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

H22-M22 Roll Update

February 2022

TMX THE FUTURE IS YOURS TO SEE.®

QUARTERLY ROLL Summary

First Notice day is February 25th for the March contracts, so the H22/M22 roll should begin on the 22nd of February. Both President's Day in the USA and Family Day in Canada (February 21st) precede the roll and should not be a factor. This roll period will be the first for the new Canada 30-year (LGB) contract but the open interest has remained quite small so far.

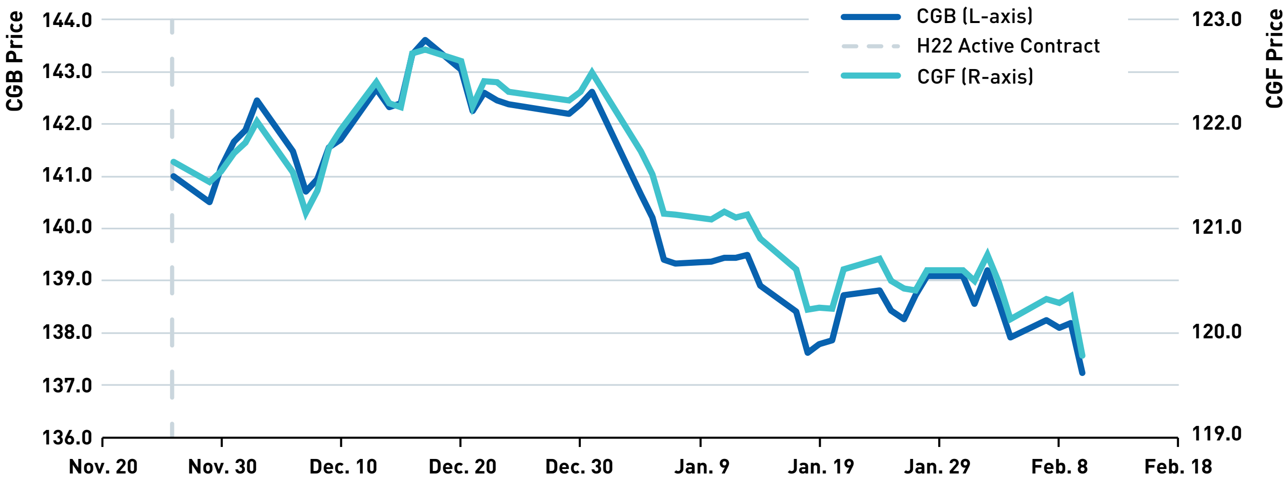
Speculative accounts are probably very short Canadian bond futures contracts and may introduce pricing pressure while looking for liquidity in the roll period. Managers looking to capitalize on Wildcard opportunities in CGB may be able to buy the option (sell the CGB contract) for a zero or negative price due to the richness of the CGBH22 contract relative to the cheapest-to-deliver (CTD). Investors appear to have been surprised by the value of the embedded Wildcard option in LGBH22 which is causing, and will probably continue to cause during the roll period, relative value swings between LGBH22 and its CTD.

Speculative Positioning

Similar to the last quarter for Z21 contracts, 2-year, 5-year, 10-year and now 30-year Government of Canada bond futures (CGZ, CGF, CGB and LGB respectively), the H22s spent most of their time as the active contract heading to lower prices, as shown in Figure 1 for CGF (5-year) and CGB (10-year). Both contracts experienced sustained selloffs of about 55 basis points with only a slight reprieve in mid-December which may or may not have caused some trend models to reduce risk in their shorts. Regardless, the trend downward is well-established again and the two contracts have experienced selloffs of well over 100 basis points during the last two quarters. We firmly believe trend-based models are short both of these contracts going into the roll period this quarter, assuming some models have now incorporated the 5-year contract.

