

## 2017 ANNUAL REVIEW AND 2018 OUTLOOK

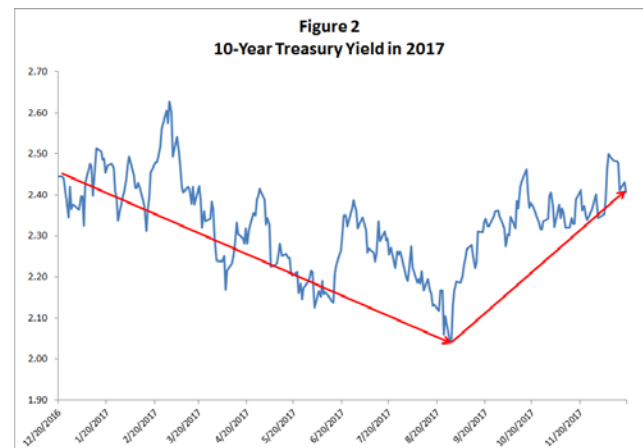
### SUMMARY

Financial assets rose across the board in 2017 as global economic growth was strong and inflation muted, benefitting both stocks and bonds. Including dividends, the S&P500 returned almost 22% for the year and rose for 14 straight months, an unusually stable streak of positive returns going all the way back to 1927. Persistently strong markets brought volatility to all-time lows leading some to worry about investor complacency despite supportive economic fundamentals. In our 2017 outlook, we correctly anticipated that growth assets would continue to deliver solid returns, and our call to overweight emerging markets was rewarded. Our bullish stance on energy was stymied until later in the year, but we think the market is now converging to our view. Overall, we have been pleased with the performance of our investment platform as all investment sleeves beat their respective benchmarks for the year.

### REVIEW OF 2017

The actions of the new U.S. government dominated headlines throughout the year. The failure of the U.S. Congress to overhaul the health care system

earlier in the year exposed divisions within the republican majority, leading investors to discount the ability of the government to implement its pro-business agenda. This helped contain future inflation expectations, driving down bond yields through late summer despite ongoing monetary tightening by the Fed (figure 2).

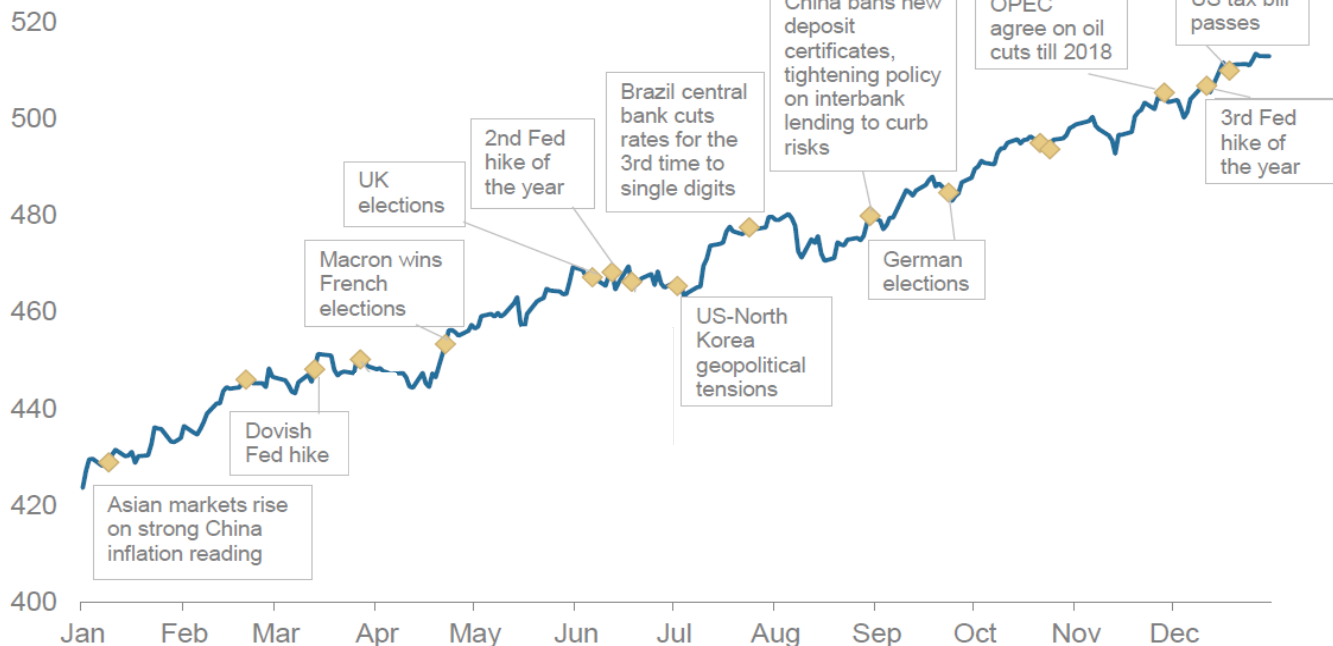


Source: Bloomberg

In the Fall, U.S. Congress turned its attention to tax reform, eventually passing a new tax bill in December. One of the more salient features of the bill includes a reduction in the corporate tax rate from 35% to 21%. The prospect of new legislation triggered a bond sell-off and a market rotation in

