



## MORNING BRIEFING

July 11, 2018

### Is the Yield Curve Bearish for Stocks?

See the [collection](#) of the individual charts linked below.

(1) Google Trends shows flattening “yield curve” is trending higher. (2) 10-year minus 2-year Treasury yield spread close to zero. (3) Hard to argue with success. (4) Yield curve spread is just one of 10 leading indicators. (5) Credit cycle has yet to enter crunch phase. (6) The bond market has gone global, and near-zero bond yields in Germany and Japan are making US bonds awfully attractive. (7) The Bond Vigilantes have been kept in check by the major central banks. (8) Another Fed Model: This one tracks a near-term yield spread, which is showing just a 14% chance of recession. (9) Why are S&P 500 revenue estimates so strong? (10) A very brief primer on quantum computers.

**Credit: Yield Curve Extravaganza.** The yield curve is commonly measured as the spread between the 10-year US Treasury bond yield and the federal funds rate ([Fig. 1](#)). This spread has narrowed significantly since the start of this year, raising fears of an imminent recession and bear market in stocks ([Fig. 2](#)). That’s because in the past, the yield curve spread has flattened (i.e., narrowed) and then inverted (i.e., the bond yield was below the federal funds rate) immediately preceding the past seven recessions.

Recessions cause bear markets in stocks, which is why the yield curve has received lots of buzz in recent weeks ([Fig. 3](#)). Do a Google Trends search on “yield curve” for the past five years, and you’ll see a trendless series through the end of last year, followed by an upward-trending series so far this year with a spike in June.

The Federal Open Market Committee (FOMC), the entity that sets the Federal Reserve’s monetary policy, raised the federal funds rate by 25 basis points (bps) on June 13 to a range of 1.75%-2.00%, following a similarly sized hike on March 21 ([Fig. 4](#)). Yet the 10-year US Treasury bond yield peaked so far this year at 3.11% on May 17 and fell to 2.82% in early July. The spread, which had been just over 150 bps earlier this year, has narrowed to just below 100 bps now. The yield curve spread between the 10-year and 2-year Treasuries has triggered even wider concern, as it has narrowed from over 75 bps earlier this year to almost 25 bps recently, i.e., closer to zero ([Fig. 5](#)).

A higher short end of the yield curve than long end suggests that investors expect interest rates to decline, which usually happens just before recessions. Is the yield curve about to invert? If it does, will that mark the eighth time in a row that this indicator accurately predicted a recession and a bear market in stocks?

It’s hard to argue with success. It’s always unsettling when arguments are made for why “this time is different.” Nevertheless, let’s go there. Consider the following:

(1) *One of 10*. In my new book [Predicting the Markets](#), I observe that the yield curve spread is actually one of the 10 components of the Index of Leading Economic Indicators (LEI), which is deemed to provide a recession warning roughly three months before one starts. A list of the 10 can be found on

The Conference Board's [website](#). Among the 10 are the S&P 500, initial unemployment claims, and measures of consumer and business confidence. Collectively, they've pushed the LEI up by 6.1% over the past 12 months to yet another new record high during May ([Fig. 6](#)). So the LEI certainly isn't sounding a recession alarm.

(2) *Credit crunches*. In the past, the Fed would raise the federal funds rate during economic booms to stop an acceleration of inflation. Fed officials did so aggressively, perhaps in no small measure to shore up their credibility as inflation fighters. Tightening credit market conditions often triggered a credit crunch—particularly during the 1960s and 1970s, when interest-rate ceilings on bank deposits were set by Regulation Q—as even the credit-worthiest of borrowers found that bankers were less willing and able to lend them money ([Fig. 7](#)).

Sensing this mounting stress in the credit markets and expecting the credit crunch to cause a recession and a bear market in stocks, investors would pile into Treasury bonds ([Fig. 8](#)). The yield curve inverted, accurately anticipating the increasingly obvious chain of events that ensued—i.e., rising interest rates triggered a credit crisis, which led to a widespread credit crunch and a recession, causing the Fed to lower short-term interest rates.

(3) *No boom, no bust*. So how can we explain the flattening of the yield curve during the current business cycle? Inflation remains relatively subdued, having risen to the Fed's 2.0% target (measured by the personal consumption expenditures deflator excluding food and energy on a year-over-year basis) during May—for the first time since the target was explicitly established by the Fed on January 25, 2012 ([Fig. 9](#))!

The Fed has gradually been raising the federal funds rate since late 2015, yet few critics charge that the Fed is behind the curve on inflation and needs to raise interest rates more aggressively. The economy is performing well, but there are few signs of an inflationary boom or major speculative excesses that require a more forceful normalization of monetary policy.

