Q3 2022 MARKET AND ECONOMIC REVIEW

PREPARED BY ENCASA FINANCIAL

INTRODUCTION

Capital Market Returns Q3 2022 (%)

	Q3	YTD	1 Year	3 Yrs.	5 Yrs.	10 Yrs.
FTSE CDN 91 Day T-Bill Index	0.5	0.8	0.9	0.8	1.0	0.9
FTSE CDN Short Term Index	(0.3)	(4.7)	(5.2)	(0.1)	0.9	1.3
FTSE CDN Universe Bond Index	0.5	(11.8)	(10.5)	(2.5)	0.7	1.7
S&P/TSX Index	(1.4)	(11.1)	(5.4)	6.6	6.5	7.3
S&P 500 Index ($CAD)	1.3	(17.2)	(8.3)	9.5	11.3	15.5
S&P 500 Index ($USD)	(4.9)	(23.9)	(15.5)	8.2	9.2	11.7
MSCI World Index ($CAD)	(0.1)	(18.9)	(12.8)	5.9	7.3	11.8
MSCI EAFE Index ($CAD)	(3.4)	(20.7)	(18.8)	(0.6)	1.0	7.2
Russell 1000 Growth Index ($CAD)	2.7	(24.6)	(16.0)	12.0	14.3	17.6
Russell 1000 Value Index ($CAD)	0.5	(10.5)	(3.9)	5.7	7.3	12.9
MSCI EAFE Growth Index ($CAD)	(2.5)	(26.9)	(24.1)	0.1	2.9	8.6
MSCI EAFE Value Index ($CAD)	(4.3)	(13.6)	(12.8)	(1.0)	(0.3)	6.5

The Quarter in Review

Most of the negatives that investors experienced in the first half of the year continued into the third quarter, as stubbornly high inflation, interest rate hikes and concerns about a pending recession weighed heavily on investor sentiment. While it's difficult to predict if inflation is near its peak or if we are near the end of the rate hiking cycle, there are reasons for optimism on both fronts, which we outline below…

Bond Market Commentary

The FTSE CDN Short-Term Bond Index declined 0.3% in the third quarter and a dismal 4.7% year to date, as the yield curve rose for maturities shorter than 5-years. This decline was offset by positive returns for long-term bonds in the third quarter as the yield curve declined for bonds with 10-years or longer until maturity. The broader bond market (FTSE CDN Universe Bond Index), which includes short, medium, and long-term bonds, rose 0.5% in the third quarter. While this provided a small reprieve for bond investors, it did very little to offset the bond market debacle of the last two years. Canadian universe bonds have declined 11.8% year-to-date, giving up all their gains over the past three years and offering up a paltry 1.7% return over 10 years. Looking at long-term global bond returns further illustrates the pain that bond investors have experienced in the last decade. This 10-year period is the worst in the past 50 years.

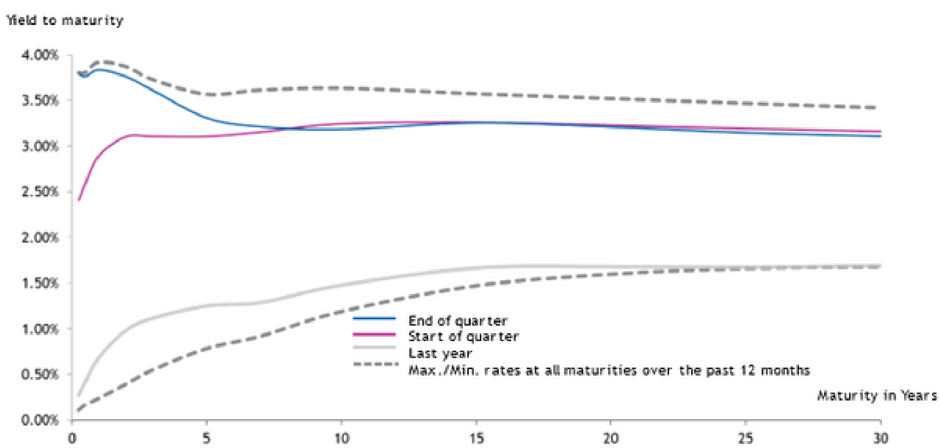
Figure 1: 10-Year Rolling Nominal Returns for Global Government Bonds (GDP Weighted)

Source: John Authers - Points of Return - Bloomberg Opinion, GFD, Deutsche Bank

The shape of the Canadian yield curve inverted in the third quarter meaning that short-term interest rates are now higher than long-term interest rates (2 years at 3.76% and 30 years at 3.11%) as outlined in the chart below. Normally, yield curves are positively sloped meaning that short term rates are lower than long term rates[1] . Inverted yield curves are relatively rare and have historically preceded recessionary periods. This does not necessarily mean a recession is imminent, but it can be a strong indicator of things to come. BCA Research argues that "the correct interpretation is that an inverted yield curve predicts future interest rate cuts – which typically indicates a recession is coming because short-term interest rates rarely fall outside of the context of a recession"[2]. Notably, the Canadian yield curve inversions in 2000 and 2007, preceded sharp interest rate easing cycles.

