

# RECESSION BAROMETER

January 31, 2020

## Spotlight on : Yield Curve Ratios - USA and Canada

### 1. U.S.A.

#### Introduction

In our opinion, the most important yield curve ratio is the one provided by the 10-Year and the 2-Year maturities. We place the most significance on this metric when assessing our prediction for an Economic Recession.

However, it is not the only yield curve ratio that we rely upon. We also examine closely the 10-Year/3-Month, the 5-Year/2-Year, and the 20-Year/10-Year maturities.

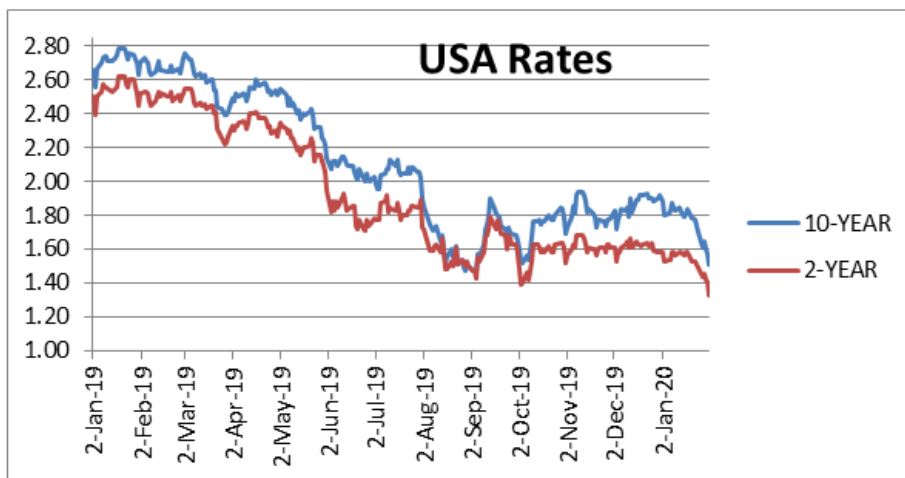
We provide our Recession Barometer reading using these metrics starting on Page 6 below.

#### Interest Rates: 10-Year and 2-Year

The following graph shows the trend in interest rates over the past year for the U.S. 10-Year and 2-Year maturities.

January 2, 2019 - January 31, 2020

#### 10-Year/2-Year

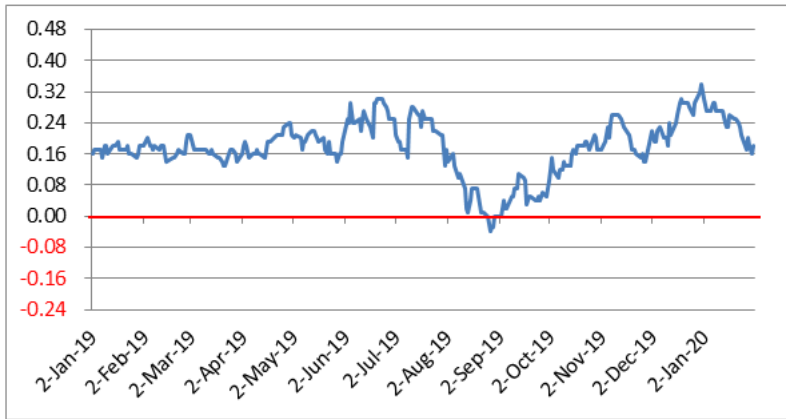


**Observation:** Since the beginning of 2019, the trend in U.S. 10-2 year interest rates declined until the beginning of September. At that time, there was virtually no Spread differential. However, since then, both maturities have see-sawed a bit but generally moved sideways with the interest rates back close to where they were at the beginning of September. However, the current trend is down.

The next graph shows the Spread over the same time-frame.

January 2, 2019 - January 31, 2020

**10-Year/2-Year USA SPREAD**



**Observation:** The Spread ran a narrow course around 0.16x from the start of the year until mid-April, after which it moved with much greater volatility. For seven days at the end of August – beginning of September, the Spread was neutral at 0.00x or was negative or inverted (three days). After that brief flirtation with Inversion, the Spread reached a high of 0.34x on December 31 but has declined since then. It currently stands at 0.18x.

