## Highlights

- It's getting harder, emotionally, to stay invested. But stay invested we must.
- Geopolitical risks continue to build. Will cooler heads prevail?
- The global economy is chugging along, but in a lower gear than we would like to see.
- Earnings are rising, but stock prices are rising even faster.

**Geopolitical Landscape**

The geopolitical landscape since the election of Donald Trump has proven to be, shall we say, fluid. In the past month, the US administration's pro-Russia, anti-China, and anti-Fed positions have all changed: The US antagonized Russia with an airstrike on Syria; the US president does not see China as a currency manipulator; and he now says he "likes a low interest rate policy." The Trump team appears determined to confront North Korea, with or without help from China.

As so many signature election pledges fade from view, investors are undaunted in their belief that better days lie just ahead. As the global economic expansion continues, equity valuations rise, and central banks reverse their extraordinary stimulus, investors will need to look beyond a simple "risk-on" or "risk-off" investment strategy. Instead, they should look for ways to stay invested in certain risk assets, while hedging downside risk by reducing or eliminating assets that are particularly vulnerable to rising geopolitical tensions.

**Global Economy**

Geopolitical risks have increased significantly, leading to increased market volatility. Economic fundamentals remain on solid footing, however, supporting our moderate asset allocation. We prefer global and US equities over government bonds as improving corporate earnings continue to support higher stock prices. With a healthy US economy, the Fed is expected to continue on a gradual pace of rate hikes. We think the Fed is likely to hike rates twice before the end of 2017. Risks around the French election may cause temporary market weakness, but a French EU exit remains very unlikely.

Global growth and inflation should pick up speed in 2017. Monetary policy is extremely accommodative globally and is gradually gaining traction. In the US, we expect moderate growth over the rest of the year despite some weakness in the first quarter. A tighter labor market should promote wage growth, supporting consumer spending and the housing market. Overseas, economic conditions are improving in most countries. Chinese growth surprised to the upside in the first quarter.

## Details

**U.S. Markets**

After drifting sideways for the last two months, the US market has come back to life and is now less than 1% off its peak. With stock market valuations significantly above their three-decade average, equities could disappoint expectations. The third Fed rate hike and slowing bank credit growth have made markets nervous about a potential turn in the credit cycle. And activity measures have not enjoyed the same bounce as economic sentiment indices: Consumer confidence hit a 16-year high in March, but the 0.4% quarter-on-quarter increase in US industrial production was weaker than expected.

**European Markets**

Investors are right to be concerned, since a Le Pen victory would raise the possibility of a French exit from the euro. But they would be well advised to recall the cost of the knee-jerk reactions to the Brexit and Trump shocks. Markets first reeled in emotional shock, but then digested the more complex reality of the situation. Even in the event of a Le Pen victory, the path to a "Frexit" is far from a done deal. Abandoning the euro would likely require a constitutional amendment and a popular vote. Currently, only 22% of the population would back a return to the French franc, according to polls from Kantar Sofres.

**Equities**

Corporate earnings are rising in most regions, supported by strengthening consumer demand, rising company CAPEX and higher commodity prices. Global equity valuations, as measured by price-to-earnings ratio, are slightly above their long-term averages, leaving some scope for further price appreciation driven by rising company earnings. The overweight in US equities reflects our belief that the US economy is leading the way in the current recovery. The overweight in global equities should benefit generally from the expected outperformance of "risky assets".

In the U.S. we estimate earnings rose about 10% in 1Q17, the fastest growth in six years. The improving profit trend is underpinned by solid US consumer spending, a rebound in US manufacturing activity as energy investment spending and emerging market demand bottom out, and a more favorable environment for financials. Leading indicators of profit growth such as bank lending standards remain supportive.

**Fixed income**

Yields rose after the US election but then remained in a range. Rates recently broke below the range on account of elevated risk-off sentiment, the closing of speculative positions, and pension fund hedging. We expect long-term USD yields to move slightly higher and the yield curve to flatten as the Fed gradually raises rates. We are closing our tactical overweight position in 10-year US Treasury bonds, taking profits, as the return outlook has been reduced with the recent fall in 10-year yields.

The 10-year Treasury yield recently reached the yearly low of 2.17%. Although the downward trend in interest rates began post-March FOMC, the four-month yield range of 2.3-2.65% had not been broken until recently. The political uncertainty has pushed volatility higher and interest rates lower. We believe this move is overdone and we look for interest rates to resume their rising trend.

We remain overweight High Yield bonds due to their attractive income and lower default outlook. Spreads moved sideways over the past month as higher oil prices and slower primary issuance offset some weakness in risk assets. The trailing 12-month default rate fell to 4.2% in March, and we expect it to trend down to 2.5% in 12 months. HYs enjoys a yield cushion as spreads can absorb an additional 50 basis points (bps) of widening over six months before underperforming Treasuries. We also favor senior loans that offer a floating coupon rate.

