

RECESSION BAROMETER

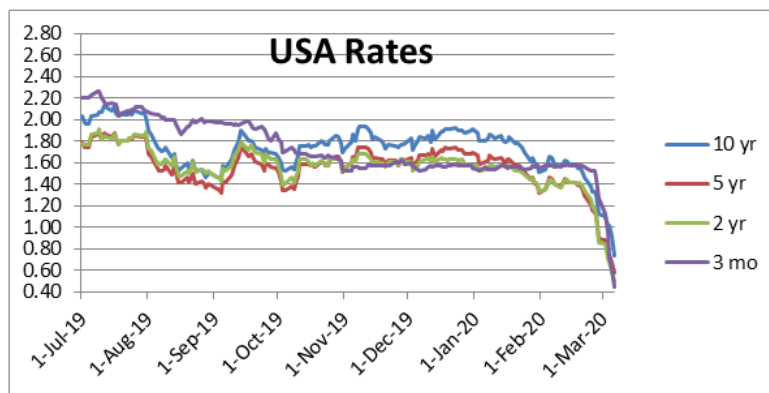
March 6, 2020

Spotlight on : Yield Curve Ratios – USA

Last week, unless you were hiding under a rock, interest rates plunged. Look at these charts below.

First is the chart for four key interest rate maturities, 10-year, 5-year, 2-year, and 3-month, since July 1, 2019.

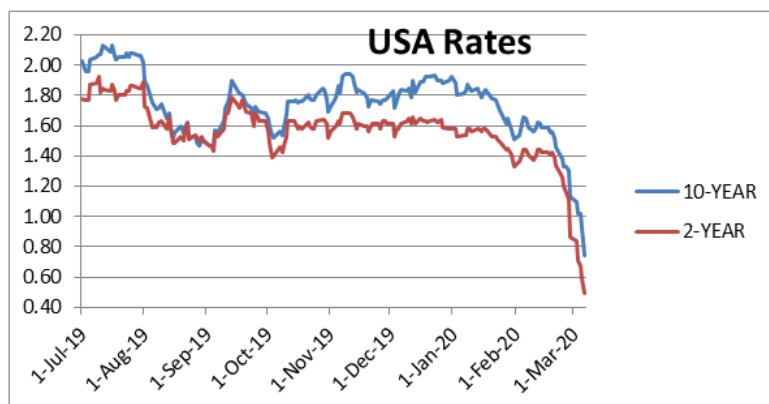
July 1, 2019 – March 6, 2020



Here are the charts in dual comparison for the same time-frame for the three important maturities, 10-year/2-year, 10-year/3-month, and 5-year/2-year.

1. 10-Year/2-Year

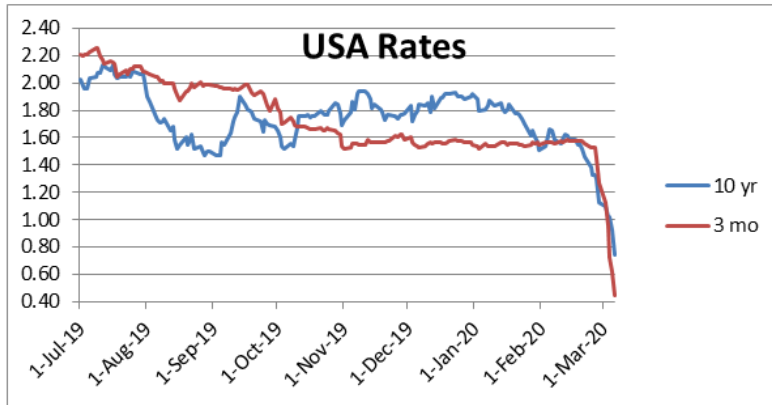
July 1, 2019 – March 6, 2020



2. 10-Year/3-Month

July 1, 2019 - March 6, 2020

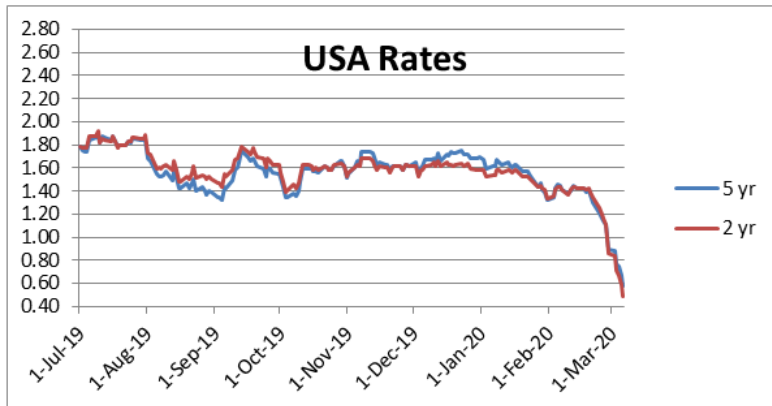
USA Rates: 10-Year/3-Month



3. 5-Year/2-Year

July 1, 2019 - March 6, 2020

USA Rates: 5-Year/2-Year



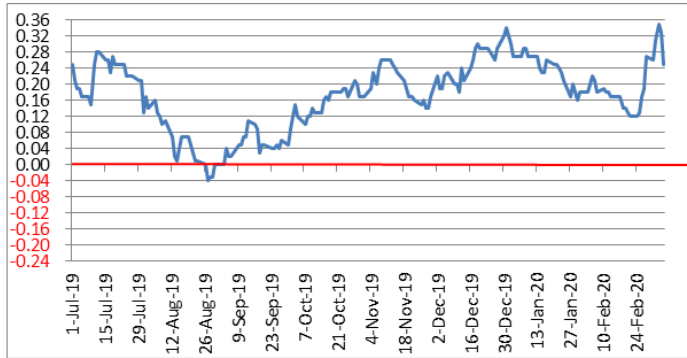
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What about the Spreads? 10Y/2Y went down; and 10Y/3M and 5Y/2Y went up.

