



2017 Stock Market Outlook

Thank you for purchasing the 2017 Market Outlook. It was another fantastic year in the markets with 2016 looking to close at or near new all-time highs, but also a year that showed the importance of stock selection and closely following relative strength for shifts in sector ownership. It is important to get ahead of these sector rotations and be active with your investment allocations. I hope this 2017 outlook can serve as a resourceful guide all year to target best of breed names in these industries when trends are favorable. I do not expect you to follow every piece of advice in this report as every investor has his/her own style of investing, different risk parameters and timeframes, as well as each individual's personal outlooks that may differ with my views. The goal here is to open your eyes to names I favor in 2017 for various reasons, a guide to some key trends and themes in investing, and likely introduce you to some exciting stocks that were not on your watch-list as I have always thrived in discovering under-followed stocks that become superstar performers.

Once again in 2016 I was able to significantly outperform benchmark market returns, and did so with a much lower Beta (risk). My audited results will be available at the Relativity Capital website that I will discuss later. My multi-pronged investment approach utilizing options flow for idea generation and then doing unique fundamental research while using technical analysis for timing entry/exits has been the key. M&A was a major contributor to my returns once again this past year, and most of the cases were due to spotting unusual options activity as the initial signal.

We enter 2017 with much of the year's gains coming from the post-Election rally, and most of this is based on hope for a return to strong GDP growth and for deregulation, infrastructure spending, and tax reform to be positives for both the top and bottom lines of companies. With many names having rallied so far on anticipation of stronger results, there is the risk of disappointment. The other main change from prior years is we are now in a Fed tightening cycle and the US Dollar has risen to its highest level in twelve years. These two dynamics are important for both sector and stock selection.

The best piece of simple advice is to buy stocks in quality companies growing both the top and bottom line in attractive industries with positive tailwinds for growth. Quality meaning companies that have consistently exceeded earnings expectations in previous quarters, strong management, positive margins and efficiency ratios (ROE, ROA, ROIC), and healthy balance sheets. Attractive industry meaning an industry showing growth that has meaningful available market remaining, being involved in the secular shifts seen in economies. The 2017 themes section of this report will be helpful for finding those industries.

The exact opposite of the above applies for finding stocks to short. Technical analysis should be used for entry/exit for risk management, and not for stock selection, though discovering a stock showing a strong momentum trend can often lead you to a great fundamental story, so it is important to utilize all available info when making an investment/trade.

I do not expect you to enter all of these names on day one of 2017 and sit and wait, instead, be active and strategic in entries/exits whether taking a fundamental or technical approach, or even better, a combination. One fairly simple rule I like to use is to avoid longs in names where the 8 week EMA has crossed below the 20 week EMA, and vice versa for shorts, it will keep you on the right side of the trade more often than not. Each name mentioned in this report should also be researched further as these are brief views as I am a firm believer that less is more, and you should be able to lay out an investment thesis concisely, but more in depth due diligence always adds value and confidence to the view.

At OptionsHawk we perform fundamental, technical, ownership trends, and options activity analysis while also discovering the likely catalyst for a move, and when all of these individual analyses give the same signal, it is a worthy trade/investment. If you are interested in receiving daily research and live market coverage from OptionsHawk, please visit the website at OptionsHawk.com.

For those interested in having accounts managed I recently started a new venture at Relativity Capital where I will be providing my services for stock selection, portfolio management, and risk management. For further details please visit RelativityCap.com and I also put the Hawk Alpha discovery Fund tear sheet on the very last page of this document.

Thank you again and I hope you enjoy this year's report, it is the most extensive to date. Best of luck to everyone in 2017!

S&P 500 (SPX) Technical View and Analysis

It is always important to look at multiple timeframes when performing technical analysis, so I would start with the short-term view. The S&P has rallied powerfully after a key 2,190 breakout in November that saw a quick retest that held and started a strong move to recent resistance at 2,275 where there has been consolidation. After riding the 8 day EMA higher with momentum and not closing below the 13 EMA, the 12/28 close showed a loss of some of that momentum and saw downside follow through on 12/29 where the rising 20 day EMA was touched. This is an important level that can set-up for a last push higher to around a 2,300 target, while moving under 2,240 leads to a move back to the 2,200/2,210 zone. The April 2016 high and June 2016 low started a channel up pattern which marked the August highs and October lows as well, and the resistance of that channel is now near 2,300 while support is way down at 2,135, while the mid-line is right near the 50 day EMA at 2,210. The 200 day MA remains important, since breaking above in March the Brexit and pre-Election sell-offs both stopped right near that level and is currently in a rising trend at 2,135.50.

On a longer term weekly view we see a market that may be entering a new phase of the bull market, clearing the sideways 1,880/2,130 range. Utilizing an Andrew's Pitchfork from the 2011 low and using the 2015 high and 2016 low as key points the recent high in the market stalled right at the main line, and a move above leaves upside potential to 2,390 initial resistance followed by ultimate 2,600 resistance, though it's a rising channel and levels adjust with time. Looking at price patterns, the 2015-2016 weekly chart forms a nice cup with raised handle, the cup range 2,130/1,810 and the cup broke out at 2,160, and this can give you a measured move target for late 2018 at 2,450 or so. The market firmly remains in a long term uptrend, and this would only be violated on a weekly close below 2,000 next year. On the extreme long term chart the market is in its 4th year since breaking out of a multi-year bull flag, a pattern that measures to an eventual upside of 3,000 while the 700/1,600 range itself still has a 2,500 price objective.

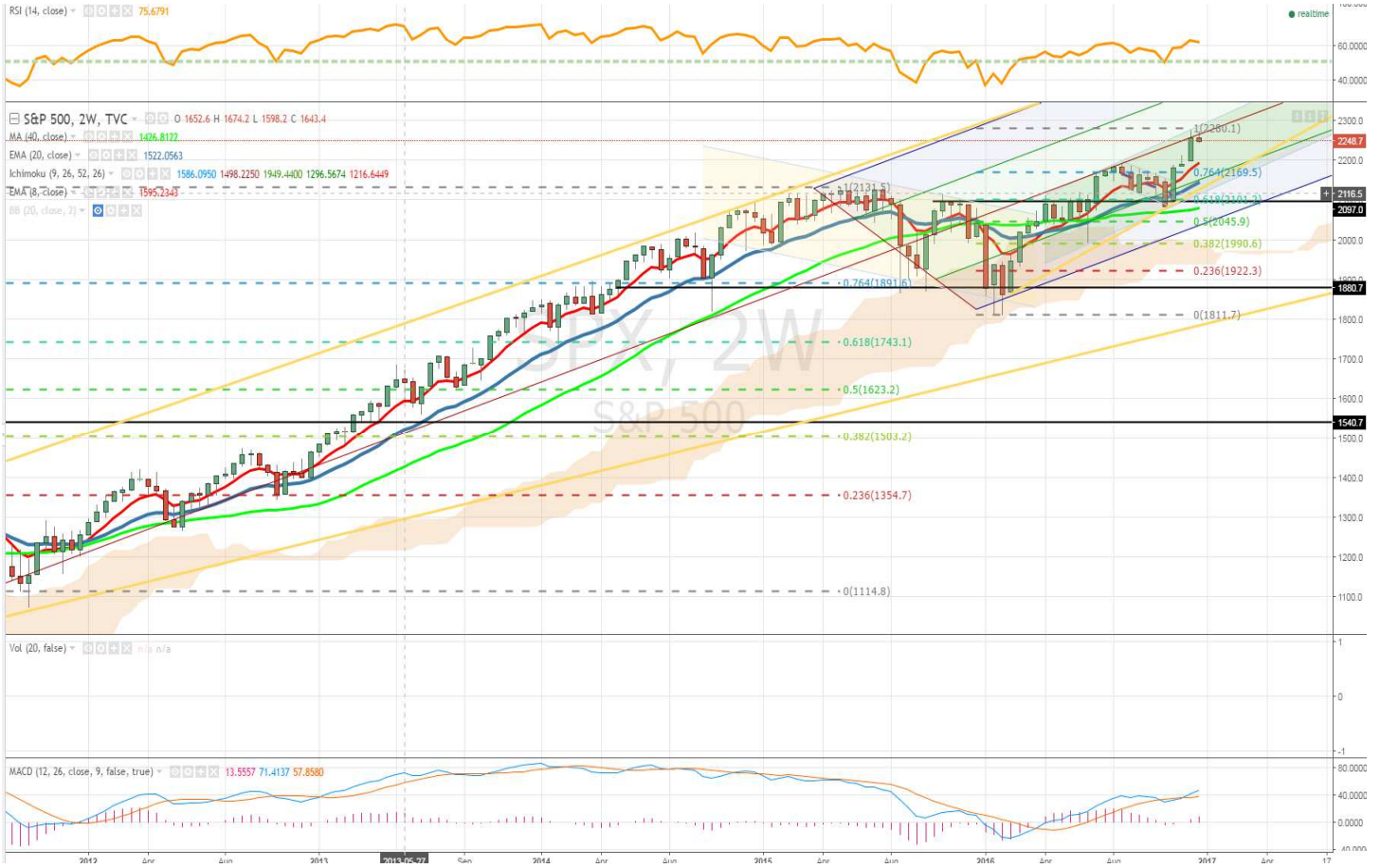
I've put together a table below that details a bunch of key levels with a variety of technical analysis techniques. I prefer to keep technical analysis fairly simple with price patterns, trend lines, and moving average crossover signals. Another useful technique I have found is using trend lines on the RSI chart, looking for inflection point trend breaks, and is especially effective on the weekly timeframe for basing stocks emerging into new trends.

Key Levels Table

Level	Description	Level	Description
2,940.00	Measured Move of 1974-2013 Bull Flag Breakout	2,134.60	Weekly Kijun
2,760.00	161.8% Fibonacci Extension 2011/2015 Range	2,134.25	200 Day MA
2,570.00	161.8% Extension of 2016 Range	2,130.50	50 Week EMA
2,520.00	138.2% Fibonacci Extension 2011/2015 Range	2,125.00	2016 Channel Up Support
2,500.00	Andrew Pitchfork Upper Band	2,100.00	38.2% Retracement of 2016 Range
2,480.00	123.6% Extension of 2009-2015	2,091.25	20 Month EMA
2,475.00	161.8% Extension of 1974-2000	2,091.00	Weekly Lower Bollinger Band
2,459.00	138.2% Extension of 2016 Range	2,084.00	November 2016 Low
2,385.00	Andrew Pitchfork Resistance	2,075.00	Monthly Tenkan
2,350.00	1,850/2,100 Range Break Measured Move	2,050.00	7 Year Trend Support
2,340.00	138.2% Fibonacci Extension of 2016 Low to Breakout	2,043.00	50% Retracement of 2016 Range
2,310.00	1850/2130 Measured Move Box Breakout	2,035.00	Andrew Pitchfork Lower Band Support
2,290.00	Weekly Upper Bollinger Band	2,025.00	Weekly Cloud Support
2,285.00	123.6% Extension of 2016 Low to Breakout	2,012.00	Monthly Kijun
2,275.00	2016 High, Resistance	1,992.00	Brexit Low
2,270.00	Andrew Pitchfork Mid-Line Resistance	1,953.00	200 Week MA
2,266.00	Monthly Upper Bollinger Band	1,916.55	Monthly Lower Bollinger Band
2,262.30	Tenkan Daily	1,913.30	50 Month EMA
2,230.00	Kijun Daily	1,910.00	4 Year Trend Support (For Jan. 2016, Rising)
2,220.00	2016 Channel Up Mid-Line	1,872.00	Sep. 2015 Low
2,200.00	Measured Move of 800/1500, 15 Year Range Break	1,820.00	Oct. 2014 Low
2,190.80	50 Day SMA	1,810.00	2016 Low
2,185.30	20 Week EMA	1,788.30	23.6% Retracement of 2009-2015
2,180.65	Weekly Tenkan	1,780.00	Monthly Cloud Support
2,161.30	8 Month EMA	1,730.00	38.2% Retracement of 2011-2015
2,140.00	Volume by Price Support	1,574.00	38.2% Retracement of 2009-2015
2,135.00	Summer 2015 Highs, Resistance	1,500.00	Retest of the 2013 Range Breakout
2,135.00	Daily IchiMoku Cloud Support		

Charts

S&P 5 Year Weekly



S&P History with Yearly Candles



S&P 2017 Roadmap Scenario

It is extremely difficult to predict where the market will trade a year in advance but I have been doing this exercise for many years and been quite accurate, while unforeseen global events are obvious disruptors. I expect the market to pull back towards 2,200 early in 2017 into the Inauguration before rallying into mid-March where I think we could see some weakness into the Netherlands Elections and Fed Press Conference in mid-March possible taking us to test channel support and a key low for the year. I think after the end of Q1 earnings season markets find footing and put in a sharp rally to 2,600 by the end of Q2 on hopes of strengthening earnings in the second half of the year and as fiscal policy and tax reform are unveiled. This could be a bit of a euphoric moment and see an exhaustion top, giving back much of the rally through November before bottoming back near that 2,200 level and rallying into year-end with optimism for 2018 earnings.

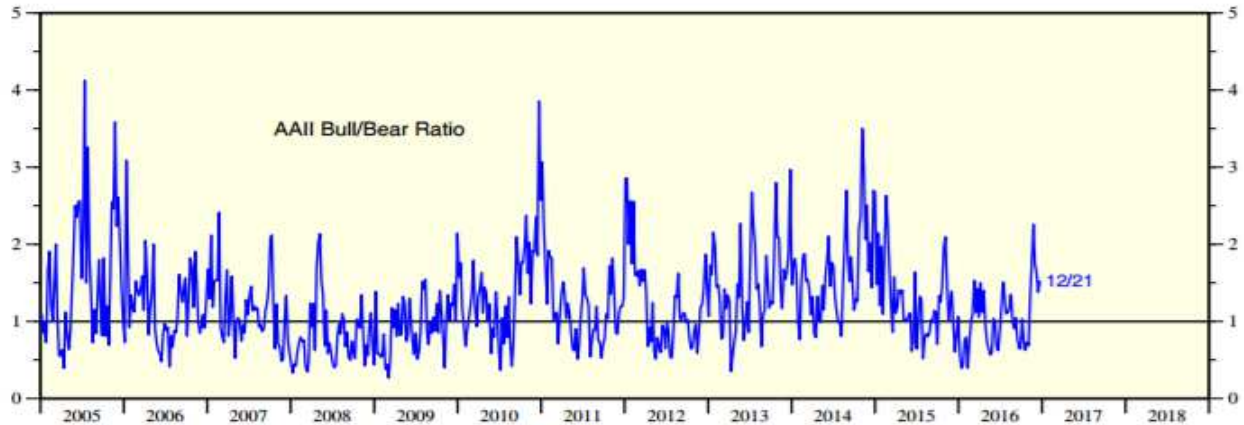


Market Sentiment/Breadth, Macro Picture and Fundamental Analysis

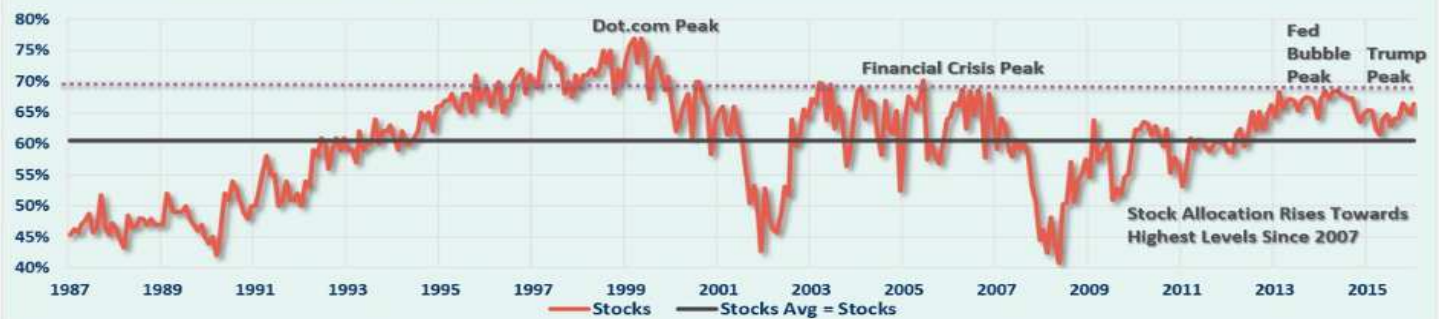
Sentiment Surveys

AII Sentiment Survey

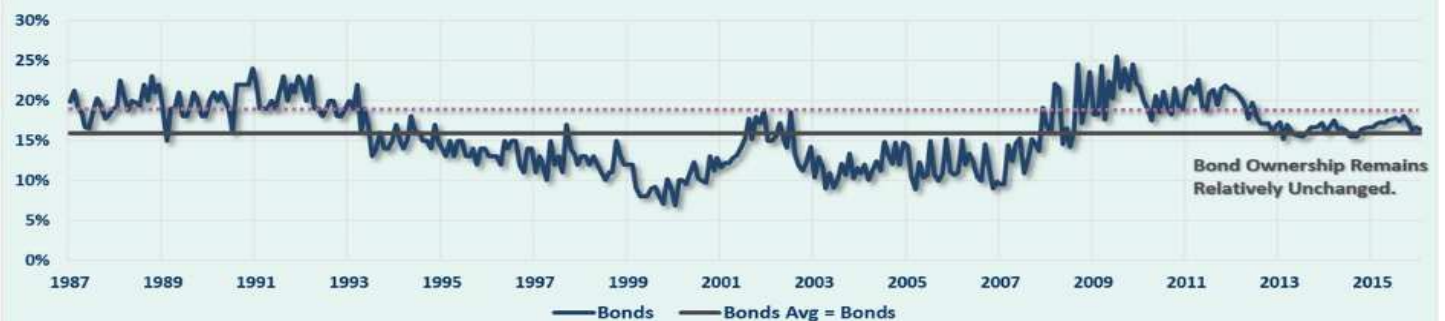
The AII Sentiment Survey for the week ending 12/28/16 showed Bullish sentiment at 45.6% compared to a 38.5% historical average, Neutral at 28.7%, and Bearish at 25.7% compared to a 30.5% historical average. Bullish sentiment has been above 40% for six straight weeks while Neutral sentiment is near a two year low.



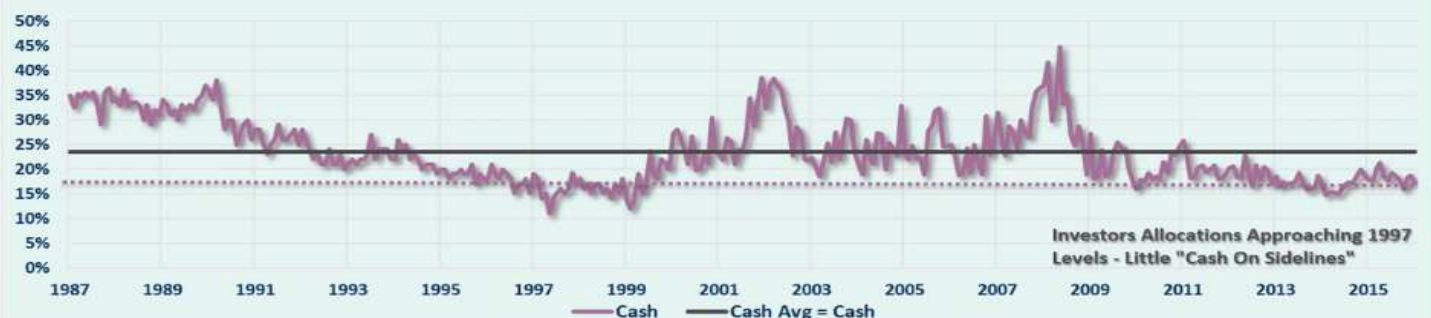
AII - Investor Allocation To Stocks



AII - Investor Allocation To Bonds

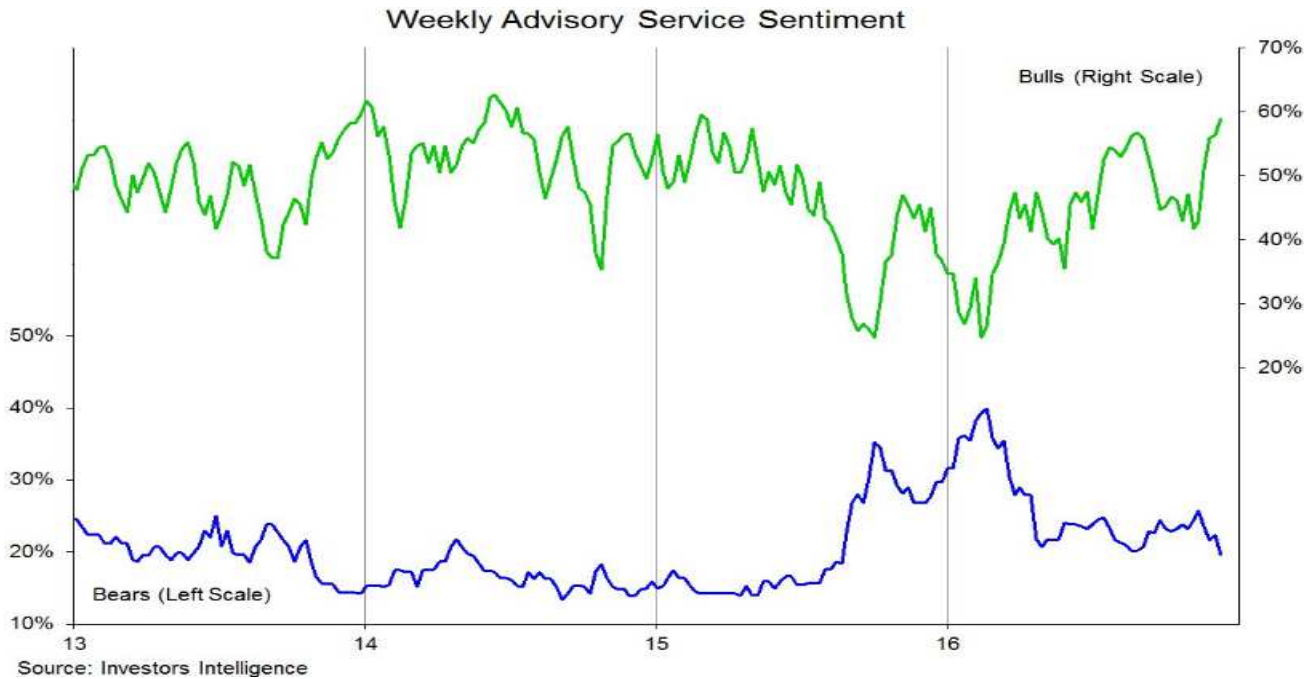


AII - Investor Allocation To Cash



The Investors Intelligence Survey

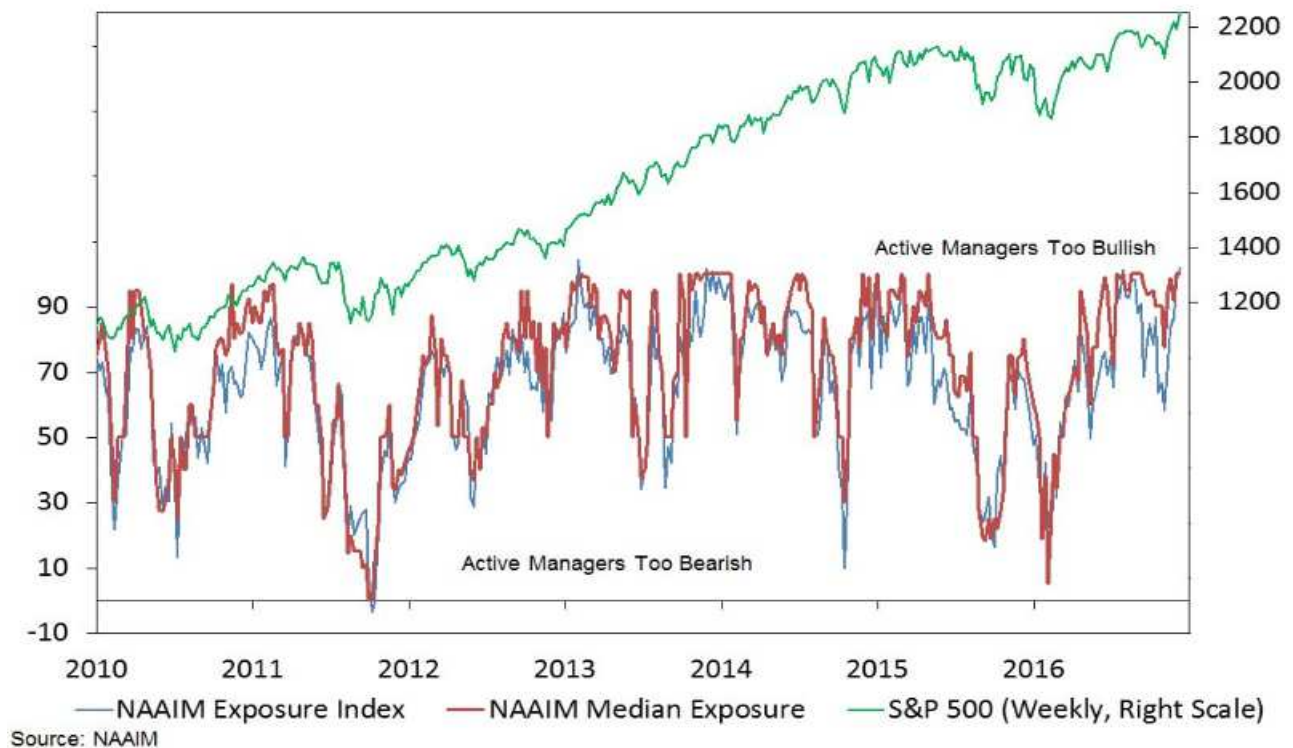
The latest Investor's Intelligence Bull/Bear survey showed 58.8% bulls and 19.6% bears, the highest ratio since July 22nd, 2015 and the ratio has been above 3 each weekly reading since 12/6 which tends to indicate extreme optimism though historically has been a fairly weak trading signal as markets have often been in the midst of trend moves and continued higher.



NAAIM Exposure Index

The NAAIM Exposure Index has consistently been one of the better measures for contrarian indicators, and have often seen moves above 80 as a time to be cautious, and below 50 a buying opportunity. NAAIM came in at 101.33 for 12/21 and has been above 86 for 6 straight weeks. This is yet another indication of current sentiment being rather frothy.

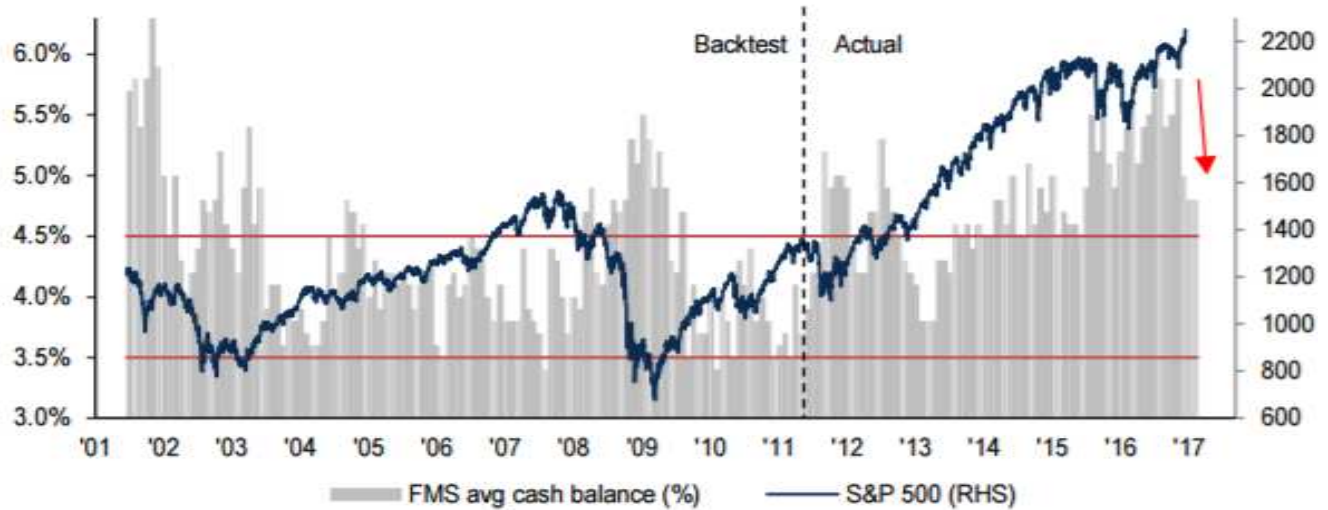
Stock Market and Investor Sentiment



BAML's Global Fund Manager Survey

The December BAML Global Fund Manager Survey showed cash levels drop once again and now under the 5% level, while historically levels above 4.5% are contrarian buy signals, as shown below. Some cash has moved off the sidelines, but overall levels remain elevated.

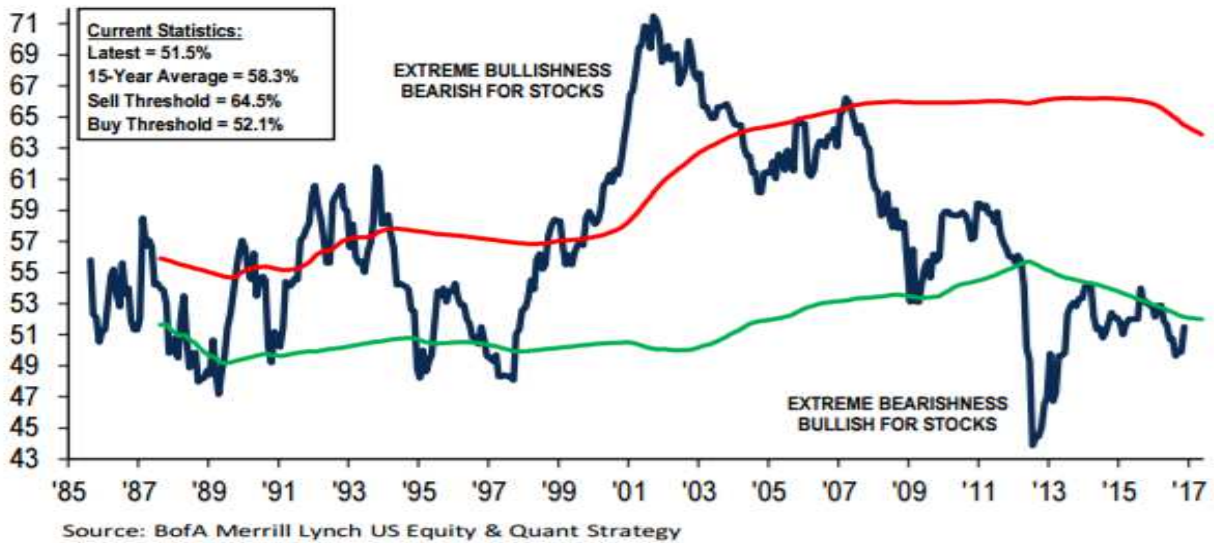
FMS Cash Indicator still flashing buy signal



Sell-Side Survey Indicator

Wall Street strategists remain bearish on stocks with allocations, historically a very bullish contrarian signal.

Sell Side Indicator in buy territory



US Consumer Confidence

December consumer confidence reached the highest level since 2001 while expectations for higher stock prices saw its largest monthly increase since November 2008.

Americans' sentiment jumps on great expectations

■ Consumer Confidence ■ Consumer Expectations



Source: Conference Board

Bloomberg

Overtly Optimistic

Expectations about higher stock prices post biggest gain in 18 years

■ Conference Board's Expecting Higher Stock Prices (R1) ■ S&P 500 (L1)

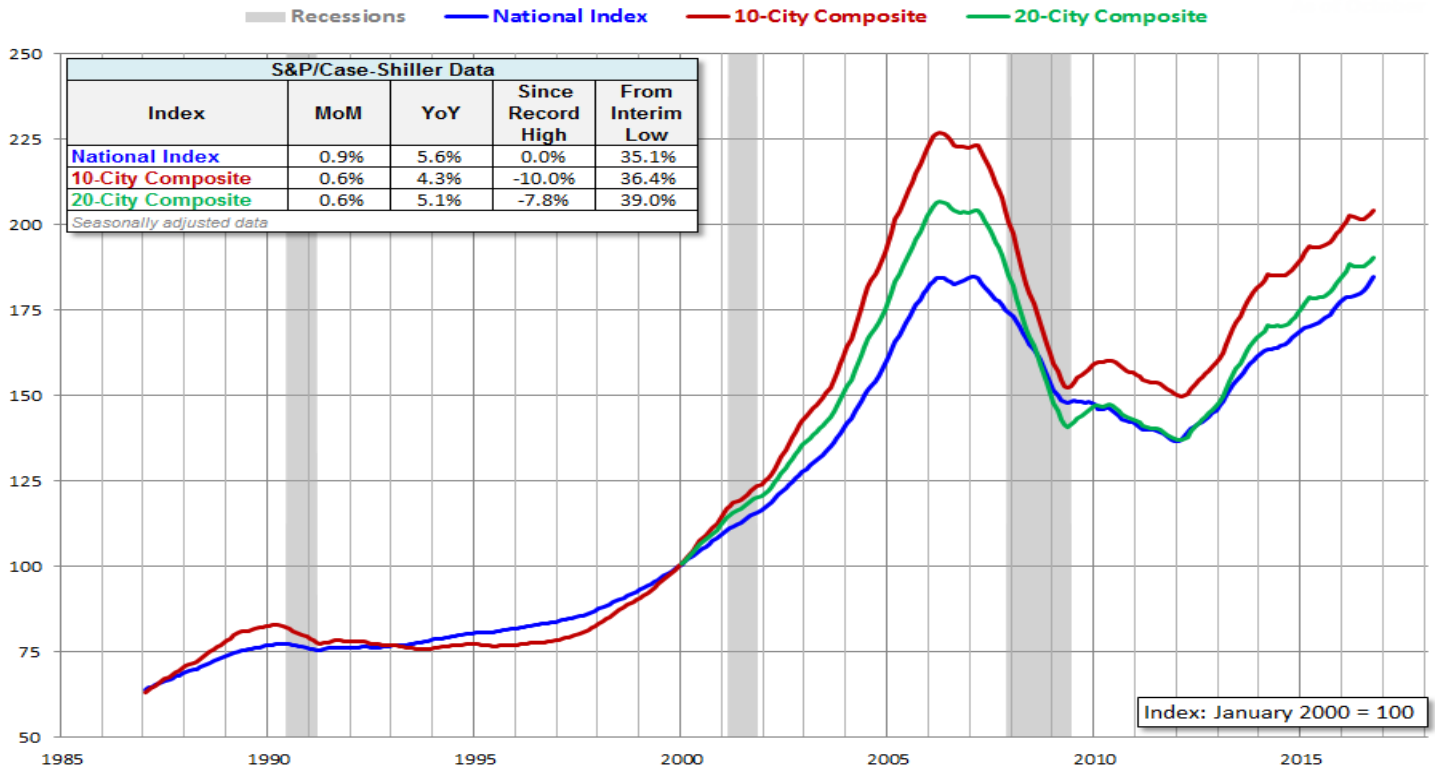


Source: Conference Board

Bloomberg

US House Prices (Leads to Consumer Confidence)

S&P/Case-Shiller Home Price Indexes



US Household Net Worth

* US Household Net Worth reached a record \$90.2 Trillion in Q3 as stock wealth climbed by \$494B and housing by \$554B.

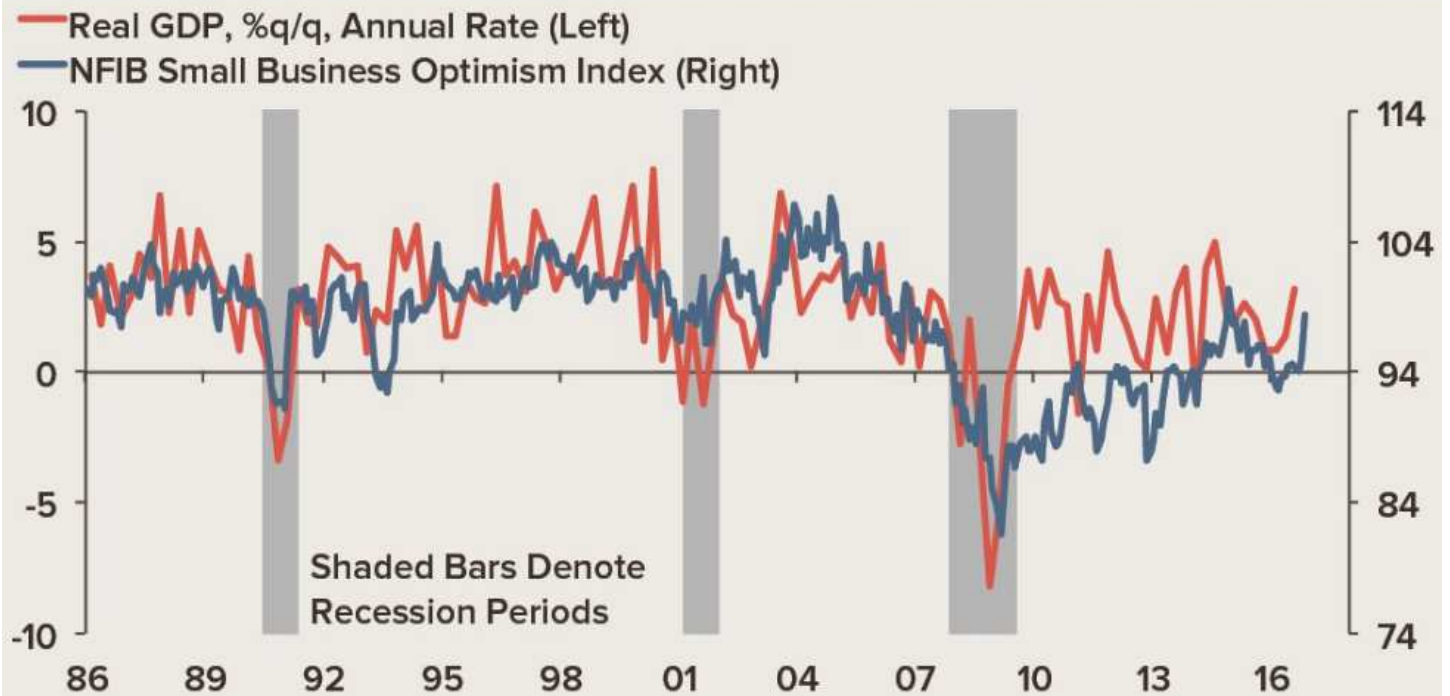
Household Net Worth-to-Nominal GDP



Source: RBC Capital Markets US Economics /Haver

Small Business Optimism

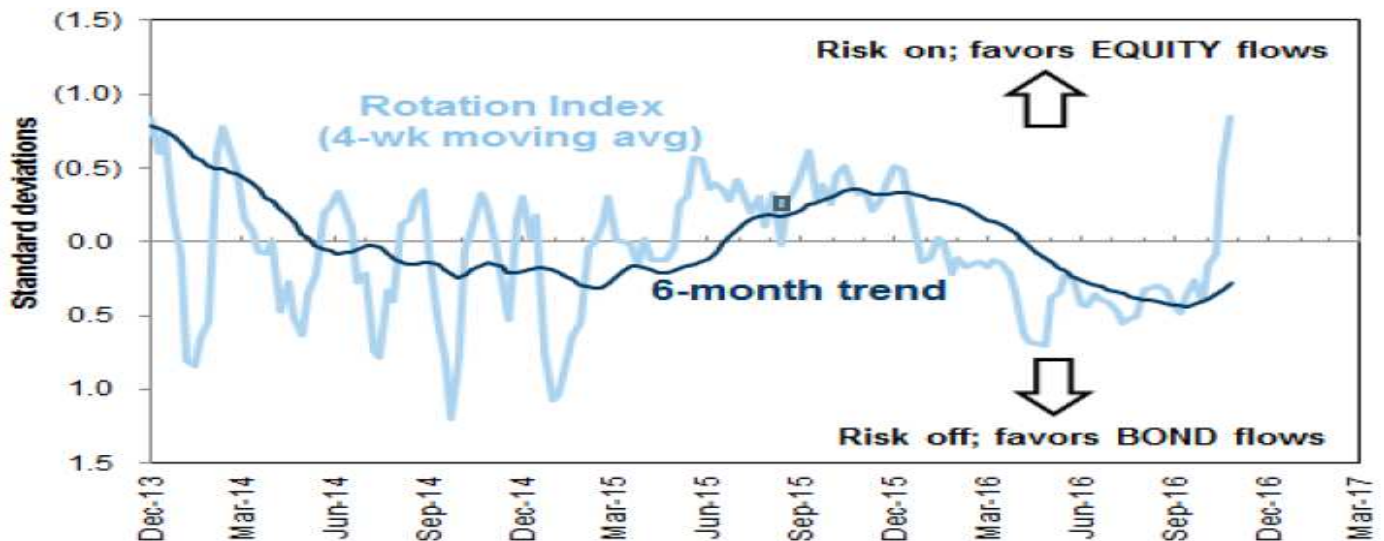
NFIB Index, Which Has Been Overstating Weakness, Surged In Nov



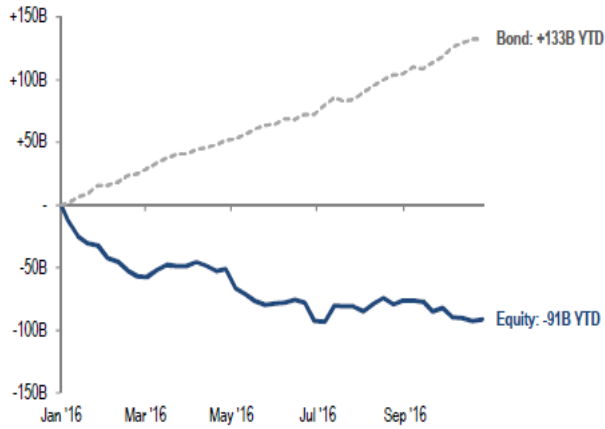
Fund Flows, Short Interest and Insider Trading

Goldman Sachs Rotation Index

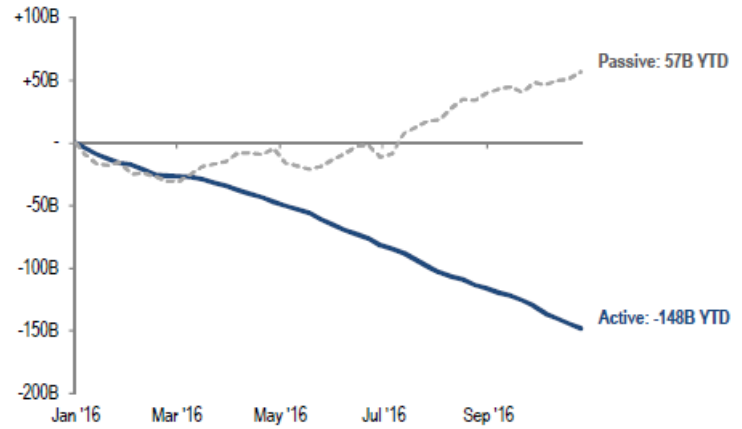
Fund Flows: The majority of this year the theme has been equity outflows and bond inflows until after the Election we saw that trend reverse. The other major theme has been the move into passive from active investing. In terms of style, value looks to be breaking out against growth. Emerging Markets have seen outflows since the Election.



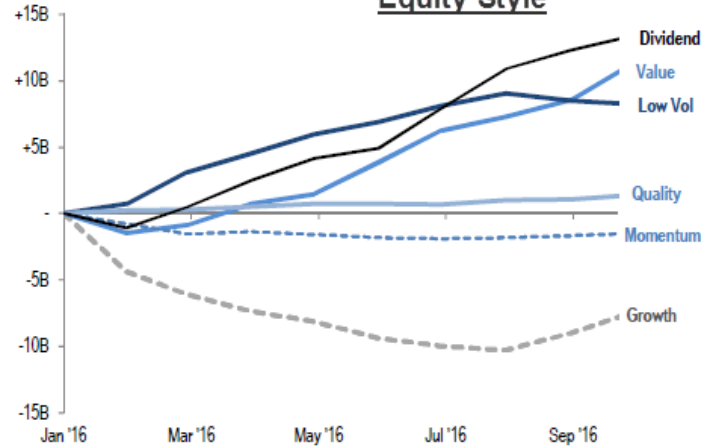
Cumulative flows YTD, USD billion



Cumulative flows YTD, USD billion



Cumulative flows YTD, USD billion

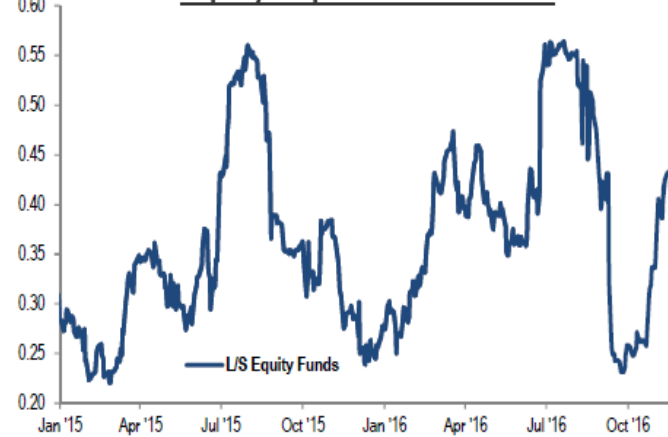


Equity assets as percentage of total financial assets



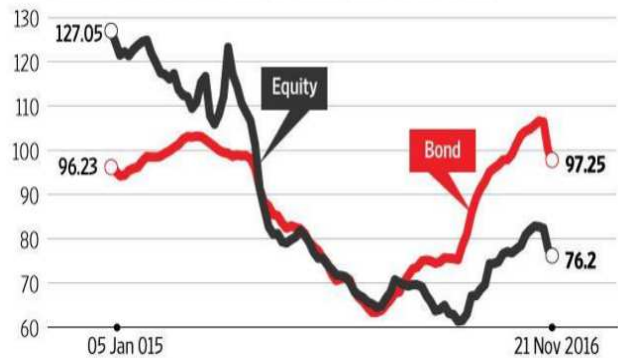
Beta

Equity Exposure L/S Funds

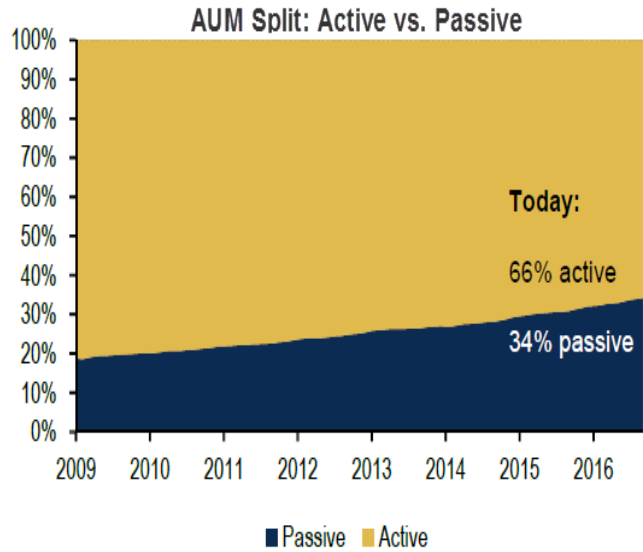
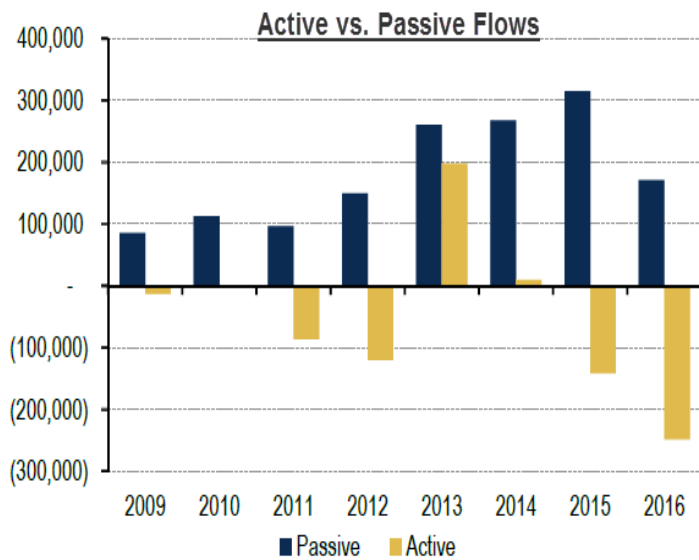


EMERGING MARKETS UNDER PRESSURE AGAIN

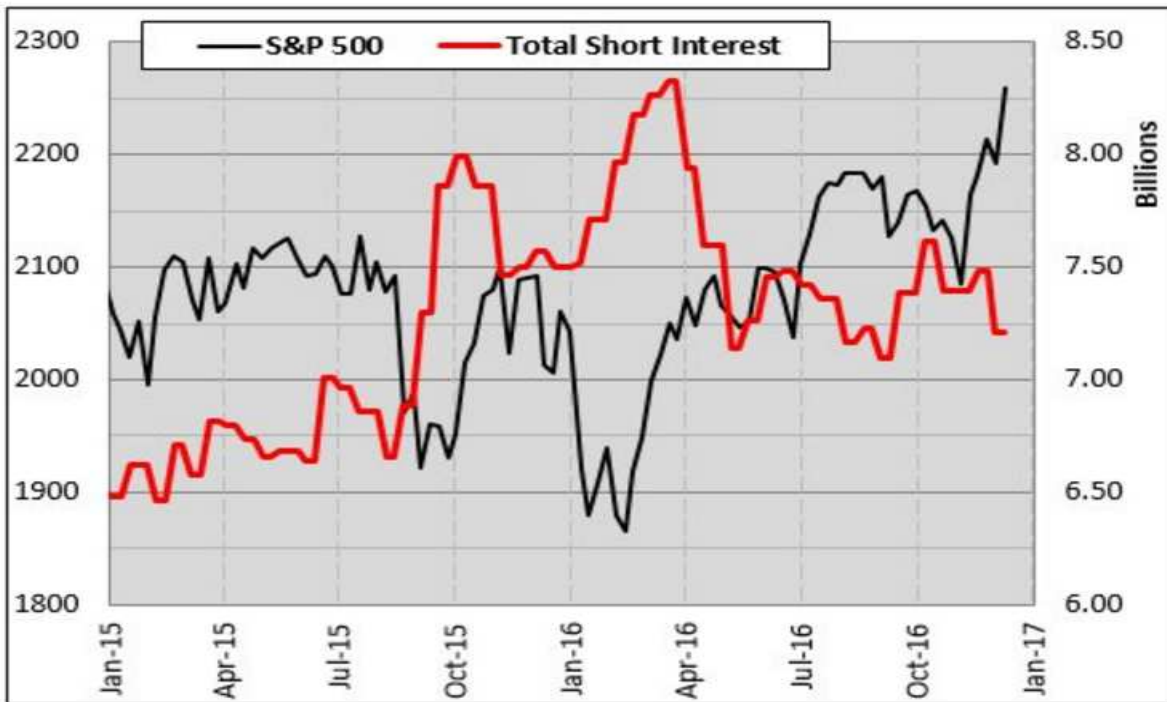
The election of Donald Trump as US president has raised US bond yields and led to an exodus of funds out of emerging markets



Source: Bloomberg; Datastream; EPFR; JPMorgan Chase; BIS calculations

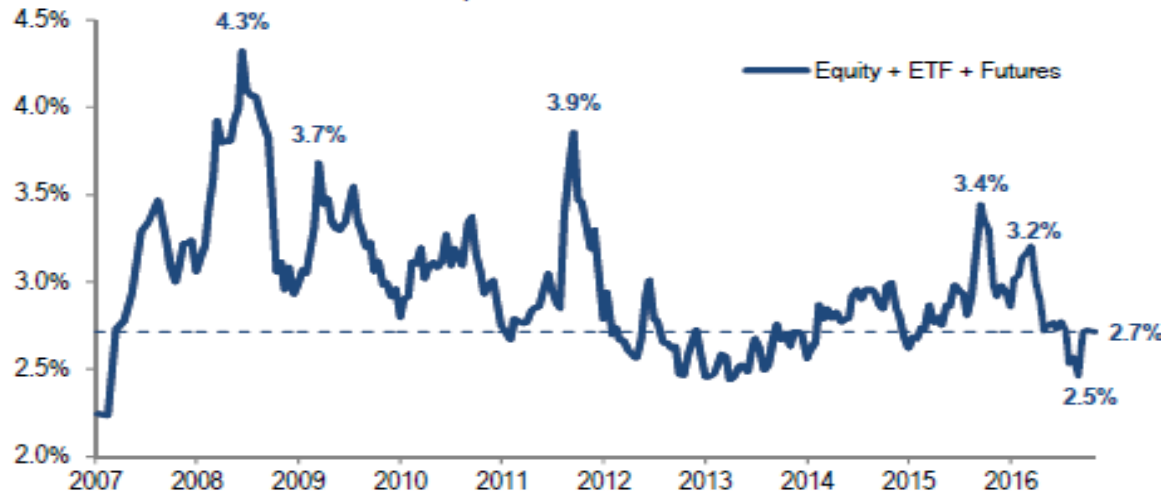


Short Interest: Total short interest has been coming down since peaking earlier this year.



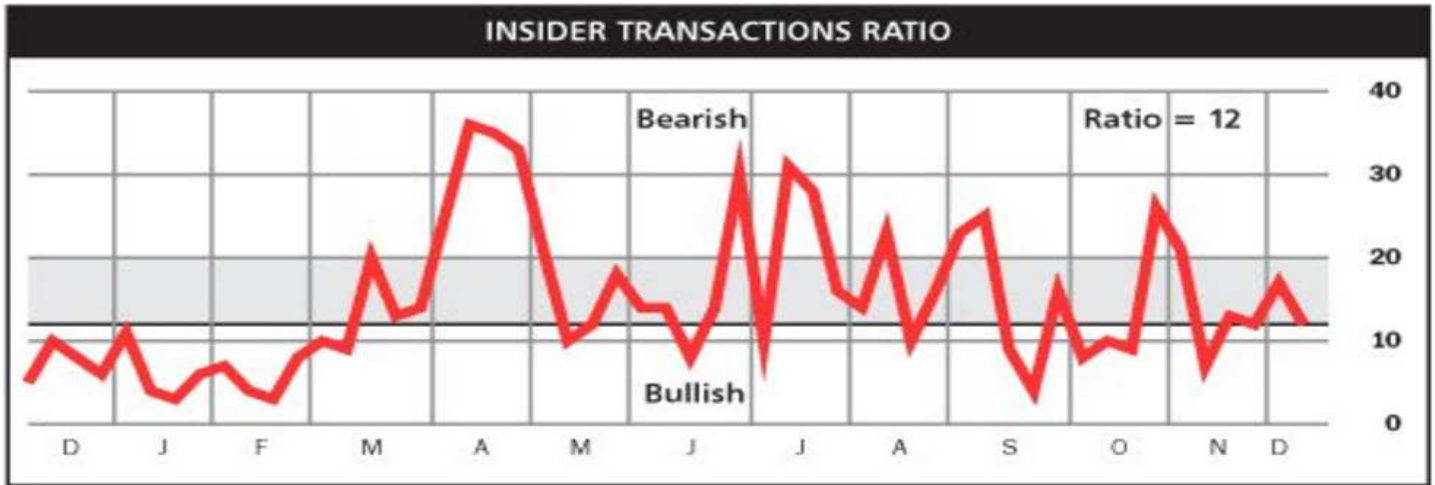
Equities, ETFs and equity index futures

Short interest as % of S&P 1500 market cap



Insider Transaction Ratio

Insider activity is mainly only worth following on the buying side as management only buys its stock for one reason, expectations the stock is undervalued and heading higher, often being a key inflection point for a stock in a downtrend. Tracking insider selling provides very little value as management sells stock for a variety of reasons, and it provides little historical evidence of being a signal.



Ratio of Insiders Sales to Buys. Readings under 12:1 are Bullish. Those over 20:1 are Bearish. The total top 20 sales and buys are 297,992,456 and 25,149,995 respectively; Source: Thomson Reuters

Breadth Readings

Below are a variety of the key breadth readings and some of the signals I utilize for market timing, and always am developing more indicators. One of the newer ones I noticed in 2015 was the S&P's correlation with the performance of Blackrock (BLK) stock, the latter being a slight lead indicator

NYSE Cumulative A/D – This indicator is one of the more important to look for divergences as shown below. In Q4 2015 and into early 2016 this indicator was making lower highs and in a downtrend, a signal to be cautious in markets, and broke out in late February trending higher through October, capturing most of the market rally and providing another exit signal on the trend break and 40 MA break before again breaking out of a downtrend and above the 40 MA to capture the November-December rally. It remains in an uptrend into year-end.