QUARTERLY MARKET AND PORTFOLIO REVIEW

Government of Canada Interest Rates in Q3 2022



	CAN 3m	CAN 6m	CAN 1y	CAN 2y	CAN 3y	CAN 5y	CAN 7y	CAN 10y	CAN 15y	CAN 20y	CAN 25y	CAN 30y
2022-09-30	3.79%	3.76%	3.84%	3.76%	3.61%	3.31%	3.21%	3.18%	3.25%	3.21%	3.15%	3.11%
2022-06-30	2.41%	2.60%	2.90%	3.10%	3.11%	3.11%	3.16%	3.25%	3.26%	3.23%	3.19%	3.16%
2021-12-31	0.27%	0.42%	0.68%	0.98%	1.11%	1.25%	1.29%	1.48%	1.66%	1.68%	1.67%	1.69%

As at September 30, 2022
Note: Yields are calculated using constant maturity par yields generated by the Addenda Capital yield curve algorithm. The yield curves are based on FTSE Canada daily prices.
Sources: FTSE Canada, Addenda Capital

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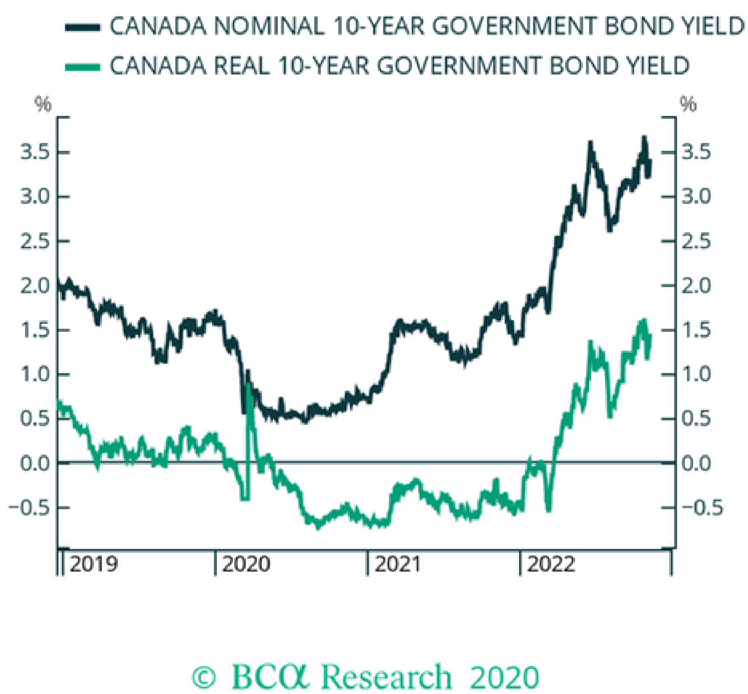
The yield on Canadian 10-year bonds have risen significantly year-to-date in both real[3] and nominal[4] terms as shown in Figure 3 below...

Nominal bond yields increased primarily because of rising short-term inflation expectations **Figure 3**. The reason is that inflation erodes the purchasing power of a bond's future cash flows. And as inflation expectations rise, investors demand higher yields to compensate them for assuming this risk, causing bond prices to move lower.

Real yields climbed back into positive territory in March, as the Bank of Canada began its tightening cycle. This was an important change, as negative real yields in early 2020 helped to divert money from government bonds into an array of riskier assets, including stocks. **The rise in real yields has weakened the allure of riskier assets and contributed to the sell-off in equities in 2022.**

Figure 3: Real and Nominal Bond Yields Have Risen Significantly This Year

(www.bcaresearch.com)



The Silver Linings of the Bond Market Collapse of 2022

As painful as this year has been for both equity and fixed income investors, there are some positives to be found for fixed income investors.

The first is that the recent selloff may present a buying opportunity. **Expected returns for bonds (as estimated by yield to maturity)[5] look much more attractive now than they did at the start of the year.**

The second is that **fixed-income investments across all maturities are finally delivering a reasonable return relative to their risk - a key consideration for investors.**

Stock Market Commentary

Stocks continued to trend down in the third quarter for the same reasons as the first half of the year, elevated inflation, aggressive interest-rate increases, and recession fears.

The S&P/TSX Index declined 1.4% in Q3 and 11.1% year-to-date. However, on a 10-year basis, returns on the S&P/TSX Index are still a respectable 7.3%.

For Canadian investors in U.S. markets, results recovered a little as the S&P 500 Index increased by 1.3% in the third quarter, reducing the year-to-date losses to 17.2%. However, the returns in the third quarter were only positive because the Canadian dollar depreciated 6.2% against the U.S. dollar. Long-term Canadian investors in the S&P 500 have been handsomely rewarded, experiencing double digit positive returns of 15.5% over the last ten years.

For domestic investors in U.S. markets, the S&P 500 Index declined by 4.9% in the third quarter, bringing year-to-date losses up to 23.9%. Long-term domestic investors in the S&P 500 are still up 11.7% over the last ten years.

The MSCI World Index[6], which is comprised of about 70% US stocks, declined by 0.1% in the third quarter, bringing year-to-date losses up to 18.9%. On a 10-year basis, returns on the index are 11.8%

