

MONTRÉAL EXCHANGE

CPI/Reflation Trade in Canada

Since April 2020, much of the fixed income market has been focused on the “reflation trade” in developed markets. While variations exist, the economic thesis is generally that the significant fiscal and monetary stimulus applied to developed market economies to combat the potential GDP reduction due to social distancing measures will eventually lead to inflationary pressures. The economic argument seems reasonable and, although current economic statistics provide slim evidence, the trade fundamentals focus on future inflation and future inflation expectations, not current changes in the price level.

Already Reflated?

It is possible that the notion of a return to normal inflation levels has already been priced into fixed income markets. Figure 1 shows the breakeven inflation level in Canada implied by the yields of long-term real return bonds and nominal bonds since the onset of the COVID-19 pandemic.

FIGURE 1
Implied Long-Term Breakeven Inflation



Source: Bank of Canada

Breakeven inflation is an anticipated level of inflation that is priced into bonds where an investor would be indifferent between owning a real return (inflation-linked) bond or a nominal bond. It is constructed by subtracting the interest rate of a real return bond from the interest rate of a nominal bond of similar maturity.¹ For example, on January 26th 2020, which was before the onset of the pandemic, the Canada long-term real return bond traded at a yield of 0.10% while a long-dated nominal bond traded at a yield of 1.44%. The difference of 1.34%, or 134 basis points, is a measure of the breakeven inflation rate implied by the pricing of the two bonds. At realized average inflation rates higher than 1.34% over the next three decades, the real return bond would outperform the nominal bond and vice versa. At realized inflation rates of exactly the breakeven inflation level, both investments would have an identical return.

When the pandemic hit during the first quarter of 2020, breakeven inflation fell precipitously for all maturities with the bonds closest to maturity falling the most. However, even the longer-term maturities fell to roughly 0.5% before rebounding steadily since that time to about 1.6%, depending on maturity. Without question, the Canadian breakeven inflation level has covered a lot of ground in the past 10 months only to return to the pre-pandemic level.

More to Come?

Despite the above evidence, there are reasons to believe that breakeven inflation, and eventually inflation prints themselves, can continue to move higher in Canada.

The Bank of Canada

First, the current level of breakeven inflation is far below the inflation target that the Bank of Canada has established.² That target, which is up for review by December 2021, is still a 2% midpoint and a range of 1-3%. Even the midpoint of the target range is 40 basis points higher than breakeven inflation levels in Canada after the reversion observed since the depths of the pandemic market panic. Additionally, one of the notions discussed publicly by the Governor of the Bank has been to ensure that the economy is back on stable footing before removing the extreme monetary stimulus applied to manage the economy in 2020. Essentially, this would mean that the Bank would accept higher than target inflation for a period before applying restrictive monetary policy to rein in inflation. Whether that means allowing inflation to exceed the top of the range or the midpoint target is almost a moot point given that both are currently much higher than Canadian breakeven inflation levels implied in the market.

Further, the Bank of Canada has been remarkably good at achieving the 2% midpoint of their inflation target over the long term. Over the last 26 years, for example, the annual percentage growth rate in Canada's Consumer Price Index (CPI) has been 2.29%, or a 1.814% average annual compounded rate. Both measures are well above the current breakeven inflation rates implied by Canadian bond yields.

CPI Problems for Wealth Preservation

In financial markets we are mainly concerned with the erosion of wealth or purchasing power when we discuss inflation. In this respect, CPI is not a perfect measure of inflation as the basket of goods and services reflects an average for the population, not for any individual investor. In fact, CPI under-estimates the actual wealth erosion experienced by all but the youngest investors since almost all consumers shift from purchasing goods to services as they age.

Since 2002, the average annual growth rate on Food and Shelter have been 2.43% and 2.23%, respectively, while Clothing has fallen in price by 0.35% annually and recreation has increased at a rate of only 0.96%. If one were to re-weight the CPI components³ to find how much one's future expenditures had risen, we would therefore find that wealth has not been preserved if one simply matches the gains in the CPI basket; most of us will likely spend relatively more of our wealth on higher inflation services such as food and shelter, and less on lower inflation categories like clothing as we get older.⁴ Individuals and institutions may abruptly realize this if inflation expectations once again become rooted in the consumer or institutional mindset.

Inflation May Become a Narrative

Finally, a catalyst such as the extreme monetary and fiscal policy applied by governments and central banks to protect the economy has the potential to become an economic narrative that changes the behaviour of the population. This theme of narratives that shape consumer spending and actions is discussed in Robert J. Shiller's 2019 work,⁵ written before the pandemic but certainly applicable to the catalyst of expansionary policy such as the world has experienced in the past year.