NYSE McClellan Oscillator (NYMO) – This indicator is useful for timing short term overbought and oversold extremes and in combination with other indicators and sentiment measures can be powerful. It mainly ranges in the -60 to +60 range for weaker indications while can see a couple of extremes this year, early in 2016 an extreme oversold indication, and also in early November. In 2016 crosses of the zero level tended to be the best signal, a move above giving room for a rally to expand, and a move below extending weakness often to the lower Bollinger Band.



NYSE Summation Index (NYSI) – This indicator is another one to watch for divergences while a very simple but great signal over the years has been looking for 5 or 8 day EMA crossover, above is a buyers' market and below a sellers' market, the 8 day EMA signal shown below with squares bullish crosses and circles bearish. Its best used after a multi-week trend move in the indicator as a reversal signal.



NYSE Cumulative TICK – This is an indicator I like to combine with 20 EMA crossovers for buy/sell/hold signals, but for 2016 has been in buy and hold mode (staying above rising 20 EMA) most of the year with just some short term blips. I will be watching closely for a break under as a sell signal in 2017.

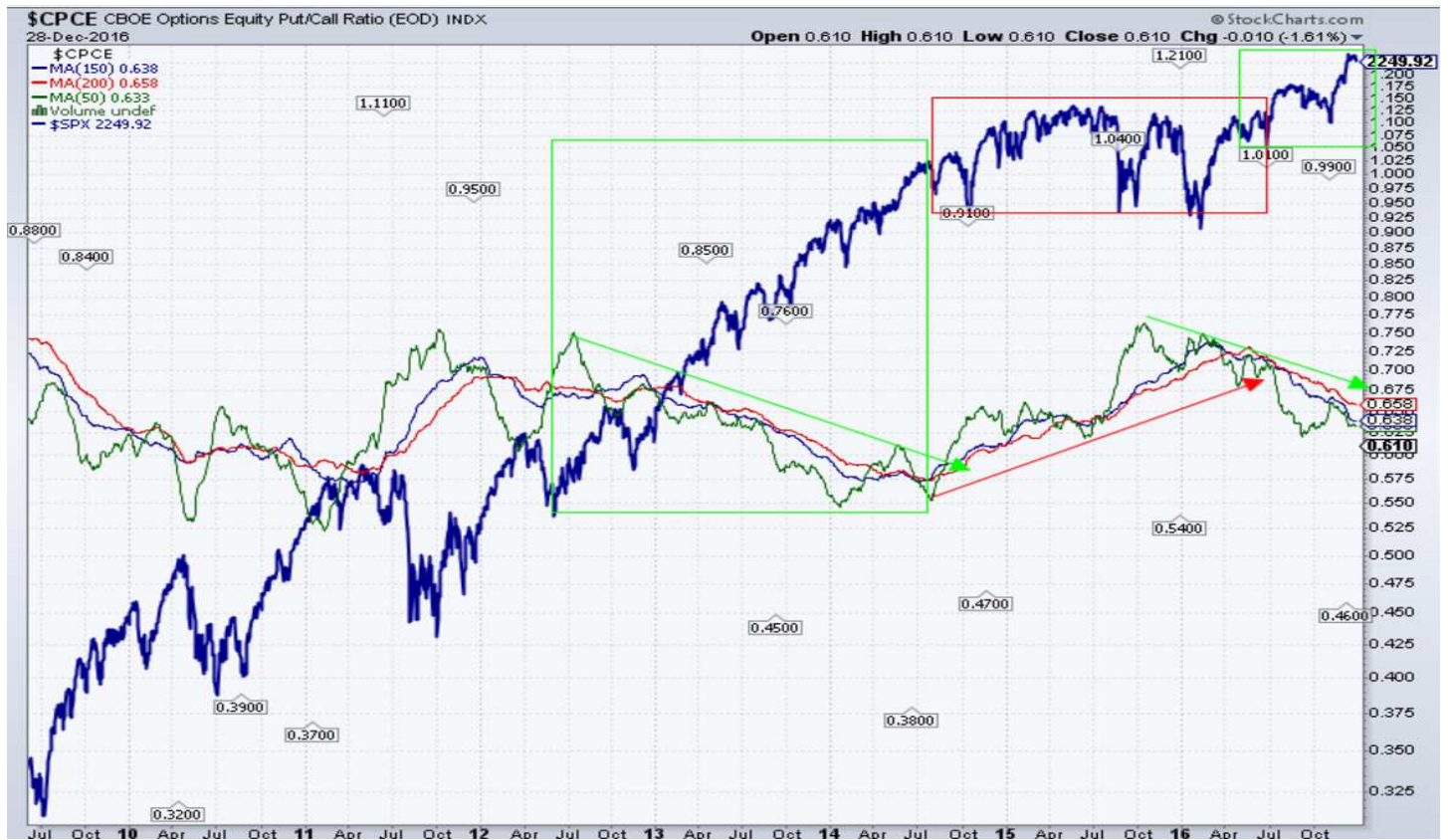


ARMS Index (TRIN) – This is another useful indicator for judging overbought or oversold conditions and I prefer using the 21 and 55 day moving averages to eliminate the daily noise. A 21 day MA above 1.2 has coincided with market bottoms, and conversely readings below 1 have correlated with short-term peaks. The 55 day MA has given less signals but a sustained move above 1.2 for multiple days/weeks has been a general reading of overbought and correlated with key inflection bottoms.



Volatility and Options Sentiment

CBOE Equity Put/Call: This indicator is fairly weak due to its constant changing and overall fallacies such as not accounting for opening/closing nor initiated via a buyer or seller when opening. You can utilize longer term moving averages of the ratio to smooth out the data and come away with some perspectives. The boxes below show periods when the 50, 150, 200 day moving averages were trending down (green boxes) were strong times for markets, while when trending up (red box) markets went sideways to down.

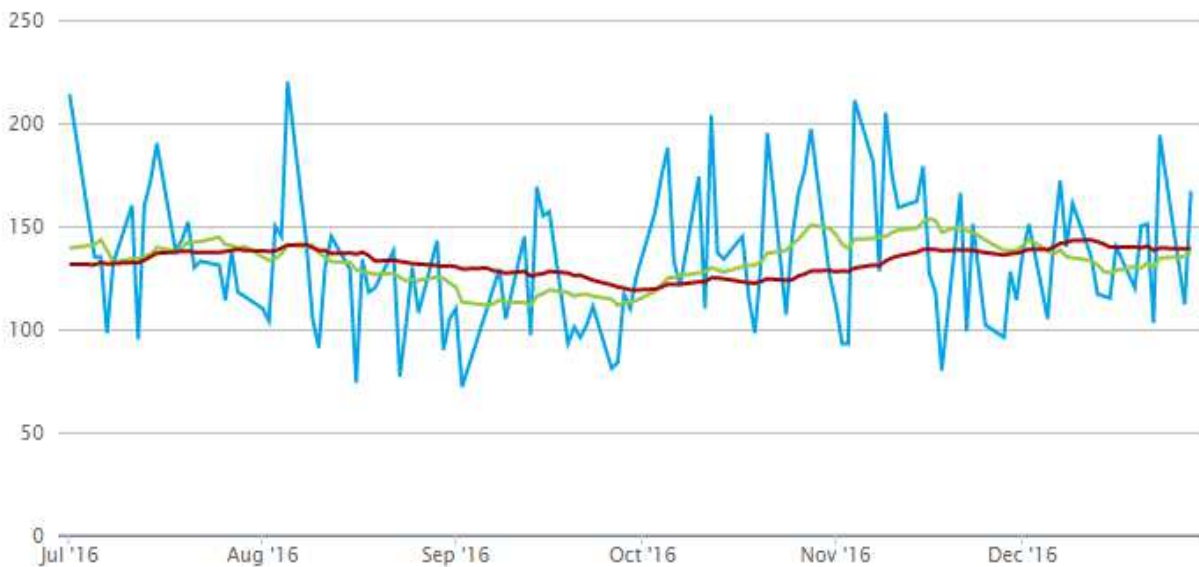


ISEE Sentiment

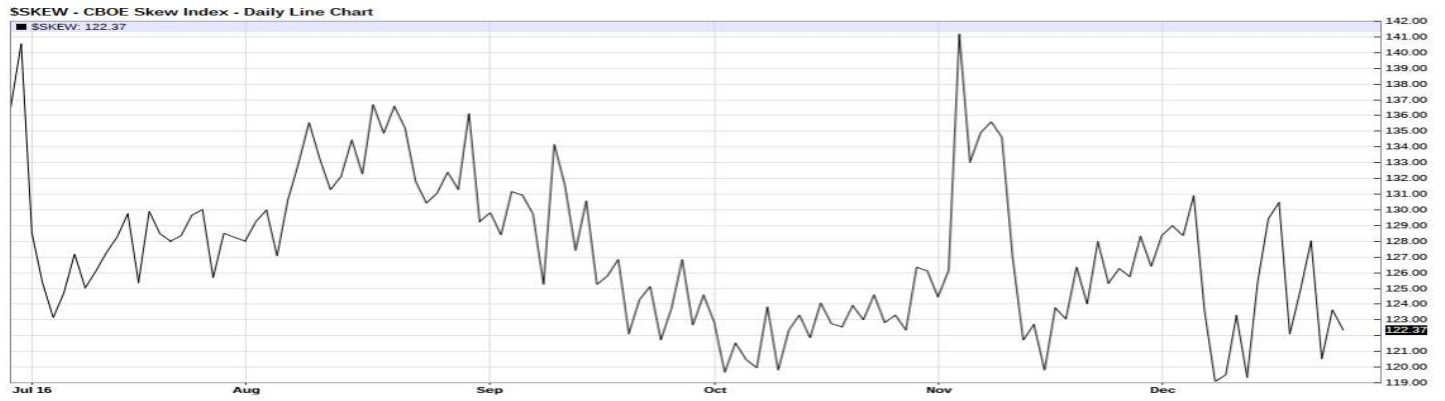
ISEE INDEX CHART

Equity Only

— ISEE Value — 20-day moving avg — 50-day moving avg



CBOE Skew: This indicator shows we enter 2017 with some complacency signals, though the constant variance in this indicator has made it a less useful indicator for any sort of market timing.



Skew Standouts:

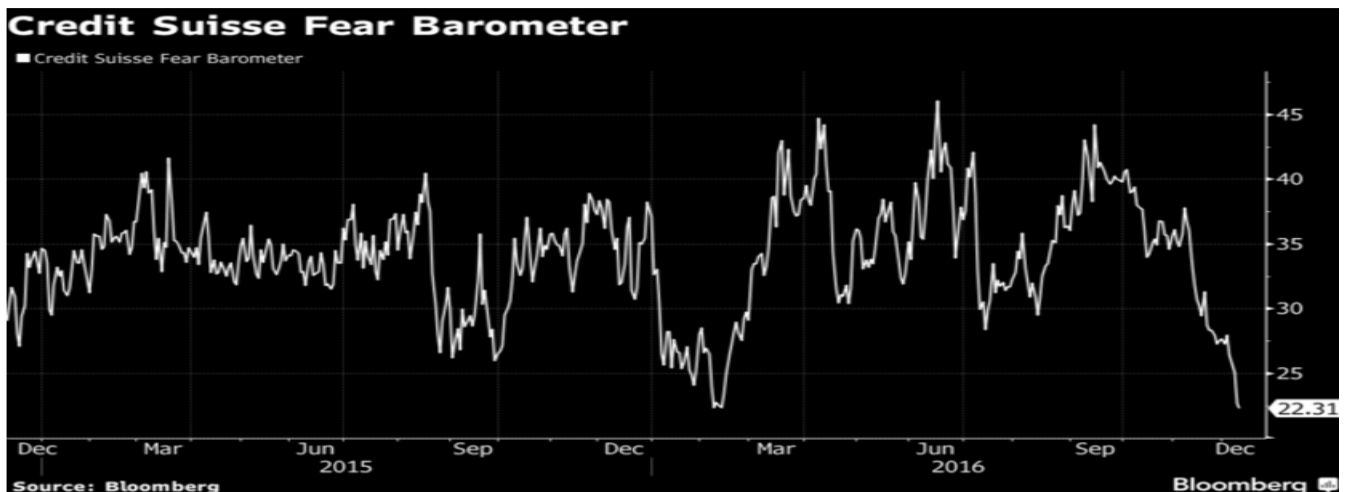
Inverted Skew (Bullish): TWTR, CHK, SLW, MDLZ, FEYE, XLNX, P, POT, GSK, GRA, HPE, ON

Steep Skews (Bearish): SHLD, PG, UAA, STT, TXN, IBM, MRK, RAI, AIG, PFE, CVX, HLF, HD, MMM, QCOM, INTC, ORCL, WMT, EMR, MCD, LOW, CSCO, CMCSA, COST, SBUX

VIX:VXV Ratio: This is a great indicator of market fear, when moving above the 1 level generally indicative of an overly fearful environment though always best to let price-action confirm. On the other side, readings below 0.8 tend to lead to a sideways and topping market.



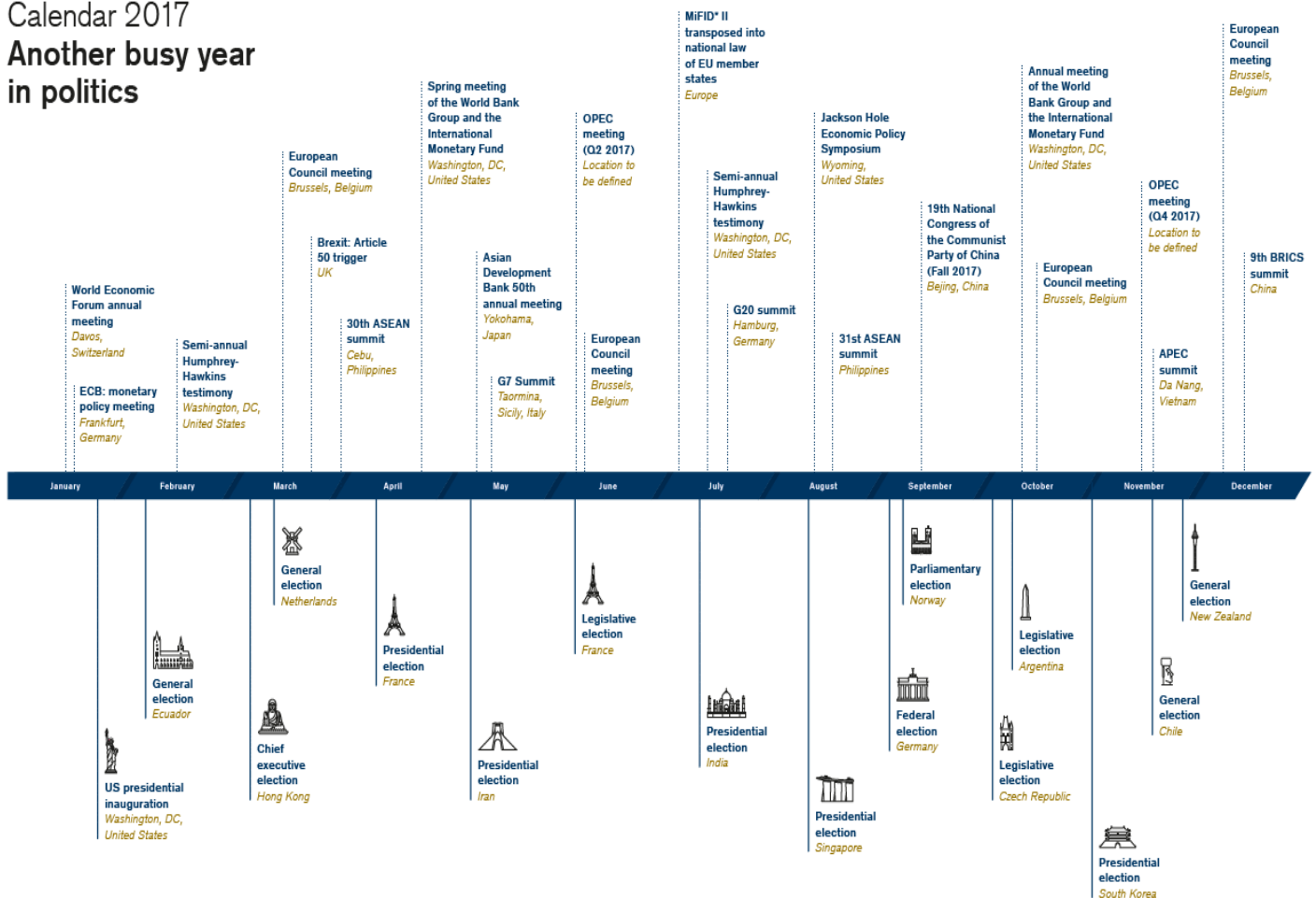
CS Fear Barometer



Event Schedule of Catalysts 2017

Dates	Event	Focus
1/5 to 1/8	Consumer Electronics Show	Tech Stocks
6-Jan	US Jobs Report	US Economy
1/9 to 1/13	JP Morgan Healthcare Conference	Healthcare Stocks
13-Jan	US Bank Earnings (BAC, JPM, PNC, WFC)	Bank Stocks
16-Jan	Opening Week of Q4 Earnings Season	Stock-Specific Trends
1/17 to 1/20	World Economic Forum in Davos	Macroeconomy
19-Jan	ECB Decision	Monetary Policy
20-Jan	Trump Inauguration	Geopolitical
28-Jan	Fed Publishes CCAR/Stress Test Criteria	Financials
30-Jan	Japan Elections Expected	Geopolitical
1-Feb	First Fed Decision of the Year	Monetary Policy
15-Mar	Netherlands National Elections	Geopolitical
15-Mar	Fed 1st Press Conference and Dot Plots	Monetary Policy
16-Mar	US Debt Ceiling Reinstated	Geopolitical
3/17 to 3/18	G20 Financial Minister Meetings	Macroeconomy
19-Mar	China's NPC Publishes 2017 Economic Objectives	Macroeconomy
30-Mar	EU Leaders Summit	Geopolitical
23-Apr	France 1st Round Presidential Election	Geopolitical
28-Apr	Current US Government Funding Legislation Ends	Geopolitical
5/26 to 5/27	G7 Leaders' Summit in Italy	Geopolitical
June	Italy New Elections	Geopolitical
7/7 to 7/8	G20 Leaders' Summit in Germany	Geopolitical
Aug. to Oct.	German Elections	Geopolitical

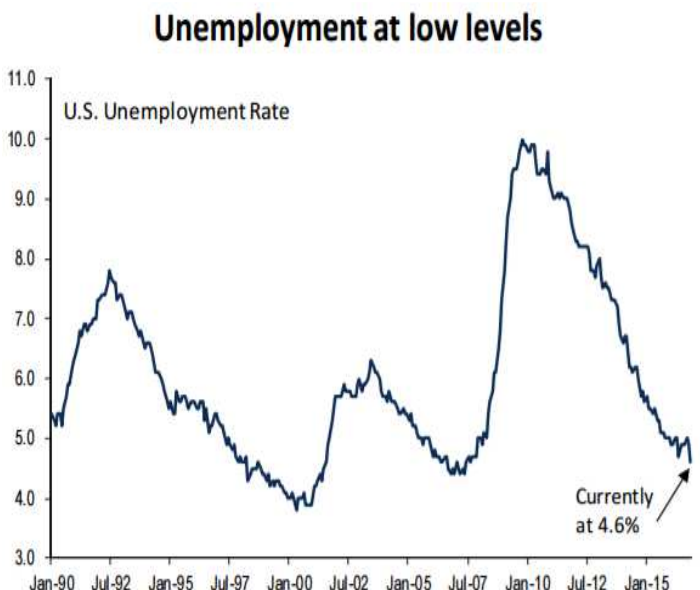
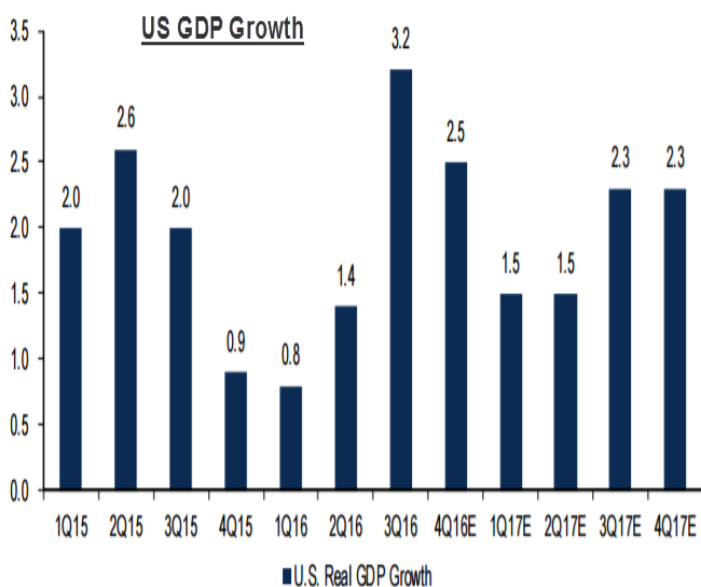
Calendar 2017 Another busy year in politics

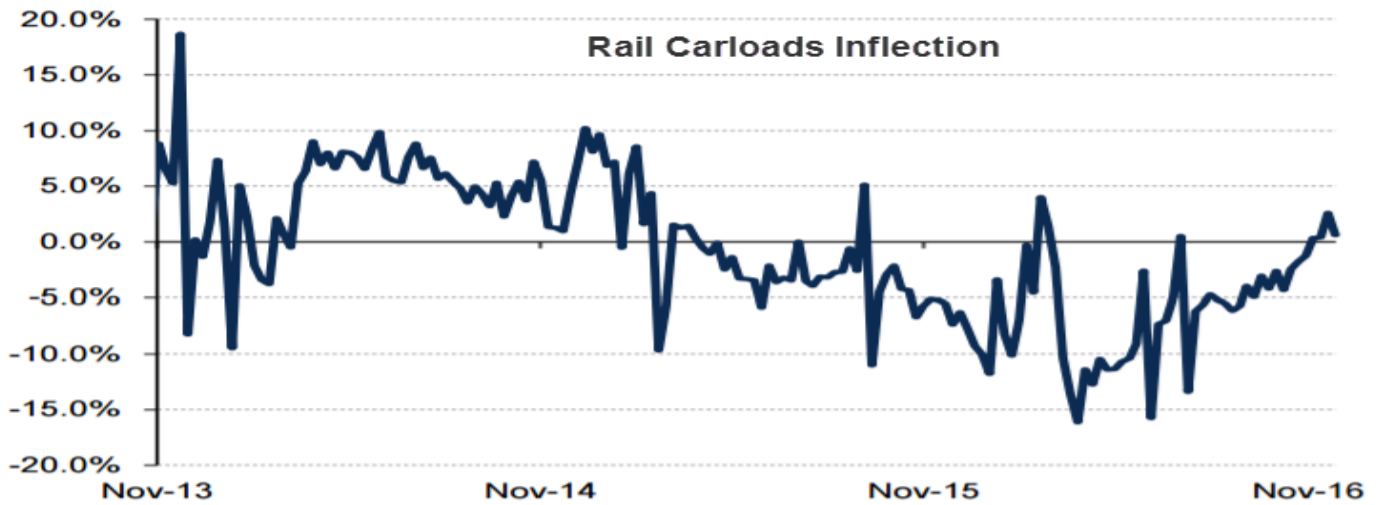
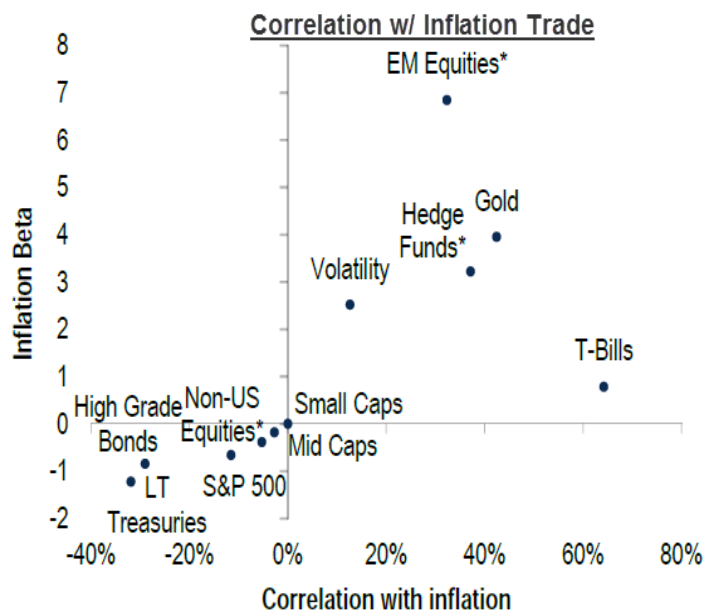
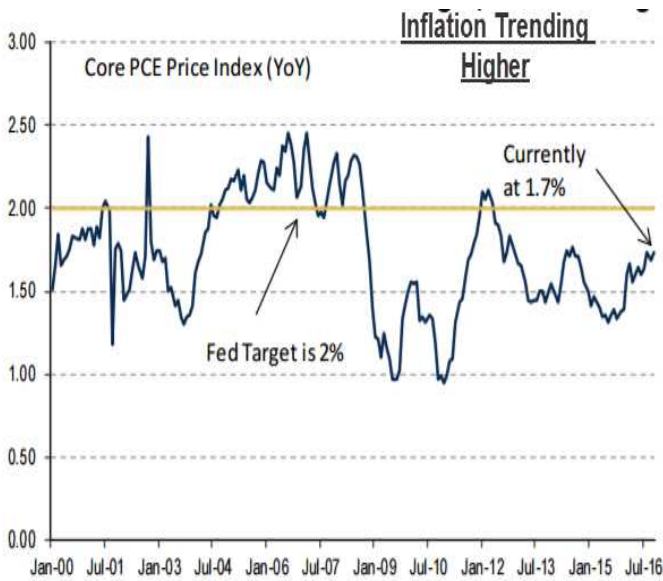


Macro-Economic and Fundamental

The main focus into 2017 after a strong rally since the Election is based on hope for stronger GDP growth leading to higher topline and bottom-line growth for companies. The potential for lower corporate taxes, repatriation of cash overseas, deregulation, and fiscal infrastructure spending are the main drivers of this expected economic growth. The consensus is for 2.2% GDP growth in 2017 with "Trump's Plan" looking to get into the 3.5%-4% range over time. The "pro-growth" policies can add up to 15% EPS growth for the S&P over the next 3-5 years and get closer to \$150 EPS I have long seen as a target and potential cycle peak. This type of environment will favor cyclicals over defensives, value over growth, higher tax rate companies, the reflationary trade and the more US-focused companies. There is also the flow of funds angle that benefits equities as rising bond yields has finally caused a rotation to equities which has been theorized for many years but looks to finally be coming to fruition. It is also a new environment as we are firmly in a rising interest rate cycle now, though one expected to see gradual hikes and I will show indicators later showing the fear narrative around rising rates is overblown, especially at this stage in the cycle. Despite all the rhetoric saying the US economy is weak, nearly every indicator into 2017 is not only positive, but trending strongly higher, and these will be shown below. First and foremost, the stock market itself is considered the top leading indicator of macroeconomics, followed by manufacturing activity, inventory levels, retail sales, building permits, housing market, and business startups. Lagging indicators include GDP changes, income and wages, unemployment rate, CPI, currency movement, interest rates, corporate profits, and trade balance. Regional Fed Surveys have been coming out strong as well, Chicago PMI hit a 2 year high in November, Dallas Fed Index is near a 5 year high and Philly Fed showed a sharp upturn in activity for December. Housing Starts and Building Permits have also been in rising trends throughout 2016, another positive.

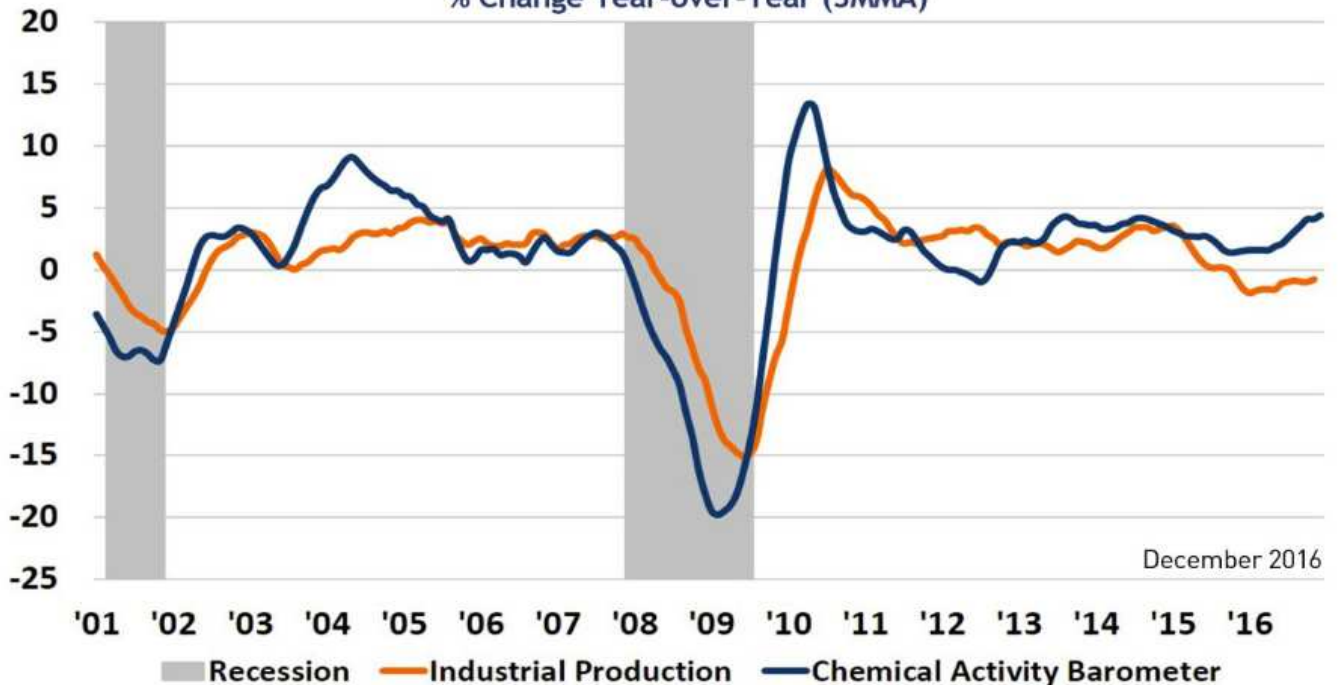
The issue with a hope-driven rally is that it often leads to disappointment, which could set-up for a weaker second half in 2017. Rising inflation and bond yields typically correlate to lower P/E multiples. If policy does not live up to expectations and results are not translating to stronger earnings, stocks would come under pressure in 2H17, while any moves towards protectionism and trade war is another risk. This coming year will also feature plenty of political uncertainty once again globally with multiple Elections overseas. Geopolitical risks remain active with Elections in France, Germany, Japan, and the Middle East while Brexit and Italian Referendum fallout remains to be seen. The major "new playbook" drivers into 2017 include a US Dollar surging to 12 year highs that can pressure profits and margins, rising bond yields in a rising interest rate environment, rising inflation with expectations also moving higher, and complacency and high expectations which can lead to increased volatility throughout the year. Valuation is relatively high for the cycle at 17X Earnings, but not at any sort of extreme level, though needs to be justified by a pick-up in earnings growth in 2017 as well as stronger topline growth. Equities remain attractive to the alternative, Bonds, with a Dividend + Buyback yield of 4.3% compared to Bonds at 2.3%, which sets up favorably for allocations and fund flows. In this environment, stocks should be favored to Bonds, developed market preferred to emerging markets, value and quality better than growth and low quality, liquidity over leverage, and self-funded companies favored to capital-dependent companies. We have yet to see euphoria in this market and bull markets tend to end with euphoric rallies, so 20%+ returns are not far-fetched even from these elevated levels.



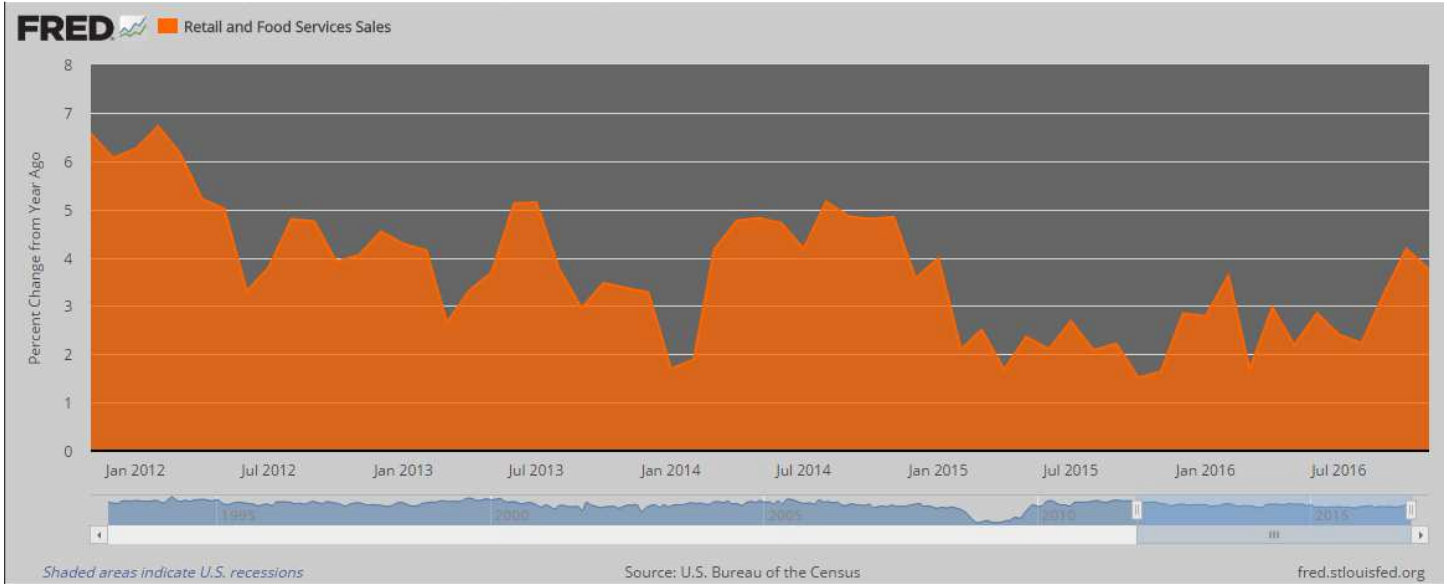


Chemical Activity Barometer vs. Industrial Production Index

% Change Year-over-Year (3MMA)



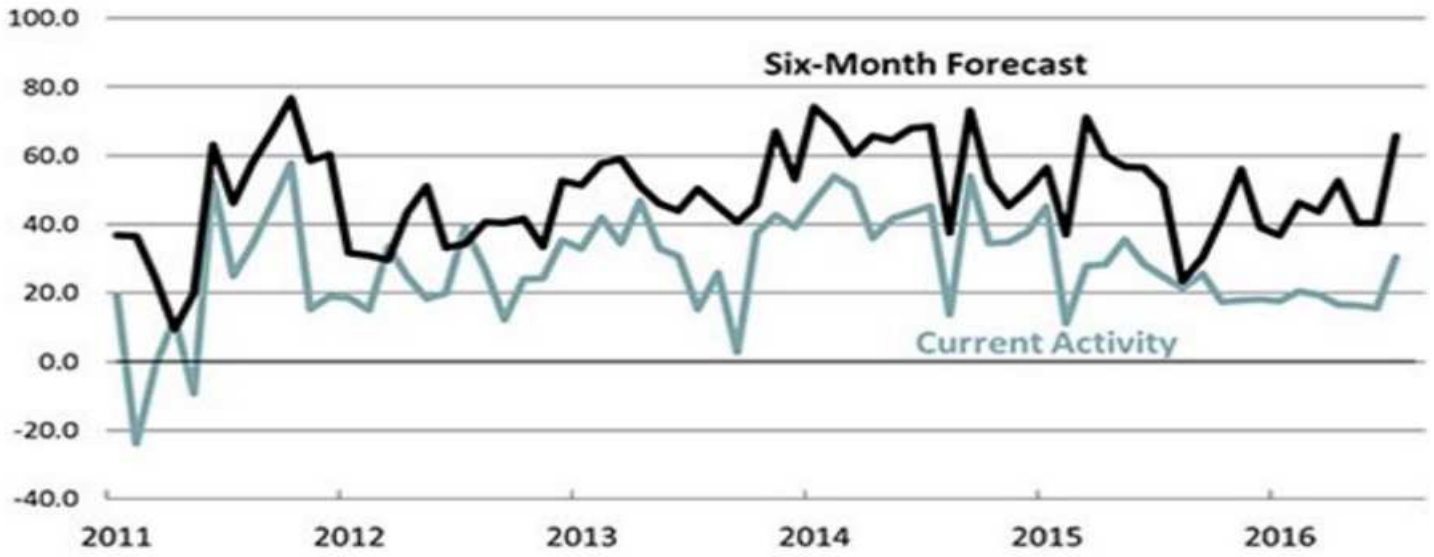
US Retail and Food Services Sales



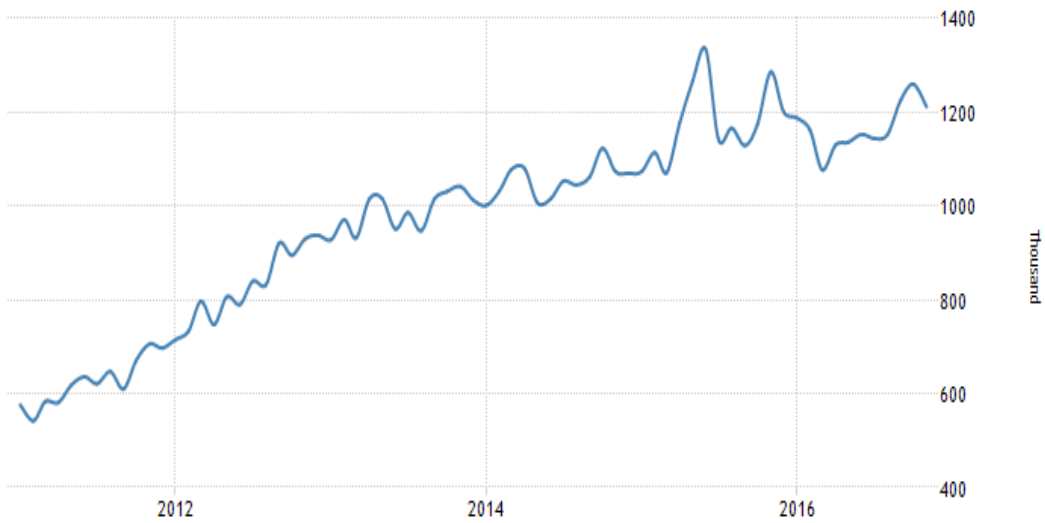
Total Business: Inventories to Sales Ratio



Diffusion Index



US BUILDING PERMITS



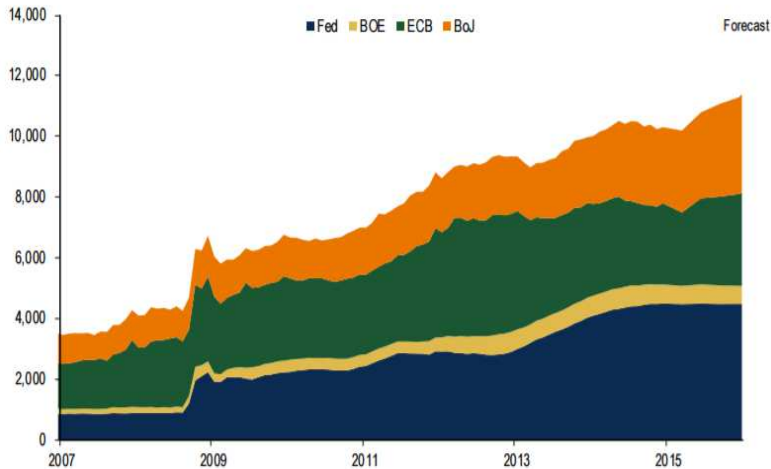
US HOUSING STARTS



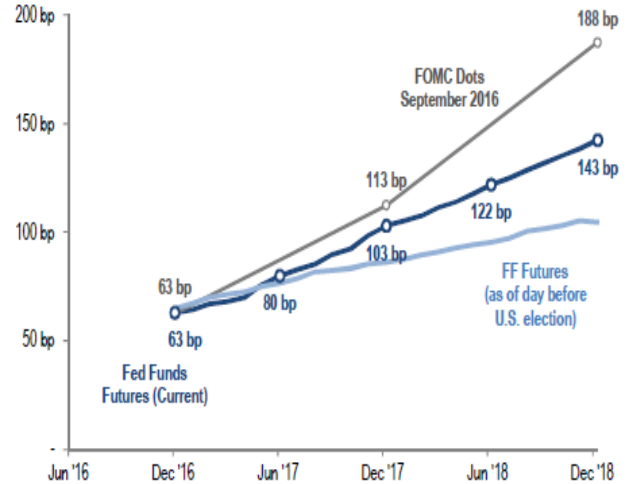
Central Banks

Although the Fed has ended QE purchases the balance sheet continues to expand, and the same goes for the ECB and BoJ, so the global liquidity boost remains a theme. The Fed has started to gradually raise interest rates and the Fed Futures Curve below shows market expectations, and the latest meeting pointed to 3 hikes in 2017. Contrary to popular belief, the S&P 500 has seen strong returns during periods of rising interest rates historically and prior cycles are shown in the chart below. On additional chart shows correlations with rates and rising stock prices have correlated with rising rates up to the 5% level on 10-year yields.

Central bank balance sheets



Fed Funds futures curve



Returns of S&P 500 during times of rising interest rates

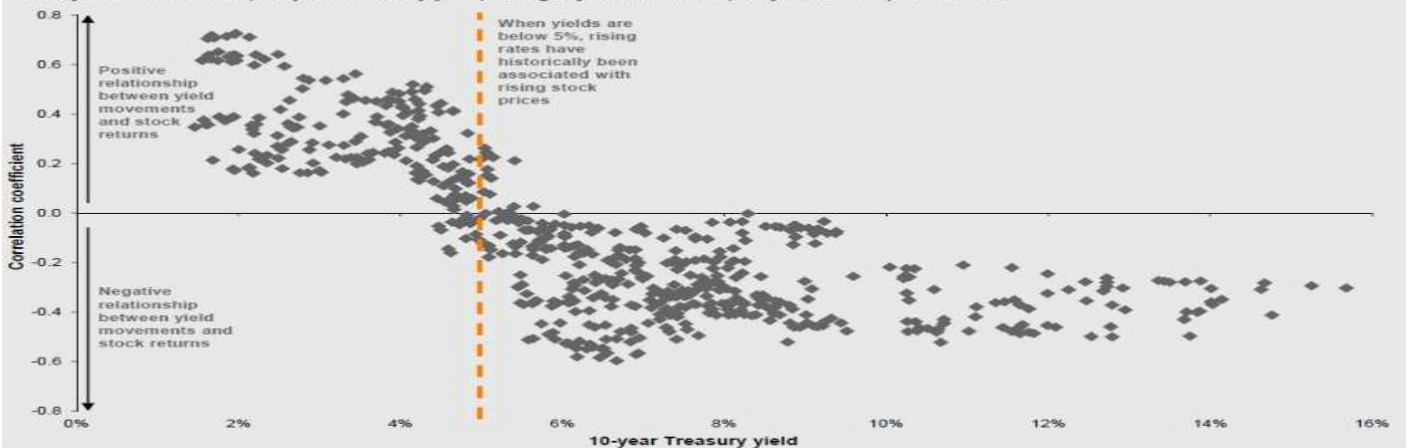


Nominal Rates

Nominal Rates	Interest rate beta	Correlation
Energy	0.7	4%
Real Estate	0.1	1%
Information Technology	0.0	0%
Materials	0.0	0%
Industrials	-0.7	-5%
Consumer Discretionary	-1.0	-6%
Health Care	-1.8	-13%
Telecommunication Services	-2.2	-15%
Financials	-2.3	-13%
Consumer Staples	-2.9	-23%
Utilities	-3.7	-29%

Correlations between weekly stock returns and interest rate movements

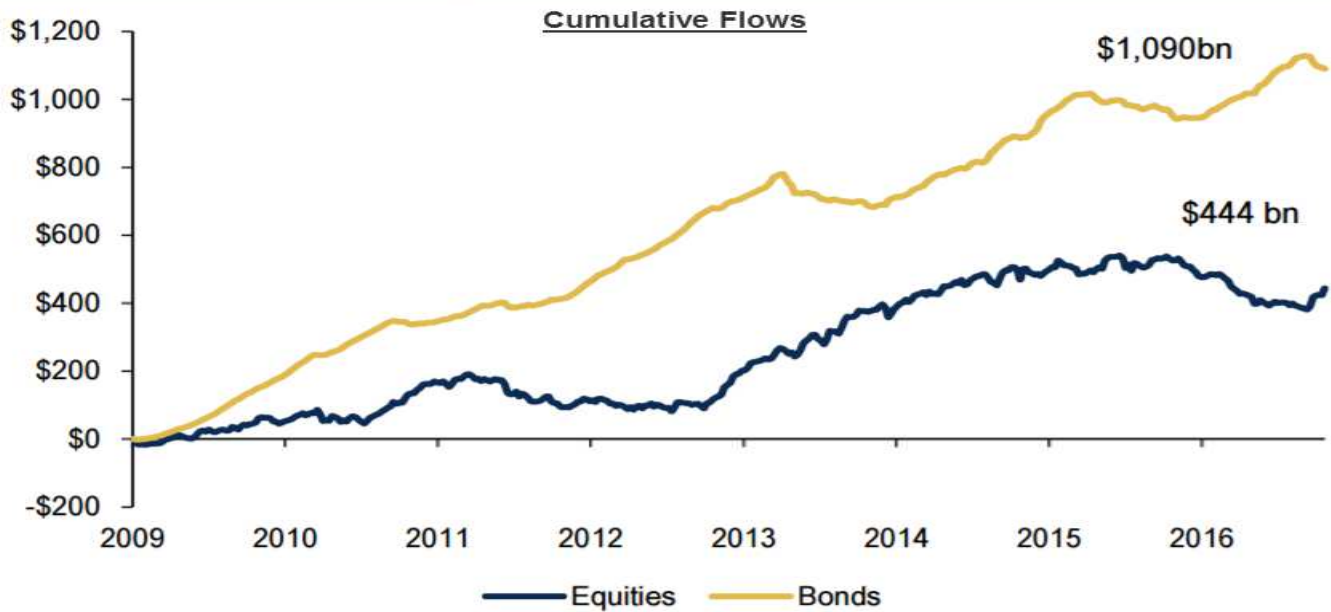
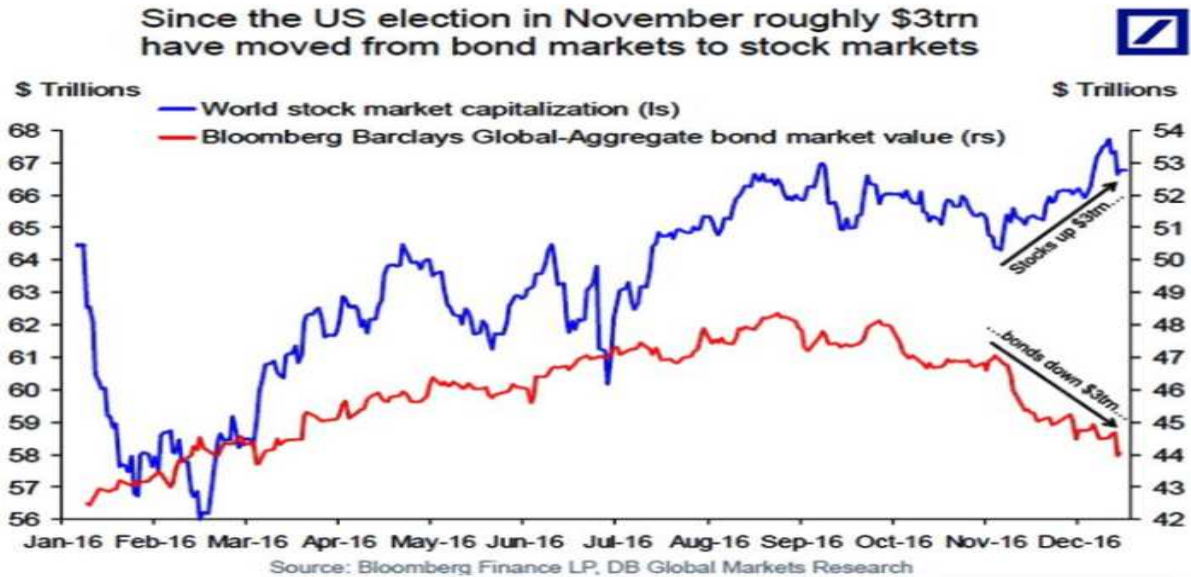
Weekly S&P 500 returns, 10-year Treasury yield, rolling 2-year correlation, May 1963 – September 2016



Source: FactSet, Standard & Poor's, FRB, J.P. Morgan Asset Management. Returns are based on price index only and do not include dividends. Markers represent monthly 2-year correlations only. *Guide to the Markets - U.S.* Data are as of September 30, 2016.

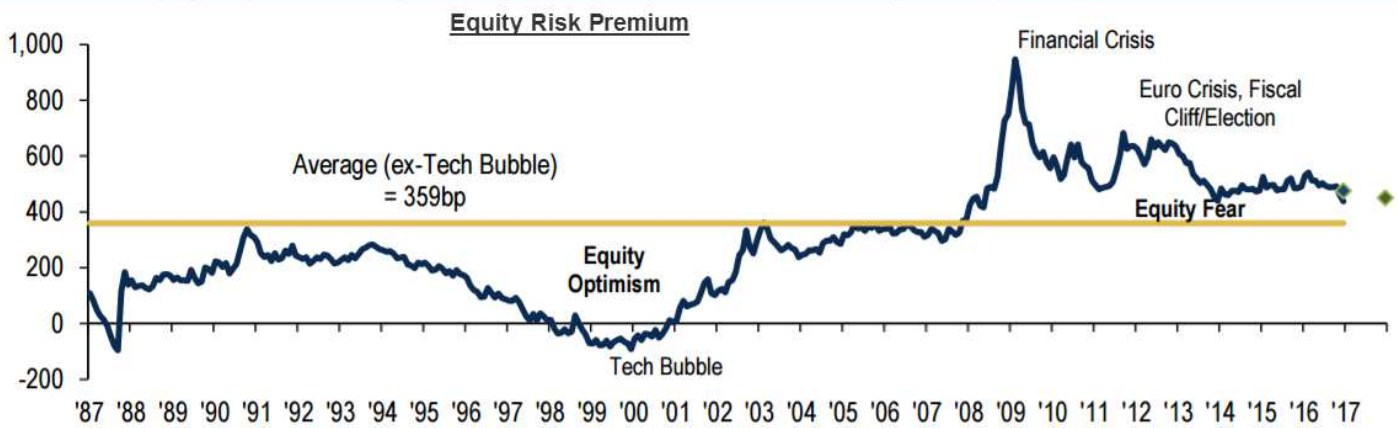
Bonds vs. Stocks

The relationship between bonds and stocks is an important one as we finally enter a movement of higher yields, and outside of cash on the sidelines and alternative investments, fund flows are meaningful to understand movement of these asset classes. A chart below shows the large movement of money from bond markets to stock markets on the anticipation of entering a stronger growth cycle. This has long been known as the "Great Rotation" when a selloff in bonds is accompanied by a powerful equity rally and November saw the largest stock/bond outperformance since 2011. The first week after the Election saw \$28B flow into equities, the largest seen in two years and bonds saw the largest outflow in 3.5 years. Considering Bonds were in a multi-decade bull market, signs of that ending can lead to a long period of outflows. It is estimated that when/if bond yields hit 2.6% it becomes a potential negative for equities as the equity risk premium spread narrows. According to Trim-Tabs, US equity ETFs took in a record \$97.6B between November 8th and December 15th, which compares to \$61.5B inflow for all of 2015.



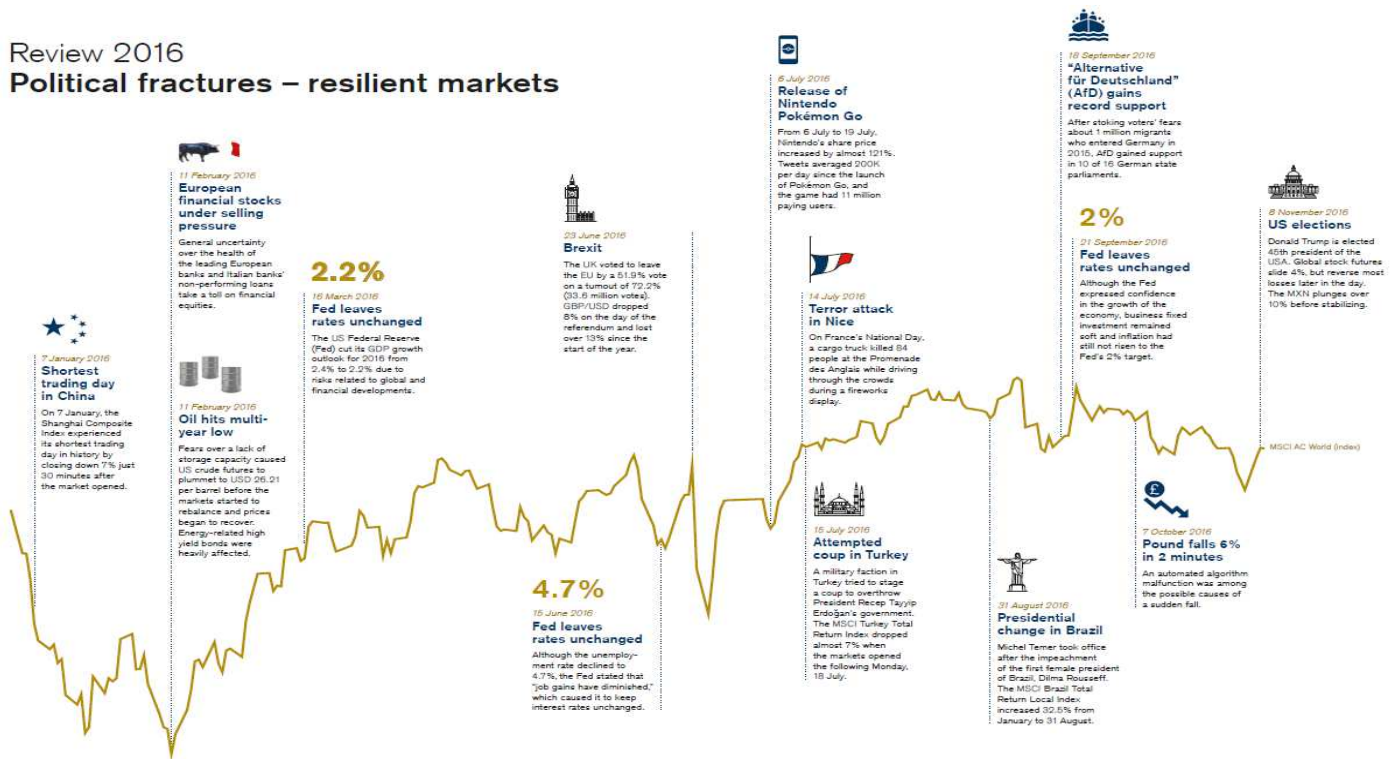
When will bond yields start to hurt equities?