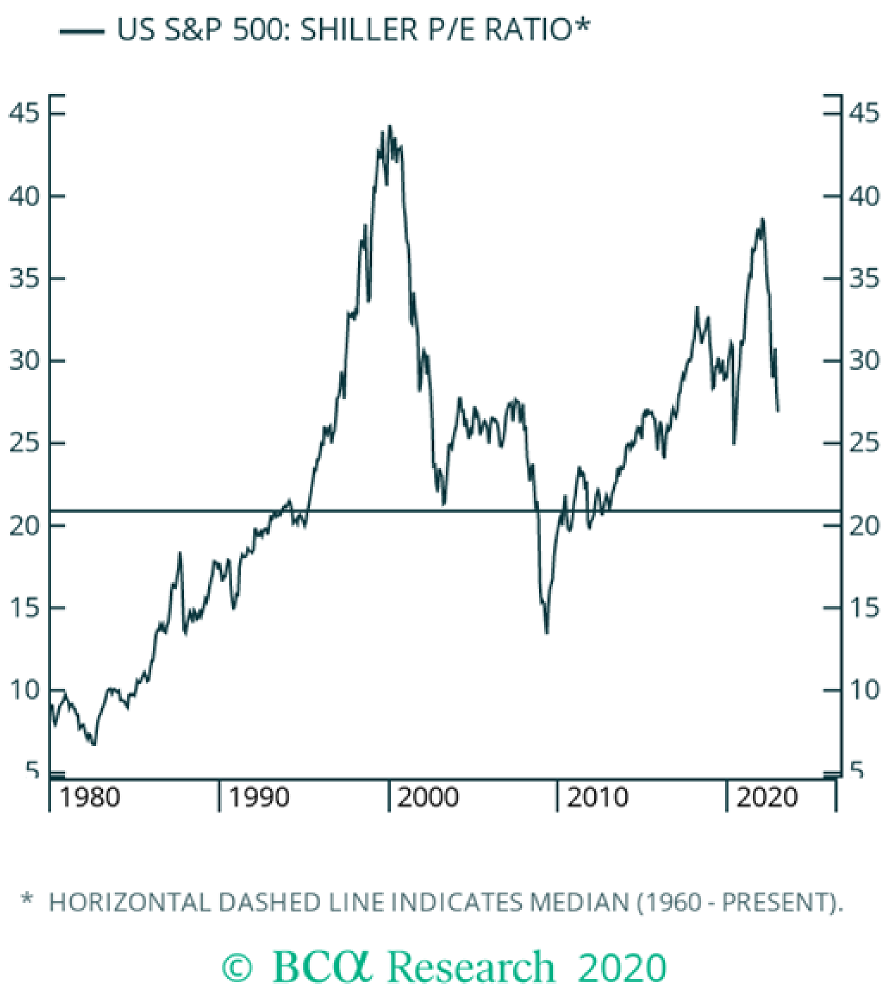
International stocks (as measured by the MSCI EAFE Index) declined 3.4% in the third quarter, bringing year-to-date losses to 20.7%. On a 10-year basis, returns on the MSCI EAFE Index now stand at a respectable 7.2%.

Canadian investors in U.S. Growth stocks earned 2.7% in the third quarter (as measured by the Russell 1000 Growth Index[8], outperforming the 0.5% increase that Canadian investors in U.S. value stocks earned (as measured by the Russell 1000 Value Index[9]). However, these returns were only positive because the Canadian dollar depreciated 6.2% against the U.S. dollar in the third quarter. U.S. Growth stocks, however, over the full nine months of 2022 remain in bear market[10] territory with the Russell 1000 Growth Index down 24.6% in Canadian dollar terms, significantly underperforming the 10.5% losses delivered by U.S. value stocks over this period. On a ten-year basis, however, Canadian investors in US growth stocks have seen their investment grow by 17.6% per year, while investors in US value stocks have grown their investment by 12.9%.

Canadian investors in international growth stocks lost 2.5% in the third quarter (as measured by the MSCI EAFE Growth Index[11]), outperforming the 4.3% loss that Canadian investors in international value stocks experienced (as measured by the MSCI EAFE Value Index[12]). International Growth stocks, declined 26.9% over the full nine months of 2022, significantly underperforming the 13.6% decline in international value stocks over the same period. On a 10-year basis, international growth stocks outperformed international value stocks, rising 8.6% per year compared with the 6.5% per year delivered by value stocks.

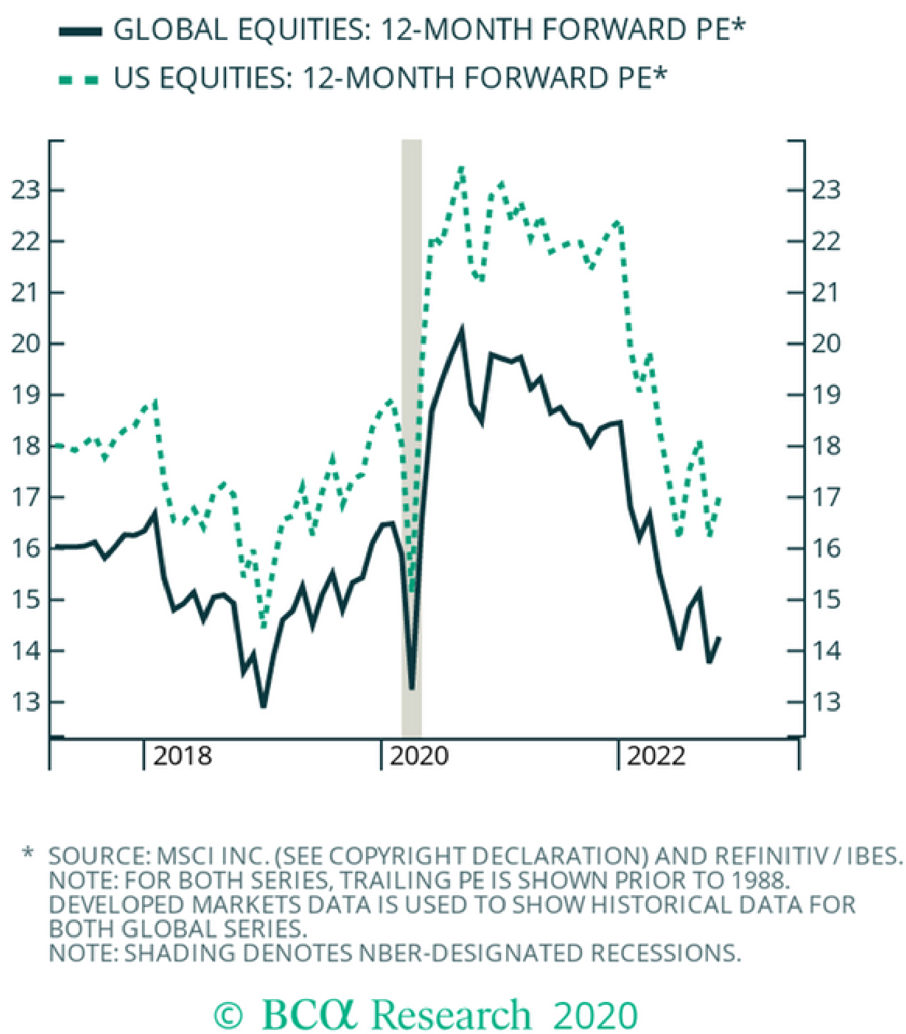
All the benchmark equity indexes are down substantially in 2022, as interest rate hikes and recession fears have rattled investor confidence. Stock have become less expensive but cannot yet be described as cheap on a historical earnings basis. As shown below, the Shiller P/E Ratio[13] for the S&P 500 has fallen from its recent highs to around twenty-seven times earnings, still well above its long-term median of twenty-one.

