RECESSION BAROMETER

April 5, 2019

Spotlight on : 10-2 Yield Curve

COMMENT: *Earlier this week, we posted an excerpt of an interview between Financial Sense and David Rosenberg of Gluskin Sheff. Mr. Rosenberg laid out his arguments as to why there could be a recession starting in the United States in 2019. A link to that interview is provided on Page 3 below.*

The brouhaha that erupted at the end of March/beginning of April about USA yields recording an inversion and, therefore, a recession is a certainty belies a more rational analysis. The inversion in question reflects the short-lived 10-year yield falling below the 3-month yield. It reversed this past week. The 10Y/3M is but one of many yield comparisons that could be made. Indeed, the 5-year/2-year yield comparison shows that an inversion has been in place since March 2.

Our preference is to use the more widely-accepted 10-year/2-year yield comparison. This metric is still well above levels marking an inversion. As shown on the next page, our current "guess" for a recession in the USA is the summer of 2020. The commencement of that recession, which almost all investment gurus and market pundits assume will happen, is a continual moving target.

As stated frequently in these pages, just because an inversion occurs, it is not automatic that a recession follows. When one does occur, the average lag time is 15 to 20 months. Further, if an inversion occurs for just one day, is it automatic that the recession count-down begins at that point? Or, should there be a certain number of days of a continuous inversion to give confirmation?

This week, we are again providing various yield curve scenarios in order to gauge what is happening in the interest rate market. As will be shown, one could draw different conclusions depending upon which yield curves are chosen to best represent the current situation. For us, we think that maybe all three of the yield curve metrics analyzed should be inverted before sounding the alarm. As set out below, we looked at 10-year/2-year, 10-year/3-month, and 5-year/2-year.

Last week was a reversal of the previous week. Rates rose more in Canada than in the USA, but the "spread" rose in Canada and stayed almost level in the USA. The USA 10-years closed the week at 2.50% (2.41%) and 2-years closed at 2.35% (2.27%), a spread of 0.15x (0.14x). For Canadas, 10-years were at 1.69% (1.55%) and 2-years at 1.58% (1.49%), for a spread of 0.11x (0.06x).

Our "recession barometer" kicks in when the "spread" between the 10-year rate and the 2-year rate for Treasuries in the USA and Government of Canada Bonds in Canada reach 0.00x, which means that the yield on the 10s equals the yield on the 2s. If the 10s yield less than the 2s, an "inversion" occurs and then it is likely that a recession will soon follow.

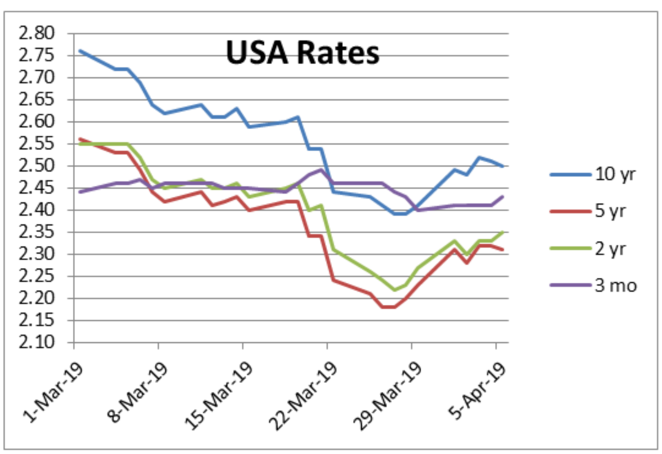
Interest Rates For Various Maturities

In a "normal" world, the rates in the following table should move highest to lowest, right to left. Only March 1 did that. The 5/2 inverted on March 4 and the 10/3 on March 22. The 5/2 is still inverted, but the 10/3 has returned to normal.

