RECESSION BAROMETER

March 29, 2019

Spotlight on : 10-2 Yield Curve

COMMENT: *There has been considerable press this past week about inversion and what it means for the possibility or likelihood of the economy going into recession. Many market pundits and investment gurus chimed the alarm when 10-year yields fell below 3-month yields. Inversion! Inversion! Reminds me of Chicken Little. As is oft the case, one can find a specific statistic to give substance to one's belief. But, is it the right statistic, or is it just convenient to enforce one's own opinion?*

There are a myriad of interest rate combinations that one could use to compare and contrast the yield curve. My preference is the 10-year/2-year. What got all the pundits and gurus excited this past week was the inversion that occurred in the 10-year/3-month. Is one better than the other in predicting a recession? I doubt it. Also, as stated frequently in these pages, just because an inversion occurs, it is not automatic that a recession follows. And, 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 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. This analysis should help to quell the hysteria that invaded the business headlines this past week. So, you choose. 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, rates fell more in Canada than in the USA, but the "spread" fell in the USA and stayed constant in Canada. In the USA, 10-years closed the week at 2.41% (2.44%) and 2-years closed at 2.27% (2.31%), a spread of 0.14x (0.13x). For Canadas, 10-years were at 1.55% (1.67%) and 2-years at 1.49% (1.60%), for a spread of 0.06x (0.07x).

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.

Historically, inversions of the yield curve (the spread) have preceded most U.S. recessions. Thus, the yield curve is considered an important barometer for predicting business cycle turning points. Set out below, we provide various date projections for a possible recession following an inversion. Currently, if a 10/2 inversion occurred in April 2019, then our prediction is that a recession could occur in July 2020.

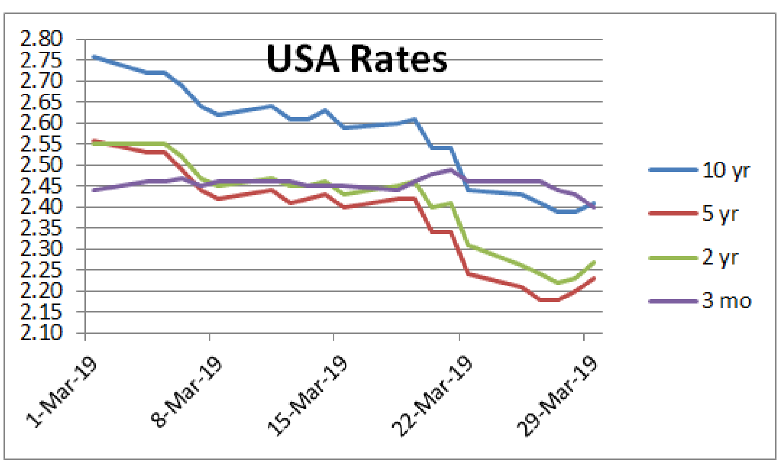
Interest Rates For Various Maturities

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.

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

The chart below shows the above table graphically. Hark! On the 8th of March, the 5-year and the 2-year rates both fell BELOW the 3-month rate. No hue and cry from the pundits/gurus then. Why now, just because on March 22 the 10-year dipped below the 3-month? (It is back above on Friday.)