**Comment:** *Although the yield curve ratio is falling, there currently is no fear of an Economic Recession occurring in the United States in the foreseeable future if using this widely-acclaimed 10-Year/2-Year benchmark. However, there are other markers.*

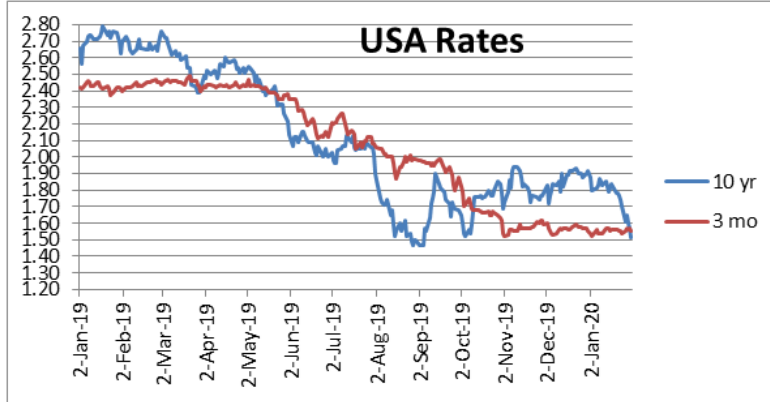
It is the next metric that got a lot of market-watchers nervous last August and this metric is again causing some concern.

**Interest Rates: 10-Year and 3-Month**

We will use the same time-frame for the 10Y-3M maturities as we did for the 10Y-2Y maturities.

January 2, 2019 - January 31, 2020

USA Rates: 10-Year/3-Month

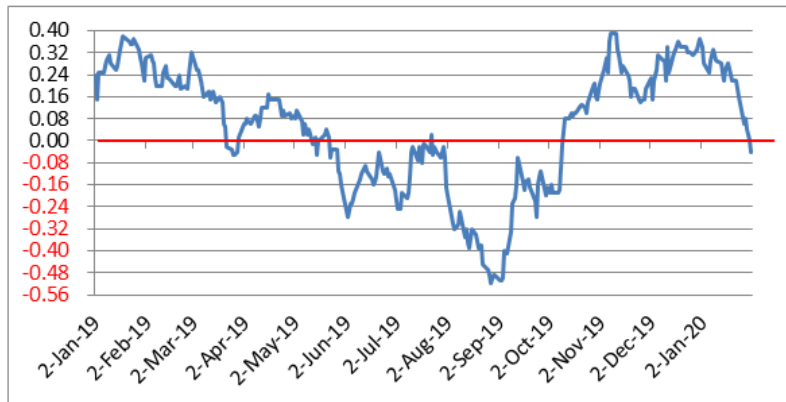


**Observation:** An Inversion occurs when a longer-dated maturity yields less than a shorter-dated maturity. In the above chart, there were two distinct periods when Inversion occurred: between mid-May and mid-July and then between the beginning of August and the first week of October. There was much conversation in the media that Inversion had occurred and an Economic Recession was assured. We believe that it takes more than one metric in Inversion territory before we can state definitively that a recession is “in the cards”. See our comment “Recession Barometer: USA” on Page 6. Very recently, the 10-Year yield once again fell below that of the 3-Month. This is concerning but, as a predictor of an impending Economic Recession, it is just one indicator that we consider. No panic, but there is a need to be more vigilant.

Let us look at the Spread for the 10Y-3M maturities and the Inversion occurrences.

January 2, 2019 - January 31, 2020

USA SPREAD: 10-Year/3-Month



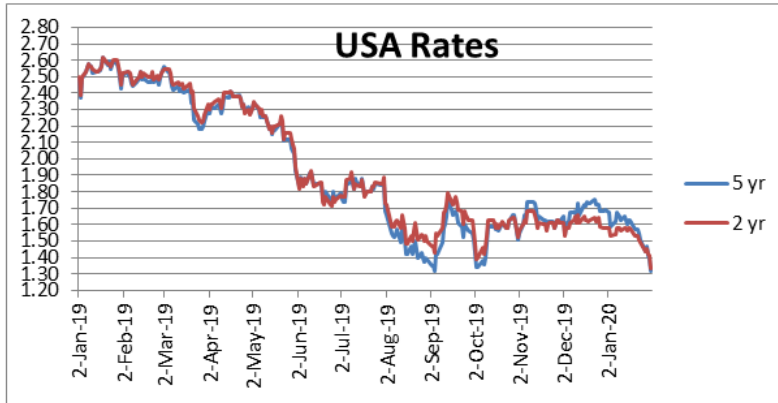
**Observation:** The end of May until mid-October was a fairly long period that the Inversion existed. The Spread reached its nadir at -0.52x on August 28<sup>th</sup>. However, the Spread quickly narrowed after plumbing the depths. Inversion ceased on October 11 and the Spread reached a high of 0.39x quickly after, on November 8<sup>th</sup>. Very recently, the Spread has declined quite quickly and has just gone negative again. The pundits will be closely watching this Inversion in the days ahead.

