THE FUTURE IS YOURS TO SEE.®

March 2023

MONTRÉAL EXCHANGE

Is This Really the End? An Update on BAX

Monetary tightening at the Bank of Canada (BoC) began in earnest in the first quarter of 2022, just a year ago. As all market participants know, the emergence of inflation, followed by a rapid response to raise the target rate from 0.25% in January 2022 to 4.5% by the end of January 2023 has caused a rise in 3-month CDOR (Canadian Dollar Offered Rate), from 0.5% to just over 5%; a painful move for anyone that was long on Three-Month Canadian Bankers' Acceptance Futures (BAX™) contracts during this time. At present, Montréal Exchange's BAX contracts indicate that market expectations are that rate hikes will pause soon, followed by a more accommodative monetary policy within 12 to 15 months. For the moment, investors who disagree with these implied rates or with their path can execute trades in both BAX contracts and Three-Month CORRA Futures (CRA™) contracts.

Consistently Optimistic – and Wrong

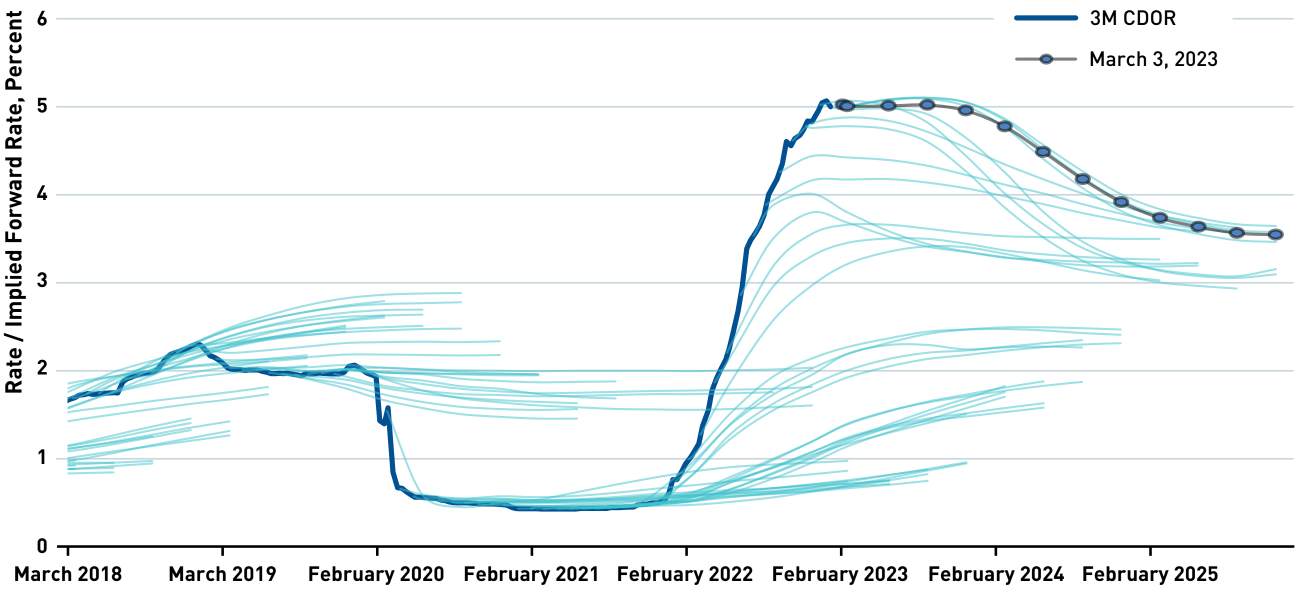
Very unusually for the Canadian market, BAX contracts have been overly optimistic about an impending end to monetary tightening since the beginning of the policy cycle. To demonstrate the above observation, we draw the reader's attention to the graphical depiction of 90-day rates in Figure 1, which we have updated to March 3rd, 2023. In the chart, the "spaghetti lines" depict the yield curve for BAX on Montréal Exchange as captured each month for the last five years. The solid line shows the level of CDOR[1] on each date, which allows us to easily compare the implied yield from the strip of futures contracts to the level of CDOR that was eventually realized. CDOR, of course, closely follows the BoC target rate which anchors the front end of the Canadian yield curve.

