

RECESSION BAROMETER

October 11, 2019

Spotlight on : **Inversion Watch**

1. U.S.A.

Interest Rates: 10-Year and 2-Year

Last week was a wild ride for U.S. Interest Rates. The table below shows 10-year and 2-year interest rates for the last three weeks. Look at last week. From the previous Friday close for the 10/2 of 1.52%/1.40%, rates for both see-sawed a bit for the first three days then spiked higher over the last two days, rising to 1.76%/1.63%, with the 10-year last at that level on September 19. Progress on the USA-China trade negotiations is attributed to be the primary reason for the rise in rates.

<u>DATE</u>	<u>10-YEAR</u>	<u>2-YEAR</u>	<u>DIFF</u>
23-Sep-19	1.72	1.68	0.04
24-Sep-19	1.64	1.60	0.04
25-Sep-19	1.73	1.68	0.05
26-Sep-19	1.70	1.66	0.04
27-Sep-19	1.69	1.63	0.06
30-Sep-19	1.68	1.63	0.05
1-Oct-19	1.65	1.56	0.09
2-Oct-19	1.60	1.48	0.12
3-Oct-19	1.54	1.39	0.15
4-Oct-19	1.52	1.40	0.12
7-Oct-19	1.56	1.46	0.10
8-Oct-19	1.54	1.42	0.12
9-Oct-19	1.59	1.47	0.12
10-Oct-19	1.67	1.53	0.14
11-Oct-19	1.76	1.63	0.13

Looking at the interest rate Spread (DIFF in the table), the Spread has widened considerably over the past three weeks, from a range of 0.04x-0.06x to 0.10x-0.14x. Those numbers are moving away from the dreaded Inversion.

The table on the next page is an up-to-date, but expanded, version of the same table from last week, and shows the rates for various maturities from 1 month to 30 years. Rates for the last three weeks are provided.

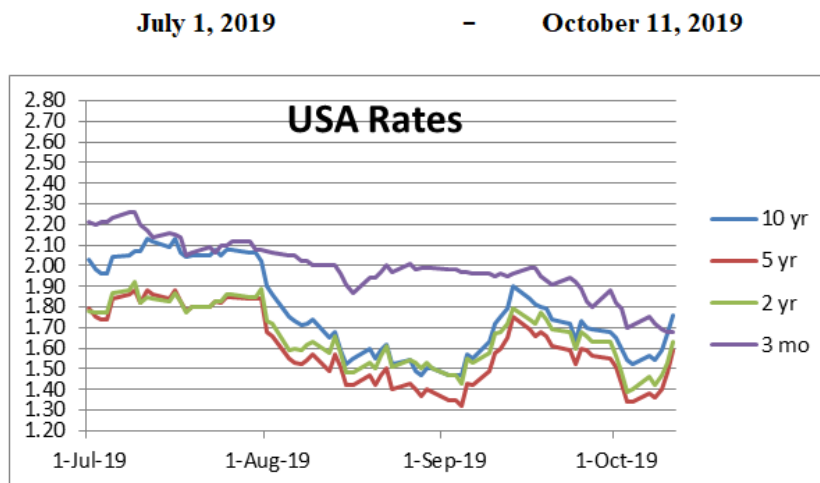
Interest Rates: Various Maturities

The table below is from Monday, September 23 to Friday, October 11 and shows interest rates for various maturities from 30-years at the long-end down to 1-month at the short-end.

<u>Date</u>	<u>30-Year</u>	<u>20-Year</u>	<u>10-Year</u>	<u>5-Year</u>	<u>2-Year</u>	<u>1-Year</u>	<u>6-Months</u>	<u>3-Months</u>	<u>1-Month</u>
23-Sep-19	2.16	1.98	1.72	1.59	1.68	1.81	1.93	1.94	1.94
24-Sep-19	2.09	1.91	1.64	1.52	1.60	1.78	1.91	1.92	1.90
25-Sep-19	2.18	1.99	1.73	1.60	1.68	1.82	1.90	1.89	1.90
26-Sep-19	2.15	1.96	1.70	1.59	1.66	1.79	1.88	1.83	1.91
27-Sep-19	2.13	1.95	1.69	1.56	1.63	1.74	1.85	1.80	1.90
30-Sep-19	2.12	1.94	1.68	1.55	1.63	1.75	1.83	1.88	1.91
1-Oct-19	2.11	1.93	1.65	1.51	1.56	1.73	1.81	1.82	1.79
2-Oct-19	2.09	1.90	1.60	1.43	1.48	1.67	1.75	1.79	1.75
3-Oct-19	2.04	1.85	1.54	1.34	1.39	1.58	1.66	1.70	1.78
4-Oct-19	2.01	1.81	1.52	1.34	1.40	1.58	1.65	1.71	1.73
7-Oct-19	2.05	1.85	1.56	1.38	1.46	1.64	1.73	1.75	1.76
8-Oct-19	2.04	1.84	1.54	1.36	1.42	1.62	1.69	1.72	1.69
9-Oct-19	2.08	1.88	1.59	1.40	1.47	1.59	1.69	1.69	1.69
10-Oct-19	2.16	1.96	1.67	1.48	1.53	1.63	1.68	1.68	1.74
11-Oct-19	2.22	2.04	1.76	1.59	1.63	1.67	1.68	1.68	1.76
Change	0.06	0.06	0.04	0.00	-0.05	-0.14	-0.25	-0.26	-0.18
% Change	2.8%	3.0%	2.3%	0.0%	-3.0%	-7.7%	-13.0%	-13.4%	-9.3%
From Low	0.21	0.23	0.24	0.25	0.24	0.09	0.03	---	0.07
% From Low	10.4%	12.7%	15.8%	18.7%	17.3%	5.7%	1.8%	---	4.1%

