MONTRÉAL EXCHANGE

TMX

Q4 2023 Derivatives Highlights



Record performance through 2023 supported higher demand under a complex macro-environment

TOTAL ADV of 731k **CONTRACTS**

In Q4 2023, up **14.5**% vs **2022**

Total open interest record of nearly 15.6M contracts, up

20.5% vs 2022

Continued strong growth in CORRA futures marking the handover of BAX

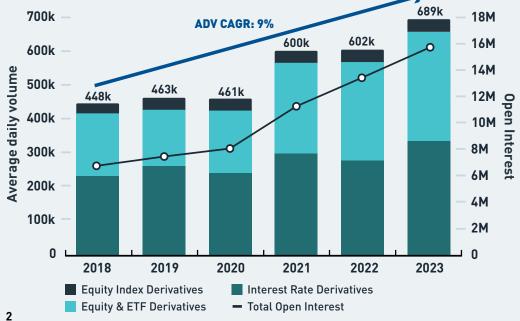
Positive momentum across equity futures and options' classes

A record quarter for short-term bond futures and equity options' volume:

2Y GoC Bond Futures (CGZ™): 52k contracts ADV 5Y GoC Bond Futures (CGF™): 56k contracts ADV S&P/TSX 60 Index* Futures (SXF™): 32k contracts ADV

Equity Options: 200k contracts ADV

Average Daily Volume and Open Interest (all products)



Segment	Product	2023 YTD ADV	YoY CHG (%)
IRD	3М ВАХ™	74k	+6%
	3M CORRA CRA™	34k	+1997%
	2Y CGZ	44k	+83%
	5Y CGF	49k	+21%
	10Y CGB™	140k	-3%
	All IRD Products	340k	+21%
EQD	Index Futures	33k	-1%
	Share Futures	68k	+1%
	ETF Options	73k	+14%
	Equity Options	177k	+11%
	All EQD Products	351k	+8%

Market Observations

- Interest rates: The Bank of Canada kept the policy rate unchanged for the 3rd time in a row; in the face of an inflation outlook that remained the center of attention during the guarter. The interest rate derivative suite continues to attract a wide range of participants with the 2-year and 5-year bond futures registering their best quarterly volume to-date. CRA grew exponentially and overtook BAX in both ADV and open interest.
- Equity: The 4th quarter saw a significant bounce in all major indices and the S&P/TSX 60 Index wasn't left aside. The index rallied over 11% the last 2 months to end the year up around 8%. Once again, equity and ETF options led the way to a solid guarter with record volume in equity options in November with 4.8 million contracts traded (ADV 220k). Same story this quarter in terms of participation mix where institutional orders are generating all the growth as opposed to the retail client market segment that is still contracting. Share futures bounced back in Q4 to make up for a slow year ending almost flat in terms of volume vs 2022.

Volume and Open Interest displayed in number of contracts.

Product Highlights

Final turning points in the transition from CDOR to CORRA

- 3M CORRA Futures set multiple records including quarterly, monthly and daily (116k) volume highs
- CRA open interest at quarter end: 577k contracts
- 1M CORRA Futures (COA) 4 nearest contract months available for trading
- More than 35 exchange participants transacting 3M CORRA Futures
- Continued activity in BAX-CRA spread strategies and activity developing in all 12 quarterly expiries

A busy quarter for MX GoC bond futures

CG7 & CGF:

- Combined ADV of 108k contracts in Q4, up 50% vs Q4 2022
- Combined Open Interest of 270k contracts, up 90% vs Q4 2022

CGB ADV at quarter end: 152k contracts (+16% YoY)

Active basis trading:

- CGZ EFP volume in Q4: 7k contracts ADV (14% of CGZ volume)
- CGF EFP volume in Q4: 7k contracts ADV (13% of CGF volume)

Curve spread actively traded in Q4: 8.5k ADV for 5Y/10Y spread; 3k ADV for 2Y/5Y spread

Activity also picking up in the 2Y/10Y, 2Y/5Y/10Y and 10Y/30Y strategies

Several records in Canadian equity and ETF Options

- Equity Options quarterly volume record reached in Q4 2023 with 12.4M contracts
- Equity Options monthly volume record reached in November with 4.8M contracts
- ETF Options open interest record of 6.9M contracts in October 2023

Share futures

Volume bounced in Q4 with a quarterly ADV of 69k contracts (+56% vs Q4 2023)