Figure 4: Stocks Are Less Expensive, But Are Not Cheap When Compared to Historical Earnings
(www.bcaresearch.com)



Stock valuations using future earnings estimates tell a different story. **Figure 5** shows that **forward price to earnings multiples [14] for global and U.S. equities have come down substantially and are nearing where they bottomed in 2020.**

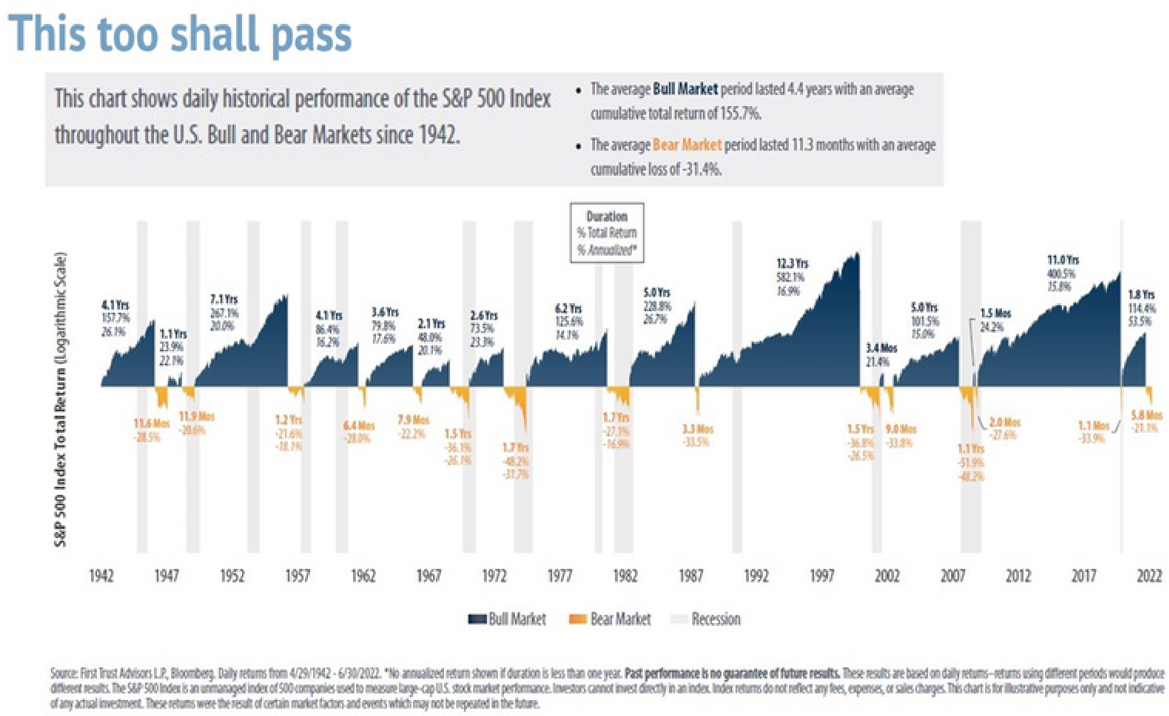
Figure 5: Forward Looking Stock Valuations are Starting to Look Attractive
(www.bcaresearch.com)



While stocks could potentially fall further if an economic slowdown leads to lower earnings estimates or if higher interest rates reduce the multiples that investors are willing to pay for those earnings. It is important to remember that, like all bear markets that have come before it, this too shall pass.

The chart below is revealing - it shows that **the average bull market period in the U.S. since 1942 has lasted 4.4 years with an average cumulative return of 155.7% while the average bear market has lasted only 11.3 months with an average cumulative loss of 31.4%.**