	10Y bond yield*	Equity risk premium (ERP)	Equity risk premium	Rise in bond yield needed for ERP to fall 1 std dev below average (in bp)	Bond yield at which equities are rich relative to bonds
	Latest	Latest	Avg - 1 std dev		
USA	2.15%	3.4%	3.0%	47 bps	2.6%
United Kingdom	1.36%	4.7%	4.3%	37 bps	1.7%
Japan	-0.03%	4.2%	1.2%	297 bps	2.9%
EMU	0.80%	4.9%	2.5%	234 bps	3.1%
Brazil	11.50%	-1.6%	-0.4%	-112 bps	10.4%
Russia	8.77%	0.6%	3.0%	-235 bps	6.4%
India	6.98%	7.0%	5.3%	168 bps	8.7%
China	2.76%	10.1%	8.3%	185 bps	4.6%

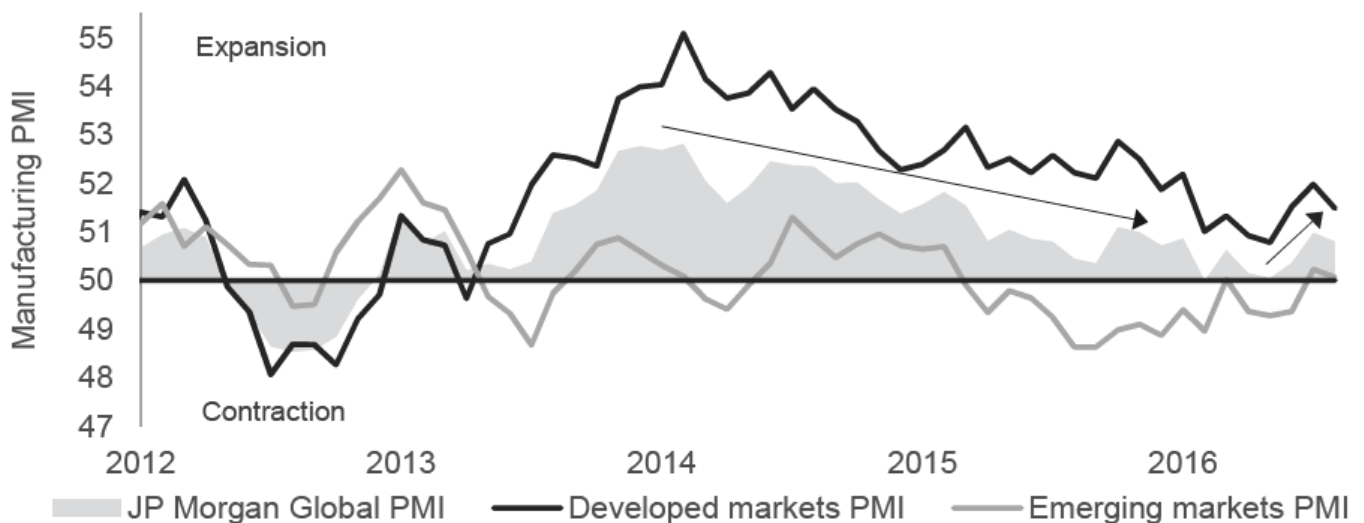


While I mainly focus on the US it is important to keep in perspective the economies overseas as there are many multinational corporations and World news drives market moves. A great graphic below reviews 2016 and some of the major events that caused market volatility, and also shows just how resilient markets have been able to look past short-term blips and see the strong longer term trends.

Review 2016 Political fractures – resilient markets



The Eurozone enters 2017 seeing a strong economic recovery in progress according to the latest PMI data, while China growth is slowing and there are concerns with lending growth being unsustainable and causing asset bubbles. China remains a key risk into 2017 with slowing growth and uncertainty surrounding fiscal and monetary policy. Emerging markets are fairly weak entering 2017 with USD headwinds though Russia and Brazil are posed to exit recessions in 2017. Political events in Europe will need to be closely monitored throughout the year.

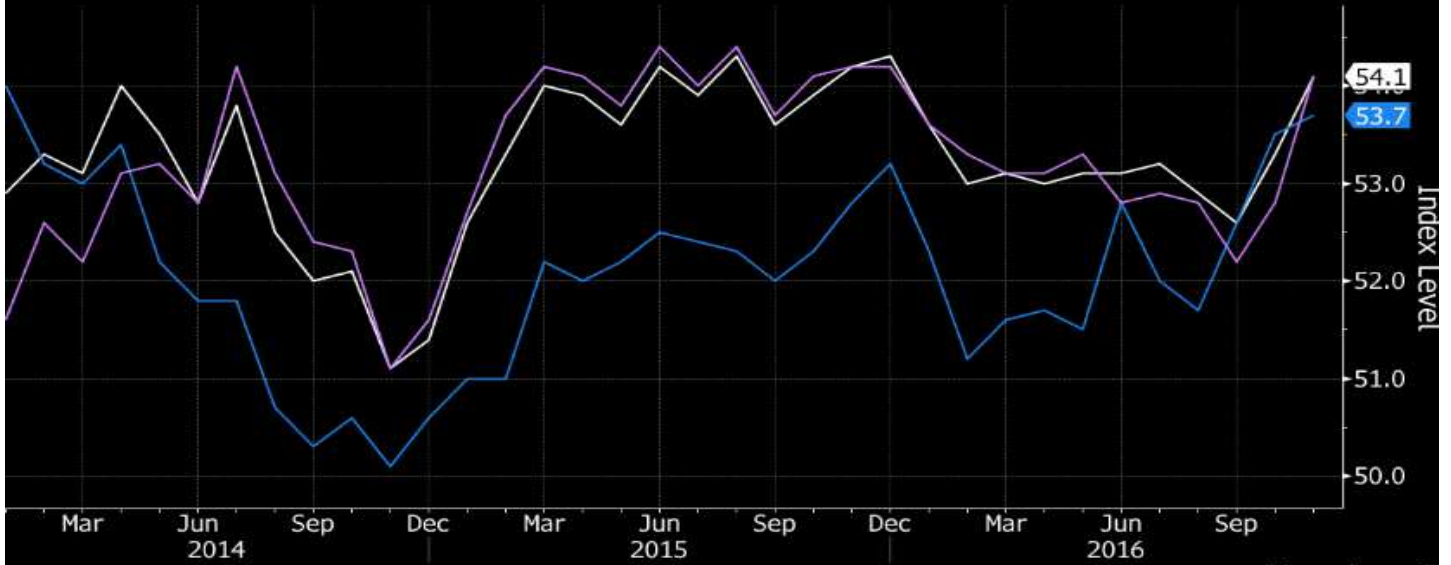


Note: PMI refers to Purchasing Managers Index for manufacturing sector, a measure for economic activity.
 Source: Haver Analytics, RBC GAM

Building Momentum

Euro-area economic growth accelerated to its fastest pace this year

■ Composite PMI ■ Manufacturing PMI ■ Services PMI



Source: IHS Market

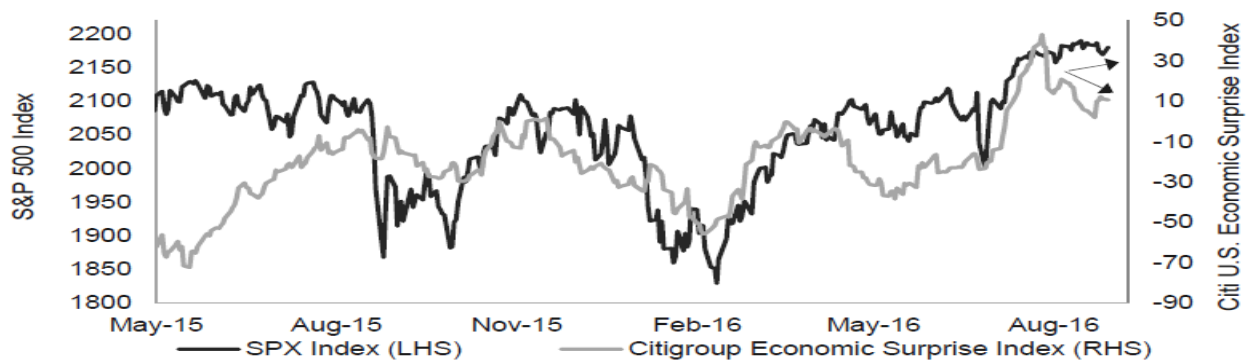
Bloomberg

Growth of total bank lending (in % YoY)

Source: Datastream, Credit Suisse. Last data point: September 2016



Citi US Economic Surprise Index:



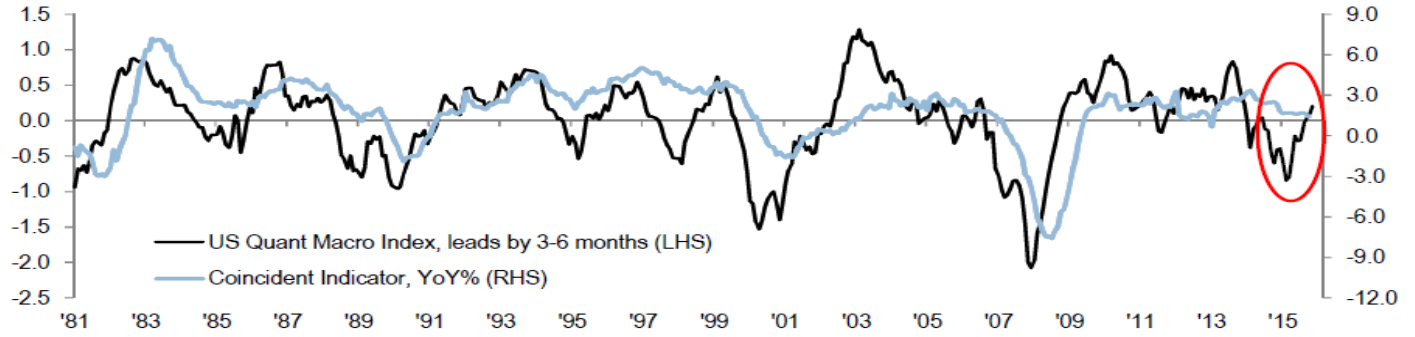
Source: Citigroup Alpha Surprise Index, Bloomberg, RBC GAM

JP Morgan Business Cycles Indicator

JPM Business Cycle Indicator Signals the Third Intra-Cycle Expansion of This Cycle

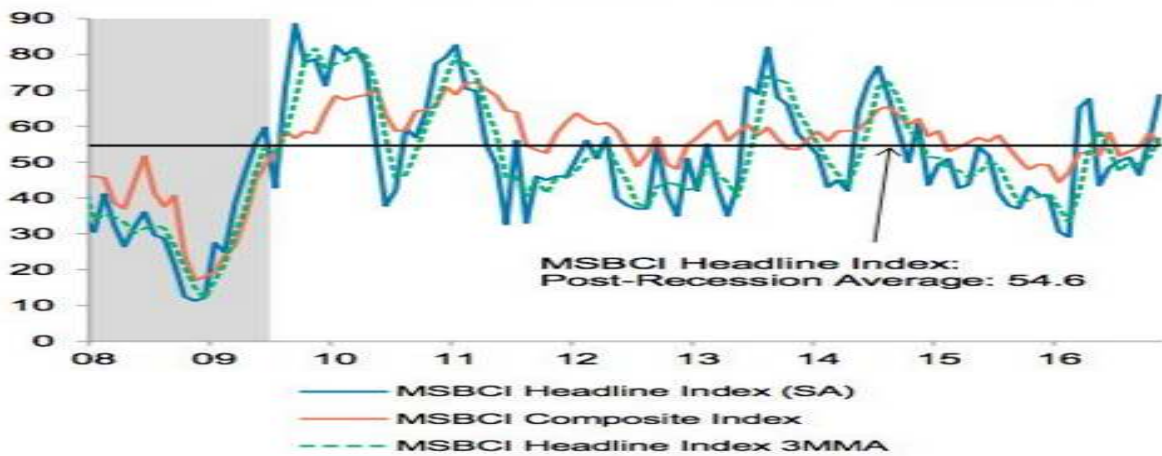
Figure 6: US Quant Macro Index (QMI) Has Been on an Uptrend since February 2016

Correlation = 0.75 with CMI 3-6-months ahead of Coincident Indicator



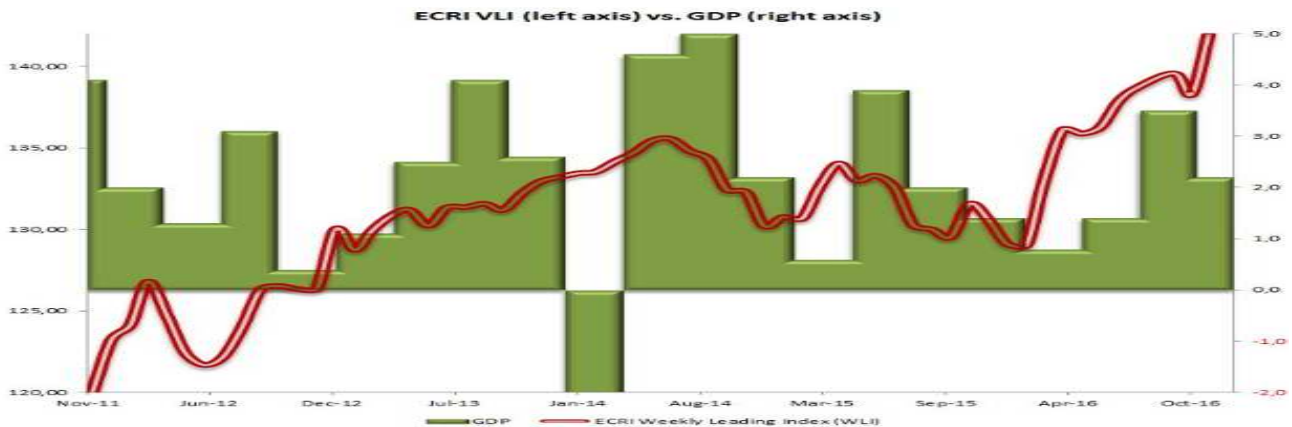
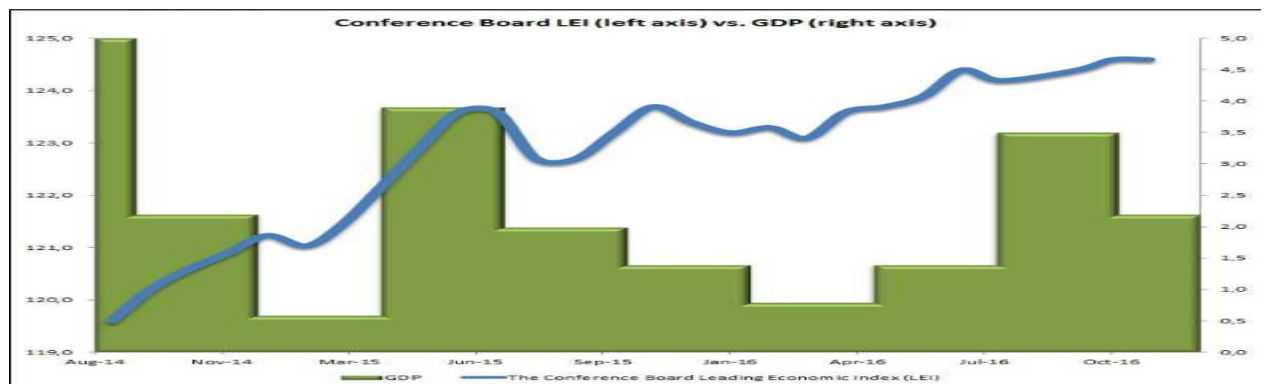
Source: J.P. Morgan US Equity Strategy & Quantitative Research

Morgan Stanley Business Conditions Index



Source: Morgan Stanley Research

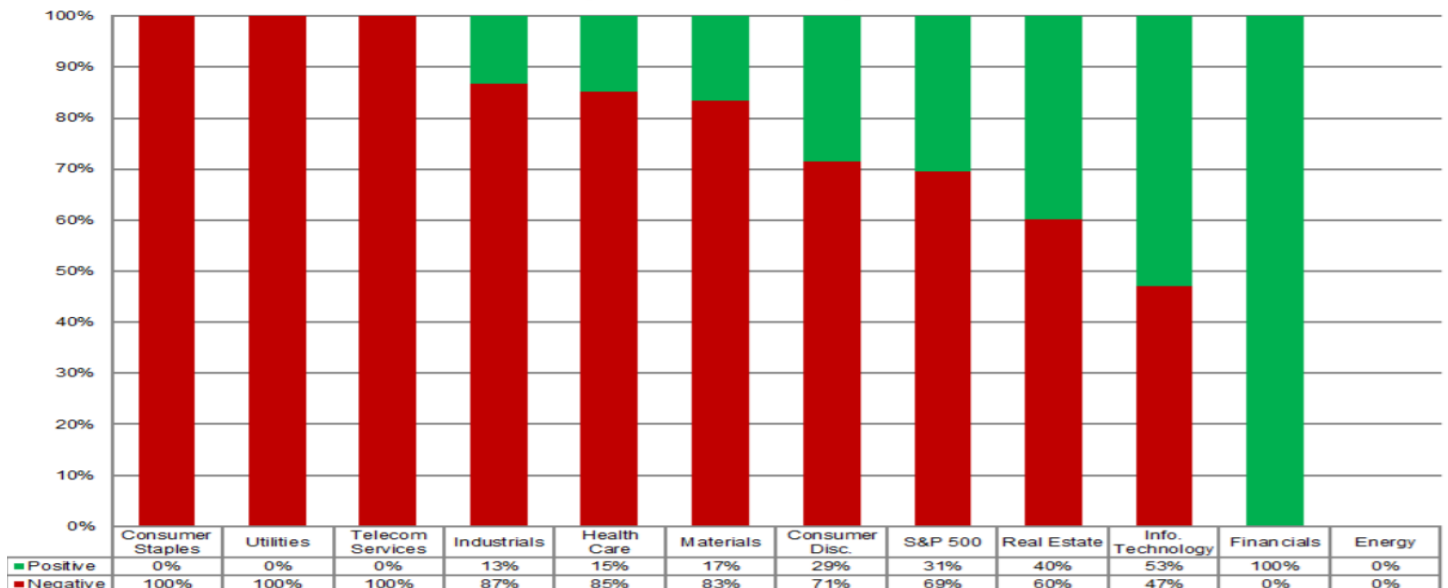
US Leading Economic Indicators



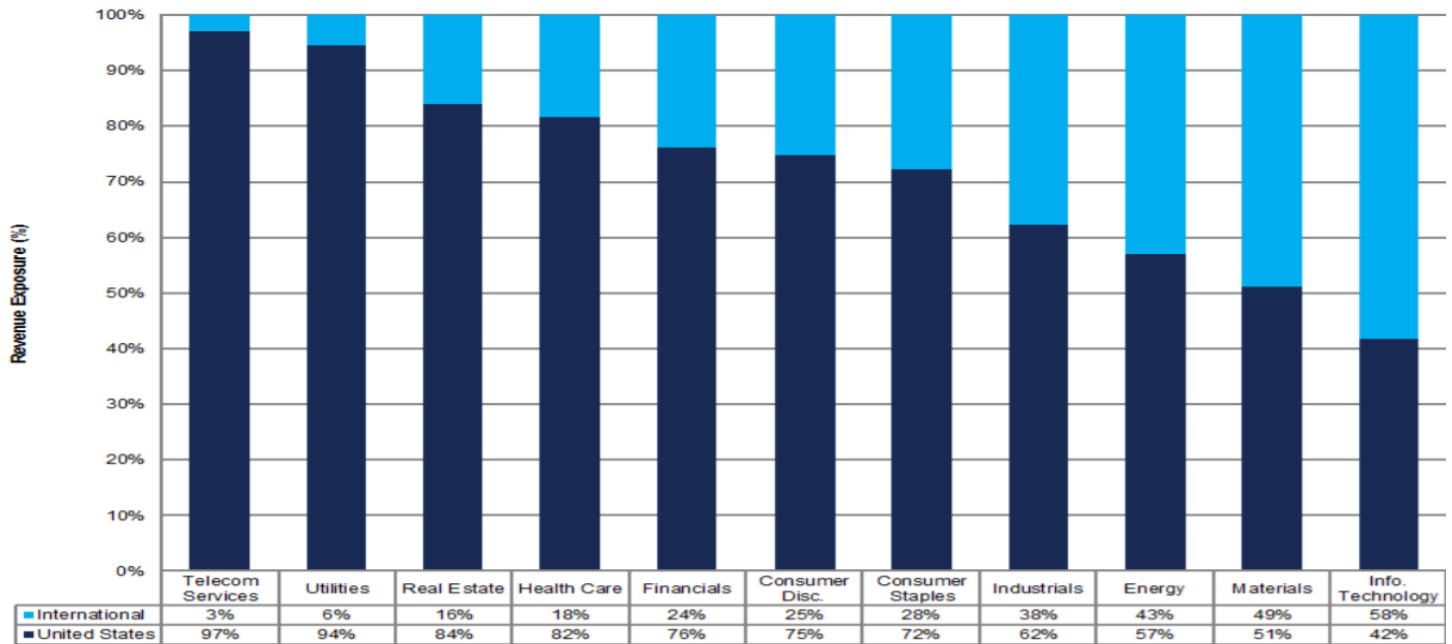
Market Valuation and Fundamentals

The S&P is set to finish the year with a 10% gain for 2016 and 78.35% of \$2B+ market cap stocks are positive YTD. It was another year of what has been deemed "the rolling rally" as large and often quick sector rotations cause short-term trading opportunities while indices remain fairly quiet, a stock-pickers market. These rotations into year-end have been seen with a move out of safety/yield groups like Utility and Consumer Staples which are Bond proxies, and into more cyclical industries. One of the main reasons for a relatively sideways move the last couple of years in the bull market is that earnings growth was minimal and there was a lack of sales growth, while operational efficiencies have caused rising margins across most industries. Many industries are at levels where multiple expansion can no longer support higher stock prices, so it is important for the earnings growth to deliver on expectations next year. The upcoming earnings season will likely see a lot of commentary on the surging US Dollar, a notable headwind for many companies with Tech, Energy, and Industrials having the most overseas exposure. Estimates are calling for 3.2% earnings growth in Q4, a fairly high bar, but has seen downward revisions with the estimate at 5.2% on 9-30-16. Revenue growth is projected at 5.1%, which would be the highest since Q1 2012 if achieved. Estimates for 2017 call for 11.2% earnings growth and 8.4% revenue growth in Q1, 10.7% earnings growth and 6.2% revenue growth in Q2, and for FY17 a total of 11.5% earnings growth and 5.9% revenue growth. The S&P's forward P/E Ratio at 17X is above the 5 year-average of 15X and 10 year average of 14.4X. The last two years of a bull market tend to hit a euphoric stage and have averaged a 58% return, and minimum of 30%, while markets have risen just 13% these last two years, so historically this bull market looks to have further upside.

Percentage (%) of S&P 500 Cos. with Q4 Positive & Negative Guidance
(Source: FactSet)

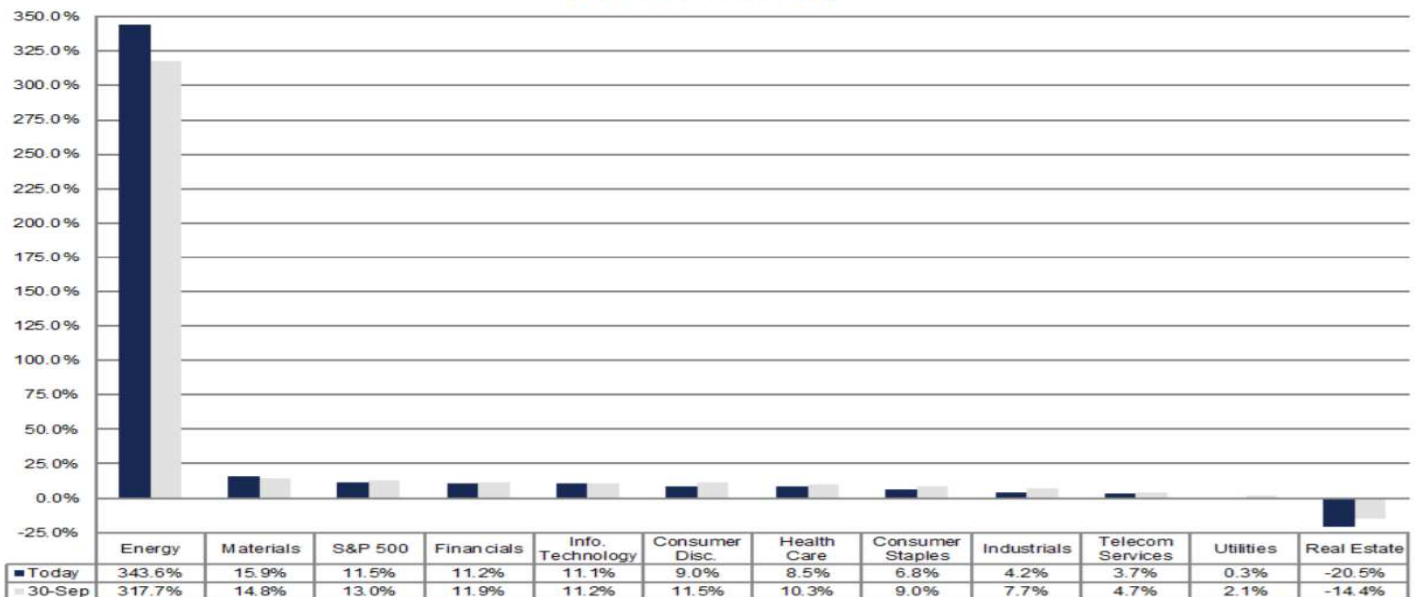


S&P 500: Aggregate Sector Geographic Revenue Exposure (%) (Source: FactSet)



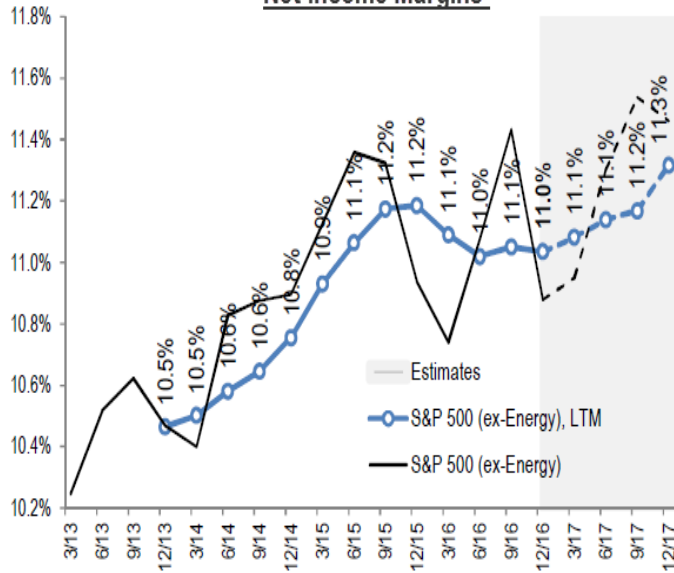
With an expected move into a pro-growth environment we can expect small caps to outperform large caps, and the value investment style appears to be making a key inflection to growth. Energy is expected to be the main driver of earnings growth as it works out of the downturn with over 340% EPS growth expected for 2017. It is once again expected to be a year that strengthens as it goes along with quarterly EPS estimates for Q1, Q2, Q3, and Q4 at \$30.55, \$32.60, \$34.20, and \$35.16 respectively.

S&P 500 Earnings Growth: CY 2017 (Source: FactSet)



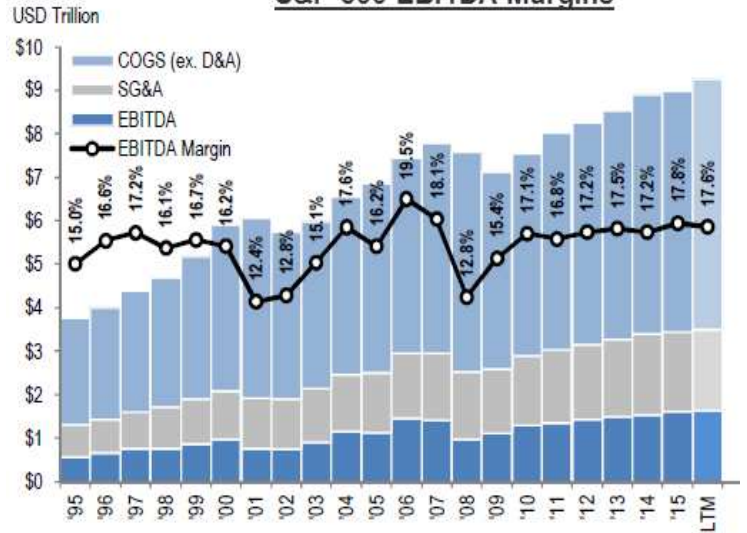
Operating Non-GAAP

Net Income Margins



Actual since 1995

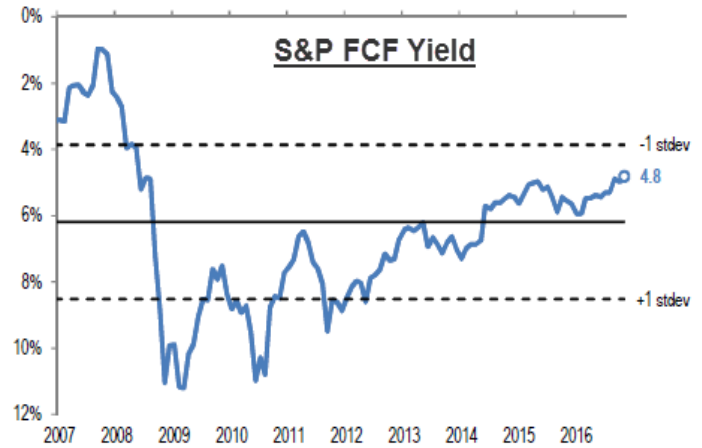
S&P 500 EBITDA Margins



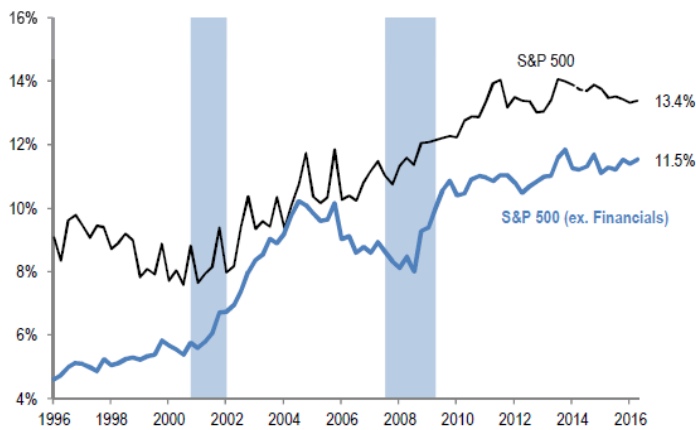
S&P EV/EBITDA



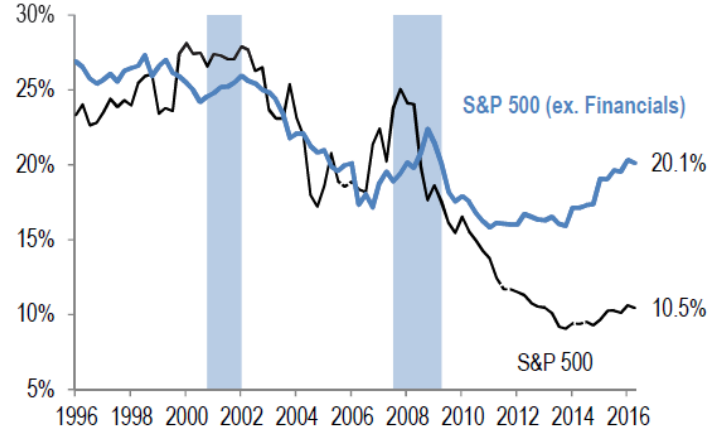
S&P FCF Yield

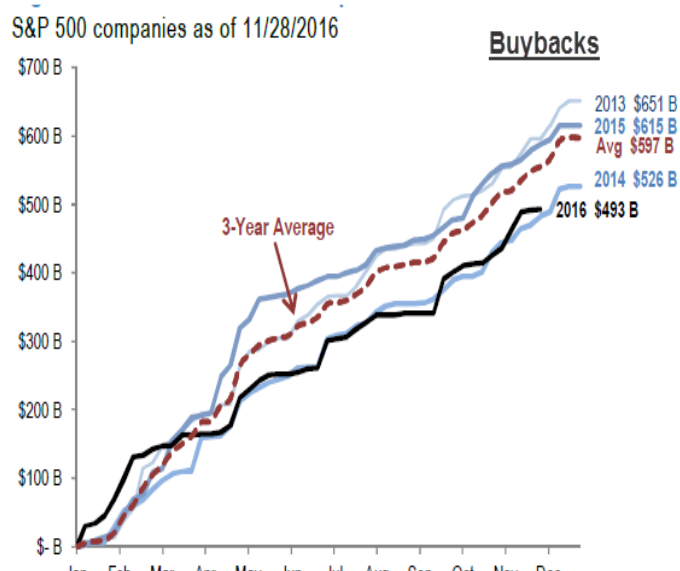
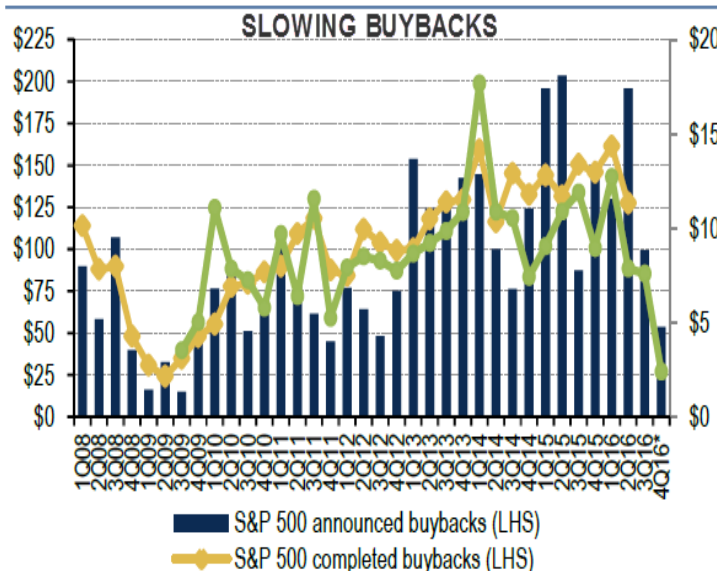
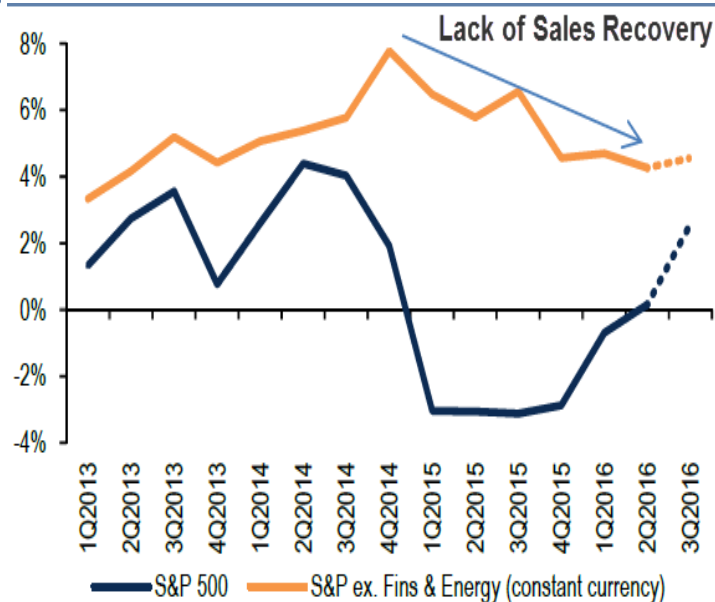
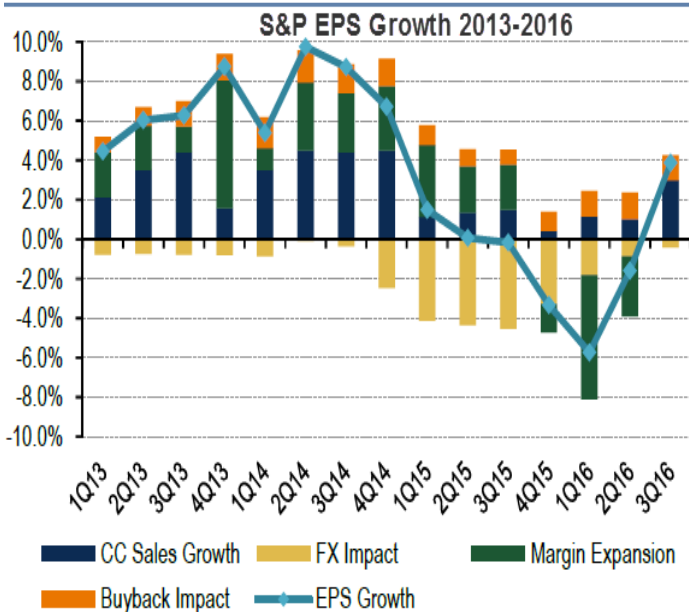
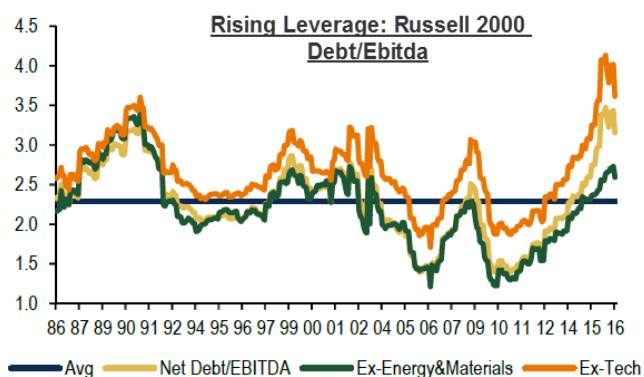
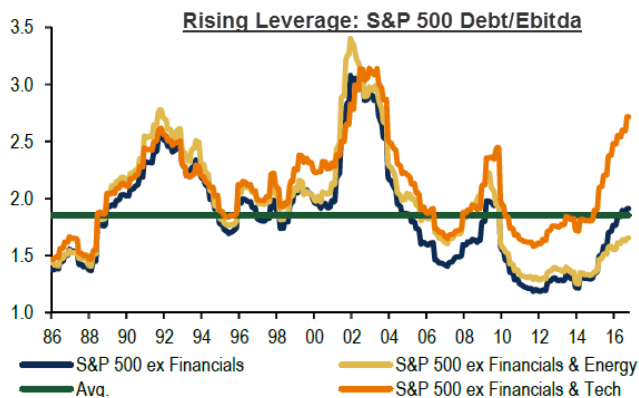


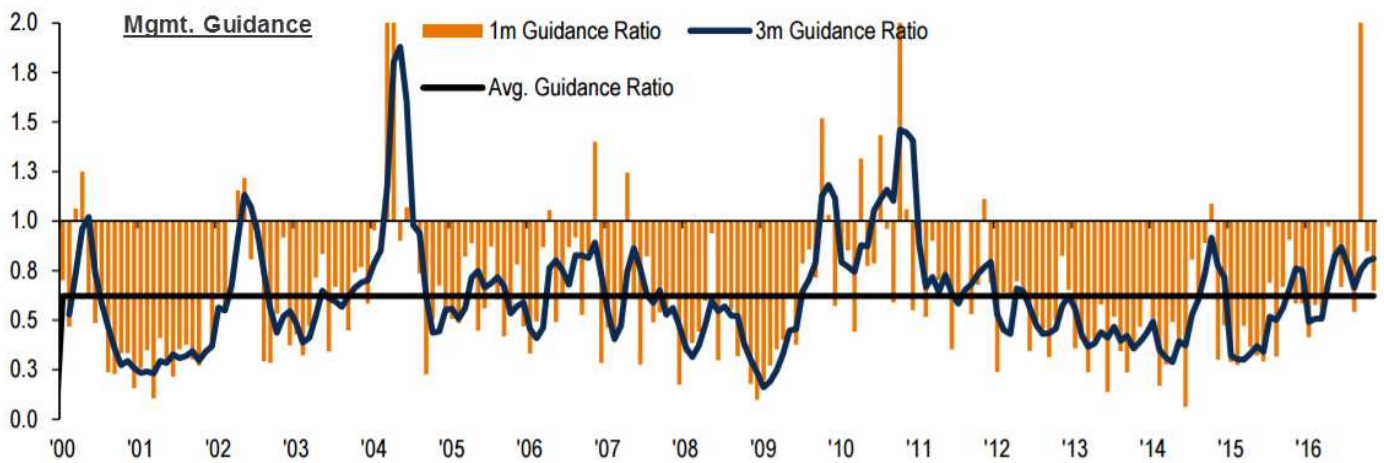
Cash as % of Total Assets



Net Debt to Total Assets







S&P 500 valuation metrics as of 11/30/2016

Metric	Current	Average	% Above (below) average	History
Trailing PE	18.9	16.0	18%	1960-present
Trailing GAAP PE	24.6	19.1	29%	1960-present
Forward Consensus PE	16.7	15.2	10%	1986-present
Trailing Normalized PE	18.5	19.0	-3%	9/1987-present
Median Forward P/E	17.1	15.0	15%	1986-present
Shiller PE	26.1	16.7	56%	1881-present
P/BV	2.8	2.5	14%	1978-present
EV/EBITDA	11.2	10.0	12%	1986-present
Trailing PEG	1.6	1.5	9%	2001-present
Forward PEG	1.4	1.2	14%	2001-present
P/OCF	12.7	10.5	20%	1986-present
P/FCF	23.1	28.4	-19%	1986-present
EV/Sales	2.20	1.82	21%	1986-present
ERP (Market-Based)	714	463	54%*	11/1980-present
Normalized ERP	460	287	60%*	1987-present
S&P 500 Div. Yld. vs. 10yr Tsy. Yld.	1.0	0.6	57%*	1953-present
S&P 500 in WTI terms	48.1	23.2	107%	1960-present
S&P 500 in Gold terms	1.9	1.6	18%	1968-present
S&P 500 vs. R2000 Fwd. P/E	0.9	1.0	-9%	1986-present
S&P 500 Market Cap/GDP	1.0	0.6	76%	1964-present

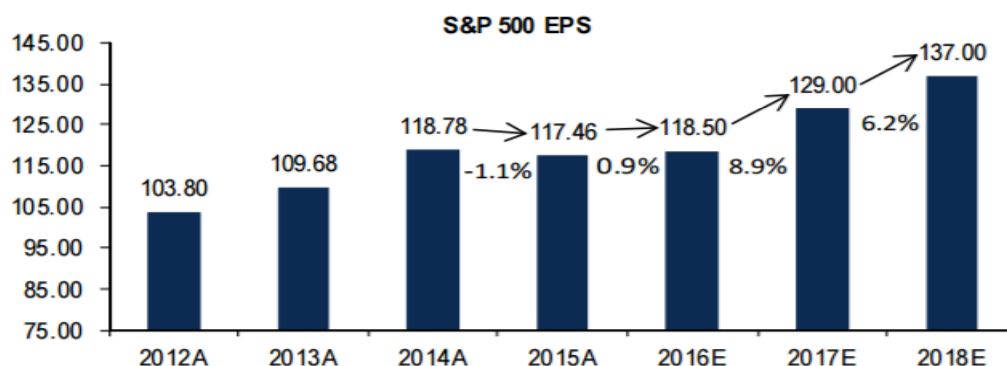
Predictive Power of Valuation Metrics

Metric	Current	Avg	% above (below) avg	10 yr RSQ	Implied 10yr Annldz Return	90% Confidence Interval	Dates
Trailing PE	18.9	16.0	18%	67%	7%	2% - 12%	1960-present
Forward PE	16.7	15.2	10%	88%	8%	5% - 11%	1986-present
Normalized PE	18.5	19.0	-3%	81%	9%	4% - 13%	7/1987-present
Shiller PE	26.1	16.7	56%	68%	6%	1% - 11%	1936-present
P/BV	2.8	2.5	14%	85%	10%	6% - 14%	1978-present
EV/EBITDA	11.2	10.0	12%	85%	7%	3% - 10%	1986-present
P/OCF	12.7	10.5	20%	90%	6%	3% - 9%	1986-present
P/FCF	23.1	28.4	-19%	39%	12%	5% - 20%	1986-present
EV/Sales	2.2	1.8	21%	86%	6%	2% - 9%	1986-present
Market Cap/GDP	1.0	0.58	76%	75%	0%	-4% - 4%	1952-present
				Median:	7%	3% - 11%	
				Average:	7%	3% - 11%	

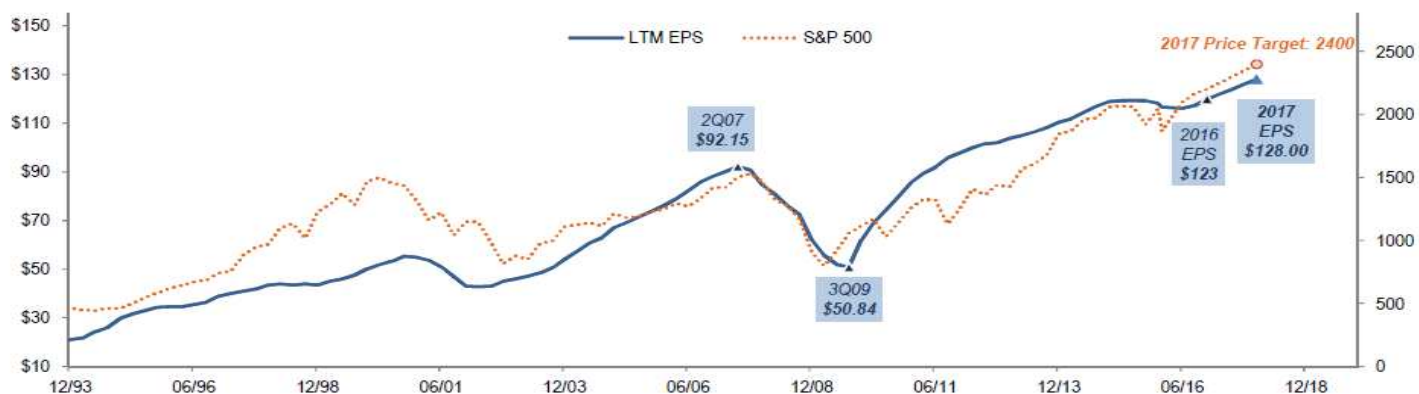
My projections for 2017 are as follows, and assign a 25% probability of the bull case, 60% probability of the base case, and 15% probability of the bear case to arrive at a year-end S&P 500 value of , a return for markets. In the second half of 2017 the FY18 estimates start to come into focus as a forward-looking market, so there can be further room for upside. The probability calculation implies a 2,210 fair value for 2017.

	EPS	Trading Multiple	S&P Value	Annual Return
Bull Case	\$130	20X	2,600	15.55%
Base Case	\$126	17X	2,142	-4.8%
Bear Case	\$122	15X	1,830	-18.65%

S&P EPS growth



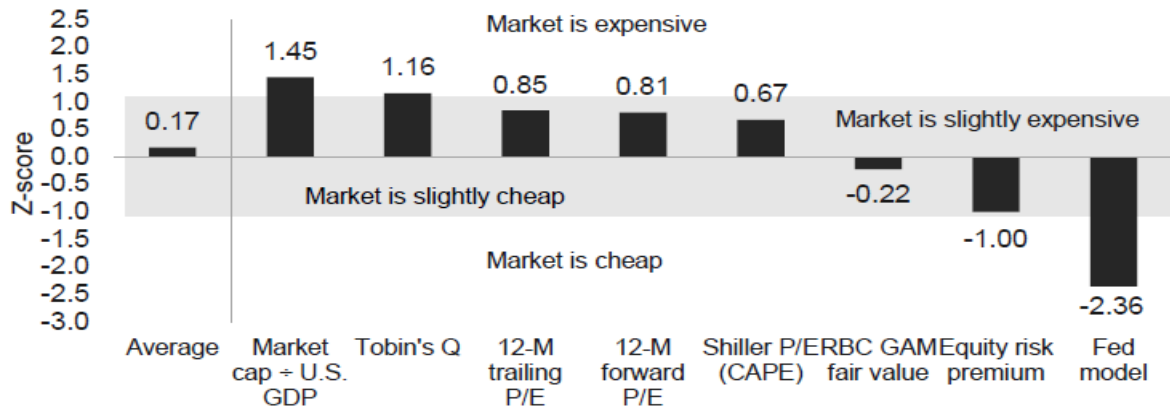
Actual EPS prior to 3Q2016, estimates thereafter



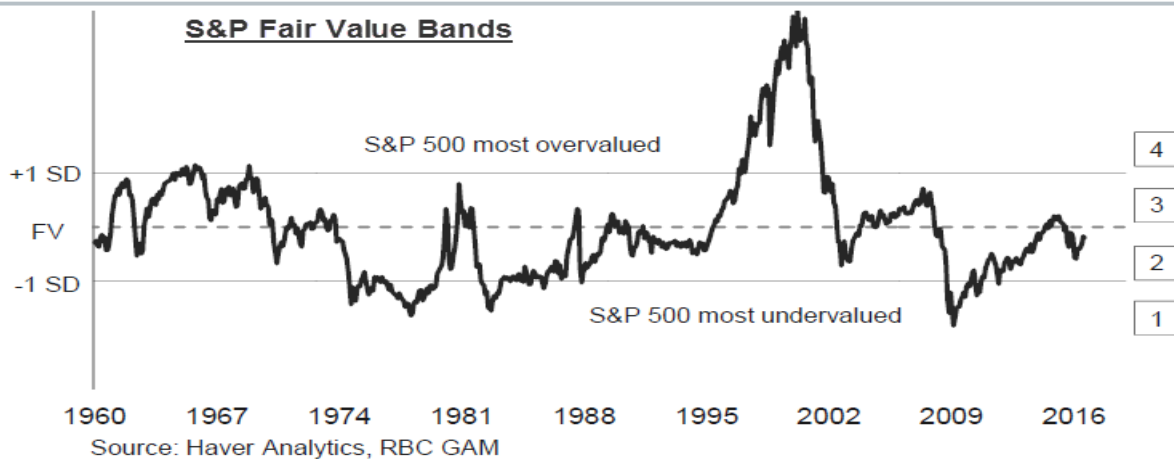
CONSENSUS

		2016 Top down	2016 Bottom up	2017 Top down	2017 Bottom up
	P/E	\$118.1	\$117.5	\$128.3	\$133.0
+1 Standard Deviation	22.2	2617.8	2603.2	2844.0	2946.5
+0.5 Standard Deviation	20.1	2373.3	2360.1	2578.3	2671.3
Equilibrium	18.0	2128.8	2116.9	2312.7	2396.0
-0.5 Standard Deviation	16.0	1884.3	1873.7	2047.0	2120.8
-1 Standard Deviation	13.9	1639.7	1630.6	1781.4	1845.6

Normalized valuation metrics as of August 2016



Notes: Historical data from Jan 1956 for 12-M Trailing P/E, 12-M Forward P/E, Equity risk premium, Shiller P/E and Fed model. Historical data from Mar 1956 for market cap ÷ U.S. GDP. Historical data from Jan 1960 for RBC GAM fair value. Source: Haver Analytics, RBC CM, RBC GAM



Conditions Today vs. Prior Market Peaks

	Today	10/9/2007	3/4/2000	7/16/1990	11/28/1980	1/11/1973	12/3/1968	2/9/1966	12/12/1961
S&P 500 Price at Peak	2,253	1,565	1,527	369	141	120	108	94	73
% up from prior peak	44%	2%	314%	163%	17%	11%	15%	29%	46%
Subsequent correction		-57%	-49%	-20%	-27%	-48%	-36%	-22%	-28%
Trailing P/E	18.2	17.2	29.9	15.7	9.6	18.7	19.1	16.9	23.8
Real GDP (SAAR YoY)	1.6%	2.3%	4.7%	2.5%	-1.6%	6.9%	5.3%	8.5%	3.0%
Real GDP: % up from prior peak	11.5%	17.8%	37.2%	34.8%	16.9%	10.9%	47.3%	31.3%	2.9%
Inflation (CPI YoY)	1.6%	2.4%	2.6%	4.6%	12.9%	3.5%	4.5%	1.8%	1.2%
Yield Curve (10yr - Fed Funds Rate)	206	-66	39	11	-133	91	-61	2	142
ISM Manufacturing Index	53.2	51.0	57.8	49.2	50.1	70.5	51.8	62.8	63.0
Total Loan Growth (YoY)	7%	12%	8%	6%	5%	18%			
C&I Loan Growth (YoY)	8%	17%	9%	3%	9%	13%			
CRB Commodity Price Index (YoY)	4%	9%	14%	1%	22%	31%			
Financial Obligations Ratio	10.0	13.1	11.6	11.6	10.5				
S&P 500 ERP (Market-Based)	714	496	252	344	283				
Fed balance sheet (\$bn)	4,449	869	584	310	166				
Credit conditions: Net % tightening	1.5	7.5	9.1	56.9					
EBIT Margin - S&P Non-Financials	13.6%	13.6%	12.3%	10.9%					
CBOE Implied Volatility Index	14	22	23	18					
Sell Side Indicator (avg. equity allocation)	52	66	59	57					
S&P 500 Total Debt/Market Cap	39%	72%	44%	77%					
Net buyback yield LTM (%)	1.0%	0.7%	-4.1%	-0.7%					
Rail carloads (YoY)	-1.1%	-1.3%	-0.2%	6.9%					
Dividend cuts (% of S&P 500 co's)	6%	4%	5%						
High Yield Spread	467	395	513						
M&A deals (#)	227	232	350						
M&A deals (% of US market cap)	3.3%	2.5%	3.6%						
# IPOs	97	162	475						

	Absolute & Relative Valuation, Median					Δ (Now vs 10Yr)
	Current	3 Months Ago	5Yr Median	10Yr Median	20Yr Median	
S&P 500						
EV/Sales	2.3x	2.3x	2.0x	1.8x	2.3x	0.5x
EV/EBITDA	13.0x	13.2x	10.4x	10.1x	11.1x	2.9x
P/E (Trailing)	20.6x	20.5x	17.4x	16.8x	18.3x	3.8x
P/E (NTM)	18.5x	18.5x	16.1x	15.2x	16.3x	3.3x
Price to Book	2.8x	2.9x	2.6x	2.4x	2.8x	0.4x
FCF Yield	4.8%	5.3%	6.2%	6.6%	5.1%	-1.8%
S&P 500 Sectors (PE NTM)						
Energy	133.2x	121.8x	14.3x	12.8x	14.1x	120.4x
Materials	19.3x	19.0x	17.2x	15.9x	17.3x	3.3x
Industrials	18.6x	17.7x	16.2x	15.8x	16.9x	2.8x
C. Discretionary	19.4x	18.6x	18.5x	18.2x	19.4x	1.1x
C. Staples	20.3x	21.7x	18.5x	17.0x	17.2x	3.2x
Healthcare	15.4x	16.4x	16.4x	14.3x	17.9x	1.2x
Financials	14.8x	15.2x	13.7x	13.5x	13.6x	1.3x
Technology	17.5x	18.0x	15.5x	15.7x	17.5x	1.8x
Telecom	13.9x	14.3x	14.2x	14.2x	16.3x	-0.4x
Utilities	16.8x	17.6x	15.9x	15.3x	14.9x	1.5x
International Markets PE (NTM)						
MSCI US	18.8x	18.9x	16.3x	15.3x	16.5x	3.5x
MSCI Europe (EMU)	14.7x	14.9x	14.3x	13.0x	13.1x	1.7x
MSCI UK	16.5x	17.7x	13.7x	12.2x	12.0x	4.3x
MSCI Germany	13.5x	14.0x	13.0x	12.5x	12.8x	1.0x
MSCI China	13.5x	13.0x	9.7x	10.9x	11.4x	2.5x
MSCI India	18.4x	19.1x	16.3x	17.2x	17.2x	1.2x
MSCI EM	13.5x	13.5x	11.5x	11.9x	11.6x	1.7x
Fixed Income Multiples						
US Bonds (10yr)	43.2x	64.1x	47.4x	35.4x	25.4x	7.8x
Munis (Moody's 10Yr AAA)	44.4x	67.1x	46.9x	36.5x	29.0x	8.0x
JPMorgan US Liquid Index (JULI HG)	25.4x	29.9x	26.0x	22.2x	19.0x	3.2x
JPMorgan High Yield Index	14.4x	14.8x	15.0x	13.0x	11.9x	1.4x
Alternatives Relative to S&P 500						
Homes: Median Home Price to S&P 500	119x	121x	130x	154x	155x	-34x
Gold: S&P 500 to Price of Gold (oz)	1.8x	1.6x	1.4x	1.3x	2.2x	0.5x
Oil: S&P 500 to Barrels of Oil	47.0x	52.4x	19.1x	16.4x	25.0x	30.6x
Economic Environment						
Real GDP Growth, yoy	1.5%	1.3%	1.9%	1.7%	2.4%	-20bp
Core Inflation (PCE Index), yoy	1.7%	1.6%	1.6%	1.6%	1.7%	10bp
Trailing Earnings Growth, S&P 500	-1.6%	-2.7%	10.8%	6.9%	8.8%	-848bp
Cash as % of Assets, S&P 500 ex-Fin	11.5%	11.4%	11.2%	10.3%	8.6%	122bp
Debt as % of Assets, S&P 500 ex-Fin	31.6%	31.7%	28.6%	28.4%	29.8%	327bp

Sell-Side 2017 Market Projections

Analyst	Firm	SPX Year End Price Target		
		2017	2016	2015
Savita Subramanian	Bank of America Merrill Lynch	2300	2200	2200
Adam Parker	Morgan Stanley	2300	2175	2275
Andrew Garthwaite	Credit Suisse	2300	2150	2100
Julian Emanuel	UBS	2300	2275	2225
David Kostin	Goldman	2300	2100	2100
Tobias Levkovich	Citi	2325	2200	2200
Sean Darby	Jefferies	2325	2180	2175
Tony Dwyer	Canaccord	2340	2360	2340
Brian Belski	BMO	2350	2100	2275
David Bianco	Deutsche Bank	2350	2250	2150
Stephen Auth	Federated Investors	2350	2500	2350
Dubravko Lakos-Bujas	JPMorgan	2400	2200	2250
Roland Kaloyan	Societe Generale	2400	2050*	2050*
Jonathon Glionna	Barclays	2400	2200	2100
Heidi Richardson	Blackrock	2400	2175*	2160*
Jonathan Golub	RBC	2500	2300	2325
John Praveen	Prudential	2575	2250	2250
Sam Stovall	S&P Capital IQ	?	2250	2250
Thomas Lee	Fundstrat	?	2325	2325
John Stolfus	Oppenheimer	?	2300	2311
		SPX Close	TBD	2044

Gold Technical View and Analysis

Gold (GLD) is higher by 7% YTD despite a sharp sell-off since the Election as bond yields have risen and investor's poured money is equity markets and the US Dollar has risen sharply. A rising rate environment is also not favorable and though Gold has long been thought of as a safe-haven asset, it has lost much of its allure with all the alternatives for safety investments. The CoT data shows money managers have been moving out of Gold since the summer. Similar to my views the past three years, I still see very little reason to invest in Gold in the current environment.