(4) *Globalized bond market*. In my opinion, the flattening of the US yield curve is mostly attributable to the negative interest policies of the European Central Bank (ECB) and the Bank of Japan (BOJ) ([Fig. 10](#)). The ECB first lowered its official deposit rate to below zero on June 5, 2014. The BOJ lowered its official rate to below zero on January 29, 2016. Those rates, which remain slightly below zero, have reduced 10-year government bond yields to close to zero in both Germany and Japan since 2015 ([Fig. 11](#)).

Such yields certainly make comparable US Treasury bonds very attractive to investors—especially when the dollar is strengthening, as has been the case this year ([Fig. 12](#)). When investors turn defensive and want to park their money in a safe asset, the US Treasury bond clearly offers a more attractive return than bunds and JGBs.

(5) *Bond Vigilantes*. In other words, the US bond market has become more globalized, and is no longer driven exclusively by the US business cycle and Fed policies. In my book, I discuss the close correlation between the 10-year Treasury bond yield and the growth rate of nominal GDP, on a year-over-year basis ([Fig. 13](#) and [Fig. 14](#)). The former has always traded in the same neighborhood as the latter. I call this relationship the “Bond Vigilantes Model.” The challenge is to explain why the two variables aren't identical at any point in time or for a period of time. Nominal GDP rose 4.7% during the first quarter of 2018 and is likely to be around 5.0% during the second quarter, on a year-over-year basis. Yet the US bond yield is below 3.00%.

During the 1960s and 1970s, bond investors weren't very vigilant about inflation and consistently

purchased bonds at yields below the nominal GDP growth rate. They suffered significant losses. During the 1980s and 1990s, they turned into inflation-fighting Bond Vigilantes, keeping bond yields above nominal GDP growth. Since the Great Recession of 2008, the Wild Bunch has been held in check by the major central banks, which have had near-zero interest-rate policies and massive quantitative easing programs that have swelled their balance sheets with bonds. Meanwhile, powerful structural forces have kept a lid on inflation—all the more reason for the Bond Vigilantes to have relaxed their guard.

As noted above, a global perspective certainly helps to explain why the US bond yield is well below nominal GDP growth. So this time may be different than in the past for the bond market, which has become more globalized and influenced by the monetary policies not only of the Fed but also of the other major central banks.

(6) *Another Fed Model.* The latest [minutes](#) of the June 12-13 FOMC meeting offers another reason not to worry about the flattening yield curve. During the meeting, Fed staff presented an alternative “indicator of the likelihood of recession” based on research explained in a 6/28 [FEDS Notes](#) titled “(Don’t Fear) The Yield Curve” by two Fed economists. In brief, they question why a “long-term spread” between the 10-year and 2-year Treasury notes should have much power to predict imminent recessions. As an alternative, they’ve devised a 0- to 6-quarter “near-term forward spread” based on the spread between the current level of the federal funds rate and the expected federal funds rate several quarters ahead, derived from futures market prices ([Fig. 15](#)).

The note’s authors stress that the long-term spread reflects the near-term spread, which they argue makes more sense as an indicator of a recession that is expected to occur within the next few quarters. They also observe that an inversion of either yield spread does not mean that the spread causes recessions.

Their current assessment is that “the market is putting fairly low odds on a rate cut over the next four quarters,” i.e., 14.1% ([Fig. 16](#)). “Unlike far-term yield spreads, the near-term forward spread has not been trending down in recent years, and survey-based measures of longer-term expectations for short term interest rates show no sign of an expected inversion.”

What a relief! So now, all we have to worry about is a recession caused by a trade war!

**Strategy: Spirited Revenues.** Yesterday, Joe and I observed that industry analysts have been raising their estimates for both 2018 and 2019 S&P 500 revenues ever since the Tax Cuts and Jobs Act (TCJA) was signed by President Trump at the end of last year. S&P 500 revenues estimates for both 2018 and 2019 have been making new highs nearly every week since this year began ([Fig. 17](#)). Analysts are currently expecting revenues to increase 7.9% this year and 5.1% next year, after having raised the former by 3.0% and the latter by 3.4% since the TCJA’s enactment.

That’s astonishing. It’s obvious why earnings estimates have been revised much higher following the enactment of the TCJA. But why should revenues get a boost from the tax cuts? The obvious answer is that the analysts are all supply-siders and expect that the tax cuts will boost economic growth in the US. That’s a stretch. Analysts usually stick to their knitting. They focus on what they know about companies and industries. They rarely show any signs of incorporating macroeconomic developments into their spreadsheets. Indeed, they never see a recession coming until it has clearly started. Furthermore, roughly half of S&P 500 revenues come from overseas sales, which are very unlikely to be boosted by tax cuts in the US.

