

# Yield Curve Inversions



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## Key Points

- One of the most commonly watched recession indicators – the interest rate yield curve – inverted briefly in the second half of March 2019.
- A yield curve inversion exists when short-term interest rates are higher than long-term interest rates. For this article, we will use the yield on the 10-year US Treasury Note for the long-term interest rate and the yield on the 3 month US Treasury Bill for the short-term interest rate. We will also use the terms “yield” and “interest rate” interchangeably as synonyms.
- While all recessions since the mid-1960 have been preceded by a yield curve inversion, not all yield curve inversions during that time period have led to a recession.
- Bull and bear markets, recessions and expansions, are natural occurrences in the economic cycle. They are as inevitable as death or taxes. But good times have historically far outweighed the bad. Investing for the long-term remains the right play.

## Why do yield curve inversions happen?

We'll begin with the premise that yield curve inversion is an unnatural and unsustainable state for the economy.

The interest rate on the 10-year Treasury Note is set by the invisible hand of the market. Supply and demand. Based on studies of investor behavior, when investors are nervous about market decline or fear a recession may be coming, they run to the safety of the 10-year Treasury Note. This causes pricing on outstanding Notes to rise and the yields on new offerings to fall. Supply and demand.

The Fed Funds rate, which is closely associated with the interest rate on the 3-month Treasury Bill, is set by officials at the Federal Reserve. When the Fed is nervous about market expansion and fears an overheated economy, it raises short-term rates to cool down the economy and prevent runaway inflation.

While many nuanced factors contribute to the phenomenon of yield curve inversion, a common interpretation of yield curve inversion is that the yield curve measures investors' expectations of economic growth in the current period compared with economic growth in the future. According to this interpretation, a yield curve inversion implies that investors expect current economic growth to exceed future economic growth. That's another way to say that investors believe a recession is likely.



## YIELD CURVE CONTINUED

A yield curve inversion can occur when falling long-term interest rates, due to investor concerns about future market declines, coincide with rising short-term interest rates, due to Fed concerns about current market expansion. These two opposing directional forces cannot coexist for long, so yield curve inversions are typically short-lived.

### The current yield curve inversion

On March 22nd, for the first time since mid-2007, the yield on the 3-month Treasury Bill exceeded the yield on the 10-year Treasury Note signifying a yield curve inversion (10y-3m). Investors took notice and unleashed a near-2% decline in the S&P 500 on heightened fears of recession.

Every recession since the mid-1960s has been preceded by an inverted yield curve, so it's little wonder recession fears have elevated. However, not every yield curve inversion during that time period produced a recession. In more colloquial terms: all poodles are dogs, but not all dogs are poodles.

First, let's dissect the lead-in to the March 22nd inversion. From the short-term perspective: The Fed has made 9 rate increases since December 2015, four of which came in 2018, to arrive at 2.25-2.50 percent range on the Fed Funds Rate. The Fed's hawkish stance during that period indicated concern about an overheating economy and a consistent effort to reign it in. Wednesday, March 20th, brought the Federal Open Market Committee (FOMC) decision to keep rate hikes on hold; reinforcing the more recent dovish 180 degree turn the Fed has taken since it last raised rates in December 2018. But the impact on the short-term side of the yield curve was already in effect.

From the long-term perspective: After last year's second quarter real gross domestic product (GDP) growth rate of more than 4%, we are now looking at a fairly modest growth rate expectation of 1.2% for Q1 2019. Additionally, global growth has clearly weakened; with the negative interest rate policies of the European Central Bank (ECB), Germany and Bank of Japan (BoJ) also contributing to the inversion of the U.S. yield curve. This is because low (and/or negative) yields outside the United States make U.S. Treasury bonds more attractive. The combination of these buying pressures cause Treasury prices to rise and yields to fall.



