2018 ANNUAL REVIEW

BAD FINANCIAL MARKETS?

Investors found themselves with a lump of coal as 2018 ended. Global equity markets fell 13% in the fourth quarter — 9% for the year — as the Fed continued its rate-hiking pace with four total rate hikes in 2018. Were financial markets really "bad" enough to justify this level of tightening? There are three major categories on the Fed's checklist — none seem to qualify as "bad."

2% inflation. U.S. core inflation topped out at the Fed's 2.0% target and is now trending lower, currently sitting at 1.9%.

Full employment. U.S. unemployment rate is 3.7% — thought to be near the natural unemployment rate — but wage growth (3.1%) is below levels that have historically incited inflation.

Financial stability. Many are concerned about growing levels of system-wide debt, but financial institutions are well-capitalized and corporate interest coverage ratios are high.

Santa didn't always give coal; originally those who were bad received onions. Coal became ingrained in the legend in the 19th and 20th centuries — alongside the chimney becoming Santa's entrance of choice (at the time coal, not wood, was used in the fireplace, making it a convenient "gift" for Santa to give). Many commodities, beyond just onions and coal, would have made for cheap gifts this past holiday season. Commodity prices were down 11% in 2018, with oil prices down 25%. Driving prices lower was abundant supply but also some concern over global economic demand.

In fact, while the Fed is the biggest story in financial markets right now, concerns over global demand have also began to take hold. Namely, the synchronized global growth from 2017 turned into a global growth slowdown in 2018, with the notable exception of the tax-reform fueled U.S. economy. Political distractions likely played the biggest role as investors and consumers alike were forced to consider the implications of the following ongoing dramas:

U.S.-China trade tensions. Finding agreement on fair trade, market access and intellectual property rights.

Brexit breakdown. U.K. Prime Minister Theresa May's challenge to secure European Union (EU) divorce terms.

Italy-EU budget battle. Getting Italy to adhere to the EU's Stability and Growth Pact regarding Italy's debt and deficit.

Thankfully, by year's end, the above issues were either largely put to rest (Italy-EU budget battle); on a slow mend (U.S.-China trade tensions); or deemed to be a minor headwind to the broader global economic outlook (Brexit breakdown). It is the Fed's 2019 rate hike trajectory, and its impact on the global economy, that remains in focus as we head into 2019.

According to the well-known holiday song, Santa "knows if you've been bad or good." That's a level of clairvoyance that the Fed just doesn't have regarding financial markets. This can lead to mistakes — in this case, being unnecessarily restrictive when markets have been "good." However, should the Fed check its list a third time and give the gift of greater accommodation than implied by currently stated ambitions (two more rate hikes in 2019), investors may be celebrating a more joyous New Year.

2018 TOTAL RETURNS ACROSS MAJOR ASSET CLASSES
An end of year slump led to negative returns across most asset classes.

	RISK CONTROL				RISK ASSETS							
	FIXED INCOME						EQUITIES			REAL ASSETS		
	Cash	Muni	Inv. Grade	TIPS	High Yield	EM Debt	U.S.	Dev. Ex-U.S.	EM	NR	GRE	GLI
■ 2018	1.8	1.3	0.0	-1.3	-2.1	-6.2	-5.2	-14.3	-14.7	-12.6	-6.3	-9.5
4Q 2018	0.6	1.7	1.6	-0.4	-4.5	2.1	-14.3	-13.2	-7.4	-16.8	-5.1	-5.1

