# THE WEEKLY REPORT

*Fixed Income Strategies*

Investors would love to get a grasp of where any major economy is heading, but they all seem slippery. Dow Industrials fell 2.8% on Thursday then steamed toward a 3+% increase on Friday. The net gain on the week will settle around 1.5%.

In December, it was fair to blame the market itself for volatility. Now, traders are doing their best to keep up with a landscape that brings three rounds of bad news one day and two pieces of great news the next. The hopeful interpretation of a maddening sequence like this is that they are characteristic of a late cycle recovery. Different parts of the US economy – and different regions around the world – all progress or fall more sporadically.

A pessimistic view sees data disconnects as typical of a slow bend toward a slowdown. Conflicting data are why it's so difficult to know a recession has begun until 3-6 months after it actually started.

Portfolio managers will reap benefits from patience and flexibility to start 2019. It's possible for a clearer picture to develop in the next several weeks. But if it were really on the way, things should have been started getting less confused in the last 3-5 weeks, not more. Among the important questions is whether the Fed actually did learn its lesson after helping trigger global distress in December. It seemed so on Friday. Yet, Chair Powell indicated an open stance on the speed of monetary policy in late November then quickly turned aggressive after the FOMC meeting.

For this week's perspective, look at the size of the decline new orders, and then consider where job growth may be slowing as it roars in retail and restaurants.

**Purchasing Managers Survey – Manufacturing**
**New Orders**
**2014 to 2018**
**Monthly**


*Source: Institute for Supply Management*

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*Disclaimer is on the last page of this report.*

## Data Dependency Continued: Conflicting Signals

Two weeks ago the Fed tried to convince markets it was data dependent, and it didn't work. After a mix of data and more global turmoil, Chair Powell emphasized Fed flexibility at his first appearance since the FOMC press conference. Investors stepped back from the brink on January 4, but December's mark on interest rates remains vivid.

- After the big decline in inflation expectations, 5-yr real interest rates have fallen 12bp since December 28 while nominal yields fell 11bp.
- The spread between 5-yr UST and 3-mo bills inverted to -5bp on January 3, climbing back to -1bp after Powell remarks Friday morning.
- Money market forwards indicate the possibility of rate cuts in early 2020, while UST curve forwards still allow an increase to 2.75% in 1H 2019 that retreats for a long pause at 2.50%.
- The dollar is off its lows of this week but foreign exchange traders were the least responsive to Powell's message.

On the data front, traders scrambled to react to several negative surprises:

- Double confirmation from China purchasing manager indexes that manufacturing there is slowing again.
- A surprising shortfall in US manufacturing ISM details for December, including the lowest new order figure in more than two years.
- Earnings and revenue warnings from Apple and Delta Airlines, with Apple's shortfall arising lower spending by Chinese consumers.

Friday brought these two positives:

- China cut bank reserve requirements in response to declining consumption that it believes is tied to more difficult credit conditions.
- December's payroll report brought unexpected improvement across every major indicator except the unemployment rate.

**Steep trendline for real interest rates finally giving way**

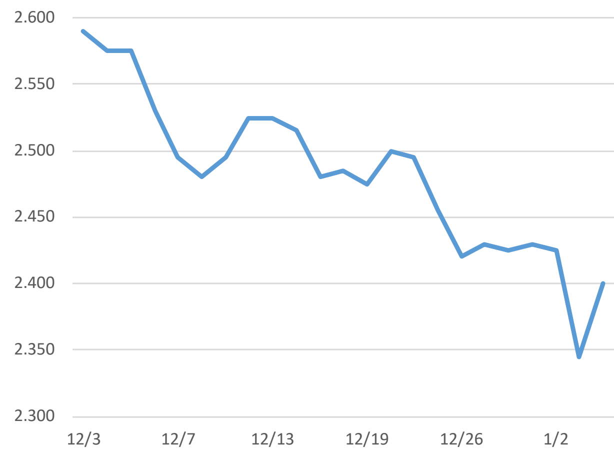
It was never apparent in technical charts – which track nominal yields, of course – but the big potential for rally in Treasury prices was a break downward in real interest rates. That's exactly what happened over the holidays, and it extended into January. The deviation from the trend in 5s is larger than in 10s or 30s, sensible given investor focus on the scope of Fed policy in the next two years.

**5-Yr Real Interest Rates + Term Premium**
**December 2017 to Present**
**Daily**


*Source: FTN Financial*

The ratchet lower mirrors the decline in the 7th month forward fed funds contract, usually the last 'reliable' contract in that market.