Figure 6: S&P 500 Index Through Bull and Bear Markets Since 1942

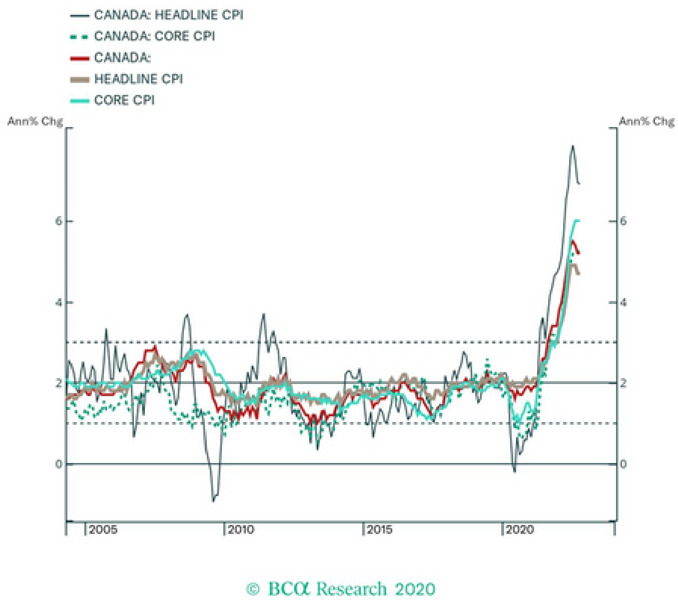


Source: John Authers - Points of Return - Bloomberg Opinion

Inflation

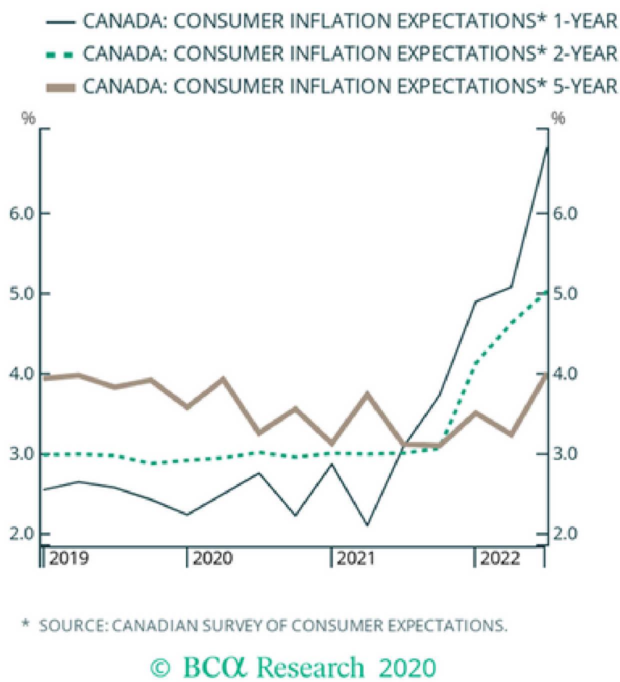
Investors, economists, and governments continue to focus on inflation, as consumer prices rose significantly in September on a year over year percentage basis. As shown in the chart below, the Canadian Consumer Price Index[15] increased to 6.9% year over year as of September 2022. **This is down from its recent peak of 8.1% reached in June of this year.** Core CPI in September increased less than broad CPI at 4.7% year over year, **down slightly from the 4.9% peak reached in June.**

Figure 7: Canadian Inflation (www.bcaresearch.com)



The elevated recent inflation numbers have fueled an increase in short to medium-term inflation expectations among Canadian consumers, as shown in **Figure 8**.

Figure 8: Canadian Consumer Inflation Expectations (www.bcaresearch.com)



When inflation began to increase in 2021, it was initially caused by supply chain issues related to the pandemic. China had shut down, shipping slowed, shipping rates increased and there were significant log jams at the various shipping terminals along the west coast as the pandemic decimated work forces – resulting in elevated prices for global goods imported into Canada. This later spread to services when the economy fully reopened in the spring, as pent-up demand for services that Canadians missed during the lockdown started driving up prices, particularly in recreation and travel.

The pandemic related supply-chain issues appeared to convince central banks and other market observers that inflation would be short-lived or transitory once the supply chain issues were resolved. However, 2022 seems to have disproved that view, and in conjunction with increases in the cost of services is why central banks have moved as aggressively as they have in 2022.

The Bank of Canada (BOC) has been the most hawkish central bank in 2022 and has repeatedly emphasized their commitment to bringing inflation down closer to their 2% long-term target. They have demonstrated their resolve by continuing to increase the policy interest rate[16].

As shown below, the BOC has raised interest rates six consecutive times since March 2022, bringing their policy rate to up to 3.75% from a low of 0.25% at the start of the year and increasing the cost of borrowing money by fifteen times. This is one of the steepest and fastest tightening cycles the Bank has ever done confirming their intent to bring inflation down to their 2% target.

Canadian Policy Interest Rate

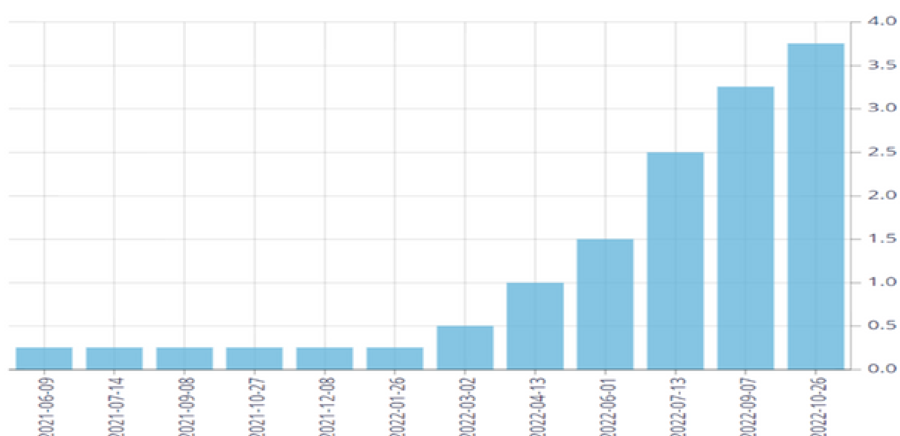


Figure 9: Bank of Canada (www.bankofcanada.ca)

However, the Bank stopped short of what markets were expecting in its recent October interest rate hike, mentioning the potential for the economy to “stall” over the next three quarters. **The bank only raised its policy rate by 0.5 percent, short of the 0.75 percent that the market was expecting.** This smaller increase suggests that the Bank is beginning to see the the necessary declines in CPI and Core CPI from its aggressive interest rate hikes.

In his opening statement, the Governor said the "tightening phase will draw to a close. We are getting closer, but we are not there yet". **This is an important development, because it might signal that the Bank is nearing the end of its tightening campaign** and suggests that they are in a fine balancing act between fighting inflation and trying either to engineer a soft landing[17] or at least avoid a prolonged recession[18].