### 2017 Year in Review (Figure 1)

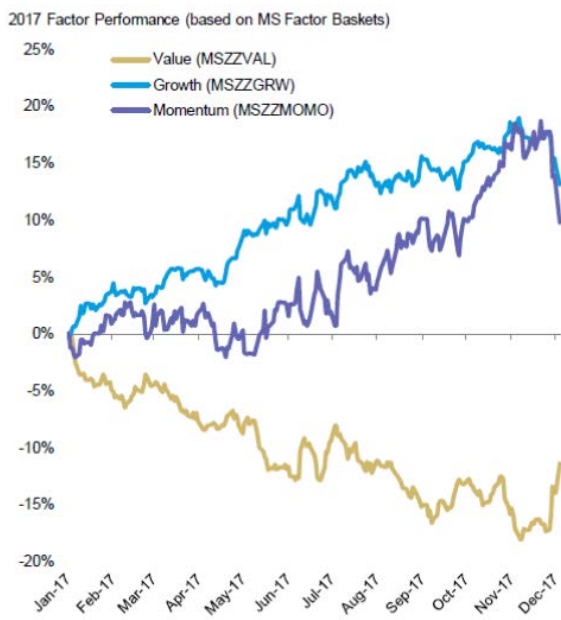
#### MSCI ACWI: 2017 Year-In-Review



equities as investors re-assessed the earnings expectations of domestically-oriented companies that stood to benefit the most.

This market rotation translated into a late-year decline in growth and momentum stocks (mainly technology) which had propelled the market for most of the year, and a rebound in lagging value stocks (figure 3).

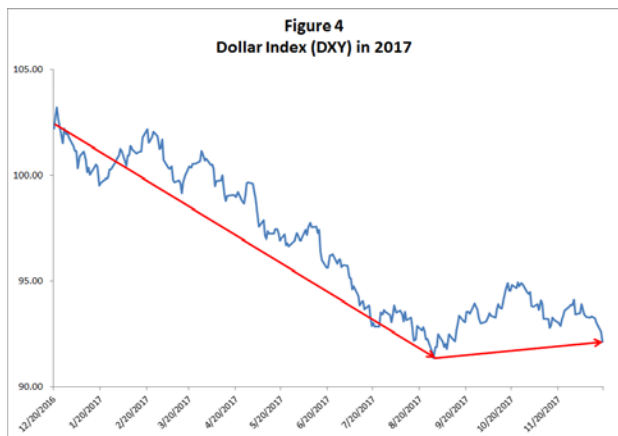
(Figure 3)



Source: Bloomberg, Morgan Stanley Prime Brokerage, data as of Dec 4, 2017

Coming into 2017, most investors anticipated stronger growth in the U.S. thanks to fiscal stimulation. Instead, economic growth in foreign markets surprised investors, leading the U.S. Dollar to weaken against its major trading partners (figure 4). For U.S. investors, assets in foreign markets, both developed and emerging, benefitted strongly from currency appreciation against the Dollar.

Figure 4  
Dollar Index (DXY) in 2017

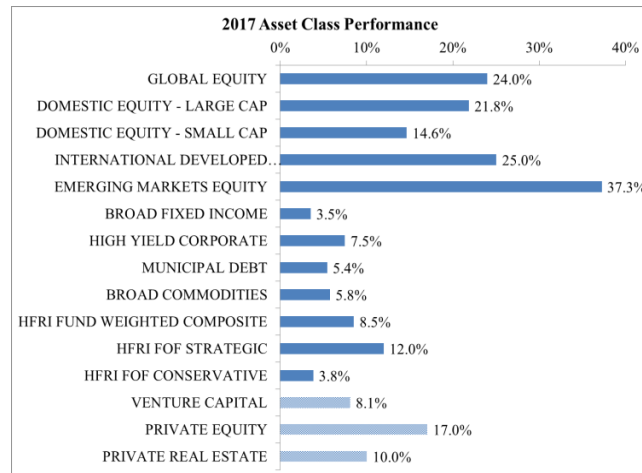


Source: Bloomberg

Geopolitical concerns abated in Europe following the election of a centrist government in France, allowing investors to focus on improved economic fundamentals. Growth in Europe proved strong enough for the European Central Bank to slow its quantitative easing program. In China, credit growth spurred economic activity earlier in the year, supporting the broader emerging markets as well as developed market exporters, before the government tapped on the brakes to cool inflation.

All major asset classes were up for the year, a remarkable development (figure 5). Within equity, emerging markets recorded the strongest performance, thanks in part to currency exposure, while U.S. small cap stocks lagged. Fixed income posted small positive returns thanks to relatively stable rates. Commodities delivered positive returns for the year as energy prices rebounded later in the year. Industrial metals such as copper led the gains due to stronger demand out of China. Against this backdrop, hedge funds recorded mid-single digit returns in line with their lower net exposure. The returns for private assets are reported with a lag and shown here through June.

(Figure 5)



See page 7 for index key.