In Figure 1, thinner yield curves above the solid CDOR line depict periods when the futures market anticipated, via lower prices (higher yields) for BAX, short-term interest rate hikes that were not delivered by the BoC. Similarly, yield curves below the solid CDOR line depict periods when the market either failed to anticipate future policy tightening or anticipated interest rate cuts that were not delivered by the BoC, or at least not in time for long positions to profit. In the most recent period, covering the entire tightening period by the BoC, the strip of BAX contracts has failed to anticipate tighter monetary policy, in many cases by hundreds of basis points.

1 In this article, for convenience purposes, the term "CDOR" indicates the benchmark 3-month CDOR rate.

FIGURE 1

Early March 2023 BAX Curves, 5 Years



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

For example, six months after the first increase in the BoC target rate and two weeks after the giant +100 basis points increase on July 13th, 2022, the March 2023 BAX contract priced at an implied yield of 3.80%[2], while CDOR today, just a week before this contract settles, is just over 5%, for a "miss" in predicting future interest rates of over 100 basis points. Prices earlier in the cycle were even more wildly optimistic about the end of the tightening cycle.

Still Optimistic

Also shown in Figure 1, depicted by the curve highlighted with dots, is the current BAX market prediction of the path forward[3]. Implied yields on BAX contracts continue to predict that we have reached the apogee of interest rates for this cycle and that the Bank of Canada will finally be set to begin, after several quarters holding rates steady, a cycle of monetary easing. This may be true but, as seen above, the market has predicted the end of BoC rate hikes for several quarters already, to no avail.

Where's the Normal?

Expanding Figure 1 to include more data reveals that, although BAX isn't normally a good predictor of future rates, it has rarely been wrong by such a magnitude and, in fact, is usually consistently pessimistic – with most of the "spaghetti lines" being above the eventual CDOR level – rather than optimistic. From this perspective, shown in Figure 2, the utility of BAX as a predictor for CDOR prior to the recent tightening looks, strangely for us, quite good. We concluded the exact opposite in our original study of the utility of BAX to predict future CDOR rates in September 2017[4].

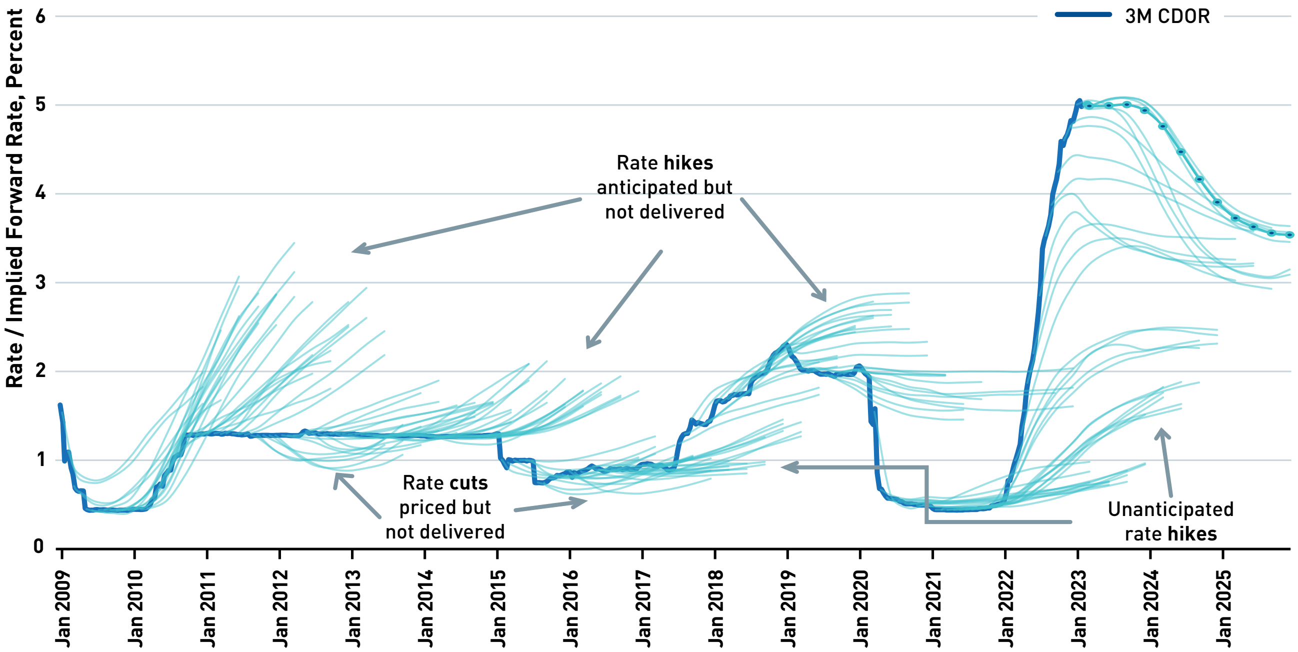
2 Assumption at the time of writing - the contract may have expired at publication.