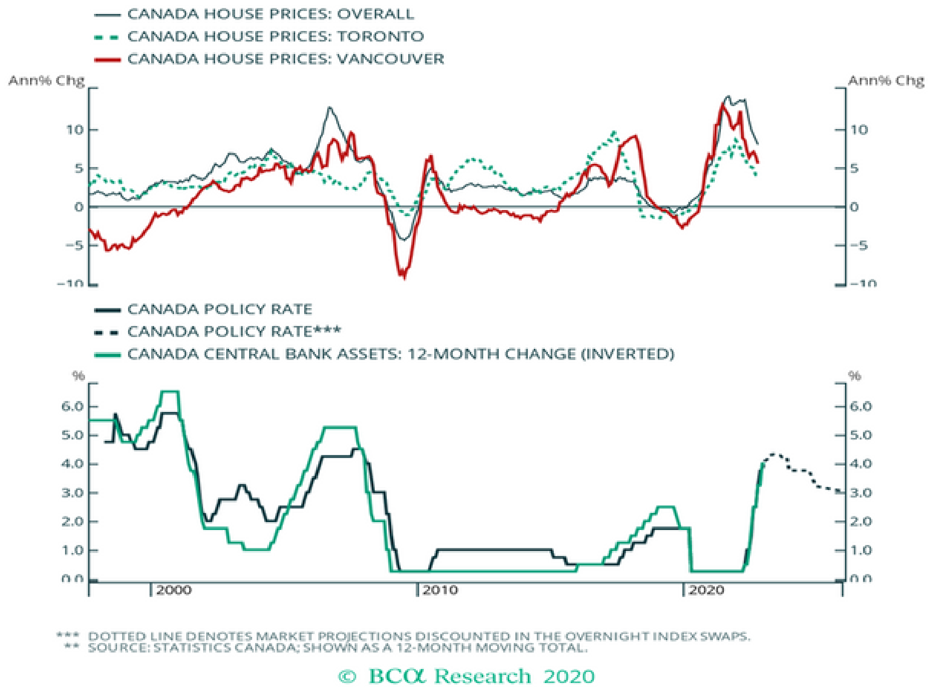
While Core CPI and CPI remained elevated in September, interest rate sensitive sectors of the economy are feeling the negative impact of the BOC's tighter monetary policy[19] - housing in particular. Canadian Housing prices are decelerating rapidly and projected to fall further in 2023, because of rising interest rates. The chart below illustrates the inverse relationship between interest rates and housing. As interest rates fell in 2020 Canadian house prices increased in tandem, as lower interest rates make it easier for Canadians to afford the mortgage payments on a house. Now that interest rates have risen sharply off the lows of 2020, housing prices have fallen in tandem, as mortgage payments have become more expensive, and could fall further as they have yet to fully retrace their gains over the last two years.

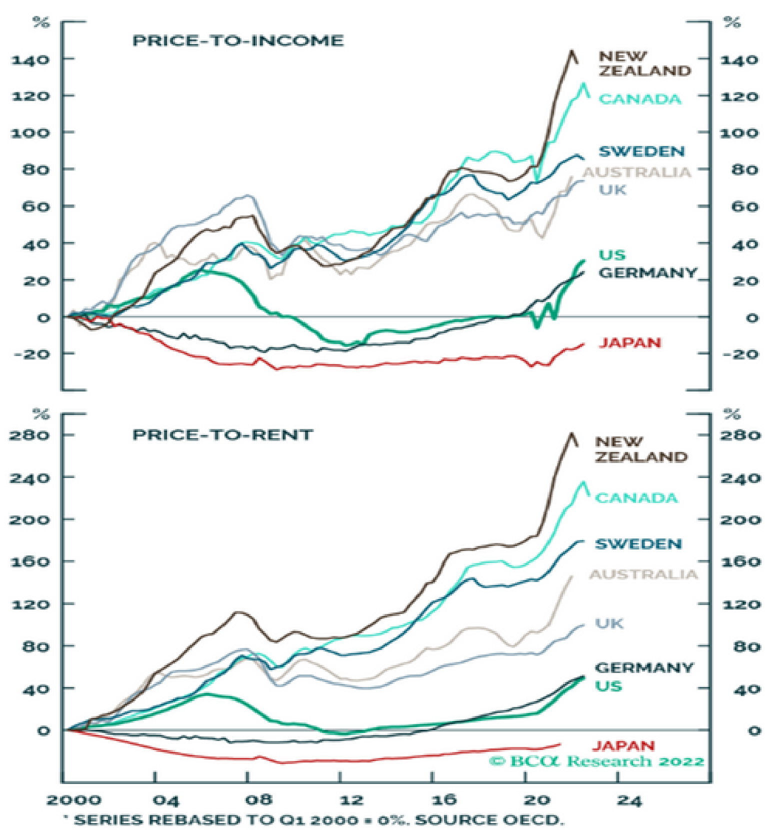
As noted in the chart below, Canada remains one of the most expensive housing markets in the developed world. Not only has affordability been an issue, but the structure of the Canadian mortgage market compounds the problem with variable rate mortgages accounting for roughly one-third of mortgages in Canada. In other words, one-third of Canadians holding mortgages will feel the pain of the rise in interest rates almost immediately. Versus those on fixed rates who won't feel the impact until their mortgages come up for renewal – sometime down the road.