¹ For perfect accuracy, one would construct a par curve of inflation-linked bonds and a par curve of nominal bonds, and use identical maturities. This is rarely done in practice as the breakeven inflation rate implied by the two bonds typically fluctuates a lot, negating the benefits of such precision.

² Readers should note that breakeven inflation is not actual inflation prints for the Canadian Consumer Price Index (CPI). Instead, it is the level of future CPI prints implied by the markets today. Understandably, recent CPI observations have been extremely low.

³ For those interested, the Bank of Canada introduced an online Personal Inflation Calculator in 2020 that allows a user to input his/her personal current (not future) expenditures to re-weight the CPI.

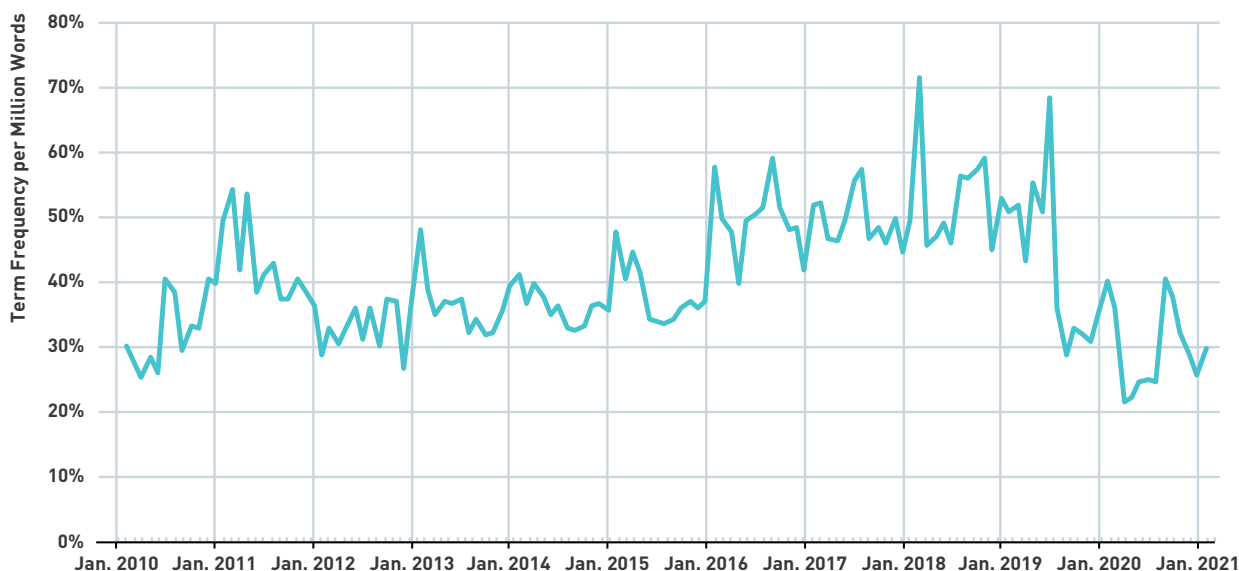
⁴ U.S. Department of Labor, Bureau of Labor Statistics, Summary 00-16, August 2000. Issues in Labor Statistics, Spending Patterns by Age.

⁵ Shiller, Robert J. Narrative Economics: How Stories Go Viral and Drive Major Economic Events.

In his work, Shiller identifies long-term narratives that thrive on repetition, a kernel of truth (however small), and human interest. Given the wealth-destroying nature of inflation, one can imagine a scenario where the fear of inflation coupled with multiple opportunities for people to “confirm” from their own experience that prices are going up, and self-reinforcement via social media or real-world interactions with friends and neighbors that are experiencing or observing the same phenomenon, creates a long-term economic narrative. Such a narrative can, of course, become self-reinforcing as workers fear inflation in future ask for wage hikes, while consumers bring consumption forward to avoid higher future prices and thus create upward price pressures, regardless of whether the initial fear of inflation was well-founded or not. This is the classic wage-price spiral but from a perspective of narrative; a perspective that may be even more powerful in future given the influence social media platforms play in the news cycle today.

However, tools exist that can help corroborate that no such narrative has yet gripped the populace. Figure 2 plots the frequency per million words of the term “inflation” appearing in online news from January 2010 until January 2021. As can be seen, an “inflation narrative” does not seem to be at the forefront at this time given the relatively low rate of occurrence in the media lately.