3 Sophisticated BAX users know that BAX contracts actually contain a small credit spread term structure that has a tendency to make the futures curve upward sloping, which is ignored here for simplicity.

4 "Evolving BAX: Nearly a Decade of Easy Rolldown", published by Montréal Exchange in September 2017.

FIGURE 2

CDOR and Monthly BAX Curves, Jan 2009 to Present



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

Figure 2 depicts only two periods where unanticipated rate hikes occurred since 2009, but the magnitude of both the rate hikes and the failure to anticipate them by the futures market in 2022 dwarfs anything observed in the previous monetary policy cycles. As we can easily see in this figure, anticipating rate hikes that do not occur has been a more typical erroneous prediction than the recent situation of failing to anticipate the magnitude of BoC policy.

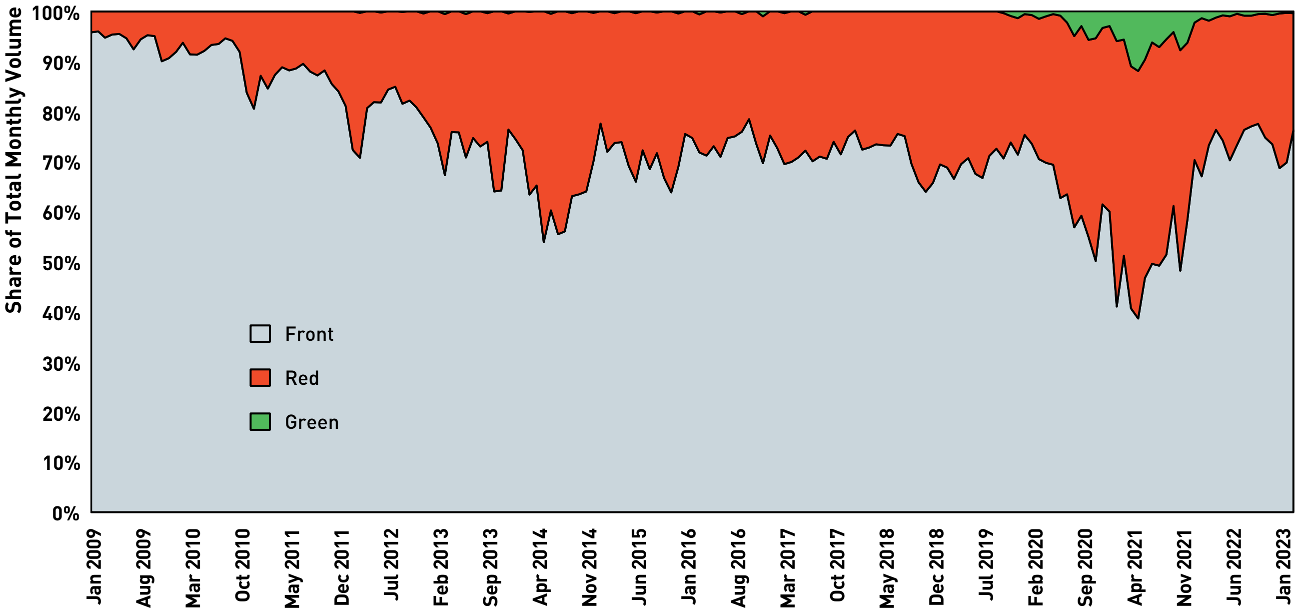
Bad for Reds and Greens

When we last updated market participants using these charts, we optimistically observed that, at long last, participants were engaging in front-end trades using the "green contracts" (or simply "greens"). In market parlance, "front" or "white" contracts are the first four quarters of contract expiries, while "reds" are the next four quarters and "greens" are the contracts that expire in an additional year after the "reds". In fact, in 2021, the share of total BAX volume in "greens", contracts that expire between 2 and 3 years in the future, had risen to over 10% of total volume, and the combination of "reds" and "greens" had risen to over 60% of all contract volume in BAX contracts.