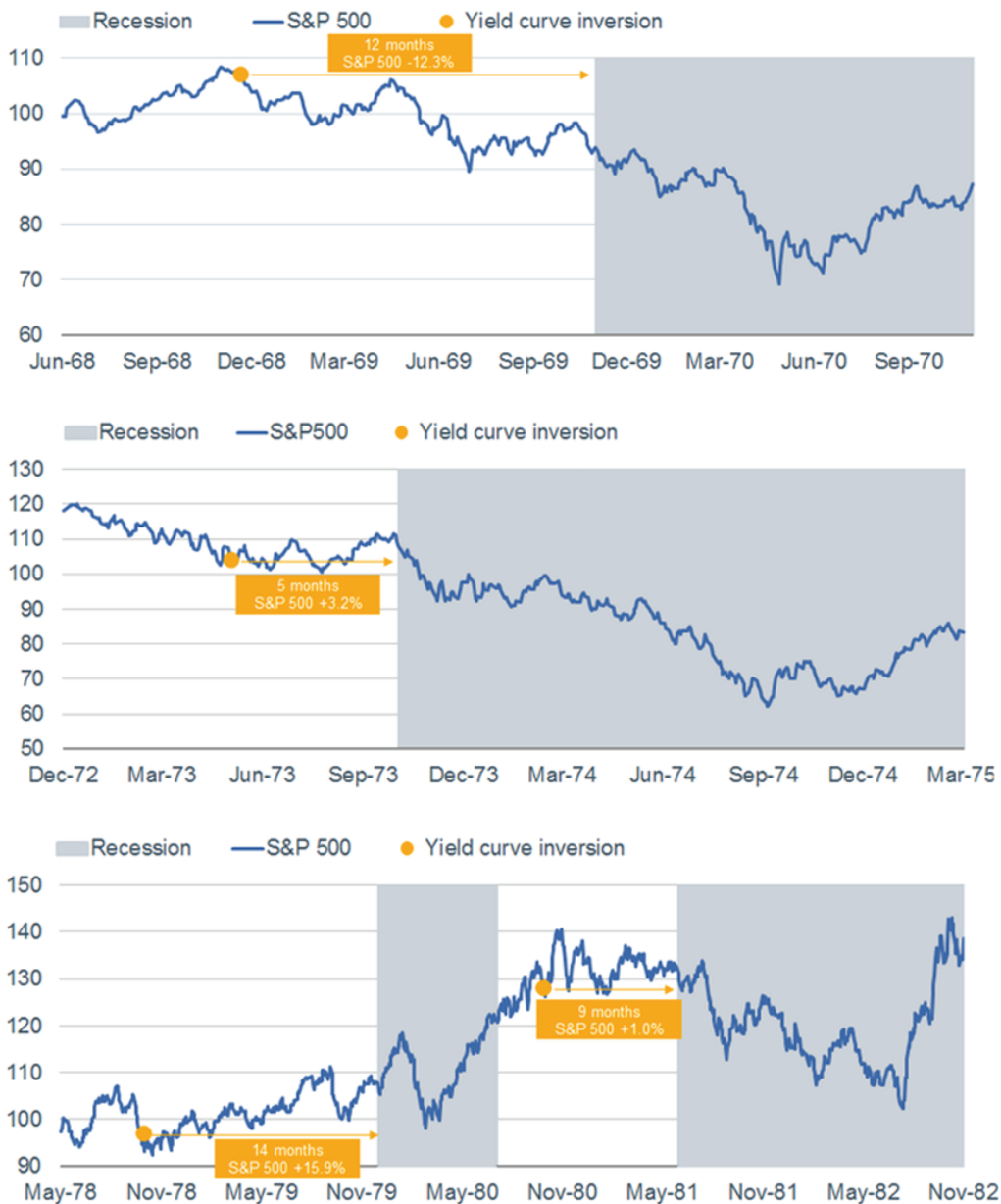
When shorter-term rates are below longer-term rates (a normal curve), banks can lend profitably as they earn the spread by borrowing at the short end and lending at the long end. But once the curve inverts, the absence of profitability leads to compressed lending; with the resultant tightening in credit conditions contributing to a recession.



# YIELD CURVE CONTINUED

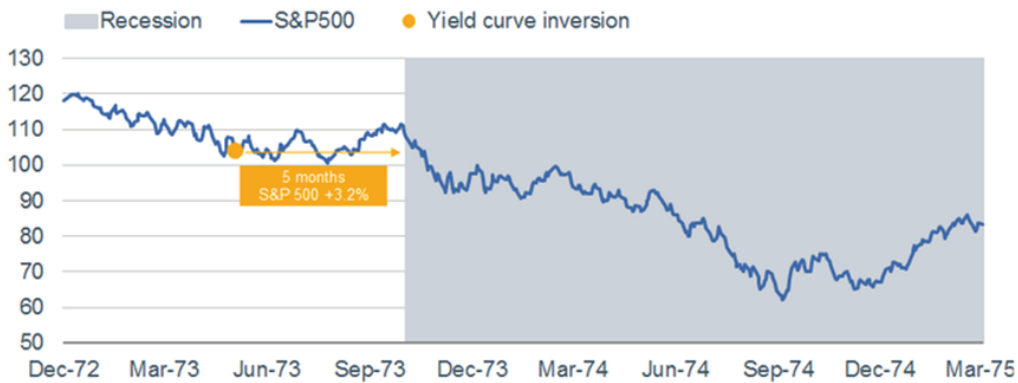
## Yield Curve Inversions Since 1968

In the last few months perhaps nothing in the finance industry has been more researched, or more Googled, than the history of yield curve inversions. Because of the wide dispersion in past experiences - both in duration-to-recession and stock market performance terms - We want to share details around each of the past seven inversions that led to recession. In our analysis, we considered the “double-dip” recessions of the early-1980s to be a single instance; although each of the two back-to-back recessions had a yield curve inversion preceding it. Our data sets span the six months prior to each inversion through the entire subsequent recession.