### SECTOR ANALYSIS – GROWTH ASSETS

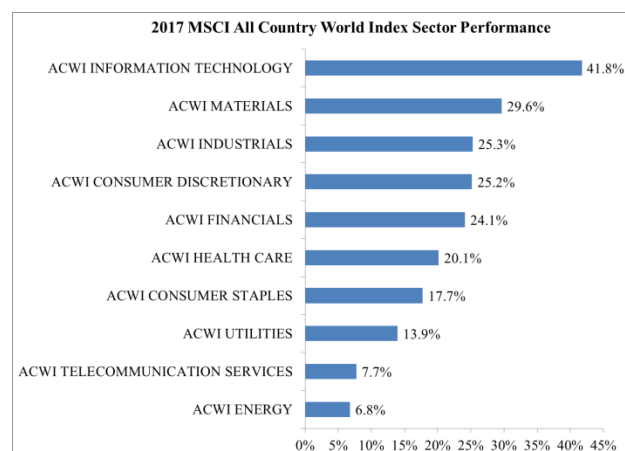
Growth assets include investments that generally benefit from favorable economic conditions such as sustained growth and controlled inflation. Our definition includes equity and equity-like (credit) assets across public and private markets in long only, hedged or draw-down structures. The

following discussion considers these various components in turn.

### LONG ONLY EQUITIES

Global equities, as represented by the MSCI All Country World Index (ACWI), gained 24.0% in U.S. currency for the year (figure 6). Within regions, emerging markets equities were the best performers, returning 37.3% (MSCI EM), compared to 25.0% for international developed markets (MSCI EAFE) and 21.8% for U.S. markets (S&P500), in U.S. dollar terms. Globally, mid-caps outperformed large and small-caps. The best performing sectors included Technology (+41.8%) and Materials (+29.6%). The worst performing sectors included Energy (+6.8%), which recovered from earlier drawdowns, and defensive sectors such as Telecom (+7.7%) and Utilities (+13.9%).

(Figure 6)



Source: MSCI, Bloomberg

The performance of foreign equities was enhanced by currency translation effects as their currencies generally appreciated against the U.S. Dollar.

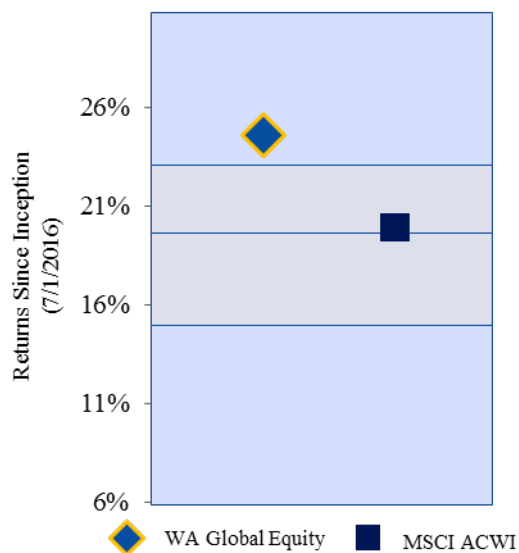
Within the U.S., growth dominated value, and large caps beat small-cap stocks.

YTD Return	USD	Local
S&P500	21.8%	
MSCI EAFE	25.0%	12.2%
MSCI EM	37.3%	27.8%
MSCI ACWI	24.0%	17.5%
YTD Return	Growth	Value
S&P500	27.4%	15.4%
Russell 2000	22.2%	7.8%

Source: MSCI, Russell, S&P, Bloomberg

The WA Global Equity investment sleeve, which combines our long only equity allocations across global, domestic, international and emerging markets mandates, returned 26.0% in 2017 (compared to 24.0% for the MSCI ACWI) and 24.1% since inception (compared to 20.4% for the MSCI ACWI). This performance positions the sleeve in the top quartile versus global equity peers (figure 7).

(Figure 7) **Quartiling: WA Global Equity Sleeve vs Manager Universe (7/1/2016 – 12/31/2017)**



For the year, our overweight to emerging equity managers was a top contributor to performance. Most managers in the sleeve outperformed benchmarks, with the exception of our domestic value allocations.

### POSITIONING

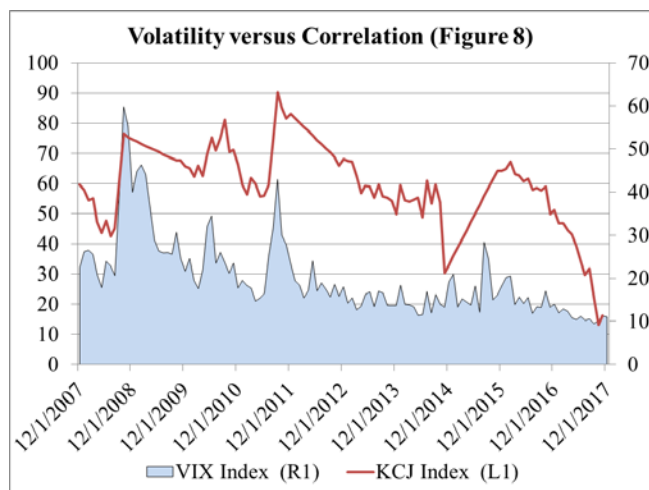
Toward the end of the year we rebalanced the portfolio, trimming domestic equity and adding to international developed and emerging equity managers where we continue to see better long-term opportunities. We favored value-oriented strategies as we think that value as an investment factor has lagged growth by too large a margin, offering a hedge against a more pronounced market rotation.

### DIRECTIONAL HEDGE FUNDS

Directional hedge funds include strategies that typically show high correlation to equities, such as long short equity, event-driven and distressed credit.