FIGURE 1

CGF & CGB Price, H22s

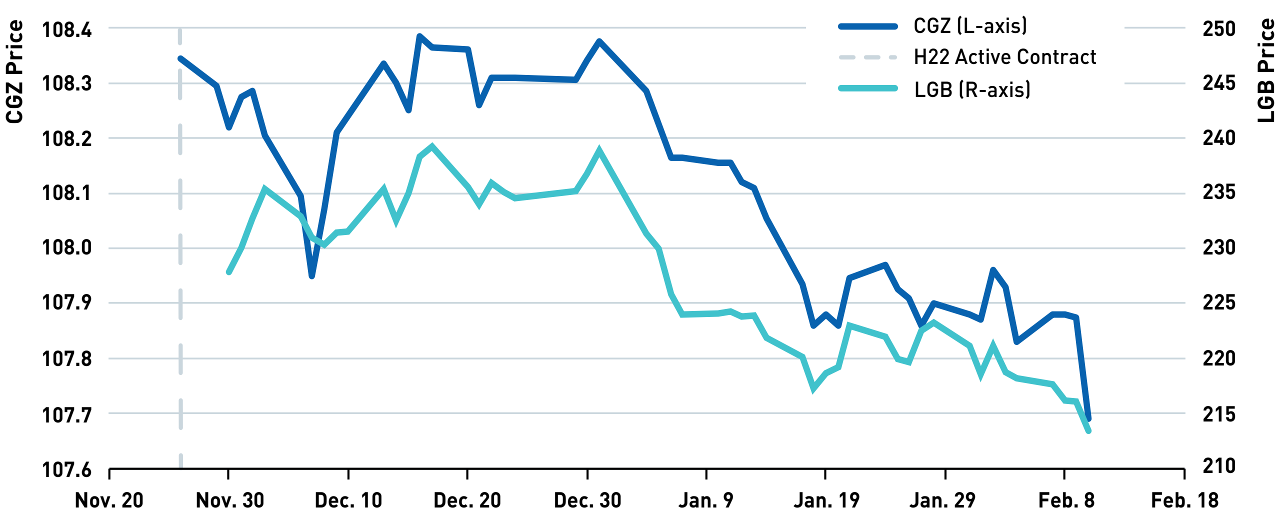


Source: Montréal Exchange

The selloff also continued in the newer contracts as shown in Figure 2, with the active CGZ contract falling over 60 cents per contract (over 30 basis points). The newly introduced 30-year (LGB) contract has fallen about $20 since the beginning of the year as long bond yields have risen as well. Neither of these contracts is likely to be heavily utilized by algorithmic models at this time due to lower open interest levels and the relative newness of the contracts but speculative/active clients who are less model focused are undoubtedly involved – and short these contracts.

FIGURE 2

CGZ & LGB Price, H22s



Source: Montréal Exchange

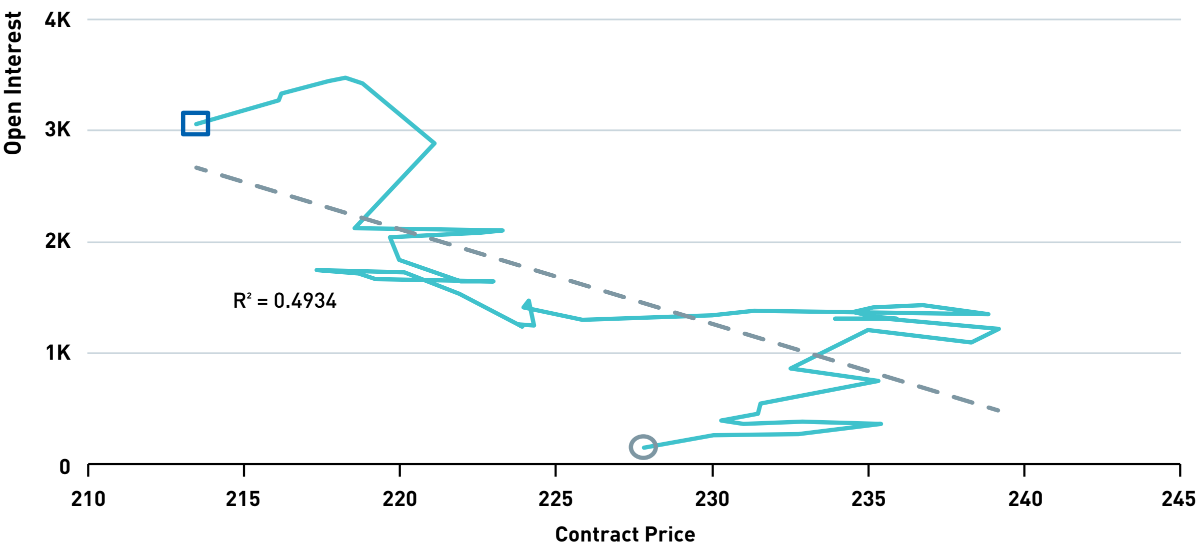
As we do every quarter, we calculated the r-squared for a regression of each contract's open interest against price during the life of the contract. However, given that speculators were short last quarter and likely continued their shorts through the H22 contract, this analysis appears to be of limited value for the March contracts. In fact, the r-squared of the regression analysis for each contract was quite low[1] at about 0.2 to 0.3 with the exception of the LGB contract. While inconclusive, the lack of correlation may confirm that shorts established by speculators as the fixed income selloff began in 2021 have held their risk positions through the small reversal at the start of the H22 contract life.

Although the LGB contract had a coefficient of almost 0.5, which we show in Figure 3, we believe that correlation is spurious as rates were exogenously rising during the quarter as Montréal Exchange launched the new contract and open interest built from zero to about 4000 contracts. Investors have begun to embrace the new product at the same time as rates have been moving higher which tells us nothing about the type of investor that holds these positions.