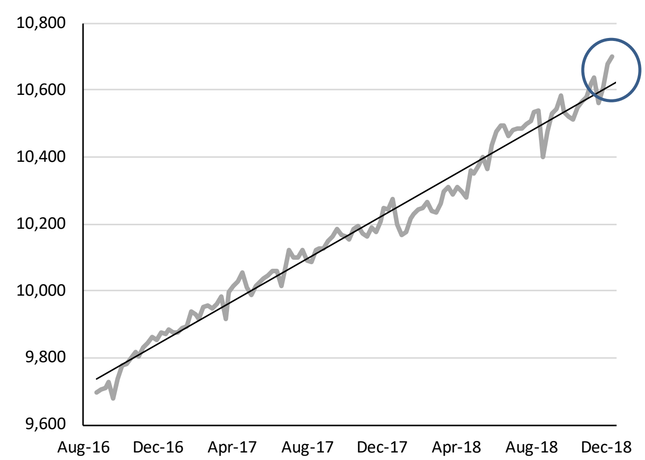
**Fed Funds Future 7th Contract Implied Fed Policy Target**
**December 3 to Present**




*Source: CME*

FTN continues to anticipate an increase in inflation expectations before a significant move higher in real interest rates. One reason is the revised health of money market fund and bank savings inflows. Market and political turmoil tends to make households more conservative in their investment selections, already apparent in the last two weeks of December.

**Commercial Bank Small Time and Savings Deposits plus Retail Money Market Funds**
**August 2016 to December 2018**

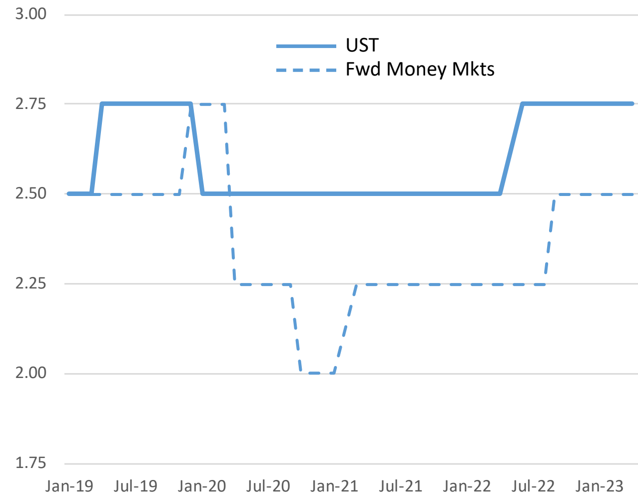



*Source: Federal Reserve*

## Treasury curve is confident of more coherent FOMC actions than money markets

One major improvement at the end of the week was a smoother UST curve, forced into more opinions by the one-two punch of the organized rally on Thursday and the equally thoughtful move on Friday. Money market forwards continue to be the spot to express widely varied opinions about what could happen to short-term rates. In analyzing what the market is "pricing in," the Treasury curve remains the better daily source of where the median is, even though money markets are more popular and quoted more frequently.[1]

**Expected Fed Paths Implied by UST and Fwd Money Markets**
**As of January 4**




*Source: FTN Financial*

## Treasury curve still doubts FOMC, however

Although the Treasury yield curve is coherent, it still expresses skepticism about what the Fed thinks it is doing. Most investors think of the 2s/10s curve as the final arbiter of curve inversion as it relates to recessions. As highlighted in Strategy on page 11, though, other curves are helpful as well.

*Economic Weekly's* lead chart is the long-term history of the difference between 18-month forwards for 3-mo bills less current 3-mo bills. This is the chart action every hour after the relationship first went negative coming out of the confirmation of the weak December manufacturing survey from China.

**Spread of 18-Mo Bill Fwd Ylds vs 3-Mo Ylds**
**January 2 to January 4**
**Hourly**


*Source: Bloomberg*

[1] Part of this has to do with marketing by the exchange that lists fed funds and eurodollar futures.

***Although Fed staff are enamored of that particular spread, mortals might be more comfortable with the spread between 3-mo bills and 5-yr UST notes. It's a more tangible expression of the combination of likely rate cuts and the need to keep them in place for an extended time.***

**Spread of 5-Yr UST Ylds to 3-Mo Ylds**
**January 2 to January 4**
**Hourly**


*Source: Bloomberg*

**Steeper money market curve should help dollar. It hasn't**

When stocks soar in intra-day trading and bonds sell-off to a similar extent, it can pay to look for any important markets that appear unconvinced. With the yield on the 2-yr UST up 10bp and inflation expectations not taking off on Friday, the dollar should be fundamentally stronger. Instead, it was set to close below the close on December 28.

If stocks and bonds are convinced Chair Powell's communication suggested the Fed is not about to tighten the US into a recession – while other global economies are struggling more on a fundamental basis – the dollar should be stronger.