Directional funds of hedge funds (HFRI Fund of Funds Strategic, +11.5%) were up for the year, delivering about half of U.S. equity gains, in line with these funds’ net exposure. Within specific strategies, Equity Hedged strategies led performance for the year led by gains in technology and biotech sector funds, as well as Asian-focused funds. Event-Driven and Distressed Credit strategies also delivered positive performance.

One of the most striking developments over the past year has been the steady decline in market volatility, as gauged by the VIX index (shaded line, figure 8).



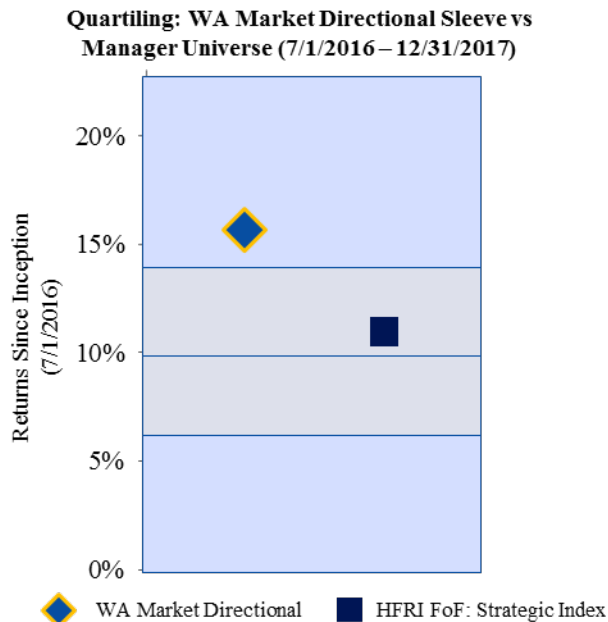
Source: CBOE, Bloomberg

However, this volatility measure can mask other underlying trends. If stock declines offset advances, the resulting volatility for the index would be low despite significant developments. Indeed, just as striking as the decline in volatility has been the decline in correlation between stocks to an all-time low (red line, figure 8). This suggests that the current environment has become favorable for fundamental stock-picking strategies such as long/short equity as the dispersion of returns increases. We think that active strategies adept at shorting stocks will be well rewarded in coming months.

The WA Market Directional investment sleeve, which combines our more aggressive return-seeking hedge fund strategies, returned 13.4% in 2017 (compared to 11.5% for the HFRI FoF Strategic Index) and 15.8% since inception (compared to 13.4% for the HFRI Strategic Index). This performance has positioned the

sleeve in the top quartile of the universe of comparable funds since inception (figure 9).

(Figure 9)



For the year, our large allocation to Financials via a specialist manager led performance, followed by exposures to Biotech and Technology. On the other hand, value-oriented equity strategies tended to lag.

**POSITIONING**

In the second half of the year we continued to make changes to the portfolio, adding merger arbitrage and multi-strategy funds.

Merger arbitrage offers exposure to a highly diversifying risk premium and currently benefits from a rich opportunity set. Our new multi-strategy fund brings expertise across the capital structure and a focus on special situations, a combination that we think would prove resilient in a downturn. Both offer significant diversification to the sleeve and generate an incrementally defensive posture in our portfolio, balancing our more aggressive exposures.

**PRIVATE EQUITY**

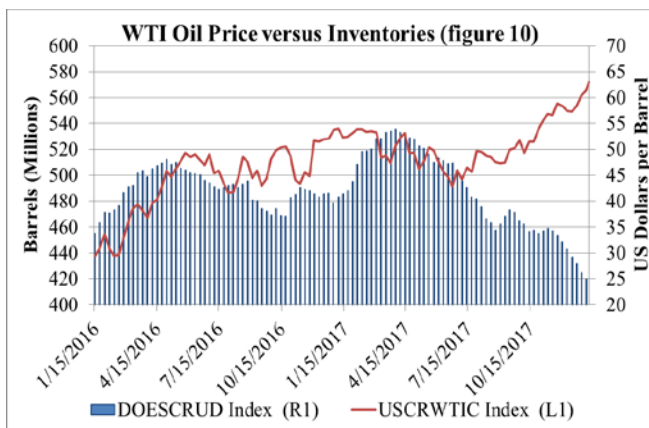
Private equity (Cambridge Associates U.S. Private Equity +17.0%) and venture capital (Cambridge Associates U.S. Venture +8.1%) offered solid returns but lagged public markets over the past twelve months through June 2017.

We fully committed our 2017 vintage Private Equity Fund VI by year end with a mix of early to late stage venture funds and special situation funds. The sleeve also included our first private equity co-investment deal as we begin to deepen our relationships with existing partners.

### INFLATION PROTECTION

Commodity prices rallied for the year with the more notable gains in energy and industrial metals.