I asked Joe to have a closer look at the S&P 500 sectors. He reports that seven sectors have logged

greater percent changes in forward revenues since TCJA enactment than has the S&P 500. Energy is leading Health Care by a bit, but many of the most heavily weighted sectors (by revenue share) are outperforming the S&P 500. Here are the specific numbers: Energy (12.8%), Health Care (12.7), Materials (10.4), Consumer Discretionary (7.1), Real Estate (6.8), Industrials (6.7), Information Technology (6.3), S&P 500 (5.6), Financials (4.3), Telecom Services (-2.1), Utilities (-4.5), and Consumer Staples (-6.8).

Here are the sectors' forward revenue shares of the S&P 500: Health Care (17.7%), Consumer Discretionary (15.6), Information Technology (12.6), Financials (12.1), Industrials (11.9), Consumer Staples (10.6), Energy (9.8), Materials (3.0), Telecom Services (2.9), Utilities (2.9), and Real Estate (0.9).

Joe chalks up the outperformance of the sectors with the most improved revenue outlooks post-TCJA to "animal spirits." That works for me too.

**Technology: Learning Quantum.** Quantum computers have arrived. They may not be on your desk or at the local store, but in the labs of IBM and Google quantum computers have become a reality. They have their own language (get ready to learn about qubits) and are mind-bendingly difficult to understand. But grasping the basics of these computers is important because they are expected to have the power to solve mathematical problems that are unsolvable by today's computers.

With that computational power will come some good and some bad. Quantum computers will potentially be able to come up with new molecules to cure illnesses, advance artificial intelligence, develop the best investment portfolio, and map out the optimal way to get from Point A to Point B. However, they could also crack the security codes that protect your money in the bank and protect national security. I asked Jackie to look at what the future may hold. Here is her report:

(1) *Quantum basics.* Traditional computers have electrical circuits that are either on or off, which is represented by bits that have a value of either 0 or 1. As a result, conventional computers compute things one at a time, in a linear fashion. Quantum computers use quantum physics, which explains that a single particle can be in two places at the same time, a state of superposition. So instead of having bits, quantum computers have qubits. And qubits can have a value of 0, 1, or 0 and 1 at the same time.

A simple explanation (though not perfectly correct) comes courtesy of a 6/4 [article](#) in *InformationWeek*: Think of "a light switch and a dimmer switch that represent a classical computer and a quantum computer, respectively. The standard light switch has two states: on and off. The dimmer switch provides many more options, including on, off, and range of states between on and off that are experienced as degrees of brightness and darkness. With a dimmer switch, a light bulb can be on, off, or a combination of both."

(2) *But what can it do?* Because qubits can exist in superposition, they can do many computations at the same time. As a result, problems that involve optimization, or finding the best solution among many possible solutions, are perfectly suited for a quantum computer; on a traditional computer, such problems either take too long or can't be done at all.

A basic example comes from IBM's Dr. Talia Gerson in a 5/31/17 [presentation](#): What are the different ways to seat 10 people at a dinner table? The answer is 10 factorial, or  $10 \times 9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$ , which comes to more than 3.6 million options. Every time you add a new person to the table, the options grow dramatically.

In general, the more qubits, the more powerful the computer. But qubits are not very stable. Changes in

temperature or vibrations can cause errors to occur. So the computer is held inside a refrigerator that's kept at a temperature just above absolute 0. A few scientists don't believe the problems with stability will ever be overcome, meaning quantum computers are doomed.

(3) *The race is on.* Tech companies around the world are battling to develop the biggest and best quantum computers. In March, Google [announced](#) it built a 72-qubit computer. It expects the computer to be the first that can perform better than the best traditional computer, achieving what's known in the industry as "quantum supremacy." Microsoft is working on a quantum computer with qubits that it believes are more stable and have fewer errors than the competition, explains a 2/23 *Barron's* [article](#).

The complexity of these computers makes it highly unlikely that they'll ever sit on our desks. It's more likely we'll tap into the power of quantum computers in the cloud. IBM boasts a 50-qubit computer, and is offering quantum computing power on lesser models for free in its cloud. It has a five-qubit computer in the cloud available for anyone to use today, and it's [letting](#) some folks test a 16-qubit computer in the cloud. Likewise, Alibaba, in partnership with the Chinese Academy of Sciences, is [hosting](#) an 11-qubit quantum computer in the cloud.