1. 10-Year/2-Year

July 1, 2019 - March 6, 2020

10-Year/2-Year USA SPREAD



2. 10-Year/3-Month

July 1, 2019 - March 6, 2020

USA SPREAD: 10-Year/3-Month



2. 5-Year/2-Year

July 1, 2019 - March 6, 2020

USA SPREAD: 5-Year/2-Year



Let us look at the interest rates, in table form, from February 1. For emphasis, we shaded last week.

<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>
31-Jan-20	1.99	1.83	1.51	1.32	1.33	1.45	1.54	1.55	1.56
3-Feb-20	2.01	1.84	1.54	1.35	1.36	1.46	1.56	1.57	1.56
4-Feb-20	2.08	1.91	1.61	1.42	1.41	1.48	1.57	1.57	1.55
5-Feb-20	2.14	1.97	1.66	1.46	1.44	1.49	1.57	1.57	1.55
6-Feb-20	2.11	1.94	1.65	1.45	1.44	1.51	1.58	1.57	1.59
7-Feb-20	2.05	1.89	1.59	1.41	1.41	1.49	1.57	1.56	1.57
10-Feb-20	2.03	1.87	1.56	1.38	1.37	1.45	1.58	1.58	1.58
11-Feb-20	2.05	1.89	1.59	1.40	1.41	1.48	1.55	1.57	1.57
12-Feb-20	2.09	1.93	1.62	1.45	1.44	1.49	1.56	1.58	1.57
13-Feb-20	2.07	1.91	1.61	1.43	1.44	1.48	1.56	1.59	1.59
14-Feb-20	2.04	1.89	1.59	1.42	1.42	1.49	1.56	1.58	1.60
17-Feb-20	2.04	1.89	1.59	1.42	1.42	1.49	1.56	1.58	1.60
18-Feb-20	2.00	1.85	1.55	1.39	1.41	1.47	1.56	1.58	1.61
19-Feb-20	2.01	1.86	1.56	1.41	1.42	1.47	1.56	1.58	1.61
20-Feb-20	1.97	1.81	1.52	1.37	1.39	1.46	1.55	1.58	1.61
21-Feb-20	1.90	1.75	1.46	1.30	1.34	1.43	1.53	1.56	1.60
24-Feb-20	1.84	1.68	1.38	1.21	1.26	1.35	1.49	1.53	1.60
25-Feb-20	1.80	1.63	1.33	1.16	1.20	1.30	1.47	1.53	1.59
26-Feb-20	1.81	1.64	1.33	1.14	1.16	1.26	1.42	1.53	1.59
27-Feb-20	1.79	1.61	1.30	1.11	1.11	1.18	1.33	1.45	1.56
28-Feb-20	1.65	1.46	1.13	0.89	0.86	0.97	1.11	1.27	1.45
2-Mar-20	1.66	1.46	1.10	0.88	0.84	0.89	0.95	1.13	1.41
3-Mar-20	1.64	1.44	1.02	0.77	0.71	0.73	0.83	0.95	1.11
4-Mar-20	1.67	1.45	1.02	0.75	0.67	0.59	0.68	0.72	1.00
5-Mar-20	1.56	1.34	0.92	0.67	0.59	0.48	0.53	0.62	0.92
6-Mar-20	1.25	1.09	0.74	0.58	0.49	0.39	0.41	0.45	0.79

Source: U.S. Department of the Treasury; Compiled by: eResearch

COMMENT: *Look at that decline, particularly on Friday, March 6. This kind of sharp correction, likely based solely on panic, would be expected to generate a sharp positive response in the other direction.*

<continued>

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 October 2019.

Date	10Year/2Year U.S. Spread		3 U.S. Spreads		12 U.S. Spreads		Combined Spreads	
	Spread	Reading	Spread	Reading	Spread	Reading	Spread	Reading
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
7-Feb-20	0.18	7.0 X	0.11	8.0 X	0.09	8.0 X	0.13	7.5 X
14-Feb-20	0.17	7.0 X	0.10	8.0 X	0.08	8.5 X	0.12	8.0 X
21-Feb-20	0.12	8.0 X	0.05	9.0 X	0.04	9.0 X	0.07	8.5 X
28-Feb-20	0.27	6.0 X	0.07	8.5 X	0.04	9.0 X	0.13	7.5 X
6-Mar-20	0.25	6.5 X	0.24	6.5 X	0.20	7.0 X	0.23	6.5 X

CURRENT RECESSION BAROMETER READING, Week Ending March 6:

6.5x.

COMMENT: *Despite the significant volatility last week, beset with plunging interest rates, the Combined Spread actually went down, i.e., less indication of an impending Economic Recession, and now sits at 6.5x.*

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 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.

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

Source: eResearch

CONCLUSION:

Two weeks ago, in our last Recession Barometer report, we said:

Caveat: The coronavirus, known as Covid-19, if it turns into a global pandemic, will certainly impact global economies significantly, and most likely cause an Economic Recession in many countries of the world. It is unlikely that the United States would escape this scenario.

We believe that the significant decline in interest rates last week is likely a distortion caused by market panic associated with the spreading Covid-19 virus. Although it may take some time to normalize, or even to semi-normalize market conditions, a return towards inverted yield curves is a distinct possibility in the short to intermediate term. In our opinion, the USA is still a candidate for an Economic Recession, possibly in late 2021.

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