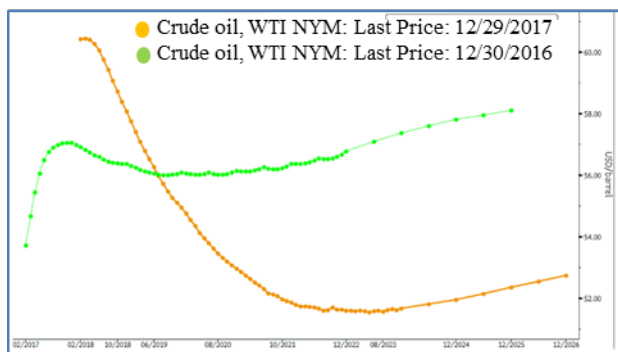
Oil prices declined earlier in the year on fears that a resurgence in U.S. shale oil output would flood markets once more. However, strong demand growth and production discipline by OPEC members led to a dramatic decline in inventories, which propelled prices above \$60 by year-end, a level not experienced since 2015 (figure 10).



Sources: Bloomberg

In a new development indicative of the recent tightness in oil markets, the oil futures curve moved from upward sloping to downward sloping during the year, a configuration known as backwardation (figure 11).

(Figure 11)



Sources: Bloomberg

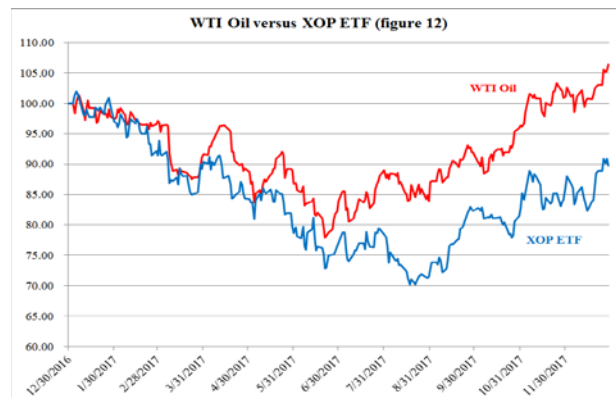
Under this setup, markets are willing to pay a higher price for immediate delivery. However, it becomes less attractive for producers to hedge their future output, reducing financial flexibility to invest and ramp up production. Thus, we think that market conditions will help enforce financial discipline on exploration & production companies, limiting new supply growth in the coming year.

In addition, as energy companies tapped their best (i.e. lowest cost) wells to stay afloat during the recent downturn, depletion rates are now becoming more significant in some basins like the Bakken and Eagleford. Looking ahead, we think that U.S. supply growth will depend on shale reserves in the Permian and Scoop/Stack basins of Texas and Oklahoma.

Outside of OPEC and U.S. shale oil plays, production is declining, worsened by the economic collapse in Venezuela and the lack of investment over the past two years. Looking ahead, the risk of an oil price spike is increasing, and we favor exposure to the energy sector.

### POSITIONING

We continue to favor unconventional U.S. oil producers concentrated around the Permian basin, which benefit from low cost reserves and the ability to increase production in an improved environment. The stocks of exploration & production companies failed to keep up with gains in the commodity in 2017 (figure 12) and we think they retain upside potential.



However, a value opportunity exists in the midstream sector’s Master Limited Partnerships (MLP’s). Strong activity in the energy sector supports fundamentals for infrastructure companies in the midstream sector, yet valuations have remained depressed. We think retail

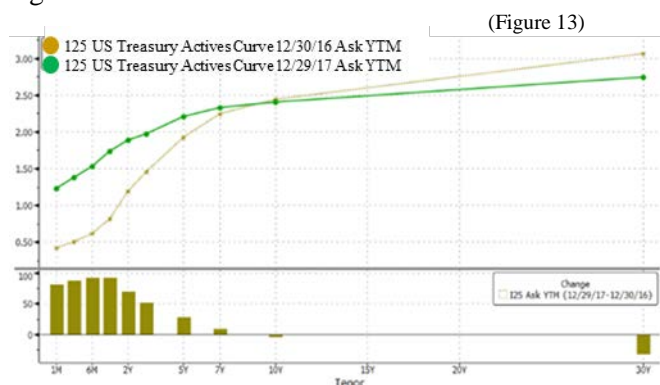
investors may have capitulated in the past year, as interest in the sector waned and we are overweight.

Overall, we prefer energy to industrial metals as China’s growth appears to cool, while energy sector fundamentals look compelling.

**RECESSION PROTECTION**

The yield on the benchmark 10-year Treasury initially fell from 2.45% at the end of December 2016 to 2.04% in September 2017 as muted inflation and reduced prospects of policy changes supported bond markets. With momentum for fiscal stimulus building in the Fall, markets re-assessed inflation prospects, sending yields back up to 2.41% by year-end.

While yields on the 10-year benchmark ended essentially unchanged for the year, the Fed continued to raise front end rates during the year, causing the entire yield curve to flatten (figure 13) and leading some observers to worry about a potential recession signal.



(Figure 13)

Source: Bloomberg

Against this backdrop, taxable fixed income markets, as represented by the Barclays Aggregate Index, posted positive returns for the year (+3.5%).

RECESSION PROTECTION	2017 Return
BROAD FIXED INCOME	3.54%
US GOVERNMENT DEBT	2.31%
US INFLATION LINKED	3.01%
US CORPORATE DEBT	6.42%
US SECURITIZED DEBT	2.51%
MUNICIPAL DEBT	5.45%

Sources: Bloomberg

Within the major components of the Aggregate, corporate debt (+6.4%) continued to outperform both government securities (+2.3%) and securitized debt

(+2.5%). Municipal debt benefitted from spread tightening on high demand, outperforming the broad taxable market (+5.5% for the year). Inflation linked debt (+3.0%) outperformed nominal government debt as investors re-priced inflation risk later in the year.