**Commodities**

Broadly diversified commodity indices have recovered from the March sell-off, benefiting from rising energy and precious metal prices, while agriculture commodities have remained under pressure. High compliance to the oil

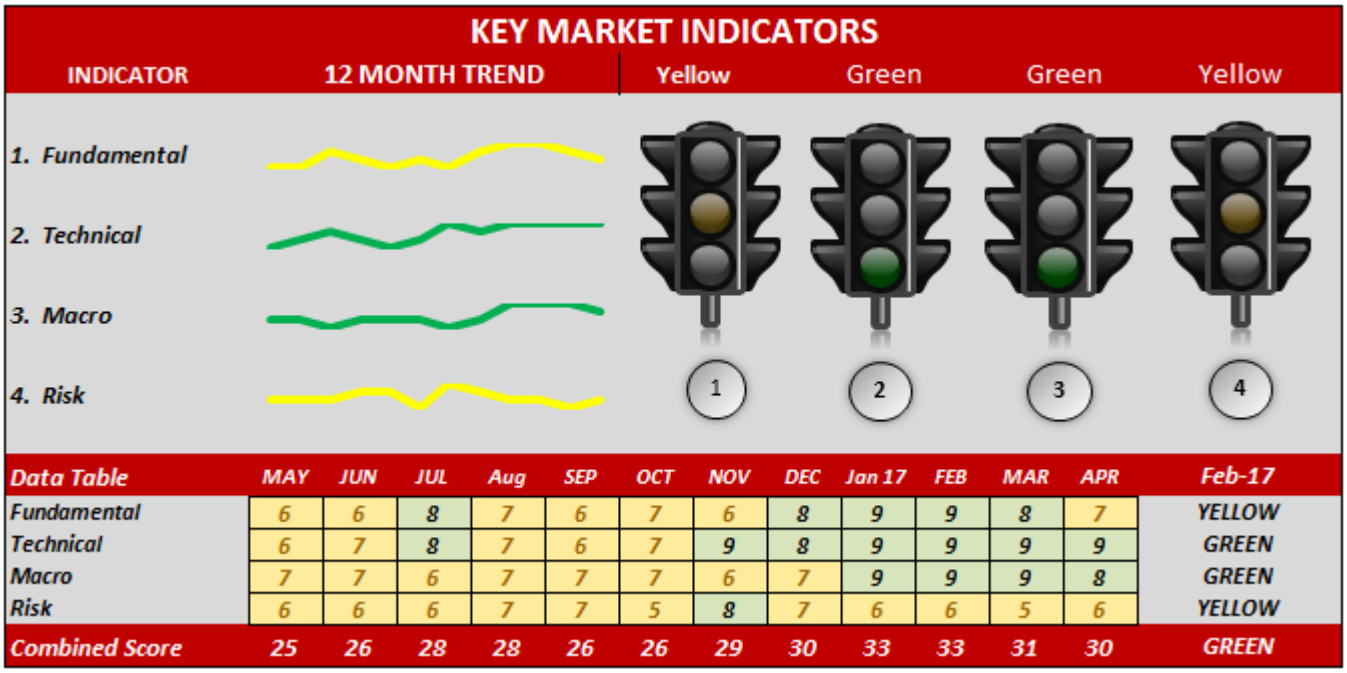
production deal and talk of a possible extension into the second part of the year have supported energy prices, and negative real interest rates have given a boost to precious metal prices.

The OPEC production cut deal raised hopes of a swift drawdown in global oil inventories. This process has taken longer than anticipated, but recent data suggests it is underway in earnest. Global energy agency data reveals high compliance to the production cut deal, and we expect the production pledge to be extended at OPEC's 25 May meeting.

Global weather trends so far look relatively benign, but there are regional weather risks as US planting of summer crops gets underway. This year's large South American soybean and corn crops, record US soybean plantings for next year, and a building recovery of Asian production in crops like palm oil should keep agricultural markets under pressure over six months.

We expect geopolitical and policy uncertainty to remain in the coming months and for short-term US real interest rates to stay negative, both of which are bullish factors for gold. Our call for a weaker USD this year is likely to be price-supportive for gold in 2017. Unexpected US Federal Reserve interest rate hikes are a risk for gold in the short term. Outside this risk, we see the backdrop as favorable for prices, which may strengthen to USD 1,300/oz over six months.

## The Overall Health of the Market




| Data Table | MAY | JUN | JUL | Aug | SEP | OCT | NOV | DEC | Jan 17 | FEB | MAR | APR | Feb-17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fundamental | 6 | 6 | 8 | 7 | 6 | 7 | 6 | 8 | 9 | 9 | 8 | 7 | YELLOW |
| Technical | 6 | 7 | 8 | 7 | 6 | 7 | 9 | 8 | 9 | 9 | 9 | 9 | GREEN |
| Macro | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 9 | 9 | 9 | 8 | GREEN |
| Risk | 6 | 6 | 6 | 7 | 7 | 5 | 8 | 7 | 6 | 6 | 5 | 6 | YELLOW |
| Combined Score | 25 | 26 | 28 | 28 | 26 | 26 | 29 | 30 | 33 | 33 | 31 | 30 | GREEN |

Our key indicators of the overall health of the market remain in a bullish state. As long as the Macro and Technical components remain green, corrections are likely to be short and shallow. The Fundamental indicator switched from green to yellow this month. Our view is that the risk of mistakes on the part of policy makers in France and the U.S. are high enough to warrant extra caution. Elevated valuations mean that there will be considerable downside risk once the Macro picture starts to degrade. But until that happens, stay invested and maintain an extra 5% of cash as a cushion.

# Stock market outlook

**Chart 1. S&P 500 with Zone of Death Parameters**


Chart 1 shows the track of the year-over-year percent change in the S&P for the last 12 months. The green line represents the price level that is 10% above where the market was trading one year ago. The red line represents a 10% decline from year-ago prices. The **Zone of Death** is the area between these two lines.

The current reading is a healthy 14.4% gain over the last 12 months. We watch this line for early clues about deteriorating market momentum.