There's also a batch of smaller companies popping up in the quantum ecosystem. D-Wave Systems builds quantum computers used by Google, Lockheed Martin, and others. It's worked with 1QB Information Technologies, a software firm, to launch Quantum for Quants, an online community to address complex problems in finance, like portfolio optimization. D-Wave's CEO Vern Brownell, who ran technology for Goldman Sachs globally in the 1990s, explained a bit about what the company is doing in this 12/18/17 [article](#) on MarketBrains.

(4) *Uncle Sam jumps in.* There's also a push at the federal level to advance quantum computing, as the race to dominate the industry is global. Senator Kamala D. Harris (D-CA) introduced the [Quantum Computing Research Act of 2018](#), which calls for a federal research consortium funded by the Defense Department, a 6/17 *Washington Post* [article](#) reported. Meanwhile, Representative Lamar Smith (R-TX) is preparing a similar bill called "the National Quantum Initiative Act." A [fact sheet](#) describes setting up a White House "National Quantum Coordination Office" to manage the government's funding efforts and help form partnerships between industry and government.

The Chinese government is also pushing to advance the technology. It's reportedly spending \$10 billion to build the National Laboratory for Quantum Information Science by 2020, reports a 6/24 *Axios* [article](#). The country has already demonstrated its ability to use quantum communications to secure and send information. It also claims to have created a quantum radar system for stealth submarine surveillance.

We've only just scratched the surface of this subject, which is evolving so quickly that articles from last year are already out of date. We'll be sure to stay on top of it.

## CALENDARS

**US. Wed:** PPI-FD Total, Core, and Core Less Trade Services 0.2%/0.2%/0.2%, Atlanta Fed Business Inflation Expectations, Wholesale Trade Inventories 0.5%, MBA Mortgage Applications, EIA Petroleum Status Report, Williams. **Thurs:** Headline & Core CPI 2.9%/2.2% y/y, Jobless Claims 225k, Weekly Consumer Comfort Index, Treasury Budget -\$91.0b, EIA Natural Gas Report. (*Wall Street Journal* estimates)

**Global. Wed:** BOC Rate Decision 1.50%, Draghi, Carney. **Thurs:** Eurozone Industrial Production 1.2%*m/m*/2.3%*y/y*, Germany CPI 0.1%*m/m*/2.1%*y/y*, BOE Credit Conditions & Bank Liabilities Surveys. (DailyFX estimates)

## STRATEGY INDICATORS

**YRI Weekly Leading Index** ([link](#)): Our Weekly Leading Index (WLI)—a good coincident indicator that can confirm or raise doubts about stock market swings—remained just below its record high. Our WLI, which is the average of our Boom-Bust Barometer (BBB) and Bloomberg's Weekly Consumer Comfort Index (WCCI), slipped -0.8% during the two weeks ending June 30, after a two-week jump of 2.1%; it's only 2.2% below early May's record high. Our BBB slipped -1.8% over the two week period after rebounding 2.1% the prior two weeks; it's within 4.9% of its record high. Jobless claims—one of the components of our BBB—moved up for the second week to 224,500 (4-wa) after falling the previous two weeks from 225,500 to 221,000; it's not far from its recent low of 213,500 seven weeks ago—which was the lowest reading since December 13, 1969. Meanwhile, the CRB raw industrial spot price index, another BBB component, continued to slide. The WCCI climbed 5.1% over the past four weeks to within 0.9% of its cyclical high.

**S&P/Russell LargeCaps & SMidCaps** ([link](#)): SmallCaps and MidCaps are now at record highs for the first time since January and outperforming LargeCaps on a ytd basis. Here's how they rank ytd through Monday's close, along with their 2017 performance and their percentage changes since their record highs in January: S&P SmallCap 600 (12.9% ytd, 11.7% in 2017, at a record high), Russell SmallCap 2000 (11.0, 13.1, record high), S&P MidCap 400 (5.7, 14.5, record high), Russell LargeCap 1000 (4.4, 19.3, -2.6), and S&P LargeCap 500 (4.1, 19.4, -3.1). Forward revenues and earnings are at record highs now for all the S&P and Russell indexes. Earnings momentum remains healthy, as the yearly change in forward earnings is up from six-year lows in early 2016 and should remain strong in 2018. In the latest week, the rate of change in LargeCap's forward earnings was steady at 21.4% y/y, which compares to a seven-year high of 21.7% in mid-May and a six-year low of -1.8% in October 2015; MidCap's rose to 23.2% from 22.7%, which compares to a seven-year high of 24.0% in early June and a six-year low of -1.3% in December 2015; and SmallCap's dropped w/w to 31.5% from 32.0%, which was the highest since October 2010 and compares to a six-year low of 0.3% in December 2015. Here are the latest consensus earnings growth rates for 2018 and 2019: LargeCap 22.2% and 9.8%, MidCap 20.6% and 12.7%, and SmallCap 29.7% and 15.2%.