Our managers were well rewarded for credit risk in 2017 but consistently moved up in quality as the year progressed, turning portfolios increasingly defensive. While fixed income looks relatively unattractive today, higher interest rates are helping restore some of the insurance value of bonds against equities. We also appreciate the liquidity and predictability of shorter duration, high quality securitized assets.

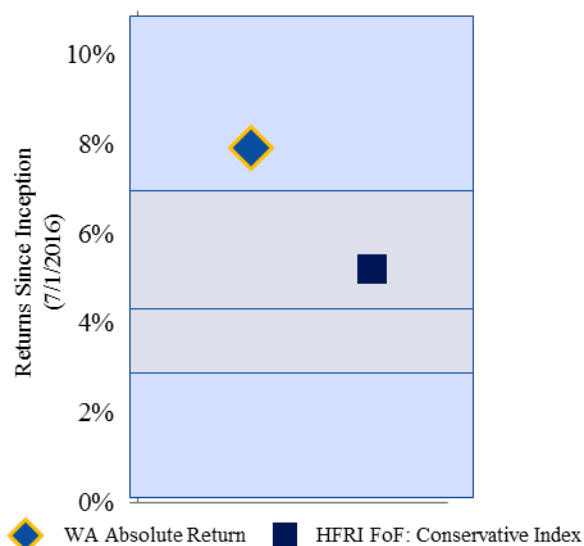
**ABSOLUTE RETURN HEDGE FUNDS**

Absolute Return hedge funds include strategies that typically show low correlation to equities, such as low net long/short equity, global macro and multi-strategy.

The WA Absolute Return investment sleeve, which combines our more conservative or risk-diversifying strategies returned 7.4% in 2017 (compared to 4.1% for the HFRI FoF Conservative Index) and 7.9% since inception (compared to 5.1% for the HFRI FoF Conservative Index). This performance has positioned the sleeve in the top quartile of the universe of comparable funds since inception (figure 14).

(Figure 14)

**Quartiling: WA Absolute Return Sleeve vs Manager Universe (7/1/2016 – 12/31/2017)**



The sleeve’s allocations to Global Macro and Trend Following strategies lagged earlier in the year but

rallied toward year-end as the market turned. These gyrations were cushioned by strong performance from our low net exposure equity strategies.

**POSITIONING**

We continue to favor Global Macro and Trend Following strategies as hedges against adverse market conditions.

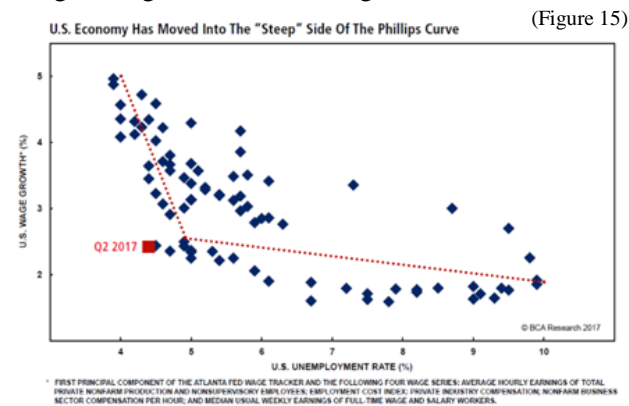
Looking ahead, we plan to expand exposure to new strategies which we believe offer tail risk hedging characteristics, such as long volatility or short credit.

**OUTLOOK FOR 2018**

As the new year is under way, investor concerns have moved from secular stagnation toward inflation risks, causing bond yields to spike.

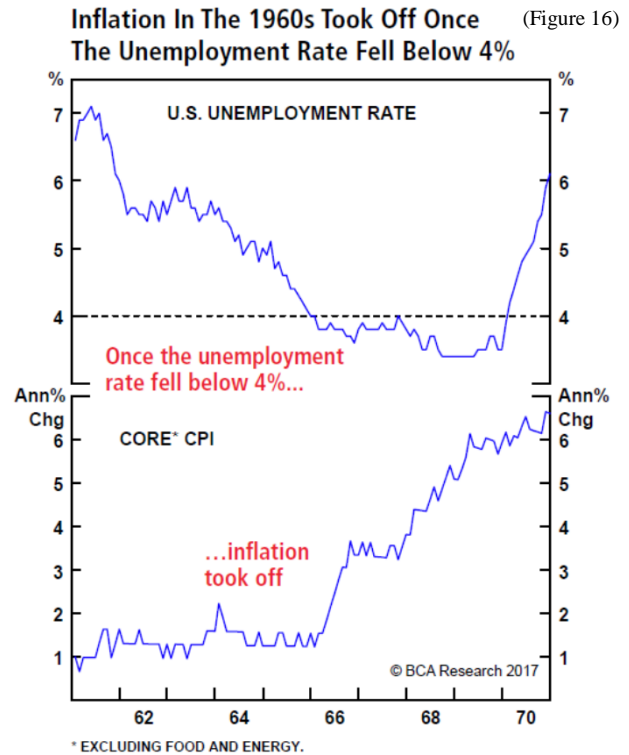
Near term, tax cuts, low unemployment and low inflation point to bullish conditions for risk assets. Tax cuts are expected to add around 0.3% to U.S. GDP over the next two years and stand to increase after-tax earnings of U.S. corporations. An additional stimulus may also come to the U.S. in the form of infrastructure spending.