**Chart 2. Market Momentum**

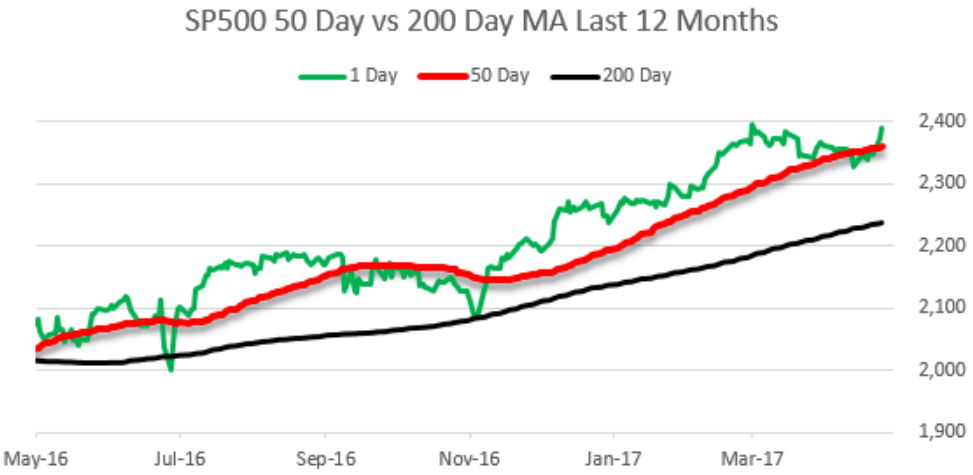


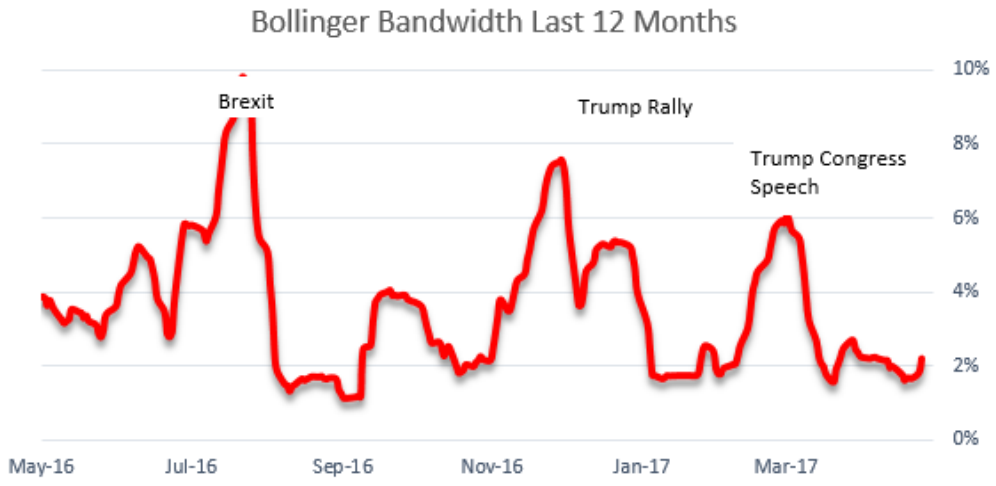

Chart 2 shows market momentum as represented by the relationship between the short term (green line), medium term (red line), and long term (black line) moving averages. The black line is the 200 day moving average. The red line is the

50 day moving average. The green line is the current price. The current state of this indicator is very healthy, which further supports our case that the bull market is still in place.

The next two charts show how calm the market has been over the past year. The Bollinger Bands represent the magnitude of daily price swings in the market, averaged over the last 20 days. It has been trending lower all year. This means that the tug-of-war between buyers and sellers has reached a near stalemate.

The Treasury-Junk Bond spread represents the strength of resolve among risky bond buyers, which implies that they're optimistic about the near-term economic future. As this number trends lower, bond buyers and other yield-seekers are becoming increasingly bold.

**Chart 3. Volatility**




Bollinger bandwidth is a measure of the daily variability of prices. Over the long term, the bandwidth is about 5%. Today it's less than half that, which indicates a calm and confident market. But notice the uptick over the last few days. It could be nothing but noise, but it's worth keeping an eye on.

The last three spikes in volatility are shown on the bandwidth chart. Brexit, the start of the Trump rally, and Trump's address to Congress all triggered mini-spikes in market volatility. Keep in mind that the Bollinger reading doesn't discriminate between up or down moves in the market. It just indicates that there's a disturbance in the force that merits further investigation.