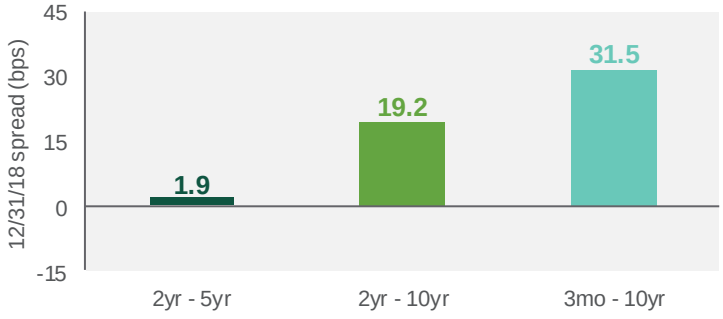
Source: Northern Trust Investment Strategy, Bloomberg. NR = Natural Resources; GRE = Global Real Estate; GLI = Global Listed Infrastructure. EM = Emerging Markets. Indexes are gross of fees and disclosed on last page. **Past performance is no guarantee of future results.**

KEY THEMES

Flattening Yield Curves

The specter of an inverted yield curve was an ongoing source of debate for financial markets in 2018. The historical observation that an inverted yield curve has preceded the past five recessions was cast against "this time is different" suppositions. The Fed appeared to be in the latter camp by raising rates four times in 2018, which reduced the spread between 2-year and 10-year U.S. Treasurys to as low as 0.1% (vs. 0.5% at year's start). Investors did not care for what they viewed as a reckless approach, pushing equity prices lower as yield curve inversion neared. The temporary inversion of the "2-year to 5-year" part of the curve spooked investors further. While it may seem arbitrary, investors have taken notice (perhaps the Fed should too).

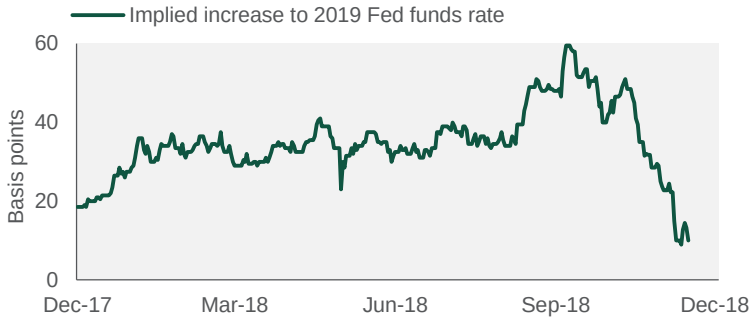
YEAR-END YIELD CURVE "SPREAD" AT SELECT INTERVALS



No More Rate Hikes in 2019?

During the fourth quarter of 2018, investors became increasingly convinced that the Fed was making a mistake, believing that a rate hike in December would mean less rate hikes in 2019. The accompanying chart shows how much tightening the markets believe the Fed will do in 2019. Near year end, this sat at 0.1%. Because the Fed generally moves in 0.25% increments, this effectively means the markets now believe that the probability of even one rate hike in 2019 is below 50%. Specifically, the markets are currently assigning a 77% chance that rates remain as is; an 11% chance that rates rise; and a 12% chance that rates fall. Market odds the Fed hikes the two times it predicts? Currently 1%.

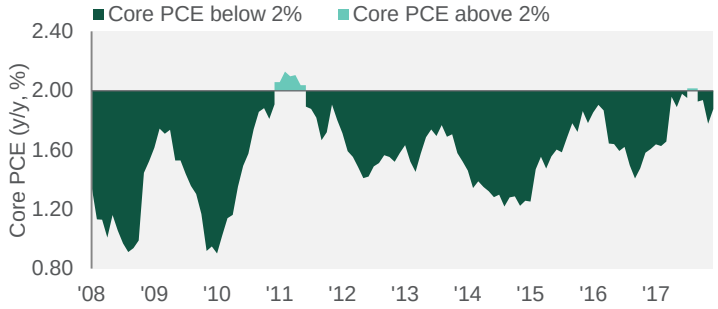
MARKET EXPECTATIONS FOR 2019 FED POLICY



Where's the Inflationary Fire?