Most algorithmic models have a strong preference to avoid the delivery period and the large shorts that still exist will likely lead to early buying pressure in CGFH22 and CGBH22 contracts accompanied by selling pressure in M22 as positions are rolled. Although we see no catalyst in prices for trend-following models to de-risk at this time, some may take the opportunity to close existing shorts without rolling to the new contract given that they have been very profitable.

FIGURE 3

LGBH22 Price versus Open Interest



Source: Montréal Exchange

Cheapest-to-Deliver Switch

Interest rates have risen at least a hundred basis points in the belly of the curve and almost as much in the front end since mid-2021. While the strong tendency to higher rates has come as a surprise to some investors, the level of rates remains very low even after the selloff. As a result, there exists almost no probability of a switch in the cheapest-to-deliver on any H22 fixed income physical delivery contract, just as there was almost no probability of a switch in the Z21s.

To demonstrate, we show the conditions that would result in a cheapest-to-deliver (CTD) switch for CGBM22 in Figure 4 where, at delivery, rates would need to be 90 basis points higher in combination with a curve steepening[2] of over 25 basis points to cause the June 2030 bond to become the CTD. Even more implausible events are required for switches to occur in the CGZM22 and LGBM22 while, at this time, there is only one deliverable bond, and thus no possibility of a switch, in the CGFM22 delivery basket.

1 Normally we look for at least 0.4 and have observed regression coefficients as high as 0.85 in some quarters.

2 In normal market conditions, curves flatten when yields rise.

FIGURE 4

	Jun30 Yield															
SLOPE	1.56%	1.61%	1.66%	1.71%	**1.76%**	1.91%	2.06%	2.21%	2.36%	2.51%	2.66%	2.81%	2.96%	3.11%	3.26%	3.41%
-5.0	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30
-3.2	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30
-1.5	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30
0.3	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30
2.0	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30
3.8	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**	**Jun30**
9.0	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30
14.3	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30
19.5	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30
24.8	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Jun30	Dec30	Dec30
30.0	Jun30	Jun30	Jun30	Jun30	**Jun30**	Jun30	Jun30	Jun30	Jun30	Jun30	Dec30	Dec30	Dec30	Dec30	Dec30	Dec30

Investors that yearn for switch risk or, in other words, a valuable embedded quality option in Canadian futures contracts, can look forward to the CGBU22 contract where a combination of just 6 months of maturity difference and very low coupon on the Dec 2030 bond may conspire to introduce the potential for a CTD switch[3] for the first time in many years.

Relative Value of the CTD Bonds

Last quarter, the CGB cheapest-to-deliver was about 2.5 basis points rich to the wings of the corresponding swap spread butterfly but continued to cheapen until the end of December before making a sudden reversal. In mid-February this measure now indicates that the CTD for CGBH22 has become about a basis point cheap to neighbour bonds. This phenomenon is observed often in the CGB contract as relative value opportunities in CGB and its neighboring bonds are created when bond managers make liquidity demands via the futures that then go on to influence the relative pricing of the CTD versus neighboring bonds in the cash market.

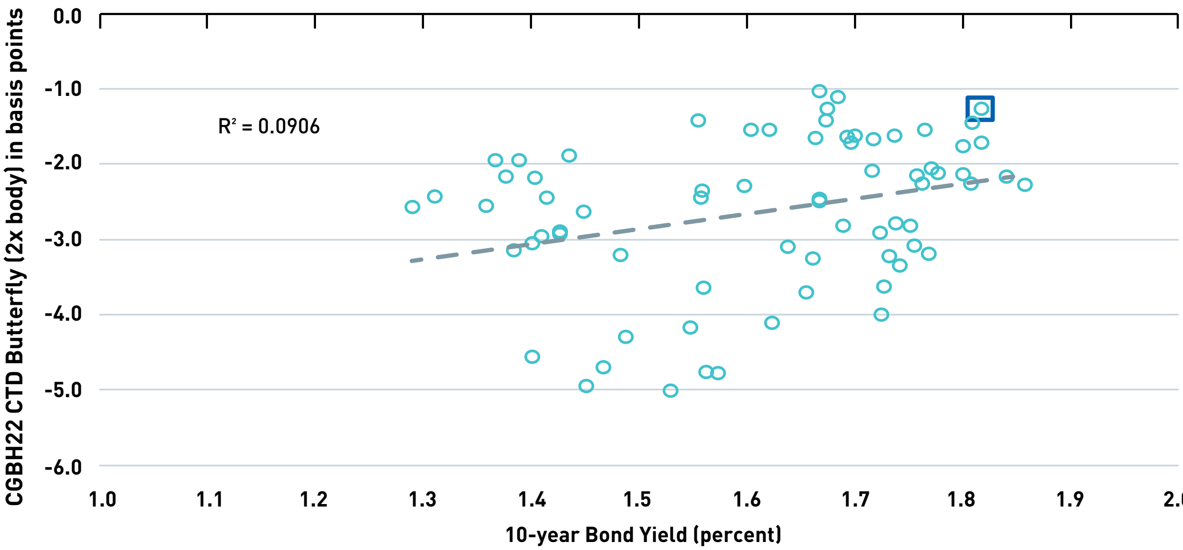
Figure 5 plots the swap spread butterfly[4] of the June 2030 bond versus the 10-year yield recently with the most recent observation highlighted. Although the significance is low, the June 2030 bond now appears relatively cheap in comparison to neighbour bonds, an unsurprising finding given the continued selloff in 10-year bonds.