Date	10 yr	5 yr	2 yr	3 mo
1-Mar-19	2.76	2.56	2.55	2.44
4-Mar-19	2.72	2.53	2.55	2.46
5-Mar-19	2.72	2.53	2.55	2.46
6-Mar-19	2.69	2.49	2.52	2.47
7-Mar-19	2.64	2.44	2.47	2.45
8-Mar-19	2.62	2.42	2.45	2.46
11-Mar-19	2.64	2.44	2.47	2.46
12-Mar-19	2.61	2.41	2.45	2.46
13-Mar-19	2.61	2.42	2.45	2.45
14-Mar-19	2.63	2.43	2.46	2.45
15-Mar-19	2.59	2.40	2.43	2.45
18-Mar-19	2.60	2.42	2.45	2.44
19-Mar-19	2.61	2.42	2.46	2.46
20-Mar-19	2.54	2.34	2.40	2.48
21-Mar-19	2.54	2.34	2.41	2.49
22-Mar-19	2.44	2.24	2.31	2.46
25-Mar-19	2.43	2.21	2.26	2.46
26-Mar-19	2.41	2.18	2.24	2.46
27-Mar-19	2.39	2.18	2.22	2.44
28-Mar-19	2.39	2.20	2.23	2.43
29-Mar-19	2.41	2.23	2.27	2.40
1-Apr-19	2.49	2.31	2.33	2.41
2-Apr-19	2.48	2.28	2.30	2.41
3-Apr-19	2.52	2.32	2.33	2.41
4-Apr-19	2.51	2.32	2.33	2.41
5-Apr-19	2.50	2.31	2.35	2.43

The chart below shows the above table graphically.

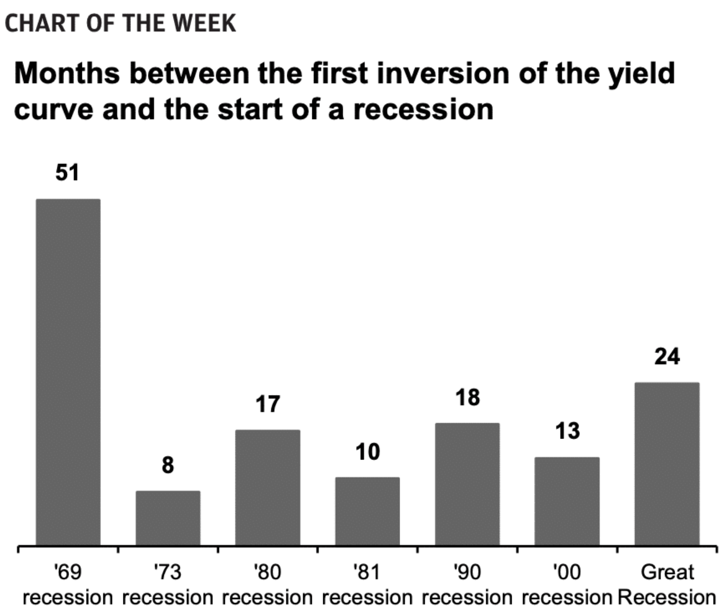
March 1, 2019 – April 5, 2019



Our preference is for the 10-year/2-year which, as can be seen on the above chart, is nowhere near an imminent inversion.

JP Morgan Recession Forecast Chart

The following chart was produced by J.P. Morgan Asset Management. It shows how long it has taken during each of the last seven recessions from the first yield curve inversion until the actual start of the recession.



The average lag-time for all seven recessions was 20 months, although this was skewed somewhat by the 51-month lag shown by the 1969 recession. Omitting it, the average for the remaining six recessions was 15 months.

Recession Forecast

The following chart shows when a recession could occur for various post-inversion dates. For inversion, we are using the 10-year/2-year metric. Our current "guess" is 15 months post-inversion (shown in Red). This is a "moving target" and will change with each ensuing month. It will also change with changes in global economic conditions. We posted this past week that David Rosenberg said that he thought a recession could commence this year. You can read that HERE

Forecasting the Commencement of a Recession

If an inversion occurs during the current month …	… then a recession will begin at stated date projections.					
Current Month	**Inversion +12 Months**	**Inversion +15 Months**	**Inversion +18 Months**	**Inversion +24 Months**	**Inversion +30 Months**	**Inversion +36 Months**
April/2019	April/2020	**July/2020**	Oct/2020	April/2021	Oct/2021	March/2022