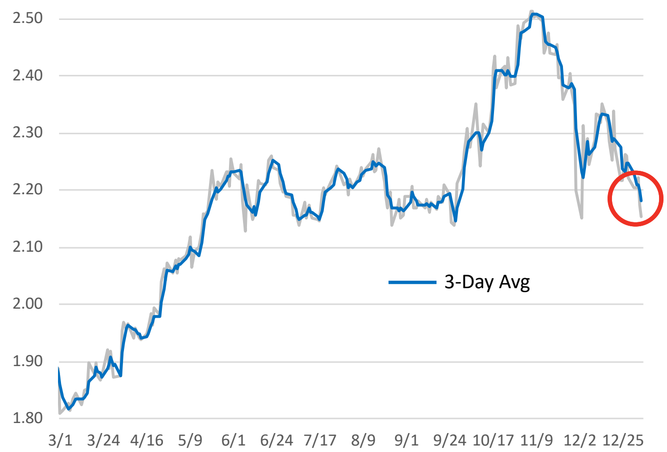
**USD vs Global Currency Basket**
**December 28 to January 4 (Noon)**
**Hourly**


*Source: ICE*

## Global bond yields squeeze closer together

Tremors in China are felt around the world. Purchasing surveys across Europe, particularly Germany, were lower than expectations this week. The "economic surprise" index for Europe fell sharply in mid-December and have not recovered. So i) the bond rally was global; and ii) yield differences across countries compressed. FTN's best indicator looks at the difference between US 10-yr yields and Germany, adjusting for relative inflation expectations and credit sentiment. It is returning close to the levels in the third quarter of 2018.

**US 10-Yr UST Yields less German 10-Yr Yields**
**Adjusted for Differences in Inflation Expectations and Credit**
**March 2018 to Present**
**Daily**




*Source: FTN Financial*

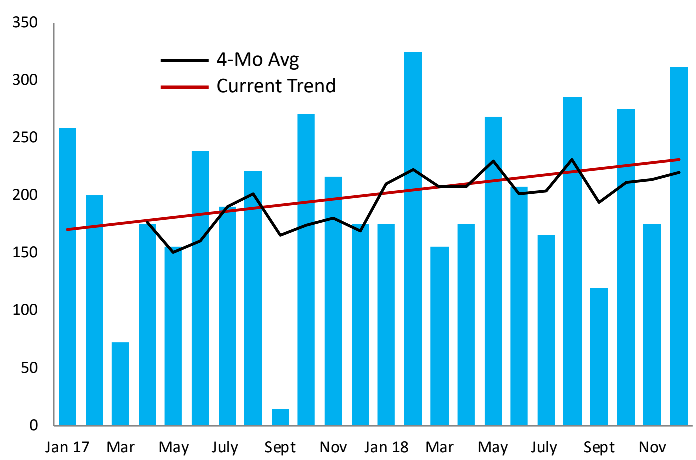
## Fourth quarter jobs growth hit a high note

*(This is adapted from Chris Low's note on December's payroll report)*

Job gains appear to have been boosted by disruptions in November, possibly reflecting California's Camp Fire, which shifted jobs from November to December. In addition, the BLS notes fewer people were kept from work by weather than usual this December. Payrolls not only rose 312k in December, they were revised up 21k to 176k in November and 37k in October. That means a net increase of 165k more than the consensus.

Goods producing industries added 74k jobs, the most since 107k last February, with 38k in construction, 32k in manufacturing and 4k in mining. Private service producers added 227k, the most since 239k in October 2017, with 34k in trade and transportation, including 24 in retail; 43k in business services including 10k temps; a whopping 82k in education and health; and 55k in leisure and hospitality. The government added 11k, with a gain of 14k at the state and local level and a loss of 3k at the federal level.

**Nonfarm Payrolls**
**2017 to December 2018**




*Source: Bureau of Labor Statistics and FTN Financial*

Average hourly earnings rose 0.4% to $27.48, lifting year-on-year earnings growth from 3.13% to 3.15%. Because the workweek rose 0.3% after falling 0.3% in November, average weekly earnings jumped 0.69% on the month and 3.15% year-on-year.

In the household survey, employment rose 142k, while the labor force rose 419k, resulting in an increase in the unemployment rate from 3.696% to 3.856%, the highest since last April. The employment to population ratio was unchanged at 60.6%. It is lower than it used to be thanks to a revision to historical data, but it is now rising, from a low of 58.2% in 2011. The labor force participation rate rose from 62.9% to 63.1%.

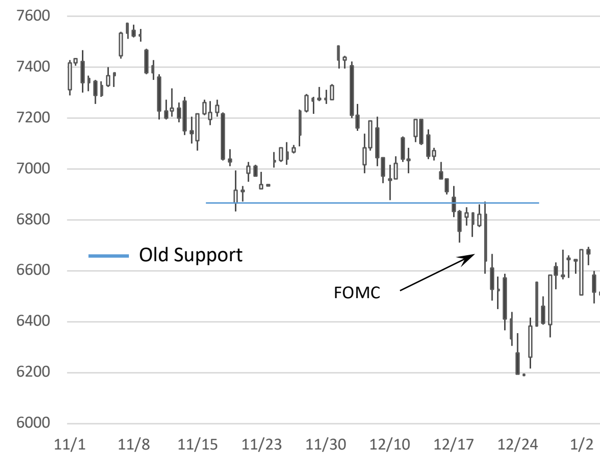
***The net message is mixed. Job growth is booming again, but household employment growth slowed, participation increased, and the unemployment rate rose. A strict Keynesian would argue the data are consistent with pausing rate hikes, but the Fed has a tendency to downplay increases in unemployment when job growth is strong.***

## Global Growth Overly Concentrated in the US

The Federal Reserve could do little wrong in the first three quarters of the year. Investors bought into its economic optimism while riding tax cuts and revenue growth to record multiples for US stocks. By mid-October, economists and traders had the Fed inked in for at least three rate hikes in 2019. Four were a good bet for most. Treasuries were down more than 2.1% for the first 10 months of the year.