3 Interested readers can refer to "Switch Risk in Futures: A Refresher" published by Montréal Exchange in February 2022.

4 A common measure of relative value, a swap spread butterfly is constructed by calculating the spread to swaps for the closest similar bonds with maturities before and after the CTD. One then multiplies the spread of the CTD by two and subtracts the spread of the nearest comparator bonds to construct the butterfly. A lower value indicates the CTD (or body of the butterfly) is rich relative to its nearest neighbour (or wing) bonds.

FIGURE 5

10-year Bond Yield versus CTD Butterfly

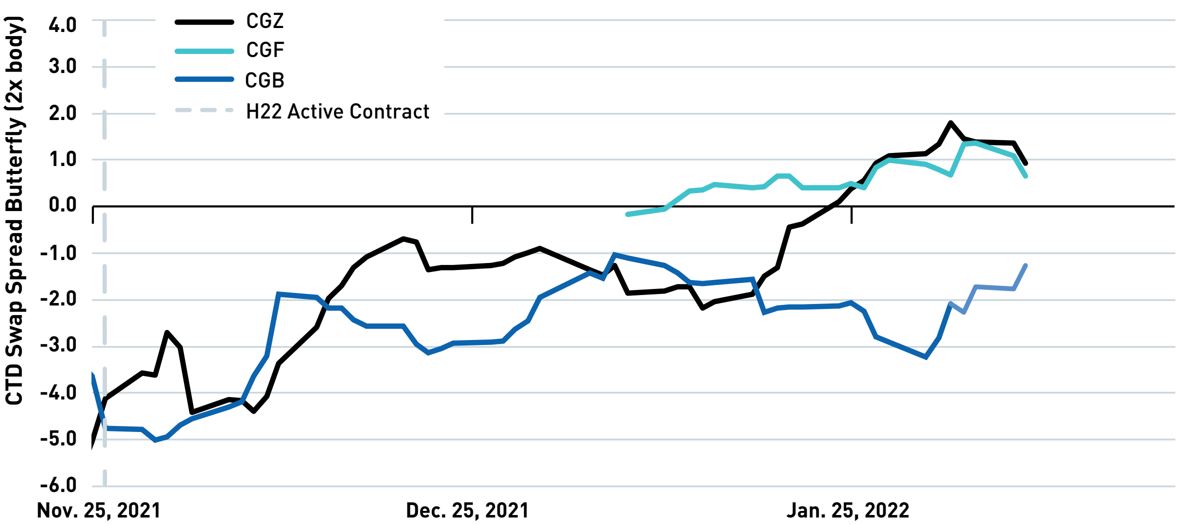


Source: BMO Capital Markets[i] Fixed Income Sapphire database

In fact, the CTD of each of the Canadian bond contracts have cheapened during the H22 contract life, as show in Figure 6. Specifically, the CGZ CTD butterfly has cheapened almost 6 basis points as the front-end selloff really took hold. This general cheapening of contracts resembles some other prolonged market moves where the underlying bonds have sometimes gone on to spent several months cheap to neighbours as investors demand more liquidity than dealers are willing to provide cheaply and risk accumulates at the dealing desks that take the other side of motivated buyer/seller trades.