**Interest Rates: 5-Year and 2-Year**

Another metric that exhibited considerable Inversion in 2019 was the 5-Year/2-Year maturities. The next graph shows how closely the two maturities are intertwined.

January 2, 2019 - January 31, 2020

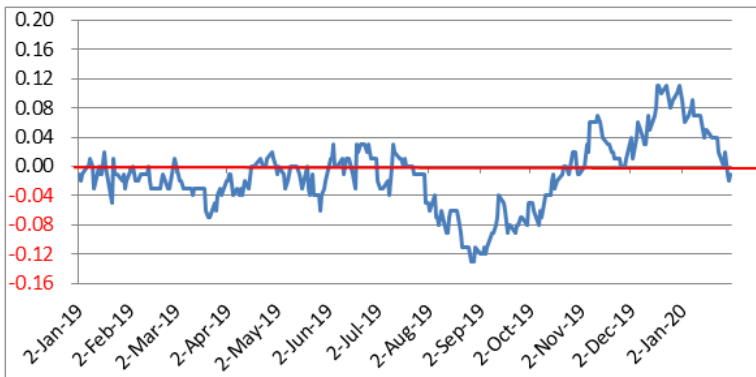
**USA Rates: 5-Year/2-Year**



**Observation:** The two maturities tracked each other very closely. The Spread will differentiate their rates more clearly.

January 2, 2019 - January 31, 2020

**USA SPREAD: 5-Year/2-Year**

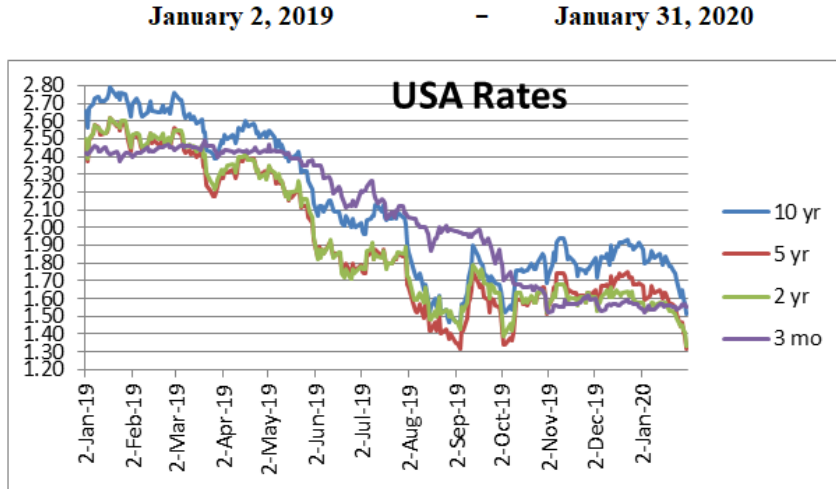


**Observation:** For much of the past year, the 5Y-2Y metric has exhibited Inversion. But the Spread never got too wide, being -0.13x at its lowest. The metric exited Inversion on November 4 but, this past week, it lapsed back into Inversion territory.