Cracks in this picture started forming in late October. By November, the cracks split wide open. When the Fed thought it unnecessary in late December to discuss a pause in rate hikes just to see if serious problems might be developing, traders let the market approach free fall. The NASDAQ chart for the last two months of the year puts the FOMC meeting into focus.

**NASDAQ Prices**
**November 1 to January 3, 2019**
**Every 4 Hours**

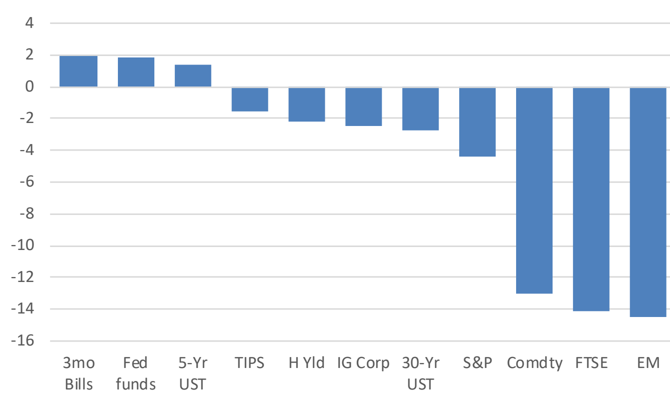



*Source: NASDAQ*

Even with a 7% pop in the final week of the year, the tech heavy index lost more than 9% in December and 17% in the quarter. After its peak in September, it still enjoyed an annual total return of 16% in the first week of October.

US stocks and the Federal Reserve dominated headlines through much of 2018, yet the bigger story was unfolding outside the United States. Analysis of global financial markets for the last several years highlights the US economy did not provide enough stimulus to global growth to offset stubborn issues that have dogged Asia and Europe for years. Market performance – such as Chinese stocks down 23% since the end of 2014 – suggest the US economy is an outlier among developed countries. Meanwhile, the inability of G-7 growth to get to or above 3% depressed emerging market regions struggling with higher interest rates to maintain currency values against the dollar.

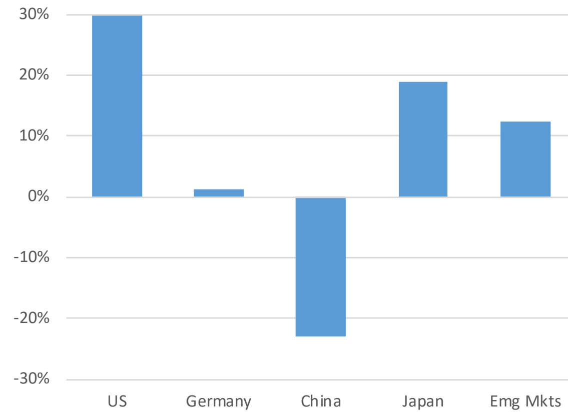
**2018 Performance (USD)**
**Percentage Total Return, Including Dividends**




*Source: FTN Financial, MSCI, Standard & Poor's, FTSE*

Near-term performance for fixed income follows closely behind central bank policy. Beyond a six-month horizon, however, economic fundaments provide the important answers. ***The end of 2018 put the spotlight directly on signals that investors overestimated the resilience of global growth in the face of tighter monetary policy and stubborn trade frictions. For the first time in four years – since the ECB announced its full-fledged QE bond purchase program in early 2015 – every regional stock portfolio fell way behind the US.*** On a cumulative basis since the end of 2014, total returns look like this in US dollars.

**Four-Year Equity Performance Around the World**
**Measured in US Dollars**
**Compound, Cumulative Growth**



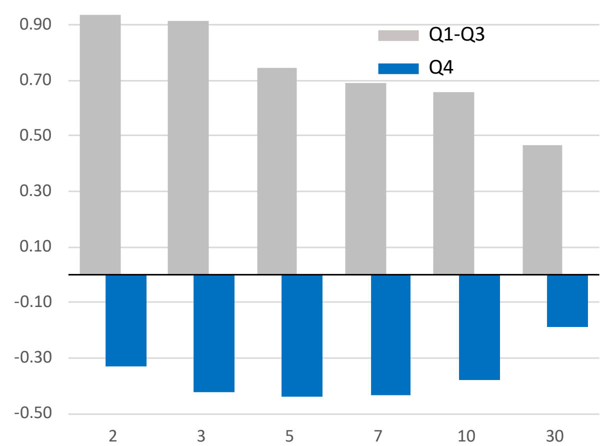

*Source: FTN Financial, individual exchanges, MSCI*

Through the end of 2017, every single market was up 30% or greater with the exception of China at 5%. The chart is all about 2018 and what lies ahead in 2019. ***The worry in the first week of 2019 is the weaknesses foreseen by financial markets in the fourth quarter are becoming more apparent in data.*** The decline in US manufacturing ISM in December closely matched the drop in China released several days previously.

