CHART OF THE DAY

January 11, 2018

Spotlight on : 10-2 Yield Curve

COMMENT: *Until Friday, yields increased this past week, in both the USA and Canada, although the increases were sharper in Canada. However, the "spreads" hardly change at all and continue to stand well above the recession-prediction level.*

eResearch has been publishing these "recession barometer" reports for some time. We think it is useful to try to predict when an economic recession might happen since such occurrences have broad implications for stock market performance as well as general economic activity, including jobs, unemployment, housing, etc. Since the 2008-2009 recession, global economies have shown slow but steady growth, some better than others. After such a long protracted period of growth, a recession is to be anticipated, but when?

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. See JP Morgan reference comments included on page 5 of this report.

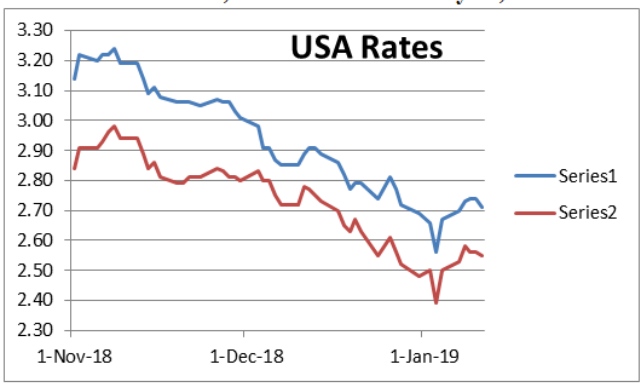
The yield curve is narrow but still comfortably above the 0.00x level required to denote a recession is near. Using guidelines set out later in this report, a recession will probably not occur until sometime around the end of Q1/2020 until the beginning of Q3/2020.

1. U.S. Treasuries

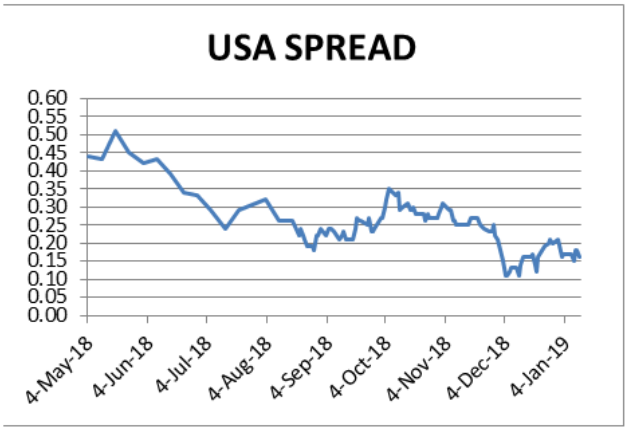
- The 10-year U.S. Treasuries yield rose from Monday through Thursday and then turned down on Friday, although it still ended the week up 4 basis points. It closed the week at 2.71%.
- The 2-year U.S. Treasuries yield followed generally the same pattern of its longer-term brother and closed the week at 2.55%, up 5 basis points.
- The 10/2 yield spread ("diff" in the table on the next page) was generally stable throughout the week and ended at 0.16x compared to 0.17x at the end of the previous week.
- The table below shows the trend in rates since November 1, 2018.
- The accompanying chart (at the bottom of the next page) is for the same time-frame. It shows clearly the falling trend in both the 10-year and the 2-year since their respective highs on November 8.

DATE		USA	
	10-YEAR	2-YEAR	DIFF
1-Nov-18	3.14	2.84	0.30
2-Nov-18	3.22	2.91	0.31
5-Nov-18	3.20	2.91	0.29
6-Nov-18	3.22	2.93	0.29
7-Nov-18	3.22	2.96	0.26
8-Nov-18	3.24	2.98	0.26
9-Nov-18	3.19	2.94	0.25
12-Nov-18	3.19	2.94	0.25
13-Nov-18	3.14	2.89	0.25
14-Nov-18	3.09	2.84	0.25
15-Nov-18	3.11	2.86	0.25
16-Nov-18	3.08	2.81	0.27
19-Nov-18	3.06	2.79	0.27
20-Nov-18	3.06	2.79	0.27
21-Nov-18	3.06	2.81	0.25
23-Nov-18	3.05	2.81	0.24
26-Nov-18	3.07	2.84	0.23
27-Nov-18	3.06	2.83	0.23
28-Nov-18	3.06	2.81	0.25
29-Nov-18	3.03	2.81	0.22
30-Nov-18	3.01	2.80	0.21
3-Dec-18	2.98	2.83	0.15
4-Dec-18	2.91	2.80	0.11
5-Dec-18	2.91	2.80	0.11
6-Dec-18	2.87	2.75	0.12
7-Dec-18	2.85	2.72	0.13
10-Dec-18	2.85	2.72	0.13
11-Dec-18	2.89	2.78	0.11
12-Dec-18	2.91	2.77	0.14
13-Dec-18	2.91	2.75	0.16
14-Dec-18	2.89	2.73	0.16
17-Dec-18	2.86	2.70	0.16
18-Dec-18	2.82	2.65	0.17
19-Dec-18	2.77	2.63	0.14
20-Dec-18	2.79	2.67	0.12
21-Dec-18	2.79	2.63	0.16
24-Dec-18	2.74	2.55	0.19
26-Dec-18	2.81	2.61	0.20
27-Dec-18	2.77	2.56	0.21
28-Dec-18	2.72	2.52	0.20
31-Dec-18	2.69	2.48	0.21
2-Jan-19	2.66	2.50	0.16
3-Jan-19	2.56	2.39	0.17
4-Jan-19	2.67	2.50	0.17
7-Jan-19	2.70	2.53	0.17
8-Jan-19	2.73	2.58	0.15
9-Jan-19	2.74	2.56	0.18
10-Jan-19	2.74	2.56	0.18
11-Jan-19	2.71	2.55	0.16