However, in the context of a global economic expansion and tight U.S. labor markets, the fiscal stimulus implemented by the current administration raises the odds of aggressive tightening by the Federal Reserve. The lack of wage growth in response to unprecedented monetary stimulus and a long economic recovery has befuddled investors over the past few years. However, the unemployment rate, at 4.1%, has now declined to the point where wage growth has historically picked up sharply in response to tightening labor markets (figure 15).



Source: BCA Research

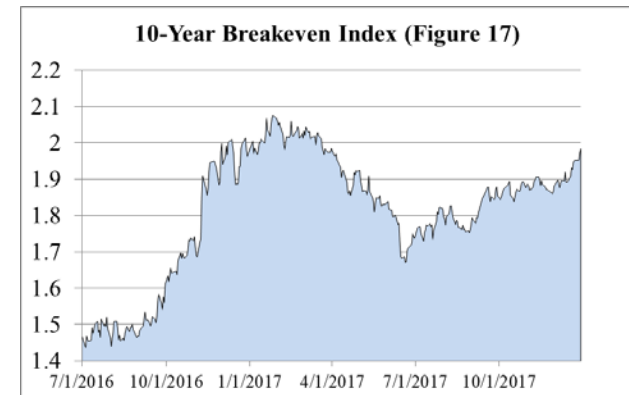
The main historical precedent is what happened in the 1960's as inflation took off once unemployment fell below 4% (figure 16).



Source: BCA Research

While the Fed is mainly concerned with core inflation (excluding food and energy), oil prices have also increased since summer, adding to investor worries.

As a result, the inflation premium between 10-year U.S. treasuries and inflation protected securities (breakeven rate, figure 17), which had declined to less than 1.7% by summer, rebounded to close to 2.0% by year-end 2017, much closer to the Fed's stated inflation target, explaining much of the moves in nominal yields.



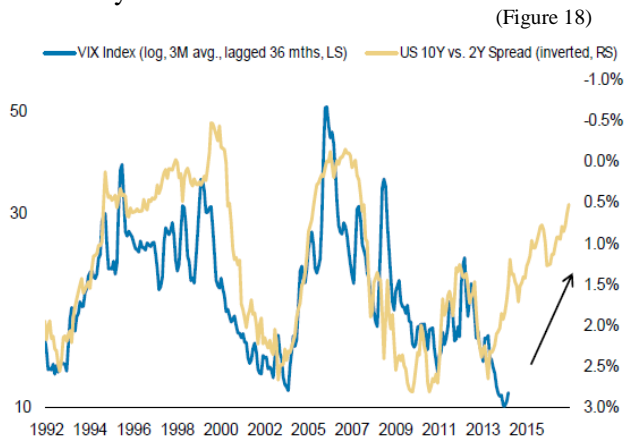
Source: Bloomberg

Of course, rising interest rates are a sign of a strong economy, and other forces may act to contain inflation, such as the deflationary effects of new technologies. But the difference today is the elevated price of financial assets.

In the wake of the Great Financial Crisis, growth assets (equity and credit risk) were made attractive by the artificially low rates engineered by the Fed. As rates rose, a shrinking premium for growth assets was bound to lead to higher volatility in financial markets, regardless of the strength of the real economy.

A string of disappointing earnings announcements in late January was enough to trigger a market sell-off that has now taken U.S. equity indices into negative territory for 2018.

As shown in figure 18 below, the yield curve tends to lead volatility (VIX index) with a lag, and it was only a matter of time before volatility rose from abnormally low levels.



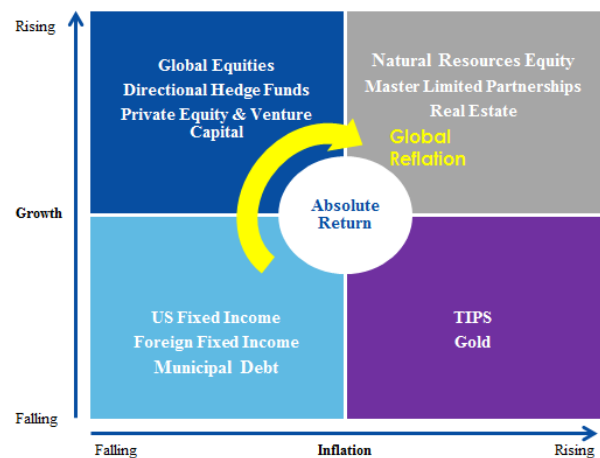
Source: Morgan Stanley

As unsettling as the sell-off may feel, it reflects a normalization of financial conditions after a period of unusual stability and optimism, rather than the harbinger of recession. For example, short volatility traders, who assumed a continuation of low volatility conditions, seem to have been flushed out of the market. Similarly, leveraged trading strategies like risk-parity funds may have been forced sellers in an environment where stocks, bonds and commodities all declined, exacerbating losses.