In 2018, Treasury yields were cheap versus other countries and other domestic markets in the second quarter and then from September through the end of November. Increasing Treasury supply became a real fear in the second half of 2018. Yet, the rally in December was abrupt and unstoppable. The year ended with little conviction about how many rate hikes to assume in 2019 or where fixed income demand will be on the curve.

Compare the rate increases in the first nine months of 2018 (gray) with Q4 declines (blue)

**Changes in UST Yields**
**First Three Quarters vs Fourth Quarter**




*Source: FTN Financial*

Against the global economic backdrop captured in the 4-yr chart of equity returns, financial market returns followed a logical pattern:

- Rates lower in 2H 2018 with a flatter curve
- Commodity prices down 13%
- Credit spreads wider by almost 90bp

Quick highlights that dramatize 2018 results:

- The 1.96% return on 3-mo Treasury bills surpassed every fixed income class and every major stock index.
- TIPS were second only to corporates as the worst performing sector in investment grade fixed income.
- Domestic high yield lost money but easily did better than emerging market government bonds.

The table provides a summary of 2018 changes in the financial markets, along with cumulative changes from the end of 2014.

| | | | Change | |
|---|---|---|---|---|
| | Dec 18 | Dec 17 | Year | Dec 14 |
| UST 2s/10s | 20 | 52 | -32.0 | -130 |
| UST 5s/30s | 51 | 53 | -2.2 | -59 |
| UST 10-Yr Yield | 2.69 | 2.41 | 0.28 | 0.5 |
| UST 10-Yr TIPS | 0.98 | 0.43 | 0.55 | 0.5 |
| 5-Yr Swap Spread | 6.9 | 3.8 | 3.1 | -5.1 |
| Mortgage Index LOAS | 35.5 | 23.1 | 12.4 | 37.9 |
| Agency Avg LOAS | -3.3 | -6.8 | 3.5 | 6.6 |
| 1x5 Swaption Vol (bp) | 74.0 | 57.7 | 16.3 | -11.3 |
| Inv Grade Credit LOAS | 151.1 | 95.3 | 55.8 | 33.1 |
| FTN Financial Crdt Indx | 271.7 | 183.9 | 87.8 | 13.6 |
| High Yield LOAS | 540.8 | 371.5 | 169.3 | 15.0 |
| US Dollar | 96.1 | 92.3 | 3.8 | 5.8 |
| Dow Jones Industrials | 23327 | 24719 | -3.5% | 44% |
| S&P 500 | 2507 | 2674 | -4.4% | 32% |
| NASDAQ | 6635 | 6903 | -2.8% | 47% |
| FTSE | 6728 | 7688 | -8.8% | 20% |
| DAX | 10559 | 12918 | -18.3% | -2% |
| Nikkei | 20015 | 22765 | -10.4% | 11% |
| Shanghai | 2494 | 3307 | -22.7% | -16% |
| Hang Seng | 25846 | 29919 | -10.6% | 27% |
| Commodity (Bloombrg) | 76.7 | 88.2 | -13.0% | -26% |

***Additional information on returns and the underlying valuation shifts to be published in 2018 Financial Market Returns next week. Meanwhile, contact FTN Financial for updates on specific markets.***

## Two New Scenarios to Consider for 2019

*Despite the rapid changes of the last two months, two scenarios carry forward from last year:*

1. The Fed arranges a smooth landing for the economy with a combination of patient rate increases and effective guidance about its policy thinking. **30% odds**
2. Inflation arrives, elevating rates and reducing negative sentiment for risk assets. **10% odds**

*The two new ones are less comfortable:*

3. Even if the Fed tones down its hawkish rate outlook, investors can't breathe easier in fear better financial conditions return the FOMC to its core view that tight labor markets always endanger price stability. **40% odds**
4. Outside the US, the global economy already has approached the line signaling slower growth that compresses inflation. That leaves real interest rates high enough to reduce leverage and US economic growth. **20% odds**

We are taking "DC Angst" out of the scenario line up where it has featured prominently as the down-rate scenario since May 2017. The down rate scenario arrived in late December, partly due to markets' assessment of deteriorating conditions in the nation's capital.

Chris Low made these observations about these scenarios compiled by Interest Rate Strategies: An essential point for all scenarios is that the market is no longer confident the Fed is in control. Near-term forward curve spreads – The Fed's favorite interest-rate-based recession indicator and star of last year's "Don't Fear the Yield Curve" paper – inverted not because the market necessarily sees a recession but because the market sees a rate cut in the next 18 months. History suggests traders could change their mind or the Fed could cut rates without a recession. But if markets' confidence in the Fed was as damaged as it appears after December and the Fed is stubborn, it's a safe call there will be a rate cut within 18 months, likely after a recession begins. The Economics Group's baseline forecast most closely resembles "Smooth Landing."