On the chart Gold attempted a rally earlier this year and failed near the \$1,300 level which is a 38.2% Fibonacci retracement. The bounce in late 2015 happened right at a retest of the big breakout from 2009 and a psychological \$1,000 level. The latest sell-off has potential to hold near the \$1,060 level as a retest of the downward channel breakout and also a trend support off prior lows. If that level fails, expect a retest of the \$1,000 level and potential major breakdown. If this retest can hold, a move back to \$1,200 would be initial resistance, and now facing a downward slopping 200 week MA.

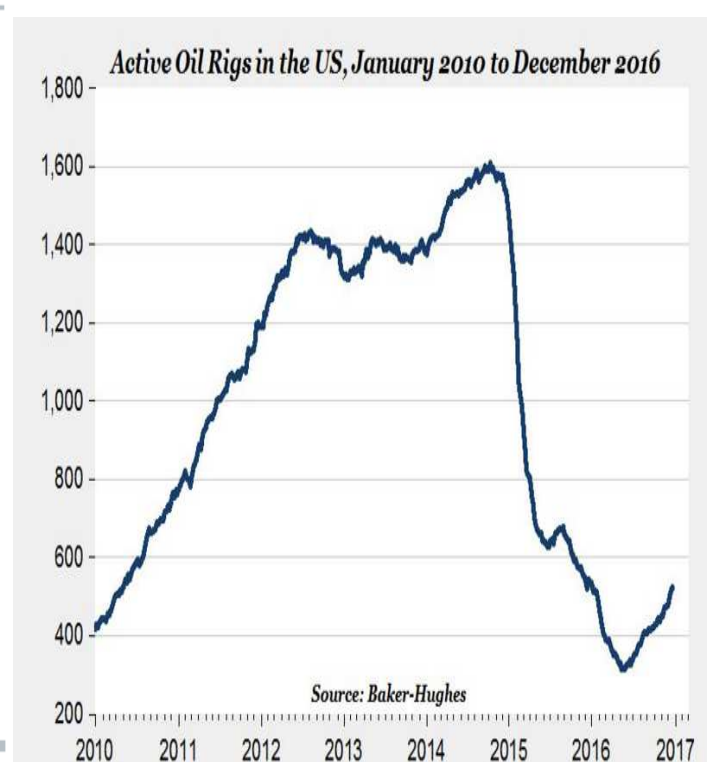
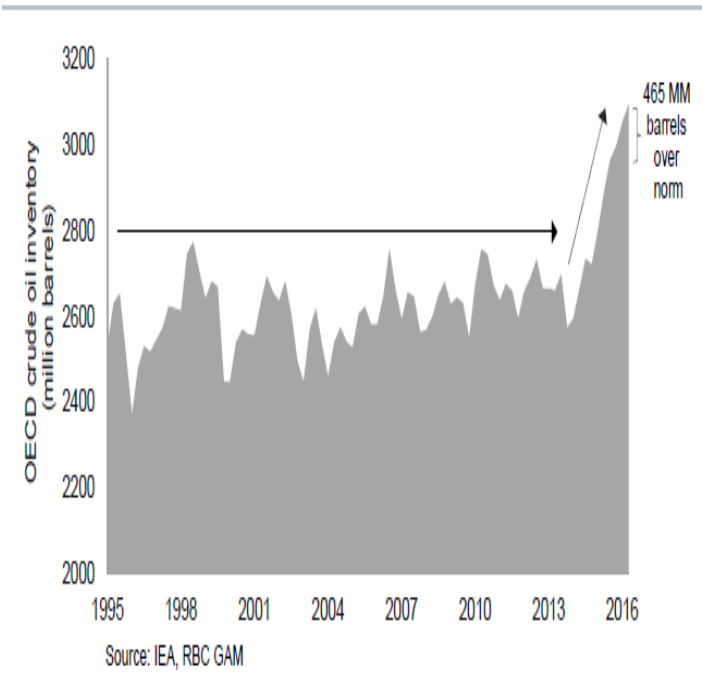
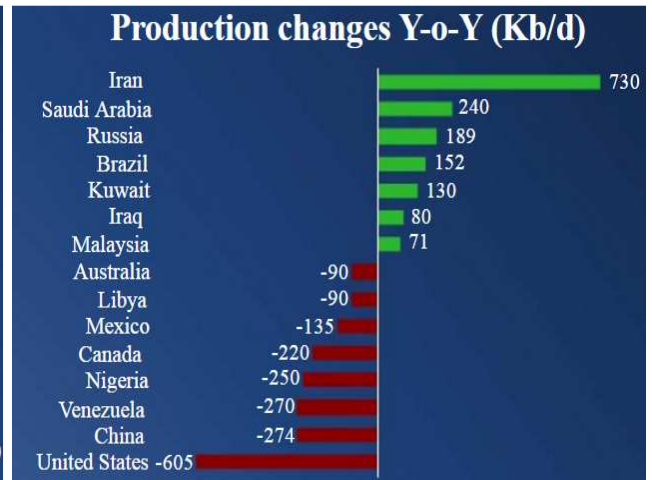
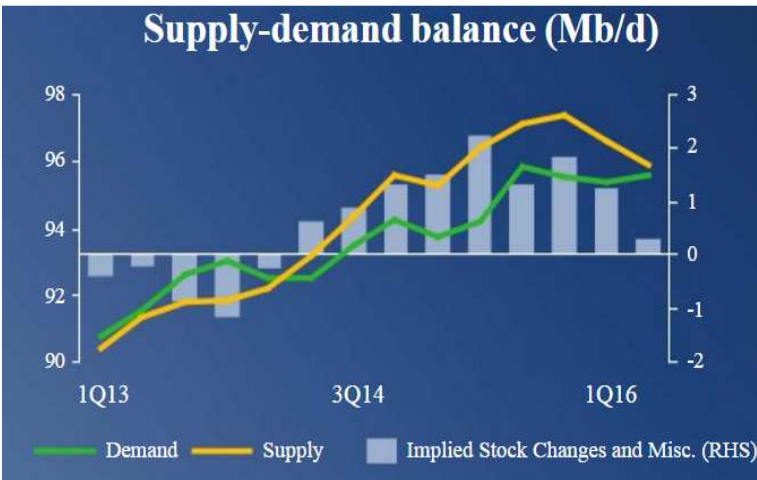
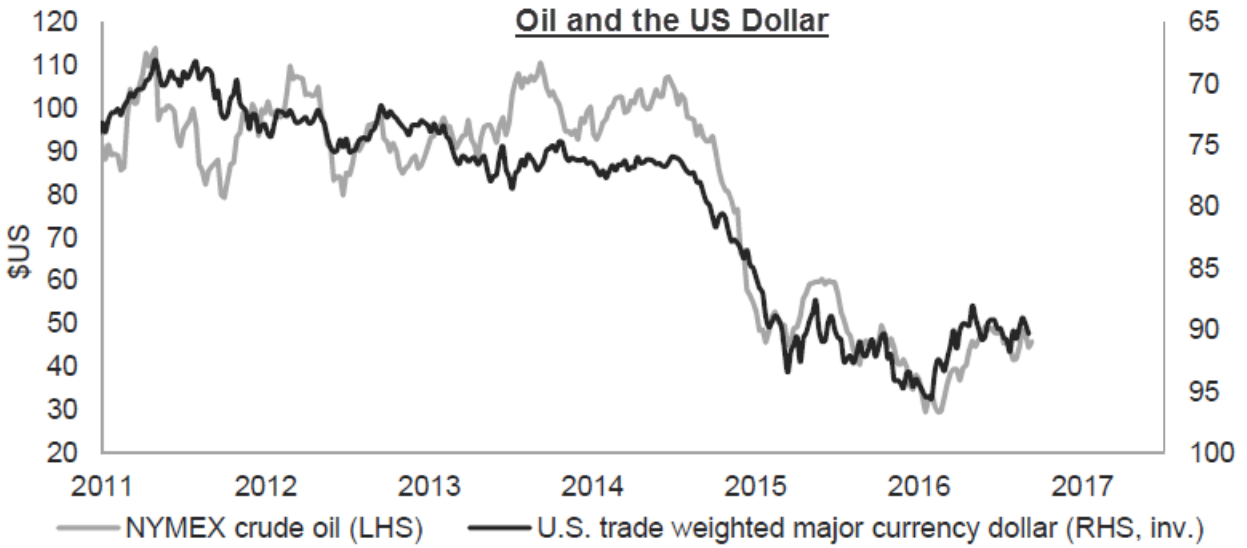


Oil Technical View and Analysis

Crude Oil entered 2016 in a sharp sell-off and reached new lows near \$28 before stabilizing in February/March. A big break back above the \$40 level in mid-April and through the 200 day MA led to a rally to \$50, and from May to November Oil was range-bound in the \$43/\$50 zone for the most part, testing and holding the 200 day MA that has regained a positive slope a few times. The OPEC decision to cut production late in 2016 sent Oil back above the \$50 level and it has held for a few weeks. Most of the experts in the Energy industry feel that Oil has bottomed, and the chart shows promise, though the demand side of the equation still appears to limit the upside. Active US oil rigs have slowly started to rise off the 2016 lows and FY17 production is expected to grow Y/Y at most E&P companies though total US production expected to be down to 8.8M b/d in 2017 from 8.9M in 2016. Stability in the \$50-\$60 range for 2017 would be welcomed, but what is the consensus expectation seems to rarely happen. Reuters polled 29 analysts after the OPEC decision and the average forecast was for \$57 oil, while Raymond James had the highest prediction at \$83. It will be important to monitor US shale production, if Oil prices rise quickly it could cause a surge in production and then create another supply/demand imbalance which was a key driver in the sell-off 2014-2016.

Oil on the chart has put in a great looking bottoming pattern and the \$28/\$50 range break has a measured move to \$72 by early 2018. After some sharp moves lower in 2014 after Oil broke \$90 there are likely some large volume pockets overhead if Oil strengthens that can result in volatile moves. The \$60 level overhead from resistance in 2015 is a key level, and on a break above there is not a lot of resistance until above \$75. Looking at Fibonacci levels from 2014 highs to 2016 lows, the next overhead level is \$57 as a 38.2% retracement followed by \$66.75 as a 50% retracement. In terms of support, the \$50 level now is support being a former resistance breakout, followed by the 200 day MA at \$47, and trend support near \$44.





Top 20 Long Investment Ideas for 2017 in Large/Mid Cap Stocks (Growth at a Reasonable Price)

Overview: Snapshot of Top 20 with Entry Levels for 1/2 and Full Positions as Well as a Target, and Stop

2017 Desired Weightings: Energy/Metals/Chemicals 17.5%, Tech 15%, Financials 15%, Utility/Telecom 7.5%, Consumer Staples 5%, Consumer Discretionary 15%, Industrials 15%, Healthcare 10%

Portfolio

Ticker	Company	Market Cap	P/E	FY17 EPS Growth	ROIC	Entry 1/2	Entry 2/2	Target	Stop
ADBE	Adobe Systems	\$52B	21.89	25.39%	22.40%	\$102	\$96	\$130	\$90
AMZN	Amazon.com	\$370B	85.66	89.02%	10.40%	\$730	\$680	\$1,000	\$630
BCR	C. R. Bard	\$16.6B	19.63	10.94%	26.80%	\$220	\$205	\$275	\$190
GS	Goldman Sachs	\$95.7B	13.12	17.1%	1.2%	\$225	\$200	\$300	\$175
CELG	Celgene Corp	\$91.7B	16.77	18.88%	30.20%	\$115	\$108	\$145	\$96
CPB	Campbell Soup	\$18.55B	18.74	4.91%	2.90%	\$58	\$55	\$70	\$52
DE	Deere & Co	\$32.9B	20.12	15.60%	3.80%	\$100	\$95	\$125	\$87
FNV	Franco-Nevada	\$10.5B	57.71	10.90%	4.70%	\$52	\$48	\$70	\$42.50
IBM	IBM	\$15.9B	12.02	2.99%	24.40%	\$160	\$150	\$210	\$140
LUV	Southwest Air	\$31.2B	13.89	-0.71%	24.20%	\$47	\$43.50	\$65	\$39
LYB	LyondellBasell	\$35.4B	8.86	4.01%	26.90%	\$86	\$82	\$110	\$75
MLM	Martin Marietta	\$14.5B	24.91	37.01%	8.20%	\$215	\$195	\$275	\$180
PCG	PG&E Corp	\$30.9B	16.71	-1.56%	6.90%	\$59	\$56	\$70	\$51
PCLN	Priceline Group	\$73.45B	19.68	17.40%	24.10%	\$1,400	\$1,250	\$1,750	\$1,175
PRU	Prudential	\$45.6B	10.27	14.97%	5.80%	\$100	\$93	\$125	\$85
SCHW	Charles Schwab	\$52.9B	25.6	21.71%	3.60%	\$37	\$34	\$45	\$30
SLB	Schlumberger	\$120B	44.27	67.24%	1.40%	\$83	\$79	\$105	\$75
STLD	Steel Dynamics	\$9B	15.39	25.86%	10%	\$35	\$32	\$43	\$29
TXT	Textron Inc.	\$13.3B	16.75	8.20%	11.40%	\$47	\$44	\$55	\$39
UPS	United Parcel Service	\$101.6B	18.87	5.79%	36.20%	\$112	\$107	\$135	\$103

Amazon.com (AMZN) enters 2017 with a \$370B market cap, shares performing in-line with markets this year at +14% YTD. Shares are now trading 85.6X Earnings, 2.89X Sales, and 43.1X FCF. Many people have used traditional valuation metrics to conclude Amazon shares are overvalued for the past few years and missed out on the massive rally in shares. Amazon has one of the smartest CEO's in the World that was willing to sacrifice near-term profits to build out the company and put it in a leadership position across nearly every secular growth trend in Tech, and now the AMZN earnings power engine is being flipped on. The company is growing revenues 28% in 2016 and projects to grow above 20% each of the next two years, while EPS set to hit above \$15/share in 2018, more than tripling 2016 levels at \$4.75/Share. There is little reason to believe the growth story is at or near a peak as it continues to innovate and consider that ecommerce remains a very small portion of overall retail sales. Its new products such as Echo, Dot, and Dash are not only adding ancillary revenues but generating stronger customer engagement leading to more sales to its core ecommerce business. It also has major growth potential on the International front and recently started to make a big push into the massive market in India. The company has made so many investments and is now starting to see operating margins rise, reaching 32% last quarter with runway to 40%+. Amazon Web Services (AWS) has quickly become a cloud leader and although Y/Y growth rates have slowed each quarter to 55% in Q3 and expected at 50% in Q4, this is still enormous growth. It continues to explore new markets as well and reports in November from the WSJ that it may consider a premium sports package for streaming media, which could be huge, and its new concept grocery store Amazon Go. In summary, Amazon remains a top flight growth stock expanding its available markets, taking market share across various verticals, having a powerful brand, impressive earnings power, room for margin expansion, and optionality with AWS. It remains a top name to own over the long term.

Goldman Sachs (GS) now has a \$95.7B market cap with shares gaining 36% YTD, most of the gains coming after the Election with benefits seen from deregulation and also has the Fed embarks on a rising rate cycle. A stronger economy will also be positive for the banks. GS trades 13.1X Earnings, 1.34X Book and 23X FCF with a 1.08% dividend yield. Goldman has the lowest exposure to fixed income trading at 14% market share among the large banks and one of the highest to investment banking at 22% and equity trading at 27%, which sets it up positively for 2017. GS will also see a rise in lending and banking fees and better net interest margins while looser regulations and lower taxes are further tailwinds. GS trades at a slight discount to peers while being closer tied to Macro strength, a strong ROE, and a better EPS growth profile. As a leader in M&A advising and Equity Markets, it has a lot better earnings upside than its peers while the other businesses are set to benefit from Macro and Fiscal positives.

International Business Machines (IBM) has a \$159B market cap and has seen shares outperform this year climbing more than 25% YTD, a name that has gone through a long period of slow growth as it tries to shift a massive company into more growth markets, and finally looks positioned for upside as its mix improves. With value likely to be favored to growth, IBM fits the bill, trading 12X Earnings, 1.99X Sales and 17.15X FCF with a 3.35% dividend yield. IBM forecasts still lack revenue upside as its core businesses have deteriorated, but looking to show EPS growth for the first time in three years in 2017. IBM's artificial intelligence capabilities should lead to upside as it fights for market share in a strong growth market with a bright future, and IBM sees its addressable market rising \$400B along by 2020 for Internet of Things. As the #1 provider of IoT based Artificial Intelligence, IBM offers good value at these levels to lever to that growth theme. IBM's Watson also has a large opportunity in healthcare. Last quarter IBM continued to show weakness in its core business and margins were a concern, but cloud revenues jumped 44%. The strong US Dollar and a higher effective tax rate are potential headwinds into 2017, but the overall transformation of the company is underway and IBM has the potential to return to a growth company in coming years, leading to multiple expansion.

Schlumberger (SLB) has a \$120B market cap and remains the best in breed play for oil services with shares trading 44.25X Earnings, 4.2X Sales, 2.82X Book and a 2.34% dividend yield. SLB was hit along with every other company in the Energy downturn with two years of sharp revenue and EPS declines, and now targeting 20% topline growth and 50%+ annual EPS growth for the foreseeable future with 2019 estimates at \$5.60/\$45.8B which would be a new record for EPS and back to 2013 revenue levels. SLB does have more International exposure than peers, so not as leveraged to a North American recovery. SLB's 23.3% EBITDA margins are fantastic compared to peers with Halliburton at 13.2% the next best, and this is driven by SLB's technological advantages, while SLB also at 0.6X Debt/EBITDA has a healthy balance sheet. SLB is a leader at controlling costs and is also integrating its large acquisition of Cameron which is on track for \$600M in synergies in year 2. SLB's more defensive characteristics while being the best run company in the group makes it my favorite oil services play considering Oil has shown signs of bottoming, but the upside also looks fairly contained.

United Parcel Service (UPS) has a \$101B market cap and trades 18.9X Earnings, 1.69X Sales and yields a 2.69% dividend. The shipping company is benefitting from the strong growth in ecommerce which has a lot more room to grow versus traditional retail, and shares are +24% YTD. At 10.3X EBITDA compared to Fed-Ex (FDX) at 6.7X, UPS does trade at a premium, but is warranted considering its higher EBITDA margins, stronger FCF, healthier balance sheet, and a ROIC at 36% compared to FDX's at 14%. UPS has been making acquisitions and launching new technology to improve operational efficiencies such as automation and hub modernization. Its 10 year CAGR of International exports is +5.7% compared to Fed-Ex at +1.9% as International has now grown to 28% of revenues. UPS is also a strong free cash flow name with \$5B in FCF and has been growing its dividend yearly. UPS is positioned best to capitalize on cross-border online retail which is expected to grow rapidly. Its efforts to optimize are already showing promise as Q4 margins showed sequential increase for the first time since 2012, generally the peak Holiday season causes margin contraction. UPS shares enter 2017 breaking out of a 2 year sideways range and the momentum is justified with its industry leading margins, tech improvements, and exposure to growth markets.

Celgene (CELG) has a \$91.5B market cap and remains a top pick in Biotech with shares -1.55% YTD as the overall group has struggled to gain traction due to pricing fears. CELG trades 16.8X Earnings, 8.45X Sales and 27X FCF. The company is growing revenues 22% in 2016 and EPS 25%, impressive for a large cap, and its outlook through 2018 is targeting above 15% annual revenue growth and around 20% EPS growth. Its 2020 targets call for > \$21B in revenues and > \$13/share in EPS. It's Hematology / Oncology market is estimated at \$42B in 2015 and set to grow to \$89B in 2020. Abraxane will have multiple Phase 3 data readouts in 2017 and Revlimid RELEVANCE trial results expected 1H17 and AUGMENT in 2H17. CELG will give guidance in January, and Phase 3 data for ozanimod for MS expected 1H17 and it could also add M&A deals to enter more into the neuro segment. The company receives 62% of revenues from Revlimid and has until 2026 until it loses exclusivity, while some generic entrants will come in starting 2022. This gives CELG plenty of time to diversify its pipeline. The company estimates it has 50 potential new products in more than 100 indications over the next decade. CELG's 30% ROIC and high margins are superior to its peers while offering phenomenal long term growth. With CELG likely to hit that \$13/share in EPS by 2020 and a 20X multiple justifiable giving

its outstanding growth, that gives us a \$260 stock currently trading at \$118, so it offers one of the best value for growth combinations in the entire market.

Schwab (SCHW) now has a \$53B market cap with shares gaining 24% YTD as the outlook for markets and rising rates have boosted the stock, but it also has been posting great results throughout the year. Shares now trade 25.6X Earnings, 7.2X Sales, 4X Book and 49.55X FCF with a small 0.69% dividend yield. SCHW had a record year in 2016 growing revenues 15% and sees 13% and 11% growth each of the next two years while EPS growth expected around 20%. In Q3, total brokerage accounts rose 4% Y/Y, total client assets 13%, and interest-earnings assets 22% growth. SCHW also set a record with pre-tax profit margins hitting 41.5% as asset management revenues jumped 20% to a new record. Its ROE at 14% was the highest in more than five years. Stronger equity markets, improving DARTs, and higher rates are all positives as SCHW enters 2017. Its earnings power will rise sharply with normalized rates and it can also see benefits from new retirement rules. It's above-average growth, strong management utilizing Tech to take market share, and leverage to rising rates make it a top name to own in 2017.

Adobe Systems (ADBE) has a \$52B market cap and shares are trading in-line with the market in 2016 at +11.25% YTD. Shares trade 21.9X Earnings, 7X EV/Sales, and 29.9X FCF. After posting 21% revenue growth and 45% EPS growth in 2016, ADBE is set to post near 20% revenue growth in 2017 and 2018, and EPS growth above 25% annually. ADBE is a strong play in software with it capitalizing on growth trends in cloud, mobility, digital media and AI. Growth in digital media is being fueled by mobility, content explosion and business automation and reached \$4B in Q4, up from less than \$2B two years ago. Its Creative Cloud product is seeing 45% subscription growth outside of the US and Document Cloud seeing 13% unit growth Y/Y. ADBE could see some multiple compression but its growth in earnings can offset this as its earnings power grows from its high operating leverage model expanding margins. ADBE continues to post impressive growth metrics while having a large and growing TAM, and its AI leadership with Sensei adds optionality. Strong renewal rates, rising ARPU, and multiple years left of above-average growth make ADBE an attractive Tech name to own.

Priceline Group (PCLN) has a \$73.45B market cap as a leader in Online Travel Agencies (OTA) and shares have performed modestly well in 2016 gaining 17% YTD. It trades 19.7X Earnings, 7.1X Sales and 21.4X FCF. PCLN posted 16% revenue growth and 10.8% EPS growth in 2017 and projections for around 15% annual revenue growth and 16% EPS growth for 2017 and 2018. PCLN has a long history of profit growth with a 35% 5 year CAGR and 31% FCF CAGR. Other impressive metrics include gross bookings CAGR at 32% and room nights at 36%. Its other brands include Booking.com, Agoda, Open Table, Kayak, and Rentalcars.com. The travel market is massive, estimates at \$1.3 trillion with a \$650B hotel accommodation market and online penetration remains fairly low at 35% gaining share every year. PCLN's strong balance sheet makes it a likely candidate for making further acquisitions in 2017. Rising advertising costs is one concern, but PCLN has been disciplined in the past and still generates 24% ROIC and impressive FCF. PCLN could face some FX headwinds early in 2017 results but overall it continues to be the best operator in the space and its 12% global accommodation share leaves room for a long runway for growth. There are also additional opportunities in alternative accommodations as Booking.com has added vacation rentals competing with Home Away and Airbnb with potential 30%+ booking growth seen for 2017. Furthermore, repatriation legislation could bring \$12.2B of cash back to the US to be utilized in M&A. PCLN has a lot of long term upside as a leader in a massive market and gaining share will generate strong FCF and trading at a reasonable valuation.

LyondellBasell (LYB) is a \$35.5B chemicals company with shares up just 3% YTD, but having bottomed in July and now in a steady trend higher. Shares trade 8.85X Earnings, 1.24X Sales, and 23.65X FCF with a 3.9% dividend yield. LYB has seen revenues fall in 2015 and 2016 and expects 6% growth in 2017 while EPS to grow 4%. At 6.4X EBITDA it trades at a steep discount to peers while having strong 23% EBITDA margins and 26.9% ROIC. It also operates at a lower Debt/EBITDA ratio. LYB enters 2017 with expanded capacity and seeing better pricing/margins ahead. Its largest end-use is Packaging, followed by Transportation and Consumer. LYB also is active in buybacks and has reduced its shares outstanding by more than 25% since 2013 with its consistent OCF. Although chemical markets are fairly mature and not an exciting growth name, LYB is an outstanding value offering a strong dividend yield, strong FCF, positive margins, and best in class cost control. It is fairly levered to Oil price movements as well and that is expected to trend upward in 2017 and further margin improvements can drive upside to EPS estimates.

Prudential (PRU) with a \$45.6B market cap has seen shares climb 35.5% in 2016 and now trades 10.3X Earnings, 0.76X Sales, 0.82X Book and yields a 2.63% dividend. Revenues are down 12.5% Y/Y in 2016 with a low growth outlook while EPS set to jump 15% next year and 7% in 2018. PRU's ROE at 11.5% is best in class versus large cap peers and second to only Principal Financial (PFG) which trades at a premium, and room for PRU to get back to 15% level from 2014. PRU is one of the more International exposed names in life insurance with a concentration in Japan, and has a strong history of capital returns, and recently have seen it strengthen its balance sheet which will lead to less earnings

volatility. PRU enters 2017 with two key tailwinds, rising interest rates and deregulation, while favorable equity markets can also be a positive. PRU has rallied sharply in Q4 so a name to target on weakness, but prefer it in this Insurance group that should be set up for a favorable 2017 on earnings.

Deere & Co. (DE) has a \$32.9B market cap and shares have climbed nearly 40% this year with the Ag cycle looking to have bottomed. DE is now trading 20X Earnings, 1.24X Sales, 5X Book and yields a 2.31% dividend. EPS has come down from above \$9/share in 2013 to \$4.80/share in 2016, and targets a move back above \$6.50/share by 2019 and a path to \$10/share is not out of the question. Deere sees major economic tailwinds intact, including population growth leading to demand for feeding the World and infrastructure on migration to urban areas. DE is posting 8% operating margins in 2016 and 12% is considered a mid-cycle level, so there is plenty of room for expansion in coming years. DE has been implementing cost-savings initiatives and can benefit from any rebound in soft commodity prices in 2017. DE is a powerful American brand that is coming out of a trough period for earnings and on the chart breaking out of a multi-year range, a good time to own the name as it enters a stronger earnings cycle and starts a new trend move higher.

Southwest Airlines (LUV) has a \$31.2B market cap and shares have gained 18% YTD in an airline industry closing the year strong. Shares trade 13.9X Earnings, 1.54X Sales, 3.88X Book and 22X FCF with a 0.79% dividend yield. LUV does trade at a slight premium to peers at 6.2X EBITDA but offers one of the strongest growth outlooks, a high 24% ROIC and EBITDA margins well above the larger peers. LUV's strategic initiatives have led to strong growth in profits and margins, and its airline industry metrics continue to outpace competitors. Its acquisition of AirTran, Rapid Rewards loyalty program, International expansion, and fleet modernization have all led to ROIC expansion. LUV also is shareholder friendly with strong capital returns and has a very strong balance sheet with \$3.4B in cash. It announced a \$2B buyback and 33% dividend increase in May, 2016. When other airlines were struggling in 1H16 LUV was the only one in the group with a positive RASM and has 24% domestic market share as a leader in 27 of the top 50 US metro areas. The company has also always has a competitive cost advantage in the industry which sets it apart. As we enter 2017, airline demand has long been correlated with GDP growth, so it sets up for a strong year with multiple expansion likely as PRASM improves.

PG&E (PCG) with a \$31B market cap has risen 17.75% this year in the Utility group and shares trade 16.7X Earnings and 1.77X Book with a 3.2% dividend yield. PCG posted 5.8% revenue growth in 2016 and projects stable 3% growth ahead with EPS growth seen modest through 2018. PCG's 8% ROIC stands out among peers and also a 10% ROA. Although the Utility sector is not the best for the environment in 2017, PCG does screen attractive to peers, a clean balance sheet, strong cash flows, dividend payout growth, and all at a discount to peers. PCG spent the last few years recovering from the San Bruno pipeline incident with cost inflation and regulatory issues, but with that now behind the company I expect it to more than close the valuation gap to peers.

Campbell Soup (CPB) with an \$18.55B market cap is one of the more attractive consumer staples names in a group expected to struggle in 2017 as investors turn to better value for growth stories. CPB shares have gained 17.5% this year and trade 18.75X Earnings, 2.33X Sales and 27.1X FCF with a 2.31% dividend yield. The company continues to see low revenue growth just above 1% and EPS growth closer to a 5% CAGR. CPB screened attractive to peers with 22.8% EBITDA margins, leading FCF yield, and a 19% ROIC. CPB's core soup business expects modest growth in 2017 but the company has made some interesting investments into organic/natural foods such as Bolthouse Farms as it transitions its portfolio more geared towards growth. We are currently in peak soup season and CPB launched a new line named Well Yes!, so this will prove to be a topic on next quarter's call. CPB has been proactive in capitalizing on changing trends and also still in the midst of a cost-savings initiative that has driven better margins. If M&A returns to the group in 2017, CPB is also one of the more attractive targets.

C.R. Bard (BCR) is a \$16.6B medical device company with shares climbing 18.5% YTD amidst a weak healthcare sector. Shares trade 19.6X Earnings, 4.58X Sales and 55.4X FCF with a 0.47% dividend yield. After one of its strongest revenue growth years in a decade at 8.4% in 2016, BCR projects 5-5.5% annual growth the next two year and EPS growth around 11%. BCR's 33.6% EBITDA margins and 26.8% ROIC are much stronger than the industry average, and also one of the best FCF stories in the group. BCR is the best operated medical device company around and able to adapt to changing environments, a deep pipeline of new products can continue to driver organic growth while also being active in acquisitions. It has a balanced mix between Urology, Vascular, Oncology and Surgery while being a low ASP provider for the majority of its products. It sees opportunity in Emerging Markets, currently 10% of sales, but utilizing 35% of sales reps in those markets. Other markets targeted for growth are drug-coated balloons, Bio-surgery, Home Care, and targeted temperature management. Although valuation may not leave room for multiple expansion, BCR is the type of quality company with leading metrics and a history of delivering for shareholders, and those are the names to own as an investor.

Martin Marietta Materials (MLM) is a \$14.5B provider of building materials for the construction industry and has seen shares climb nearly 70% in 2016, entering 2017 with strong momentum as demand for its material expected to jump on increased infrastructure spending. Shares trade 24.9X Earnings, 3.9X Sales, and 3.5X Book with a 0.73% yield. After growing revenues 37% and 20% in 2014 and 2015 the growth stalled in 2016 but expected to jump another 11% next year with EPS set to increase 37% to \$9.20/share, more than double 2015 levels. MLM's strong FCF can drive capital return to shareholders, and it has strong pricing power with high barriers to entry allowing for incremental margin growth. Although shares have already run a long way and priced aggressively at 13.8X EBITDA, MLM is levered to a strengthening construction cycle and has scarcity value as a leading aggregates play.

Textron (TXT) is a \$13.3B industrial with a focus on Aerospace and in particular the business jet market, shares +17% YTD. TXT trades 16.75X Earnings, 0.96X Sales and 37.2X FCF with a 0.16% dividend yield. After posting 14% revenue growth in 2014 the topline has basically stalled while EPS growth came down from 21% to an 8% annual rate. TXT has the broadest aviation lineup in the industry and can respond quicker to market conditions with its fastest average deployment time. Its Citation Longitude is expected to complete its first flight at EIS 2017 and Citation Hemisphere in 2019. TXT is positioned well for the new administration after years of negative sentiment surrounding the business jet market, and medium sized business jets are correlated with US fiscal stimulus. As a smaller player in a sizable industry with best in class products and revenues near bottom of the cycle levels, TXT could also make an attractive M&A target at 9.6X EBITDA. Its refreshed product portfolio can start a strong multi-year earnings cycle and re-rate shares at or above peer averages.

Franco-Nevada (FNV) has a \$10.5B market cap as a gold-focused royalty and stream company with shares +29% YTD. Although I am not overly optimistic on Gold prices into 2017, FNV is a favorite in the group and adds some diversification to the portfolio. Shares are currently trading 57.7X Earnings and 2.5X Book, a 37.8% revenue surge in 2016 and 61.9% jump in EPS. FNV has high margins and limited exposure to the risks that operating companies have, and has outperformed underlying metals prices sharply since its IPO 7 years ago. Gold accounts for 66% of revenues, Silver 21%, PGM 7%, and Oil & Gas 5% while Latin America is 49% exposure and US/Canada at 34%. Its oil & gas asset is interesting, a \$100M purchase into the STACK shale play in Oklahoma's Anadarko basin. FNV has \$1.4B in available capital for more strategic moves. At 2.35X NAV, FNV is trading below its historic range high of 3X and is considered to have best in class asset diversification. In a low sentiment group with more defensive characteristics it is my preferred way to gain exposure to precious metals.

Steel Dynamics (STLD) is a \$9B Steel company trading 15.4X Earnings, 3X Book and 14X FCF with a 1.5% dividend yield and has seen shares gain more than 110% YTD. STLD has long been my favorite way to gain exposure to this industry and with pricing firming and the outlook for infrastructure spending rising, is positioned nicely into 2017. STLD expects revenues to rise 9% in 2017 and EPS by 25%. Trade policy likely comes into focus in 2017 and if imports are restricted it would benefit STLD as an excess of imports in 2015 has led to low industry utilization. On the demand/consumption side automotive and construction should lead to a return to more normalized levels. Automotive accounts for 25% of US steel demand and Construction accounts for 40%, the latter expected to see growth in 2017. Improvements in Energy and Ag markets can be further tailwinds for next year. STLD is a low cost operator in the industry with leading margins and ROIC, while also trading in-line to peer valuations and having strong exposure to non-residential construction markets. Any continued gains in pricing would only fuel the story further for more upside.

150 More Top Longs That Missed the Top 20 Cut

ALB,WLK,CE,CF,TECK,SCCO,RS,FTI,SXL,WES,PSX,TSO,DVN,EQT,CLR,XOM,KAR,GM,PII,MGA,DLPH,MO,INGR,STZ,PF,CLX,LEG,EL,SCI,PKG,BERY,AVY,CRI,PVH,USB,C,HBAN,RF,CBSH,OZRK,AJG,PFG,CB,RGA,ETFC,NDAQ,CME,AMG,BX,KKR,V,PYPL,SYF,GPN,VNTV,BKFS,CBG,MSCI,INFO,FDS,FLT,INCY,BMRN,SHPG,MRK,ZTS,JNJ,UNH,CI,CVS,QGEN,IDXX,HOLX,BAX,ALGN,COL,TDG,GD,HXL,PH,DOV,ROP,ITW,XYL,AOS,NDSN,IEX,ST,FAST,PWR,EME,MAS,AYI,ALLE,SNA,TTC,WM,ROL,PHM,NVR,UNP,XPO,JBHT,TJX,TGT,HD,TSCO,AZO,ULTA,DKS,NFLX,SNI,DRI,SBU,X,IT,CTSH,LVS,WYN,MAR,NCLH,MSFT,INTU,FTNT,JKHY,EA,CSRA,ANET,AAPL,DLB,AKAM,JNPR,ZAYO,GOOG,YN,DX,WDC,MU,AVGO,INTC,ADI,KLAC,CDNS,SWKS,IPGP,CGNX,APH,CNP,D,UGI,WTR,PEG

[**FinViz Link for Watchlist**](#)

Top 15 Short Ideas for 2017

With Each Short I Provide a "Better Option" of a Similar Market Cap Stock in a Related Industry for those Interested in a Pairs Trades as the Environment for Shorting has been Difficult

Ticker	Company	Mkt. Cap	P/E	FY17 EPS Growth	ROI	Entry 1/2	Entry 2/2	Target	Stop
BABA	Alibaba Group	\$215B	21.25	26.28%	7.20%	\$92.50	\$95	\$75	\$101
ECL	Ecolab Inc.	\$34.6B	24.1	11.85%	9.40%	\$122	\$125	\$95	\$135
WDAY	Workday, Inc.	\$13.4B	242.7	892.86%	-16.20%	\$72	\$76	\$50	\$82
CINF	Cincinnati Financial	\$12.6B	24.87	-3.85%	9.40%	\$77	\$80	\$65	\$88
MKC	McCormick & Co	\$11.7B	22.62	8.55%	13.60%	\$95	\$98	\$80	\$103
TIF	Tiffany & Co.	\$9.7B	19.33	7.06%	12.80%	\$82	\$85	\$70	\$90
FLS	Flowserve Corp	\$6.4B	22.46	1.30%	11.50%	\$50	\$55	\$35	\$60
GIL	Gildan Activewear	\$6.1B	14.58	17.35%	12.60%	\$27	\$29	\$16	\$31.50
PNRA	Panera Bread	\$4.9B	27.31	14.42%	17.10%	\$212	\$220	\$160	\$230
BUFF	Blue Buffalo	\$4.75B	26.72	14.09%	26.30%	\$25	\$27	\$18	\$30
POOL	Pool Corp	\$4.35B	27.41	11.95%	23.30%	\$110	\$115	\$88	\$123
GRUB	GrubHub Inc.	\$3.2B	32.68	26.48%	4.30%	\$40	\$43	\$25	\$47.50
SCAI	Surgical Care	\$1.86B	21.21	16.62%	26.00%	\$48	\$52	\$32	\$55
KRO	Kronos	\$1.375B	33.28	34.44%	-17.90%	\$12.50	\$14.25	\$8	\$16
PLOW	Douglas Dynamics	\$750M	21.19	19.33%	14.40%	\$34	\$37.50	\$25	\$40

Alibaba (BABA) is a \$214.75B ecommerce leader in China trading 21.25X Earnings and 23.5X FCF. BABA has impressive growth as a large cap with 39%/30% revenue growth expected for 2017/2018 and around 25% EPS growth, but quality of earnings is a question with many concerns surrounding its accounting practices. BABA's recent price-action is also alarming with shares below the 200 day MA and trending lower since October highs while the market has rallied, and there also have been some notable large Jan. 2018 put purchases. Analysts are also on one side of this ship with it Buy rated nearly everywhere and an average target of \$125. BABA is at risk of China policy changes and there also were reports recently its CEO may retire in coming years. I am also concerned with its rising costs and the impact on margins and its moves into so many industries eventually causes a lack of focus on its core market which could see deterioration and market share erosion from competition.

Better Option: **Amazon (AMZN)** is the best way to play ecommerce and is a much better investment.

Ecolab (ECL) is a \$34.6B provider of hygiene and energy technology and services trading 24.1X Earnings, 2.62X Sales and 27.5X FCF with a 1.25% dividend yield. ECL has 21.8% EBITDA margins and just an 11% ROIC with 3-5% revenue growth guidance, but continues to trade at a premium valuation. ECL has a defensive business model and could see some upside from its Energy segment in 2017, but overall the lack of growth makes this valuation multiple difficult to sustain and will continue to face currency headwinds. ECL may have to turn to M&A in 2017 to reignite growth, and depending on the deal, it will be interesting to see how that move is perceived.

Better Option: **Clorox (CLX)** with a ROIC at 30% compared to ECL's at 11% and equivalent growth at a cheaper valuation is more attractive, though Ecolab does not have a perfect comparable due to its multiple lines of business.

Workday (WDAY) is a \$13.38B provider of enterprise cloud applications trading 243X Earnings, 97X FCF and 7.9X EV/Sales. WDAY is forecasting 25%+ revenue growth through 2019, slowing since 2014 each year. WDAY recently fell sharply on earnings after noting deal slippage and lowering its outlook for 2018, not a good sign for a premium valued growth stock. After guiding for mid-20% billings growth for 2018 versus expectations for 30%, there is reason to avoid the name on the long side and rising competition can erode these numbers further.

Better Option: **Intuit (INTU)** is a \$30B software name trading 5.6X EV/Sales with much healthier margins and ROIC than WDAY, and a healthier balance sheet.

Cincinnati Financial (CINF) is a \$12.57B P&C insurance company trading 24.9X Earnings, 1.77X Book and 16.9X FCF with a 2.5% dividend yield with shares +32.8% YTD. CINF is positioned in a strong industry for 2017 but it simply has hit elevated valuation levels while being lower quality than peers, a ROE of 7.9%, and negative EPS outlook for 2017. CINF does have a combined ratio slightly better than the peer average, but valuation already accounts for that number.

Better Option: **Arch Capital (ACGL)** has an \$11.8B market cap with a ROE of 8.6% and forecasting 16% revenue growth and 17% EPS growth in 2017. ACGL is in the reinsurance group where there has been a lot of consolidation.

McCormick (MKC) is an \$11.75B maker of spices and seasonings for the food industry trading 22.6X Earnings, 2.68X Sales and 50X FCF with a 2% dividend yield. MKC projections call for stable 3-4% revenue growth and 8-9% EPS growth. MKC could be hit but multiple contraction as consumer staples fall out of favor and also faces rising input costs in 2017 for its products as well as slowing growth. A healthier economy in 2017 could also drive consumer back to eating out more often than at home and weigh on MKC results. MKC has made a few bolt-on acquisitions in 2016 as organic growth is slowing. Shares have gained more than 100% since 2012 in a time that EPS has risen less than 25%, and it offers a lower yield than many of its peers.

Better Option: **Campbell Soup (CPB)** trades 18.7X Earnings with stronger EBITDA margins, a high ROIC, and better dividend yield.

Tiffany & Co. (TIF) is a \$9.68B jewelry retailer, an iconic brand, and trading 19.3X Earnings, 2.43X Sales, and 29.82X FCF with a 2.33% yield. As a brick and mortar retailer with revenues down in 2017 Y/Y and only set to rebound 3% next year while EPS also down Y/Y in 2017 and expected to recover 7% next year, shares look richly valued for the headwinds it faces. TIF is notorious for being a tourist spending name and International visitors to the US is likely to slow with the USD strength at 12 year highs, and Japan has always been a key market. There is also a changing dynamic for Millennials where marriage is seen as less important than it was in the past. TIF has seen its comp trends improve in recent quarters as the luxury spending environment has improved, but shares are simply overpriced for a low growth outlook with multiple headwinds.

Better Option: **Coach (COH)** is a comparable luxury brand with similar margins, a ROIC of 18% compared to TIF at 12.5%, and a better growth outlook for revenues and EPS.

Flowserve (FLS) is a \$6.4B maker of industrial flow equipment worldwide trading 22.5X Earnings, 3.76X Book and 46X FCF with a 1.56% dividend yield. FLS has seen revenues decline since peaking in 2013 and its outlook for EPS is only seeing \$2.46/share in 2018, still way below \$3.76/share in 2014 and not seeing much of a growth recovery. FLS is seen as a beneficiary of infrastructure spending, and has 39% exposure to North America, while Oil & Gas markets account for 36% and Chemical 22%. FLS has continued to miss even lowered estimates, really struggling operationally and its CEO is set to retire. FLS has weak margins and ROIC compared to peers.

Better Option: **Graco (GGG)** has a \$4.7B market cap trading at a comparable valuation to FLS but with a better growth outlook, best EBITDA margins at 26% compared to FLS at 14.6%, and leading ROIC of 18.2% compares to FLS at 9.5%.

Gildan (GIL) is a \$6.1B apparel maker trading 14.6X Earnings, 2.4X Sales and 21.75X FCF with a 1.2% dividend yield. GIL revenues fell 10.8% Y/Y in 2016 and has a positive double digit EPS growth outlook through 2019. GIL has been active with acquisitions over the years and has a diversified end-user market with event-merchandising its largest segment enhanced by ecommerce and digital printing. GIL has recently seen large accumulation of 11,840 March \$25 put options. One concern with GIL is cotton prices rising sharply since bottoming in early 2016 and look set to continue higher into 2017. GIL has been missing estimates and providing weak guidance all year and think it continues to struggle in 2017.

Better Option: **Columbia Sportswear (COLM)** is a \$3.95B apparel company set to face easy comps in 2017 after a warm winter last year, and has a 13.6% ROIC, solid growth outlook, and plenty of room for margin expansion.

Panera (PNRA) is a \$4.89B casual dining company trading 27.3X Earnings, 1.77X Sales and 31.9X FCF. PNRA is projecting revenue growth to accelerate in 2017 and 2018 nearing double digits while EPS growth also expands to nearly 20%, but these may be aggressive expectations. PNRA has seen more than 7,000 February \$185 puts accumulate in open interest and 2016 was year that saw a move away from restaurant spending, while the industry also faces rising wage pressures and commodity costs. PNRA is attempting to use digital orders to improve comps and shifting its focus to delivery. Its investments are being made to try and justify its pricey valuation to peers and keep the comp outperformance going, but if it fails to materialize there is significant downside to shares.

Better Option: **Buffalo Wild Wings (BWLD)** is trading 24.2X Earnings, 1.48X Sales and 24.8X FCF with similar margins, a better balance sheet, and similar ROIC. BWLD is guiding for EPS growth acceleration through 2018 back near 20%.

Blue Buffalo (BUFF) is a \$4.75B pet food company trading 26.7X Earnings, 4.23X Sales and 35.5X FCF. BUFF is aggressively valued considering revenue growth Y/Y is set to move into single-digits in 2018, while EPS growth expected below 15% in 2017/2018. BUFF will also have a new CEO for 2017. Analysts mostly rate BUFF at Buy with \$30+ price targets, but for a premium valued stock it has been posting in-line quarters without much upside. I see risks to BUFF with its exposure to brick and mortar retail channels as well as rising competition in natural pet foods that could eventually lead to pricing pressures and margin erosion.

Better Option: **Colgate (CL)** owns a lot of consumer brands including Hills Science in the pet foods space and has 29% EBITDA margins and a ROIC above 38%.

Pool Corp (POOL) is a \$4.34B distributor of swimming pool supplies and other leisure products trading 27.4X Earnings, 1.7X Sales, and yielding 1.17%. POOL shares are up another 32.7% this year and more than 100% since 2015 as consumers continue to spend on outdoor areas. POOL has around 16% exposure to new home sales which may come under pressure in 2017 with mortgage rates hitting 2 year highs. POOL has been beating estimates throughout the year, but the degree of beats has weakened in recent quarters. New pool construction is down around 70% from peak levels a decade ago and there has been little signs of that recovering with many not wanting the additional costs and time required to maintain a pool. POOL has greatly benefitted from a renovation/replacement trend the past six years that is in jeopardy of slowing if we see the recent rally in home prices start to peak. It is also important to keep an eye on inventory numbers, last quarter it grew faster than sales.

Better Option: **Brunswick (BC)** is a leisure play with a lot of its revenues tied to the Boating industry and trades 13.9X Earnings and EV/EBITDA of 7.5X is less than half of POOL's 15.6X, while having higher EBITDA margins and also a 20% ROIC and better balance sheet.

Grubhub (GRUB) is a \$3.2B leader in online and mobile restaurant ordering and trades 32.7X Earnings, 7X Sales, and 3.38X Book with a debt-free balance sheet. GRUB is projecting 36% revenue growth in 2017 and 25% in 2018, while EPS growth at 33.8% and 26.5% respectively. GRUB does operate in a massive market for takeout & delivery with \$75B from independent restaurants and \$170B from chains, and currently has the largest network of restaurants, but has very minimal barriers to entry and certain to face competition from larger Tech players wanting a piece of this growth industry. GRUB is already seeing red flags with internet traffic at just +11% Y/Y in November, down from +20% in October and followed some political outbursts from its CEO. GRUB is currently growing quickly but priced for perfection and I see major risks if Amazon (AMZN) came into this market it would capture a leadership position almost immediately.

Better Option: **Match Group (MTCH)** has a \$4B market cap and trades just 20X Earnings and also a strong double digit growth name, but superior margins and ROIC to GRUB while having a much stronger stranglehold on its niche internet industry.

Surgical Care (SCAI) is a \$1.86B provider of multi-specialty ambulatory surgery centers and hospitals trading 21.2X Earnings, 4.4X Book and 8.75X FCF. SCAI grew revenues more than 20% each of the last two years and sees just under 15% growth ahead in 2017, while EPS fell Y/Y in 2016. Surgery accounts for 30% of total spend with a balanced mix between inpatient and outpatient. Same-site system-wide revenue growth has declined from 2015 levels in 2016, and SCAI is fairly leveraged at 4.2X. SCAI has missed EPS estimates multiple times this year and with healthcare reform uncertainty into 2017 amidst slowing growth, it is a name that can see multiple contraction.

Better Option: **Chemed (CHE)** is a home healthcare provider trading 20.4X Earnings with a strong growth outlook and 20% ROIC compared to SCAI's 7.3%. CHE is discussed further later in the report.

Kronos (KRO) is a \$1.37B TiO2 producer trading 33.3X Earnings, 3.08X Book and yielding a 4.97% dividend with 18.5% of its float short. KRO has seen three consecutive years of EPS declines and EPS went from \$2.77/share in 2011 to \$0.27 in 2016. KRO is closely tied to pricing of TiO2 which has rebounded and could gain further with lower inventories and potential for less ilmenite production out of China which aims to lower steel production. Its main usage is in paints and coatings which has seen weakness lately but infrastructure could drive a return on the demand side. KRO is likely not a short until we see pricing start to peak, but in the meantime there are better TiO2 players to invest in.

Better Option: **Chemours (CC)** with a \$4.2B market cap trades 7.8X EBITDA compared to KRO at 13.9X and is seeing impressive EPS growth while KRO is seeing little to no growth.

Douglas Dynamics (PLOW) is a \$753M maker of snow and ice control equipment trading at 21.2X Earnings, 1.86X Sales and 15.5X FCF with a 2.79% dividend yield. PLOW has very volatile earnings with it closely tied to the weather and after very strong growth 2013 to 2015, it seems to be entering a new lower growth normal. It has a firm leadership

position in light duty truck mounted plows and is looking to gain share in the heavy duty truck equipment market. PLOW has a levered balance sheet which likely falls out of favor in a rising rate environment.

Better Option: **Lydall (LDL)** is a \$1B maker of specialty engineered filtration media and thermal/acoustical barriers trading 20.4X Earnings, 10.4X EBITDA, 1.93X Sales and 24X FCF. LDL's ROIC of 18% compares to PLOW at 10.8%, and LDL forecasting double digit EPS growth through 2018.

Top 20 Small Cap (< \$5B) Buys for 2016

Ticker	Company	Mkt. Cap	P/E	FY17 EPS Growth	ROI	Entry 1/2	Entry 2/2	Target	Stop
QEP	QEP Resources	\$4.6B		49.60%	-4.60%	\$18	\$16	\$27	\$14
NICE	NICE Ltd.	\$4.05B	17.06	10.12%	9.60%	\$66	\$63	\$85	\$59.50
FNSR	Finisar	\$3.5B	12.38	17.36%	3.00%	\$28.50	\$24	\$40	\$22
MKSI	MKS Instruments	\$3.2B	16.94	20.90%	10.30%	\$56	\$52	\$75	\$48
HA	Hawaiian Air	\$3.2B	12.31	-8.34%	25.10%	\$52	\$48	\$70	\$40
MTX	Minerals Tech	\$2.74B	16.35	9.19%	8.00%	\$72	\$67	\$90	\$64
B	Barnes Group	\$2.55B	17.79	7.02%	8.00%	\$45	\$42	\$55	\$38
TTEK	Tetra Tech	\$2.5B	18.05	11.70%	7.80%	\$42	\$39	\$55	\$36
EGBN	Eagle Bancorp	\$2.13B	20.71	7.14%	20.80%	\$59	\$55	\$72	\$47.50
MRC	MRC Global	\$2B		93.70%	-18.60%	\$20	\$18	\$25	\$16
NXST	Nexstar Broadcasting	\$1.92B	17.51	7.61%	10.00%	\$60	\$54	\$75	\$45.50
OLLI	Ollie's Bargain Outlet	\$1.8B	27.51	16.51%	6.70%	\$28	\$26	\$40	\$22.50
GIMO	Gigamon	\$1.7B	30.35	22.88%	3.80%	\$46	\$41	\$65	\$37
IRBT	iRobot	\$1.6B	31.67	31.46%	10.00%	\$55	\$50	\$70	\$46
APOG	Apogee Enterprises	\$1.55B	15.42	20.74%	15.30%	\$50	\$46	\$65	\$42
INGN	Inogen	\$1.37B	86.79	25.52%	8.90%	\$60	\$52	\$77	\$44
EGRX	Eagle Pharma	\$1.17B	14.52	21.38%	2.80%	\$75	\$70	\$100	\$55
AMPH	Amphastar Pharma	\$923M	34.05	28.21%	0.20%	\$19.50	\$17.50	\$27	\$16
PGTI	PGT, Inc	\$556M	17.04	27.27%	12.00%	\$11	\$10	\$15	\$9.50
HZN	Horizon Global	\$518M	17.67	32.11%	10.90%	\$23	\$21.50	\$30	\$18

QEP Resources (QEP) is the favored small cap Oil & Gas play with a \$4.6B market cap trading 1.25X Book and 6X EV/EBITDA. At 20X EV/Proved Reserves and as a lower cost producer with a high reserve replacement cost, QEP screens out attractive versus peers. QEP has 1.27M acres with 3,620 Bcfe and 37% crude oil production and has been transitioning to more of an Oil play, exposure to the Williston Basin, Uinta Basin, Permian Basin, Pinedale, and Haynesville. QEP has done a good job of lowering drillings costs while wells are performing better than expected. QEP posted better than expected results in October and guided production to the high end of estimates. Its transition to higher return assets should allow it to narrow the discount in valuation to peers.

NICE Ltd. (NICE) is a \$4B enterprise software provider trading 17X Earnings, 27.2X FCF and 2.5X FY17 EV/Sales with a 0.94% dividend yield. NICE has 29.4% EBITDA margins and a 14% ROIC with 32% revenue growth and 10% EPS growth expected in 2017. Its main markets are customer interaction and protecting money and assets with financial crime and compliance solutions. It completed the acquisition of inContact (SAAS) in November and sees that increasing its TAM to 8X from 6X, a \$15B opportunity. NICE has 50% recurring revenues, 29% from products and 21% from Professional Services with 68% exposure to Americas. Its move into Analytics has been driving new bookings, accounting for 61% in Q3. NICE has a strong history of executing on its growth plans, is expanding margins, and expanding its TAM, all key components for long term positive stock returns.

Finisar (FNSR) is a \$3.5B provider of optical subsystems trading cheap at 12.4X Earnings, 2.6X Sales and 36.3X FCF. FNSR's 21.4% EBITDA margins are above peers and a strong 18% ROIC with guidance for 13-15% topline growth through 2019 and around 15% EPS growth. FNSR is seeing benefits from the trend of 100G and 100G Datacom revenues jumped 30% Q/Q in its December quarter and 90% Y/Y while operating margins continue to expand. Its Telecom revenues grew nicely this past year while Datacom has been even stronger. It has a strong balance sheet and Stifel recently was out saying it could look to an acquisition of Oclaro (OCLR), which I think would be a positive. FNSR's margin expansion story is playing out faster than expected and in the midst of a Datacom super cycle.

