CHART OF THE DAY

February 15, 2018

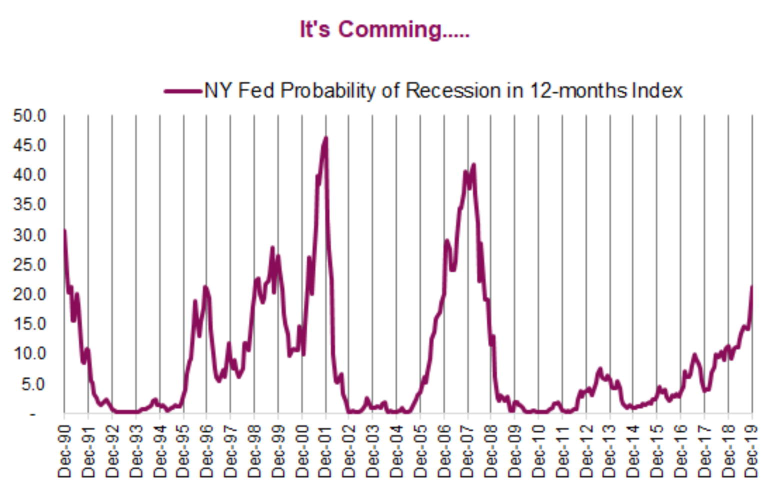
Spotlight on : 10-2 Yield Curve

COMMENT: *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. Predicting when that will be is the key. Below, we provide various date projections for a possible recession following an inversion.*

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. However, it is important to note that, sometimes, a negative yield curve gives a false positive (see the long-term chart on page 5).

The yield curve for the 10s/2s is currently quite "narrow" in both the USA and Canada. Friday's close has the 10/2 for Treasuries at 0.14x and for Canadas at 0.11x. The U.S. spread narrowed considerably this past week, while the Canadian spread stayed stable.

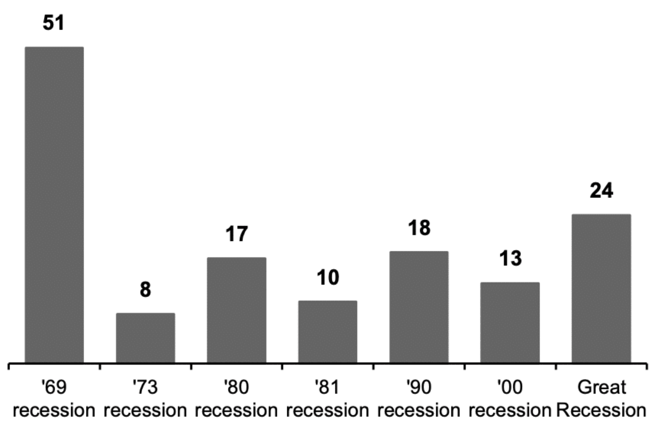
The following New York Fed chart, which is at the end of December 2018, shows the probability of a recession occurring in the next 12 months, that is, by the end of 2019. The chart shows that probability is rising but, as shown, it is only at about 20%.



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.

Again, from JP Morgan, here is a recent quote about 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.

The following chart shows when a recession could occur for various post-inversion dates:

Forecasting the Commencement of a Recession

If an inversion occurs during the current quarter …	… then a recession will begin at stated date projections.					
Current Quarter	**Inversion +12 Months**	**Inversion +15 Months**	**Inversion +20 Months**	**Inversion +24 Months**	**Inversion +30 Months**	**Inversion +40 Months**
Q1/2019	Q1/2020	Q2/2020	Q3/2020	Q1/2021	Q3/2021	Q2/2022

Source: eResearch

LATEST READINGS

1. U.S. Treasuries

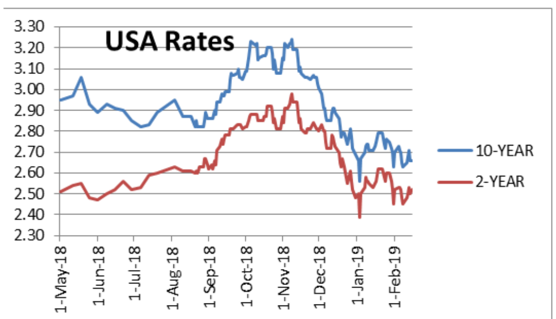
- The 10-year U.S. Treasuries yield was flat last week, closing at 2.66%, from 2.65%.