Markets are skeptical of the Fed's rate hike ambitions because of the lack of inflationary pressures. Core inflation rose throughout the first part of 2018 but stalled out in the back half of the year. Heavily influenced by declining oil prices, inflation expectations have also fallen. For instance, investors now believe inflation will average 1.5% over the next five years, well below the Fed's 2% inflation target. Earlier in the year, the Fed highlighted that its 2% target was "symmetric" — meaning, if inflation spends significant time below 2%, it should spend time above 2% as well. If the Fed truly believes this, it should take an easier policy stance. Per the chart, inflation has spent 95% of the past decade below 2% (on average, ~0.5% below). More recently, inflation is trending the wrong way.

U.S. CORE INFLATION VS. TARGET



Fed Actions Have Consequences

The Fed's rate-hiking zeal has combined with ongoing U.S.-China trade tensions and other political distractions to slow global growth – notably Chinese growth. The Li Keqiang index[1] — measuring private indicators of Chinese growth — has shown notable weakness over the second half of this year. The index has not deteriorated as badly as it did during 2014-15, which culminated in the 10%-plus equity market drawdown that greeted investors in the first part of 2016. But investors fear a repeat if the Fed keeps pushing and the U.S. and China fail to resolve their differences in a timely manner, pushing global equity markets — dependent on a healthy China — lower.

[1]Li Keqiang, now Chinese Premier, once remarked to a U.S. diplomat that the official Chinese economic data was "man made" and that he preferred tracking less alterable Chinese indicators of growth – including bank loans, electricity production and freight volume.

CHINESE GROWTH – ESTIMATED BY PRIVATE MEASURES

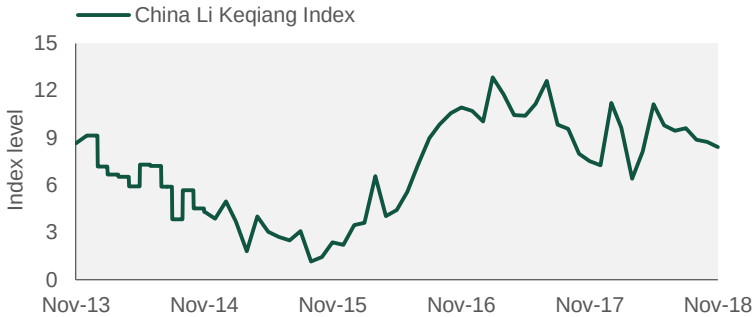


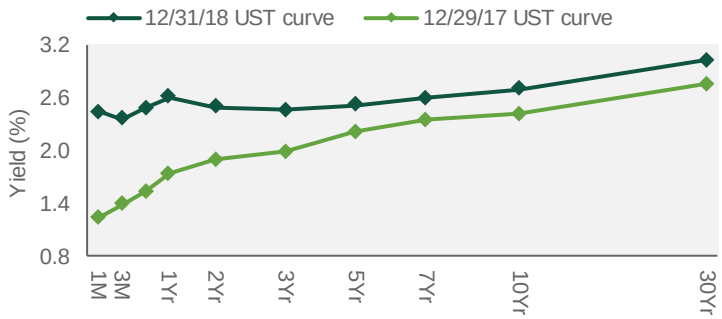
Chart Sources: Northern Trust Investment Strategy, Bloomberg. Indexes are gross of fees. **Past returns are no guarantee of future results.** Charts are as of December 31, 2018.

MARKET REVIEW

Interest Rates

The U.S. yield curve flattened for the fifth straight year, increasingly close to inversion territory and causing investor angst. Flattening the yield curve was the number of Fed rate hikes (four in 2018) against the backdrop of slowing global growth and lackluster inflationary pressures. Yield curves across many European countries have retained some steepness thanks to continued negative interest rate policy. But those yield curves have flattened as well, driven by a slow reduction in accommodation that is still too quick for investors. If nothing else, 2018 was a reminder that growth and inflation expectations — and the Fed's assessment of those factors — drive the yield curve, with other seemingly important factors mostly noise.