MKS Instruments (MKSI) is a \$3.2B provider of measurement and control instruments closely tied to the Semiconductor industry trading 16.95X Earnings, 3X Sales, 2.65X Book and 27X FCF with a 1.13% dividend yield. MKSI has 20.4% EBITDA margins with a 17% ROIC and projections for 18.7% revenue growth next year and 21% EPS growth. MKSI is a market leader in all of its industries, and the Semi market accounts for 53% of revenues, Industrial Tech 17%, and Life Sciences 11%. With its strong history of design wins it sees opportunity in its strong relationships for cross-selling. The needs for the Semi industry include better battery life, cloud connectivity, and smaller devices, all areas where MKSI can provide value-added services. Its acquisition of Newport increased MKSI's available markets significantly and that deal should really start to show benefits in 2017. Increasing capital intensity trends from etch and deposition with an aggressive 3D NAND spending environment bode well for MKSI in 2017.

Hawaiian Air (HA) is a \$3.17B regional airliner trading 12.3X Earnings, 1.33X Sales and 8.2X FCF. HA has 24.6% EBITDA margins, fairly strong compared to peers and a high ROIC of 22.2%. The company is expecting stable 5.5% revenue growth through 2018 though EPS set to fall from 2016 levels in current projections due to new aircraft orders, a new hangar, and a new Pilot contract. It is benefitting from an increase in leisure traveling with its exposure to a premiere leisure destination, Hawaii. HA is outperforming the industry with Y/Y RASM for five straight quarters. It sees strong growth in Japan with it being the largest source of International visitors to Hawaii. Its fleet evolution is also set to drive margin expansion and value-added revenue per passenger continues to climb from preferred seating, baggage, and other ancillary fees. With airlines positioned well into 2017, HA is an attractive value as one of the best operators in the industry with plenty of further growth potential.

Minerals Tech (MTX) is a \$2.74B maker of specialty mineral products and also has an Energy Services segment, trading 16.35X Earnings, 1.64X Sales, 2.73X Book and 16.3X FCF with a small 0.25% dividend yield. It has 21.5% EBITDA margins and a 9.2% ROIC with forecasts for 3% annual revenue growth and 8-10% EPS growth. It is the global leader in precipitated calcium carbonate and bentonite with a broad portfolio addressing many end markets. Specialty Minerals (\$625M), Performance Materials (\$515M), Refractories (\$296M), Energy Services (\$182M) and Construction Technologies (\$180M) are its five business segments, nicely diversified with optionality of its portfolio. Healthier steel and energy markets should be a positive into 2017 and it continues to see momentum in China. The CEO passed away in September which could open the company up to an acquisition. Shares have rallied more than 70% in 2016 but valuation remains fairly attractive with its leadership position in diverse markets.

Barnes Group (B) is a \$2.55B supplier to industrial and aerospace markets trading 17.8X Earnings, 2.14X Sales, and 17.9X FCF with a 1.08% dividend yield. B has 22.8% EBITDA margins which are well above peer averages and a 9.2% ROIC. The company is projecting 7% revenue and EPS growth in 2017. The industrial segment is mostly comprised of molding solutions and engineered components which are more tied to auto production, while the aerospace segment is mainly OEM with 2016 a transition year and has a robust backlog. It has 56% exposure to the Americas, 27% Europe and 17% Asia. One of its greatest competitive advantages is Barnes Enterprise System (BES) which improves productivity leading to increased margins. Barnes is by no means an exciting growth stock but it can deliver better growth with its industrial acquisition strategy, and overall is a good value with strong operations in improving markets.

Tetra Tech (TTEK) is a \$2.5B provider of consulting and engineering services worldwide with Water, Environment and Infrastructure (WEI) and Resource Mgmt. and Energy (RME) its main two segments. TTEK trades 18X Earnings, 1.29X Sales, 2.87X Book and 22.63X FCF with a 0.83% dividend yield. TTEK is forecasting 6.4% revenue and 15% EPS growth in 2017. TTEK ranks #1 in Water, Dams & Reservoirs, Environmental Mgmt., Solid Waste, Water Treatment and Wind Power. The Federal Government accounts for 25% of revenues, State & Local at 15%, US Commercial at 30%, and International at 30%, a name that benefits from infrastructure stimulus. It enters 2017 with record backlog and its focus on high-end consulting/engineering is driving higher margins. It is a real interesting name that should see stable growth for a long time.

Eagle Bancorp (EGBN) is a \$2.13B regional bank focused in Virginia, Maryland and Washington D.C. trading 20.7X Earnings and 2.57X Book with no dividend yield. EGBN sticks out among peers with its high 12% ROE, and is forecasted to hit double digit revenue growth the next two years and strong EPS growth. Its NIM at 4.3% is well above the 3.26% peer average as well, and also strong asset quality ratios. EGBN has been beating expectations all year long and although it does not offer a dividend yield, it is a strong growth play in a group lacking much growth.

MRC Global (MRC) is a \$1.99B distributor of pipes, valves, fittings and other products/services to the energy industry. Shares trade 2.53X Book and 5X FCF. MRC was hit hard in the Energy downturn but after two years of revenue declines from \$5.93B peak levels in 2014, expecting double digit growth through at least 2019 with \$4.45B in revenues targeted, while EPS on a trajectory to return to profitability in 2018. MRC is involved with all parts of the Energy industry with 32% downstream, 38% midstream, and 30% upstream. MRC has a strong record of winning new customers and is driving

better profitability and ROIC with operational efficiencies, cost management and portfolio optimization. MRC is leveraged to the return of better times to the energy industry and has plenty of room left for improving margins, acquiring growth, and winning more contracts. In October, the company signed an exclusive measurement and instrumentation distribution agreement with Schlumberger (SLB), a big win.

Nexstar Broadcasting (NXST) is a \$1.92B operator of television broadcasting and digital media trading 17.5X Earnings, 1.85X Sales and 48X FCF with a 1.53% dividend yield. NXST has industry leading 36% EBITDA margins and better than average 11.8% ROIC. The company is projected to grow revenues 19.5% in 2017 after more than doubling revenues from 2013 to 2016, and EPS growth on a strong path as well. NXST has 104 TV stations and 60 community web portals with digital media providing high-margin non-traditional revenue streams. NXST agreed to a \$4.6B deal for Media General (MED) in January 2016 which expands its presence greatly. NXST may face more difficult comps next year with the slowdown in political ad spending. The deal synergies will be in focus next year and NXST continues to be an impressive FCF story.

Ollie's Bargain Outlet (OLLI) is a \$1.79B discount retailer trading 27.5X Earnings, 2.1X Sales, 2.9X Book and 37.6X FCF. OLLI is forecasted to have 15% annual revenue growth each of the next two years and 16-20% EPS growth. OLLI has a 17.8% sales growth CAGR 2011-2015 and currently operates 224 stores in 19 states with the opportunity seen to be 950 stores. Its loyalty program has been successful with membership growing at a 34% CAGR and members now accounting for more than 60% of total sales. OLLI is one of the few high growth retailers and recently has seen improvement to EBIT margins, while comps have started to slow. It has less of a competitive threat from online with its "treasure-hunt" experience style of shopping, and with major untapped markets for store expansion, a name that can be owned long term.

Gigamon (GIMO) is a \$1.7B provider of network visibility and control solutions trading 30X Earnings, 5.8X Sales and 44X FCF. GIMO has 82.6% gross margins and a 38.8% ROIC. The company has seen revenues double in the last two years and projects 26%/22% growth the next two years forward while EPS also growing 22.5% annually. It is providing the industry's first comprehensive solution to the public cloud with its ties to AWS and has expanded its target market to small enterprise and large mid-market businesses. GIMO has a large customer base and its multiple offerings has created a trend of repeat purchases. Americas account for 83% of revenues and for market demand it is broken into 55% Enterprise, 22% Federal and 23% Service Providers. Operating margins have grown to 22% YTD16 with the long-term model looking for 25-28%. Network visibility is seeing growing important and new products and the go-to-market initiatives can accelerate new customer growth in 2017 while the longer term margin expansion opportunity is attractive as well. The Service Provider segment also can boost margins and growth with its "Subscriber-Aware" solutions for network traffic that are seeing greater demand. GIMO's partnership with Amazon is not expected to drive meaningful revenues until 2018, and the long term opportunity for GIMO is immense.

iRobot (IRBT) is a \$1.6B maker of robotics for consumer markets trading 31.7X Earnings, 2.45X Sales, and 25.2X FCF with a debt-free balance sheet. Roomba, a robotic vacuum, is its key product and has a 60% global segment share. Braava, a wet and dry floor cleaner, is building a second revenue stream with major potential seen in Asia. The company is positioning itself to become an emerging player in IoT and Smart Home markets, and has the most valuable IP position in robotics. IRBT has steadily grew gross margins since FY13 and is exploring the robotic lawn care market which could add \$4.6B to its TAM that is in total seen around \$13.8B. Robotic vacuums still only make up 19% of total vacuums in a \$6B market, so plenty of room to gain more market share as products improve and consumers see the benefits. With leadership in a niche growth market and opportunity to further expand its TAM, IRBT is an attractive small cap with plenty of upside over the next few years.

Apogee (APOG) is a \$1.55B market of class solutions for commercial buildings and other architectural services trading 15.4X Earnings, 1.5X Sales and 44X FCF with a 0.93% dividend yield. APOG's 14.4% EBITDA margins are superior to peers and a strong 20% ROIC. The company sees revenue growth accelerating to 15.6% in 2017 and EPS growth just above 20%. APOG is cash flow positive, seeing margin improvement and entering new geographies and markets to drive future growth. Office buildings account for the largest portion of its revenues/backlog. Demand drivers include lower office vacancy rates, hotel occupancy growth, building codes, and government mandates for energy efficiency. Recent strong numbers on the Architecture Billings Index (ABI) bodes well for APOG. In December the company announced a \$135M deal for Sotawall, a maker of high performance curtainwall systems. APOG trades cheap with strong efficiency metrics and a solid growth outlook.

Inogen (INGN) is a \$1.37B maker of portable oxygen concentrators and shares have climbed 70% YTD, a name that has tripled since I first discovered it in 2014. INGN now trades 87X Earnings, 7.1X Sales and 43.1X FCF with revenue growth expected to be 17-20% in 2017 and 2018, and EPS growth 25-30%. INGN's innovative product is cost effective

and improves quality of life with mobility. It is estimated that 4M patients will need oxygen systems by 2019, a \$3B-\$4B market with a 7-10% CAGR through 2021, and better diagnosis of COPD could increase the market size even further. Portable oxygen concentrators have only penetrated 7% of the market leaving plenty of room for further disruption. INGN is a leader in a growing and underpenetrated market, and has the makings of a long term winner that should also attract suitors for M&A.

Eagle Pharma (EGRX) is a \$1.17B specialty pharmaceutical company focused on injectable products in critical care and oncology trading 14.5X Earnings with a debt-free balance sheet. EGRX grew revenues 245% in 2015 and 300% in 2016 with another 42% growth expected in 2017 while EPS is also growing at insane rates, expected to earning \$6.50/share in 2018, after earning just \$0.16/share in 2015. Its Bendamustine has an exclusive marketing license with Teva (TEVA) and has an 88% market share, and its royalty share is rising to 25% of US sales with additional milestone payments ahead. The company is targeting summer 2017 approval for Ryanodex for EHS, and its recent acquisition of Arsia enters it into the Biologics market. The recent decision by CMS to reverse the prior J-code decision was a positive surprise. EGRX is a heavily shorted stock at 47% of its float, but its impressive growth and potential for further incremental revenues makes it a momentum name worth riding.

Amphastar Pharma (AMPH) is a \$923M specialty pharmaceutical company focused on injectable and inhalation generic products trading 34X Earnings, 3.44X Sales and 13.7X Cash. AMPH has a 21% revenue CAGR for 2011-2015 and projecting 30% growth for 2017 and 2018 while EPS set to reach above \$1.10/share in 2018 from 2016 levels at \$0.46/share. AMPH has 17 commercial products including Enoxaparin, a generic form of Lovenox. AMPH focuses on products with large markets and technical barriers to entry. Its pipeline currently has 15 product candidates and its Biosimilar pipeline has 3 candidates. It also has 6 proprietary product candidates. Its intranasal naloxone has a PDUFA set for 2-19-17. AMPH is a unique drug play that is trading fairly cheap for its outstanding growth and pipeline potential while having nice technical momentum as well.

PGT Inc. (PGTI) is a \$556M maker of impact-resistant windows and doors in the Southeastern US trading 17X Earnings, 1.26X Sales, and 20.5X FCF. PGTI has 16.7% EBITDA margins and a strong 15% ROIC in the building materials industry with growth projections around 8-10% topline and 20-25% bottom line annually through 2018. PGTI's primary market is Florida which represents 91% of sales and state that saw single-family housing starts jump 21% in 2015. Its new Thermal Plastic Spacer system for insulated glass is seeing strong demand with the move to energy-efficiency. PGTI is always a go-to name when there is a forecast for strong Hurricane season. PGTI is another small cap with a dominant market position and has room for margin expansion and strengthening free cash flow, making it a potential prime acquisition target.

Horizon Global (HZN) is a \$518M maker of towing, trailering, and cargo management products for the automotive aftermarket and OEM channels. Shares trade 17.7X Earnings, 0.88X Sales and 17.5X FCF with 9.7% EBITDA margins and ROIC at 17.6%. HZN is expected to see revenues jump 35% in 2017 and EPS +32%. After posting \$630M in revenues in 2016 the company has a long term goal of \$1B in revenues. HZN has restructured and is seeing benefits with better margins, and last quarter ecommerce sales jumped 24%. Its recent acquisition of Westfalia establishes it as a leading towing and trailering equipment play in Europe. HZN is one of these small caps that is not overly "sexy" as a maker of aftermarket automotive equipment, but trades at attractive levels and is growing impressively.

Top International Stocks to Own In Each Sector for 2017

Ticker	Company	Sector	Mkt. Cap	P/E	ROI	Entry 1/2	Entry 2/2	Target	Stop
RDS-A	Royal Dutch Shell	Basic Materials	\$227.5B	14.72	-1.40%	\$52	\$50	\$63	\$46
AZN	AstraZeneca PLC	Healthcare	\$69.1B	14.84	11.50%	\$27	\$24	\$33	\$22
CS	Credit Suisse	Financial	\$31.2B	14.2	3.50%	\$14	\$12.50	\$21	\$11.75
RACE	Ferrari N.V.	Consumer Goods	\$10.9B	25.67	13.40%	\$55	\$52	\$68	\$48
BIP	Brookfield Infra.	Utilities	\$8.15B	20.81	4.60%	\$33	\$31.50	\$40	\$28
QGEN	Qiagen NV	Services	\$6.6B	22.33	4.70%	\$27	\$25	\$35	\$23
ERJ	Embraer S.A.	Industrial Goods	\$3.375B	11.06	1.00%	\$18	\$16.50	\$28	\$15
CRTO	Criteo SA	Technology	\$2.63B	16.82	13.80%	\$37	\$33	\$55	\$29

Royal Dutch Shell (RDS.A) has a \$227.5B market cap as a large Oil & Gas producer based overseas, trading 14.7X Earnings, 1.17X Book and yielding a large 6.95% dividend. Shell did a massive \$52B deal for BG Group in 2015. The company is focused on FCF growth and higher ROCE and is reducing costs and debt to better manage in down-cycles. Shell is a massive company with a lot of large units that has a lot of potential levers to unlock shareholder value. With shares undervalued and offering a sizable dividend yield, it is one of the best reward/risk names in the industry as 2017 shapes up as a strong year of operating cash flows.

AstraZeneca (AZN) is a \$69B Pharma trading 14.85X Earnings, 2.9X Sales and 5.3X Book with a 3.3% dividend yield. AZN shares are down 15.85% YTD with issues ranking from Brexit to currency headwinds, but the outlook going forward looks improved. The coming year is expected to be filled with news-flow for AZN with Phase 3 data on 5 key assets (durvalumab, roxadustat, Tagrisso, Lynparza, and acalabrutinib) with an estimated \$18B in peak sales potential. At depressed levels with a solid dividend yield to backstop downside potential, AZN sets up favorably versus peers into 2017.

Credit Suisse (CS) is a \$31.25B Swiss Bank trading 14.2X Earnings and 0.72X Book with a 4.85% dividend yield. CS is a solid play on an economic recovery and is initiating cost-cutting plans to turn around its struggling markets division. Rising interest rates should also benefit CS to see better NIM and its recent move of 1M customer accounts into a new Swiss bank may be a sign it will spin-off the retail banking unit eventually. The company recently settled with the DoJ on RMBS at \$5.3B removing an overhang. CS is trading cheap with a big dividend yield, optionality, and cost-cutting plans in place to improve results moving forward.

Ferrari (RACE) is a \$10.9B luxury vehicle maker trading 25.7X Earnings, 3.47X Sales and 28X FCF with a 0.87% dividend yield. RACE recently reported strong results and raised its shipment guidance, and also has recently launched a lot of key products that can set-up for a strong year in 2017. RACE has the best EBITDA margins in the industry by a long way and a ROIC of 14% is also best in class. RACE has strong pricing power and the notable wait-lists for many of its new launches show that is here to stay. RACE expects to hit \$1B EBITDA potentially by 2018 with product launches, operating leverage, execution, and rationalization of costs and R&D. Its special edition launches enhance product mix and drive scarcity value and is unlike any other auto manufacturer which bodes well for being priced at premium levels for the long run.

Brookfield Infrastructure (BIP) is an \$8.15B diversified business with operations in Utility, Energy, and Communications Infrastructure. It trades 20.8X Earnings, 1.93X Book and yields a 4.65% dividend with EPS projected to grow 20% in 2017 and 62.5% in 2018. BIP has posted a 23% CAGR for FFO since 2009 and 12% CAGR for Per unit Distribution. BIP is positioned perfectly for infrastructure investments in both developed and emerging markets and its EBITDA margins have increased every year since 2011. BIP recently bought Reliance Communications' tower business in India and has a high number of M&A opportunities as an emerging network story.

Qiagen (QGEN) is a \$6.6B provider of services to the life sciences industry trading 22.3X Earnings, 5X Sales, 29.3X FCF and guiding for 6-7% revenue growth. QGEN's focus is addressing demands for differentiated molecular testing solutions and has 42% exposure to the Americas, 32% to Europe/Middle East and 21% Asia-Pacific. Its customers include Academia at 22%, Pharma at 20% for the Life Sciences segment, while Molecular Diagnostics accounts for the majority. QGEN's QuantiFERON-TB Gold solution is replacing a 120-year old skin test for Tuberculosis and it is also a leader in commercial bioinformatics which is seeing a growing demand. New products are now contributing 40% of sales and growing faster after struggles were seen in the US HPV business. QGEN shares are trading near 10 year highs into year-end, and while not offering a great value for growth proposition, one of the more exciting life science and molecular diagnostics companies with room for improved growth on new product successes.

Embraer (ERJ) is a \$3.37B maker of aircraft and other defense/aero systems trading 11X Earnings, 0.49X Sales and 0.94X Book with a 0.85% dividend yield. ERJ is having a tough year down 36% YTD but its \$2B investment into its next generation "E2" commercial aircraft could start to pay off in 2017. ERJ has focused on cost-cutting and better profitability and with end markets set to improve it falls into the category of abandoned value stock with upside. ERJ is expecting to deliver 100-125 executive jets in 2017, but there could be upside with US fiscal stimulus which has correlated with medium size business jet orders in the past.

Criteo (CRTO) is a \$2.63B digital performance marketing company trading 16.8X Earnings, 1.65X Sales and 35.2X FCF with revenues expected to jump 27% in 2017 and EPS to increase 27.5% to \$2.44/share, up sharply from \$0.26/share in 2013. CRTO is building the world's performance marketing platform for advertisers and is adding 900 clients per quarter with a 90% retention rate. CRTO has a high business MOAT with barriers to entry and room to increase value to clients through additional services. Its prediction technology has been applied to Google Shopping and the company has a proven track record of revenue growth, 50% CAGR since FY2012, and growing profitability. CRTO's EBITDA margins at

29% leave room for upside with 40% being its long term target. CRTO outlined the \$25B opportunity at its September Investor Day. CRTO acquired Hook Logic for \$250M earlier this year which expands its businesses.

Diversified Portfolio of 12 High Yield Stocks to Own for 2017

Ticker	Company	Market Cap	Forward P/E	Dividend Yield	ROI	Entry 1/2	Entry 2/2	Target	Stop
BX	Blackstone	\$33.5B	9.95	5.83%	11.00%	\$27	\$26	\$35	\$24
CCI	Crown Castle	\$31.4B	68.75	4.36%	5.20%	\$83	\$78	\$100	\$75
CNP	CenterPoint Energy	\$10.7B	19.85	4.15%	10.80%	\$23	\$21.50	\$30	\$18.50
CVI	CVR Energy, Inc.	\$2.05B		8.41%	20.40%	\$20	\$18	\$32	\$16
EMR	Emerson Electric	\$36.5B	21.23	3.38%	12.00%	\$54	\$52	\$65	\$49
FUN	Cedar Fair, L.P.	\$3.6B	17.92	5.30%	17.10%	\$61	\$58	\$75	\$54
GSK	GlaxoSmithKline	\$93.7B	13.91	4.85%	41.40%	\$37	\$35	\$48	\$33
LVS	Las Vegas Sands	\$43.1B	20.56	5.31%	16.10%	\$54	\$52	\$70	\$49.50
MAT	Mattel	\$9.7B	16.07	5.36%	8.90%	\$28	\$26	\$35	\$24
MO	Altria Group, Inc.	\$132B	20.33	3.60%	33.70%	\$66	\$63	\$73	\$60
OXY	Occidental Petro	\$55.3B	55.77	4.22%	25.40%	\$71	\$68	\$84	\$65
T	AT&T Inc.	\$262.35B	14.39	4.59%	7.10%	\$40	\$38	\$50	\$35

Blackstone (BX) has a \$33.5B market cap trading 10X Earning and 2.9X Book with a 5.83% dividend yield. BX is projecting strong revenue and EPS growth the next two years with 2015 appearing to be a trough year in a cycle, and last quarter beat estimates with \$361B AUM, and has been active in M&A deals. Fund Raising, Investment Activity and Realizations are the three keys for alternative asset managers and Blackstone is poised to see strength across all of its businesses and realizations will be strong to start 2017 with Hilton and Change Health Care exits, while also having plenty of optionality for future realizations. On 12-22 the company announced a seal for some Energy Transfer assets and I expect it to be active throughout 2017 with plenty of dry powder.

Crown Castle (CCI) is a \$31.4B tower company trading 68.75X Earnings and 4.35X Book with a 4.36% dividend yield. CCI has 40,000 towers with 16,000 miles of fiber supporting and 17,000 small cell nodes. It has a lot of opportunity to seeing higher yields form its less mature towers through tenant additions, and 73% of its portfolio falls into this category. The boom in mobile data growth continues to position Tower stocks well as net investment from carriers rise. CCI's shared wireless infrastructure is more cost effective to wireless companies, and has carriers roll out 5G the demand for small cell will continue to rise, favorable for CCI.

CenterPoint Energy (CNP) is a \$10.7B Utility trading 19.85X Earnings and 3.08X Book with a 4.15% dividend yield. Texas, Oklahoma, Arkansas, and Minnesota are its main markets for natural gas distribution utility, and also has 55.4% ownership of Enable Midstream LP. CNP has strong credit metrics as it targets 18-20% FFO/Debt. CNP screens positively against peers on key metrics and offers a healthy yield with midstream optionality, a good situation.

CVR Energy (CVI) is a \$2.06B refiner that also has a nitrogen fertilizer segment and trades 2.3X Book with an 8.4% dividend yield. CVI is 82% owned by Carl Icahn and may benefit from easing EPA regulations. There has been some consolidation in the space and reports out earlier this year that CVR Energy may bid for Delek (DK).

Emerson Electric (EMR) has a \$36.5B market cap trading 21.2X Earnings, 2.5X Sales, 30.3X FCF and 4.83X Book with a 3.38% dividend yield. EMR has 22.4% EBITDA margins with an 11.9% ROIC and expecting revenue growth to pick back up in 2017 and accelerate through 2019. EMR has 52% sales exposure to the US & Canada, and has been reshuffling its portfolio including the recent purchase of Pentair's (PNR) valve & controls business. EMR has 36% exposure to the Oil & Gas market which is why shares have struggled more than some peers and 26% to chemicals, but a situation that looks healthier into 2017. EMR is also a big player in automation solutions with \$10.5B of sales, and a market projected to still have \$113B untapped.

Cedar Fair (FUN) is a \$3.63B amusement park operator trading 17.9X Earnings and 2.87X Sales with a 5.3% dividend yield. FUN as 36.8% EBITDA margins and 14% ROIC with steady revenue growth seen through 2018. FUN operates parks in 9 different states with 25M annual visitors and has posted six consecutive years of record results with growing attendance and in-park spending metrics. The company is also embracing digital technology with new mobile apps and

free park-wide Wifi. Investments into parks and seasonal events should benefit 2017 after tough weather impacted some results in 2016, and a company with a long history of success remains a healthy yield investment.

GlaxoSmithKline (GSK) is a \$93.7B Pharma trading 13.9X Earnings with a 4.85% dividend yield and has seen shares stagnant to lower the past five years. GSK's 23% ROIC is better than most peers and offers fairly low risk EPS growth around 9% CAGR for 2018-2021 at cheap valuation. The CEO change has caused some uncertainty and faces competitor HIV data early in 2017 as well as potential for US generic approvals of Advair. GSK is seeing strong growth in HIV, positive trends in its respiratory portfolio, and Consumer & vaccines will rollout new products later this year. At this valuation and yield GSK has limited downside and offers a safe return.

Las Vegas Sands (LVS) has a \$43.1B market cap trading 20.55X Earnings, 3.85X Sales and 6.8X Book with a 5.31% dividend yield. As the best play on a Macau market that appears to have bottomed in 2016 and now once again showing Y/Y growth while also having optionality in the newly opened Japan gaming market, LVS looks to be a high quality play at these levels while offering an outstanding yield. Its newly opened Parisian resort in Macau is exceeding expectations, and the Singapore market also appears to be recovering. China policy shifts remains the main overhang for shares, but LVS is best positioned to navigate any headwinds that arise with its strong cash flows and large dividend yield make it more defensive to peers.

Mattel (MAT) has a \$9.7B market cap as a leading maker of toys and trades 16X Earnings, 1.7X Sales, and 32.6X FCF with a 5.35% yield. MAT has seen sales decline each of the last three years but seems to be hitting a trough year in 2016 with growth set to rebound 8.2% Y/Y in 2017. EPS is expected to grow 18.5% in 2016 and 38.3% Y/Y in 2017 as the company continues to execute on a long-term efficiency plan launched in 2014 with a goal to hit \$300M in savings by year-end. MAT has been losing share in their Barbie brand to peers like Lego and Hasbro's (HAS) My Little Pony but coming off a consecutive strong quarters which saw net sales up 2% and strength in Fisher Price. In July, the company reported that Barbie had seen a strong resurgence with sales up 23% and beginning to see the unit recover. On 11-2, the WSJ reported the company had hired a search firm to identify a successor to CEO Christopher Sinclair who has said he wants to stay on until the turnaround is established. With revenue trends set to stabilize it comes back into focus as a value/yield name to own and another interesting report was in February when Bloomberg noted the company was in talks with Hasbro (HAS) on a possible merger, but no agreement was reached.

Altria Group (MO) has a \$132B market cap trading 20.3X Earnings and 5.1X Sales with a 3.6% dividend yield. The tobacco company has 48% EBITDA margins and a 31.6% ROIC and is projecting low revenue growth but sustained 8-10% EPS growth. MO has strong cash flows and been a consistent capital return name raising its dividend. It is seeing strength in its smokeless tobacco products and while volumes have struggled in the cigarette industry, pricing has remained firm. With recent news that British Tobacco is looking to acquire Reynolds American (RAI) in a massive merger there has been speculation that Philip Morris could look to acquire Altria, Wells Fargo recently seeing \$77/share and a 70% probability of a deal. MO also owns a 10.2% stake in Anheuser Busch (BUD).

Occidental Petro (OXY) is a \$55.3B Oil & Gas producer trading 2.47X Book with a 4.22% dividend yield. OXY's 35% EBITDA margins are fairly strong and is targeting a return to growth in 2017 after two down years. OXY is targeting long term 5-8% production growth with a focus on ROE and capital/drilling efficiency. It has one of the best balance sheets in the industry allowing it to be less risky in commodity downturns. OXY has a leading position in the Permian Basin and also some exposure in the Middle East and Latin America, while other businesses segments include OxyChem and Oxy Midstream, giving it optionality. Its combination of a strong dividend yield and leverage to US oil makes it attractive into 2017.

AT&T (T) has a \$262B market cap trading 14.4X Earnings, 1.6X Sales, and 2.13X Book with a 4.59% dividend yield. AT&T is transforming as it acquired DirecTV and now set its sights on a mega acquisition of Time Warner (TWX), though the expectation is for the deal to be blocked by regulators. T is on the path to "own the home" as it offers bundles including mobile, wired, internet, TV, and automation/security & rising home ownership would be a major tailwind for shares. T's businesses may also thrive from the new administration leaning towards deregulation and lower tax rates. T also recently made a move aimed at cord-cutters with DIRECTVNOW and it will be interesting to see how successful the move is near and long term. T is expanding the ways it makes money and increasing the amount it earns from each household, a positive trajectory for revenue and EPS growth while offering a strong dividend yield.

Top 5 High Beta Stocks for 2017

Salesforce.com (CRM) has a \$48.7B market cap as a leader in cloud computing solutions trading 54.65X Earnings, 31.9X FCF and 5.9X EV/Sales. CRM has 20.6% EBITDA margins and an 11% ROIC with revenue growth of 25% for FY17 expected to be at 21.8% and 17.6% the next two years forward while EPS growth around the 30% annual level. CRM shares have lagged in 2016 down more than 10% with some concerns around its aggressive acquisition strategy a sign that organic growth may be slowing with a lot more competition entering the cloud space. However, CRM continues to post strong billings growth and expand its TAM and has plenty of room to more than double revenues while expanding margins in the long term. The Tech themes such as IoT, AI, BI, PaaS and others continue to drive strong cloud growth with cloud software expected to have a 22% CAGR the next four years according to Gartner estimates. CRM is in a great position and remains attractively valued for the size of markets it is disrupting and gaining share, and recently I have seen large bullish risk reversals open in the name, a sign of the attractive reward/risk ratio into recent weakness.

Mercadolibre (MELI) is a \$6.9B online platform in Latin America enabling various types of commerce trading 39.2X Earnings, 9X Sales and 43.3X FCF. MELI has 24.5% EBITDA margins and a 19.9% ROIC with an outlook for revenue growth of 33% in 2017 and 27.5% in 2018 while EPS targeted at \$5.20/share for 2018, a big jump from \$2.84/share in 2016. The ecommerce market in Latin America has a 19% CAGR since 2014 and MELI is a leader in that market seeing strong GMV and payment volume growth with Brazil and Argentina accounting for 82% of revenues leaving a lot of room for expansion as surrounding country economies strengthen. The transactional marketplace is 60% of revenues, payments platform 23% and classifieds and advertising at 17% giving nice diversification. EBIT margins have been falling, a concern, but with the right strategy a return to 30% would be a boom for the company. MELI is a great growth story that has seen shares pullback in Q4, an opportunity for longer term investors.

ABIOMED (ABMD) is a \$4.85B maker of heart devices trading 62X Earnings, 12.55X Sales and 70.1X FCF with 19.4% EBITDA margins and a ROIC of 15%. ABMD has been generating strong revenue growth with 30%+ expected for 2017 and 2018 taking revenues to \$588M, compared to just \$230M in 2015, while EPS set to jump to \$1.80/share by 2018 which compares to \$0.63/share in 2016. ABMD shares are still up 24.5% YTD despite some weakness the last few months as concerns mount for less spending at hospitals. ABMD has top of the line technology with current low penetration rates, a strong new product pipeline and a long term opportunity to expand into other markets. As the hottest growth name in a strong medical device segment, it is surprising the company has not been acquired by a larger player at this point despite its rich valuation and a 9-28-16 change of control agreement with its CFO makes me think this is a possibility.

Nutanix (NTNX) is a \$4.1B enterprise cloud platform that came public in 2016 and trades 4.9X FY17 EV/Sales. NTNX grew revenues above 80% annually in 2015/2016 and expecting 66.5% growth in 2017 followed by a more normalized 35-40% annual growth through 2020, and expects to reach profitability in 2020. NTNX is positioned to provide the benefits of both the public and private cloud as well as application mobility. In its first quarter as a public company it posted a smaller than expected net loss with 87% billings growth and 19% customer growth Q/Q while operating cash flow remained positive and the company expects to be FCF positive by the end of 2017. NTNX sees a \$100B addressable market as the "time warp between enterprise-friendly VMware (VMW) and consumer-friendly AWS (AMZN)" as its opportunity. NTNX's opportunity is much larger than storage peers because it is more of an infrastructure software company and its above-average growth is attractive at this EV/Sales multiple.

Yelp (YELP) is a \$3B internet company providing a platform for connecting people to local businesses trading 4.45X Sales, 3.85X Book and 62X FCF. YELP is projecting revenue growth to slow annually but 25% in 2017 and 20% in 2018 remain healthy growth rates while EPS targets \$0.40/share in 2018, up from \$0.14/share in 2014. YELP is seeing steady growth in cumulative reviews with mobile now dominating the search. YELP has an opportunity to expand margins and drive further growth with new products. In its latest quarter the company posted 41% Y/Y growth in local ads with strong account growth. YELP's "request a quote" is expected to be a growth driver late 2017 into 2018. Recent sell-side surveys show YELP is a strengthening brand with higher perception of usefulness, recognition, engagement, and growing usage. Its market are far from mature/saturated with very low penetration rates to small businesses, ample room for long term growth. As Yelp expands from just advertising revenues into other monetization, its opportunity to be very profitable in the future increases.

8 Contrarian Stock Picks for 2017

(High Short Float with Positive Business Trends & Growth at a Reasonable Price)

Sirius XM Holdings (SIRI) has a \$21.76B market cap as the leading provider of satellite radio services and trades 25.35X Earnings, 4.43X Sales and 15.4X FCF with a 0.89% dividend yield. SIRI has 37% EBITDA margins and a 16.7% ROIC with strong FCF, but shorts have targeted it with 15% of the float short, a multi-year high. SIRI is also the reported frontrunner to acquire Pandora (P) which could be a meaningful combination. SIRI has performed in-line with the market this year, up 11% YTD, and benefits from new car sales, found in 75% of all new cars today with its bundle offering is expected to continue its dominance in that area until 2020. SIRI will launch 360L in late 2017 that offers customers more options and better functionality, and the Howard Stern video option is expected to launch in early 2017 as a potential strong subscriber growth driver.

Arista Networks (ANET) is a \$6.8B market cap provider of cloud networking solutions trading 28.25X Earnings, 6.5X Sales and 54X FCF. ANET has 30% EBITDA margins and a 31.7% ROIC with revenues expected to grow 21.7% in 2017 and another 17% in 2018, and EPS in route to hit \$4.55/share in 2019 from \$2.44 in 2015. ANET is on the forefront of a major Tech shift to cloud networking and continues to gain market share in the high speed data center switching market versus Cisco, though at 14.9% to 53.1% market share respectively, has a lot more market share to capture. Cloud storage has a 22% CAGR compared to traditional enterprise storage at 6% and offers a major value proposition to companies with the much lower cost, so this shift will continue for a long time. ANET has 13.9% of its float short, which has come down from above 20%, and much of the concern surrounded litigation which to this point it has been winning. ANET is already partner with HP Enterprise (HPE), a company with a lot of cash and needing growth, so an ANET acquisition by HPE makes a lot of sense.

Bank of Ozarks (OZRK) is a \$6.5B regional bank focused in the Southeast trading 17.85X Earnings and 2.22X Book with a 1.24% dividend yield. OZRK has a strong ROE at 12.8% and 19% ROIC with 31% revenue growth expected in 2017 and EPS growth for 2016/2017/2018 at 22%/18%/18%. It has been a target of shorts with 18% of the float short, coming down recently from 24% peak levels, and should be in a better rising rate environment for 2017. OZRK has high quality assets, strong efficiency metrics and better than peer net interest margins. OZRK is tied to the real estate markets with 90% of its loan book being real estate, and Muddy Waters was out in May calling it a short due to its loan exposure to commercial and construction. However, with the infrastructure spending plans this may be a poorly timed short as construction loans should receive a boost in 2017.

J2 Global (JCOM) is a \$3.87B provider of business cloud and digital media services trading 14X Earnings, 4.67X Sales, and 23X FCF with a 1.75% dividend yield. JCOM has 45.5% EBITDA margins and an 18% ROIC with strong revenue growth outlook (19.5% in 2017 and 22.7% in 2018) and EPS growth above 15%. JCOM has around 10% of its float short, steady throughout 2016. The business cloud segment is subscription-based with highly visible revenues, strong margins, and excellent cash flows built on organic and acquisition driven growth. The digital media segment is also performing strong with performance marketing strength and its platform expansion into Facebook video publishing. ARPU in the cloud segment reached its highest level since Q3 2008 last quarter and JCOM continues to deliver margin expansion. Citron Research was out negative in March and shares fell sharply, but have since recovered.

Universal Display (OLED) is a \$2.68B maker of display and lighting technologies (OLED) trading 43X Earnings and 5.5X Book with a debt-free balance sheet and \$6.20/share in cash. OLED has 43% EBITDA margins and a ROIC at 9.2% with revenue growth stalling in 2015/2016 but projecting 28.9% growth in 2017 and 52% EPS growth to a new record high for the company. Short interest is just above 10% of the float and has come down from the above 20% levels in 2014/2015. OLED has serious technological advantages being this and efficient with ability to be flexible and transparent. The AMOLED display market potential is strong with Mobile the top driver, but also TV. Lower power usage and cost effectiveness are further reasons for a shift to OLED. Shares are positive YTD but have lagged the overall market with key overhangs such as a Samsung contract renewal and patent expiry impacts. OLED should be able to also capitalize on virtual reality displays and the iPhone 8 is expected to have OLED in at least one version.

Summit Materials (SUM) is a \$2.54B seller of construction materials and downstream products trading 16.1X Earnings, 1.59X Sales, 2.32X Book and 17.15X FCF. SUM has 24.6% EBITDA margins and a ROIC of 12.6% with revenues expected to grow 12% in 2017 and EPS +37%. SUM operates in more stable volume markets and sees room for further margin growth and has made 47 acquisitions since 2009. A rise in construction activity expected in 2017 will be a positive for shares. Aggregates & Cement is its top market and with its small market cap it could be a nice M&A target itself for Martin Marietta (MLM).

Financial Engines (FNGN) is a \$2.3B provider in portfolio management services, investment advice and retirement services trading 28.5X Earnings, 5.9X Sales, and 19.35X FCF with a 0.75% dividend yield. FNGN has 30.9% EBITDA margins and a 21% ROIC with revenues expected to grow 10-12% annually and EPS at a 15% rate. Short float remains elevated at 15%, but has been declining since July 2015 when it was above 30%. In terms of defined contribution managed accounts, FNGN has AUM of \$115B compared to a combined \$81.9B for its competition. It offers high-quality and low cost services it can scale through technology. It has high barriers to entry as seen with its 98% employer asset retention figure, and benefits from market appreciation, new employer customers, and offering new services. It has a strong history of growth with 932K clients in 2015 compared to 660K in 2012, and a 27% revenue CAGR since 2011. As a leader in a large market with positive trends, FNGN is an attractive stock to own.

Stamps.com (STMP) is a \$1.97B internet-based company offering postage solutions trading 12.15X Earnings, 6X Sales and 17.7X FCF. STMP has 46% EBITDA margins and a ROIC of 53% with revenues growing 66% in 2016 and expected to jump another 16% in 2017, while EPS growth seen at 13.8% in 2017 to \$9.50/share, a significant jump from just \$2.47/share in 2014. Short float has continued to trend higher at 28.4% nearing a record high. STMP is clearly benefitting from ecommerce shippers as well as other high volume shippers, and offers sophisticated solutions to simplify the process and be cost effective. Customers receive an average discount of 12% compared to USPS.com or retail methods, and with 649,000 customers currently sees a market potential of 20 million customers. It is a low capex business that offers strong free cash flows and the company has paid special dividends in the past. It has a strong history of growth with a major disruptive market opportunity and customer churn rates have come down while ARPU has seen a significant jump. Prescience Point released a new short report on the company in July, but STMP has quickly recovered as it should considering its healthy growth prospects and cheap valuation.

12 Hidden Gems for 2017 (Trading < 100K Shares/Day)

Morningstar (MORN) is a \$3.2B provider of investment research services trading 23.75X Earnings, 4X Sales, 4.83X Book and 34.1X FCF with a 1.24% dividend yield. MORN has 33% EBITDA margins and a 17.6% ROIC and is expecting growth to return in 2017 to 4.5% on the revenue side and 8.7% EPS growth. MORN should start to benefit from higher interest rates being a positive for the financial services industry, but does face some headwinds on spending pressures from the recent shift to passive from active investment management. The company is combatting this by diversifying its business and developing new product offerings. MORN announced a \$180M deal for Pitchbook in November. MORN has 8.8M registered users, growing 4.2% in 2016, and \$193.6B average assets under management and advisement was up 8.3% Y/Y last quarter. The unwinding of Dodd-Frank could also alleviate some pressure on the credit ratings business.

Churchill Downs (CHDN) has a \$2.5B market cap and trades 21.6X Earnings, 1.95X Sales, 3.57X Book, and 16.35X FCF with a 0.87% yield, an iconic brand. IT has 26% EBITDA margins and an 8.9% ROIC with impressive EPS growth, expecting to earnings \$7/share in 2017, a 100% increase from 2014 levels. It is most known for its Kentucky Derby brand which continues to set all-time records, but also owns TwinSpires, the largest legal online wagering platform for horseracing, and Big Fish Games in the rapidly growing mobile industry. Revenues at Big Fish Games YTD grew 23% with bookings up 13% YTD. Its seven casinos have a 5 year revenue CARG of 18% and seeing EBITDA margin expansion every year since 2013. CHDN also has room for gaming expansion in Illinois and/or Kentucky with it owning valuable real estate.

WD-40 (WDFC) is a \$1.62B maker of maintenance and homecare products trading 29X Earnings, 4.25X Sales and 49.7X FCF with a 1.71% dividend yield. WDFC has 20.6% EBITDA margins and a 20% ROIC, expecting top line growth to hit its highest level since 2013 at 4.3% in 2017. WDFC expects to hit \$600M in sales by 2025 for its multi-use products, and currently is at \$295M. WDFC's largest cost input in the specialty chemicals which directly correlate to the price of crude oil. WDFC is a strong brand dominating its niche market and operates an efficient and asset-light model. The combination of revenue growth, margin expansion and strong free cash flow make it a quality name to own.

Sun Hydraulics (SNHY) is a \$1.07B maker of cartridge valves and manifolds in fluid power systems trading 28.25X Earnings, 5.6X Sales, 4.45X Book and 47.25X FCF with a 0.91% dividend yield. SNY has 23.5% EBITDA margins and an 11.1% ROIC. SNHY does 47% of revenues in Americas, 31% EMAE, and 22% Asia-Pacific. Business has been stagnant the last few years with its key end markets oil & gas, agriculture, construction machinery and material handling, but all areas looking to recover in 2017 and increased infrastructure spending will be a positive. The company has a long-term vision of hitting \$1B in revenues by 2025, which is a fivefold increase from current levels. Half of that revenue is expected to come via M&A and in November Sun Hydraulics acquired Enovation Controls' Power Controls and Vehicle Tech line of business for \$200M. As a margin leader in its industry, SNHY may be an appealing M&A target itself.

RE/MAX (RMAX) is a \$980M operator of real estate and brokerage services franchises that trades 29.9X Earnings, 5.6X Sales, 2.13X Book and 59.4X FCF with a 1.08% dividend yield. RMAX has 53% EBITDA margins and 12.8% ROIC with 11% revenue and EPS growth forecasted for 2017. RMAX is another small cap that has a leadership position in its industry, considered the #1 real-estate franchise brand with a network of more than 100,000 agents and a stable, recurring fee-based revenue model with strong cash flows and margins. RMAX is the top operator with transactions per agent ratio nearly 2X all competitors. RMAX is clearly correlated with the housing market, so one headwind into 2017 is the recent rise in mortgage rates to two year highs.

Washington Trust (WASH) is a \$970M commercial banking and wealth management company operating in Rhode Island trading 20X Earnings and 2.45X Book with a 2.6% dividend yield. WASH has a very high ROE of 11.7% and sees EPS growth accelerating to 7% in 2017 and 14% in 2018. It is actually the oldest community bank in the US and has \$3.2B in loans, \$3B in deposits, and \$6.1B assets under management at the wealth management business. Loans have seen 8% growth the last 12 months and wealth management revenues +7.7% YTD, also a strong balance sheet and has raised its dividend 23 of the last 24 years. WASH also has very strong credit quality metrics compared to peers.

Pzena Asset Mgmt. (PZN) is a \$738M manager of mutual funds trading 24.3X Earnings, and 17.4X FCF with a 1.05% dividend yield. PZN is guiding for 8-12% annual revenue growth and 10-20% EPS growth through 2018. PZN looks set to benefit on a shift to value stocks in this new cycle of rising rates. Pzena currently has around \$29B AUM which has seen steady growth throughout the year. PZN is a small cap name in a large industry and has attractive metrics versus peers.

Sprague Resources (SRLP) is a \$575M refiner trading 8.9X Earnings, 4.2X Book and 35.5X FCF with an 8.4% dividend yield. SRLP also is involved in material handling services and markets natural gas in 13 states. As a small cap MLP financial strength is important with such a high dividend yield and it has strong numbers with leverage at just 2.4X EBITDA and a 1.8X coverage ratio. Its waterfront terminal network offloads and stores a variety of liquid, bulk and break bulk materials. SRLP is a very interesting diversified MLP with strong cash flows, low leverage, a healthy dividend and ample growth opportunities.

Columbus McKinnon (CMCO) is a \$528M maker of material handling products trading 16.5X Earnings, 1.78X Book and 10.8X FCF with a 0.61% dividend yield. CMCO has 12.1% EBITDA margins, higher than most of its peers, and a ROIC of 7.2%. CMCO makes a variety of products like powered chain hoists, trolleys, cranes, actuators, rail systems and control systems. The company is set to earn \$610M in revenues this year with a long term objective of \$1B and sees 12-20% annual growth through 2019 while EPS set to hit \$2.15/share in 2019, up from \$1.43/share in 2017 and a new record high for the company. The company is seeking acquisitions as well to expand its product portfolio and vertical markets. CMCO recently acquired STAHL where the oil & gas industry is a 24% end-market, so stabilization in 2017 will help, while infrastructure spending will boost its other markets.

Monarch Casino (MCRI) is a \$440M operator of resorts and casinos trading 17.7X Earnings, 2.07X Sales, 1.97X Book and 53X FCF. Its 25% EBITDA margins and 10% ROIC rank solidly compared to larger peers and 0.4X Debt/EBITDA is well below the peer average of 4X. Its properties are the Atlantis Casino in Reno, NV and Monarch Casino in Black Hawk, CO. Tesla's \$5B battery factory in Reno has brought in significant business to the Atlantis Casino and Denver is a strengthening economic power that will boost Monarch's business. MCRI is a small player in an industry with some big players, and its properties are gaining market share and the company has an attractive value proposition, while also being a good looking acquisition target.

Bio-Specifics (BSTC) is a \$375M biopharmaceutical maker of injectable collagenase clostridium histolyticum for multiple indications trading 31.6X Earning and 19.6X FCF. IT has 38.7% EBITDA margins and 29.5% ROIC with revenues projected to climb 8.9% next year and EPS +11.6%. BSTC receives revenues from XI AFLEX milestones and royalties from its partner Endo (ENDP) in two commercial indications. XI AFLEX has potential in multiple other indications including Uterine Fibroids with Phase 1 trials starting in Q1 2017. BSTC recently announced positive results in a Phase 2b study of CCH for treatment of cellulite. With a clean balance sheet and steady top-line growth, BSTC has a long runway if XI AFLEX continues to show success in other indications.

Surmodics (SRDX) is a \$343M provider of in vitro diagnostic technologies and surface modification coating technologies trading 46.5X Earnings, 4.8X Sales, and 20.2X FCF that caught my eye earlier this year with some very impressive earnings reports. SRDX is expanding its leadership position in coating to the \$18B in vitro market and recently has made acquisitions such as Creagh Medical and NorMedix. SRDX in November significantly lowered its FY17 EPS outlook but the long term opportunity still looks very promising. Its SurVeil drug coated balloon has shown better results than products offered by much larger competitors like Medtronic (MDT) and CR Bard (BCR). A lot of its future success rides on its ability

to expand its markets and at this market cap with the sizable market opportunity, it's a great small cap investment though comes with a higher risk profile.

Top 20 2017 Laggards to Leaders

(Stocks that are down 5% or more over the past year but can see improved fundamentals in 2017 and trade at relative attractive valuations while being leaders in respective industries with competitive advantages)

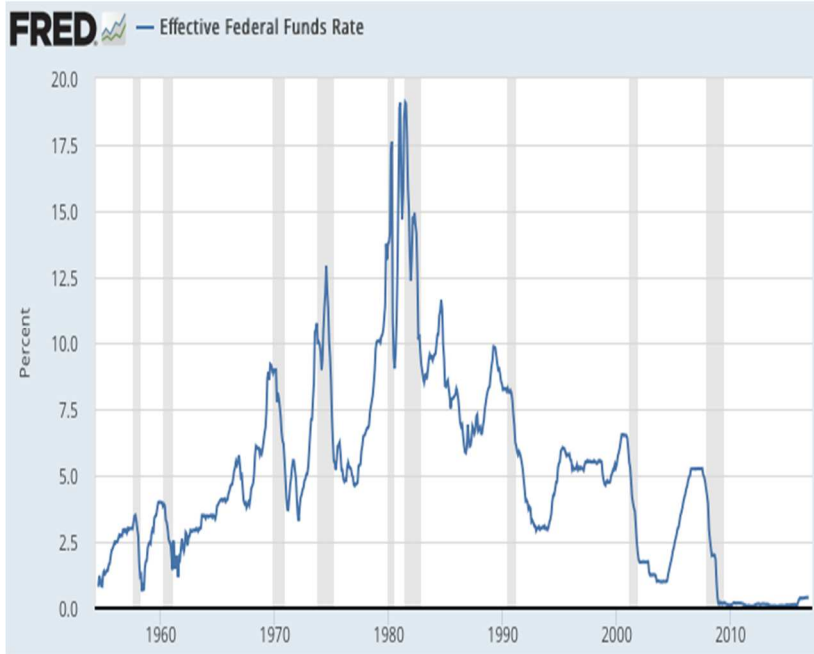
Components: *GILD, CVS, BIDU, CRM, CS, EL, MNST, ILMN, DLPH, RCL, TSCO, ST, CF, TYL, FTNT, AN, GRA, SKX, RLG, MANH*

Company	Current Price	1Year Return	Current Market Cap	FY2 P/E	FY2 EV/EBITDA	FY2 EV/Sales	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Normalized EPS YoY	FY2 Normalized EPS YoY	FY1 Gross Margin	FY1 EBITDA Margin	FY1 Return on Assets (ROA)	FY1 Return on Invested Capital	FY1 Levered FCF Margin	FY-10 Net Debt/EBITDA	
GILD (Gilead Sciences Inc)	X	\$73.96	(28.1%)	97,558	6.87x	4.9x	3.3x	(7.5%)	(6.7%)	(3.7%)	(5.6%)	88.4%	69.2%	31.4%	47.1%	51.5%	--
CVS (Cvs Health Corp)	X	\$79.85	(18.7%)	85,144	13.61x	8.5x	0.6x	16.2%	5.4%	25.1%	1.0%	16.3%	7.3%	7.6%	11.7%	4.1%	2.2x
BIDU (Baidu, Inc.)	X	\$163.92	(16.8%)	57,247	29.56x	18.4x	4.2x	(0.5%)	20.5%	(71.1%)	31.8%	50.7%	21.5%	6.4%	7.9%	12.6%	--
CRM (Salesforce Com Inc)	X	\$70.11	(10.0%)	48,671	54.62x	22.5x	4.8x	25.6%	21.8%	--	30.6%	75.9%	20.6%	5.4%	11.0%	16.5%	--
CS (Credit Suisse Group Ag)	X	--	(29.6%)	30,332	10.68x	--	--	(3.3%)	14.0%	(237.9%)	660.0%	--	1.3%	--	--	1.3%	--
EL (Estee Lauder Companies Inc)	X	\$78.12	(11.5%)	28,580	20.46x	12.1x	2.4x	5.5%	6.2%	6.9%	10.9%	80.6%	19.2%	13.5%	23.8%	9.2%	0.4x
MNST (Monster Beverage Corp)	X	\$45.37	(7.7%)	25,905	30.17x	18.3x	7.5x	10.5%	11.7%	22.1%	21.7%	63.1%	39.5%	17.3%	23.4%	22.1%	--
ILMN (Illumina Inc)	X	\$127.82	(31.6%)	18,777	34.83x	22.9x	6.9x	7.7%	10.8%	5.4%	10.5%	71.9%	30.4%	12.4%	18.3%	16.9%	--
DLPH (Delphi Automotive Plc)	X	\$89.19	(18.3%)	18,739	10.66x	7.5x	1.3x	8.7%	3.4%	19.3%	7.2%	21.0%	17.5%	13.6%	31.7%	6.2%	1.4x
RCL (Royal Caribbean Cruises Ltd)	X	\$85.21	(13.6%)	18,325	12.58x	10.9x	3.2x	3.1%	1.1%	24.3%	12.0%	53.5%	28.0%	4.9%	10.3%	(0.4%)	4.0x
TSCO (Tractor Supply Company)	X	\$77.65	(8.4%)	10,192	22.07x	11.8x	1.5x	8.0%	6.6%	8.1%	8.5%	34.4%	12.4%	19.1%	30.8%	3.4%	0.1x
ST (Sensata Technologies Holding ...)	X	\$40.94	(6.6%)	6,997	13.03x	11.8x	3.0x	7.5%	2.6%	35.8%	9.6%	35.3%	25.2%	8.1%	14.0%	13.8%	4.7x
CF (CF Industries Holdings, Inc.)	X	\$28.90	(32.4%)	6,676	56.16x	8.8x	2.6x	(14.0%)	11.9%	(75.6%)	(33.7%)	15.6%	26.0%	1.7%	2.3%	(43.2%)	3.0x
TYL (Tyler Technologies Inc)	X	\$145.26	(18.5%)	5,343	36.99x	19.9x	6.2x	30.5%	11.7%	97.1%	12.8%	49.9%	29.4%	12.2%	21.0%	19.4%	0.2x
FTNT (Fortinet Inc)	X	\$29.55	(6.7%)	5,106	36.52x	15.0x	2.8x	24.6%	16.9%	875.5%	26.3%	74.1%	16.8%	3.8%	16.0%	20.7%	--
AN (Autonation, Inc.)	X	\$49.54	(18.2%)	5,006	11.50x	8.8x	0.4x	4.0%	3.8%	2.0%	6.8%	15.5%	4.6%	4.3%	9.5%	1.7%	3.4x
GRA (W R Grace & Co)	X	\$67.89	(12.8%)	4,753	19.48x	11.3x	3.7x	(47.6%)	5.1%	29.1%	12.8%	43.4%	31.5%	12.1%	11.5%	12.3%	3.9x
SKX (Skechers Usa Inc)	X	\$25.13	(17.0%)	3,963	13.75x	7.0x	0.9x	12.1%	8.4%	8.8%	11.6%	45.7%	12.5%	13.9%	20.2%	6.1%	--
RLGY (Realogy Holdings Corp.)	X	\$27.19	(26.4%)	3,880	15.98x	9.3x	1.3x	1.3%	2.0%	(11.6%)	35.6%	31.8%	13.1%	2.7%	5.3%	7.3%	6.7x
MANH (Manhattan Associates Inc)	X	\$53.56	(22.9%)	3,809	26.25x	15.3x	5.6x	9.2%	9.0%	31.8%	10.6%	58.6%	36.1%	--	70.3%	22.6%	--
Mean	--	--	(17.8%)	24,250	23.79x	12.9x	3.3x	5.1%	8.3%	41.6%	44.0%	48.7%	23.1%	10.6%	20.3%	10.2%	2.7x

2017 Investment Themes

Rising Interest Rate Cycle and the Dollar

Since 2008, the effective federal funds rate has been at historic lows with the Federal Reserve attempting to spur spending and growth. In mid-December, they raised rates by 25 basis points to a target range of 0.50% to 0.75%, the second hike in the last decade. The committee also signaled that three hikes were likely in each of the next three years which would set rates at 2.75% to 3% by the end of 2019, a faster pace of tightening than projected by the FOMC in the past. CME Fed Futures are pricing in the probability of a hike in March 2017 at 24.4%, May is 33%, and June is 50.4% with the current probability of rates at 1.00% to 1.25% by December 2017 at 31.6% while the probability of rates at 1.25% to 1.5% is 29.2%. The current probability that we have zero rate increases in 2017 is 3.4%. According to global investment firm PIMCO, the equilibrium level of the fed funds rate – the level at which the Fed is neither tightening nor easing – is between 2.0% and 2.5% so we're entering the beginning of the cycle which could last two to three years.