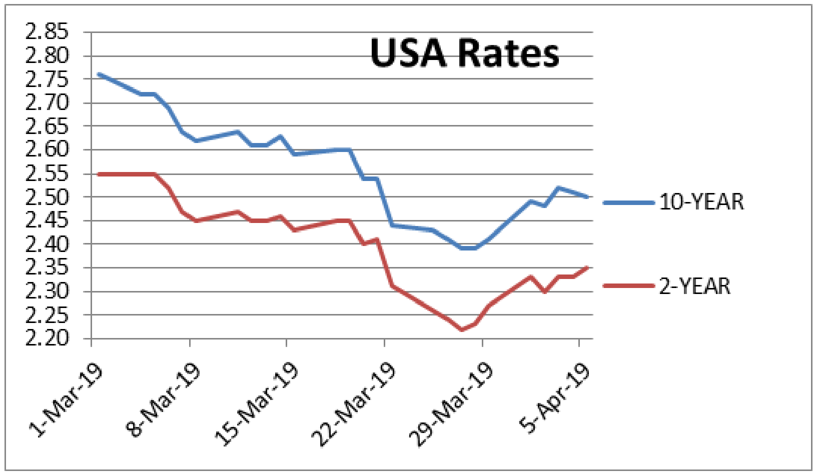
Source: eResearch

March/April Readings of Rates and Yields (10y/5y/2y/3m)

1. 10-Year/2-Year

DATE	USA		
	10-YEAR	2-YEAR	DIFF
1-Mar-19	2.76	2.55	0.21
4-Mar-19	2.72	2.55	0.17
5-Mar-19	2.72	2.55	0.17
6-Mar-19	2.69	2.52	0.17
7-Mar-19	2.64	2.47	0.17
8-Mar-19	2.62	2.45	0.17
11-Mar-19	2.64	2.47	0.17
12-Mar-19	2.61	2.45	0.16
13-Mar-19	2.61	2.45	0.16
14-Mar-19	2.63	2.46	0.17
15-Mar-19	2.59	2.43	0.16
18-Mar-19	2.60	2.45	0.15
19-Mar-19	2.60	2.45	0.15
20-Mar-19	2.54	2.40	0.14
21-Mar-19	2.54	2.41	0.13
22-Mar-19	2.44	2.31	0.13
25-Mar-19	2.43	2.26	0.17
26-Mar-19	2.41	2.24	0.17
27-Mar-19	2.39	2.22	0.17
28-Mar-19	2.39	2.23	0.16
29-Mar-19	2.41	2.27	0.14
1-Apr-19	2.49	2.33	0.16
2-Apr-19	2.48	2.30	0.18
3-Apr-19	2.52	2.33	0.19
4-Apr-19	2.51	2.33	0.18
5-Apr-19	2.50	2.35	0.15

March 1, 2019 – April 5, 2019

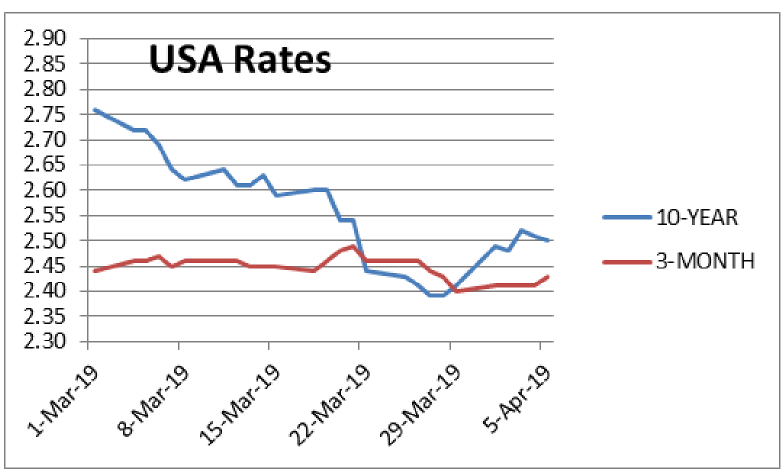


COMMENT: *The "spread" jumped at the beginning of the week, and then dropped on Friday, ending at 0.15x. Still a long ways from the inversion point of 0.00x.*