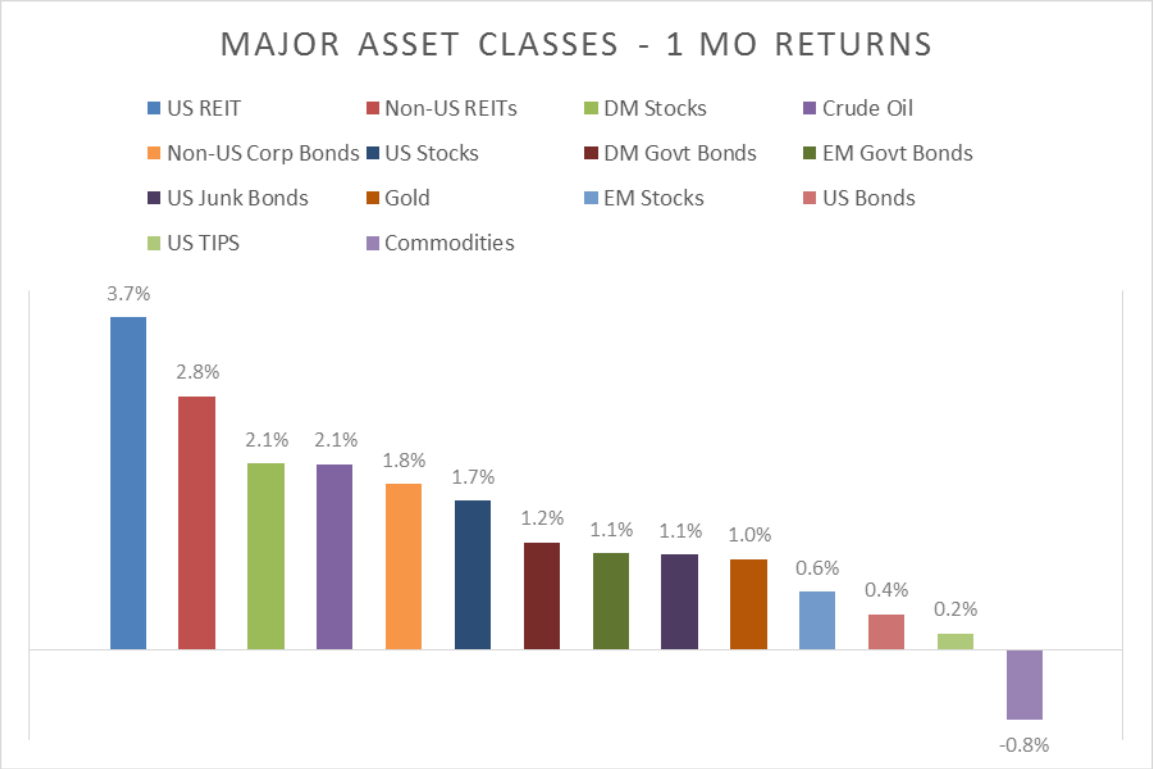
**Chart 4. Interest rate spread between Junk and Treasury Bonds**

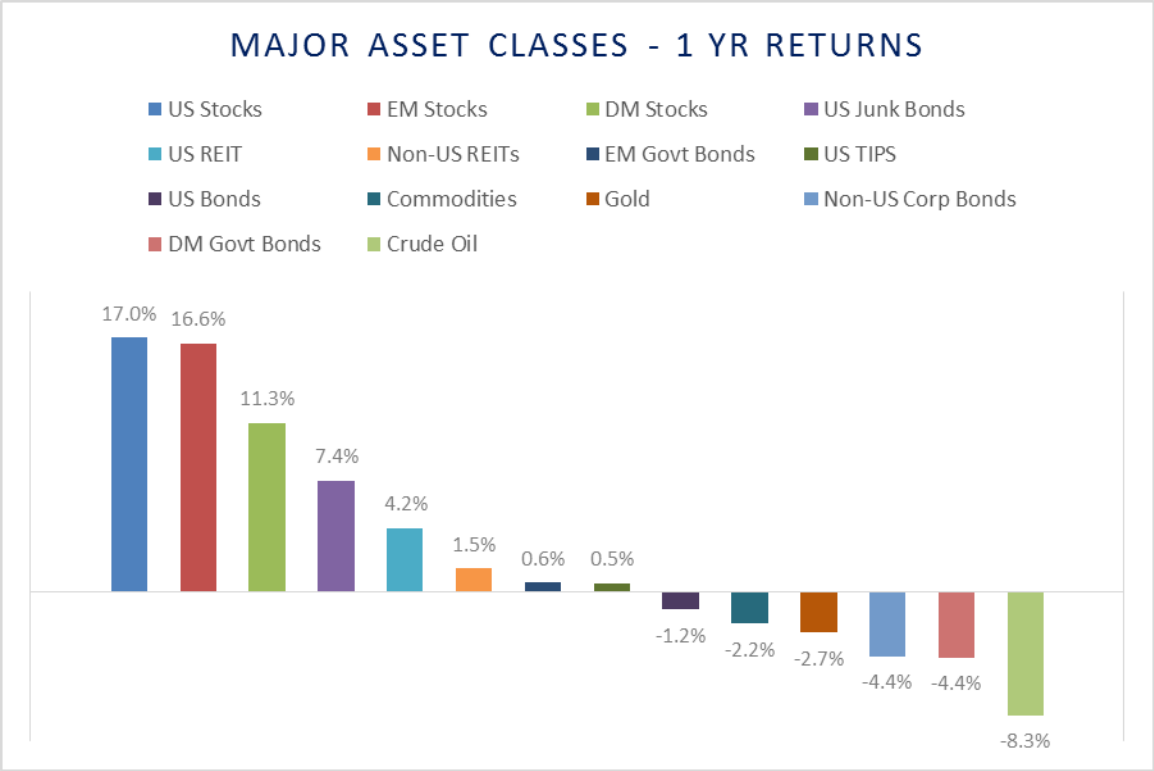

After a full year of narrowing, the Junk-Treasury spread is now trading sideways. This may just be a temporary pause, but it could also be a sign that bond investors are becoming concerned about rising rate