The hike comes on the heels of strong US data including GDP which grew faster than expected in the third quarter behind strong consumer spending and exports. Consumer confidence is also hitting its highest level in nine years despite the political turmoil at home and abroad in 2016. The Fed prefers to watch the Commerce Department's PCE measure for inflation measures which showed the cost of living rose three consecutive months this Fall and up 0.4% in October after a 0.3% gain in September. PCE rose to 1.4% Y/Y in October and ex-food and energy rose 1.7%. This follows a healthier job market as well. The civilian unemployment rate fell to 4.6% in November, down from 4.9% in January 2016. The unemployment rate peaked near-term in October 2009 when it

was 10% and has fallen steady ever since to its lowest levels since 2007. Over the last twenty years, we've had two periods of unemployment below this level, March 2006 to December 2007 and October 1997 to August 2001.

Financials are the most obvious beneficiary of rising rates including banks, brokerages, credit services, insurers and more. Banks will benefit from the tightening cycle with gains in net-interest income from non-interest bearing deposits which will reprice with a change in rates. The group has already seen strong gains this year, most following the Election, and the XLF up over 20% year-to-date. In the latest quarterly filings, **Bank of America (BAC)** reported \$438.65B in noninterest-bearing deposits, **JP Morgan (JPM)** has \$409.912B in noninterest-bearing deposits, and **Wells Fargo (WFC)** had \$363.108B in noninterest-bearing deposits. A modest rise in interest rates of 100 basis points could impact NII significantly. BAC said on their October conference call that an instant 100 bps hike would increase NII by \$5.3B over the next twelve months, a marginally lower sensitivity than in June but mostly due to a reduction in the long-end. JPM's Marianne Lake noted on their October call that a 100-bps move would be about a \$3B increase, most of which is due to front end. Noninterest-bearing deposits make up about 20% of all three of these banks' total funding with BAC slightly above the others at 23.3% and the favorite in the group on an absolute-basis. **Citigroup (C)** is the other big bank to look at but not as attractive with just \$141.899B in non-interest bearing deposits in the US.

Regional banks show a similar sensitivity. **Comerica (CMA)** is a mid-cap regional with \$31.77B in noninterest bearing deposits and sees a 200-basis point hike increasing NII by 12% to \$208M while a move to zero would cut NII by 5%. **Regions Financial (RF)** has \$36.32B in non-interest bearing deposits which is 36.5% of their total deposits. **State Street (STT)** commented on their October quarter by noting that they have been actively reducing their exposure to non-interest bearing deposits which are now just \$22B. They noted that an instant 100 bps rise in interest rates, what they call a shock, would NIR by \$546M while a gradual ramp would add \$240M. A cut of 100 basis points would lead to \$232M loss and \$139M loss respectively. **Bank of NY (BK)** is a regional mid-cap bank which has some notable sensitivity to rates. The company forecasts that a 100-basis points ramp would lead to a \$147M increase in NIR.

All the major brokerages also will benefit from a rise in rates with similar deposit structures and significant client cash. **TD Ameritrade (AMTD)** noted in their latest quarterly earnings that a gradual 1% rise in rates over a 12-month period would result in \$100M to \$200M in pre-tax income while a decline would result in a \$50 to \$70M loss. AMTD has \$773.8B in client assets and benefits from a larger net interest spread with rates rising. **Charles Schwab (SCHW)** has seen NIR rise with the modest rate hikes recently and in their latest report simulated a 100-basis point hike leading to an 8.1% increase in NIR while a 100-basis point decline would lead to an 11.1% decline. **E-Trade (ETFC)** actively manages their exposure to interest rate risk and

notes that a 100-basis point increase would increase NIR by \$106M or 9.2% while a 200-basis point hike would lead to an increase of \$163M or 14.2%. A 50 basis-point decline would lead to a decrease of \$67M in NIR. **Interactive Brokers (IBKR)** noted that a 25-basis point hike would lead to an increase of \$52M in NII on an annualized basis. NII last quarter rose \$27M driven by \$5.7B in average customer cash balances.

Some other financial areas which will be impacted include credit cards, exchanges, and insurers. **Visa (V)** and **MasterCard (MA)** are the two biggest credit services names with over \$100B market cap each. **V** has lagged a bit this year, trading just around flat for 2016, while **MA** has risen over 7%. **American Express (AXP)** is a \$64B name which has traded higher by about 10% this year. Some of the second-tier large cap names have been the best performing within the group and all with better sensitivity to rates with **Capital One (COF)** up over 25%, **Synchrony (SYF)** up over 20%, and **Discover (DFS)** up over 34%. One of the more attractive names is **SYF** which noted on their most recent quarter that a 100-basis point move would impact NII by \$178M and **COF** seeing a 100-basis point move leading to a 1.1% increase in NII which would equate to roughly \$58M. **DFS** sees a 3% increase to all rate sensitive assets which would equate to \$227M. Both **Visa** and **MA** noted that a similar move would not change fair value of their investments materially.

Insurers will also benefit as yields rise on fixed-income assets. For years, the group has been rolling portfolios into an environment with excessively low yields and seeing lower ROI relative to recent periods. **AIG, Metlife (MET) and Prudential (PRU)** are the three biggest names in the group. All three trade at discount to book value with MET the greatest at 0.76X and a 4.80% ROE. Financial exchanges like **Nasdaq (NDAQ), CBOE (CBOE), CME Group (CME), and Intercontinental (ICE)** are all exposed to changes in rates as well but on a far less impactful basis than others within the group.

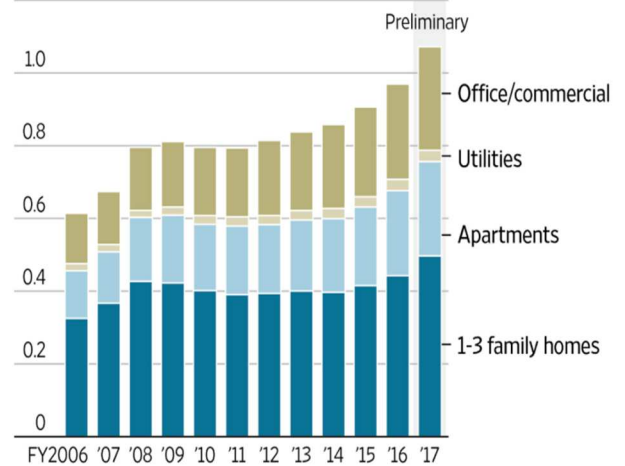
Areas which will be negatively impacted by the rising rate environment include gold, property/REITs, and utilities. Gold tested its lowest levels of the year in the fourth quarter after sitting on a nearly 25% gain in July. Gold offers no yield and rising rates makes bonds and other fixed income investments more attractive, especially short-term Treasuries. And while the long-term correlation between rate hikes and gold prices isn't strong, the rising dollar should continue to put pressure on the commodity. The biggest names in the group are **Newmont (NEM)** with a \$17.36B market cap and **Barrick Gold (ABX)** with a \$17.15B market cap while **Goldcorp (GG)** and **Franco-Nevada (FNV)** are roughly \$10B each. **ABX** is one of the more sensitive names to gold price fluctuations with every \$100/ounce move in the underlying impacting revenues by \$123M. The company outlined their outlook and assumptions last quarter with gold prices at \$1,250 per ounce so with prices currently at \$1,135, already expecting to realize a \$141.50M revenue loss based on the current prices.

Commercial property and real-estate may also see investors shift assets away. Real estate has been a strong with the IYR up over 250% since the 2009 lows when interest rates hit their extreme lows. Since early August, however, the trend has shifted with REITs down 12% as of late December. According to the WSJ, commercial real estate saw a boom in the past years due to investors seeking out better returns than low-yielding bonds but could see a reversal with better yields. The rotation out of property and back into bonds could exacerbate the growing worries that the market itself is overheating. NYC home prices rose above their 2008 levels in 2016 and will likely to continue higher in 2017 per the NYC budget office. **Boston Properties (BXP), Kilroy (KRC), and Alexandra Realty (ARE)** are the three largest names in the office space. KRC is an especially interesting name with its exposure to Silicon Valley property prices. BXP is the only name of the three in the red for the year with the other two higher by more than 20%. Residential REITs have underperformed most of the major REIT classes in 2016 and the names of size include **Avalon Bay (AVB), Equity Residential (EQR), and Essex (ESS)**. All three are down marginally year-to-date with EQR down over 7%.

New York City Values

Total market value of New York City's real estate

\$1.2 trillion



Note: Fiscal years end June 30.

Sources: NYC Independent Budget Office; NYC Department of Finance

The Strengthening US Dollar

Company	Ticker	Segment	% of Sales
Applied Materials	AMAT	Non-US	89.4%
Cypress	CY	Non-US	88.7%
Micron	MU	Non-US	84.5%
Intel	INTC	Non-US	79.9%
Mondelez	MDLZ	Non-US	76.4%
Bunge	BG	Non-US	76.4%
AMD Devices	AMD	Non-US	75.3%
Colgate Palmolive	CL	Non-US	72.7%
Abbott Labs	ABT	Non-US	69.3%
Corning	GLW	Non-US	67.0%
McDonalds	MCD	Non-US	66.3%
Dow Chemical	DOW	Non-US	65.5%
Apple	AAPL	Non-US	64.9%
Exxon Mobil	XOM	Non-US	64.5%
Delphi Automotive	DLPH	Non-US	63.5%
International Business Machines	IBM	Non-US	62.6%
Procter & Gamble	PG	Non-US	61.0%
3M Corporation	MMM	Non-US	60.2%
DuPont	DD	Non-US	60.1%
Baxter	BAX	Non-US	59.9%
Caterpillar	CAT	Non-US	59.1%
Boeing	BA	Non-US	59.1%

The US dollar is likely to become a strong theme in 2017 as the rate-environment shifts. The index rose to 14-year highs following the December decision. According to the St Louis Fed, historically when the FOMC is preparing to raise rates, the US dollar index rises with high-interest-rate currency appreciating more than low-interest-rate currency. The return on savings is higher in the US and it likely leads to more foreign money moving into the country. The attractiveness of US yields has taken its toll on foreign currencies as well with the Euro hitting its lowest levels since 2003 and the Yen falling to the lowest levels of the year. Emerging markets, and companies with exposure to them such as large multi-nationals and consumer products companies, could come under more pressure in 2017 with the stronger dollar a headwind.

A lot of US companies will likely discuss forex headwinds in their early earnings conference calls, especially those with significant International business as US exports become more expensive and the conversion of foreign profits weakens. Consumer staples are one group with overseas exposure that remain vulnerable. **Kimberly Clark (KMB)** is a

name which has historically seen a wide gap between earnings and ex-FX. In their October report, KMB reported that exchange rates reduced sales by more than 2% and historically a name which has lowered guidance due to rising US dollar strength. **Procter and Gamble (PG)** is another name which is likely to be impacted with nearly 60% of their sales abroad (most concentrated in Europe at nearly 25%). In their October quarter, PG reported a 5% increase in earnings per share but impacted 7% by foreign exchange. **Mondelez (MDLZ)** is another name which carries a significant portion of their business outside the US. In their most-recent 10-K the company reported revenue in Europe which was nearly double that of the US (\$10.5B vs \$6.9B). Just 23.5% of their overall revenue came from the U.S. **Johnson and Johnson (JNJ)** is an interesting name outside of the consumer staples which has a strong relation to the dollar. In their most-recent 10-K, the company reported \$35.6B in US sales which is roughly half of their \$70.07B total sales figures.

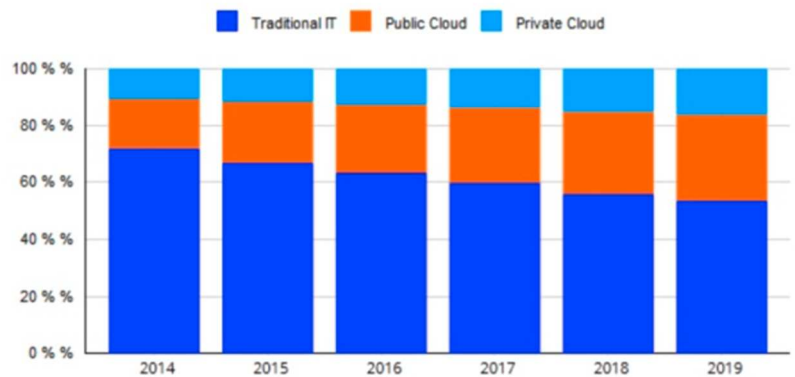
Technology companies are likely to also see major impacts to earnings from a stronger dollar. **Apple (AAPL)** for example reported roughly 40% of overall sales in the US last year with Europe and China both representing roughly 20% each and Japan a notable impact as well. **Google (GOOG)** is an interesting one as well which could be impacted by both moves in the US dollar but the Brexit impacting the Pound as well. The company reported 43% of overall revenue in the US and roughly 10% of revenue in the UK.

Cloud Growth

The continued growth of the cloud is not a new theme by any means but continues to be one of the strongest, most prevalent ones in tech with ripples into some of the biggest areas such as AI/Big Data, VR/AR, and our connected lives. The three main areas of cloud computing are Platform as a Service (PAAS), Software as a Service (SaaS) and Infrastructure as a Service (IaaS) and starting to see cloud services branch out into Internet of Things (IoT) and artificial intelligence (AI). According to IDC, SaaS/PaaS combined for 83.7% of the overall market in 2015 while IaaS was the remaining 16.3%. Global research firm Gartner estimates that Worldwide Cloud Software revenue will grow at a 22% CAGR for the next four years with the total percentage of Software revenue expected to become 33% in 2019 up from 19%. The fastest growing spaces are System Infrastructure Services and Management Security Services at 32% and 20% CAGR. IDC was out in August noting that they see worldwide revenues from public cloud services reaching \$195B by 2020. IDC sees cloud software outpacing traditional software sales sometime in the next five years and growing nearly three times faster than the overall market. Manufacturing, banking, and professional services are leaders in cloud but media, telecom, and retail are beginning to see faster revenue growth.



Worldwide Cloud IT Infrastructure Market Forecast
by Deployment Type 2014 - 2019 (shares based on Value)



Software as a Service (SaaS) will continue to grow as IT spending focuses on making companies more efficient and profitable. We've seen a notable trend over the last two years with companies moving from a traditional model to a subscription-based cloud model which has led to higher margins and multiple expansion. These companies also could introduce new products and save on hardware costs from the shift away from on premise software. The SaaS model also tends to produce less turnover, better renewal rates, and larger recurring revenue. RBC Capital was out with a note in December seeing 23.6% growth in SaaS dollar spending with 20% revenue growth among the largest names.

Adobe (ADBE), **Autodesk (ADSK)**, and **Intuit (INTU)** are three bigger names which all have shifted to this new model and performed well in 2016 while **PTC Inc. (PTC)** is another name which has outperformed up 37% for the year. **Microsoft (MSFT)** has traded very well in 2016 up to new all-time highs and is one the bigger names in the space after shifting their suite of office products over to a subscription based model and **VMWare (VMW)** another larger name which has traded well.

The smaller SaaS names are most attractive, especially niche players. **Shopify (SHOP)** is a very attractive name which provides services for small and medium sized businesses and trading 10X sales and with 47.6% Y/Y revenue growth in 2017. **ZenDesk (ZEN)** is another interesting name which provides software for B2C interactions including live chat. Shares trade at 7X sales with 32.3% Y/Y revenue growth in 2017. **HubSpot (HUBS)** is another name which trades at a reasonable valuation relative to forward growth with 30.3% Y/Y revenue growth in 2017 and 6.8X sales. The \$1.66B company provides SEO, analytics and content management for social media. Some other names within the space which are attractive include **BLKB**, **PAYC**, **NEWR**, **ALRM**, **CALD**, and **FIVN**.

This is space which has also seen significant M&A activity in 2016 with **DemandWare (DWRE)**, **Marketo (MKTO)**, **Cvent (CVT)**, **Qlik Tech (QLIK)**, and **SciQuest (SQI)** all being bought up by bigger players or private equity. And the deals are likely to continue with PE firm Thoma Bravo announcing in September they had raised \$7.6B for a new fund to pursue more tech deals and companies like **CRM** and **ORCL** both with a considerable amount of desire and dry-powder to strike a deal. We've seen some names with strong options flow and would make nice acquisition targets for larger companies. **CornerStone OnDemand (CSOD)** is a \$2.34B provider of talent management solutions and seeing several large positions accumulate in the February

and March calls. In December, media outlets like Bloomberg and Reuters reported that the company was talking with potential buyers but had not hired banks to advise. CSOD is attractive at valuation trading at 5.6X sales with 15.4% Y/Y revenue growth.

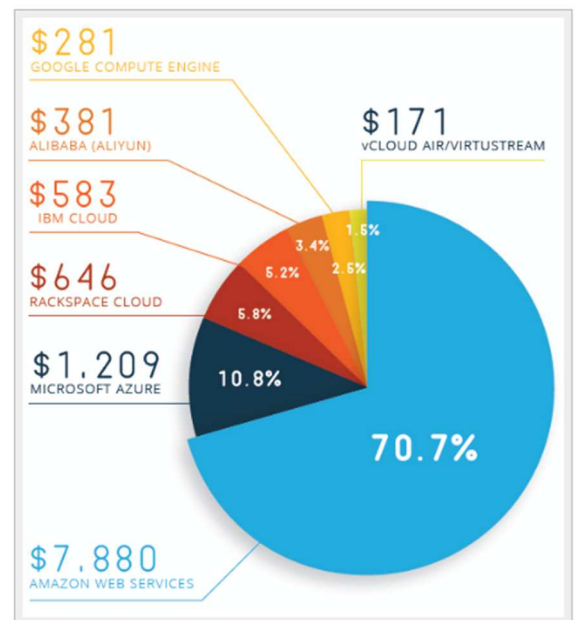
Platform as a Service (PaaS) is a smaller subset which focuses more on developers and giving them a platform to create, run, and manage applications without building infrastructure and like SaaS but without the burden of installing hardware or software to develop or run an app. PaaS providers deploy middleware like data bases and servers as well as the actual software so that users can simply log in and begin using the service, typically through a web browser. PaaS systems are providing major benefits to companies which can create a more collaborative environment, drive mobile adoption, and reduce overhead. Zion Market Research was out in September with a report which indicated that PaaS growth was expected to grow to over \$9B by 2021, a CAGR of 30% over the next five years. PaaS spending is relatively small with N. America the market share leader, 59% of the overall market.

The big names in this space are some of the same in SaaS and IaaS but their offerings are different.

Salesforce.com (CRM) is the most disruptive name in this space with a PaaS service called Force.com which is an enterprise relationship management service. The service allows for the development of employee-facing mobile enterprise apps. **Amazon Web Services (AMZN)** has a service called Elastic Beanstalk while **Microsoft (MSFT)** has Windows Azure AppFabric, a disappointing offering but one where they may expand out to .NET developers. **IBM (IBM)** has a more enterprise-focused PaaS option called IBM Smart Cloud which allows for the development of Java-based apps for the public cloud. Finally, **Google (GOOGL)** has a PaaS service called App Engine for building scalable web applications with built-in services like APIs.

Infrastructure as a Service (IaaS) is an interesting subset of cloud growth which has the potential to become a massive market. IaaS is a cloud-based service which provides virtualized computing resources online. Gartner estimated that the market was \$16.2B in 2015 and up to over \$22B in 2016, a 38.4% Y/Y growth rate. In an April report from Structure Research, the firm estimated that the market will grow beyond \$120B in 2020. The biggest name in IaaS is **AMZN** which reported \$7.8B in revenues or more than 70% of the total revenue for the group while **MSFT** Azure, **Rackspace** Cloud, **IBM** Cloud, **Alibaba (BABA)**, and **GOOG** all fall behind by a significant amount.

Finally, one of the biggest beneficiaries of cloud growth is **data centers**. Cloud providers such as AMZN and GOOG are using larger, more intricate networks of data centers to offer hosting capabilities. There are two major data center REITs and four smaller names which fall between \$2-\$3B market cap. All six names have performed well this year. The two big names are **Equinix (EQIX)** and **Digital Realty (DLR)**. EQIX operates 145 data centers in 40 cities with over 14M square feet of space while DLR operates 140 data centers in 33 cities with 22.8M square feet of space. Both names have traded higher this year but over 20% and face challenging comps in 2017 which could lead to temporary weakness. Both names are also expanding at a rapid pace with EQIX reaching a deal in November to acquire Verizon's (VZ) data center business for \$3.6B which added another 24 data centers to their portfolio. The deal will close in mid-2017. DLR made a deal for Telx in 2015 which expanded their offerings beyond just leasing to wholesale customers. The land grab will likely continue among the space with demand for capacity rocketing higher. EQIX trades slightly rich at 24.4X FFO with a 1.97% yield while DLR trades at 16X FFO with a 3.64% yield. The other names in the group are **Cyrus One (CONE)**, **Coresite Realty (COR)**, **DuPont Fabros (DFT)**, and **QTS Realty (QTS)**. **DFT** stands out on valuation at 12.15X FFO and a 4.6% yield. Shares were up over 41% in 2016 and a strong earnings name with new contract wins helping keep occupancy rates near 98%. The company keeps MSFT and RAX as two of its top lessors.

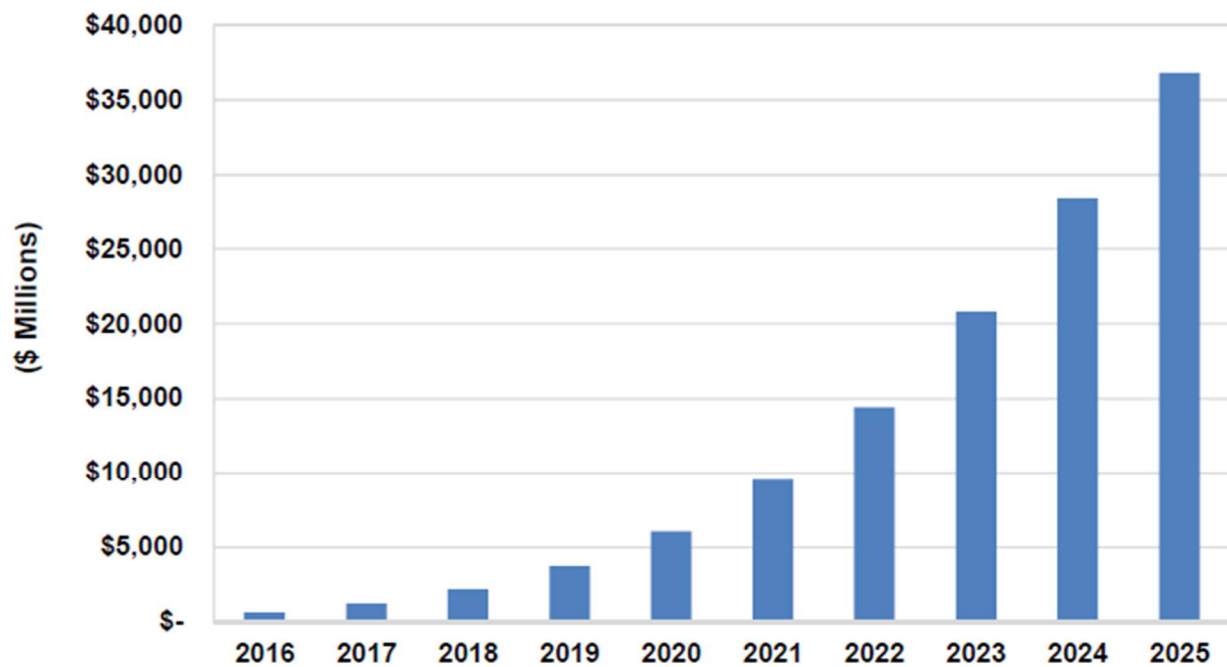


Source: Massive-Scale Cloud, April 30, 2016, Structure Research

Artificial Intelligence and Our Connected Lives

The growth of cloud computing has led to the development or evolution of other forms of technology as well and many see the next big thing as the use of artificial intelligence. Cloud computing has allowed companies to become more flexible and lower costs as they shift their operations to centralized data centers. As massive amounts of data are migrating to the cloud, companies are now developing machine-learning and AI services for mining that information to help make predictive, smarter decisions in real-time. Market research firm Tractica forecasts that annual global revenue for AI will reach \$643.7M in 2016 and grow exponentially to over \$36.8B in 2025. They see the top use cases of AI by 2025 being, in order, algorithmic trading, image recognition, processing of patient data, predictive maintenance, content distribution, search, object detection, and contract analysis. Tractica views the market by 2025 as being divided into 60% big data and 40% image and object recognition.

Chart 1.1 Artificial Intelligence Revenue, World Markets: 2016-2025



(Source: Tractica)

Companies have begun developing cognitive services which use AI and the cloud to analyze images, content including text and video, and speech. There are several existing areas within tech where AI could be utilized including smarter search and predictive analytics for forecasting business trends. **Microsoft (MSFT)** and **Google (GOOGL)** both opened their API tools to develop software for translation and speech recognition earlier this year and seeing some develop facial recognition software which could optimize our security controls globally. A lot of leaders in Silicon Valley including Sundar Pichai (Google), Satya Nadella (Microsoft), and Mark Zuckerberg (Facebook) have all lauded great expectations onto AI so definitely an area where you'll see investments in time and money going forward.

The most immediate form of consumer-facing AI we've seen in 2016 is through digital assistants or chatbots. Voice-responsive AI is now dealing with everything from customer inquiries to mobile ordering including **Domino's (DPZ)** new app DOM which was developed with CP+B and **Nuance (NUAN)**. **Google Now (GOOGL)** is a digital assistant which can help leverage your suite of products in the Google ecosystem including Mail, Calendar, and your search to make better informed decisions about basic questions. The app also uses your location and background information to help focus your choices on everything from restaurants to movies. **Microsoft (MSFT)** has their Cortana personal assistant which was released with Windows 10 and like **Apple's (AAPL)** Siri which has recently received upgrades to better integrate with all existing Apple products including iPad and Mac. Finally, **Amazon's (AMZN)** Alexa is perhaps the most interesting name of the group which we'll cover more below in the "Connected Lives" section.

One of the most interesting areas where AI could be used in the coming years is healthcare. AI may be used in the future through image-recognition software which can identify physical symptoms to reading charts while chatbots can help schedule doctor appointments and follow-up pharmaceutical needs. Similarly, AI is also helping make sales and marketing more efficient for companies. Larger players like **Salesforce (CRM)** and **Oracle (ORCL)** are creating and using AI tools which record sales interactions and evaluate everything from the language to the pace to help make each interaction better. Big data is being leveraged to help focus on where to sell and what actions to take which will ultimately reduce waste and drive growth. Finally, we're seeing AI used in industrial settings as well which we'll discuss below in the section "Connected Lives."

One beneficiary of growth in AI is chip-makers as they need to design and develop better GPUs for deep learning. **Nvidia (NVDA)** is the top name in this space with their Tesla GPUs already being influenced by AI and the growing need for its application. The company saw over \$75M in sales for their GPUs for data center deep learning situations and is on track to realize over \$100M in sales for AI. This figure puts NVDA at more than 1/3 of the total market in 2016 and Tractica forecasts the company could see up to \$5B in sales at some point. **Intel (INTC)** is another name which is developing chips for use in AI with their Xeon Phi. In November, the company unveiled a new AI strategy to help drive performance in data centers, IoT, and software to make AI "foundational to business and society." The company's Nervana platform will deliver up to 100X reduction in time to train an AI model by 2019.

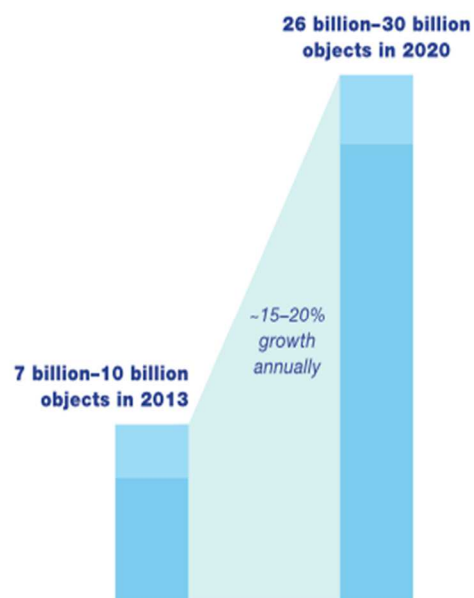
The Internet of Things

The Internet of Things is a tightly correlated theme to AI and the cloud with many of the same technology being utilized. IoT was a hot theme coming into 2016 with the emergence of wearable technology and more everyday devices becoming 'smarter' but the shift into 2017 is likely to be more dramatic. The growth of cloud is helping make all aspects of our lives connected from our cars to our homes and many companies are capitalizing on the growing use of the technology to harvest data and make our lives more efficient. IoT is also branching more into manufacturing, transportation, and agriculture.

A July report from General Electric estimated that there will be 34B devices connected to the internet by 2020, more than three times the amount in 2015, and IoT will account for 24B of those. A McKinsey Global Institute report in 2014 estimated that spending the space will reach \$6.2T over the next five years with enterprise being the top consumer of the technology to improve operating costs, productivity, and develop new products. They see industrials, consumer, and healthcare as the markets most affected where the trend is in its infancy.

Consumer products are the most forward-facing area of IoT adoption with **Amazon (AMZN)**, **Google (GOOGL)**, **Apple (AAPL)**, and more investing heavily in the space. AMZN is leveraging their dominance in the IaaS space with AWS to build more connected homes. They have their Kindle TV, Dash buttons, and Amazon Echo with its Alexa capability able to turn on music, make to-do lists, and play media using voice direction. Their Dash buttons are building a connected retail environment by allowing users to re-order their favorite products through a Wi-Fi connected device in their homes. AMZN has so many different arms within the consumer home including Amazon Prime TV that it makes sense to see the company seeking IoT acquisitions like Zlemetry in 2015. The company helps build out their IoT capabilities which now collect data, analytics, and

Some 30 billion objects may be connected to the Internet of Things¹ by 2020.



¹A networking of physical objects via embedded devices that collect and/or transmit information.

Source: Forecasts derived from ABI Research; expert interviews; Gartner; IDC; McKinsey analysis

utilizes machine learning through AWS. **GOOG's** Home Product is the direct competitor to Echo and is a similar voice-activated speaker which uses the company's Assistant program to do tasks within the home. GOOG is focused on home automation and leveraging their Nest acquisition to help reach more spaces within the individual's life. They are also partnered with Philips Hue and SmartThings and Google's connected home can do everything from play music, answer questions through Search on weather and traffic, and control things like your thermostat and smoke alarms in home through Nest. Nest has taken some lumps in 2016 with reports that sales have underperformed and now sits inside the company's new Alphabet division. Finally, **AAPL** is building into the space as well with Home Kit, their automation hub which can control lights, thermostats, alarms, and other connected devices through your Apple device such as an iPhone or iPad. Home Kit uses Siri, the company's long-time voice automation service.

Wearables are also a big part of the consumer IoT strategy. IDC forecast that wearable device shipments were expected to reach 101.9M units in 2016, a 29% Y/Y rise from 2015. The market for wearable devices with compound at an annual growth rate of 20.3% through 2020. In December, IDC reported that the wearables market grew 3.1% with shipments up to 23M units. IDC continues to see watches and bands as the top players in the space (85% of the market in Q3) but eyewear, like Snap's new Spectacles, and smart clothing are emerging trends. IDC also noted an interesting trend emerging late in 2016 with basic wearables dominating the more complex smartwatches. They highlight that four of the five largest vendors during the quarter offered a more basic, simple fitness device. IDC thinks developers are the biggest beneficiary from the growth in wearables with health, fitness, news, sports, and social media the top areas for apps.

Top Five Wearable Device Vendors, Worldwide Shipments, Market Share and Year-Over-Year Growth, 3Q 2016 (Units in Millions)					
Vendor	3Q16 Unit Shipments	3Q16 Market Share	3Q15 Unit Shipments	3Q15 Market Share	Year-Over-Year Growth
1. Fitbit	5.3	23.0%	4.8	21.4%	11.0%
2. Xiaomi	3.8	16.5%	3.7	16.4%	4.0%
3. Garmin	1.3	5.7%	1.2	5.3%	12.2%
4. Apple	1.1	4.9%	3.9	17.5%	-71.0%
5. Samsung	1.0	4.5%	0.5	2.4%	89.9%
Others	10.4	45.3%	8.3	37.0%	26.1%
Total	23.0	100.0%	22.3	100.0%	3.1%

Source: IDC Worldwide Quarterly Wearable Device Tracker, December 5, 2016

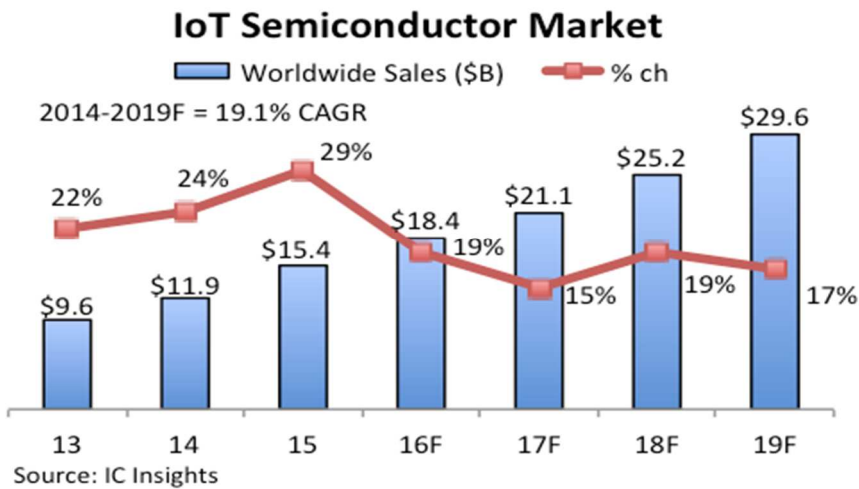
Fitbit (FIT) commands the largest market presence in the space with 23% of all spending in the category, up 22% Y/Y, while volumes rose to 5.3M in the third quarter. The Blaze, Alta, and Charge 2 are driving new sales for the company into the critical Holiday season. FIT has had a rough year in 2016 down over 75% and one of the most highly-shortened names in tech. They made two smaller acquisitions this year as well with Coin and Pebble.

Xiaomi is a dominant player in China in the space with their new Mi Band but not much of a factor outside of the country while **Garmin (GRMN)** continues to build market share in the US. The \$9.6B company trades at 18X earnings and 3.2X sales, one of the more attractive setups into 2017 as well with momentum in the second half of the year. Their new product cycle with Chronos should be a positive tailwind in early 2017. **Apple (AAPL)** and **Samsung** are also in the space with smart watches but showed limited movement late in the year with the iWatch 2 being released late.

Industrial applications are a very interesting sub-set of AI and IoT and expected to reach \$3.5B, up 22%. The CAGR for industrial is 25.7% through 2019, a space expected to reach \$7.3B. Some of the more interesting moves into the Industrial IoT include **Cisco (CSCO)** who is building networks for automation and data analytics for manufacturing, oil & gas, and transportation. They are moving more into IIoT as well with their \$1.4B deal for Jasper. **AT&T (T)** is a name not usually associated with IoT but key to the rollout of a “smart city” network. The company is working with CSCO, Ericsson, General Electric (GE), IBM, and Intel (INTC) to

build infrastructure services to monitor conditions of roads and bridges while also developing public safety solutions.

General Electric (GE) is has been a major player in IIoT and building a manufacturing suite to help analyze real-time machine data and on-site efficiency. GE is also working on digital power plants and real-time operations management software. CEO Jeff Immelt has said that he wants to make GE a top software company by 2020 and IIoT is the path towards that goal.



Semiconductors are a major beneficiary of the IoT movement as well. Chips are being redesigned for these devices to take advantage of optimal power capabilities, connectivity, and better sensors including MEMS technology. McKinsey believes that the most important trend for chips will be towards better energy efficiency as the number of connected devices grows. They estimate that an average smart home may contain up to 50 different devices and standard solutions such as Bluetooth and Wi-Fi will not be able to meet the power requirements. This likely leads to more innovation, spending, and potential collaboration to make new components. IC Insights expects the semiconductor market in IoT to reach \$29.6B in 2019, a 19.1% CAGR from 2014. They see revenue from connected city applications rising 15% to \$11.4B while connected vehicles are expected to rise to \$787M, up 66% and a hot new area for growth for many companies. Semiconductor sales for wearable devices is expected to rise to \$2.2B, up 22% while connected homes are expected to grow to \$545M, up 26%.

Texas Instruments (TXN) is a big player in the space with reach into wearables, manufacturing, and automotive. They produce microcontrollers and sensors for use in devices and perhaps one of the broadest IOT portfolios in the space. **Intel (INTC)** is another large-cap which has built their offerings. INTC has reach into automotive, energy, retail, industrial, and other forms of automation as well. They offer processor chips including the E3900 and A3900 which were unveiled in the Fall. The latter is dedicated to automotive including ADAS and a company already working with Delphi (DLPH) and others on their offerings. **Qualcomm (QCOM)** is another large-cap in the space with reach into automotive, healthcare, and consumer. QCOM is more consumer-oriented than some of the other names and using their Snapdragon processor to build out devices. QCOM made a major deal in the Fall for **NXP Semi (NXPI)** which likely makes them the dominant name in IoT. NXPI is a major player in the space after their acquisition of Freescale in 2014 and the first major deal which started a wave of IoT consolidation. They are the leader in automotive and security applications as well as the top producer of microcontrollers and microprocessors. **Microchip (MCHP)** is a smaller name in the space but bought into IoT in January with their acquisition of Atmel for \$3.6B. ATML gives them exposure to automotive and smart energy with their 8051 microcontrollers. **Softbank** made waves this Fall with their \$32B deal for ARM Holdings which will gives them exposure to the growing trend. ARM’s microcontrollers, processors, and sensors were used primarily for third-party IoT vendors including Apple, Samsung, and IBM. Other names in the space include **Power Integrations (POWI), Vishay (VSH), ST Micro (STM), Cypress (CY), and Analog Devices (ADI).**

Virtual and Augmented Reality

Lastly, advances in cloud computing capabilities have directly impacted the growth of virtual and augmented reality devices. The advancements in the cloud have made VR/AR adoption much more feasible as chips have improved and access to higher-quality video content becomes easier. According to Goldman Sachs, the VR/AR market could grow to as much as \$80B market by 2025.

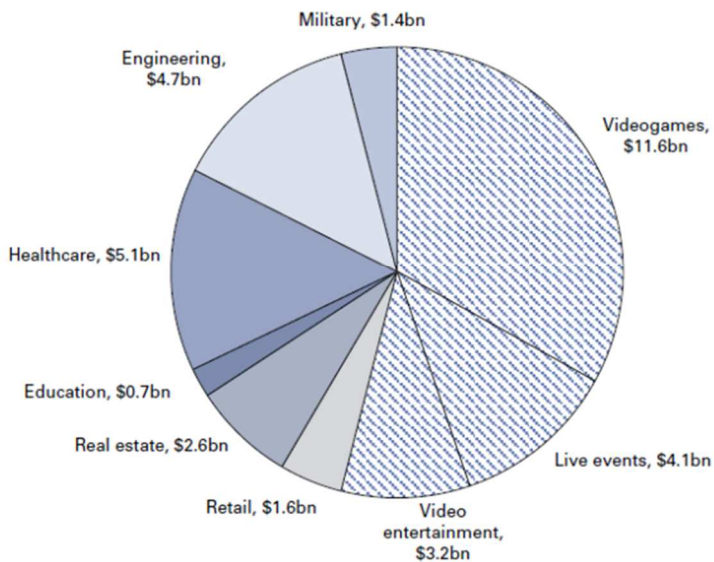


Figure via Goldman Sachs

On the hardware side there are six names which have emerged as the industry leaders. Oculus Rift is the most prevalent name in the space and really began the era of high-end commercial headsets in March. The company was acquired by **Facebook (FB)** for \$2B in July 2014. SuperData Research, a NY-based firm which has focused on the industry, reported in November that the OR is expected to sell just over 355,000 units in 2016. Sales started slow for the company and while it may be the best experience and overall headset, given its requirement of a separate computer to operate the system it's not surprising that sales have lagged some of its peers. **HTC** has created their headset HTC Vive which was made with gaming company Valve and focused more on the consumer-side. It's also a bit more restrictive given that you are forced to install several

sensors in your home to use its room tracking and the price tag slightly higher than the OR. SuperData estimates Vive will sell 420,000 units in 2016. **Sony's (SNE)** PlayStation VR is perhaps the most accessible headset and carries a much easier price point at \$399. Its compatible with the PS4 also which will lead to more usage given that's a market which is already established. SNE is expected to sell more than 2.6M units this year. **Samsung** has made a big marketing push this Holiday season for their VR headset the Gear VR which has been upgraded for previous iterations and uses Samsung's smartphones or Note 7 Screen. This is by far the easiest price point to get into VR at \$99. The company is forecast to sell 2.3M units in 2016. **Google (GOOGL)** has created a similar headset for use with their new Pixel phone called Daydream which was recently released. SuperData estimates the company will sell 450,000 units. Finally, **Microsoft (MSFT)** is in the space with their HoloLens VR/AR blended headset. The headset is slightly different than others using AR to blend real-life images into your holographic elements. The popularity of Pokemon Go in Summer 2016 shows how quickly immersive AR experiences can spread and MSFT has smartly integrated an OS into the headset which runs off battery so no need to be connected or near any other devices.

The uses of VR/AR are widespread. Goldman Sachs sees \$16.1B in enterprise/public sector applications and \$18.9B in consumer. The former is comprised of usage in healthcare (\$5.1B), engineering (\$4.7B), real estate (\$2.6B), and then retail, military, and education all under \$2B in size. Healthcare may be the most interesting space in enterprise where VR can be used with simulations of medical training and education. There are also exciting uses for VR with patients in pain management, PTSD, and augmenting exposure therapy. Private companies like Next Galaxy are creating AR software which will teach and train individuals to do life-saving techniques like CPR and the Heimlich maneuver. Hospitals could continue to be major adopters of the headsets for patients as prices on the hardware continues to fall. Many such as Cedars Sinai in Los Angeles has begun using VR headsets to treat patients with everything from Alzheimer's to depression as a pain management tool.

Manufacturing and engineering are also places where VR has begun to be used more frequently. **Ford Motor (F)** has already adopted the technology to help aid development of new designs and manufacturing. The company uses the Oculus Rift. **General Electric (GE)** uses VR to help make better factory layouts and reduce errors that previous designs couldn't spot until completion. It also increases safety in construction. GE's

developers have also scanned existing factories and using VR to capture worker patterns and time spent on operations to help make them more efficient. Oil and gas companies like **Frank's International (FII)** have begun using VR to help train rig workers to reduce injuries and accidents on their off-shore platforms. EON Reality is a VR producer which develops training simulators for companies and working with large energy firms like **Exxon Mobil (XOM)**. The company can train individuals to work in oil fields, interact in outcropping locations, and operate plants without the cost risk or safety risk.

One space VR has the potential to also disrupt is retail. **Alibaba (BABA)** has unveiled a new store in VR which allows shoppers to browse a virtual location and shop. Samsung has worked with **Carnival Cruise Lines (CCL)** to create virtual experience for consumers. **Converse** has created an AR mobile app which allows customers to try on shoes without ever stepping into a brick-and-mortar. **Lowe's (LOW)** is another name which is using VR to help consumers shop more efficiently. The company has a Holoroom which allows customers to design and visualize home improvement projects in their home. The service is used in locations across the country. Meanwhile, **Tommy Hilfiger (PVH)** and **The North Face (VFC)** have also begun using VR in stores. **Zillow (Z)** could be a huge beneficiary of growing usage of VR/AR by integrating house tours of available properties. The company began testing 3D virtual tours this year for some of their listings. VR could also impact automotive companies with the ability to test-drive vehicles without stepping on a lot.

Goldman Sachs thinks the consumer side will be slightly larger market opportunity and most that due to videogames. The firm sees videogames (\$11.6B), live events (\$4.1B), and video entertainment (\$3.2B) making up much of the usage of VR. Pokemon Go from Nintendo was a big hit this summer in the AR realm but for most of the major developer's widespread adoption won't be for a few years. **Electronic Arts (EA)** CEO Andrew Wilson said on CNBC in September that the company still has work to do on both the tech side and the software side. Also, it will involve re-organizing how many of their games are used with no extra controllers. EA's mobile gaming unit is their fastest-growing and could benefit from brand-recognition when they start rolling out VR/AR gaming opportunities. **Activision (ATVI)** may be one step further ahead in the space with their acquisition of King Digital but still in the nascent stages of VR. The company made waves in September when they announced an extension of their popular Call of Duty franchise for VR called Jackal Assault. The game allows players to fly a space fighter jet but ultimately seen as more of a preview of what the company could do with the technology. CEO Bobby Kotick spoke at the Vanity Fair New Establishment Summit in October and expressed caution noting the company will not roll out VR products "until we feel like we are pushing the art form forward." **Take-Two (TTWO)** CEO Strauss Zelnick has also been cautious on the technology speaking at the Cowen Conference in June and noting that there isn't a market for the games yet and that there remain impediments.

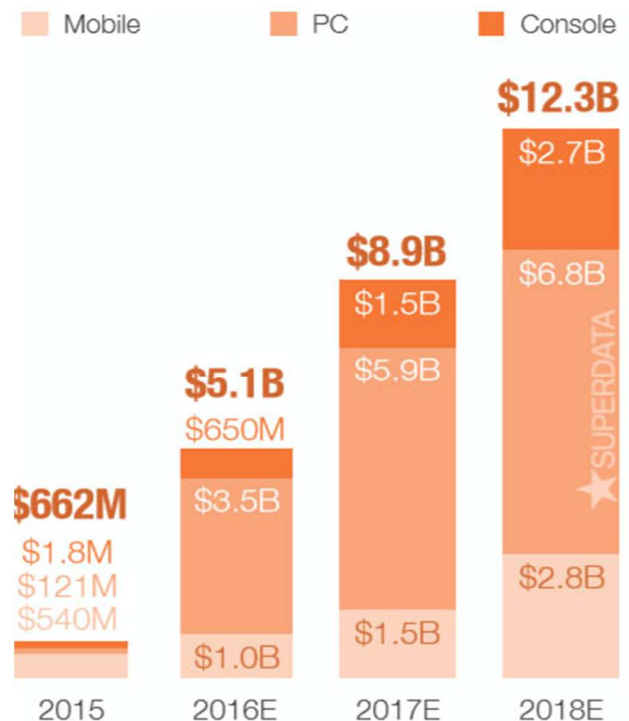
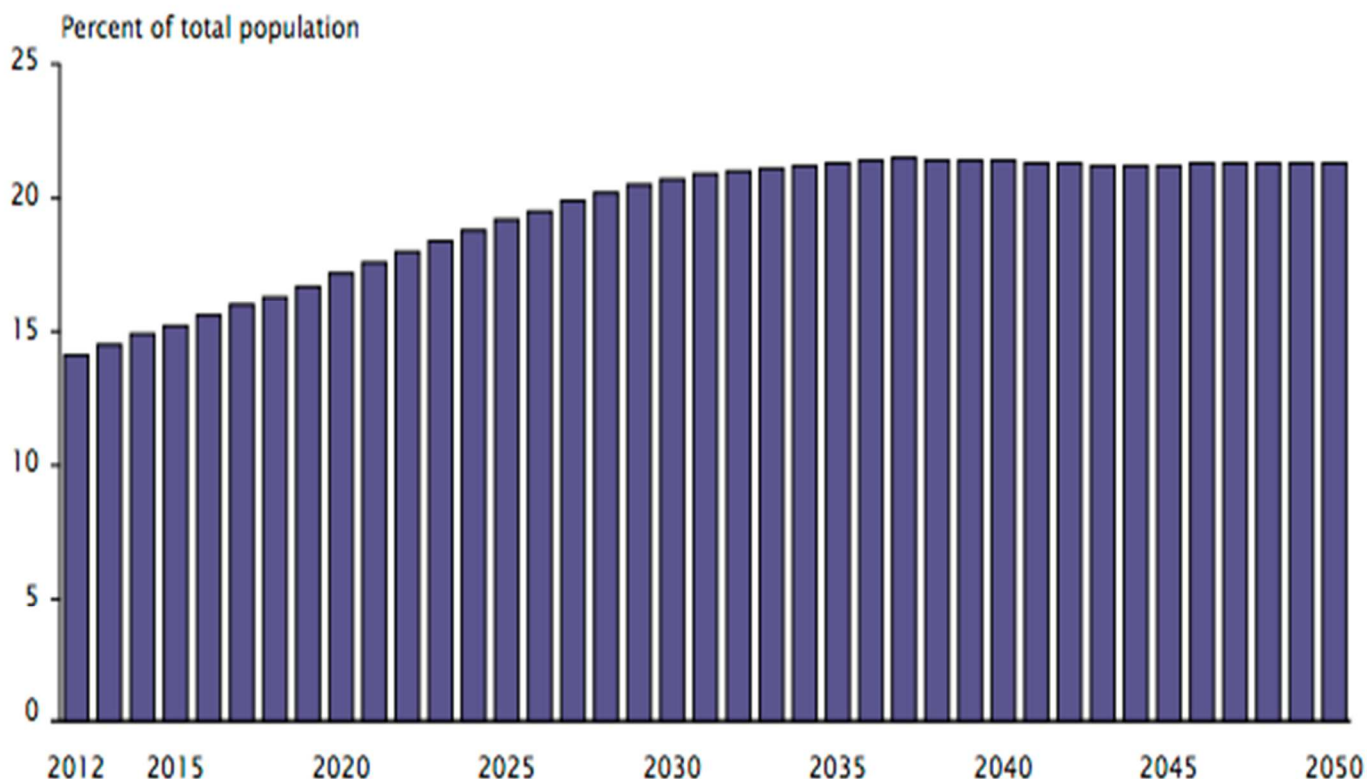


Figure via SuperData Research; Total Worldwide market for VR gaming hardware, software, and peripherals

Other areas in entertainment which could see interesting uses of VR/AR include **Six Flags (SIX)** which has partnered with Samsung to create nine virtual rollercoasters for the Gear VR. **Cedar Fair (FUN)** is also working to create a VR rollercoaster called Thunder Run. **Live Nation (LVY)** is another interesting name which has partnered with NextVR to develop concert experiences through VR. In September, the company announced a series of ten concerts which will bring fans behind the scenes and attend concerts virtually. **Netflix (NFLX)** announced in September that users can now use the Samsung VR to watch programming and also indicated that Hulu and others are developing similar apps. **SeaWorld (SEAS)** announced in September that it was investing more than \$175M to develop new attractions for 2017 including a VR rollercoaster.

The Aging Population

The United States is sitting upon the precipice of the largest boom in population aged 65 and over in the nation's history. According to the US Census Bureau, the population of individuals over the age of 65 will grow to 83.7M over the next twenty years. In 2014, we had 43.1M with Baby Boomers largely responsible for the increase in the population. Over the next 15 years, the percentage of the population over 65 will grow each year to almost 20% (see figure below). Campaigns for healthy living, behavioral changes, and medical advancements are all extending the lifespan of the population. It is also expected to become a more racially diverse group. Among the group, 29.7% are expected to be minority which is up from 16.3% currently. The two biggest factors according to government research are the reduction in tobacco usage and obesity, which are major investable themes over the next decade.



Source: U.S. Census Bureau, 2012 Population Estimates and 2012 National Projections.

Perhaps the most affected area will be healthcare with those over 65 receiving the majority of medical care in the US. The NHE projects that Health Spending will grow at an annualized rate of 5.8% over the next decade and grow at 1.3% faster than GDP. The US Center for Medicare Services estimates that 34% of spending in recent years has been for senior citizens and 65% of all elderly medical expenses are paid for by the government. The Federal government sponsored 28.7% of total health spending while State/Local government accounted for 17.1%. The NHE reported in December that Medicare spending rose 4.5% in 2015 to \$646.2B and Medicaid spending rose 9.7% to \$545.1B while private health insurance spending rose 7.2% to \$1.07B and out of pocket rose 2.6% to \$338B. They project over the next decade that 47% of all national health spending will be from Federal, State, and Local government.

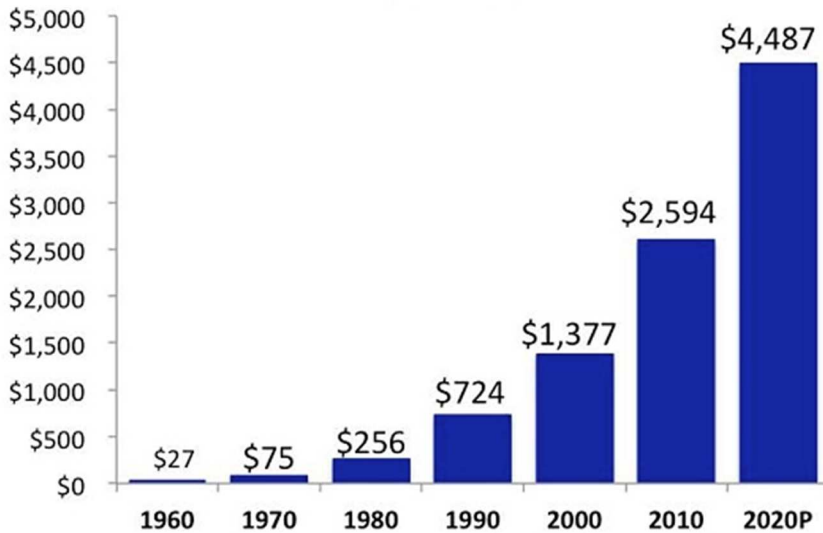
According to the Agency for Healthcare Research and Quality, the most impacted types of service for the elderly will be office-based visits for prescribed medicines, orthopedics, incontinence, home health care, and dental. The CMS reports that prescription drug spending is expected to grow at a 6.7% annualized rate over the next decade. There are a number of biotechnology stocks with drugs in development which disproportionately impact seniors. Perhaps the most significant is Alzheimer's. **Biogen (BIIB)** is developing a treatment for Alzheimer's, Aducanumab, which will have key trials over the next three years. Alzheimer's is a

difficult space with **AstraZeneca (AZN)** and **Eli Lilly (LLY)** both failing in the space recently but an attractive opportunity at a potential \$10B market. Parkinson's, cholesterol, heart disease, and cancer are also key areas of focus for larger firms.

Diabetes is becoming a bigger issue for the elderly over the last five years and the International Diabetes Foundation estimates that 35% of cases will be from seniors over the age of 60. On a greater scale, diabetes is becoming a \$140B market with more than 29.1M cases identified and 8M undiagnosed. **Novo Nordisk**

Healthcare Costs 1960 – 2020

(In Billions)



Centers for Medicare and Medicaid Services 2012 California Healthcare Foundation

(NVO) is a leader in the space with over \$11B in sales. The \$70B company trades at 15.78X earnings, 4.4X sales and yields nearly 4%. **Insulet (PODD)** is a smaller name in the space and the \$2.16B company, while not yet profitable, trades at 5.9X sales and 7.6X cash, although debt heavy on the balance sheet. The company develops insulin infusion machines under the OmniPod label.

DaVita (DVA) is another name in the space which manufactures kidney dialysis machines for those with kidney failure or end-stage renal disease. The \$12.78B company trades 16.8X earnings, 0.88X sales, and 11.65X FCF.

Incontinence, the inability to control one's bladder, is increasingly becoming an issue

for seniors. According to the National Association for Continence more than 70M seniors over the age of 60 are incontinent and impacting more than half of those in long-term care. The opportunity in the space is through consumer names which develop products including shields or adult diapers. Domtar has estimated that the space will become a \$20B market within the next five years, high-single digit CAGR. **Kimberly Clark (KMB)** is an interesting name in the space which trades at 18.3X earnings, 2.29X sales, and 47X cash with a 3.17% yield. The \$41.75B company has been grabbing share in the space and now with more than half the US business versus peers **Procter & Gamble (PG)** which has 9% of the market and Sweden's Svenska which has 7%. **Domtar (UFS)** is a \$2.46B company trading at 12.4X earnings, 0.48X sales, and 0.89X book with a 4.22% yield, attractive on valuation.