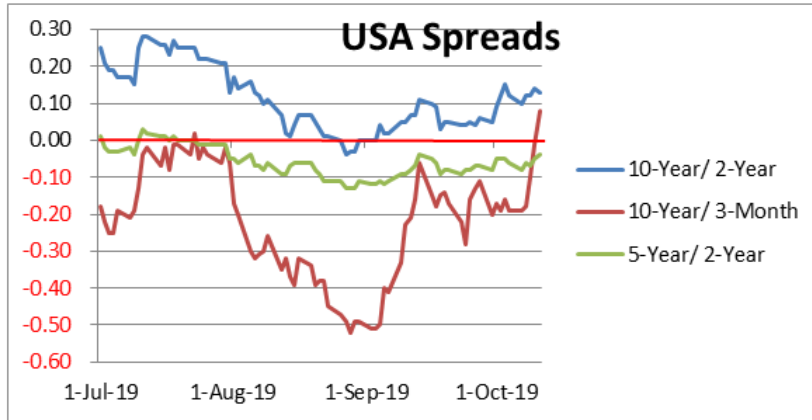
Key Interest Rates: 10-Year/5-Year/2-Year/3-Month

The following chart shows the trend in interest rates in the USA since July 1 for four key maturities: 10-years, 5-years, 2-years, and 3-months. Since mid-September, the trend for all maturities was down, until this past week, when the 3-month rate continued lower but the longer-dated maturities all rose.



The next chart shows the Spread for 3 key maturity combinations of those same maturities.

July 1, 2019 - October 11, 2019



Observations: The 10-year/2-year (Blue line) yield curve ratio (our preferred metric) remains well above the Inversion level and it is inching higher. But, most notably, the 10-year /3-month (Rust line) (our second-most preferred metric) is no longer inverted after being so since the beginning of August. The 10-year rate has risen sharply in the last week and the 3-month has continued down within its narrow range. In addition, the 5-year/2-year (Green line) yield curve ratio is slowly rising towards the Inversion level. It is because of these trends that eResearch has not put the USA on a recession Count-Down. However, let us have a look at where our Recession Barometer for the USA currently stands.

Recession Barometer: USA

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

1. 10-Year/2-Year Spread
2. Equal-Weight Average of Three Spreads: 20-Year/10-Year; 10-Year/3Month; and 5-Year/2-Year
3. 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 August 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
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	0.01	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

Source: eResearch

RECESSION BAROMETER READING, Week Ending October 11:

8.0x.

COMMENT: *The trend in the Combined Spread reading has been receding since September 20 when it was 9.5x. The U.S. 10/2 Spread, the equi-weight 3 selective Spreads, and the equi-weight 12 selective Spreads are all declining and markedly so this past week. The Inversion threat is waning.*

U.S. Recession Forecast

The following chart shows when a recession could occur for various post-inversion dates. For inversion, we are monitoring three yield spread ratios: (1) a widely-followed two-maturity metric; (2) an equal-weighted average of three spread readings; and (3) an equal-weighted average of twelve spread readings. We weight these three ratios equally in a Combined Spread.

Our criterion for declaring Inversion is that: (1) using the Combined Spread, the Recession Barometer reading must be 10; and (2) two of the three Series must be inverted and one of these must be the 10-Year/2-Year Yield Curve.

Historically, after Inversion, an Economic Recession has occurred between 15 and 20 months later. The following table on the next page 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

If an inversion occurs during the current quarter ... then a recession will begin at stated date projections.

Current Quarter	Inversion +12 Months	Inversion +15 Months	Inversion +20 Months	Inversion +24 Months	Inversion +30 Months	Inversion +40 Months
Q3/2019	Q3/2020	Q4/2020	Q2/2021	Q3/2021	Q1/2022	Q1/2023

Source: eResearch

CONCLUSION: With the Spreads widening, the pressure is off, at least for now, for eResearch to put the USA on its Recession Watch Count-Down.