## Asset Class Leaders & Laggards

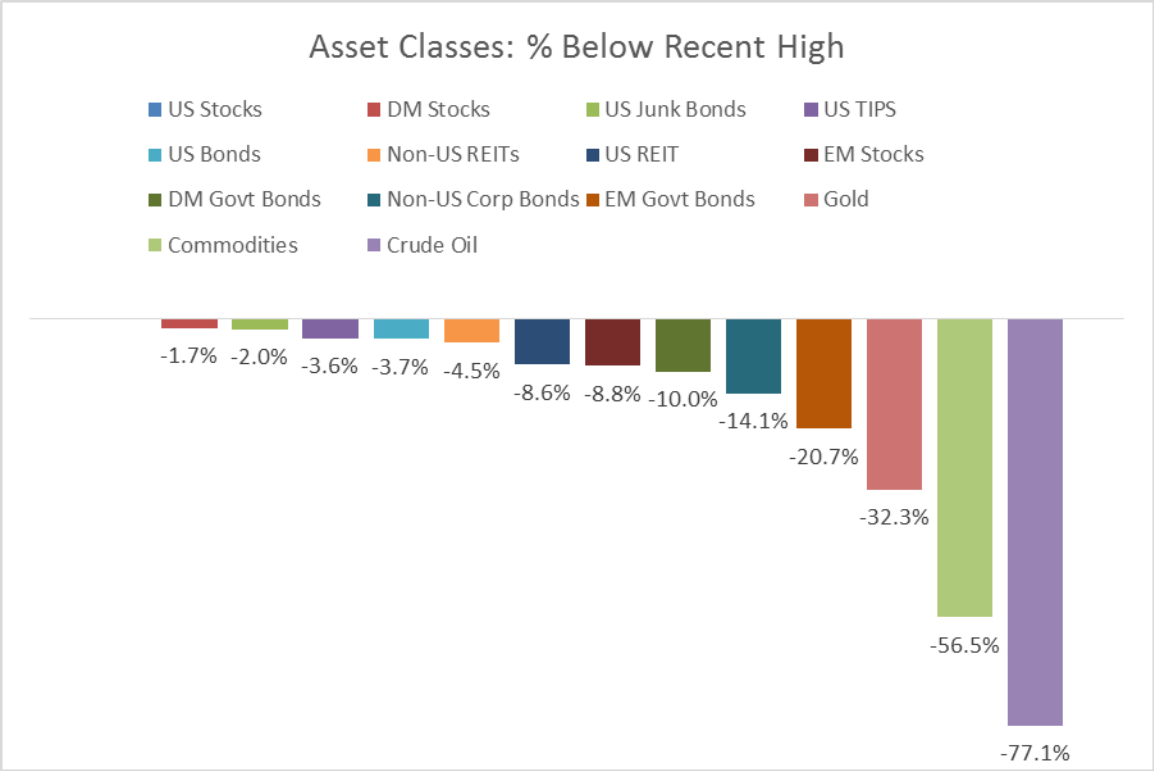
For the last couple of years, U.S. stocks have been leading the global equity markets higher. On a year-over-year basis, the U.S. is still leading the way higher.

On a one-month basis, this leadership by the U.S. is being challenged by some up-and-coming asset classes. (How dare they?)






Another way to compare asset classes is to look at how far each one is trading, relative to its all-time high. U.S. stocks are very close to their highs, while crude oil is 77% below its high water mark.



# Picks & Pans

**ZI 10 Best ETFs: The 10 most undervalued asset class ETFs**

| Symbol | Losers | --------- Returns ---------- 1 Year | 3 Year | 5 Year |
|---|---|---|---|---|
| NGE | Global X MSCI Nigeria ETF | -33.10% | -69.98% | N/A |
| EGPT | VanEck Vectors Egypt Index ETF | -31.18% | -58.38% | -36.31% |
| AXJV | iShares Edge MSCI Min Vol Asia ex Japan ETF | -24.40% | N/A | N/A |
| KWT | VanEck Vectors Solar Energy ETF | -24.37% | -54.68% | -15.85% |
| TAN | Guggenheim Solar ETF | -23.55% | -56.62% | -4.62% |
| PXJ | PowerShares Dynamic Oil & Gas Services ETF | -10.91% | -59.11% | -42.36% |
| TUR | iShares MSCI Turkey ETF | -10.24% | -18.12% | -14.01% |
| CNXT | VanEck Vectors ChinaAMC SME-ChiNext ETF | -10.09% | N/A | N/A |
| PPH | VanEck Vectors Pharmaceutical ETF | -7.27% | -2.10% | 60.22% |
| MOM | U.S. Market Neutral Momentum Fund | -7.19% | -8.73% | -7.80% |

**4/25/2017**

**ZI 10 Worst ETFs: The 10 most overvalued asset class ETFs**

| Symbol | Winners | --------- Returns ---------- 1 Year | 3 Year | 5 Year |
|---|---|---|---|---|
| RSXJ | VanEck Vectors Russia Small-Cap ETF | 71.03% | 41.50% | -11.28% |
| PSI | PowerShares Dynamic Semi Portfolio ETF | 70.68% | 109.07% | 197.57% |
| KOL | VanEck Vectors Coal ETF | 63.85% | -20.43% | -50.28% |
| EWZS | iShares MSCI Brazil Small-Cap ETF | 62.59% | -22.40% | -39.64% |
| BRF | VanEck Vectors Brazil Small-Cap ETF | 59.01% | -24.17% | -45.21% |
| SOXX | iShares PHLX Semiconductor ETF | 54.81% | 78.66% | 173.57% |
| SMH | VanEck Vectors Semiconductor ETF | 50.02% | 82.37% | 161.71% |
| QTEC | First Trust NASDAQ-100-Tech Sector Fund | 47.80% | 72.50% | 144.75% |
| SCIF | VanEck Vectors India Small-Cap Index ETF | 47.10% | 63.69% | 34.27% |
| SMIN | iShares MSCI India Small-Cap ETF | 46.42% | 94.03% | 95.92% |