Dental is another area of focus for seniors and estimated by Dentsply Sirona to hit \$55B by 2019 driven largely by the growing population over 65. Restorative care is expected to be the most active among seniors. This is a group which has consolidated a lot recently. Names in the space are divided into three different groups.

Zimmer Biomet (ZBH) is a name which makes dental implants. The \$20.7B company trades 11.9X earnings and 2.72X sales and trading basically flat for 2016 after a weak fourth quarter. Among names which make dental products **Danaher (DHR)** is the largest at \$54.54B and trades 20X earnings and 3X sales while **Dentsply Sirona (XRAY)** is a smaller name at \$13.8B market cap and trading 19.8X earnings. Finally, there are two wholesalers with **Henry Schein (HSIC)** a \$12.23B name which trades at 21X earnings and 1X sales and down over 2% for the year in 2016. **Patterson (PDCO)** is another which trades cheap at 0.71X sales and 16.25X earnings with a small 2.35% dividend. Shares are down over 7% on the year.

Finally, aged-care is of growing importance and expected to be a \$500B market. The two most visible names in the group are **Brookdale Senior Living (BKD)**, a \$2.2B company which trades at 6.72X earnings, 0.44X sales, and 0.92X book. BKD shares have traded lower by more than 35% in 2016 and short interest rising to 11.47% of the float. The company is coming off a bad miss and cut in guidance in November and expecting revenue growth to fall by 5% in 2017 after a flat year in 2016. **Capital Senior Living (CSU)** is the other focused name and the \$476M company trades at 1.08X sales and 3.8X book. CSU has shown sales growth in each of the last four years and sees 8.1% Y/Y growth in 2017. CSU is another name which has seen short

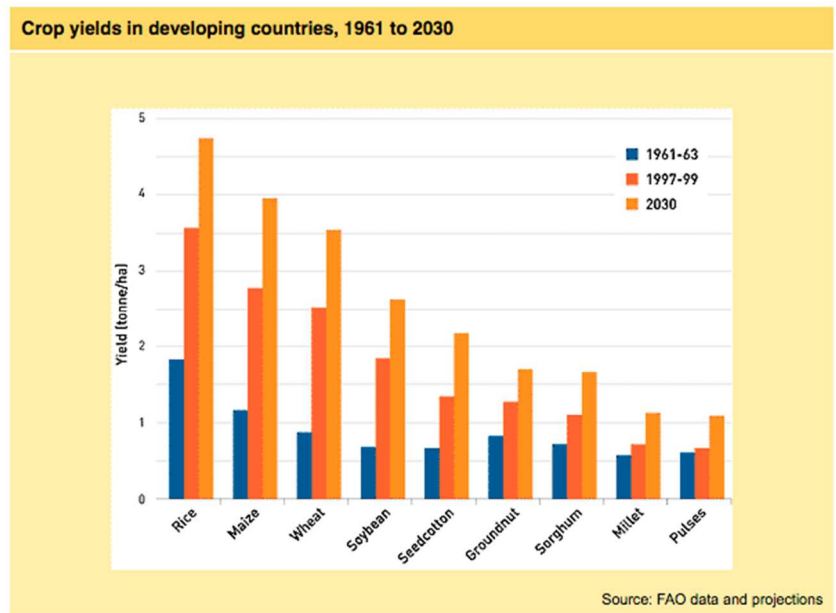
interest rise sharply up to 13.23%. Neither name is particularly attractive but CSU the more attractive of the two. Some senior-focused REITS include **Sabra (SBRA)** which owns assisted-living facilities, **Senior Housing Trust (SNH)** and **Omega Healthcare (OHI)** own nursing homes and senior apartments, **National Health (NHI)** which invests in long-term care and senior housing, **HCP (HCP)** which operates senior housing and skilled nursing facilities, and **Welltower (HCN)** which owns some senior living facilities.

Food Production, Animal Health and Farming

As the population rises, the need to find sustainable food sources has grown more imperative. Food security, what the USDA describes as the ability to have enough food for an active, healthy life, is playing more of a central role in US households and communities and remains a dominant theme in 2017. Over the last decade several challenges have presented themselves to food production including declining yields, water shortages, and limited land. Extreme weather is also posing a challenge in countries such as Australia where wheat harvests have been interrupted in recent years. According to the Food and Agricultural Organization (FAO), if the global population climbs over 9B by 2050, world production of food will need to rise 70% and more than double in developing nations. Doubling food production will come at a cost, as well, with the FAO estimating that the average annual net investment will rise to \$83B, a 50% increase from 2009. BAML estimated that total food and agriculture investments are far higher and that 75% of those dollars come from the private sector. There are four main areas to look at from an investment standpoint which impact the challenges facing food production over the next decade including machinery, farming, animal health, and water scarcity.

Machinery is the most obvious place to invest in farming and food production. According to Research and Markets in a June report, farms in the US will see a significant shift towards sustainable agriculture and also set to adopt precision farming

methodologies which will help reduce greenhouse gas emissions. A 2015 report from Transparency Market Institute estimates that the market for agriculture and farm machinery globally is forecast to reach \$281.61B by 2022, a CAGR of 8.7% from 2015 to 2022. **Deere (DE)** and **Caterpillar (CAT)** making machines which have helped improve efficiency and productivity in the field. CAT makes more all-purpose machinery to help on a farm-site including steer loaders and excavators while DE is much focused on the field and the better pure-play. DE makes everything to help from planting and seeding, tillage, and harvesting to nutrient application. The company is also embarking on new

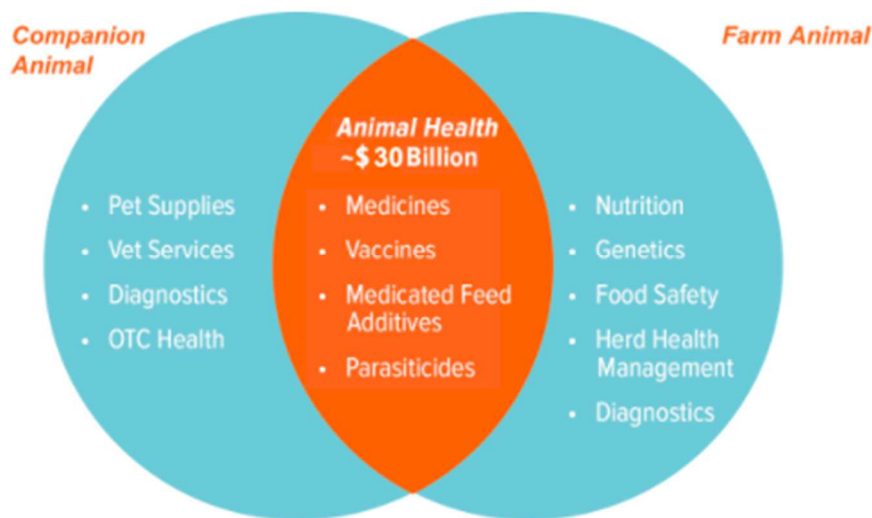


precision technology including remote machine control, connected fleets, and variable crop management. Other notable players in the space include **CNH Industrial (CNHI)**, a \$11.94B maker of tractors, pickers and harvesters, and planting equipment based in the UK. CNHI has been strong in 2016 up almost 30% for the year. **AGCO (AGCO)** is a smaller player in the space at \$4.57B market cap and trading at 0.63X sales and 1.6X book with a small yield but debt-heavy on the balance sheet. Shares are up over 25% for the year and seeing short interest rise to over 13%. Finally, **Kubota**, the Japanese tractor and heavy-equipment maker is notable in the space making some larger M&A moves to acquire US assets recently and could continue to see more spending as they look for opportunities outside Japan. In May, the company acquired Great Plains Manufacturing for \$430M.

Farming the land itself has become a significant area of investment from chemicals companies across the globe as the drive more higher yields on less land takes precedent. According to FAO, better yields have accounted for 70% of the increase in production over the past four decades and with water and land

becoming more scarce, companies are driving investments to boost future yields. BAML estimates that the agrochemical market has grown to over \$55B with crop protection the most heavily invested area with insect pressure and increasing tolerance to herbicides growing. Fertilizers are also continuing to see heavy investments and the market is estimated to reach \$152B by 2020. Most of the group has seen notable turnarounds in the latter half of 2016 and earnings beginning to bottom for the group. The space has been a big space for M&A this year with **Agrium (AGU)** and **Potash (POT)** set to combine in a \$27B deal which will create the world's largest fertilizer producer by capacity. Slowing demand for potash and a flood of supply have put pressure on both companies and the deal likely sees some better pricing power and cost reductions which will help the company's profitability. **Monsanto (MON)** is another name in the space which is undergoing transformative M&A after being acquired by Bayer. The \$66B deal will face tough regulatory scrutiny in 2017 but create a global agricultural powerhouse with reach into everything from grains and seeds

to crop sprays. Finally, **Syngenta (SYT)** is yet another deal in the space which is being acquired by ChemChina. Their deal was expected to close in 2016 but will be delayed due to more information requested by regulators. The US approved regulatory clearance in August but still facing several questions from a US congressional panel which is urging action against Chinese-led takeovers of US companies. **CF Industries (CF)** is a \$6.4B producer of nitrogen fertilizers and name which has seen a lot of insider buying in 2016 and shares trade 1.7X sales and 4X cash



with a greater than 4% yield. **Mosaic (MOS)** is a \$10.14B name in the space which trades at 32.5X earnings, 1.36X sales, and 1X book with a 3.8% yield. The company is more in the phosphate segment with mining. Other names in the space include **K+S** in Germany, **Israel Chemicals**, **URALKALI** and **Yara International**, not names to be directly invested in but ones to watch for earnings commentary, especially on pricing.

Animal health is a growing industry which is having a direct impact on food security away from the crops. The industry includes medicines and vaccinations, supplies including nutritional supplements, and veterinary services used to keep livestock healthy and producing. Vetnosis, a research and consulting firm, sees the medicines and vaccines business as a \$30B market which also includes companion animals. The group is driven by increased demand for protein, dairy, and eggs as the population grows. According to Zoetis, the global need for milk will quadruple from 2003 levels by 2050 while land and water needed to produce more meat and milk will remain at depressed levels meaning productivity becomes more important. **Zoetis (ZTS)** is the best name in the space with exposure to livestock including cattle, swine, and fish as well as exposure to companion animals. The \$26.6B company trades at 5.45X sales and 23X earnings. **Ecolab (ECL)** is another which has an animal health business which focuses more on food safety. The company is developing more efficient prevention for Mastitis in cattle, a disease which causes inflammation in the udder and reduces milk yield. **Idexx (IDXX)** is another name which focus more on milk quality and animal hygiene which trades at 42X earnings and 6X sales. Finally, **Phibro Animal Health (PAHC)** is an animal health name which focuses on food products for healthier livestock and antibacterials for aquaculture.

Millennial Peak Spending Years

Millennials, which are defined as those between 19 and 35, surpassed Baby Boomers (those between the ages of 52 and 70) in numbers and are set to rise globally with China, India, Japan, and Germany the largest concentrations outside the US. Boomers were defined by the Post-War generation and their numbers continue to decline as the number of deaths outnumbers older immigrants entering the country, according to Pew Research. Immigration has been a main driver of Millennial growth and the generation is expected to peak in 2036 at 81.1M. Millennials are already a driving force in several facets of the economy including more than half the workforce and annual income of \$21T today according to and August report from BAML.

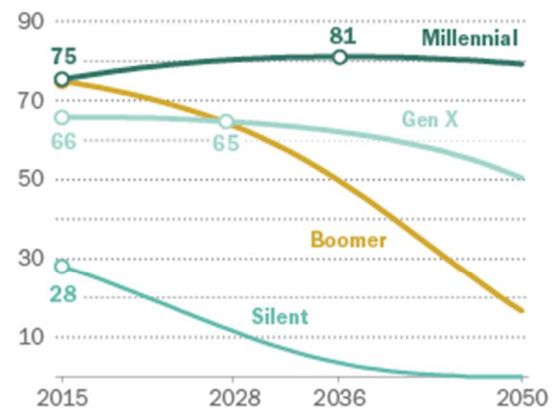
Technology is the singular focus for the generation, especially mobile. The Millennial generation is one which is 90% penetrated by smart phones and according to Pew over three-quarters of those have used a mobile device to make purchases. ComScore tracks desktop usage among the younger generations and seeing significant double-digit declines M/M with usage peaking in March 2015 with one-in-five never using desktop computers. The top names in mobile hardware are **Apple (AAPL)**, **Google (GOOGL)**, and **Samsung**. The majority of millennials are increasingly dependent on their smart phones for everything from mapping and directions, dating, reading news, shopping, ordering food, and using sharing their life with friends and family.

Social media is obviously a major part of the smartphone/millennial link. **Facebook (FB)** is perhaps the most ubiquitous name in the space with both their flagship platform and Instagram which hit 600M users in December. The \$345B company traded well in 2016 up over 13.5% but off of all-time highs around \$132.50 into the late year. The company remains one of the most important tech names to own with the range of their investments and monetization in advertising quickly become the gold standard. According to Pew, the percentage of younger-users who use FB was 71% and Instagram was 51%. FB also has major exposure to millennials in emerging markets through WhatsApp which has 1B active users monthly and 42B messages sent every day. The company began allowing companies to message users earlier this year which could become a new revenue stream. **Twitter (TWTR)** is another social platform which had a volatile year in 2016 with management issues in the headlines and looming takeover talk. The \$12.9B company had 317M MAUs as of Q3 and the majority between 18 and 34. The company is also exploring options for their Vine network which is increasingly more popular among the 18-24 group than Twitter itself. **Microsoft (MSFT)** bought into the social-space with their deal for LinkedIn (LNKD) in 2016 which will become increasingly more important as millennials mature in the job market, continue to make connections and build out networks. **Yahoo (YHOO)** which is being absorbed by Verizon (VZ) also has some niche social media sites including Tumblr and Flickr, the photo-sharing site, but smaller than the others by scale. Some privately held names in the space include **Pinterest** and **Snapchat**, the latter of which could make a big splash in 2017 with an IPO. In November, the company filed for an offering which could value it at more than \$20B.

Mobile apps are a must-have now for millennial users and companies as well. Banking is becoming more frequently done over smartphones with 75% of millennials have used a banking app for at least one transaction in 2016 according to a survey by BAML. News is the other big driver where more than two-thirds of younger generation get their information. According to ComScore, BuzzFeed and Vice Media are the two most frequented news sites by millennials. BuzzFeed has drawn significant investments from **Comcast (CMCSA)** including another \$200M in October which valued the company at \$1.7B and also investing \$200M in Vox Media. **Disney (DIS)** has been investing in Vice Media with another \$200M this Fall and raising their stake to

Projected population by generation

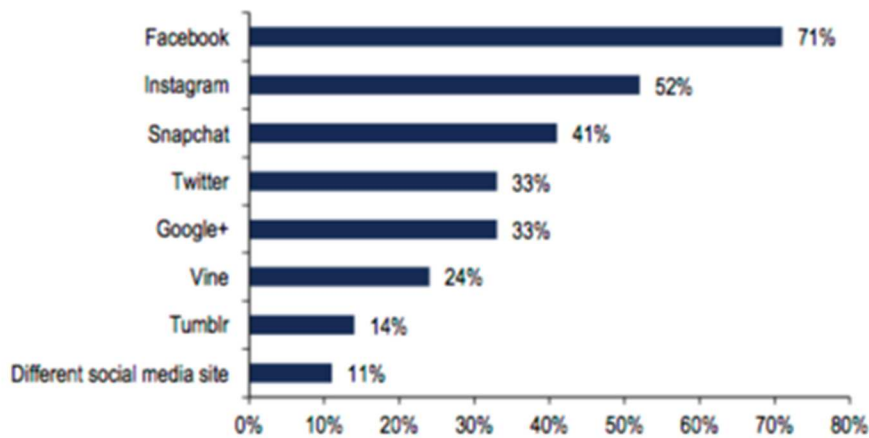
In millions



Note: Millennials refers to the population ages 18 to 34 as of 2015.

Source: Pew Research Center tabulations of U.S. Census Bureau population projections released December 2014 and 2015 population estimates

PEW RESEARCH CENTER



Source: Pew Research

15% of the company. Some have discussed the possibility of DIS making an outright purchase of the company which could be near \$5B. Finally, **Discovery Communications (DISCA)** has been investing in media-oriented sites Thrillist and NowThis with \$100M invested between the two. Dating is another area which has seen growing usage among millennials. **Match Group's (MTCH)** Tinder is the most forward-facing name in the group

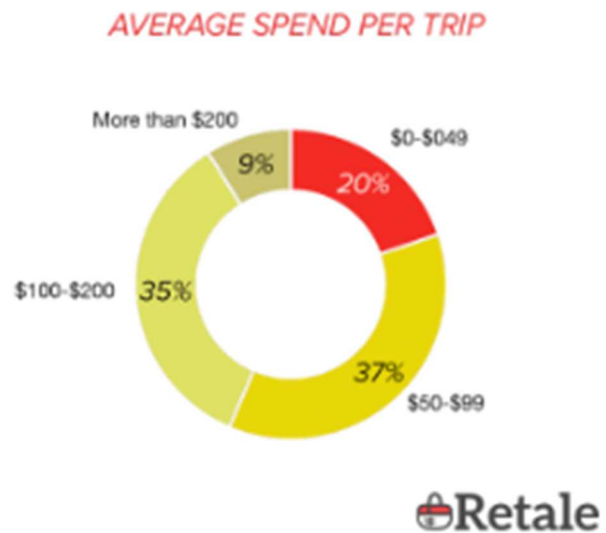
with over 80% of their users among the 18-34 age group. Tinder has over 50M users worldwide and 1.6B swipes per day on their app. The US dating market has grown to over \$2B and IbisWorld indicates that over half of the revenue is from millennials. Finally, music is a big draw for millennial apps with **Pandora (P)**, **Spotify**, and **Apple (AAPL)** all dominant in the market but **Google's (GOOGL) YouTube**, **Amazon (AMZN) Prime**, and privately owned **Tidal** all making inroads as well. According to Nielsen, the top "spare time" activity for younger smartphone owners is overwhelmingly listening to music with 37% of responses in an August survey. Consumption of music is known for radical changes from the record to the tape to the CD and now almost exclusively online. In that realm, the shift over the last two years has been from owning to streaming files. An interesting tangent from the growth of streaming music is the steady nature of live experiences and concerts/festivals continuing to grow. **Live Nation (LVY)** could be a beneficiary of this shift towards an experiential economy.

Music isn't the only media source that millennials are drawn towards with cord-cutting becoming a prevalent theme as well. Traditional TV viewing has continued to fall Y/Y since 2011 and beginning to see a major shift towards bundles and streaming platforms. Choice, mobility, and most importantly content is important for the group. On-demand video offers flexible viewing and more and more moving towards phones, tablets, and laptops. 80M millennials are expected to watch digital video by 2019 according to e-Marketer, so big opportunity to reach a lot of eyes. **Google's (GOOGL) YouTube** is the largest platform with 22B views per day and more than 1B users according to Cisco. **Netflix (NFLX)** is the most ubiquitous name in the space. The company has over 80M subscribers globally and seeing some pricing power this year with hikes not impacting new adds. NFLX has had issues with content costs over the last 2-3 years but seeing a dramatic shift into original programming and eyeing a roughly 50/50 split in the future. **Amazon (AMZN) Prime** continues to gain in the space and building out more original programming in 2016 which will help drive membership while **Hulu** is continuing to gain as well. The company got a 10% stake from Time Warner (TWX) in August which pairs them with prior owners Disney (DIS), Fox (FOXA), and Comcast (CMCSA). **DISH Network (DISH)** also has made a move to gain cord cutters with their Sling TV, an internet-based package of 20+ channels including CNN, HGTV, and History Network and **AT&T (T)** entered the fray with DirecTV Now, a cable-like experience without the traditional package. Finally, premium channels **HBO (TWX)** and **Showtime** both unveiled standalone apps this year with HBO Now and Showtime Anywhere.

Retailers are becoming more and more driven to this group which has massive spending power as research firm Accenture estimates that Millennial expenditures are \$600B a year and will reach \$1.4T over the next three years and represent 30% of all retail sales. Clothing and food are the dominant spaces for spending. According to Euro-Monitor, millennials are more drawn to lower-priced clothing with more respondents in their surveys likely to make a purchase between \$10 and \$20 than any other generation. EM noted that millennials are more sensitive to pricing at clothing stores than any other generation as well so could see some growth in names like **Kate Spade (KATE)** which has become a top "affordable" name in luxury. **American Eagle (AEO)** another name which has attracted younger, social-media focused users with their ad campaigns and growth in their Aerie lingerie business and peer **Urban Outfitters (URBN)** has been very successful at

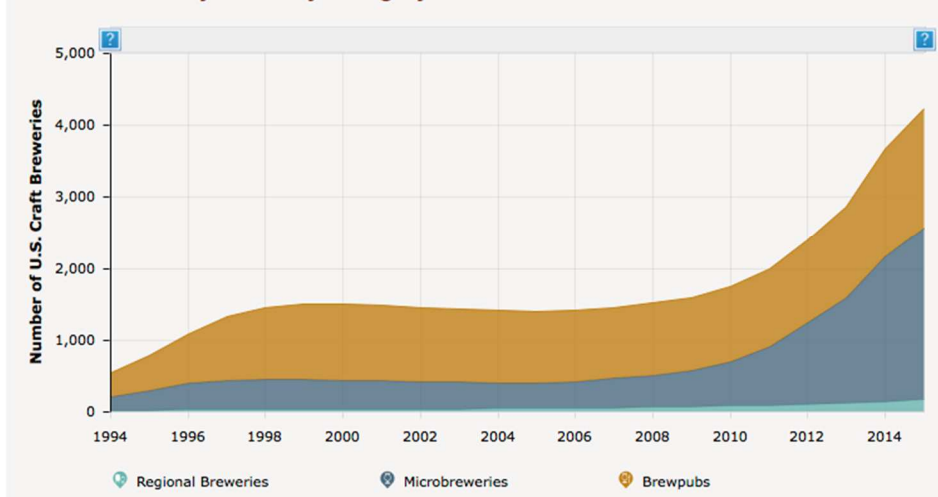
capturing a younger audience and capitalizing quickly on trends. URBN shares have been a big winner in the space up over 25% for the year against most of its peers like ANF and GPS which are down significantly. Athleisure is a major clothing trend among the generation with women especially more likely to wear the apparel. **Nike (NKE)**, **Under Armour (UA)**, and **Lululemon (LULU)** are the key names in the space. UA an interesting one to watch in 2017 as it recovers from a rough year in 2016 which saw margins contract as they moved into footwear.

In food, millennials are focused on eating right and fresh and natural foods are the shift for the generation. Fair trade and sustainability are critical criteria for the generation which has benefitted grocers like **Whole Foods (WFM)** and **Sprouts Farmers Market (SFM)**. WFM has struggled in 2016 as it has seen earnings pressured from food costs and competition from peers but could see a turnaround in 2017 with comps easing and their discount/casual 365 Stores having a full year under operation. According to a May survey by Retale, 34% of millennials call their grocery shopping "thrifty" as more are taking a cost-conscious approach to buying. 50% said lower costs or opportunities to save money are the most important decision in choosing a store while locally-grown or organic products were the second-most important aspect. This could benefit WFM's new low-cost, natural 365 Concept Stores but also could see discount-grocers like **Kroger (KR)** and even **Target (TGT)** and **Wal-Mart (WMT)** grab market share of this group.



Amidst all of this, however, millennials still prioritize eating out. According to the Food Institute's in-depth analysis on expenditure data from the USDA, 44% of millennial dollars are being spent on food bought outside the home. Quick casual names like **Chipotle (CMG)** and **Shake Shack (SHAK)** are continuing to draw a significant share of millennial spending while **Starbucks (SBUX)** remains a top name in the age-demographic. SBUX has underperformed in 2016 but at 8-10% growth and a big adopter of technology trends, remains a top large-cap to own. **Grub Hub (GRUB)** is an interesting tangent in the space with more and

U.S. Craft Brewery Count by Category



more millennials using the app due to its convenience. Retale reported in May that ordering online has grown in popularity and more than one third of all millennials have ordered food for takeout over a mobile device in 2016. Finally, craft beer and wine have become increasingly popular among the generation. Millennials are the largest generation of legal drinkers and according to the Brewer's Association of America the number of brewpubs, microbreweries, and regional breweries has risen sharply

since 2009. **Molson Coors (TAP)**, **Constellation Brands (STZ)**, and **AB InBev (BUD)** are the three biggest names in the space with the most visible brands. STZ is an interesting name with exposure to wine as well which is becoming more popular with millennials as well. **Boston Beer (SAM)** has lagged the group for the last couple years as it loses out to smaller craft names and loses shelf space. **Craft Brew (BREW)** is an interesting small-cap name in the group. The \$336M company has popular brands such as Kona, Redhook, and

Omission (a gluten-free option) and also exposure to cider which is a burgeoning market. The company announced an alliance with BUD in August.

Finally, with all of these retail endeavors user generated content is also having a major influence. According to a research report from BazaarVoice, more and more millennials are making purchasing decisions based off of peer reviews over the company's own website or news about the company. This trend to follow UGC extends most into major electronics, automobiles, hotels/travel, credit cards, and insurance. **Yelp (YELP)** is the most interesting name in this group which connects people with local businesses including restaurants, shopping, entertainment, and more. The \$2.88B company trades at 4.29X sales and 6.6X cash with limited debt. **Angie's List (ANGI)** is another name which provides a platform for finding local businesses and reviews from customers. The \$521M company is more focused on home improvement which could see an added tailwind as more Millennials become first-time homeowners. Shares trade at 1.58X sales and 13.75X cash. In air travel and hotels, we have three dominant names, **TripAdvisor (TRIP)**, **Expedia (EXPE)**, and **Priceline (PCLN)**. **TRIP** has performed the worst of the bunch in 2016 down over 40% for the year but a candidate for a big bounce back in 2017 with shares trade at just 4.8X sales and 9.75X cash. **PCLN** has been the best of the bunch for a few years now and trading near five-year highs. The group also taps into a big millennial theme of experiences over possessions and travel a key aspect. Finally, **Facebook (FB)** is a name to watch as well. Even though more millennials are turning to other forms of social media, FB still commands a significant user base and allows for more direct corporate interaction as well which millennials are drawn towards. FB also owns Instagram which has become one of the most popular platforms for the generation. According to Accenture, millennials are drawn to personalized, targeted promotional experiences and FB is building out a strong advertising platform using user analytics to draw more businesses into it.

Trump's First 100 Days

Donald Trump's victory in the November Presidential election came as a shock to many with the initial move in the S&P futures on Election night signaling a sharp move lower. However, perhaps just as shocking was the quickness and strength with which the markets rebounded. Trump's win has already introduced a dramatic shift in thinking surrounding the US with forecasters calling for economic stimulus, higher interest rates, and a more protectionist, US-focused economy. This would be a dramatic shift from the low-growth, low-risk environment that the Obama administration fostered to get the economy back on its feet following the 2008 Financial Crisis. In a November 14 Wall Street journal survey of economists, the group forecast some significant changes under the Trump administration. First, they saw unemployment at 4.6% in December 2017 and 4.7% in December 2018, flat from the current levels. They see GDP up to 2.2% and 2.3% while inflation would rise to 2.2% and 2.4% respectively. Interest rates on the 10Y were expected to close 2018 at 3%. Trump comes with risks as well. Notably, the President-Elect has made no secret his disdain for the trade tactics of some other countries most often China. The potential for a trade or currency war is always lingering and Trump has also vowed to take on NAFTA and the American business overseas.

The specific priorities of the Trump administration are yet to be laid out which makes some areas of investing highly variable. Based on his commentary and 100 Days plan, we can outline some major areas where he'll focus and those which are most likely to be impacted by Trump's initial policy. We know that the President-Elect wants to implement tax cuts which will boost household income and spending while he's also outlined plans to boost infrastructure spending. He also wants to bring back some of the more than \$2T in overseas cash being held by US corporations which could drive more buybacks, dividends, or M&A in certain sectors. Trump is likely to be easier on regulations in certain industries like energy, pharmaceuticals and the financials and already appointing some industry-friendly individuals to his administration. We also know that he wants to significantly alter the Affordable Care Act (ACA), a measure which changed the hospital and insurance industry when it was implemented. Finally, we know that he wants to increase our nation's security and safety and has proposed a number of proposals to reach that end including beefing up cyber security, protecting our nation's borders, and becoming stricter on immigration.

Tax Cuts

The most important aspect to Trump's domestic policy is economic growth and to that end he has proposed massive and sweeping tax cuts. Trump has stated his desire to lower the corporate income tax rate to 15% and impose a one-time 10% tax on foreign earnings (more on repatriation below). Under current law, the top individual rates are 39.6% with a 23.8% capital gains rate and 23.8% dividend rate. The latter two were set to rise to 28% under Obama's FY17 budget but Trump's proposals are set to cut the three to 33%, 20%, and 20% respectively.

Citi Analyst Paul Lejuez was out with a note in November indicating that one group which would benefit from rising discretionary income would be retail. The analyst wrote that more money in consumer pockets likely creates a rising tide effect for the industry which has been under pressure for several years. The December survey from the University of Michigan showed consumer confidence jumping nearly 4.5% to 98.0 as well. Retail has been a difficult environment to invest in 2016 but facing easier comps in 2017. Some of the better names include **TJX (TJX)** which trades at 20X earnings and best-in-breed on ROI/ROA among the group. TJX has seen better customer traffic than most and noting that their 5% comps growth last quarter was largely driven by foot traffic gains. **Home Depot (HD)** is another name which has been very strong and should see better demand with home prices continuing to rise and renovation trends improving. **Autozone (AZO)** is another name which could continue to outperform with more money back in consumer pockets. The company could also be aided by a colder than expected winter. More discretionary income, especially to the those in higher tax brackets, could also see a boost to luxury retailers which have been hurt by weak tourism, especially in Asia.

One group which could come under pressure from the corporate tax cuts would be those which took large losses during the financial crisis. Banks like **Citigroup (C)**, **Bank of America (BAC)**, and **AIG** all have used their large losses during the crisis to lessen their tax burden today and according to the Financial Times, have more than \$140B in deferred tax assets on their balance sheets. If the tax rates drop, companies would be triggered to write-down these losses. After looking at their most recent 10-Q filings, Citigroup is one of the most exposed with \$43.2B in DTAs on their balance sheet in the US and \$2.2B outside the US. Citi's CFO has indicated at a reduction in the tax rate to 28% would trigger a \$4B charge for the bank while a reduction to 25% would lead to as much as a \$6B charge. **AIG** has \$15.56B in DTAs while **General Motors (GM)** had \$34.4B in DTAs. **UBS** is an interesting foreign bank with US operations and has significant DTAs as well. Other companies which could be impacted include **JP Morgan (JPM)**, **Wells Fargo (WFC)**, **Fannie (FNMA)** and **Freddie**, and **Ford Motor (F)**.

Easier Regulatory Environment for Energy, Financials

When Trump outlined his plan for the first 100 days of his administration, removing the burdensome regulatory constraints of the previous administration was one of his top priorities. Trump declared his goal to be to remove two existing regulations for every new one passed and in late December appointed Wall Street veteran Carl Icahn to be a special adviser to help American companies, "shed job-killing regulations that stifle economic growth." The new administration will likely target a lot of different areas to reform but the two most prevalent are the Environmental Protection Agency and the financial industry.

Throughout the campaign, Trump noted the need to make major changes to Dodd-Frank and after winning office noted that the transition team will focus on replacing the act with one which stimulates growth and job creation. Senate Republicans have advocated for the Financial CHOICE Act which reduced the number of banks covered by its supervision, reduces the power of the CFPB, and repeals the Volcker rule which prohibited prop trading among banks. The financials (XLF) have rallied since Trump's win up almost 20% and CLSA analyst Mike Mayo thinks the group is set to go on the offensive over the next four years. Mayo said in a November note that banks have been building capital since the great recession and more likely to increase lending activities as they come out from under the regulatory umbrella. All of the major banks are in focus with the lesser regulations however **Goldman Sachs (GS)**, **Comerica (CMA)**, **Bank of America (BAC)**, and **Regions Financial (RF)** the top performers since Election day. An interesting group to watch will also be in the insurers. Trump's push for less regulatory oversight will likely lead to relaxed if not abandoning the designation of Systematically Important Financial Institutions (SIFI). There are three non-bank names on that

list and all three insurers: **AIG, Prudential (PRU), and Metlife (MET)**. Metlife won an appeal of their designation in March and the Treasury department continuing to fight to have it reinstated. They would see that appeal falter with Trump easing pressure on the group. AIG and PRU could both win without fighting it at all as they would be relieved of the capital requirements and government oversight which comes with being a SIFI institution. Fitch believes that all three could be removed from the list either through a pullback on SIFI designations or through changes in FSOC leadership.

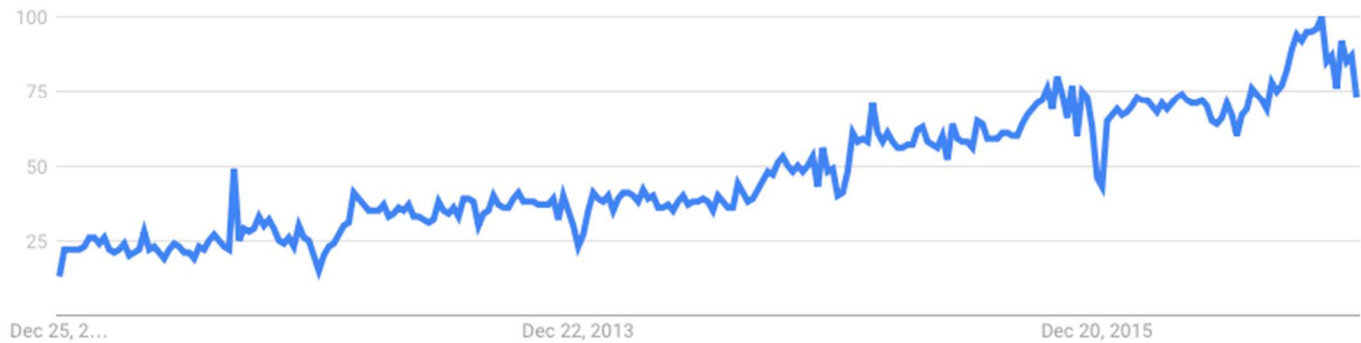
Change to the Environmental Protection Agency will be more dramatic. Trump has proposed on the campaign trail rolling back nearly all of the Obama-era regulations and also looking to change key environmental laws in The Clean Air Act and the Clean Water Act. Trump will make putting coal miners back to work a focus of his environmental plan by likely repealing global warming regulations which halted the development of new coal facilities. **Consol Energy (CNX)** is a name in the space which has coal exposure. The \$4.4B company has traded well for most of 2016 up over 140% and benefitting from a boost in E&P as well. **Cloud Peak (CLD)** is a small-cap coal name which operates in the Powder Basin of the US. Shares trade at 0.43X sales and 0.38X book but the short-float over 10%. Finally, **SunCoke (SXC)** is a smaller producer of coke and metallurgical and thermal coal for use in blast furnace steelmaking. Shares trade at 0.59X sales. Trump's energy plan will also likely focus on fossil fuels while making commitments to revive construction on the Keystone Pipeline with Canada. Several companies will benefit from the Keystone approval including **Canadian Natural (CNQ), Exxon (XOM), LyondellBasell (LYB), Quanta (PWR), and Valero (VLO). TransCanada (TRP)** is leading the construction. The Dakota Access Pipeline is also likely to be completed without issue and private-sector energy projects will likely see little resistance. **Energy Transfer (ETE)** a notable beneficiary of the DAPL completion. The President-Elect has pledged to "cancel" the Paris Climate deal which went into effect in November although not likely to be quick changes there as it would take at least four years for any country to withdraw (three years before notice can be given plus one-year delay to actual withdrawal).

The Affordable Care Act (ACA)

One of Trump's biggest campaign promises was repealing the Affordable Care Act (ACA) which could have a dramatic impact on several names in healthcare. In November, the President-Elect indicated that he would like to keep some aspects of the existing law including one which makes insurers pay for people with pre-existing conditions and one which allows for parents to cover children into their mid-20s. However, whatever changes Trump does make could have a major impact. The ACA had 9.62M enrollments in 2016 with 38 states under the Healthcare.gov banner. A number of insurers have already withdrawn from several markets under the ACA including **Aetna (AET)** exiting 11 states in August and both **United Health (UNH)** and **Humana (HUM)** pulling out of some key states. Nevertheless, healthcare companies have invested hundreds of millions in the ACA and a repeal would be a major shock. Other insurers in the space include **Cigna (CI), Wellcare (WCG), Molina (MOH), and Anthem (ANTM)**. Hospitals are especially vulnerable under a potential repeal without a plan for replacing coverage. Rural-oriented names are likely to come under the most pressure as patients are less incentivized to get care. **Community Health (CYH)** has the highest percentage of rural exposure. Shares have been hit very hard this year down over 75% as debt continues to pressure shares and a run at asset sales in the Fall has gone nowhere. **Tenet (THC)** is another name which has been hit hard in 2016 down over 50%. The better performing names are the ones to focus on if investing in the sector. **HCA Holdings (HCA)** has traded higher by almost 10% this year and trades at 10.4X earnings and 0.68X sales.

Cyber-Security

Donald Trump has made security and safety a focus of his campaign on both a domestic and foreign policy side. The President-Elect has pledged in his first 100 days to expand military investment, protect our infrastructure from cyber-attack, and establish stronger borders which includes immigration reform.



Google Trend History of "Cyber Security" Since 2012

Cyber-security has been a major theme for the last couple years before Trump pushed it onto the front pages. Gartner estimates that worldwide IT security spending will reach \$81.6B in 2016 with the highest growth through 2020 coming from security testing and data-loss prevention. The firm sees 90% of organizations having some form of integrated DLP and firewall ASPs to rise 2-3% through 2018. Research Market and Markets estimates that by 2020 IT security spending will nearly double to \$170B. And the threats are growing too. According to Symantec's Internet Security Report the number of zero-day vulnerabilities more than doubled in 2016 and BAML estimates that there were 900M cyber security "events" in 2016 with financial, ICT, manufacturing, and retail the most affected sectors. These are numbers which are likely to increase as well with cloud usage and IoT becoming more prevalent and more devices are connected to the world.

In January, **IBM** CEO Ginni Rometty said that cyber crime may become the greatest threat to companies across the globe while **Lloyd's (LYG)** estimated that \$400B per year were at risk by companies due to attacks. Juniper Research in a May 2015 report reported that the worldwide cost of data breaches is likely to reach \$2.1T by 2019, a four-fold increase over 2015. In 2016 alone we've seen major data breaches at several notable companies including Centene (CNC), Seagate (STX), Linked In (LNKD), and Yahoo (YHOO). And all of this equals a more than \$75B solutions market which could double in three years according to IDC.

The cyber security space has traded weak overall in 2016 but some standouts including **Symantec (SYMC)** which is up over 45% and making some smart acquisition for Blue Coat and Life Lock (LOCK) which will help their mix into 2017. **Barracuda (CUDA)** which is up more than 15% and small-cap **A10 (ATEN)** which is up over 30%. **Checkpoint (CHKP)** is the largest name in the space by market-cap at \$14.86B and trading slightly positive for the year. **Palo Alto Networks (PANW)** has been one of the weaker names for the year down over 25% and coming off a weak quarter in November despite billings growth of 30% and 1,500 new customer adds. **Splunk (SPLK)** and **Fire-Eye (FEYE)** are two other names which have traded weak, the latter a \$2B provider of solutions for threat-detection has traded down 40% in 2016. **Imperva (IMPV)** is an interesting name in the space which has reportedly drawn M&A interest. The \$1.25B maker of cyber security solutions for data protection trades 4.8X sales with 21% EPS growth. **F-5 Networks (FFIV)** is another name in the space which has been exploring a sale or strategic alternatives. The \$9.56B provider of networking products which monitor security of servers and applications trades at 15.8X earnings and 4.8X sales with over \$13 per share in cash. The space is potentially ripe for more deals and one has seen some M&A in recent years with WebSense, Tibco, Aruba Networks, Blue Coat, and Lifelock all being acquired. The ISE cyber security ETF **HACK** which has exposure to some larger names in the space as well including **CSCO**, **JNPR**, and **IBM** and more has traded up almost 4% on the year.

Among all the promises Donald Trump has discussed since winning the Election none have had a greater impact on the stock market than his infrastructure plan. The President-Elect has called for a massive program to upgrade the nation's roads and bridges and after promising a more than \$500B plan during the campaign some talk now is that Trump could push for as much as \$1T in spending. Getting a bill passed will obviously face challenges and not just from Democrats. Republican Paul Ryan has publicly opposed a \$500B deal and he's likely not alone in the GOP. Trump has insinuated that an overhaul of the tax code or even investments from private investors could help bridge the gap but many still on the sidelines until a specific program is proposed. Axiom was out cautious on the plan in early December noting that Trump's current plan would rely on 83% funding from private debt investors who would require a return more than their cost of capital. Axiom thinks the market is assuming too much from Trump's plan and thinks a conservative estimate would be for \$200B in stimulus from Trump's plan. If Trump gets any semblance of his plan passed by Congress, several groups will benefit including construction, steel and copper, machinery and equipment, and materials.

Steel names have rallied sharply since the Election with the **XME** up over 15% and many individual names rallying more. Steel stocks would benefit from more building which would prime demand and seeing a potential tailwind from Trump's more protectionist policies and proposal to reduce imports of Chinese products. The President-Elect has proposed a 45% tariff on imported steel which could keep pricing positive for many in the group. **Steel Dynamics (STLD)** is one of the top names in the space. The \$9B company trades at 15.6X earnings and 1.23X sales and should benefit from its exposure to sheet pricing and rising demand for metallurgical coal. **Nucor (NUE)** is another name which should benefit from better infrastructure spending and has exposure to a recovering energy market with its strength in plate and long steel. **AK Steel (AKS)** has run strong since the election and should benefit from trade protection from Trump's plans as well as better demand in flat-rolled steel. The company is also undergoing a massive cost-savings plan which should help profitability. **RS, SCCO, CLF, TECK, X,** and **FCX** are other names which could benefit from better demand for steel and copper.

Machinery and equipment stocks soared following the Election with more emphasis on building. **Deere (DE)** and **Caterpillar (CAT)** both jumped by more than 7% on the day following the election and have continued to draw bullish positioning since. Both names face easier comps in 2017 and CAT is seeing better Y/Y new equipment orders outside of the US as well with EMEA and Asia improving. CAT has said that the fiscal stimulus plan will likely impact the company before the end of 2017 although many of these names likely see stimulus as a 2018 earnings story. **Aecom (ACM)** and **Jacobs (JEC)** are two engineering names with a construction focus which could be beneficiaries of new projects. ACM CEO Mike Burke has said publicly that any projects to advance the US infrastructure would require commitment from private partnerships. ACM has \$5.8B market cap and trades 11.7X earnings, 0.33X sales, and 9.36X FCF. **Manitowec (MTW)** is a small-cap maker of cranes which has soared since Election day and peer **Terex (TEX)** which provides lifting and material handling machinery has also traded strong. The latter trades at 30X earnings and 0.70X sales.

Suppliers of concrete, gravel, and other products used in large-scale projects will also see a boost. **Vulcan Materials (VMC)** is a \$16.6B name in the space which trades 29X earnings and 4.6X sales. VMC is a leader in aggregates used in publicly financed construction like highways, airports, and government buildings. **Martin Marietta (MLM)** is another name which works in public infrastructure and building. Shares trade at 24.46X earnings and 3.86X sales.

Repatriated Cash and the Tax Holiday Drive M&A and Buybacks

In a November report by Moody's, the firm estimated that total cash holdings by US non-financial companies would rise to \$1.77T by the end of 2016, up from \$1.68T in 2015, and that 74% of that cash was overseas. Corporate cash holdings have doubled in the last ten years and the firm expects that number to continue to increase in future years without reform to the US tax code. For years, corporations have deferred taxation on their money by reinvesting it abroad and in 2015, Sen. Rob Portman and Chuck Schumer proposed a reduced tax rate for corporations which would include mandatory transition tax to pay for infrastructure projects but the bill failed to get traction and disappeared. The Election of Donald Trump in November has again raised the specter that tax laws will be changed to bring it back to the US. Trump has long stated his goal to bring

American cash back to the US to help drive more manufacturing and jobs and in January suggested that he would cut taxes on offshore earnings from 35% to 10%. However, we need to wait until he takes office to see specifics of a plan.

One option is to use the 2004 holiday as a template which implemented a 5.25% rate to tax foreign earnings and resulted in 843 corporations bringing \$362B back to the US according to the IRS. Trump has said in the past that he favors a 10% rate but his economic advisor Tom Barrack told the Financial Times that the number more likely to be 5-7%, in line with the Bush-era rate. If this becomes the case, the capital is most likely going to go towards buybacks and dividends. According to Moody's, during the 2004 Bush-era repatriation tax break, the majority of funds were used for buybacks and executive compensation. Cisco (CSCO) CEO Chuck Robbins said his company is evaluating the different uses for their overseas cash but the obvious ones are most likely. Goldman Sachs noted earlier this year that buybacks would likely rise 30% in 2017 to \$780B.

Technology companies are the largest non-financial holders of cash overseas. The top names which have overseas cash holdings are **Apple (\$216B), Microsoft (\$111B), IBM (\$65B), Cisco (\$60B), Oracle (\$51B), and Alphabet (\$48B)**. These names are more likely to see a combination dividend raise and buyback with their cash than investment in acquisitions or operations. **AAPL** has been aggressively buying back stock since introducing a capital return program in August 2012 with more than \$117B in buybacks and over \$45B in dividends. They repurchased \$7.2B in shares in Q3. Citi, in a December note, suggested that a relaxed tax policy would contribute 6% to EPS and additions to their buyback plan would generate 10% benefit to EPS. **MSFT** is another which could raise their buyback after authorizing a \$40B plan in September and on-track to complete a previous \$40B plan by year-end. Among the big six, CSCO has the highest yield at 3.42% while IBM, MSFT, AAPL, and then ORCL follow. Citigroup also indicated that **VMWare (VMW), Citrix (CTXS), Red Hat (RHT), Adobe (ADBE), and Autodesk (ADSK)** are tech names with large cash piles which could come back and names which more likely target larger share buybacks in the future.

While tech companies may turn to buybacks and dividend raises, pharmaceuticals may turn to M&A. The sector has seen a number of deals for overseas companies over the last five years as a way for US drugmakers to put overseas cash to work. However, small-and-mid cap companies State-side could become more attractive with the Holiday to boost lackluster or stagnant pipelines. **Pfizer (PFE)** is a name which many have discussed as being a notable beneficiary of the repatriation with over \$80B in cash overseas and one more likely to do M&A than buyback stock. The company struck a deal for Medivation earlier this year but has reportedly told investors that, "its appetite would grow even bigger if it could bring home more than \$70B in overseas cash," according to Reuters. One reportedly large target the company could look at would be **Bristol Myers (BMY)** which would help boost PFE's immuno-oncology business. **Incyte (INCY) and Acadia (ACAD)** are other names according to RBC Capital which could be an attractive target for repatriated cash and potentially a name that Gilead could look at to boost its pipeline. Credit Suisse had a note in mid-November which speculated that **Seattle Genetics (SGEN)** would make for an intriguing target as well. **Amgen (AMGN)** is a notable name which mentioned on their recent conference call the desire to use repatriated cash for what they deemed, "external opportunities." The company noted they would look at how to bring back cash and what would benefit shareholders once a firm plan was put in place. **Johnson & Johnson (JNJ), Gilead (GILD), Medtronic (MDT), Merck (MRK), and Eli Lilly (LLY)** are the five other top holders of overseas cash which could use it for M&A.

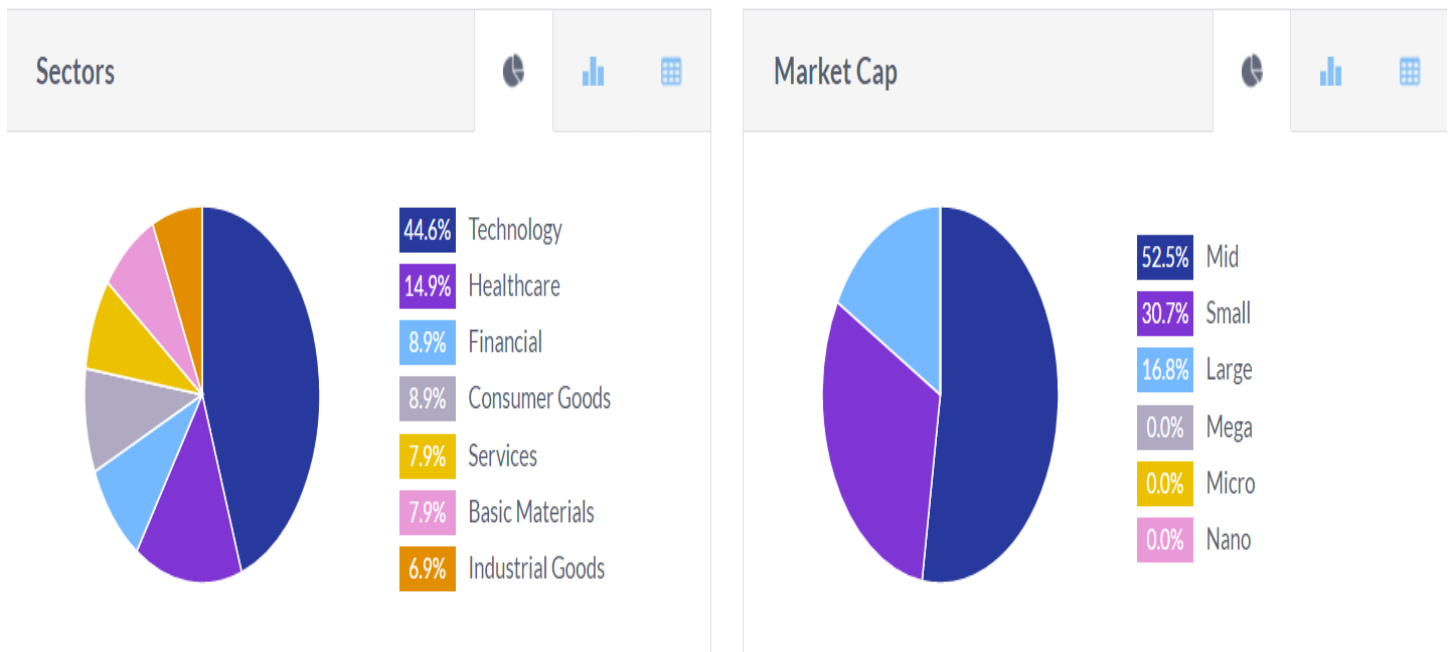
Investment Theme Portfolio of 20 Stocks

▲ Ticker	Company	Market Cap (\$M)	Dividend Yield	Price	Forward P/E	EV / EBITDA	Price / Sales	Price / Book	Return on Equity	Operating Margin	Debt / Equity	Sales 1-Year Chg (%)	EPS 1-Year Chg (%)	EPS Next Year Chg (Est.%)	YTD Return
ACM	AECOM	\$5,630	0.0%	\$36.58	11.4	11.9	0.3	1.7	2.9%	2.4%	1.2	-3.1%	-	9.2%	21.8%
ADBE	Adobe Systems	\$51,658	0.0%	\$103.77	21.6	29.3	9.4	7.1	13.6%	23.6%	0.3	15.8%	57.7%	25.3%	10.4%
AMZN	Amazon.com	\$362,425	0.0%	\$763.00	84.7	30.2	2.9	20.4	11.8%	3.2%	0.5	27.2%	516.9%	89.3%	12.9%
BAC	Bank of America	\$222,332	1.4%	\$21.88	13.3	-	2.9	0.9	5.0%	26.8%	0.9	-1.8%	-4.5%	12.3%	32.0%
CF	CF Industries Holdings	\$7,427	3.8%	\$31.50	61.8	11.2	1.9	1.9	1.8%	9.4%	1.4	-10.8%	-92.1%	-33.8%	-19.2%
DE	Deere	\$32,765	2.3%	\$103.49	20.0	21.8	1.2	5.0	23.4%	11.2%	5.5	-7.7%	-16.8%	15.7%	39.5%
DFT	Dupont Fabros Technology	\$3,367	4.6%	\$43.52	23.0	22.5	6.1	4.2	1.0%	15.1%	1.2	13.2%	-	15.2%	43.2%
DHR	Danaher	\$54,252	0.6%	\$78.32	19.9	13.6	2.4	2.3	10.8%	17.0%	0.4	3.7%	41.3%	9.4%	-15.1%
FB	Facebook	\$335,343	0.0%	\$116.56	22.4	24.5	13.7	6.2	13.8%	42.3%	0.0	54.8%	164.3%	27.4%	11.4%
GRMN	Garmin	\$9,304	4.2%	\$48.87	18.2	11.9	3.2	2.7	15.1%	20.8%	0.0	3.4%	-4.3%	0.0%	37.7%
INTC	Intel	\$174,466	2.8%	\$36.60	13.0	8.6	3.1	2.8	16.4%	21.8%	0.4	5.0%	-9.0%	5.2%	9.7%
KMB	Kimberly-Clark	\$41,635	3.2%	\$114.84	18.1	12.7	2.3	-	666.9%	17.1%	25.6	2.7%	226.8%	5.5%	-7.1%
MSFT	Microsoft	\$493,313	2.5%	\$62.95	19.3	15.4	5.9	7.0	23.5%	23.0%	1.1	-5.9%	34.8%	9.4%	16.6%
PRU	Prudential Financial	\$45,103	2.7%	\$103.74	10.0	7.2	0.8	0.8	8.5%	10.4%	0.4	2.4%	34.5%	15.0%	32.1%
SHOP	Shopify	\$5,004	0.0%	\$42.90	-	-210.3	10.6	9.3	-8.0%	-10.4%	0.0	93.3%	-	-	66.3%
STLD	Steel Dynamics	\$8,821	1.6%	\$36.05	15.0	17.7	1.2	3.0	3.7%	3.9%	0.9	-12.5%	38.7%	25.5%	106.2%
SYF	Synchrony Financial	\$29,845	1.4%	\$35.99	11.8	-	2.8	2.1	15.9%	33.2%	1.4	10.4%	1.5%	13.8%	19.5%
VMC	Vulcan Materials	\$16,814	0.6%	\$126.88	29.8	19.5	4.8	3.7	8.2%	19.0%	0.4	7.7%	116.0%	40.6%	34.6%
YELP	Yelp	\$3,010	0.0%	\$38.44	-	186.2	4.4	3.9	-4.6%	-3.0%	0.0	32.8%	-	-	33.5%
ZTS	Zoetis	\$26,533	0.8%	\$53.49	22.9	20.7	5.5	16.7	43.5%	25.9%	2.8	1.5%	56.2%	20.6%	12.6%

101 M&A Candidates for 2017

CVLT, CARB, HXL, INXN, CW, ENV, ZAYO, CMA, NUVA, MB, MIME, FIVN, SHOP, FTNT, CW, HXL, AZPN, MPWR, MSCC, XLNX, INCY, BMRN, ALXN, DISCA, VEEV, VRNS, IART, ICUI, CYBR, PSTG, WPX, OII, VC, PF, COLM, TTC, WCN, APOG, PFPT, GIMO, MXIM, QLYS, BDC, SCSS, ON, HOG, NFLX, TWTR, IMPV, CATM, HRS, FFIV, EIGHT, CYBR, MNST, ISRG, AKAM, CHD, JNPR, COO, ANSS, FLIR, WAL, MANH, IDTI, MASI, DORM, NEOG, ICUI, ROLL, OCLR, CBM, GIMO, MEI, MXL, TREE, EIG, HDS, BKE, IOSP, WDFC, MSTR, UBNT, VAR, WGP, SGEN, HUB.B, TCO, STC, CLCD, YELP, WETF, ZEN, BWA, TER, BOX, IMMU, TSEM, TTMI, ENVA, AMH, QEP, WLL, GRA, INCR, FIVE, MLNX

This link will allow you to compare targets by various metrics and break into sectors, industries, & more: [FinViz Bubbles](#)