Figure 3 shows that contracts expiring in more than one year have fallen to just 30% of all volume in BAX now, a level roughly consistent with the average of the last 15 years, and volume in "greens" has fallen to almost zero. Alas, investor interest (no pun intended) in Canadian 90-day futures with more than a year to expiry has not endured, a fact that seems consistent with the market focus on a near-term peak in overnight rates. After all, why dabble in 90-day futures that expire in 3 years if you believe the BoC is on the verge of pausing and, ultimately, reversing course in the nearer term? The impending change from BAX contracts to CORRA contracts may also be affecting this measure.

FIGURE 3

BAX Volume by Series, Jan 2009 to Present



Source: Montréal Exchange

Three-Month CORRA Futures (CRA) to Replace BAX

This year will be a dynamic one in BAX contracts, regardless of the direction of rates, as the transition from the BAX contract – by far the most common method in the past to trade the front end of the Canadian yield curve in standardized contracts – to CORRA futures (Canadian Overnight Repo Rate Average) is already underway.

Since January 9th, the new standard for swap spread hedging between dealers of Canadian dollar swaps has been CORRA, not BAX. After a series of transition steps this year[5], the BAX contract will be replaced completely by CRA before mid-2024, but we expect the new standard CORRA to effectively eclipse the old BAX by the end of 2023. As with all markets, liquidity begets liquidity by attracting involvement by other participants.

As stated above, the transition is already well underway. On the last day of 2022, just 9 weeks ago, the total open interest of all the CORRA contracts (3 years of contracts are listed for CRA) was just 38,000 contracts. On March 3rd, the open interest had risen to almost 148,000, nearly quadrupling in just a couple of months. While the total open interest in all BAX contracts is still 5 times that figure, "the old road is rapidly aging and the times, they are a-changin'."

Opportunities

At present we see little reason why the tendency for BAX contracts to under-anticipate monetary policy tightening by the Bank of Canada should end today, especially given the most recent continuation of inflation well above the BoC's 1-3% target and continued (it appears) tightening in many global economies. As always, active investors that have formed a view different from that implied by the market can attempt to profit by taking long positions (rates have peaked and will fall faster than the market already implies) or short positions (the BoC will hike rates more to ensure inflation is truly under control) in BAX contracts. For example, an investor that thinks the BoC will continue to hike rates might choose to execute a steepening BAX curve trade by simultaneously buying the BAXU23 (September 2023) contract and selling an equal amount of the BAXH24 contract (March 2024). If the market eventually prices the expectation of monetary policy easing out of the curve, the investor would profit substantially.

For the moment, these trades are possible in both BAX and CRA and many investors can probably find liquidity in both contracts. However, by the end of the year, we expect CRA contracts to become the de-facto "norm" for trading the front end of Canada's yield curve.

5 For more, we refer readers to the Bank of Canada / Canadian Alternative Reference Rate working group website and to a recent article by Robert Catani published by Montréal Exchange.

Disclaimer

This piece was written, edited, formatted and translated just before the March 10th failure of Silicon Valley Bank that introduced unanticipated volatility to the front-end of yield curves globally. The shape of the BAX curve remains similar and the historical observations are still informative but participants are warned that outright BAX prices are considerably higher than they were when the piece was written.

Kevin Dribnenki writes about fixed income derivatives and opportunities in Canadian markets. He spent over 10 years managing fixed income relative value portfolios as a Portfolio Manager first at Ontario Teachers' Pension Plan and then BlueCrest Capital Management. During that time he managed domestic cash bond portfolios as well as international leveraged alpha portfolios and has presented at several fixed income and derivatives conferences. He received a BA in Economics from the University of Victoria, an MBA from the Richard Ivey School of Business, and holds the Chartered Financial Analyst designation.

For more information

irderivatives@tmx.com

m-x.ca/futures

i BMO Capital Markets is a trade name used by BMO Financial Group for the wholesale banking business of Bank of Montreal, BMO Harris Bank N.A. (member FDIC), Bank of Montreal Ireland plc., and Bank of Montreal (China) Co. Ltd and the institutional broker dealer businesses of BMO Capital Markets Corp. (Member SIPC) in the U.S., BMO Nesbitt Burns Inc. (Member Canadian Investor Protection Fund) in Canada and Asia and BMO Capital Markets Limited (authorized and regulated by the Financial Conduct Authority) in Europe and Australia. "BMO Capital Markets" is a trademark of Bank of Montreal, used with permission.