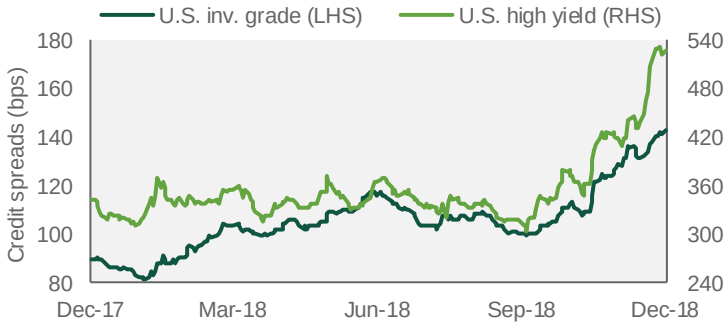
YIELD CURVE



Credit Markets

Credit spread widening occurred throughout most of 2018, but it intensified in the fourth quarter of the year with both investment grade and high yield credit spreads ending at levels last seen in 2016. Normally, the credit markets are considered the "canary in the coal mine," alerting investors that stresses are building in the financial system ahead of other financial market metrics. This time around, however, it was reversed. Credit spreads took their cue from the broader deterioration in financial market sentiment despite solid fundamentals and adequate liquidity. Overall, both investment grade and high yield credit markets ended the year down slightly, a fairly constructive result given the poor equity market performance.

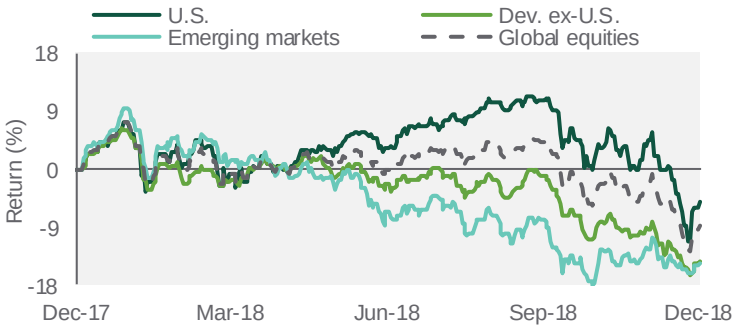
CREDIT SPREADS



Equities

Global equity markets handled moderating global growth and ongoing political distractions fairly well for most of the year, but they finally cracked as investors determined that Fed policy was too aggressive. Through September, global equity markets were up more than 4%, with U.S. equity markets up double-digits offsetting negative returns in emerging market equities. But the homestretch brought material equity market weakness. Even after the post-Christmas bounce, global markets fell by 13% in the fourth quarter. Developed markets drove the downturn (-13%) while emerging market equities held up better (-7%). All said, global equity markets fell by 9% in 2018 after being down as much as 13% at one point.