As a result of these vulnerabilities in the housing market, **the ability of the Bank of Canada to raise rates much further is more limited than for other central banks.**

On a positive note, **housing prices typically lead inflation, meaning that there should be a lagged downward effect on inflation.** Why? because shelter costs are the largest component of the Canadian CPI basket making up almost 30% of the total basket. And significantly, falling housing prices and elevated home equity line of credit interest rates will reduce the number of Canadians that use their home equity as an ATM machine to fund their spending on goods and services. This provides further support to an outlook that suggests **inflation may moderate moving forward, thereby increasing the odds that the BOC will end its tightening phase sooner rather than later.**

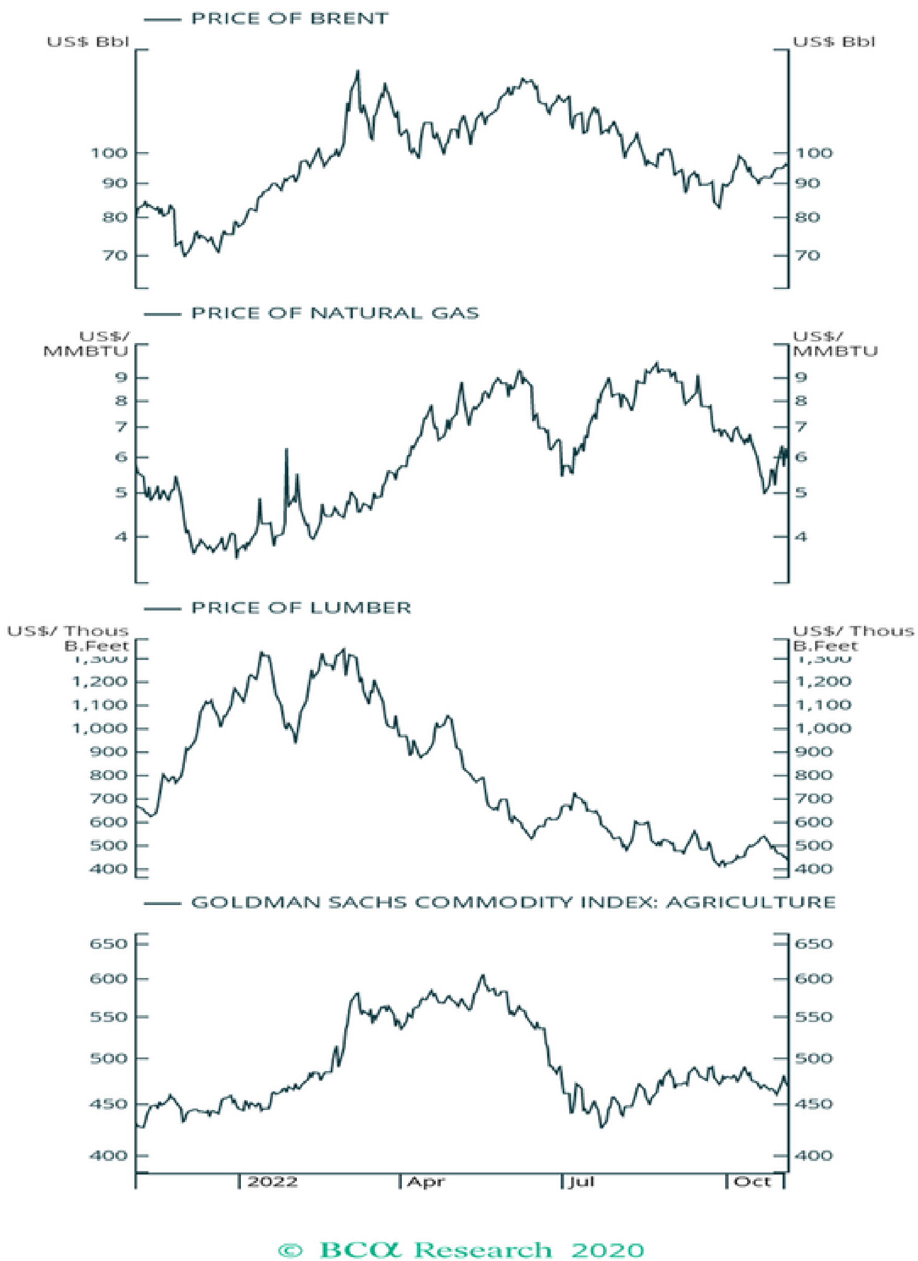
Figure 10: Housing Market Affordability (www.bcaresearch.com)





The second reason that inflation could moderate moving forward is that a range of global commodity prices have begun to ease including oil, natural gas, lumber, and several key agricultural commodities as seen in the chart below. As noted earlier, goods inflation has already come down significantly, which is what had been driving inflation over the past two years. Over time, these lower commodity prices should also translate into lower input and transportation costs, which in turn can foreshadow lower total inflation.

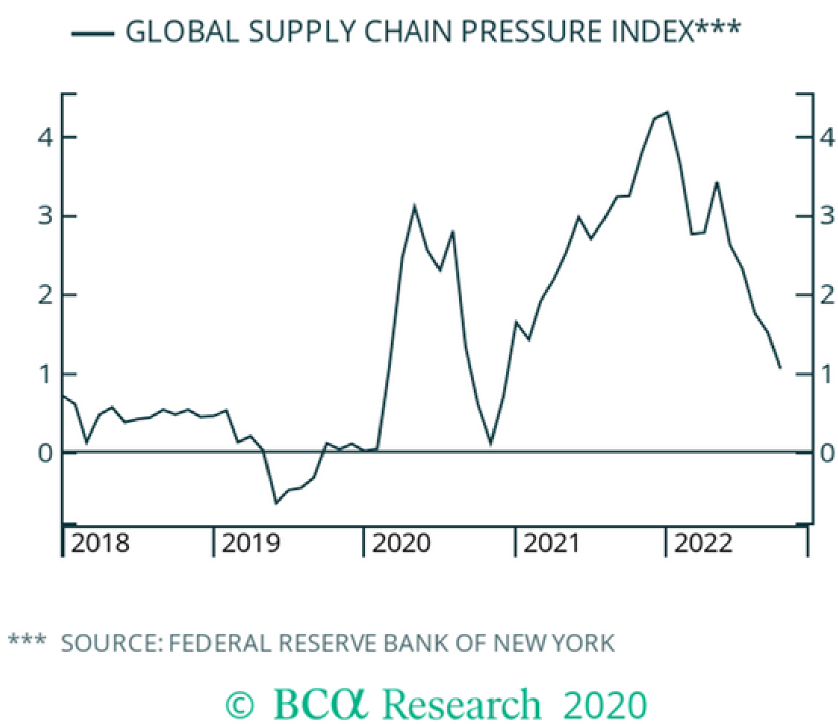
Figure 11: Key Commodities Are Down Substantially from Their Highs