**S&P 500 Growth vs Value** ([link](#)): The S&P 500 Growth index is up 9.5% ytd, well ahead of the 1.5% decline for its Value counterpart. Value is 7.2% below its January 26 record high and no longer in a correction, while Growth is 0.2% below its record high on June 14. During 2017, Growth's 25.4% gain was double the 12.6% rise for Value. Growth had trailed Value in the four months following the election. Now Growth's 39.9% gain since the election is more than double the 19.2% increase logged by Value. During 2016, the S&P 500 Growth index underperformed its Value counterpart by a wide margin, rising just 5.1% vs Value's 14.3% gain. Growth is expected to deliver more than double the rate of revenue growth (STRG) that Value does over the next 12 months, but forward earnings growth (STEG) is only slightly higher for Growth; specifically, 9.2% STRG and 15.4% STEG are projected for Growth, respectively, vs 4.7% and 14.1% for Value. Prior to February's selloff, Growth's P/E of 21.8 on January 26 was its highest since May 2002, while Value's 16.6 on January 3 was its highest since April 2002. Through Monday, Growth's P/E was back up to 19.9 from its 15-month low of 18.8 on April 2, and Value's 14.1 remains close to its 25-month low of 13.9 on March 23. Regarding NERI, Growth's was positive in June for a 14th straight month, but dropped to a still-impressive 10.7% from 11.8%; that compares to a record high of 22.3% in March and a five-year low of -16.2% in April 2015. Value's NERI was also positive in June for a 14th month (following 33 months of negative readings), but eased to 5.9% from 7.3%; that compares to a record high of 21.2% in March and five-year low of -20.3% in April 2015. The TCJA has boosted the consensus 2018 earnings estimate and the forward profit margin for both Growth and Value. Growth's 2018 estimate has risen 9.2% vs Value's 8.3% gain. Growth's forward profit margin has jumped to 16.4% from 14.4% prior to the TCJA's passage, and is down

slightly from its record high of 16.5% during mid-June. Value's forward profit margin has risen to a 10-year high of 10.0% from 9.1%.

## US ECONOMIC INDICATORS

**NFIB Small Business Optimism Index** ([link](#)): “The first six months of the year have been very good to small business thanks to tax cuts, regulatory reform, and policies that help them grow,” said NFIB President and CEO Juanita Duggan. June’s Small Business Optimism Index (SBOI) edged down to 107.2 (the sixth-highest reading in survey history), after jumping 3.0 points in May to a 34-year high of 107.8. June’s report notes that since December 2016, the SBOI has “averaged an unprecedented 105.4, well above the 45-year average of 98 and rivaling the all-time high of 108.0 in July 1983.” Of the 10 components of the SBOI, five rose and five fell last month. The employment components were among the positive contributors, with hirings (to 20% from 18%) and job openings (36 from 33) both moving higher—the latter tying its record high. Other positive contributions were recorded by current inventory (0.0 from -0.4) and plans to invest in additional inventories (6 from 4), along with expected credit conditions (-4 from -5). Four of the five components that contributed negatively were down 4.0-5.0ppts, though all remained near recent highs. Meanwhile, the survey highlighted that compensation increases remained historically high, and finding qualified workers easily held onto the top spot in the “single most important business problem” list.

**JOLTS** ([link](#)): Job openings in May slipped by 202,000 to 6.638 million after soaring by 762,000 the prior two months to new record high of 6.840 million. Despite May’s decline, job openings are still up nearly 1.0 million ytd. Meanwhile, hirings rose 268,000 during the two months through May to 5.754 million—only fractionally below its record high of 5.777 million recorded in January 2001. Total separations climbed for the third month, by a total of 295,000 over the past three months, to a new cyclical high of 5.468 million. The latest hiring and separations data yielded an employment advance of 286,000 for May, 42,000 above May’s payroll increase of 244,000—exceeding the payroll’s gain for the eighth time in nine months. May’s job-opening rate ticked down to 4.6% after reaching a new record high of 4.7% in April, while both the quit (2.7%) and total hire (4.3) rates climbed to new cyclical highs. May’s ratio of unemployed workers per job opening sank further below 1.00—to a new record low of 0.91.

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