### Projected Rate Grid at June 30, 2019

| | 2s | 5s | 10s | 30s |
|---|---|---|---|---|
| Smooth Landing | 2.65 | 2.75 | 2.80 | 3.05 |
| Temporary Pause | 2.80 | 2.95 | 2.70 | 2.85 |
| Economy Slows | 2.25 | 2.10 | 2.35 | 2.65 |
| Inflation Returns | 3.10 | 3.40 | 2.65 | 2.60 |
| Today | 2.49 | 2.48 | 2.66 | 2.97 |

### Projected Rate Grid at December 31, 2019

| | 2s | 5s | 10s | 30s |
|---|---|---|---|---|
| Smooth Landing | 2.85 | 3.00 | 3.15 | 3.40 |
| Temporary Pause | 2.75 | 3.00 | 3.05 | 2.95 |
| Economy Slows | 2.13 | 2.00 | 2.25 | 2.55 |
| Inflation Returns | 3.25 | 3.30 | 2.60 | 2.60 |
| Today | 2.49 | 2.48 | 2.66 | 2.97 |

### Assumptions and rate background for each scenario

Smooth Landing 30%

- Rate hikes stretch across the year – June and late fall – rather than March or May.
- Lower forward real rates boost business expectations, creating more capacity to pass through higher costs and maintain profit margins. Core inflation stays above 1.6% and approaches 1.8%.
- Investors return to riskier asset classes, increasing yields across the Treasury curve to attract buyers at auction since Fed rate boosts unlikely enough to maintain sponsorship at short end of yield curve.
- ***With few concerns about the Fed sending rates above 3.0%, the primary driver of fixed income valuations is i) marginal supply as dictated by corporate new issuance; and ii) household savings patterns after a bruising 2018.***

Fed Pauses are only Temporary 40%

- Rate hikes are delayed but near-term forwards continue to assume they will return as soon as financial conditions improve. The Fed expresses stalwart faith it will eventually be correct in its rate call, keeping any stock market rally in check and depressing the term premium in long Treasuries. Given it was forward rate hikes that unhinged asset prices in November – until that brief, false dawn at the end of the month thanks to comments by Chair Powell – ***Fed communication acts as a growth deterrent rather than the intended stimulus***.
- The European Central Bank doesn't guide toward any policy easing as it believes a pause in the US might be a sufficient boost for global activity. So, EU growth suffers the same overhang of potentially tighter monetary conditions as the US.
- The dollar stays strong, one factor in keeping inflation below its natural trend. Also, businesses absorb costs inside their profit margins rather than surrender market share that could be difficult to regain in the next upturn.
- ***Stocks and commodity prices can recover but not on a stable enough trend to attract fresh capital. Bonds remain the preferred insurance asset to counter the potential of further downdrafts. Risk asset performance is the marginal driver of rates.***

Global Economy Stuck in Neutral 20%

- The Fed is loathe to lower interest rates because it doesn't want to revisit the multi-year slog of normalizing them again.
- Inflation falls as producers adjust prices to lower demand, similar to the move lower in oil in the fourth quarter.
- Real interest rates fall as non-government demand for credit falls after years of increasing.
- Credit costs rise as lenders factor in the potential that low growth leads to a more prolonged recession than considered possible just three months ago.
- ***Primary driver of interest rates becomes current data releases around the world.***

Inflation is Real, Just Tardy 10%

- The Fed affirms rate guidance of 3.0-3.5% as core inflation rises to 2.2% in 2H 2019
- Investors fear global central bank tightening cannot combat a 'stagflation' outcome, forcing an unforeseeable number of rate hikes beyond Fed/ECB guidance. The intermediate yield cure steepens, punishing the 5-yr. The long end flattens against higher risk of a longer recession in 2020-2021.
- Credit spreads tighten quickly. Stocks and commodities outperform.
- ***The marginal influence on interest rates is monthly CPI and PCE reports.***

### Summary

These scenarios are the first step in rethinking 2019. They should hold sway over market sentiment at least through the end of February. It's possible they last until investors get a solid feel for global GDP growth in the second quarter.

## December Fears Turn Vicious

Market distress increased each month in the fourth quarter. The losses the previous two months made those in December all the more dramatic. ***After two months of turmoil, December charted new price extremes unthinkable at the end of November. By the middle of the month, traders surrendered to the void and let markets run until they exhausted themselves just before the holidays.*** As one investor after another tried to hide, US stocks lost year-to-date gains and by December 7 2018 returns on T-bills surpassed the S&P 500.