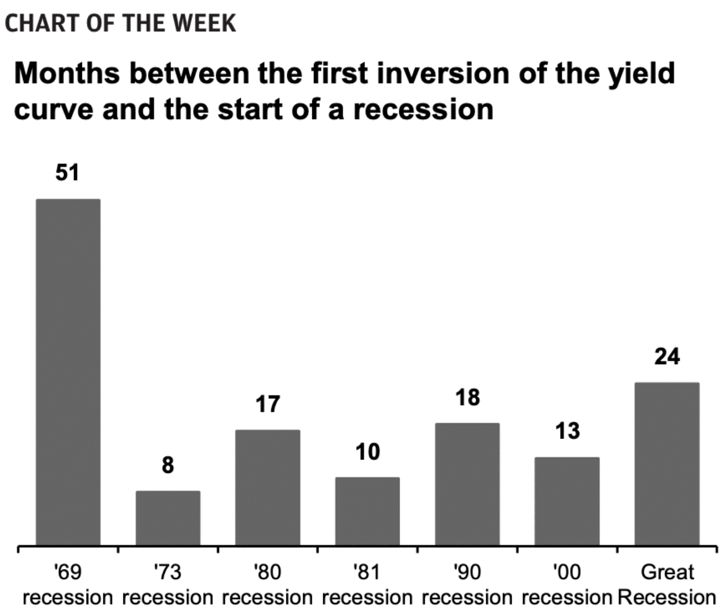
March 1, 2019 – March 29, 2019



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. The recent brouhaha in the media about inversion reinforces our opinion that the recession would follow closer to 15 months than to 20 months. Still, until it occurs, it is always a guess, and then it isn't.

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

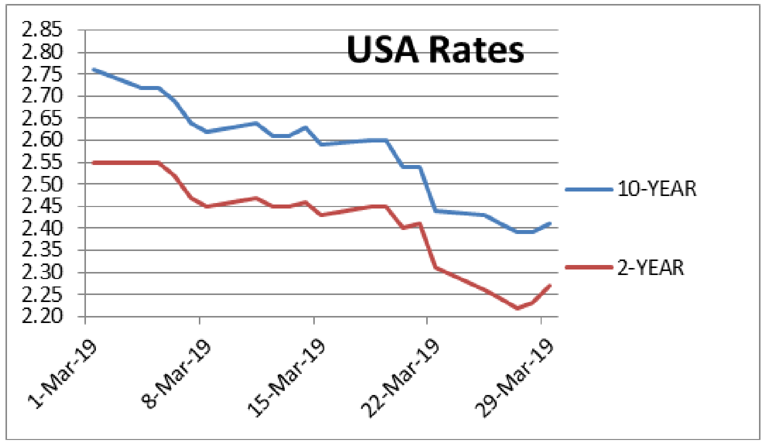
Source: eResearch

March 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

March 1, 2019 – March 29, 2019

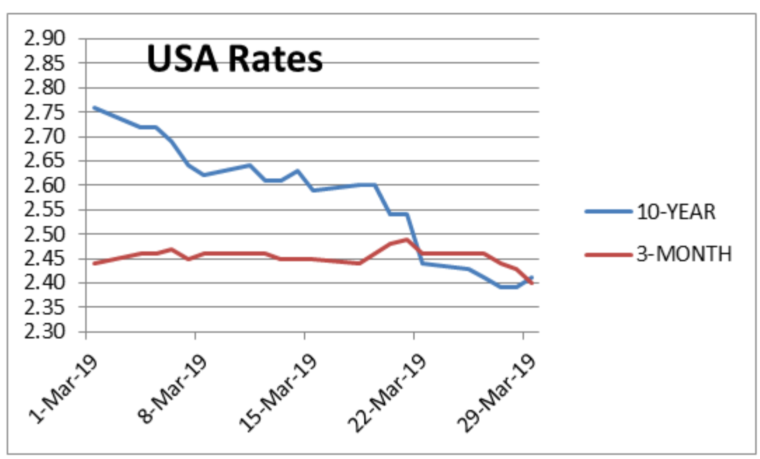


COMMENT: *The "spread" jumped at the beginning of the week, and then narrowed into the close, ending at 0.14x. Still a long ways from the inversion point of 0.00x.*