- The 2-year U.S. Treasuries yield rose slightly, closing at 2.52%, up from 2.48%.

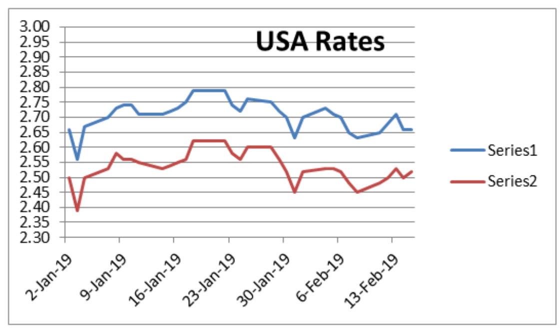
- The 10/2 yield spread declined this past week, ending at 0.14x compared to 0.18x at the end of the previous week.

- The first two charts below show the trend in rates since May 1, 2018 and January 2, 2019. The longer-term chart shows that rates rose beginning in September and peaked in November. The subsequent decline went through the September low to a nadir in early January. Rates have since recovered slightly. The short-term chart on the right, since the beginning of the year, is fairly flat.

May 1, 2018 – February 15, 2019

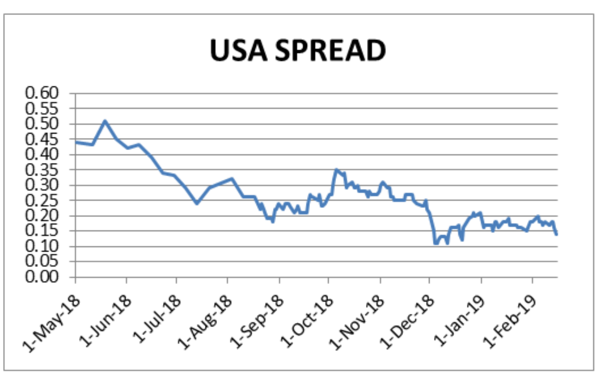


January 2, 2019 – February 15, 2019

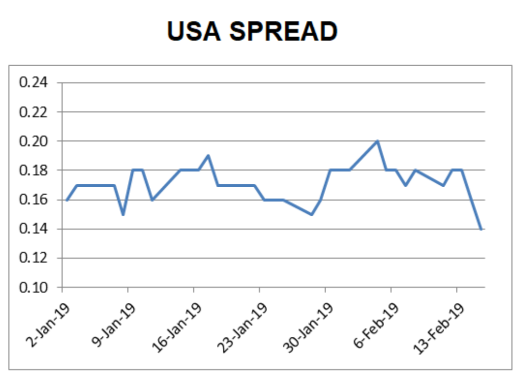


- The next two charts show the "spread" between the 10-year and the 2-year yields. The longer-term chart shows a distinct down-turn in the spread. The short-term chart shows a fairly stable yield spread, until the end of this week, then it fell quite sharply. When the spread gets to "zero", an inversion is imminent.