FIGURE 6

H22 CTD Swap Spread Butterflies



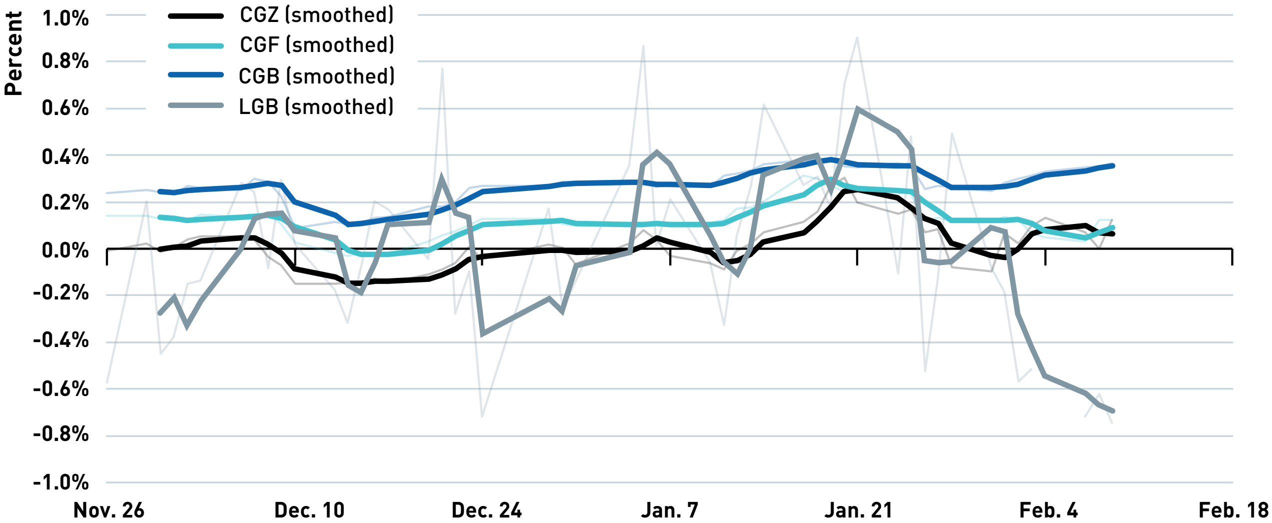
Source: BMO Capital Markets[i] Fixed Income Sapphire database

Both CGZH22 and CGFH22 still appear relatively cheap in comparison to their CTD bonds given implied repo levels of about 0.12%-0.15% in those contracts as shown in Figure 7. With an overnight index swap (OIS) level of 0.3% (itself rather low if you think the Bank of Canada raises rates on March 2[nd]) to the delivery date at the end of March, each of these contracts seem about 2 cents too cheap.

CGBH22, on the other hand, appears closer to fair value and even a little bit rich relative to the Jun 2030 CTD bond. A rich CGB contract creates an interesting opportunity for sophisticated investors since the embedded options appear to be priced at zero or even a slightly negative premium. For more details, see the CGB-specific section below. We will address the rather obvious very low implied repo rate on the LGBH22 contract in the Wildcard Potential section below.

FIGURE 7

Implied Repo: CGZ, CGF, CGB, LGB



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

Key Metrics & Expectations

We show some Key Metrics of importance to managers with H22 positions in Figure 8, Figure 9, Figure 10, and Figure 11. We used closing prices on February 9th and have reduced the number of CTD bonds outstanding by the holdings of the Bank of Canada, which are still significant[5]. As is usual with the back contracts, none of the M22 contracts had traded on our price capture date so the indicated prices for the June contracts, and any analysis driven by the price of those contracts, are not based on a tradeable market level at this time.

CGBH22 to CGBM22

CGB is by far the most important roll once again this quarter, although there is no change to the delivery basket and the June 2030 bond will be the cheapest-to-deliver for the H22 and M22 10-year contracts. Interestingly this month, the H22 is trading about 2.5 cents rich to bonds with an implied repo of around 0.43% versus the OIS rate to the same date at 0.3%.

We believe trend following models in portfolios that must avoid the delivery period are still very short CGB contracts and will need to initiate the roll by bidding for H22 and offering M22 (if they wish to continue their short positions). On balance, trend model short positions will likely far outnumber other motivated investors this quarter; intraday fluctuations in relative value will undoubtedly occur.

Long positions should be wary of patient short investors who will almost certainly seek to exploit the Wildcard option by taking some short positions into the delivery period, as they did in previous quarters[6]. In fact, the quality/delivery and timing options are worthless on the CGBH22 contract, but the Wildcard option very likely has value, and that option can be purchased for nothing (or a very low price) by buying the CGB CTD basis[7]. A price move after 3pm but before 5:30pm of greater than 1 basis point (just before the last trading day) or 3.6 basis points (on the first notice date) would result in a profitable opportunity to exercise the Wildcard option by delivering early. If the anticipated late-afternoon price move doesn't materialize, the long basis holder can simply wait until the end of March to deliver and still collect a small gain on the trade via the higher-than-fair-value implied repo rate on the contract.

5 Although the Bank does lend their holdings, so the bonds are still available to deliver.

6 A successful CGBZ21 Wildcard exercise occurred in December, as outlined below in the Wildcard section.

7 Sell the CGBH22 while simultaneously buying the CTD bond in a duration neutral construction. The seller of the contracts owns all the embedded options which appear to be priced at or below zero. The investor must be able to make delivery.