FIGURE 2
NOW Corpus (News on the Web) Search Term = “inflation” Region = “world”



Source: www.english-corpora.org/now/

Further, Google Trends confirms that, although a slight uptick has occurred in web searches over the past year, the incidence of internet searches for the term “inflation” is only around 50% of the level observed in the USA in 2009 and at a similar relatively low rate for users in Canada. Clearly, if an inflation narrative is to take hold, it is not reflected in the online activity of people today.

5-30 Steeper or Breakeven Inflation?

There are two common expressions of the reflation trade that investors are likely already familiar with.

The first is the direct trade in breakeven inflation where an investor buys a real return bond and sells a similar maturity nominal bond. The second is a classic 5-30 curve steepening trade in nominal bonds. The theory for the first trade is clear; as consumers and investors come to expect higher CPI prints in the future due to an overheated economy or lenient Bank of Canada, they will pay less for nominal bonds which do not protect their future purchasing power. Nominal bond yields will rise relative to the yields on inflation protected bonds and the investor in breakeven inflation will profit.

Figure 3 shows a breakeven inflation trade constructed using CGBH21 10-year Government of Canada bond futures contracts. Shorting futures contracts in this case is a good way to avoid the additional work and funding cost uncertainty associated with a short position in 10-year bonds.

FIGURE 3

POSITION	SECURITY	DV01/ \$100	POSITION DV01
13,950,000	Canada 4.00% Dec31	14.3	19,999
-175	CGBH21	11.4	-19,955

The second is a similar theory in that long-term bond yields tend to rise more than short term bond yields if inflation is experienced. Investors often buy 5-year bonds and sell 30-year bonds in equal risk amounts to benefit from a steepening of the yield curve associated with higher inflation expectations in future. Figure 4 shows a 5-30 steepener trades using the current Canada 5-year and 30-year benchmark bonds. Of course, one could also substitute the 5-year Government of Canada bond futures contract (CGFH21) in place of the 5-year bond to benefit from creating part of the trade⁶ in derivatives as shown in Figure 5.

FIGURE 4

POSITION	SECURITY	DV01/ \$100	POSITION DV01
54,888,000	Canada 0.50% Sep25	4.6	25,000
-9,335,000	Canada 2.00% Dec51	26.8	-25,001
			-1

FIGURE 5

POSITION	SECURITY	DV01/ \$100	POSITION DV01
431	CGFH21	5.8	24,979
-9,327,000	Canada 2.00% Dec51	26.8	-24,980
			-1

Both trade constructions have moved steadily from the extreme levels set during the March pandemic panic in fixed income markets. However, the breakeven inflation level plotted in Figure 6 has simply retraced to the low levels seen in 2016 and 2017, not to the levels of around 2% that were common before 2015. In contrast, the Canada 5-30 curve is currently around the same level as it reached in 2011, 2013, and late 2014. Both trades have retraced over a hundred basis points from the panic levels of spring 2020 but, if inflation is to be higher than 1.5%, the trade in breakeven inflation appears to have more upside, with roughly the same amount of downside, as the 5-30 curve trade.

FIGURE 6
Classic Reflation Trade, 10 Year History



Source: Bank of Canada

⁶ Perhaps one day a 30-year futures contract will be liquid enough to construct the entire trade in derivatives but we cannot recommend doing so in this size at present.



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

T +1 514 871-3501
irderivatives@tmx.com

m-x.ca

Opinions expressed in this document do not necessarily represent the views of Bourse de Montréal Inc.

Do not copy, distribute, sell or modify this document without Montréal Exchange Inc.'s prior written consent. This information is provided for information purposes only. Neither TMX Group Limited nor any of its affiliated companies guarantees the completeness of the information contained in this publication, and we are not responsible for any errors or omissions in or your use of, or reliance on, the information. This publication is not intended to provide legal, accounting, tax, investment, financial or other advice and should not be relied upon for such advice. The information provided is not an invitation to purchase derivatives listed on Montréal Exchange. TMX Group and its affiliated companies do not endorse or recommend any securities referenced in this publication. TMX, the TMX design, The Future is Yours to See., and Voir le futur. Réaliser l'avenir. are the trademarks of TSX Inc. and are used under license. BAX, CGB, CGF, CGZ, LGB, Montreal Exchange, and MX are the trademarks of Montréal Exchange Inc.

Copyright © 2021 Bourse de Montréal Inc. All rights reserved.