May 1, 2018 – February 15, 2019



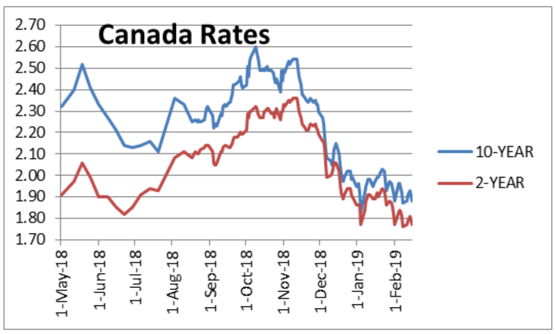
January 2, 2019 – February 15, 2019



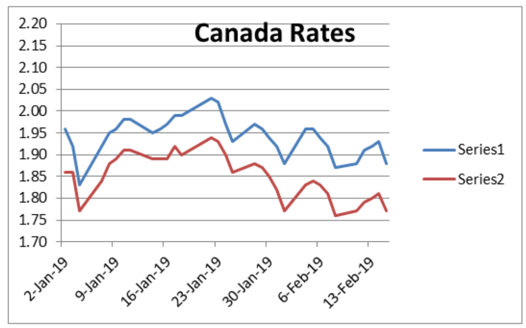
2. Government of Canadas

- The first two charts for Canadas mirror the U.S. Treasuries experience. Rates through January into the middle of February have been fairly stable.
- As shown on the second set of charts the "spread" on Canadas is much less than for Treasuries, although it narrowed significantly this past week. Nevertheless, the Canadas' spread has been very stable since year-end, although they have been rising slowly over the last three weeks, from 0.07x to 0.11x, but still well above recession levels of 0.00x.

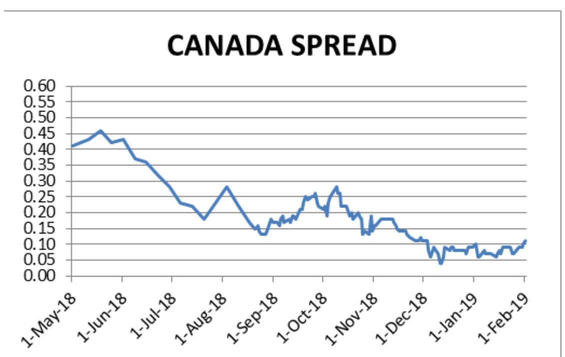
May 1, 2018 – February 15, 2019



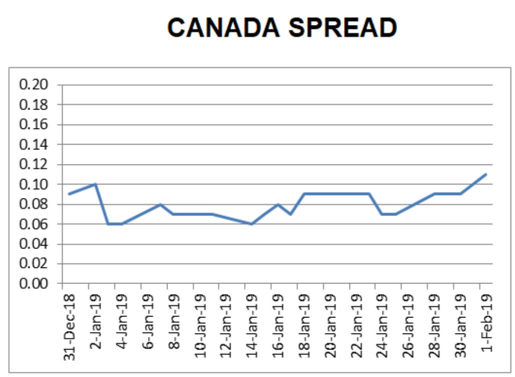
January 2, 2019 – February 15, 2019



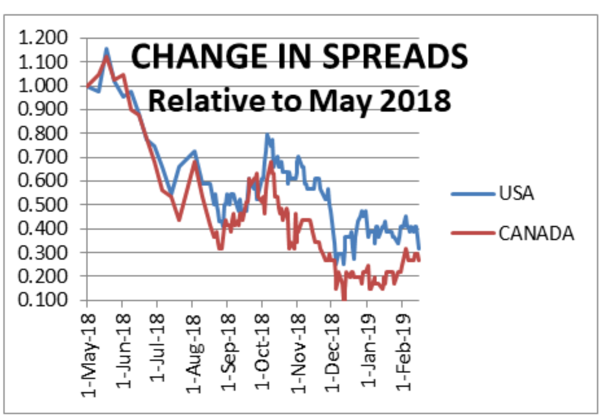
May 1, 2018 – February 1, 2019



December 31, 2018 – February 1, 2019



The following chart shows the trend in U.S. and Canadian spreads since May 1, 2018:



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

Here is a look at the 10-2 yield curve going back 20 years to February 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 0.14x, down from 0.18x one week ago.

CONCLUSION

- Despite the down-trend in the spread that is currently occurring, U.S. economic growth still continues positively, although signs of global slowing could start to impact the USA as well as slower growth from its own making. The 34-day partial government shut-down is likely to impact Q1 GDP growth considerably. Still, at this point, the possibility of a near-term recession in the United States seems remote. However, our concerns for global economic growth, North American economic growth, the possibility of dysfunctional government in the USA from time to time, and the negative effects of trade wars and ignoble tariffs, cause us to consider the possibility of a recession hitting U.S. shores in 12-15 months after a 10/2 yield curve inversion occurs. We are not there yet, but we are getting closer.

Bob Weir, CFA: Contributing Analyst

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