FIGURE 8

CGB Key Metrics

9-FEB-2022	FRONT (MAR22)	BACK (JUN22)	DIFFERENCE
Closing Price	138.190	136.310	1.880
Cheapest-to-Deliver (CTD)	CAN 1.250% Jun 2030	CAN 1.250% Jun 2030	No change
Delivery Years (Last delivery)	8.2	7.9	-0.2
CTD Conversion Factor	0.6944	0.7017	
CTD Clean Price	96.0691	96.0691	
CTD Yield	1.761%	1.761%	0.000%
Gross Basis (cents)	11.0	42.0	
Net Basis (Final Delivery, cents)	-2.3	3.6	5.9
Implied Repo (Final Delivery)	0.43%	0.16%	-0.27%
DV01/100 of CTD	7.5	7.5	0.0
Open Interest	709,521	0	
CTD Outstanding (millions)	26,863	26,863	0
CTD Notional of Front OI	70,952	70,952	
Front OI Multiple of CTD	2.6x	2.6x	0.0x

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

CGZH22 to CGZM22

Almost 10% of the open interest in the 2-year contract was delivered last quarter; perhaps an indication that the contract is viewed as an inexpensive way to ultimately sell/buy the underlying bonds, or an indication that most investors in that contract can/will enter the delivery period rather than pay a premium to unwind their positions.

The CTD will change from the November 2023 bond to the February 2024 bond for the M22 contract, a relatively negligible maturity extension. The DV01 extension of just 8% is unlikely to cause anyone any distress and the fair value of the roll, assuming no drastic changes in expectations for Bank of Canada policy changes during the roll period, will probably be about 32 cents plus or minus one cent on the roll date.

As was the case last quarter, investors wary of early delivery should note that this contract will be neutral carry during delivery if the Bank of Canada raises rates on March 2nd and short positions will be almost completely indifferent between delivering early or waiting to the end of March. Obviously, a Bank of Canada rate change would have implications for this (and all) contract prices[8]. Clients that can't deliver or take delivery should close their positions early as delivery could occur anytime on or after March 2nd (unless the Bank passes again).

CGZH22 currently prices cheap to bonds with an implied repo level of just 0.12% to delivery, or about 2 cents cheap relative to the overnight index swap market to the same date. Buying pressure in CGZH22 contracts to capture some of the cheapness of the contract accompanied by selling in M22 should be expected early. We believe the contract is utilized by speculative clients but, importantly, probably not trend following models (yet) so the early buying pressure may be quite limited in CGZ contracts.

8 An unanticipated 25 bp hike increases the price of the CGZH22 contract by just under 3 cents, given current yields and contract values.

FIGURE 9

CGZ Key Metrics

9-FEB-2022	FRONT (MAR22)	BACK (JUN22)	DIFFERENCE
Closing Price	107.875	107.445	0.430
Cheapest-to-Deliver (CTD)	CAN 0.500% Nov 2023	CAN 0.750% Feb 2024	Change!
Delivery Years (Last delivery)	1.6	1.6	0.0
CTD Conversion Factor	0.9140	0.9179	
CTD Clean Price	98.6453	98.8290	
CTD Yield	1.297%	1.353%	0.055%
Gross Basis (cents)	4.7	20.5	
Net Basis (Final Delivery, cents)	1.4	1.2	-0.1
Implied Repo (Final Delivery)	0.15%	0.22%	0.07%
DV01/100 of CTD	1.7	1.9	0.2
Open Interest	88,880	0	
CTD Outstanding (millions)	11,943	15,663	3,720
CTD Notional of Front OI	8,888	8,888	
Front OI Multiple of CTD	0.7x	0.6x	-0.2x

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

CGFH22 to CGFM22

The CTD for CGF will change from the September 2026 bond to the March 2027 when the active contract rolls from CGFH22 to CGFM22. The CTD change results in a large 20% DV01 extension for the contract and the roll value will, correspondingly, be unstable as rises or falls in the outright level of rates will cause significant changes in the roll price. Investors should be wary of leaving limit orders unattended as a 5 basis point move in the 5-year rate can change the fair value of the roll by up to 3 cents[9].

An implied repo of 0.18% at time of writing means CGFH22 also prices a little cheap relative to bonds but only by about 1.5 cents. There is almost no risk of early delivery in this contract as the CTD has a 1% coupon versus the current Bank Rate of just 25 basis points. Once again, we suspect speculators are quite heavily short the contract and will wish to buy and/or roll early to new M22 positions to capture some of the cheapness in CGFH22 relative to the overnight index swap market at this time. Managers with long positions in CGFH22 may find it profitable to be patient as pricing pressures develop during the roll.