Higher volatility in the coming year will be synonymous with higher opportunity for active managers and we continue to recommend avoiding

passive exposures at this stage. Alternative assets, including hedge funds and private funds, are better equipped to handle a downturn as traditional stock and bond portfolios correct on the downside. Within our investment sleeves, we continue to identify unique managers focused on special situations and capacity constrained strategies, which will lower correlation to financial markets and help protect capital on the downside.

At a macro-economic level, despite the current market correction, we think that global growth and rising inflation risks will remain underlying trends even as markets become more unpredictable. With no imminent signs of recession at this point, we recommend higher exposure to a mix of inflation protection and absolute return strategies.



**INDEX KEY**

Global Equity (MSCI All Country World-USD), Domestic Equity Large Cap (S&P500), Domestic Equity Small Cap (Russell 2000), International Developed Equity (MSCI EAFE), Emerging Market Equity (MSCI EM), Energy Equity (MSCI ACWI Energy) Broad Fixed Income (Barclays Aggregate), U.S. Government Debt (Barclays U.S. Treasury), U.S. Inflation-linked (Barclays U.S. Treasury Inflation Notes), U.S. Corporate Debt (Barclays U.S. Corporate), U.S. Securitized Debt (Barclays U.S. Securitized), Emerging Debt U.S. Dollar (JP Morgan Emerging Market Bond Index Global), Emerging Debt local currency (JP Morgan Global Bond Index Emerging Markets), High Yield Debt (Barclays U.S. High Yield), Municipal High Yield (Barclays U.S. Municipal High Yield), Municipal Debt (Barclays U.S. Municipal), Commodities (S&P/Goldman Sachs Commodity Index), Public Real Estate (MSCI U.S. REIT), Global Hedge Funds (HFRI Fund Weighted Composite), Directional Hedge Funds (HFRI Fund of Funds Strategic), Absolute Return Hedge Funds (HFRI Fund of Funds Conservative), Venture Capital (Cambridge Associates Venture Capital Index), Private Equity (Cambridge Associates Private Equity Index), Private Real Estate (Cambridge Associates Private Real Estate).



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# 2017 ANNUAL REVIEW AND 2018 OUTLOOK

## WINDROSE ADVISORS ASSET ALLOCATION VIEWS

December 2017

Current view Previous view

### Global Asset Allocation

	-				+
Global Equities					
Directional Hedge Funds					
Private Equity					
Opportunistic Credit					
Recession Protection					
Inflation Protection					
Absolute Return					
Cash					

Recovering world growth, prefer foreign equity to domestic exposure on valuations. Increasing dispersion of returns. Prefer flexible, opportunistic capital, and lower net exposure. Focus on select opportunities.  
Worsening fundamentals, high valuations. Favor select high quality special situations. Low yields, rising rates. Favor high quality and lower duration for the time being. Oil market rebounding, commodities underpriced relative to financial assets. Select strategies are well positioned to benefit from changing market conditions. Benefits from rising rates and increasing option value in a market correction.

### Equities

	-				+
US					
Europe					
Japan					
Emerging Markets					

High valuations, monetary tightening, upside risk to growth but policy uncertainty. Strong recovery led by Germany, ongoing monetary stimulus, geopolitical risks fading. Lower valuations, monetary stimulus, structural reforms, stable government. Global recovery but China likely to experience cyclical slowdown.

### Government Bonds

	-				+
US Treasuries					
US Inflation-Linked					
Developed Market Bonds					
Emerging Markets Debt					

Rising rates from low levels but demand from pensions and attractive against other DM debt. Long term stagflation hedge. Relative value opportunity vs. nominals has declined. Low real yields, exposed to reflationary policies in Europe/Japan. Relatively attractive spreads and currencies.

### Credit

	-				+
IG Corporates					
IG Securitized					
High Yield Corporates					
High Yield Loans					
IG Municipals					
High Yield Municipals					

Tight spreads, rising shareholder friendly activity. Favor high quality, liquid assets. Strong collateral values. Favor short duration. Late cycle, high valuations, deteriorating credit quality. Interest rate protection from floating rates but poor fundamentals. Attractive yield relative to taxable alternatives but less attractive valuations. Relative value opportunity vs. IG Munis closing since last December.

### Commodities

	-				+
Energy					
Industrial Metals					
Precious Metals					
Agriculture					

OPEC deal, reduced capex, declining inventories, steady long term demand. Relative value opportunities in supply-constrained sectors such as copper vs. iron ore. Long term hedge against uncertainty/stagflation. Prefer energy short term. Relative value opportunities in grains vs. livestock

### Hedge Fund Strategies

	-				+
Long-Biased L/S Equity					
Event-Driven					
Distressed					
Risk Arbitrage					
Low Net L/S Equity					
Global Macro					
CTA/Trend Following					

Stand to benefit from rising dispersion of returns, favor sector specialists. Prefer long/short equity near term. Prefer private capital poised for next distressed cycle. Good spreads but mergers at higher risk of failure. Higher short exposure a valuable hedge against possible equity downturn. Able to capitalize on rate uncertainty, currency volatility. Best alternative to long term bonds for market insurance

### Private Strategies

	-				+
Venture					
Buy-Out					
Distressed					
Natural Resources					
Real Estate					

IPO market cooling down, high valuations. Prefer mid-market deals. Opportunistic capital less dependent on market conditions. Recovering industry with improving pricing environment. High cap rates. Focus on value add strategies and co-investment deals