2. 10-Year/3-Month

DATE	USA		
	10-YEAR	3-MONTH	DIFF
1-Mar-19	2.76	2.44	0.32
4-Mar-19	2.72	2.46	0.26
5-Mar-19	2.72	2.46	0.26
6-Mar-19	2.69	2.47	0.22
7-Mar-19	2.64	2.45	0.19
8-Mar-19	2.62	2.46	0.16
11-Mar-19	2.64	2.46	0.18
12-Mar-19	2.61	2.46	0.15
13-Mar-19	2.61	2.45	0.16
14-Mar-19	2.63	2.45	0.18
15-Mar-19	2.59	2.45	0.14
18-Mar-19	2.60	2.44	0.16
19-Mar-19	2.60	2.46	0.14
20-Mar-19	2.54	2.48	0.06
21-Mar-19	2.54	2.49	0.05
22-Mar-19	2.44	2.46	-0.02
25-Mar-19	2.43	2.46	-0.03
26-Mar-19	2.41	2.46	-0.05
27-Mar-19	2.39	2.44	-0.05
28-Mar-19	2.39	2.43	-0.04
29-Mar-19	2.41	2.40	0.01

March 1, 2019 – March 29, 2019

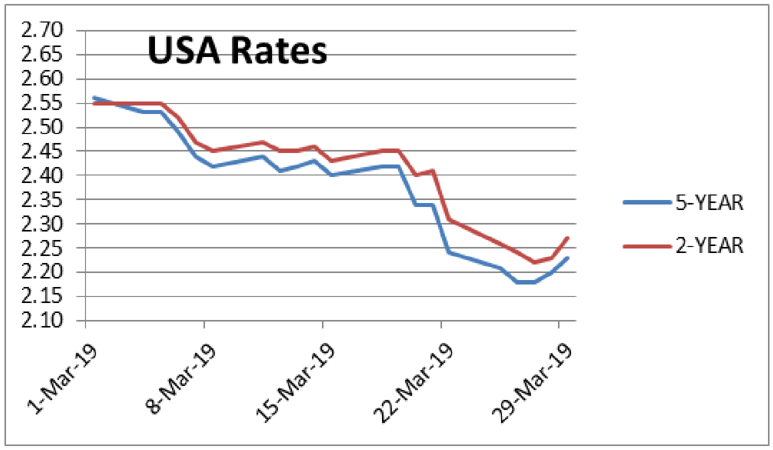


COMMENT: *After 5 days of reflection, the inversion ended on Friday.*

3. 5-Year/2-Year

DATE	5-YEAR	USA 2-YEAR	DIFF
1-Mar-19	2.56	2.55	0.01
4-Mar-19	2.53	2.55	-0.02
5-Mar-19	2.53	2.55	-0.02
6-Mar-19	2.49	2.52	-0.03
7-Mar-19	2.44	2.47	-0.03
8-Mar-19	2.42	2.45	-0.03
11-Mar-19	2.44	2.47	-0.03
12-Mar-19	2.41	2.45	-0.04
13-Mar-19	2.42	2.45	-0.03
14-Mar-19	2.43	2.46	-0.03
15-Mar-19	2.40	2.43	-0.03
18-Mar-19	2.42	2.45	-0.03
19-Mar-19	2.42	2.45	-0.03
20-Mar-19	2.34	2.40	-0.06
21-Mar-19	2.34	2.41	-0.07
22-Mar-19	2.24	2.31	-0.07
25-Mar-19	2.21	2.26	-0.05
26-Mar-19	2.18	2.24	-0.06
27-Mar-19	2.18	2.22	-0.04
28-Mar-19	2.20	2.23	-0.03
29-Mar-19	2.23	2.27	-0.04

March 1, 2019 – March 29, 2019



COMMENT: *Using these maturities, the ~~world~~ USA has been in an "inversionary" state since the beginning of the month. This interest rate comparison has never garnered much attention, but it is significant, in a larger context, that for some time, a two-year debt security has provided a better return than a five-year debt security. This is not logical on a sustaining basis.*

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 a whole month, there should be some cause for concern. Certainly, if all three of the above comparisons were inverted, that would be compelling.

It is also important to remember that, sometimes, a negative yield curve can give a false positive and a recession does not occur.

However, historically, inversions of the yield curve have preceded most U.S. recessions. Thus, the yield curve is considered an important barometer for predicting business cycle turning points.

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.

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