November 1, 2018 – January 11, 2019



● The table below shows the "spread" between the 10-year yield and the 2-year yield. The past week saw the spread fall to 0.16x, down from 0.17x at the end of the previous week, but still well above the 0.00x benchmark that denotes the fear level for an impending recession.

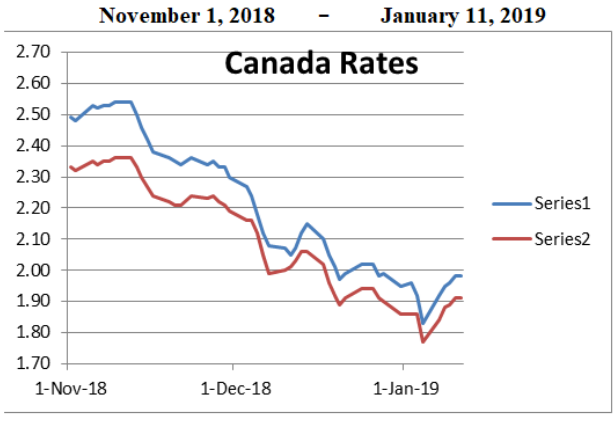


2. Government of Canadas

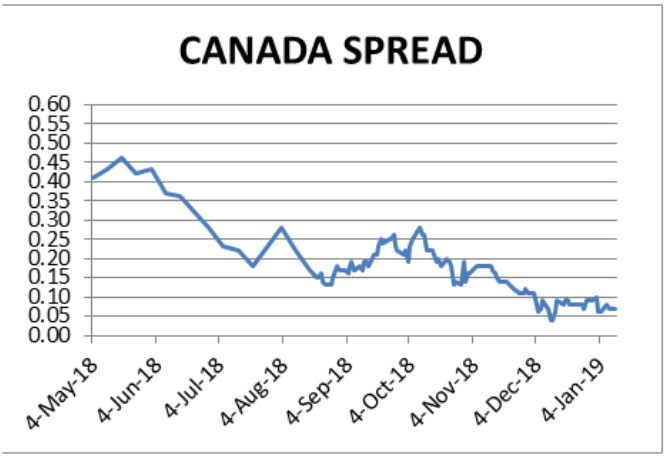
- Both the 10-year and the 2-year Canadian rates spiked sharply this past week, the 10s ending at 1.98% and the 2s at 1.91%.

- The table below is for the last four weeks, while the chart is for the same period as shown for the U.S. Rates, from October 15, 2018.

DATE	CANADA		
	10-YEAR	2-YEAR	DIFF
10-Dec-18	2.07	2.00	0.07
11-Dec-18	2.05	2.01	0.04
12-Dec-18	2.07	2.03	0.04
13-Dec-18	2.12	2.06	0.06
14-Dec-18	2.15	2.06	0.09
17-Dec-18	2.10	2.02	0.08
18-Dec-18	2.05	1.96	0.09
19-Dec-18	2.01	1.92	0.09
20-Dec-18	1.97	1.89	0.08
21-Dec-18	1.99	1.91	0.08
24-Dec-18	2.02	1.94	0.08
26-Dec-18	2.02	1.94	0.08
27-Dec-18	1.98	1.91	0.07
28-Dec-18	1.99	1.90	0.09
31-Dec-18	1.95	1.86	0.09
2-Jan-19	1.96	1.86	0.10
3-Jan-19	1.92	1.86	0.06
4-Jan-19	1.83	1.77	0.06
7-Jan-19	1.92	1.84	0.08
8-Jan-19	1.95	1.88	0.07
9-Jan-19	1.96	1.89	0.07
10-Jan-19	1.98	1.91	0.07
11-Jan-19	1.98	1.91	0.07



- The 10-year/2-year spread in Canadian rates was very stable this past week and ended at 0.07x. Still comfortably above the 0.00x recession level.