**4/25/2017**

**ZI 10 Best Performing Industries**

| Industry Group | 3 Month Change |
|---|---|
| Computer Hardware | 16.99% |
| Tires | 14.47% |
| Toys | 12.97% |
| Home Improvement Retailers | 12.49% |
| Water | 12.14% |
| Mortgage Finance | 11.11% |
| Real Estate Services | 10.87% |
| Specialty Finance | 10.67% |
| Medical Equipment | 10.28% |
| Travel & Tourism | 10.20% |

**ZI 10 Worst Performing Industries**

| Industry Group | 3 Month Change |
|---|---|
| Nonferrous Metals | -20.61% |
| Coal | -18.58% |
| Electronic Office Equipment | -17.12% |
| Renewable Energy Equipment | -16.29% |
| Industrial Suppliers | -15.38% |
| Oil Equipment & Services | -14.40% |
| Exploration & Production | -8.79% |
| Heavy Construction | -8.22% |
| Retail REITs | -7.33% |
| Full Line Insurance | -7.03% |

**ZI 10 Best Stocks: The 10 most undervalued stocks**

| Company | Ticker | Current Price | Avg Daily Volume | % Price Ch Last 4 Weeks | % Price Ch Last 3 Months | Price/ Sales | P/E using Curr FY Est | Funda-mental Score |
|---|---|---|---|---|---|---|---|---|
| Broadwind Enrgy | BWEN | $9.31 | 441,253 | 28.5 | 124.88 | 0.78 | 18.89 | B |
| Dax Technology | DXC | $76.13 | 4,126,478 | 10.22 | 22.4 | 1.43 | 16.54 | A |
| Dst Systems | DST | $122.69 | 2,485,647 | 2.05 | 6.55 | 2.00 | 12.16 | A |
| Grifols Sa-Adr | GRFS | $20.61 | 1,668,166 | 13.87 | 21.24 | 3.14 | 17.37 | A |
| Imprimis Pharma | IMMY | $4.15 | 176,021 | 7.79 | 85.27 | 3.88 | 16.07 | B |
| Innerworkings | INWK | $10.31 | 247,439 | 9.91 | 7.28 | 0.50 | 19.73 | A |
| Louisiana Pac | LPX | $26.51 | 5,226,587 | 10.18 | 38.58 | 1.71 | 11.41 | A |
| Papa Murphys Hl | FRSH | $5.29 | 246,650 | 27.16 | 17.04 | 0.71 | 13.13 | A |
| Tech Data Corp | TECD | $97.31 | 5,900,755 | 6.99 | 13.73 | 0.14 | 14.48 | A |

The stocks in the table above have two things going for them. They are all undervalued (cheap), and they get high marks for fundamental strength. Don't rush out and buy them based on this list alone. Consider this a watch list that bears further study.

**ZI 10 Best Shorts: The 10 most overvalued stocks**

| Company | Ticker | Current Price | Avg Daily Volume | Debt/ Equity | P/E using 12 mo Est | Estimate Revisions This Yr | Estimate Revisions Next Yr | Funda-mental Score |
|---|---|---|---|---|---|---|---|---|
| Agnico Eagle | AEM | $43.46 | 1,579,431 | 0.24 | 79.6 | -59.43 | -48.70 | C |
| Athenahealth In | ATHN | $119.63 | 315,127 | 0.43 | 92.12 | -0.75 | -5.48 | C |
| Bio-Rad Labs -A | BIO | $213.14 | 153,772 | 0.17 | 67.02 | -14.88 | -11.88 | C |
| Clean Harbors | CLH | $59.12 | 285,258 | 1.51 | 72.3 | -20.15 | -14.15 | F |
| Echostar Corp | SATS | $58.14 | 177,519 | 0.9 | 70.86 | -41.10 | -39.44 | D |
| Interxion Hldg | INXN | $40.57 | 436,988 | 1.32 | 57.31 | -10.10 | -6.59 | D |
| Kcg Holdings | KCG | $19.74 | 2,023,914 | 1.44 | 54.11 | -60.87 | -21.77 | D |
| Keyw Holding Cp | KEYW | $9.47 | 385,606 | 0.57 | 55.43 | -42.86 | -9.68 | F |
| Martin Midstrm | MMLP | $19.70 | 116,013 | 2.59 | 57.79 | -56.02 | -59.76 | D |
| Neogenomics Inc | NEO | $8.51 | 253,605 | 0.6 | 56.46 | -21.74 | -18.75 | D |

The stocks in the above table are the bottom of the barrel, in terms of high valuations, and low marks for fundamental and technical soundness. Consider them as short candidates, but do your own due diligence before acting on them. Some of them are hard to borrow, so you may not be able to short them at all.

## Our Forecast for the U.S. Economy

**Moderate expansion -** Probability: 70%
Corporate earnings are on the rise. This improving trend should continue with S&P 500 earnings growth turning even more positive in the 1st quarter. The big drag on profits from the strong US dollar and poor energy sector results have largely run their course.

**Strong expansion -** Probability: 10%
Higher interest rates and rising commodity prices, driven by improving global growth prospects, could produce stronger-than-anticipated S&P 500 EPS growth as energy and financials – roughly 25% of S&P 500 profits – could see a meaningful profit improvement.

**Growth recession -** Probability: 10%
A downturn in US and global growth could lead to weaker-than-projected revenues for S&P 500 companies. Wage pressures, unaccompanied by improving consumer and business demand, could pressure profit margins and earnings growth rates.