Source: www.bcaresearch.com

The third reason that inflation could moderate moving forward is that global supply chains are improving, including shorter delivery times for global manufacturers, easing input cost pressures, and falling shipping costs as shown in the chart below. The Global Supply Chain Pressure Index's[20] year-to-date movement suggest that global supply chain pressures are beginning to fall back in line with historical levels, as firms restore supply chains that were disrupted by the pandemic. **As supply chain pressure subside, the total cost of delivering goods and services to consumers declines as well, which could foreshadow lower consumer prices moving forward, as manufacturers, retailers and service providers will have less need to defend profit margins by raising prices.**

Figure 12: Global Supply Bottlenecks are Beginning to Ease



Source: www.bcaresearch.com

Conclusion

The outlook for global economies and markets over the coming year hinges on the pace of inflation and the attendant interest rate responses by various central banks. While we are not predicting that inflation has peaked, or that we are near the end of the rate hiking cycle, there are reasons for optimism on both fronts. To summarize the encouraging signs:

- **Recent comments from the Bank of Canada might signal that it is nearing the end of its tightening campaign.**
- **Vulnerabilities in the Canadian housing market limit the ability of the Bank of Canada to raise rates much further, or to raise them by as much as other central banks.**
- **Canadian housing prices have declined, and this is likely to have a lagged downward effect on inflation.**
- **Global commodity prices have begun to ease, including oil, natural gas, lumber, and agricultural commodities, which lowers inflationary pressures.**
- **Global supply chains are improving, which could foreshadow lower consumer prices moving forward.**

We also highlighted the improved valuation metrics for bond and stock markets including:

- **Expected returns for bonds look much more attractive now than they did at the start of the year.**
- **Fixed-income investments across all maturities are finally delivering a reasonable return relative to their risk.**
- **Forward price-to-earnings multiples for global and U.S. equities have come down substantially and are nearing where they bottomed in 2020.**

For these reasons, we continue to believe that investors should "stay the course" with their bond and equity fund investments and reiterate that **the best investment defense is a diversified portfolio** based on a sound investment policy that has considered your investment objectives, your time horizon for investing, and your tolerance for risk. And importantly investors need to understand not just their emotional comfort or discomfort with risk but also their objective capacity to take on risk - things like the size of their capital pool and the timeline for requiring the capital.

Astute investors build portfolios that factor in both their assets and their liabilities and ensure that the two are aligned. Practically, what does this mean? It means that unless you have an immediate need for your capital, an efficient portfolio will have an exposure to equities as an offset to volatility and uncertainty in the bond markets, and vice versa.

1. Investors require higher yields at the long end to pay for the increased risk they take on with longer term bonds.
2. BCA Research, Monthly Report (November 2022).
3. Real yields are the interest rates that an investor receives after adjusting for inflation (or the loss of purchasing power). For example, if a bond pays 4% interest and inflation is 3%, the bond's real yield is 1%,
4. Nominal yields are the stated interest rate of a bond, if the nominal rate on a bond is 4%, investors can expect to receive $4 of interest for every $100 loaned to the borrower.
5. Yield to maturity (YTM) is the total return anticipated on a bond if the investor holds the bond until it matures. As interest rates rise, the YTM will increase; as interest rates fall, the YTM will decrease.
6. The MSCI World Index includes large and mid-cap stocks across twenty-three developed market countries around the world.
7. The MSCI EAFE Index includes large and mid-cap stocks across twenty-one developed market countries around the world, excluding the US and Canada.
8. The Russell 1000 Growth Index measures the performance of the large cap growth stocks in the U.S.
9. The Russell 1000 Value Index measures the performance of the large cap value stocks in the U.S.
10. Bear markets are sustained periods of downward trending stock prices, technically triggered when markets experience a 20% decline from recent highs.
11. MSCI EAFE Growth Index includes large and mid-cap stocks exhibiting growth style characteristics across developed market countries around the world, excluding the US and Canada.
12. MSCI EAFE Value Index includes large and mid-cap securities exhibiting value style characteristics across developed market countries around the world, excluding the US and Canada.
13. The Shiller price-to-earnings ratio is a stock market valuation measure typically applied to stock market indices. It is calculated by dividing the current index price by the average of the last ten years of earnings, adjusted for inflation.
14. The forward price-to-earnings ratio is stock market valuation measure. It is calculated by dividing the current price by forecasted earnings over the next twelve months.
15. The Consumer Price Index (CPI) is an indicator of changes in the prices in the fixed basket of goods and services that comprise the CPI.
16. The policy interest rate is the interest rate that is referenced in the media and by the Bank itself. It anchors the interest rates that are charged to consumers for mortgages, lines of credit etc. as well as the interest rates paid on deposits, GICs and other savings.
17. A soft landing is the process of an economy shifting from growth to slow growth to potentially flat, as it approaches but avoids a recession.
18. A recession is a business cycle contraction when there is a general decline in economic activity. It is technically defined as two consecutive quarters of negative economic growth.
19. Tight monetary policy is an action undertaken by a central bank such as the Bank of Canada to reduce high inflation or to slow down overheated economic growth.
20. The Global Supply Chain Pressure Index (GSCPI) tracks the state of global supply chains using data from the transportation and manufacturing sectors.

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PHONE: 1-888-791-6671
FAX: 416-205-9459
EMAIL: INFORMATION@ENCASA.CA

TORONTO
119 SPADINA AVENUE, SUITE 400
TORONTO, ONTARIO
M5V 2L1

VANCOUVER
1651 COMMERCIAL DRIVE, SUITE 220
VANCOUVER, BRITISH COLUMBIA
V5L 3Y3