Institutional Content

The Emergence of Cryptocurrency Futures Trading in Canada

<u>Using TMX Futures to Position for 2024 Central Bank Rate Cuts</u>

Cross Currency Opportunities Created by Higher Rates

So long BAX model, you've had a good run

Economic pessimism grips Canada inflation market

How to use TMX Futures to trade different macro and crisis scenarios

Liquidity of Interlisted Stocks in the Canadian Options Markets

"Free Money Trade": Astute CGB basis traders found a free option

Potential strategies: long Canadian government bond futures contracts

Exploring the potential of long canadian bond futures in a dynamic economic landscape

Taking the long view with Canadian Index Futures

CORRA Futures (CRA): Learn more

Bitcoin Price Index Futures (BT): Learn more

Key Milestones and Facts

Record days during Overnight trading

- Global participants took advantage of the overnight trading hours (8 p.m. to 6 a.m. (ET)) to manage their Canadian exposure during non-local business hours. As of Q4 2021, MX is now open 20.5 hours a day. Visit m-x.ca/yourtime for more information.
- Overnight Trading Hours statistics:

Products	Q4 2023 ADV		
All products	16k		
CRA	1k		
CGB	11k		
CGF	1k		
CGZ	1k		
SXF	2k		

The activity taking place during the overnight trading hours represents about 4% of MX daily volume on average for eligible products.

New!

 $More\ overnight\ trading\ in\ 3M\ CORRA\ Futures\ has\ been\ observed\ in\ recent\ months!$

Benchmark transition (CDOR to CORRA) & Fallbacks Implementation Plan

MX is committed to facilitating the access and transition to CORRA, by developing a robust and efficient market for CORRA Futures. MX has published an <u>updated Fallback plan for BAX</u>, detailing the expected conversion process towards CRA, scheduled for April 26, 2024. The following measures are also meant to support the CORRA ecosystem:

- Inclusion of CRA/BAX inter-commodity spread on Bloomberg (Now live! CORBA Comdty)
- Amendment of MX rulebook to add fallback procedures for BAX
- Listing of Options on 3M CORRA Futures (February 12, 2024)
- One-Month CORRA Futures (COA™) available for trading. The product serves as key input for Term CORRA. Please refer to the <u>COA product page</u> or the <u>CORRA microsite</u> for more details including product illustrations and complete specifications. Trading fees waived until June 30, 2024.

Updates on the 30-Year GoC Bond Futures (LGB™)

Effective since the March 2023 contract, the delivery period of the LGB contract has been changed from a full month to what is now a single day, eliminating the wildcard option and thus, making the pricing and the roll of the contract more stable. Benefits from the liquidity provided by National Bank Financial and Desjardins Securities include:

- Robust quotes in the front contract and quarterly calendar roll
- Strong basis market offering
- More trading opportunities

Upcoming launch of Bitcoin Price Index Futures!

MX announced that it will launch Bitcoin Price Index Futures on Tuesday, January 16, 2024, to meet rising market demand for digital cryptocurrency asset classes. Giving market participants exposure to Bitcoin value movements on the underlying CoinDesk Bitcoin Price Index (XBX), the cash settled futures contract will trade and settle in US dollars, and clear at the Canadian Derivatives Clearing Corporation (CDCC).

Bourse de Montréal Inc. (the "Bourse") will list two (2) monthly contracts starting with the February 2024 expiry as well as intra-group strategies (calendar spreads). Complete details are available on the product <u>landing page</u>.

Guaranteed Cross Auction with Price Improvement and Covered with Stocks to launch at the end of Q1 2024.

The new functionalities specs are now available as well as the test environment

Protocol release: March 1st, 2024, with the GC Auction and Covered with stocks launched March 29th.

This year's protocol release is expected to be for Q1 2024 as opposed to Q4 2023 in order to allow more time for all participants to be ready for the update.

News from the Regulatory Division

- 2024 Compliance priorities and regulatory division initiatives

 The Division has identified certain compliance issues that will be prioritized throughout 2024 and also shared key initiatives that it will pursue this year. More details are available in Circular 002-24.
- Self Certification: Amendments to the Rules of the Bourse regarding Client and Order Identifiers

The Division published the self certification Circular $\underline{144-23}$ detailing amendments to the Rules of the Bourse regarding Client and Order Identifiers. In addition, the Division created a new webpage for past and future publications related to Client and Order Identifiers with the goal of assisting Participants prepare for the new requirements which will become effective June 28, 2024.

Last MX Technical User Group Roadmap Webinar

The Technology Quarterly Roadmap for Q4 2023 was conducted on October 5th, 2023, with over 60 people signed up and 35 live attendees. The turnout was smaller than usual because the agenda was specifically for CDCC tech issues focusing mainly on BAX fallback. The main topics focused on CDCC changes including the BAX/CRA transition with BAX fallback procedure at CDCC, along with T+1 planned changes, and the introduction of SGC. The next webinar will be on January 24, 2024.