**Outright recession -** Probability: 10%
Our indicators, both leading and coincident, point to continued growth in the U.S. We view the election of Donald Trump as a source of uncertainty for the global economy and markets. Other risks would be a major terrorist attack, a policy mistake by the Fed, or the onset of a trade war between the U.S. and China or Mexico.

## Key Recession Indicators

The risk of the US economy sliding into recession in the next 6 months is very low - just 10% as of the end of February. We base this estimate on a combination of factors (see the table below) that have proven accurate in calling turns in the business cycle. Our model is not perfect, but it will tell us when the conditions are in place for a turn in the cycle.

The latest readings (for February 2017) show a slight improvement over last month's numbers. The two leading indicators, Market Stress and Market Trend, are forecasting continued economic growth and positive market momentum for the next 3 to 6 months. The coincident indicators are confirming this outlook.

The takeaway from all of this is that the economy is strong enough to support the stock market. In the absence of a recession, corrections in the stock market are limited. It's not unusual to see a 10% to 15% decline in the market without a recession taking place. We think the probability of a correction of this magnitude is about 40%. That's high enough for us to raise a little cash, so that we will be in a better position to buy stocks at cheaper prices over the next few months.

### Recession Watch

| Indicator | May-16 | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan-17 | Feb | Mar | Apr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R-Score | 384 | 376 | 371 | 366 | 343 | 336 | 353 | 355 | 278 | 256 | 279 | 265e |
| Employment | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 | 1.8 | 1.9 | 1.7 | 1.8 | 1.8 | 1.7 | 1.7e |
| Ind Production | -1.2 | -0.6 | -0.6 | -1.1 | -1.1 | -0.7 | -0.3 | 0.8 | 0.0 | 0.3 | 1.5 | 1.1e |
| Market Trend | -0.7 | 1.0 | 3.1 | 9.6 | 12.7 | 2.3 | 4.6 | 9.5 | 17.5 | 19.1 | 14.4 | 13.7e |
| Market Stress | 14.1 | 9.3 | 10.9 | 14.0 | 14.9 | 4.3 | 13.7 | 15.5 | 19.5 | 26.4 | 24.7 | 22.5e |
| Junk Spread | 6.1 | 6.2 | 5.7 | 5.1 | 5.0 | 4.9 | 4.7 | 4.2 | 4.0 | 4.1 | 3.9 | 3.98e |

**Red numbers indicate warning, based on these parameters:**

| | | |
|---|---|---|
| R-Score | < 200 | This indicator combines the treasury yield curve, inflation, and unemployment. |
| Employment | < 1% | Year-on-year changes in private non-farm employment. |
| Ind Production | < 1% | Year-on-year changes in industrial production. |
| Market Trend | < -5% | Year-on-year changes in the S&P 500 index. |
| Market Stress | < 0 | △△Combination of stock market price change and the unemployment rate change. |
| Junk Spread | > 7.5% | Difference between Junk bond yield and Treasury bond yield |

## Our Forecast of Asset Prices

### 12 Month Forecast of Asset Prices

| Asset Class | Benchmark | Current Value | 12 Month Forecast |
|---|---|---|---|
| **Stocks** | | | |
| U.S. | S&P 500 | 2348 | 2250 |
| Non-U.S. Developed | VEA | 39.17 | 40.00 |
| Emerging Markets | EEM | 39.29 | 40.00 |
| **Bonds** | | | |
| U.S. Govt | 10yr T-Bond | 2.2% | 2.9% |
| U.S. Corporate | Current Yield | 3.5% | 4.2% |
| U.S. High Yield | Current Yield | 6.3% | 6.8% |
| Munis | Current Yield | 2.1% | 2.5% |
| **Other** | | | |
| Gold | Spot | 1280 | 1300 |
| Oil | WTI | 52.93 | 53 |

As of 4/21/17 *Source: Bloomberg; Atlanta Fed; UBS*

For now, we expect a continuation of the rally that could take the S&P 500 to 2500, or maybe even a little higher. But at some point, the effect of gravity (valuations) and rising rates will start to weigh on the stock market. Valuations are stretched, and the market can't sustain itself without a sizeable boost in corporate earnings. The 8% increase that analysts are predicting will only bring valuations closer to long term averages.

In addition, the risks of a serious policy mistake by the new administration will probably cause a spike in volatility at some point. The question then becomes, how resilient will the economy be to these events? That's why I'm calling for a flat year. And it would not surprise me to see an intra-year drawdown on the order of 15% or so, before recovering to end the year flat.

As long as the internal indicators of market health and economic expansion remain positive, I will continue to advocate a fully invested asset allocation. As I said earlier, raising a little extra cash would be fine, but take it slow.

Subscribers to this letter will get advanced warning from me before I go public with a major change to a defensive posture.

## Asset allocation

Improving global growth, rising earnings, and stock price momentum justify a moderately risk-on stance for now. But we also want to try and limit the downside in the event of increased volatility or negative economic surprises over the next 6 to 12 months.

Accordingly, we are reducing our risk exposure by taking 5% out of equities and adding it to our cash reserve. We think the market will present us with an opportunity to return to a full equity allocation sometime later this year.

The uptick in global economic data has been broad-based across developed and emerging markets alike. The Citi Economic Surprise Index for major economies is near a six-year high, and purchasing managers' indexes point to expansion in most major economies. Over 70% of the developed markets that CIO covers exhibit stronger earnings-per-share momentum than six months ago. And while equity valuations are no longer cheap, the MSCI All Country World Index is trading close to its 20-year average, a level that hasn't historically prevented further appreciation.