FIGURE 10

CGF Key Metrics

9-FEB-2022	FRONT (MAR22)	BACK (JUN22)	DIFFERENCE
Closing Price	120.350	120.720	-0.370
Cheapest-to-Deliver (CTD)	CAN 1.000% Sep 2026	CAN 1.250% Mar 2027	Change!
Delivery Years (Last delivery)	4.4	4.7	0.2
CTD Conversion Factor	0.8053	0.8062	
CTD Clean Price	97.0304	97.7412	
CTD Yield	1.680%	1.719%	0.038%
Gross Basis (cents)	11.2	41.7	
Net Basis (Final Delivery, cents)	1.3	3.4	2.1
Implied Repo (Final Delivery)	0.18%	0.17%	-0.01%
DV01/100 of CTD	4.3	4.8	0.5
Open Interest	108,828	0	
CTD Outstanding (millions)	15,057	11,576	-3,481
CTD Notional of Front OI	10,883	10,883	
Front OI Multiple of CTD	0.7x	0.9x	0.2x

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

9 In addition to any fluctuations caused by changes in short-term interest rate expectations and/or Bank of Canada policy expectations.

LGBH22 to LGBM22

This will be the first roll for the new LGB contract, and it will be closely watched, despite rather limited open interest at this time. There is no change to the CTD for this contract.

By far the defining characteristic of the LGBH22 contract (and other LGB contracts to come) is the very low conversion factor of the CTD and the resulting high Wildcard option value embedded in the contract. As noted in Figure 7, the implied repo on this contract is very negative, reflecting a gross basis level that is very high and very cheap contracts relative to bonds. However, that cheapness is justified given that the buyer of LGBH22 is selling a valuable Wildcard option and must be compensated for this risk by paying less for the long LGBH22 position.

Although we wrote about this possibility in the previous roll update and in "LGB: A Primer for CGB Users"[10], both published in November 2021, market participants appear to have realized the value of this option around January 21st, 2022 as the implied repo began its precipitous fall from 0.35% to -90%. Current pricing, justifiably assuming that the quality and timing options in this contract are worthless, indicates that the market is pricing the Wildcard option at about 34 cents. Our simulation model, using a Johnson_{SU} distribution calibrated to observed 3pm-5pm bond prices since the end of the pandemic volatility in mid-2020, indicates the value of this option to be slightly less at about 27 cents, although other models are undoubtedly more sophisticated. It is entirely possible the option value is being, and may continue to be, bid higher than fair value by participants that assumed the option they were selling, by going long the LGB contract, was worth much less. Long positions unwilling to take their chances during the delivery period may continue to bid up the price of this option by offering their long LGBH22 positions at lower and lower prices to attract bids.

FIGURE 11

LGB Key Metrics

9-FEB-2022	FRONT (MAR22)	BACK (JUN22)	DIFFERENCE
Closing Price	216.100	214.150	1.950
Cheapest-to-Deliver (CTD)	CAN 2.000% Dec 2051	CAN 2.000% Dec 2051	No change
Delivery Years (Last delivery)	29.7	29.4	-0.2
CTD Conversion Factor	0.4481	0.4499	
CTD Clean Price	97.2144	97.2144	
CTD Yield	2.127%	2.127%	0.000%
Gross Basis (cents)	38.0	86.8	
Net Basis (Final Delivery, cents)	14.9	20.0	5.1
Implied Repo (Final Delivery)	-0.91%	-0.28%	0.63%
DV01/100 of CTD	21.6	21.6	0.0
Open Interest	3,271	0	
CTD Outstanding (millions)	33,928	33,928	0
CTD Notional of Front OI	327	0	
Front OI Multiple of CTD	0.0x	0.0x	0.0x

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

Wildcard Potential

As in previous quarters, Wildcard options have limited potential[11] in CGZ contracts due to the high conversion factors; delivery tails[12] are such a small percentage of a long basis trader's position that a manager probably doesn't need to look very hard to find better ways to utilize risk.

Wildcard exercise is unlikely in CGFH22 contracts as the carry during delivery is high due to the 1% coupon on the CTD bond. It would take a 7.5 basis point move in the 5-year after 3pm but before 5:30pm to make this option exercise profitable at the start of the delivery period, declining to about 2 basis points by the day before the last trading day. While not impossible, we think most clients would find the risk associated with moves in overnight rates in a long basis position to be greater than any potential profits from the Wildcard.

10 Interested readers can access the article "LGB: A Primer for CGB Users", available on the LGB landing page.

11 For a fuller description of how a Wildcard option exercise works, refer to "CGB Case Study: Wildcard Option Exercise" published by Montréal Exchange in July 2019.

12 The delivery tail is equal to (1/conversion factor) – 1.

Although the CGBH22 contract will be highly positive carry during delivery, some potential may exist for Wildcard exercise, and unexpected early delivery, in the contract this quarter. This is especially true given that sophisticated investors may be able to purchase the option at no cost as described in the CGB roll section above.