*Each day brought new reasons for continued volatility, and none of the explanations reached the magnitude of these results:*

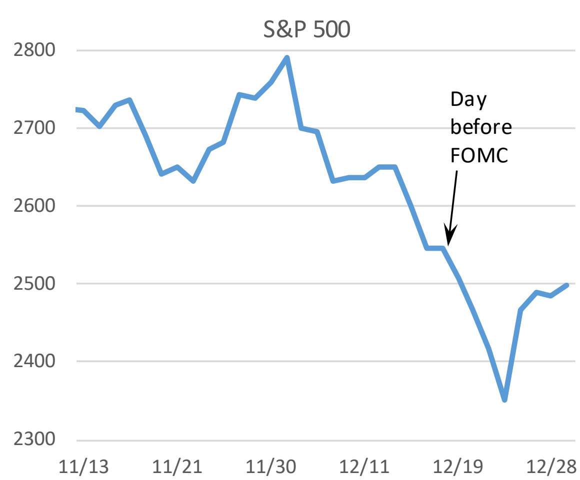
- Benchmark domestic crude oil fell 10% for the month, carrying the quarterly loss above 37%. It was a parabolic decline until Dec 26.
- Stocks required a 6.7% rally in the final week of the year to keep December losses in single digits.
- 5-Yr UST yields fell 30bp. It took 3 months for rates to rise 30bp from early August to their peak on November 8.
- Credit spreads rose 40bp (FTN Financial Credit Index), the biggest one-month increase in three years.

***Investors split 65/35 on whether the stock market i) exaggerated bad facts and drove itself off a cliff; or ii) the global economy is actually at serious peril of a slowdown. For all the talk of the Fed and plunging stock prices, though, the bigger influence for bonds this month was the continued decline in crude oil.*** 5-yr inflation expectations fell 30bp on evidence lower global demand would throttle price growth below 1.5% for the next two years.

**5-Yr Inflation Breakevens**
**Constant Maturities Based on Smoothed TIPS/Coupon Curves**
**June to December 2018**
**Daily**


*Source: FTN Financial*

Until December 19, the hope was the FOMC would acknowledge increasingly tighter financial conditions. It did – by taking one dot away from 2019 guidance – but other communication came off as tone deaf to the market events bulleted above. See Chris Low's explanation on December 21. [click here](#) Too many politicians and editorial writers took the Fed to task unfairly, but this chart was not a good look for the US central bank.




*Source: Standard & Poor's*

Treasuries enjoyed their best month since June, 2016 (after the Brexit vote), led by strength in 3s and 5s. Not only did those two maturities benefit from market repricing of Fed expectations – duration adjusted vs 10s and 30s – but short yields in December moved in direct correlation with changes in stock prices. Usually, of course, 10s are most sensitive to equities and other risk assets. Measured by duration, 3-yr UST won both December and the full year. Although 30-yr UST gained 5.95% in December, that was actually the worst performing part of the curve at .325/year of duration. The dollar fell 1% against an international currency benchmark – with all of the decline after the FOMC – while the euro gained .8%. The yen rallied almost 4% against the dollar as it once again resumed its safe haven status.

In dollars or euro, UST returns produced the best fixed income results around the world last month. Only UK bonds, swapped against euros, beat Treasuries.

<u>Winners</u>

- 30-yr UST
- Gold and silver
- Japanese yen
- Intermediate US agency debt
- 3.0% coupons on 30-yr conventional and GNMA pass-throughs

<u>Losers</u>

- US equities, led lower by bank stocks
- Oil and energy stocks
- High yield bonds and down-in-credit exposure
- Long, investment-grade industrial corporates
- Long municipals
- CMBS

*Summary results by sector*

| | Dec 31 | Nov 30 | Change Month | Change Dec 14 |
|---|---|---|---|---|
| UST 2s/10s | 20 | 20 | -0.4 | -130 |
| UST 5s/30s | 51 | 48 | 3.3 | -59 |
| UST 10-Yr Yield | 2.69 | 2.99 | -0.30 | 0.5 |
| UST 10-Yr TIPS | 0.98 | 1.02 | -0.04 | 0.5 |
| 5-Yr Swap Spread | 6.9 | 14.4 | -7.5 | -5.1 |
| Mortgage Index LOAS | 35.5 | 35.8 | -0.3 | 37.9 |
| Agency Avg LOAS | -3.3 | -7.0 | 3.7 | 6.6 |
| 1x5 Swaption Vol (bp) | 74.0 | 69.2 | 4.8 | -11.3 |
| Inv Grade Credit LOAS | 151.1 | 132.2 | 18.8 | 33.1 |
| FTN Financial Crdt Indx | 271.7 | 231.3 | 40.4 | 13.6 |
| High Yield LOAS | 540.8 | 431.5 | 109.3 | 15.0 |
| US Dollar | 96.1 | 97.3 | -1.2 | 5.8 |
| Dow Jones Industrials | 23327 | 25538 | -8.6% | 44% |
| S&P 500 | 2507 | 2760 | -9.0% | 32% |
| NASDAQ | 6635 | 7331 | -9.4% | 47% |
| FTSE | 6728 | 6980 | -3.5% | 29% |
| DAX | 10559 | 11257 | -6.2% | -2% |
| Nikkei | 20015 | 22351 | -10.3% | 11% |
| Shanghai | 2494 | 2588 | -3.6% | -16% |
| Hang Seng | 25846 | 26507 | -2.5% | 22% |
| Commodity (Bloombrg) | 76.7 | 82.6 | -7.1% | -26% |

**Mortgages**: Rapid yield curve changes whipsawed residential pass-throughs, reaching their low point on December 24 measured on a duration hedged basis to Treasuries. They recovered nicely on real money buying the last week of the year to finish just 10 bp below UST. Higher implied option volatility took 4bp out of mortgage results. Aside from moving down in coupon and overweighting 20-yr maturities, there were few above-average value themes for the month. Conventional 30-yr pass-throughs earned the highest nominal returns at 1.89%, just above the 5-yr UST at 1.86%.