We are overweight US high yield credit. US high yield offers an attractive yield to maturity of 6.4%, and credit quality is being boosted by accelerating economic growth. The asset class has struggled in the face of a weaker oil price (energy firms are almost 15% of the market) and heavy new issuance. But we expect the oil rally to resume as production cuts from OPEC start to reduce the global oversupply.

We are underweight government bonds overall, as low yields suggest that income and capital gains for developed market government debt are limited.

# Our Current Asset Allocation

**Taxable accounts**

| Investor Risk Profile -----> | Conservative | Moderate | Aggressive |
|---|---|---|---|
| **Summary** | | | |
| **Stocks** | **33.5** | **38.0** | **53.0** |
| **Bonds** | **37.5** | **35.0** | **25.0** |
| **Commodities** | **4.0** | **5.0** | **5.0** |
| **Cash** | **12.0** | **10.0** | **8.0** |
| **Non-traditional assets** | **13.0** | **12.0** | **9.0** |
| | **100.0** | **100.0** | **100.0** |
| **Details** | | | |
| US Large Cap Stocks | 9.0 | 12.0 | 17.0 |
| US Mid Cap Stocks | 5.0 | 7.0 | 8.0 |
| US Small Cap Stocks | 3.5 | 3.0 | 4.0 |
| **US Stocks Total** | **17.5** | **22.0** | **29.0** |
| Intl Developed Mkt Stocks | 9.0 | 9.0 | 14.0 |
| Intl Emerging Mkt Stocks | 7.0 | 7.0 | 10.0 |
| **Non-US Stocks Total** | **16.0** | **16.0** | **24.0** |
| US Treasury Bonds | 5.0 | 3.0 | 2.0 |
| US Muni Bonds | 20.0 | 17.0 | 9.0 |
| US Corporate Bonds | 3.0 | 4.0 | 2.0 |
| US High Yield Bonds | 3.5 | 4.0 | 5.0 |
| **US Bonds Total** | **31.5** | **28.0** | **18.0** |
| Intl Developed Mkt Bonds | 3.0 | 3.0 | 2.0 |
| Intl Emerging Mkt Bonds | 3.0 | 4.0 | 5.0 |
| **Non-US Bonds Total** | **6.0** | **7.0** | **7.0** |
| **Cash Total** | **12.0** | **10.0** | **8.0** |
| Energy | 1.0 | 1.0 | 1.0 |
| Precious Metals | 1.0 | 1.0 | 1.0 |
| Crops & Livestock | 2.0 | 3.0 | 3.0 |
| **Commodities Total** | **4.0** | **5.0** | **5.0** |
| Hedge Funds | 8.0 | 6.0 | 4.0 |
| Managed Futures | 5.0 | 6.0 | 5.0 |
| **Non-traditional assets Total** | 13.0 | 12.0 | 9.0 |
| | 100.0 | 100.0 | 100.0 |

As of 4/21/17

(The above allocation is for taxable accounts with an investment horizon of 20 or more years.)

**Tax-deferred accounts**

| Investor Risk Profile -----> | Conservative | Moderate | Aggressive |
|---|---|---|---|
| **Summary** | | | |
| **Stocks** | **23.0** | **37.0** | **48.0** |
| **Bonds** | **48.0** | **36.0** | **30.0** |
| **Commodities** | **6.0** | **5.0** | **5.0** |
| **Cash** | **14.0** | **12.0** | **10.0** |
| **Non-traditional assets** | **9.0** | **10.0** | **6.0** |
| | **100.0** | **100.0** | **99.0** |
| **Details** | | | |
| US Large Cap Stocks | 9.0 | 12.0 | 17.0 |
| US Mid Cap Stocks | 3.0 | 6.0 | 7.0 |
| US Small Cap Stocks | 2.0 | 3.0 | 6.0 |
| **US Stocks Total** | **14.0** | **21.0** | **30.0** |
| Intl Developed Mkt Stocks | 5.0 | 8.0 | 9.0 |
| Intl Emerging Mkt Stocks | 4.0 | 8.0 | 9.0 |
| **Non-US Stocks Total** | **9.0** | **16.0** | **18.0** |
| US Treasury Bonds | 25.0 | 19.5 | 13.0 |
| US Muni Bonds | 3.0 | 0.0 | 0.0 |
| US Corporate Bonds | 7.0 | 4.0 | 2.0 |
| US High Yield Bonds | 6.0 | 6.0 | 8.0 |
| **US Bonds Total** | **41.0** | **29.5** | **23.0** |
| Intl Developed Mkt Bonds | 4.0 | 2.5 | 2.0 |
| Intl Emerging Mkt Bonds | 3.0 | 4.0 | 5.0 |
| **Non-US Bonds Total** | **7.0** | **6.5** | **7.0** |
| **Cash Total** | **14.0** | **12.0** | **11.0** |
| Energy | 2.0 | 2.0 | 2.0 |
| Precious Metals | 2.0 | 1.0 | 1.0 |
| Crops & Livestock | 2.0 | 2.0 | 2.0 |
| **Commodities Total** | **6.0** | **5.0** | **5.0** |
| Hedge Funds | 6.0 | 6.0 | 3.0 |
| Managed Futures | 3.0 | 4.0 | 3.0 |
| **Non-traditional assets Total** | 9.0 | 10.0 | 6.0 |
| | 100.0 | 100.0 | 100.0 |

As of 4/21/17

(The above allocation is for tax-deferred accounts with an investment horizon of 20 or more years.)