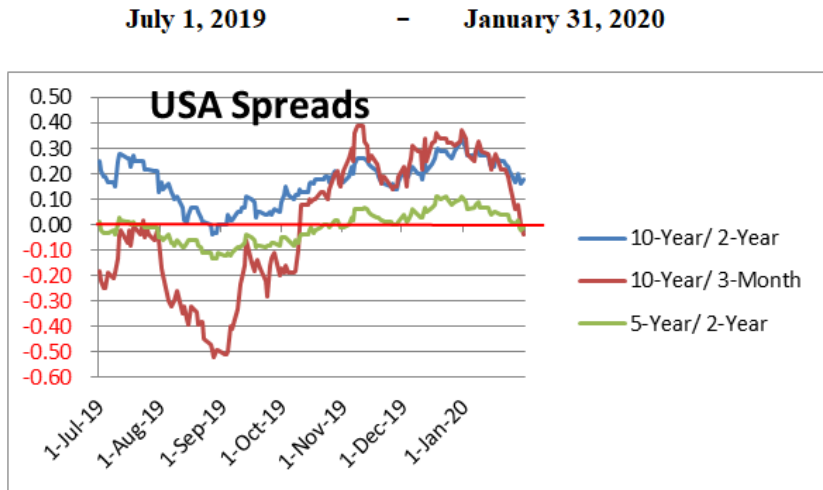
**COMMENT:** In 2019, there were considerable periods of Inversion in both the 10Y-3M and the 5Y-2Y metrics, and both have very recently gone back into Inversion. But the most important metric, the 10Y-2Y yield curve ratio, except for a brief 3 days, has stayed well above Inversion levels. We do not pinpoint only one metric as a predictor of a recession but use all three of the above metrics, and they are weighted to judge whether an Economic Recession is imminent. We explain below.

**Key Interest Rates: 10-Year/5-Year/2-Year/3-Month**

The following chart shows the trend in interest rates in the USA since January 1, 2019 for our four key maturities: 10-years, 5-years, 2-years, and 3-months. After a protracted downward trend since the beginning of 2019, all four maturities moved sideways since about mid-October until very recently when all but the 3-Month rate declined noticeably.



The next chart shows the Spread for the 3 key maturity combinations of those same maturities and which were described above. Although we have assembled the data only from July 1, 2019, this does not change the observations or conclusions.



**Observations:** The 10-Year/2-Year (**Blue** line) yield curve ratio (our preferred metric) remains well above the Inversion level. The other two metrics both just went into Inversion, as shown by their readings just below the 0.00x horizontal Inversion level (**Red** line). These metrics are the 10-Year/3-Month (**Rust** line) (our second-most preferred metric), and the 5-Year/2-Year (**Green** line). Thus, two of the three metrics are now showing Inversion. This has implications for our Recession Barometer for the USA. See next page.

## Recession Barometer: USA

Our Recession Barometer for the United States reflects the average of three different yield spreads. These are:

- 10-Year/2-Year Spread
- Equal-Weight Average of Three Spreads: 20-Year/10-Year; 10-Year/3Month; and 5-Year/2-Year
- Equal-Weight Average of Twelve Spreads: 30-year/20-year, 30-year/10-year, 20-year/10-year, 20-year/5-year, 10-year/2-year, 10-year/3-month, 5-year/2-year, 5-year/3-month, 2-year/1-year, 2-year/3-month, 1-year/6-month, and 1-year/3-month.

The Spreads from these three metrics are then averaged to derive the Combined Reading for the Recession Barometer.

The table below shows how these metrics have evolved since the beginning of June 2019. The Spreads are shown on a weekly basis.