Market Order with protection bands added for CRA, CGZ and CGF

Effective January 23, 2024, the Market Order, as described in Article 6.110 (b) (ii) of the rules of the Bourse, will be enabled for the CRA, CGZ and CGF. Already active on BAX, CGB and SXF, this new market order behaviour allows the order to match and trade at multiple price levels (ticks) until completely filled, provided that there is sufficient liquidity in the book or until it reaches an outer market order protection band as configured for the given listed instrument. The market order protection bands are visible in the Exchange Market Thresholds and Controls section of our webpage.

New - GoC Bond Futures Inter-Commodity spreads on Bloomberg and LSEG Data & Analytics

Participants now have complete access to the intercommodity spreads between the different bond futures contracts (CGZ, CGF, CGB and LGB) through all Bloomberg's Terminals and LSEG Data & Analytics' platforms. Through the integration, market participants are now able to view and execute the Bourse's yield curve spread trades, a beneficial functionality to trade at different points on the curve in a single transaction. This will build upon the existing activity for curve spreads (11k ADV for 5Y/10Y; 4k ADV for 2Y/5Y). The following codes and feeds are now available:



Curve Spread Product	Ratio of contracts	Bloomberg	LSEG Data & Analytics ¹	MX HSVF OBF Feeds ¹
5yr (CGF) vs 10yr (CGB)	2 : 1	XQCN Comdty	CGF-CGBF20	2CGFF0-1CGBF0
2yr (CGZ) vs 5yr (CGF)	3 : 1	CVXQ Comdty	CGZ-CGFF20	3CGZF0-1CGFF0
2yr (CGZ) vs 10yr (CGB)	11 : 2	CVCN Comdty	CGZ-CGBF20	11CGZH0-2CGBH0
2yr (CGZ) vs 30yr (LGB)	20 : 1	CVLGB Comdty	CGZ-LGBF20	20CGZF0-1LGBF0
5yr (CGF) vs 30yr (LGB)	7 : 1	XQLGB Comdty	CGF-LGBF20	7CGFF0-1LGBF0
10yr (CGB) vs 30yr (LGB)	7 : 2	CNLGB Comdty	CGB-LGBF20	7CGBF0-2LGBF0

¹ F Character represents F for Front month Symbol and can either be H,M,U or Z. 20 (or 0) in the examples stands for 2020, but will be represented by the actual real expiry calendar year.

Key Exchange Notices

- Advisory Notice A23-0013: <u>Listing of Options on Three-Month CORRA Futures (OCR)</u>
- Advisory Notice A23-011: Alignment with the TSX trust Symbology
- Advisory Notice A23-009: <u>Update on BAX Fallbacks Implementation Plan</u>
- Advisory Notice A23-008: <u>Listing of Bitcoin Price Index Futures</u>
- Advisory Notice A23-006: <u>Listing cessation for Three-Month Canadian Bankers'</u>
 <u>Acceptance Futures (BAX)</u>
- Advisory Notice A23-005: <u>Inclusion of CRA/BAX Inter-Commodity spreads on Bloomberg</u>
- Advisory Notice A23-004: Activation of New Market Order Type with protection
- Advisory Notice A23-001: <u>Listing of One-Month CORRA Futures (COA)</u>
- Technical Notice 23-004: Montreal Exchange Protocol Upgrade

Did you know?

- MX, in collaboration with the CARR working group, is hosting a series of CDOR to CORRA Transition Webcasts to inform market participants of important developments.
 Sign up today and be notified when webcasts are released.
- Investors can access the latest CORRA-related benchmark developments, including transition provisions and initiatives on MX's <u>CORRA</u> <u>microsite</u>. A FAQ, cheat sheet and new Fallback provision plan are now at disposal to assist investors with their transition.
- MX offers <u>listed options</u> on four Bitcoin ETFs and four Ether ETFs from different ETF providers, enabling investors to access diversification and growth potential of cryptocurrencies.
- Put/Call ratios are available on a daily basis on the trading activity section of the <u>MX website</u>.
- Real-Time bid/ask quotes are available on the MX website for Canadian options and futures contracts. <u>Sign up</u> for a free account and create a "My Quotes" portfolio to easily keep track of your options and future positions.



For more information



INTEREST RATE DERIVATIVES

irderivatives@tmx.com

EQUITY DERIVATIVES

equityderivatives@tmx.com

m-x.ca/linkedin

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