REGIONAL EQUITY INDICES



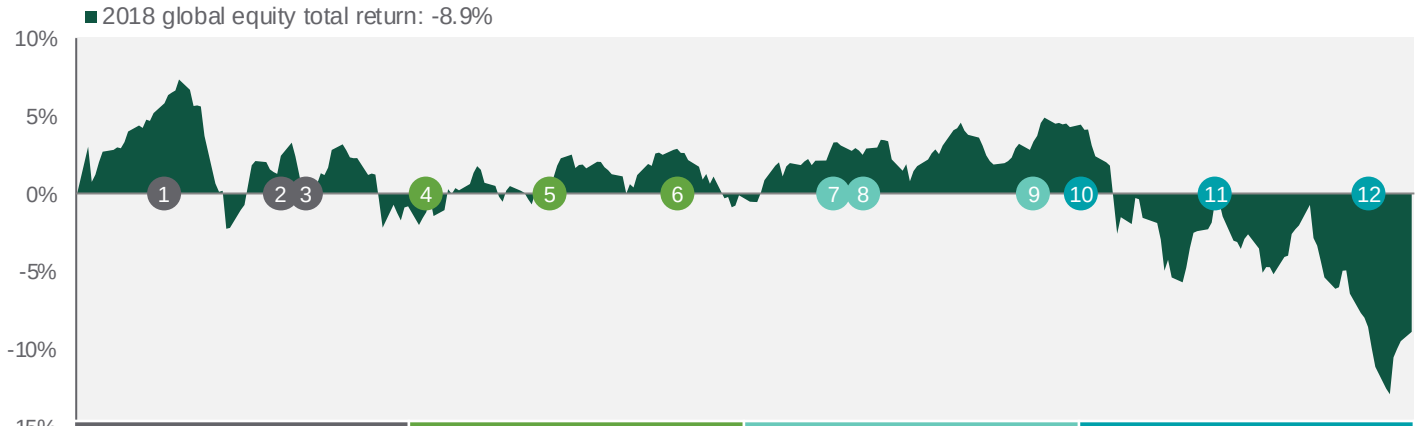
Real Assets

Global real estate and listed infrastructure underperformed the broader global equity markets for most of 2018 before showing their diversification properties during the year-end equity market slide. Rising interest rates into November represented a drag to these interest-rate sensitive asset classes. However, a strong fourth quarter (as interest rates fell) allowed both global real estate and listed infrastructure to perform in-line with, or even better than, global equities for the year. Meanwhile, the material fall in oil prices dragged down natural resource returns. The oil price fluctuations that drove the poor natural resource returns were noteworthy. Many investors saw $75/barrel oil as just a stop along the road to $100. Instead, increased OPEC supply and continued U.S. fracking supply drove oil down to $45/barrel by year's end.

REAL ASSET INDICES

Chart Sources: Northern Trust Investment Strategy, Bloomberg. UST = U.S. Treasury. Indexes are gross of fees. **Past returns are no guarantee of future results.** Charts are as of December 31, 2018.

MARKET EVENTS



Q1	Q2	Q3	Q4
1 The U.S. imposes tariffs on solar panels and washing machines up to 30% and 50% in the first of many protectionist moves throughout the year.	4 China imposes tariffs on $50 billion of U.S. goods in response to United States protectionist measures.	7 European Commission President Jean-Claude Juncker proposes a plan to buy soybeans and liquefied natural gas to prevent the U.S. from imposing automobile tariffs.	10 The U.S., Mexico and Canada reach agreement to renegotiate NAFTA creating the USMCA (United States-Mexico-Canada Agreement).
2 China abolishes term limits on the presidency, enabling Chinese President Xi Jinping the possibility of future terms.	5 President Trump withdraws the United States from the Iran nuclear deal and communicates plans to reintroduce economic sanctions.	8 Apple becomes first U.S. company to top the $1 trillion in market cap milestone.	11 U.S. congressional power shifts; Democrats win control of the House of Representatives while Republicans hold the Senate.
3 The U.S. announces tariffs on steel and aluminum imports – including against its closest allies – in order to support domestic jobs.	6 President Trump and Kim Jong Un meet in Singapore, with North Korea agreeing to denuclearize for U.S. military concessions.	9 The U.S. imposes tariffs on $200 billion on Chinese goods. China retaliates with tariffs on $60 billion of U.S. goods.	12 The Federal Reserve raises rates for the 4th time in 2018; forecasts two rate hikes in 2019 (down from three previously).

Indexes used: Bloomberg Barclays (BBC) 1-3 Month UST (Cash); BBC Municipal (Muni); BBC Aggregate (Inv. Grade); BBC TIPS (TIPS); BBC High Yield 2% Capped (High Yield); JP Morgan GBI-EM Global Diversified (Em. Markets Fixed Income); MSCI U.S. Equities IMI (U.S. Equities); MSCI World ex-U.S. IMI (Dev. ex-U.S. Equities); MSCI Emerging Market Equities IMI (Em. Markets Equities); S&P Global Natural Resources (Natural Res.); MSCI ACWI IMI Core Real Estate (Global Real Estate); S&P Global Infrastructure (Global Listed Infra.).