Date	10Year/2Year U.S. Spread		3 U.S. Spreads		12 U.S. Spreads		Combined Spreads	
	Spread	Reading	Spread	Reading	Spread	Reading	Spread	Reading
31-May-19	0.19	7.0 X	0.01	9.5 X	-0.01	10.0 X	0.06	8.5 X
7-Jun-19	0.24	6.5 X	0.03	9.0 X	0.00	9.5 X	0.09	8.0 X
14-Jun-19	0.25	6.5 X	0.06	8.5 X	0.04	9.0 X	0.12	7.5 X
21-Jun-19	0.30	6.0 X	0.10	8.0 X	0.07	8.5 X	0.15	7.5 X
28-Jun-19	0.25	6.5 X	0.07	8.5 X	0.04	9.0 X	0.12	7.5 X
5-Jul-19	0.17	7.0 X	0.03	9.0 X	0.02	9.5 X	0.07	8.5 X
12-Jul-19	0.28	6.0 X	0.10	8.0 X	0.07	8.5 X	0.15	7.5 X
19-Jul-19	0.25	6.5 X	0.10	8.0 X	0.08	8.5 X	0.14	7.5 X
26-Jul-19	0.22	6.5 X	0.08	8.5 X	0.07	8.5 X	0.12	8.0 X
2-Aug-19	0.14	7.5 X	0.01	9.5 X	0.02	9.5 X	0.06	8.5 X
9-Aug-19	0.11	8.0 X	-0.01	10.0 X	0.00	9.5 X	0.03	9.0 X
16-Aug-19	0.07	8.5 X	-0.04	10.0 X	-0.03	10.0 X	0.00	9.5 X
23-Aug-19	0.01	9.5 X	-0.09	10.0 X	-0.06	10.0 X	-0.05	10.0 X
30-Aug-19	0.00	9.5 X	-0.11	10.0 X	-0.08	10.0 X	-0.06	10.0 X
6-Sep-19	0.02	9.5 X	-0.08	10.0 X	-0.06	10.0 X	-0.04	10.0 X
13-Sep-19	0.11	8.0 X	0.06	8.5 X	0.05	9.0 X	0.07	8.5 X
20-Sep-19	0.05	9.0 X	0.00	9.5 X	0.02	9.5 X	0.02	9.5 X
27-Sep-19	0.06	8.5 X	0.03	9.0 X	0.04	9.0 X	0.04	9.0 X
4-Oct-19	0.12	8.0 X	0.02	9.5 X	0.02	9.5 X	0.05	9.0 X
11-Oct-19	0.13	7.5 X	0.11	8.0 X	0.11	8.0 X	0.12	8.0 X
18-Oct-19	0.18	7.0 X	0.13	7.5 X	0.12	8.0 X	0.14	7.5 X
25-Oct-19	0.17	7.0 X	0.14	7.5 X	0.13	7.5 X	0.15	7.5 X
1-Nov-19	0.17	7.0 X	0.17	7.0 X	0.16	7.5 X	0.16	7.5 X
8-Nov-19	0.26	6.0 X	0.26	6.0 X	0.22	6.5 X	0.25	6.5 X
15-Nov-19	0.23	6.5 X	0.21	6.5 X	0.18	7.0 X	0.20	7.0 X
22-Nov-19	0.16	7.5 X	0.17	7.0 X	0.15	7.5 X	0.16	7.5 X
29-Nov-19	0.17	7.0 X	0.10	8.0 X	0.14	7.5 X	0.14	7.5 X
6-Dec-19	0.23	6.5 X	0.22	6.5 X	0.19	7.0 X	0.21	6.5 X
13-Dec-19	0.21	6.5 X	0.19	7.0 X	0.17	7.0 X	0.19	7.0 X
20-Dec-19	0.29	6.0 X	0.24	6.5 X	0.19	7.0 X	0.24	6.5 X
27-Dec-19	0.29	6.0 X	0.23	6.5 X	0.18	7.0 X	0.23	6.5 X
3-Jan-20	0.27	6.0 X	0.21	6.5 X	0.18	7.0 X	0.22	6.5 X
10-Jan-20	0.27	6.0 X	0.22	6.5 X	0.18	7.0 X	0.22	6.5 X
17-Jan-20	0.26	6.0 X	0.21	6.5 X	0.18	7.0 X	0.22	6.5 X
24-Jan-20	0.21	6.5 X	0.16	7.5 X	0.14	7.5 X	0.17	7.0 X
31-Jan-20	0.18	7.0 X	0.09	8.0 X	0.07	8.5 X	0.11	8.0 X



**Observation:** Since the beginning of June 2019, the 2-Spreads ratio has never inverted. The 3-Spreads ratio was inverted for five consecutive weeks. The 12-Spreads ratio was inverted for five weeks, four consecutively. The Combined-Spreads ratio was inverted for three consecutive weeks. The eResearch requirement is that, for ten consecutive business days, all three Spread ratios must be inverted and the Combined-Spreads ratio has to be inverted. This has not occurred and, thus, we have not initiated a Count-Down to an Economic Recession in the USA.

**U.S. RECESSION BAROMETER READING, Week Ending January 31, 2020:**

**8.0x.**

**COMMENT:** *The trend in the Combined Spread reading has changed in the last two weeks and is rising once again. At 8.0x, it is still a ways from Inversion. The U.S. 10/2 Spread, the equi-weight 3 selective Spreads, and the equi-weight 12 selective Spreads also have declined significantly in the last two weeks. However, even with the rising readings, there is still no Inversion threat for the United States at the present time.*

## **2. CANADA**

### **Canada Recession Count-Down**

eResearch put Canada on Recession Alert on August 8 after an Inversion occurred for ten consecutive days in the 10-Year/2-Year Yield Curve Ratio.

