wildcard option to be 6-9 cents per CGB contract but now find them to be reduced to about half of that. Wildcard participation has fallen to nothing in the CGF (5-year) due to the same phenomenon, although we note that, with the current U.S. administration, calculated wildcard option values can be understated as afternoon potential geopolitical volatility is higher than in the past.

The CGFM25 wildcard is worth about 1.2 cents per contract initially (Figure 13) but will, naturally, decline in value during the delivery period. We doubt many participants are involved here but note that the option, worth 1.2 cents, was available at a negative price for several weeks during the past quarter. Smart traders may have accumulated positions at very favourable prices during those times.

FIGURE 13

CGFM25 Wildcard Option Value

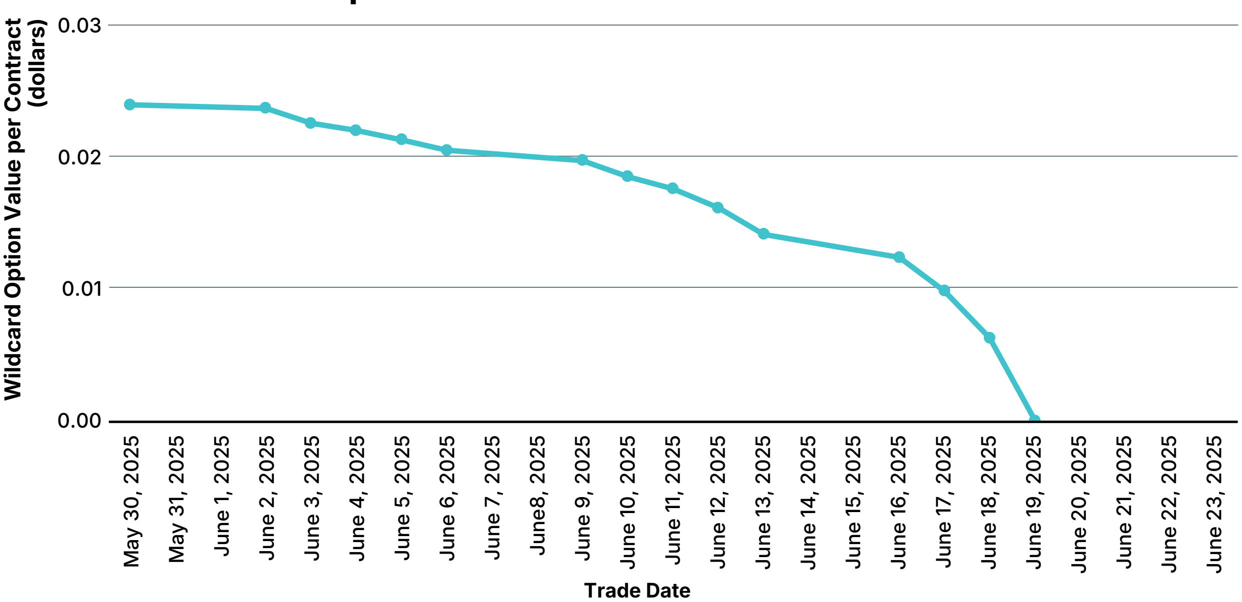


Source: Author Calculations

Unlike the CGF (5-year) contract, there is almost always an active wildcard play in CGB (10-year) contracts. This quarter, our calculated fair value for the option is about 2.5 cents per contract (Figure 14), a low value in comparison to many past quarters. It is possible that we currently underestimate the value of this option for the same reasons stated in the CGF section above – policy by social media post can come anytime and, by definition, anytime including the window after futures settle but before bonds stop trading for the day during the delivery period. We suspect many positions were accumulated by smart managers at implied negative option values during the quarter. Those managers will attempt to monetize their option through late afternoon delivery if prices surge in the afternoon.

FIGURE 14

CGBM25 Wildcard Option Value



Source: Author Calculations

LOOKING FORWARD & Opportunities

- There is a Federal Reserve meeting late in the delivery period this quarter. Given the propensity for social media posts about firing Jerome Powell leading up to such meetings, afternoon volatility and the associated wildcard risk/opportunities may be elevated this quarter.
- Wildcard options were available for free or at a negative price for many days this quarter, especially in the 5-year (CGF) and 10-year (CGB) contracts. Sophisticated managers may have accumulated these positions and long futures positions that go into delivery should be wary of late afternoon deliveries and the potential losses associated with being short the wildcard option.
- 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[5].
- Swap spreads have moved to very tight levels, an anomaly we are looking into. 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.

5 "Slow Decoupling Underway" published by Montréal Exchange in May 2025.

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