

RECESSION BAROMETER

August 16, 2019

Spotlight on : Inversion (Canada vs. USA)

SUMMARY

As well documented in the media, interest rates in the United States and Canada have been declining for some time. As illustrated in our charts below, interest rates in both countries have been falling steadily since October 2018.

Last Thursday, the 30-Year Treasury note fell below 2.00% for the first time ever, closing at 1.98%. Friday's close was 2.01%.

Last Tuesday, intra-day, but not at the close, the yield on the 10-Year Treasury note declined below the yield on the 2-Year Treasury note. There was hysteria in the press and in the stock market that day. We published a Recession Barometer report on Wednesday, claiming that the sky was not falling. We use only "closing yields" and, on that basis, there was no Inversion!

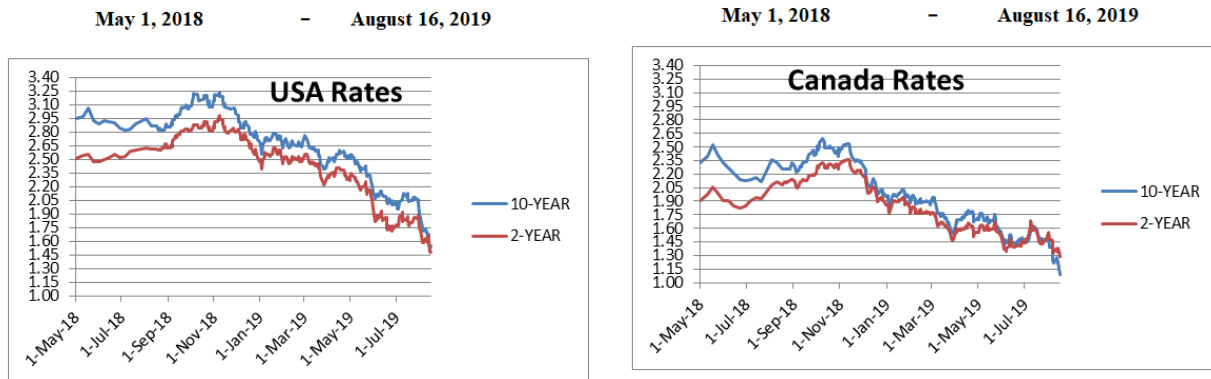
Our Recession Barometer is based on a series of yield curve ratios. Our analysis shows, as set out in the following pages, that there is no count-down, yet, to a possible recession in the United States, but the count-down in Canada has begun.

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INTEREST RATES

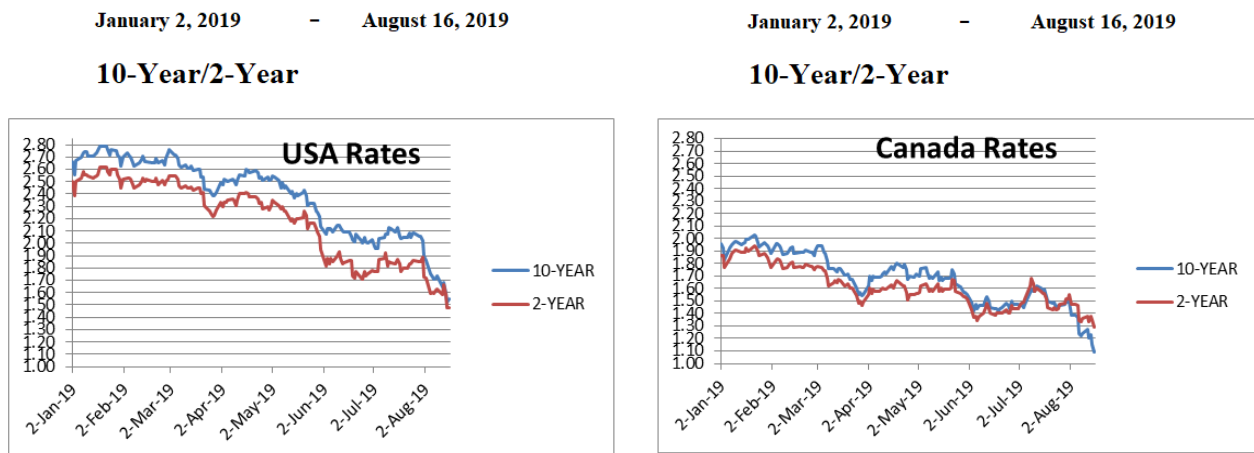
In the charts set out below, using 10-year and 2-year maturities, we show the downward trend in interest rates in both the USA and Canada over various time-periods.

1. Since May 1, 2018



Observation: The charts above have the identical scale, from 3.40% down to 1.00%. Canadian interest rates are well below U.S. interest rates.