2. CANADA

Canada Recession Count-Down

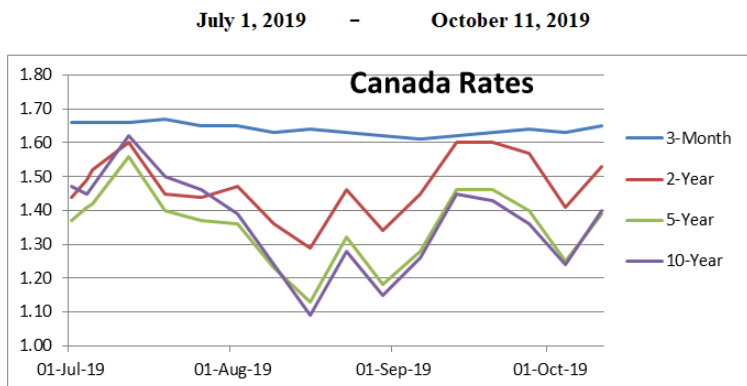
eResearch put Canada on Recession Alert on August 8 after an Inversion occurred for ten consecutive days in the 10-Year/2-Year Yield Curve Ratio.

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

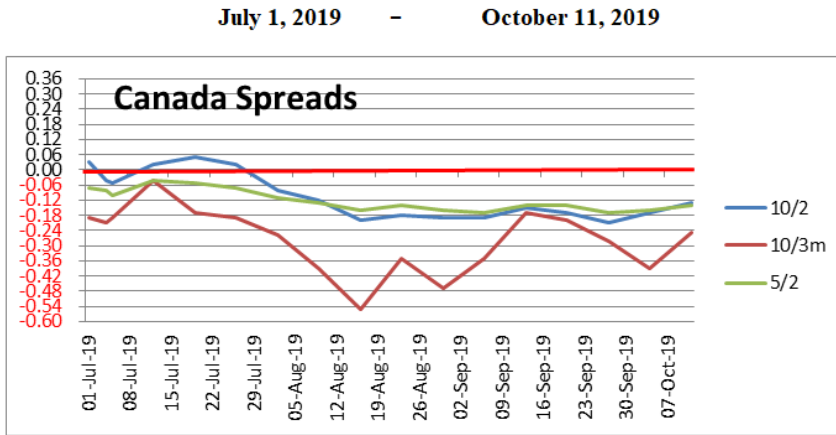
We define an Economic Recession as being characterized by two consecutive quarters of negative GDP growth. That would mean that, to meet the first recessionary date of November 2020, Q2/2020 and Q3/2020 would have to experience negative GDP growth. To meet the April 2021 date, Q4/2020 and Q1/2021 would 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 four key interest rates since July 1. As in the USA, the 3-month is remaining stable while the longer-dated maturities are rising.



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

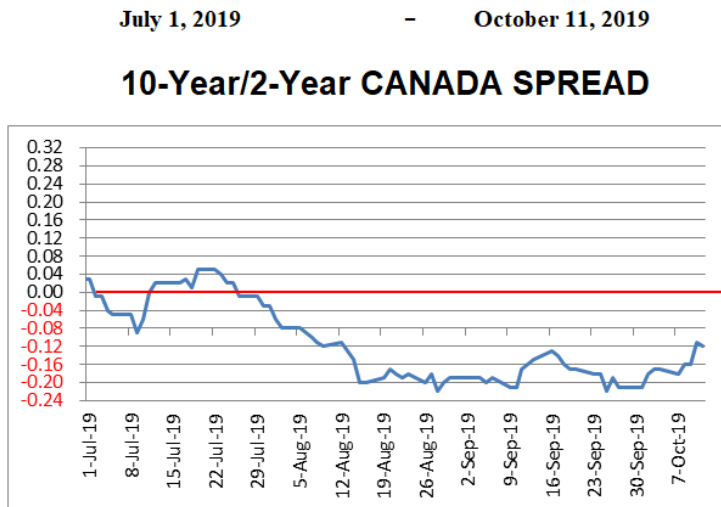


Observations: All three ratios are below the Inversion level although all three are rising slowly towards it.

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 Spread for Canadas since July 1, 2019. It is nowhere near coming out of Inversion.



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.

Bob Weir, CFA: Contributing Analyst

See the Disclaimer below.

***e*RESEARCH DISCLAIMER**

*e*Research is engaged solely in the provision of equity research to the investment community. *e*Research provides published research and analysis to its Subscribers on its website (www.eresearch.com), and to the general investing public through its extensive electronic distribution network and through newswire agencies.

With regards to distribution of its research material, *e*Research makes all reasonable efforts to provide its publications, via e-mail, simultaneously to all of its Subscribers.

*e*Research does not manage money or trade with the general public, provides full disclosure of all fee arrangements, and adheres to the strict application of its Best Practices Guidelines.