YIELD CURVE CONTINUED



The average span between yield curve inversions and subsequent recessions has been 11 months, with a range from five months (1973) to 16 months (2006-2007).



## YIELD CURVE CONTINUED

The average return for the S&P 500 during the spans from inversion to recession has actually been positive at +2.8%, with a range of -14.6% (2000-2001) to +16.5% (2006-2007) and 4 out of the 6 instances producing a positive return.

The S&P 500 experienced a negative return during each of the recessions (as one would expect), but recovered those losses either toward the end of the recession period or shortly thereafter as the next economic cycle began.

To note, mid-2007 through March 2019 is the longest stretch of time since the mid-1960s without an inversion.



### **Is this inversion a poodle or a dog?**

As stated previously, every recession since the mid-1960s has been preceded by an inverted yield curve. But keep in mind one of the earliest lessons in logic: while all poodles are dogs, not all dogs are poodles. In other words, while all recessions since the mid-1960s have been preceded by a yield curve inversion, not all yield curve inversions during that time period have led to a recession.

What we don't know yet is whether last month's inversion was a one-off situation when the yield curve briefly inverts before steepening again and the recession doesn't follow (a poodle); or the beginning of a more protracted inversion leading to recession (a dog). The only certainty on that question comes with hindsight.

But certain aspects of this inversion indicate to us that it might be a poodle. First, this inversion only lasted



## YIELD CURVE CONTINUED

about 6 days. Historically, the longer the inversion lasts, the more likely there will be a subsequent recession. Second, the rates on the 2-year / 10-year Treasury Notes have not yet inverted, and many consider that to be the more reliable predictor of recession. Third, while only a few experts believe it will happen, the Fed could still steepen the curve by cutting rates later this year. Others have commented as well on the possibility that this inversion might be a poodle, leading to a soft landing rather than a recession.

In CFRA's April 1, 2019 US Equity Research Sector Watch report, Chief Investment Strategist, Sam Stovall, stated that, "Looking at monthly data since 1980, there have been seven times that the [yield] curve was essentially flat to inverted (narrower than 30 basis points). In all seven instances, the Federal Reserve responded by initiating a new rate-easing cycle. Yet in only four occurrences was this flat-to-inverted environment followed by a recession. Indeed, 1984, 1995 and 1998 were periods marked by economic weakness, also known as soft landings, but not recession."

Bespoke Investment Group tackled this same question with its new report on yield curve inversion. "When investors hear yield curve inversion, they automatically think 'recession,'" Bespoke wrote. "But not every inversion has been followed by a recession." Bespoke outlined the performance of the S&P 500 following the first day of an inverted yield curve. One month after the first day of an inversion, the S&P 500 averaged a gain of 1.74%. Five out of six times, there were positive returns. Over the next six months, the index has gained 6.75% on average, though positive returns only occurred half the time, Bespoke noted. And from 1978 onward, the S&P 500 was positive one year after an inversion, with minimum gains of 9%.

### **The inevitable end of an economic cycle**

Recently, we've been inundated with questions about yield curve inversions; and whether they are a predictor for the next recession and/or the likely path for the stock market. The honest answer is: We wish it were as easy as "oh, here's the inversion, a recession will automatically follow in X days. . . go to cash now".