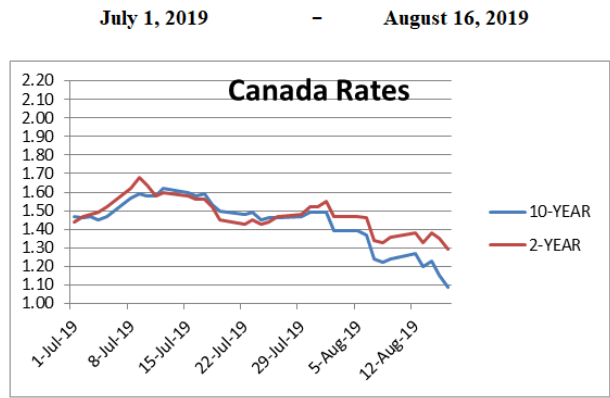
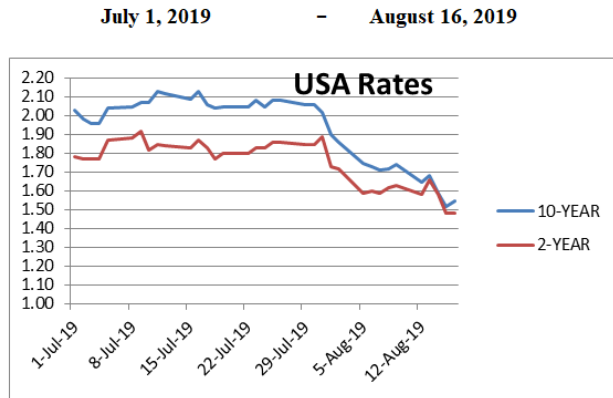
2. Since January 2, 2019



Observation: The two charts above again have the same scale, this time from 2.80% down to 1.00%. Currently, the U.S. rates are close to the same, but the 10-year rate in Canada has fallen below the 2-year rate, i.e., the 10/2 yield curve has inverted.

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3. Since July 1, 2019

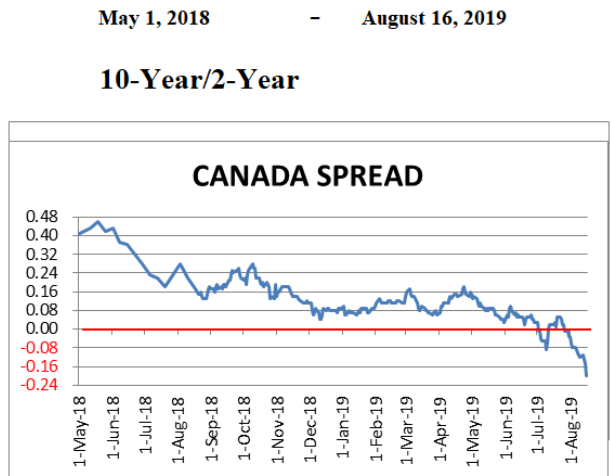
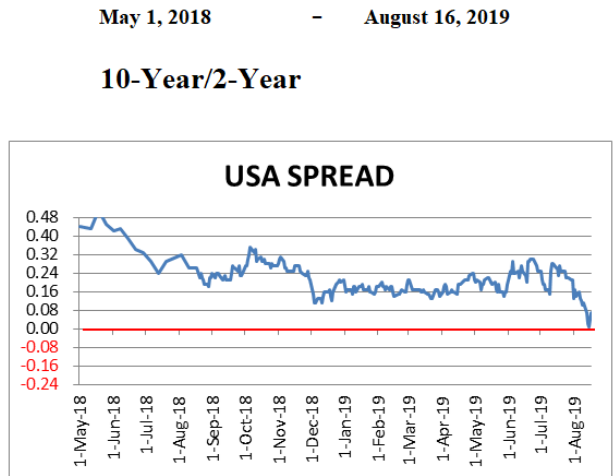


Observation: The above charts show clearly the failed effort by 10-year U.S. Treasuries to fall below 2-year U.S. Treasuries, and the successful inversion that occurred in Canada in the last week of July.

SPREADS

We will use the same time-periods and look at the Spreads (i.e., the difference in rates between the two maturities) in both countries.