The price change needed after settlement of the futures contract but before the delivery deadline on each day during the delivery period is shown in Figure 12. At the start of the period, it would take a 27 cent price rise (3.6 basis points) after 3pm to offset the positive carry a long basis position would earn holding until the end of the month. As the positive carry accrues, this falls to under 1 basis point, or just 7 cents by March 21st. We believe a profitable Wildcard exercise is possible in CGBH22 and the option certainly has value to investors inclined to trade it.

FIGURE 12

CGBH22 Wildcard Treshold

DATE	REMAINING CARRY ($ PER CONTRACT)	MINIMUM ΔCTD PRICE TO EXERCISE WILDCARD
25-Feb-2022	119.41	0.271
28-Feb-2022	115.43	0.262
1-Mar-2022	111.45	0.253
2-Mar-2022	107.47	0.244
3-Mar-2022	95.53	0.217
4-Mar-2022	91.55	0.208
7-Mar-2022	87.57	0.199
8-Mar-2022	83.59	0.190
9-Mar-2022	79.61	0.181
10-Mar-2022	67.67	0.154
11-Mar-2022	63.69	0.145
14-Mar-2022	59.70	0.136
15-Mar-2022	55.72	0.127
16-Mar-2022	51.74	0.118
17-Mar-2022	39.80	0.090
18-Mar-2022	35.82	0.081
21-Mar-2022	31.84	0.072

We discuss the high value and likelihood of a Wildcard exercise occurring in LGBH22 above in the appropriate section on the LGB roll. The price move threshold for Wildcard exercise is shown in Figure 13 and we note that these types of price moves are possible given the high DV01 of long bonds.

FIGURE 13

LGBH22 Wildcard Treshold

DATE	REMAINING CARRY ($ PER CONTRACT)	MINIMUM ΔCTD PRICE TO EXERCISE WILDCARD
25-Feb-2022	321.99	0.261
28-Feb-2022	311.26	0.253
1-Mar-2022	300.53	0.244
2-Mar-2022	289.79	0.235
3-Mar-2022	257.60	0.209
4-Mar-2022	246.86	0.200
7-Mar-2022	236.13	0.192
8-Mar-2022	225.40	0.183
9-Mar-2022	214.66	0.174
10-Mar-2022	182.46	0.148
11-Mar-2022	171.73	0.139
14-Mar-2022	161.00	0.131
15-Mar-2022	150.26	0.122
16-Mar-2022	139.53	0.113
17-Mar-2022	107.33	0.087
18-Mar-2022	96.60	0.078
21-Mar-2022	85.87	0.070

December Delivery Summary

CDCC Delivery Reports[13] for December contracts show 1,133 CGFZ21 and just under 8,517 CGZZ21 were delivered on the last delivery date. The latter amount seems large at almost 10% of the open interest heading into the Z21/H22 roll period but is beginning to look normal for the contract.

We think[14] a client (or clients) successfully exercised the Wildcard option in 3,709 CGBZ21 contracts on December 15th when the price of the underlying bond surged by about 14 cents between 3pm, the time that the futures settlement price was determined, and 5:30pm, which was the last moment to give delivery notice to the exchange. On that date the threshold for a profitable exercise was around 12 cents so the short futures position likely generated a couple cents of profit by selling their delivery tail and delivering the rest of their position on the settlement date (17th).

13 CDCC Delivery Reports available on the CDCC website (Delivery Reports page).

14 We can only speculate as we don't know, from public data, whether the client(s) gave delivery notice after 3pm. We have no access to internal Montréal Exchange data or non-public information.

LOOKING FORWARD & Opportunities

- Switch risk is going to be more important soon, although only in the CGB contract. The 0.5% coupon on the December 2030 bond but 1.5% coupon on the June 2031 bond combined with a reduction to just 6 months between 10-year bond maturities may introduce switch risk to the CGBU22 and Z22 contracts, especially if yields continue to rise and curves steepen. Informed managers should plan to calculate switch potential and quality option value for their positions. Interested investors may refer to "Switch Risk in Futures: A Refresher" published by Montréal Exchange in February 2022[15].
- Investors may be able to sell the CGBH22 contract and buy the June 2030 bond (buy the basis) and own the Wildcard option for free, assuming CGB contracts are still trading rich by the time this commentary is published. An investor doing this trade will, of course, need to be capable of delivering bonds in the delivery period and would need to monitor late afternoon prices very carefully.
- With central banks back in play, roll prices are expected to be more volatile than they have been in the past few years when front end rates were permanently held low. A change in the implied repo rate of either the front or back contract, to reflect new expectations of overnight rates, changes the fair value of the roll.

15 https://www.m-x.ca/f_publications_en/futures_flash_article5_en.pdf

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