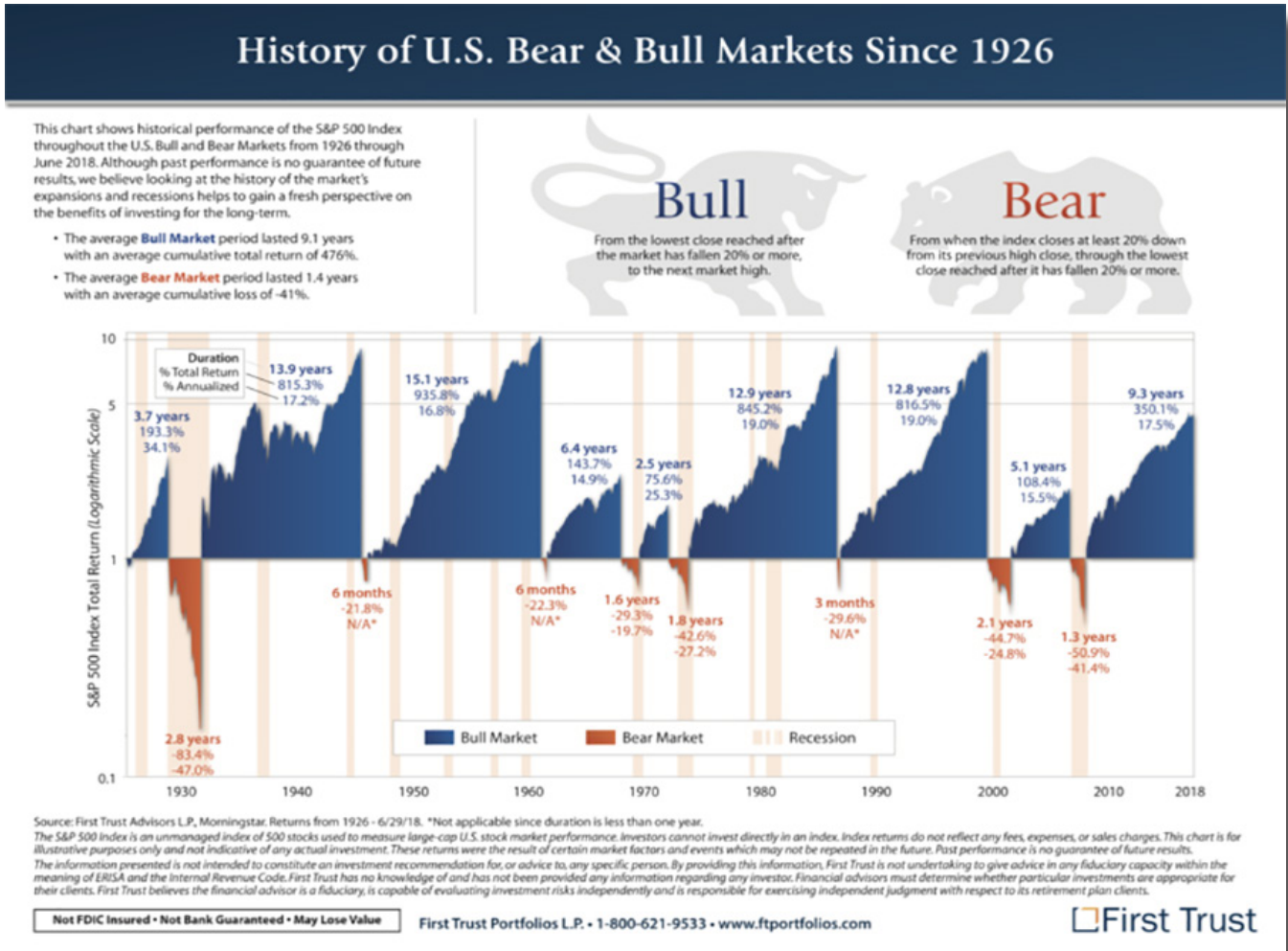
With much hyperbole being thrown around these days, it may not actually be headline-worthy to suggest a recession is coming. Recession is the inevitable end to an economic cycle. The current expansion will be 10 years old later this year. We can count on a recession in the coming years. It's as inevitable as death and taxes. With the yield curve inverted, it shouldn't be unexpected that the countdown clock to the end of this economic cycle has "officially" begun: be it 3 months, 13 months, or 23 months.

What's always difficult to gauge in advance is the length of runway between the present day and the next recession. That knowledge only becomes certain with hindsight. WTWM is not blindly bullish, but we have been in the camp that believes it is more likely to be longer than shorter. Remember, the official definition of a recession is two successive quarterly declines in GDP. With unemployment at generational lows and GDP comprised of over 70% of consumer spending, unless people stop spending it will be hard to reach negative GDP in the immediate future. Just since the beginning of 2018, this economy has survived a bitter trade war with China, unprecedented geo-political turmoil, 4 rate increases and the longest government shutdown in history.



YIELD CURVE CONTINUED

We'll close with one last chart.



As we outlined in this white paper, bull and bear markets, recessions and expansions, are natural occurrences in the economy. Over the past century we have seen far more good times than bad times in the equity markets, we simply remember the bad times much more clearly. The chart should help reiterate that bull markets are a far more common and long lasting event than the occasional bear. Our objective is to remind you that good times outweigh the bad and that investing for the long-term remains the right play.

This is an excellent time to visit with your financial advisor to ensure you risk profile is in line with your investment objectives. WTWM has tools like Riskalyze to help us put a number to your tolerance for risk, but there is no better way than sitting and talking with your financial professional.



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