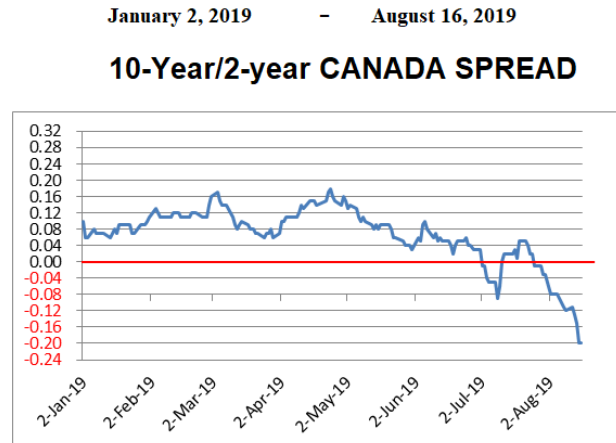
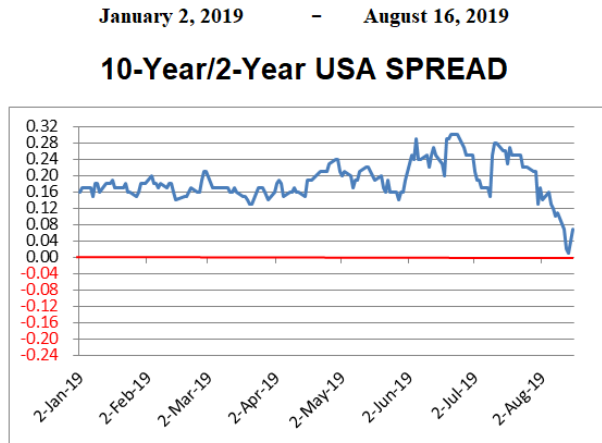
1. Since May 1, 2018



Observation: The U.S. 10/2 Spread “bounced” off of the 0.00x line last week and closed at 0.07x. The Canadian 10/2 Spread is clearly inverted, and declining.

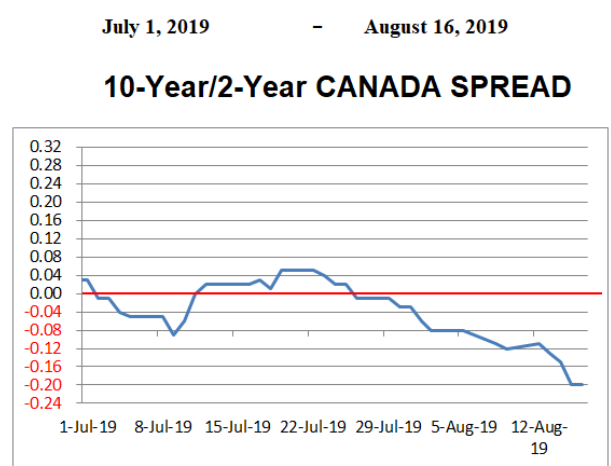
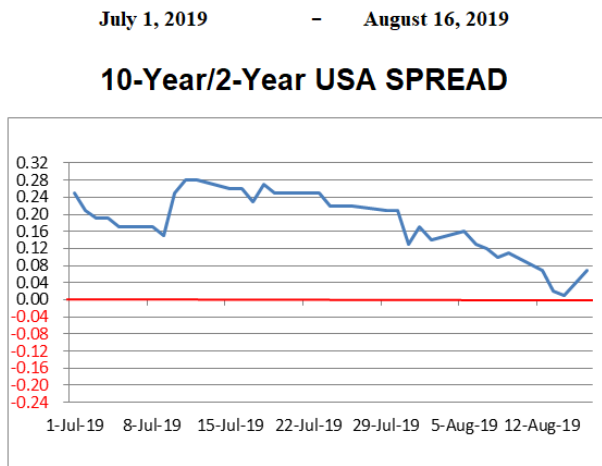
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2. Since January 2, 2019



Observation: The above charts show the difference between the 10/2 experience in the USA and Canada.

3. Since July 1, 2019



Observation: There has been a dramatic drop in the 10-year/2-year Spreads in both the USA and Canada.

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THE eRESEARCH 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 Reading for the Recession Barometer.

The table below shows how these metrics have evolved since the beginning of May 2019.

Date	<u>10Year/2Year U.S. Spread</u>		<u>3 U.S. Spreads</u>		<u>12 U.S. Spreads</u>		<u>Combined Spreads</u>	
	Spread	Reading	Spread	Reading	Spread	Reading	Spread	Reading
May 3, 2019	0.21	6.5 X	0.11	8.0 X	0.10	8.0 X	0.14	7.5X
May 10, 2019	0.21	6.5 X	0.09	8.0 X	0.08	8.5 X	0.13	7.5X
May 17, 2019	0.19	7.0 X	0.07	8.5 X	0.07	8.5 X	0.11	7.5X
May 24, 2019	0.16	7.5 X	0.06	8.5 X	0.06	8.5 X	0.09	8.0X
May 31, 2019	0.19	7.0 X	0.01	9.5 X	-0.01	10.0 X	0.06	8.5X
June 7, 2019	0.24	6.5 X	0.03	9.0 X	0.00	9.5 X	0.09	8.0X
June 14, 2019	0.25	6.5 X	0.06	8.5 X	0.04	9.0 X	0.12	7.5X
June 21, 2019	0.30	6.0 X	0.10	8.0 X	0.07	8.5 X	0.15	7.5X
June 28, 2019	0.25	6.5 X	0.07	8.5 X	0.04	9.0 X	0.12	7.5X
July 5, 2019	0.17	7.0 X	0.03	9.0 X	0.02	9.5 X	0.07	8.5X
July 12, 2019	0.28	6.0 X	0.10	8.0 X	0.07	8.5 X	0.15	7.5X
July 19, 2019	0.25	6.5 X	0.10	8.0 X	0.08	8.5 X	0.14	7.5X
July 26, 2019	0.22	6.5 X	0.08	8.5 X	0.07	8.5 X	0.12	8.0X
August 2, 2019	0.14	7.5 X	0.01	9.5 X	0.02	9.5 X	0.06	8.5X
August 9, 2019	0.11	8.0 X	-0.01	10.0 X	0.00	9.5 X	0.03	9.0X
August 16, 2019	0.07	8.5 X	-0.04	10.0 X	0.03	9.0 X	0.02	9.5X