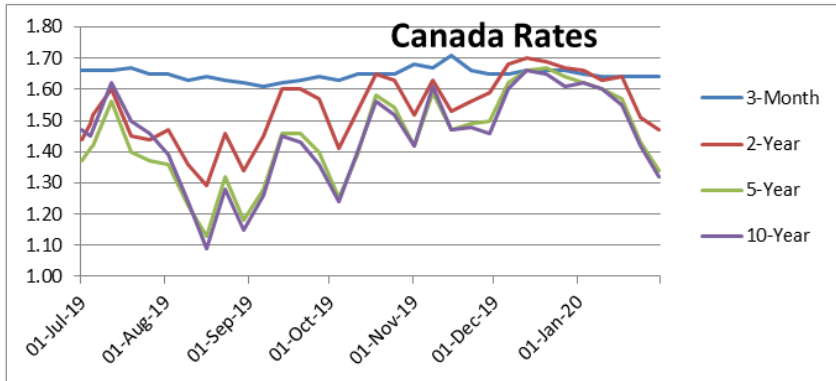
Given that, historically, Economic Recessions have occurred some 15 to 20 months after an interest rate Inversion occurs, and that suggests a possible Economic Recession in Canada could occur between November 2020 and April 2021.

We define an Economic Recession as being characterized by two consecutive quarters of negative GDP growth. That would mean that, to meet the first recessionary date of November 2020, Q2/2020 and Q3/2020 would have to experience negative GDP growth. To meet the April 2021 date, Q4/2020 and Q1/2021 would need to experience negative GDP growth. Between those dates, the other scenario to define a recession is negative GDP growth in Q3/2020 and Q4/2020.

### **Interest Rates: 10-year/5-Year/2-Year/3-Month**

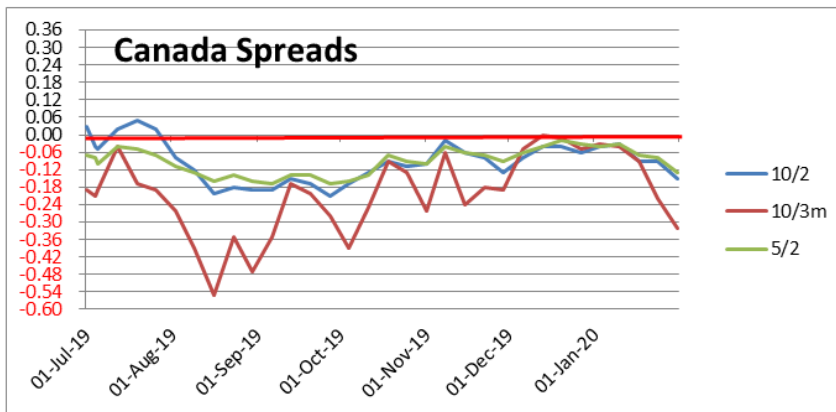
The following chart shows the trend for the four key interest rates since July 1. The 3-month is remaining stable while the longer-dated maturities are rapidly declining.

July 1, 2019 - January 31, 2020



Here is the Spread for the three ratio combinations from these four maturities.

July 1, 2019 - January 31, 2020



**Observations:** All three ratios are below the Inversion level. In the last few days, the 10-Year/3-Month yield curve ratio dropped substantially. The fact that all three metrics are below the Inversion line adds to our conviction that an Economic Recession will occur in Canada within the next 15 months.

### Recession Barometer: Canada

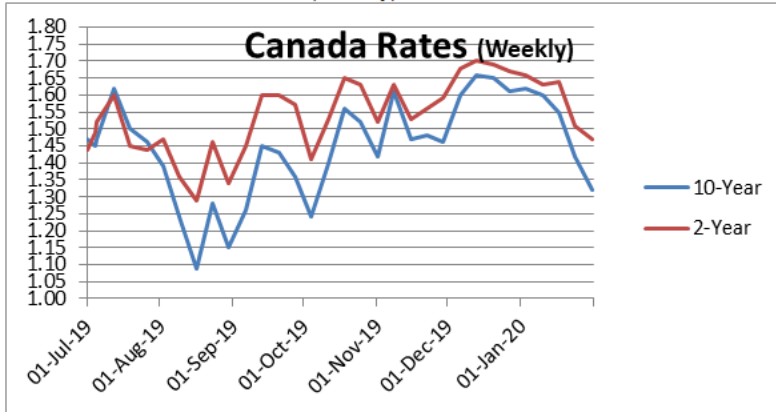
In Canada, we have already started our Count-Down to a possible recession. This was based on the 10-year/2-year Government of Canada bonds exhibiting Inversion for ten consecutive business days, which it did on August 8. (Our alternative criterion is that the 10/2 must be inverted for 20 out of 30 consecutive business days, and this has also occurred.)