COMMENTARY

- A declining spread that approaches 0.00x or that actually goes negative (or inverts) signifies slowing economic growth and, even, the likelihood of a recession.

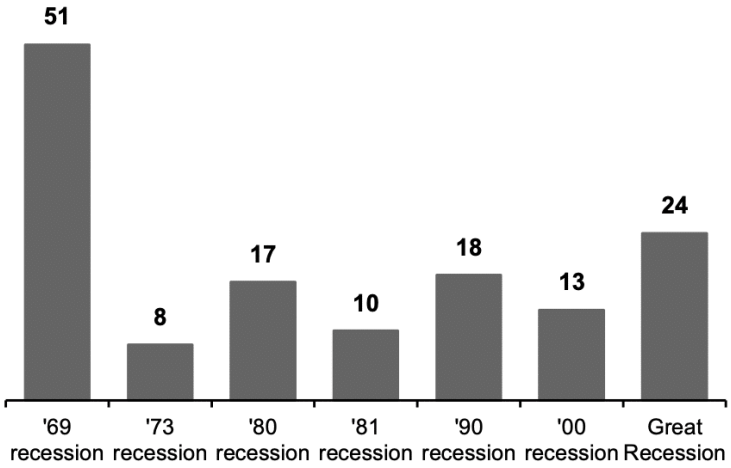
- A recession usually occurs a few months (or possibly up to two years) after the yield curve inverts (see the next chart and comment on the following page and the long-term chart on page 6).

<continued>

- 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.

CHART OF THE WEEK

Months between the first inversion of the yield curve and the start of a 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.

- Sometimes, a negative yield curve gives a false positive (again, see the long-term chart on page 6).

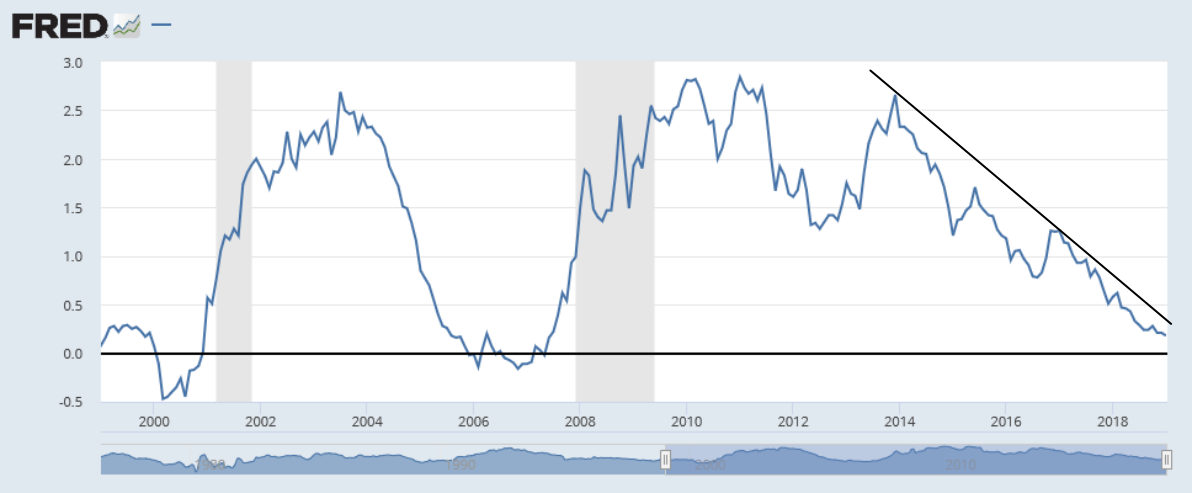
- A negative or inverted yield curve indicates that long-term debt instruments have a lower yield than short-term debt instruments, given that these debt instruments are of the same or similar credit quality.

- 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.

- Here is 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. Over the last 7 recessions, it has taken an average of 20 months between the first inversion of the curve and the start of a recession.

U.S. Treasuries 10-2 Yield Ratio Since January 1, 1999 (20 Years)

Here is a look at the 10-2 yield curve going back 20 years to January 1999. It shows the negative occurrences (below 0.0x) and the corresponding recessions (shaded areas) that soon followed. Currently, despite the falling trend-line, there is still further to go to reach the inversion level and the possibility of a resulting recession. The current ratio is 0.16x, down slightly from 0.17x one week ago.



CONCLUSION

- Despite the discouraging down-trend that is currently occurring, U.S. economic growth still continues positively and, therefore, the possibility of a near-term recession in the United States still seems remote at this point. However, using the JP Morgan 20-month statistic as a yard-stick and January 1, 2019 as the starting point, a recession could occur in the USA sometime in the middle of 2020.

- If the statistic that causes a skewing in the calculation of the average is removed, the recalibrated average is 15 months, or around the end of Q1/2020.

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