CURRENT RECESSION BAROMETER READING, Week Ending August 16:

9.5x

This is the fourth consecutive week of a 0.5x increase.

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U.S. Recession Forecast

For inversion, we are monitoring three Series of 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.

Our criterion for declaring Inversion is that: (1) 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.

For the week of August 16, 2019: (1) the Recession Barometer reading is 9.5x, just shy of the required 10.0x; and (2) only one of the three Series (the three-spread reading) is inverted, and there must be two, one of which has to be the 10/2. So, we are close but, when using our “yardsticks”, there is no reason to start an official count-down to recession for the U.S. economy at the present time.

THE eRESEARCH 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 reached on August 8. (Our alternative criterion is that the 10/2 must be inverted for 20 out of 30 consecutive business days. Here the score was 19/30. Further, the Inversion has now occurred for 23 consecutive business days so it looks like the 20/30 criterion will easily be achieved.)

If you want to review the inversion occurrences, just go back to the Canada Spread chart from July 1 found on Page 4.

So, if Canada is now on a count-down, let us define a recession.

DEFINING AN ECONOMIC RECESSION

From Wikipedia:

In the United States, the National Bureau of Economic Research defines an economic recession as: "a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.

In the United Kingdom, recessions are generally defined as two consecutive quarters of negative economic growth, as measured by the seasonal adjusted quarter-on-quarter figures for real GDP, with the same definition being used for all other member states of the European Union.

From The Canadian Encyclopedia:

In Canada, authorities use the same definition as Europe. A recession occurs when two or more successive quarters (six months) show a drop in real gross domestic product (GDP), i.e., the measure of total economic output in the economy after accounting for inflation.

COMMENT: At eResearch, we use the Canadian/European definition and define an economic recession as two successive quarters of negative real GDP growth.

CANADIAN GDP

The following table shows the GDP growth in Canada with quarter-over-quarter percentage changes.

Canadian Gross Domestic Product (GDP) % Growth

<u>Year</u>	<u>Quarter-over-Quarter</u>				<u>YoY</u>
	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>	<u>Annual</u>
2010	1.19%	0.52%	0.72%	1.13%	3.1%
2011	0.74	0.19	1.39	0.79	3.1
2012	0.05	0.34	0.14	0.21	1.7
2013	0.89	0.59	0.81	1.05	2.5
2014	0.14	0.93	0.96	0.71	2.9
2015	-0.54	-0.26	0.35	0.07	1.0
2016	0.60	-0.45	1.08	0.58	1.4
2017	1.01	1.08	0.33	0.42	3.0
2018	0.37	0.63	0.52	0.06	1.8
2019	0.10				

Source: OECD, StatsCan

Observation: In 2015, there was an Economic Recession in Canada since there were two consecutive quarters of negative GDP growth. The last two quarters were not particularly robust.

Recession Forecast For Canada

An Inversion between 10-year and 2-year Canadian bonds has now occurred for an extended period, and the count-down for an Economic Recession in Canada started on August 8. The following chart shows when a recession could occur for various post-inversion dates.

COMMENT: Just because an Inversion occurs, it is not automatic that a Recession follows. And, when an Inversion does occur, the average lag time for an Economic Recession is 15 to 20 months.

Forecasting the Commencement of a Recession in Canada

Using eResearch

criteria, an inversion in Canada occurred on August 8, 2019	Historically, a recession begins 15 to 20 months hence
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<u>Inversion</u> <u>Occurred</u> August 8, 2019	<u>Inversion</u> <u>+15 Months</u> November/2020	<u>Inversion</u> <u>+20 Months</u> April/2021
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Source: eResearch

Bob Weir, CFA: Contributing Analyst

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