2. 10-Year/3-Month

Date	10 yr	3 mo
1-Mar-19	2.76	2.44
4-Mar-19	2.72	2.46
5-Mar-19	2.72	2.46
6-Mar-19	2.69	2.47
7-Mar-19	2.64	2.45
8-Mar-19	2.62	2.46
11-Mar-19	2.64	2.46
12-Mar-19	2.61	2.46
13-Mar-19	2.61	2.45
14-Mar-19	2.63	2.45
15-Mar-19	2.59	2.45
18-Mar-19	2.60	2.44
19-Mar-19	2.61	2.46
20-Mar-19	2.54	2.48
21-Mar-19	2.54	2.49
22-Mar-19	2.44	2.46
25-Mar-19	2.43	2.46
26-Mar-19	2.41	2.46
27-Mar-19	2.39	2.44
28-Mar-19	2.39	2.43
29-Mar-19	2.41	2.40
1-Apr-19	2.49	2.41
2-Apr-19	2.48	2.41
3-Apr-19	2.52	2.41
4-Apr-19	2.51	2.41
5-Apr-19	2.50	2.43

March 1, 2019 – April 5, 2019

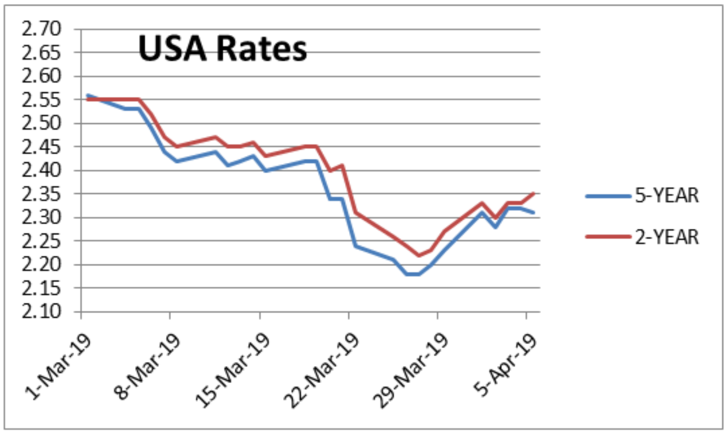


COMMENT: Last week, the 10-year regained its normal "hierarchy".

3. 5-Year/2-Year

Date	5 yr	2 yr
1-Mar-19	2.56	2.55
4-Mar-19	2.53	2.55
5-Mar-19	2.53	2.55
6-Mar-19	2.49	2.52
7-Mar-19	2.44	2.47
8-Mar-19	2.42	2.45
11-Mar-19	2.44	2.47
12-Mar-19	2.41	2.45
13-Mar-19	2.42	2.45
14-Mar-19	2.43	2.46
15-Mar-19	2.40	2.43
18-Mar-19	2.42	2.45
19-Mar-19	2.42	2.46
20-Mar-19	2.34	2.40
21-Mar-19	2.34	2.41
22-Mar-19	2.24	2.31
25-Mar-19	2.21	2.26
26-Mar-19	2.18	2.24
27-Mar-19	2.18	2.22
28-Mar-19	2.20	2.23
29-Mar-19	2.23	2.27
1-Apr-19	2.31	2.33
2-Apr-19	2.28	2.30
3-Apr-19	2.32	2.33
4-Apr-19	2.32	2.33
5-Apr-19	2.31	2.35

March 1, 2019 – April 5, 2019



COMMENT: *The 5-year/2-year yields remain in an "inversionary" state.*

Conclusion

Our preference, as stated, is for the 10-year/2-year yield comparison to be the benchmark for determining an "inversion" and its subsequent prediction of a recession. However, given that the 5-year/2-year comparison has been in inversion for more than a month, there should be some cause for concern. Certainly, if all three of the above comparisons were inverted, that would be compelling.

We end with a recent quote from JP Morgan on the yield curve:

> Investors tend to fear yield curve inversion, looking at it as a signal that a recession is looming. However, we believe investors should not over-react to these recent moves for a few reasons. First, a flattening of the yield curve is common during rate hiking cycles, which is where we are today. Second, this time around, the shape of the curve has been distorted by central bank asset purchases around the world, making it a less trustworthy predictor of a recession. Lastly, the curve can stay flat for a long time before inverting and, even then, a recession can take a while to arrive.

Bob Weir, CFA: Contributing Analyst

*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.ca), 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.