

## Chart of the week

### **In the current cycle, you should be cautious in using the U.S. yield curve as a forecasting tool**

Nine years into the economic cycle, nervousness is on the rise as to when the current economic upswing will run out of steam and when the next recession might kick in. For investors, this question is of utmost importance, as it helps to determine when the time will come to say goodbye to risky assets like stocks and shift into safe havens such as government bonds.

One widely used indicator in this respect is the steepness of the yield curve. Normally, yields for long-dated investments are higher than those for short-dated investments. A shrinking difference is called a flattening of the yield curve. If short-term bonds offer even higher yields than longer-term bonds by the same issuer, this is called an inversion of the yield curve.

Inverse yield curves have proven to be quite reliable recession warnings in the past, as our "Chart of the Week" shows. Following a widespread practice, we look at the difference between 2-year and 10-year U.S. government-bond yields. If one regresses its development since early 2014, extrapolating the trend would suggest an inverted curve by around mid-2019. Taking the average time lag into account, this in turn would mean a slide into recession for the fourth quarter of 2020.

However, we would recommend taking the yield curve as reflected here with a teaspoon of salt.

Our first objection concerns the selection of the reference points, specifically the use of two-year yields. The theoretical justification for considering the yield curve is that the shape of the curve reflects market expectations for future interest-rate policy. If market participants collectively come to the conclusion that, due to an imminent recession, the central bank will lower interest rates in the near future, yields on longer-term bonds will fall, thus leading to an inversion of the yield curve as described above. However, by looking at the difference between two-year and ten-year yields, the analysis excludes interest-rate expectations for the next two years. The U.S. Federal Reserve has addressed this issue and published its findings in a working paper<sup>1</sup>. We would instead recommended considering a money-market rate, or the central bank's policy rate directly. By doing so, the extrapolation as described above would not imply the next recession before 2022 on the basis of the slope between the fed funds rate and 10-year government-bond yields.

Another objection relates to the significance of long-term yields. In the current economic cycle, central banks around the world have made large-scale bond purchases to support the economy and to counter deflationary risks. This has led to bond yields trading below

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<sup>1</sup> See Eric C. Engstrom and Steven A. Sharpe: The Near-Term Forward Yield Spread as a Leading Indicator: A Less Distorted Mirror; Board of Governors of the Federal Reserve System, July 2018 <https://www.federalreserve.gov/econres/feds/files/2018055pap.pdf>

levels where they would otherwise have been in the absence of demand by these price-insensitive buyers. In order to compare the current yield curve with historical precedents, one would actually have to deduct this "artificial" decline in yield.

A third objection is that there is little historic evidence on how recent tax cuts and fiscal-spending increases might impact the yield curve, simply because such policy measures are more customary in the early stages of an economic cycle. Conceivably, that could impact the curve in all sorts of ways, including inflation expectations and changing perceptions of U.S. creditworthiness.

In summary, we find that the most commonly used yield curve would suggest the start of a recession late in 2020. However, we find a lot of objections, and in the current environment we would be particularly cautious about taking the yield curve at face value.



Sources: Bloomberg Finance L.P., DWS Investment GmbH as of 9/27/18

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## Glossary

### Deflation

**Deflation** is a sustained decrease in the general price level of goods and services.

### Federal funds rate

The **federal funds rate** is the interest rate, set by the Fed, at which banks lend money to each other, usually on an overnight basis.

### Recession

A **recession** is, technically, when an economy contracts for two successive quarters but is often used in a looser way to indicate declining output.

### Systematic indicator

A **systematic indicator** is a value calculated based on macroeconomic, financial-market and other global data.

### U.S. Federal Reserve Board (the Fed)

The **U.S. Federal Reserve Board**, often referred to as "**the Fed**", is the central bank of the United States.

### Yield curve

A **yield curve** shows the annualized yields of fixed-income securities across different contract periods as a curve. When it is inverted, bonds with longer maturities have lower yields than those with shorter maturities.

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