For conventional 30s, 3.0% and 3.5% coupons produced nominal returns in excess of 2.2%, an excellent achievement against nominal UST results in total and equal to returns on 7-yr UST. The lower coupon gets the nod as the only one that significantly outperformed UST hedges. 30-yr GNMAs beat conventionals, particularly in the 3.0% coupon however. GNMA 15s were terrible, so conventional 15s at least had that working even as they fell short of conventional 30s.

CMBS didn't rebound in December, leaving behind fourth quarter negative excess returns at -110bp.

**Investment grade credit**: Long investment grade bonds weathered the blizzard reasonably well, as long as the positions weren't hedged. Unfortunately, much of the buying in 2018 was hedged. In the annals of either worst months or worst quarters for credit, however, the fourth quarter was in line with losses in early 2016…the most recent parallel to the end of 2018. Intermediate maturities were a relative haven with excess returns comparable to other asset classes, adjusting for risk. Overall, financials and utilities continued to do much better than industrials. Up in credit from BBB to A or better quality preserved 50bp of performance. That's significant when Treasuries' total results amounted to 215 bp for the month.

By industry, credit spreads did not follow equity market losses that closely. Energy and technology, for example, had the smallest losses among industrials.

**Agencies**: Intermediate bullets held value against Treasuries through almost the entire month. FTN Financial's spread index was less than .5bp wider from the end of November. Longer maturity spreads did gap a bit, but a restrained amount given the volatility of the move in benchmark UST. Yields on callable agencies fell 15-25bp despite spread widening. Longer lockouts not only performed well, they also protected portfolio yields into the next year if rates remain in December's 20bp range well into 2019.

**Municipals**: Generic municipals were poised for a strong December given their credit quality, but couldn't come close to keeping up with the Treasury rally. Duration neutral, the total return of about 115bp lagged governments by 65bp on a tax-equivalent basis. That took the Q4 total shortfall to -82bp. Against tighter swap spreads, losses were just shy of 100bp for the last three months. The lag was concentrated in the longer end of the market. Intermediate maturities only missed UST gains by 23bp. Taxables struggled in both December and the entire quarter.

**TIPS**: Domestic high yield was the only major US sector to beat TIPS in December's race to the bottom. The table above tells the story. 10-yr yields fell 30bp for coupons and only 4bp for TIPS. At 55bp of return, TIPS could not even beat the 2-yr UST. The shortfall against comparable duration coupons was 145bp, doubling the economic loss the previous two months.

Risk Sectors

- In the second half of the month, VIX never closed below 24%. Domestic equity losses may have been trimmed to 9% by the 31st, but economic returns adjusted for risk didn't actually recover. Large market segments registered losses in excess of 12% for the month, and many approached 20% losses for the quarter. By contrast, emerging market equities didn't even fall 3% in December. Japanese stocks fell 10.3% for the month, but primarily because they held up better than other global markets in October and November.
- Domestic oil prices fell 10% for the month, taking the quarterly hit to -37%. Crude may have hit a bottom of $42.50 at its close on Christmas Eve. Other losses weren't as dramatic with industrial metals down about 5%. Commodity indexes fell 7%, cushioned by 5%-11% increases in precious metals that caught safe-haven interest. Agriculture produces were mixed in December.
- High yield closed a devastating quarter with blowout losses in December. Returns fell short of comparable Treasuries by at least 3.7% as nominal losses exceeded 2%. The best that could be said was the sector outperformed domestic equities (but not emerging market high yield, by the way). Energy names were obviously vulnerable, based on oil prices, but excessive losses extended to consumer staples and basic industrials as well.
- Emerging markets took their lumps earlier in the quarter, so sovereign debt had the best month among global risk assets, surrendering 75bp to UST while generating positive returns of about 1.5%. Asia, in particular, was surprisingly strong. Argentina struggled badly again to end the year. Quarterly returns fell short of Treasuries by about 3.5% or about 60% of the relative losses in domestic high yield.

*Investment Grade Sector Returns: December*

Returns on a duration adjusted basis hedge maturity exposure with either UST or LIBOR-based interest rate swaps.

| | | Duration Adjusted | |
|---|---|---|---|
| | Returns | UST | LIBOR |
| Total | 1.85 | -.31 | -.46 |
| Intermediate | 1.48 | -.15 | -.30 |
| Treasuries | 2.15 | | -.15 |
| Mortgages | 1.82 | -.14 | -.26 |
| Corporates | 1.47 | -1.06 | -1.21 |
| Agencies | 1.46 | -.07 | -.17 |