The chart below shows the 10-year/2-year Interest Rates for Canadas since July 1, 2019.



July 1, 2019 - January 31, 2020

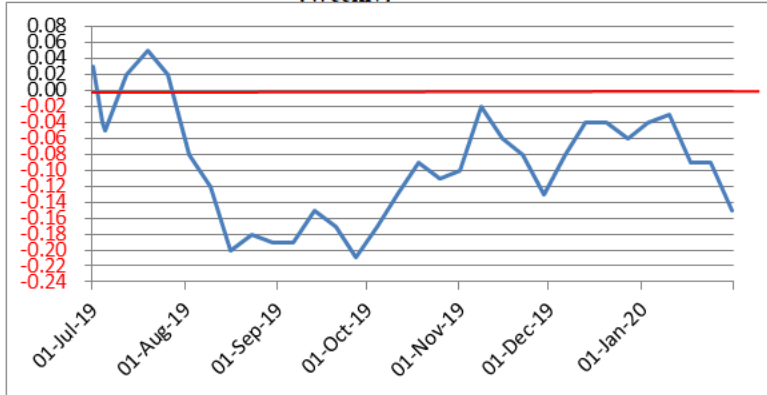
Canada Rates: 10-Year/2-Year  
(Weekly)



As shown in the next graph, the Spread shows that the 10-Year/2-Year yield curve ratio is nowhere near to coming out of Inversion. The Spread is actually declining significantly and is now -0.15x.

July 1, 2019 - January 31, 2020

Canada Spread: 10-Year/2-Year  
(Weekly)



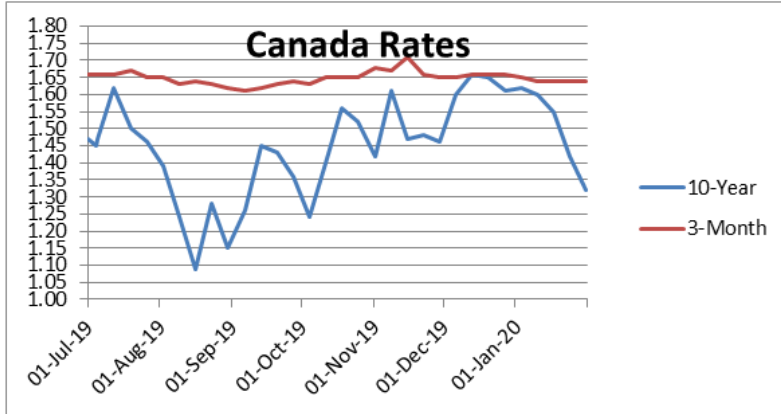
**Observation:** As shown above, there was an Inversion in the 10/2 from July 2 through July 10, being only seven consecutive days. However, starting on July 26, the 10/2 inverted again and it has remained inverted ever since. August 8 marked the tenth consecutive day of Inversion and, so, the Count-Down to an Economic Recession in Canada began. Historically, after an Inversion has occurred, it has taken between 15 and 20 months before a recession occurs.

There are other yield curve ratios to examine.

Next up is the 10-Year/3-Month maturities. Here are the interest rates since January 1, 2019.

July 1, 2019 - January 31, 2020

Canada Rates: 10-Year/3-Month

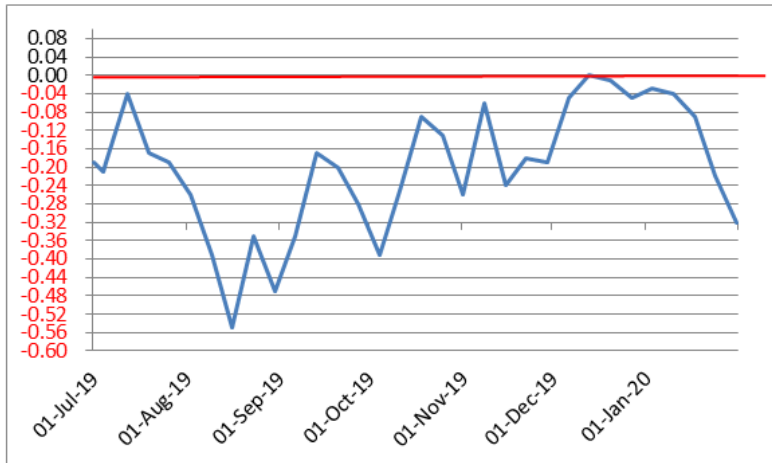


**Observation:** The 10-Year rate has declined significantly below the 3-Month interest rate.

Here is the Spread graph:

July 1, 2019 - January 31, 2020

Canada Spread: 10-Year/3-Month



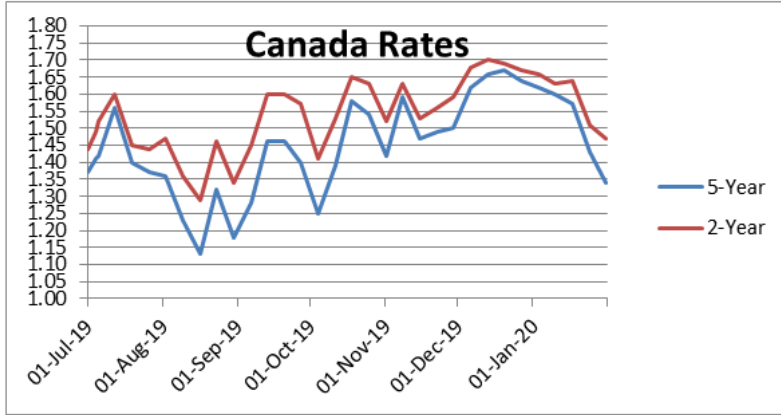
**Observation:** After touching “neutral” in mid-December, the Spread has deteriorated significantly. This adds impetus to our argument that Canada is likely to enter into an Economic Recession in the near future.

One more yield curve ratio to look at: the 5-Year/2-Year yield curve ratio.

First the graph of the respective interest rates.

July 1, 2019 - January 31, 2020

Canada Rates: 5-Year/2-Year

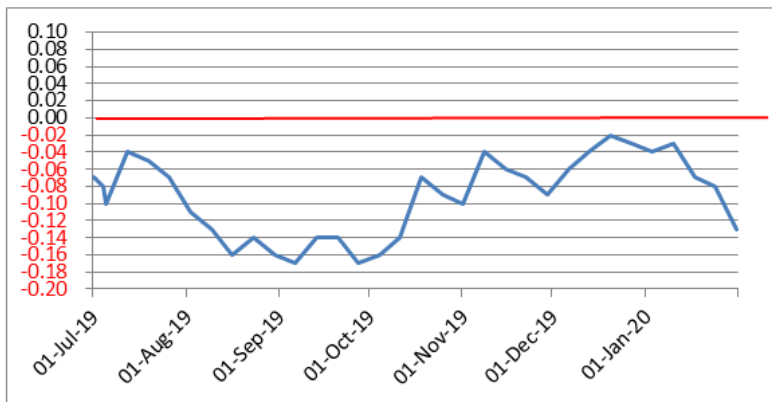


**Observation:** During the entire period shown, since July 1, 2019, the 5-Year/2-Year yield curve has been inverted.

Here is the Spread graph for these metrics:

July 1, 2019 - January 31, 2020

Canada Spread: 5-Year/2-Year



**Observation:** This is our third metric to show total Inversion since July 1, 2019. And, lately, the Inversion is deepening.

**COMMENT:** The 10-Year/2-Year, the 10-Year/3-Month, and the 5-Year/2-Year yield curve ratios are all inverted and have been so since July 1, 2019. For added emphasis, currently the 30-Year/2-Year maturities are inverted (1.46% versus 1.47%) but not the 30Y/5Y (1.46% versus 1.32%). All of the extended Inversions in the key interest rate metrics point to an Economic Recession occurring in Canada in the near future.

<continued>

## Canada Recession Forecast

The following table shows when a recession could occur for various time-frames once an Inversion happens. The traditional 15-months/20-months periods are shown in **Red** in the table.

### Forecasting the Commencement of a Recession in Canada

Using *e*Research  
criteria, an  
inversion in  
Canada occurred  
on August 8, 2019

Historically, a  
recession begins  
15 to 20 months  
hence

<u>Inversion Occurred</u>	<u>Inversion +15 Months</u>	<u>Inversion +20 Months</u>
August 8, 2019	<b>November/2020</b>	<b>April/2021</b>

Source: eResearch

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Bob Weir, CFA: Contributing Analyst

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