2016 M&A Review

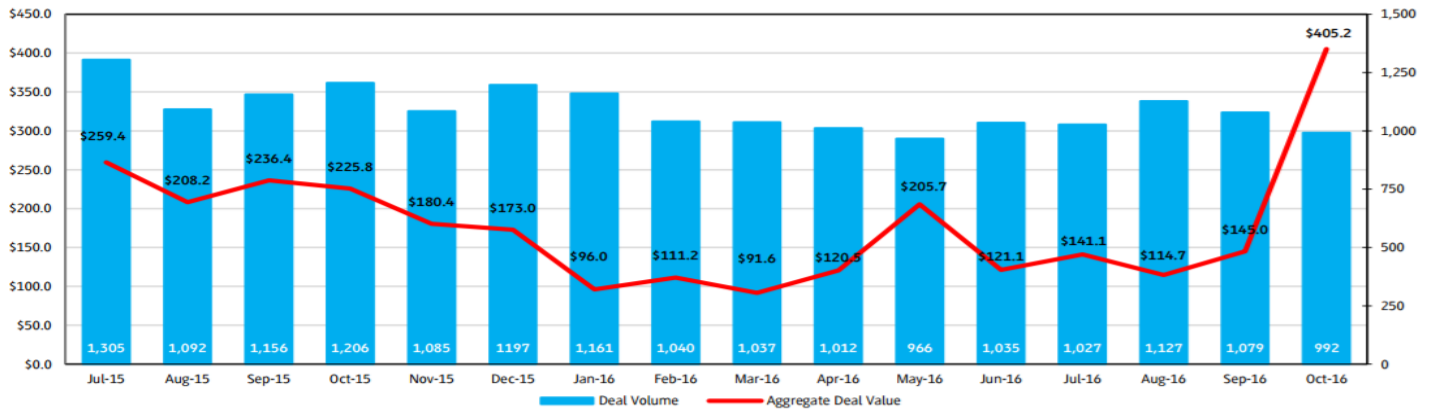
The largest deals in 2016 were:

- AT&T (T) offers to buy Time Warner (TWX) for \$105B – Approval Pending
- Bayer offers to buy Monsanto (MON) for \$62B – Approval Pending
- British American Tobacco (BTI) offers to buy Reynolds (RAI) for \$58B – Approval Pending
- Qualcomm (QCOM) offers to buy NXP Semi (NXPI) for \$46B
- Enbridge (ENB) offers to buy Spectra Energy (SE) for \$43B
- Century-Link (CTL) offers to buy Level 3 (LVL) for \$34.5B
- Abbott Labs (ABT) offers to buy St. Jude Medical (STJ) for \$30B
- Softbank acquired ARM Holdings (ARMH) for \$32B
- Shire (SHPG) acquired Baxalta (BXL) for \$32B
- Linde offered to acquire Praxair (PX) for ~ \$30B
- Tyco (TYC) offers to buy Johnson Controls (JCI) for \$29B
- Microsoft (MSFT) offers to Buy Linked-In (LNKD) for \$24.5B
- GE (GE) offers to buy Baker Hughes (BHI) for \$24.3B

A few other notable deals included:

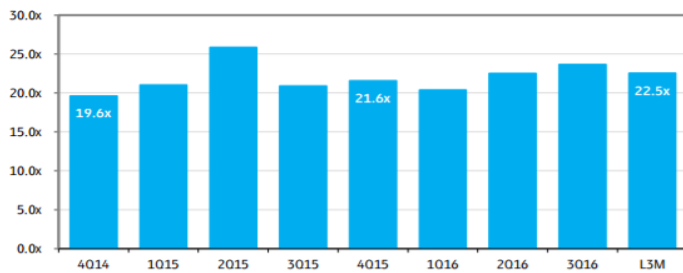
- 21st Century Fox (FOXA) offered to acquire Sky at GBP \$11.7B
- Pfizer (PFE) acquired Medivation (MDVN) for \$14B
- Technip announced a \$13B deal for FMC Tech (FTI)
- IHS Inc. (IHS) and Markit (MRKT) merged in a \$13B deal to create IHS Markit (INFO)
- TransCanada (TRP) acquired Columbia Pipeline (CPGX) in a \$13B deal
- Analog Devices (ADI) acquired Linear Tech (LLTC) in a \$13B deal
- Danone acquired WhiteWave Foods (WWAV) in a \$12.5B deal
- Great Plains (GXP) acquired Westar (WR) in a \$12.2B deal
- Regency (REG) acquired Equity One (EQY) in an \$11.7B deal
- Sherwin Williams (SHW) offered to acquire Valspar (VAL) in an \$11.3B deal – pending approval
- Fortis acquired ITC Holding for \$11.3B
- AmSurg (AMSG) and Envision Healthcare (EVHC) merged in a \$10B deal
- Tesla (TSLA) announced an acquisition of Solar City (SCTY)
- Mylan (MYL) acquired Meda for \$9.9B
- Oracle (ORCL) acquired NetSuite (N) for \$9.3B
- Samsung offered to acquire Harman (HAR) for \$8B
- Liberty (LMCA) acquired Formula 1 for \$8B
- Quintiles (Q) acquired IMS Health (IMS) for \$8.75B
- Tianjin Tianhai acquired Ingram Micro (IM) for \$6B
- Tesoro (TSO) offered to acquire Western Refining (WNR) for \$6.4B
- Rockwell Collins (COL) offered to acquire BE Aerospace (BEAV) for \$6.4B
- SOMPO acquired Endurance (ENH) for \$6.3B
- Blackstone (BX) acquired Team Health (TMH) for \$6.1B
- AbbVie (ABBV) acquired Stemcentryx for \$5.8B
- Broadcom (AVGO) acquired Brocade (BRCS) for \$5.5B
- Bass Pro acquired Cabela's (CAB) for \$5.5B
- Riverstone acquired Talen Energy (TLN) for \$5.2B
- Pfizer (PFE) acquired Anacor Pharma (ANAC) for \$5.2B
- Ameritrade (AMTD) acquired Scottrade for \$4B
- Danaher (DHR) acquired CEPHEID (CPHD) for \$4B
- Fairfax Financial offered to acquire Allied World (AWH) for \$4.9B
- Verizon (VZ) offered to acquire Yahoo (YHOO) Core Business for \$4.8B
- Siemens (SI) acquired Mentor (MENT) for \$4.6B
- Symantec (SYMC) acquire Blue Coat Systems for \$4.65B
- Lion's Gate (LGF) acquired Starz (STRZ) for \$4.4B

- Range Resources (RRC) acquired Memorial (MRD) for \$4.4B
- Dominion (D) acquired Questar (STR) for \$4.4B
- Parker Hannifin (PH) offered to acquire CLARCOR (CLC) for \$4.3B
- Thermo Fisher (TMO) acquired FEI Co. (FEIC) for \$4.2B
- Apollo Global (APO) acquired Rackspace (RAX) for \$4.3B
- Comcast (CMCSA) acquired DreamWorks (DWA) for \$3.8B
- Westlake (WLK) acquired Axiall (AXLL) for \$3.8B
- Komatsu acquired Joy Global (JOY) for \$3.7B
- CBOE Holding (CBOE) acquired BATS Global (BATS) for \$3.2B
- Renesas acquired Intersil (ISIL) for \$3.2B
- Potash (POT) and Agrium (AGU) announced a merger

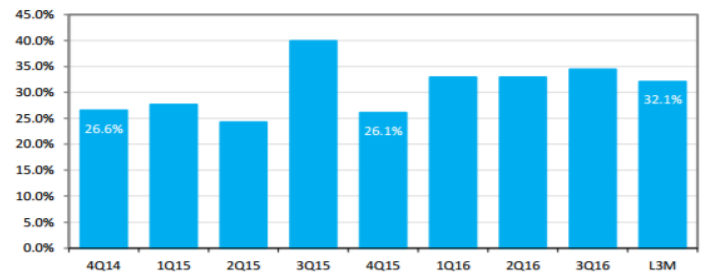


Deal Size	Number of Deals			Agg. Transaction Value (\$Bil)			Average P/E
	12 Months Ended		Change	12 Months Ended		Change	
	10/31/16	10/31/15			10/31/16		10/31/15
\$1 Billion +	312	326	-4.3%	\$1,516.6	\$1,799.8	-15.7%	32.8
\$500M to \$999.9M	206	237	-13.1%	146.2	165.4	-11.6%	28.5
\$250M to \$499.9M	314	332	-5.4%	110.7	118.2	-6.3%	29.2
\$100M to \$249.9M	502	566	-11.3%	79.8	90.0	-11.4%	25.8
\$50M to \$99.9M	393	458	-14.2%	28.6	32.0	-10.6%	22.3
\$25M to \$49.9M	371	496	-25.2%	13.4	17.8	-24.8%	23.7
\$10M to \$24.9M	457	639	-28.5%	7.4	10.5	-29.2%	19.1
Under \$10M	866	1,058	-18.1%	2.8	3.7	-26.2%	17.1
Undisclosed	9,337	9,576	-2.5%	N/A	N/A	N/A	N/A
Total	12,758	13,688	-6.8%	\$1,905.4	\$2,237.4	-14.8%	26.7

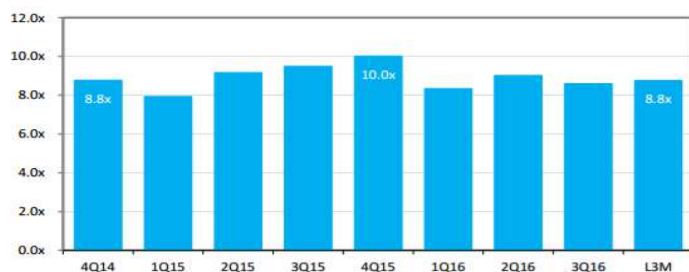
MEDIAN P/E



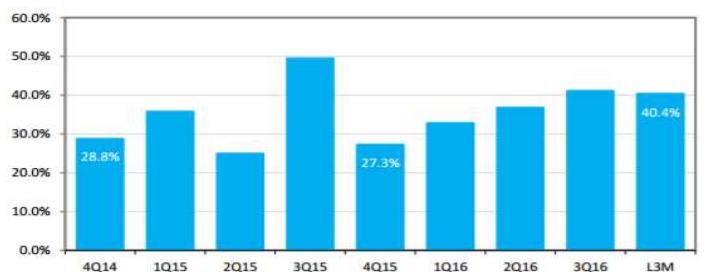
MEDIAN PREMIUM



MEDIAN EV/EBITDA

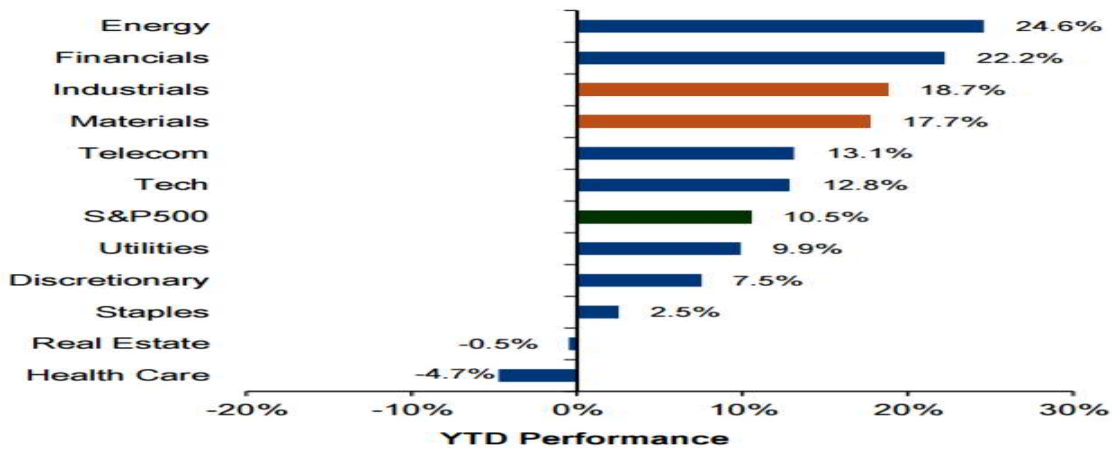


MEDIAN PREMIUM

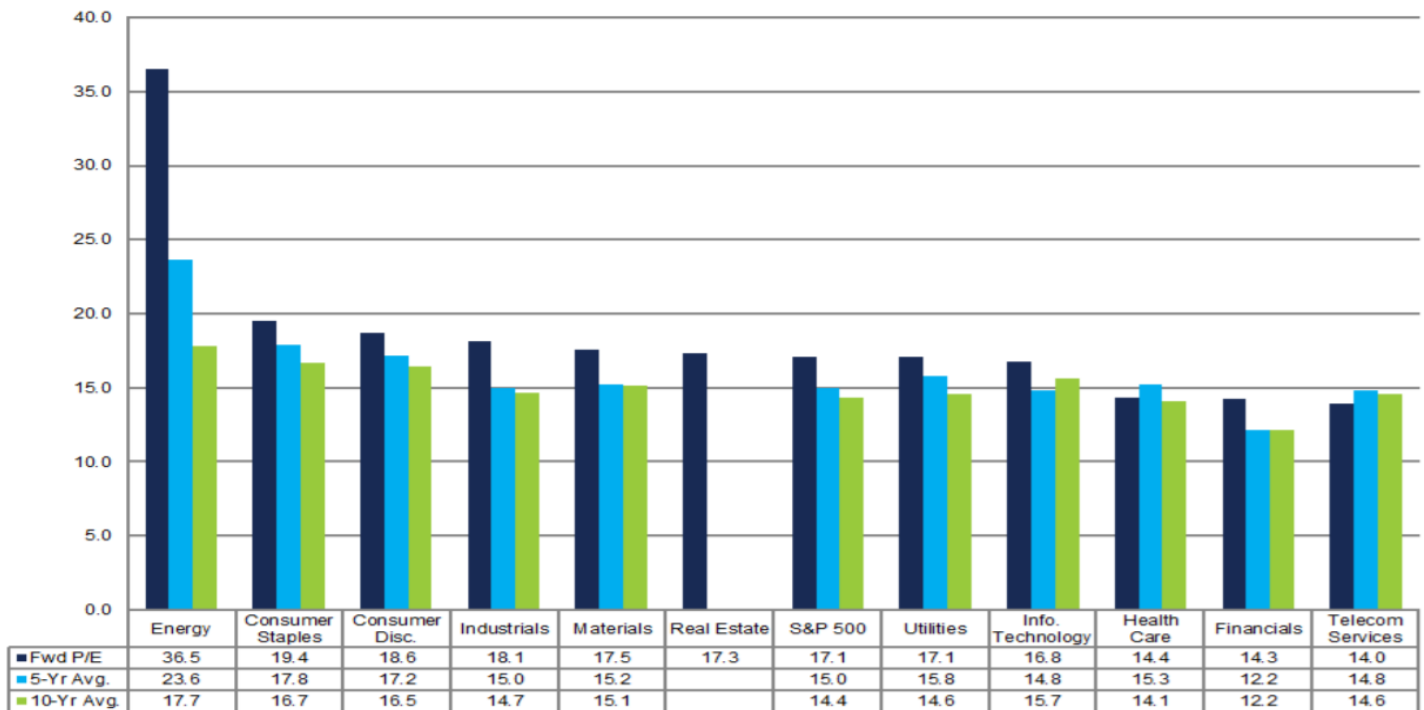


Sector Breakdowns

****My goal here is to provide a clear and concise view of key valuation metrics, management efficiency ratios, and YTD performance to show what worked in 2016. I then briefly touch on some of the top plays in each group and also provide some options insight. This is a brief analysis that can serve as a guide throughout the year as we see sector trends develop by closely monitoring earnings reports. It is important to remember that these are current snapshots and projections, and one must due his/her due diligence throughout the year following the earnings reports and management commentary, as the trends in these metrics are more important than the metrics themselves.****

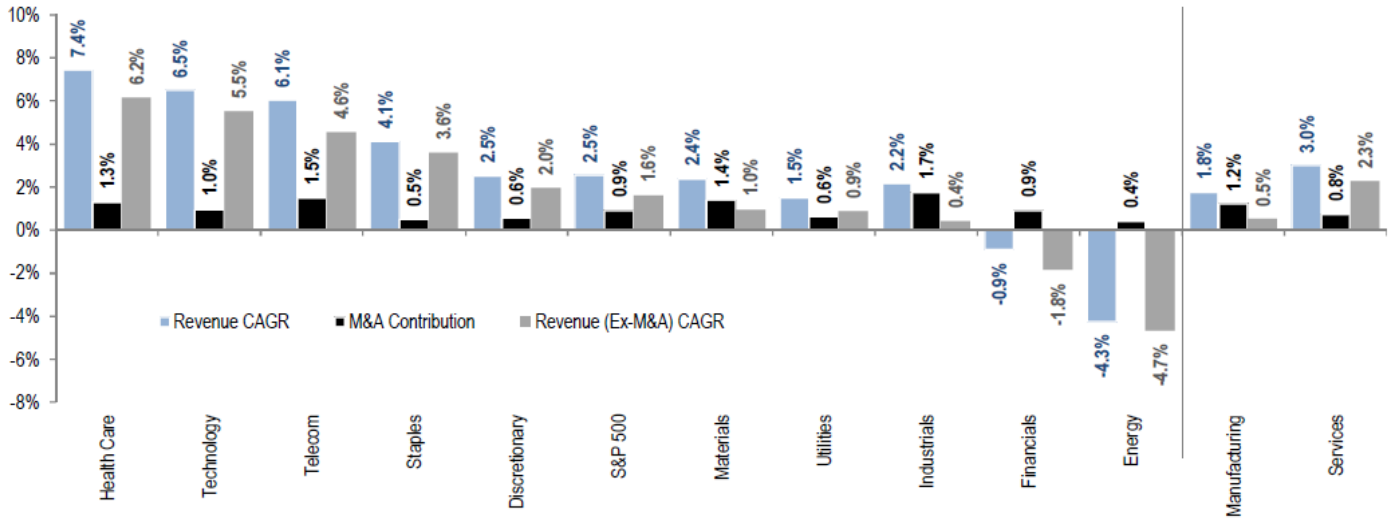


S&P 500 Sector-Level Forward 12-Month P/E Ratios
(Source: FactSet)



Sector Growth (M&A and Organic)

Sales Growth, M&A Contribution to Sales, and Organic Growth



S&P 500 Sector Margins, Valuation, Growth

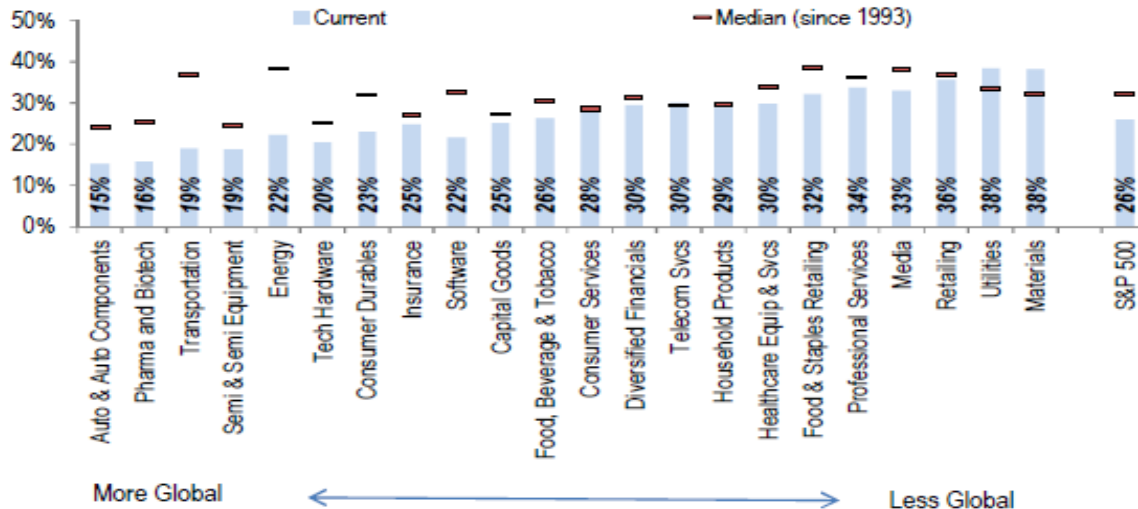
S&P 500 Current Constituents

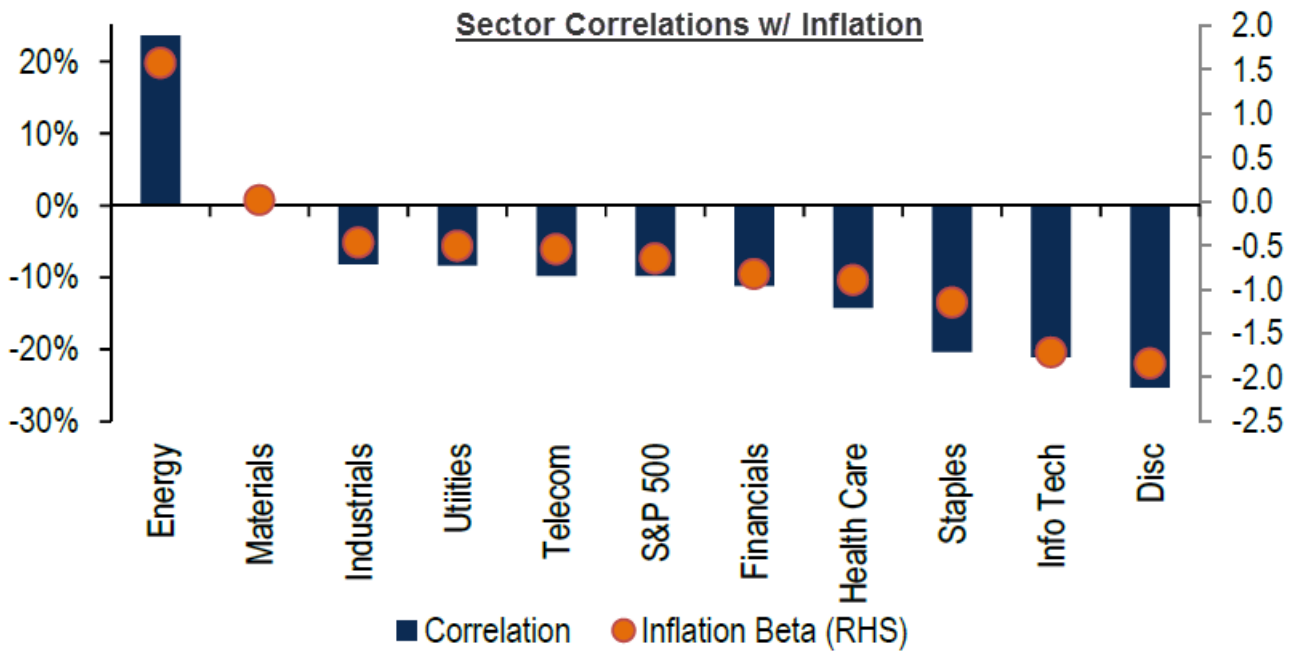
	Sales Growth						NI Margin (Avg Last 4Qs)			Earnings Growth						Contribution to...		Valuation	
	2016	2017/1C	2017/2C	2017/3C	2017/4C	2017	2016	2017	Delta	2016	2017/1C	2017/2C	2017/3C	2017/4C	2017	Sales Growth	Earnings Growth	P/E (2016)	P/E (2017)
	Energy	-16.4%	44.2%	33.2%	36.3%	24.1%	33.8%	1.4%	4.7%	3.3%	-75.1%	-1266%	730.7%	251.3%	118.3%	352.3%	43%	37%	125.8x
Materials	-3.8%	5.3%	5.3%	3.7%	3.2%	4.4%	9.4%	10.2%	0.8%	-5.4%	19%	14.1%	8.5%	12.4%	13.5%	2%	4%	18.9x	16.6x
Industrials	0.2%	2.7%	1.6%	1.3%	3.5%	2.2%	9.1%	9.1%	0.0%	-5.3%	0%	0.9%	-0.5%	10.0%	2.6%	4%	3%	18.3x	17.8x
Discretionary	6.1%	6.4%	2.9%	2.6%	3.7%	3.8%	7.9%	8.1%	0.1%	6.7%	3%	4.1%	5.4%	9.3%	5.6%	9%	7%	16.7x	15.8x
Staples	1.9%	3.3%	3.0%	3.6%	3.5%	3.3%	6.2%	6.3%	0.1%	1.6%	6%	5.2%	4.4%	5.9%	5.4%	8%	5%	19.6x	18.6x
HealthCare	7.5%	5.7%	3.4%	4.2%	4.6%	4.5%	10.4%	10.5%	0.2%	5.2%	3%	3.7%	6.1%	12.0%	6.1%	12%	10%	15.2x	14.4x
Financials	2.5%	5.9%	3.2%	0.4%	3.9%	3.3%	16.3%	16.9%	0.6%	-0.9%	13%	6.3%	1.3%	7.9%	6.9%	7%	12%	13.9x	13.0x
Technology	0.6%	8.8%	7.2%	5.6%	5.5%	6.7%	20.9%	21.6%	0.7%	1.8%	14%	10.9%	7.1%	9.5%	10.3%	12%	22%	16.5x	15.0x
Telecom	4.7%	1.0%	1.6%	1.8%	2.1%	1.6%	10.9%	11.0%	0.1%	5.6%	-2%	4.8%	1.9%	7.5%	2.9%	1%	1%	13.9x	13.5x
Utilities	1.7%	8.4%	8.1%	6.2%	-6.5%	3.8%	11.2%	10.8%	-0.4%	8.1%	3%	-4.1%	-0.2%	1.5%	0.0%	2%	0%	16.6x	16.6x
Real Estate	7.8%	3.9%	4.5%	4.8%	6.9%	5.1%	22.9%	16.9%	-6.0%	22.5%	-51%	-15.4%	-15.4%	18.8%	-22.4%	1%	-4%	27.7x	35.8x
S&P 500	1.3%	8.1%	5.9%	5.7%	5.3%	6.2%	10.4%	10.7%	0.33%	-1.6%	12.0%	9.9%	7.9%	11.7%	10.3%	100%	100%	17.5x	15.9x
Ex-Energy	3.1%	5.3%	3.5%	3.0%	3.6%	3.9%	11.0%	11.3%	0.28%	1.7%	7.4%	5.7%	4.1%	9.1%	6.6%	-	-	16.3x	15.3x

Sector Tax Rates

S&P 500

Tax Rates Across Sectors





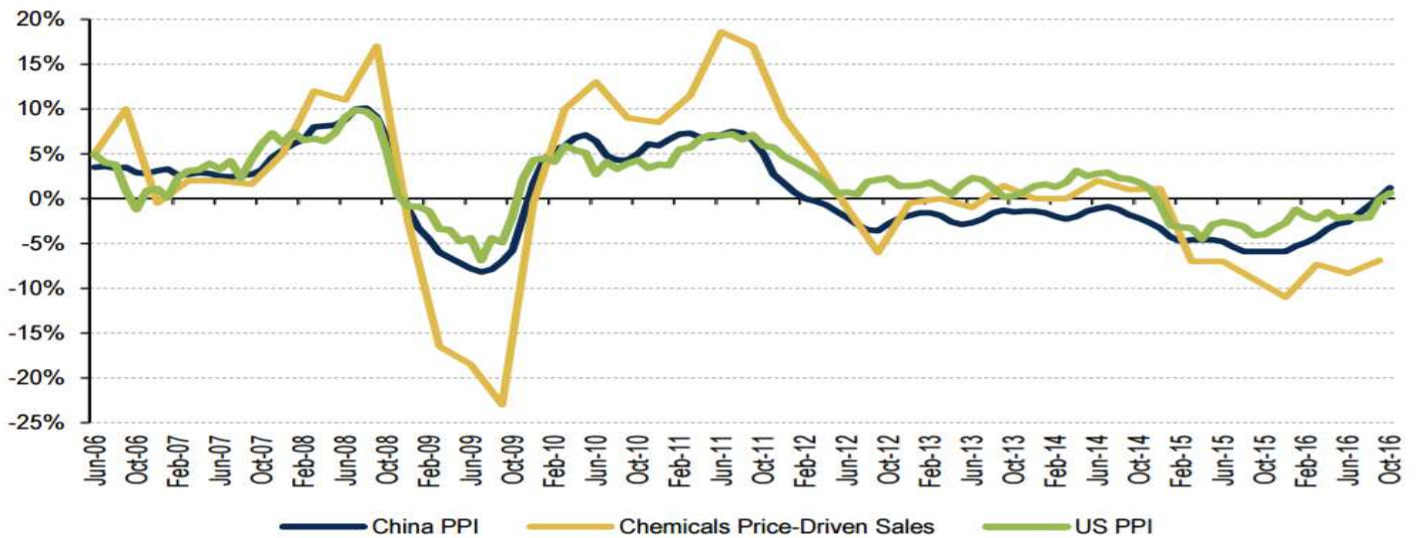
Basic Materials: *The materials group continues to see negative earnings revisions and weak sales with higher rates and a stronger USD seen as headwinds. Pricing power remains challenged with capacity utilization globally at a 30 year low, and this group is the highest correlated to China. Materials are a high-beta way to play cyclical recoveries, but also have some of the weakest long-term growth prospects. Infrastructure spending and rising inflation can be tailwinds into 2017 as will deregulation and the reflationary trade. Metals, mining, and construction materials provide nice exposure to domestic industries with lower beta than energy.*

Chemicals:

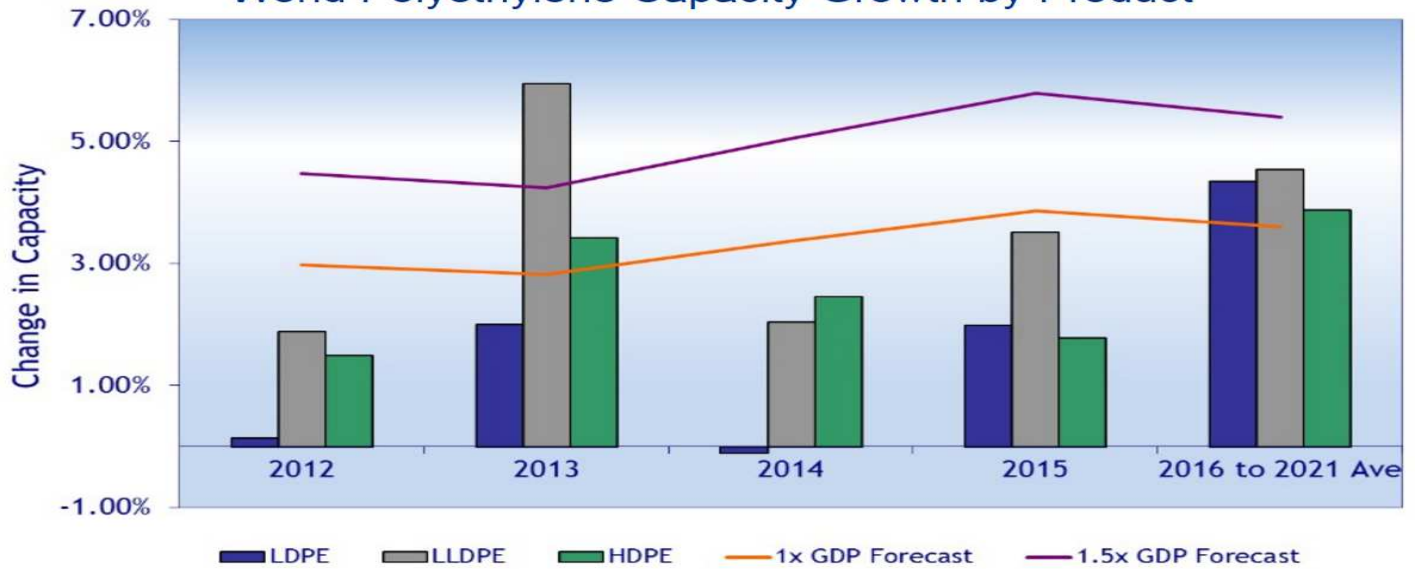
Components: ACET, ADM, AGU, ALB, ANDE, APD, ASH, AXTA, BCPC, BG, CBT, CC, CE, CF, CVGW, DD, DOW, EMN, FDP, FMC, FUL, GRA, HUN, IFF, IOSP, KRO, LYB, MEOH, MOS, MTX, NEU, NGVT, OLN, PAH, POL, POT, PPG, PX, RPM, SHLM, SHW, SMG, SXT, WLK

The chemical sector is very cyclical in nature with profitability impacted by the imbalances between capacity and demand, which can be volatile. Production costs are mostly driven by the price of energy and feedstocks, so there is a tight relationship with energy prices, and cost advantages in this industry often separate the leaders from the laggards. The Chemical Activity Barometer is closely correlated to the Industrial Production Index. The main segments within this group are Petrochemicals, Specialty Chemicals and Agrochemicals. Returning inflation can be a tailwind for Chemicals, as shown below:

US and Chinese inflation data tend to be closely correlated to chemical industry selling prices



World Polyethylene Capacity Growth by Product

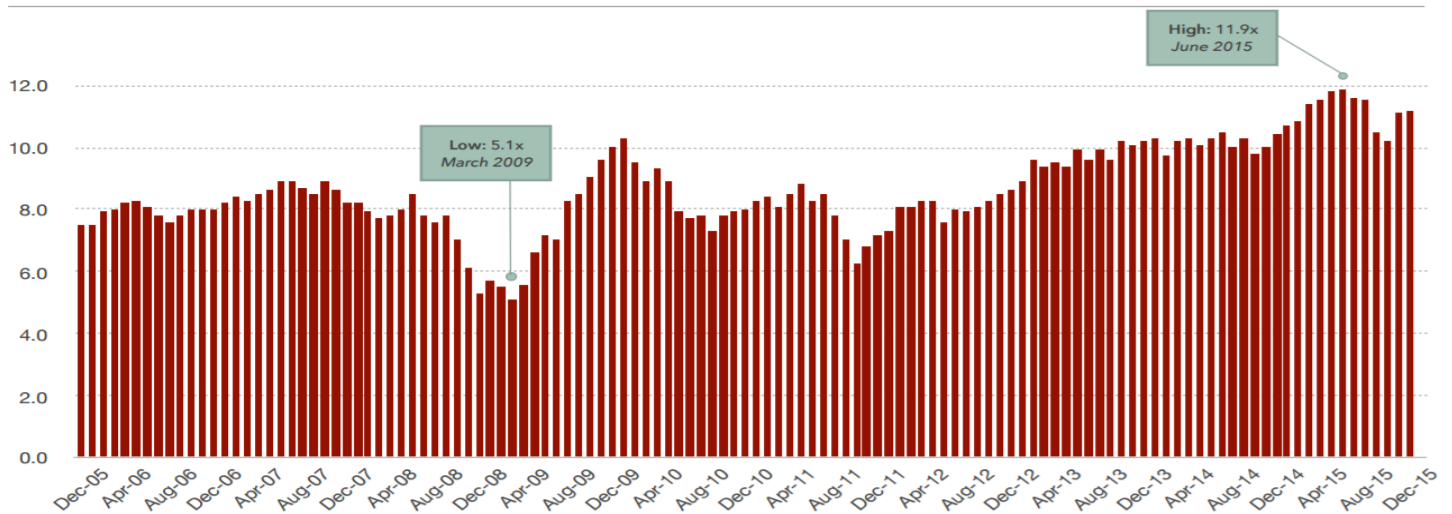


The chemical sector for the most part performed fairly well in 2016, currently 25 of the 44 names up 10% or more YTD. Lesser known and small names have led performance with CC, KRO, and NGVT, while another area of clear outperformance was seen with the Lithium plays, FMC and ALB. The Agricultural related names have seen a strong turnaround in 2H16, and many shifting out of long downtrends that can see continuation in 2017 with many of the names hitting trough earnings.

M&A in the group has surged with acquirers looking to increase exposure to aerospace, medical, and other high-margin end-markets. The ongoing deals of Dow (DOW) and DuPont (DD), Monsanto (MON) and Bayer, and Sherwin Williams (SHW) and Valspar (VAL) are creating some very large players if gain regulatory approval. The chemical group has been one often targeted by activists in an effort to realign business segments for better profitability and efficiency of operations.

In terms of valuation, the specialty chemical names have historically traded at a premium to the basic chemical stocks. P/E, EV/Revenues and EV/EBITDA can all be used as valuation metrics, while EBITDA margins & ROIC tends to determine whether a name should trade at a premium or discount to peers. Historically, transactions in the space have taken place at 1.35X Sales, and 10X EBITDA the last four years.

Grace Matthews Chemical Index: Enterprise Value / EBITDA



Source: Grace Matthews & Capital IQ

The group currently has an average P/E of 18.7X, FY+1 EV/EBITDA 10.2X, 2X FY+1 EV/Sales, 18.4% EBITDA margins and 7.5% ROA.

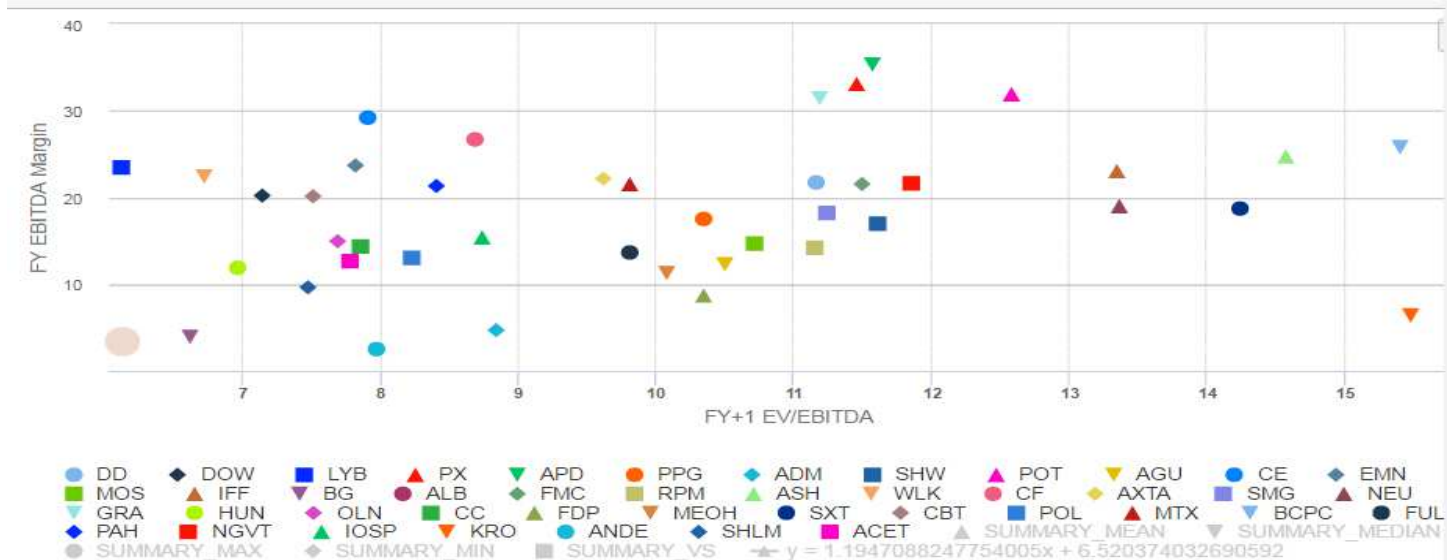
Lyondell (LYB) immediately screens as cheap at 6.1X EV/EBITDA, 1.3X EV/Sales yet having 23.4% EBITDA margins and 18.8% ROA. LYB is also a name with 25,000 Jan. 2018 \$100/\$120 call spreads in open interest.

Westlake Chemical (WLK) is a similar situation at 6.7X EV/EBITDA, 1.4X EV/Sales with 22.4% EBITDA margins and 5.3% ROA.

Eastman Chemical (EMN) also screens well at 7.8X EV/EBITDA, 1.9X EV/Sales, 23.7% EBITDA margins and ROA at 7%.

Celanese (CE) is an \$11.2B name that has a history of strong reports and trades just 7.9X EV/EBITDA with 29.2% EBITDA margins and ROA at 12.2%, though a bit rich on EV/Sales at 2.3X.

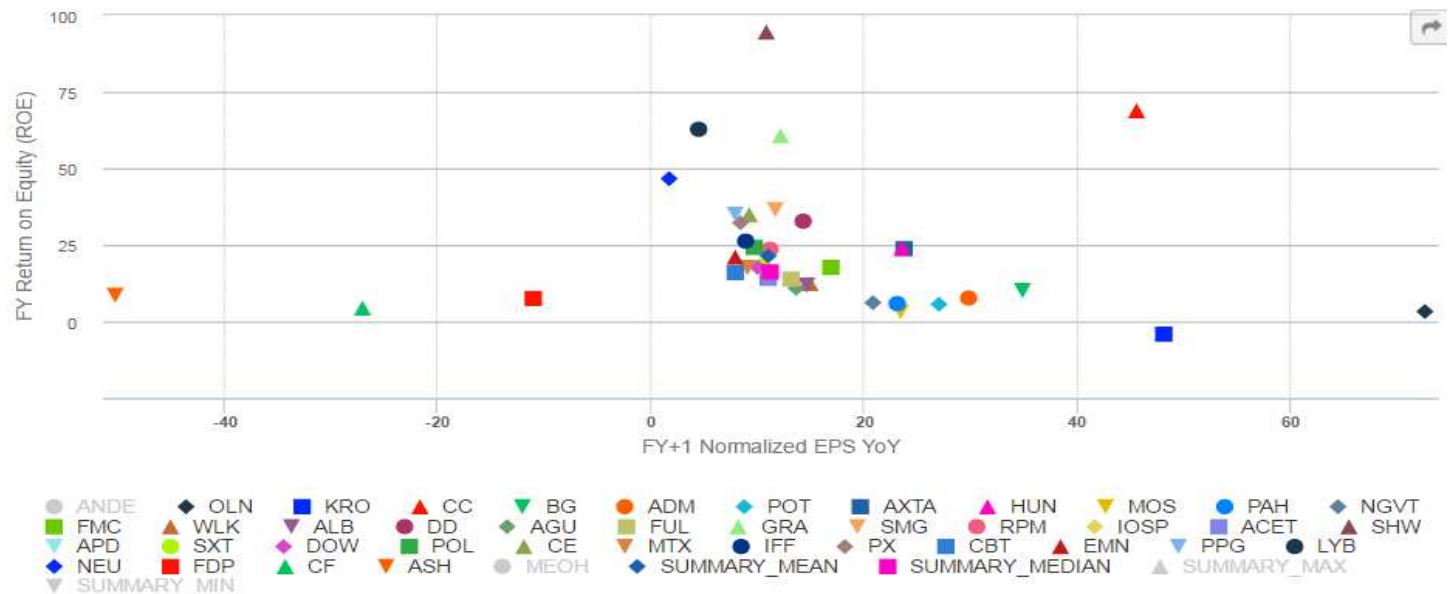
FY+1 EV/EBITDA versus EBITDA Margins



Chemours (CC) sticks out of a ROE versus EPS Growth scatter plot, and has been a top performer this year with shares +335% YTD. CC is guiding to 45.5% EPS growth in FY17, though saw EPS down 31.8% in 2016, and has a near best of class ROE of 68.8%. The \$4.2B specialty chemicals Company is also cheap at 8X EV/EBITDA and 1.3X EV/Sales.

Axalta Coating (AXTA) also stands out though shares are down modestly YTD. The \$6.38B performance coatings Company trades 9.6X EV/EBITDA, 2.2X EV/Sales with 22.2% EBITDA margins and ROE of 23.7%. AXTA is guiding for 23.8% EPS growth in 2017 after posting double digit EPS growth each of the last two years.

FY+1 EPS Growth versus ROE



Metals:

Components: AA, ABX, AEM, AHGP, AKS, AU, BHP, BVN, CCJ, CDE, CENX, CLF, CMP, FCX, FELP, FNV, GG, GOLD, HL, KALU, NEM, NUE, P, AAS, PKX, RGLD, RIO, RS, SCCO, SLW, STLD, SWC, TAHO, TECK, TRQ, TX, VALE, WOR, X

The metals group can be broken up into two basic groups, Industrial metals like Coal, Steel, Aluminum, Copper and Iron Ore, and the Precious Metals like Platinum, Silver, and Gold. The group has seen outstanding performance in 2016, notably since the Election with an expected reflation trade and large infrastructure spending seen boosting demand for the metals. The lone name down YTD is Cameco (CCJ), a uranium producer. The Gold/Silver miners have seen weakness in Q4 as the market went into risk-on/growth mode and money flowed out of safety assets.

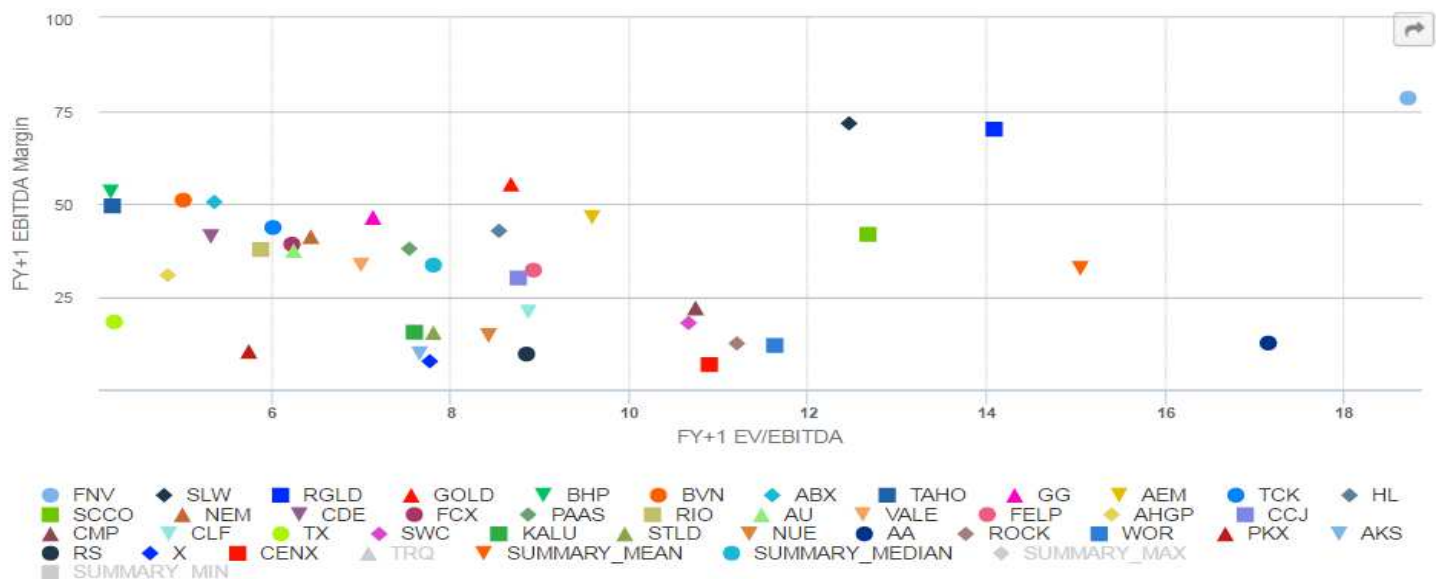
Stock selection within this group can be tricky, though there generally is little dispersion among the names as metal stocks tend to trade day to day with the movement in the underlying commodity as supply/demand dynamics shift. It is a very industrial driven group with close ties to end-markets such as Auto, Aerospace, Construction, and Energy. Aluminum is primarily used in Transports/Packaging, Copper in Construction/Electrical, Iron/Steel in Auto, Construction and Oil/Gas, Nickel in Consumer/Industrial, and Zinc in Construction.

This is a very cyclical group and important to determine where on the commodity price and/or economic cycle markets are currently. The volatility in pricing results in volatile revenues, earnings and cash flows, which can make valuation techniques difficult. The high fixed costs required also leads to debt-heavy balance sheets. With these mining companies, metrics are often counter-intuitive, such as the PE Ratio, it is often best to buy when PE's are historically high (indicating low earnings), and sell when PE's are low (indicating peak/high earnings), due to the cyclical swings. A good approach to valuing many of these companies is to look at 10 years of earnings/revenues, and value the company based on where it is in the current cycle to calculate where earnings/revenues will get at mid-cycle and late-cycle stages. Seasonality stats show February and October as strong months, while January, March, May, September, November and December are weaker.

Options activity has positioned fairly bullish across this space at least through Q1 2017 with notable bullish positions in the last few weeks opened in TCK, X, AKS, VALE, and RIO. BAML recently raised its 2017 price forecast for HRC (hot rolled coiled steel) to \$650 from \$535, aided by protectionism and higher met prices. It also raised its forecast for met coal to \$210/t from \$140 and increased Zinc 5%.

I prefer the names that managed well even during the down cycle like **STLD, RS, and SCCO**. I also like **TECK** as one of the few ways to gain exposure to steelmaking coal. For small caps, **AHGP** is a steady performer and one of the few survivors of the downturn in coal, also offering a 7.5% yield and trading cheap. **CMP** is an interesting name, a \$2.64B producer of salt with fairly attractive valuation and a 3.55% yield. **CLF** is the more speculative play in the group, a name that could see a resurgence with Iron Ore prices rising and has been restructuring. **ABX and NEM** are always the preferred names in Gold Mining, but **Franco Nevada (FNV)** is the name I favor mainly on options activity and its royalty set-up.

FY+1 EV/EBITDA versus EBITDA Margins



Oil & Gas Exploration (Upstream):

Components: *APA, APC, AR, CHK, CLR, CNQ, COG, COP, CRZO, CVE, CVX, DO, DVN, EGN, EOG, EQT, ESV, FANG, HES, HP, MRO, MTRD, NBL, NBR, NE, NFG, NFX, OXY, PDCE, PE, PTEN, PXD, RICE, RIG, RRC, SU, SWN, WLL, WPX, XEC, XOM*

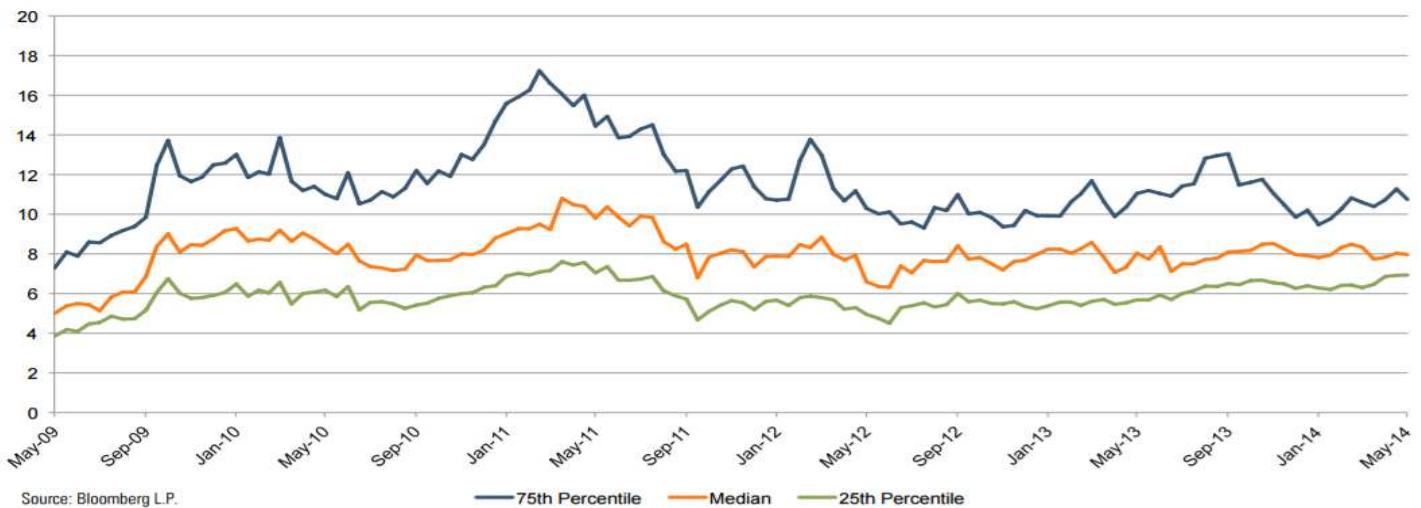
Similar to the Metals & Mining group, the Oil & Gas E&P names also operate in a cyclical nature and much of the trading is closely correlated with the underlying commodity, Oil or Gas, and the weekly data points on supply and demand. Seasonality shows that February and April are strong months for the E&P names, while September, November and December tend to be weak.

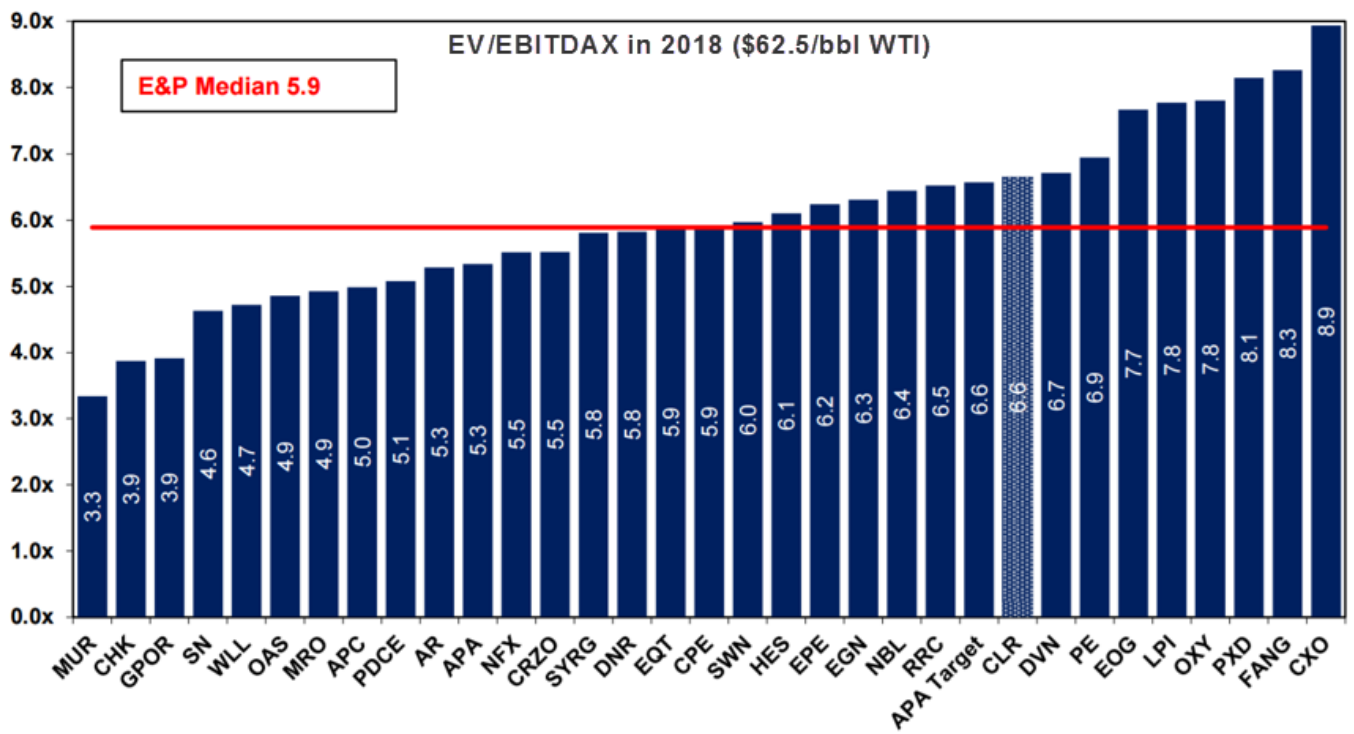
The group can really be divided into two, the Oil producers and Gas producers. While many names produce both, the percentage of production is generally skewed in one direction, and the notable Natural Gas dominant producers are AR, COG, CNX, SWN, EQT and RRC. Another way to divide the group is with onshore and offshore, the latter mainly featuring ESV, DO NE, RDC, RIG, and HP. Lastly, in the entire Energy complex, the companies are often separated into Upstream, Midstream, Downstream, Services, and Integrated Majors.

The industry is currently undergoing an efficiency drive that is driving up well productivity rates. A move towards US unconventional shale from International is another trend that appears to just be getting started.

In evaluation this group, EV/EBITDA and P/FCF are valuable, but better metrics that are not as easily found such as EV/Proved Reserves, EV/2P and EV/Daily Production can give better insight. It is also always important to understand the cost leaders, names that can withstand down-cycles better with stronger balance sheets and a lower cost of breakeven. Similar to Financials, the balance sheet is often the most important with these stocks, as the reserves are the asset that will generate future revenues/earnings. The debt/cash flow ratio can be a useful gauge of balance sheet health. Revenues are difficult to model with the wild price swings, and a sensitivity analysis can be performed for an expected range and probability of outcomes, but also have to take into account the company's hedging efforts. P/E and Revenue multiples lose a lot of value because Energy companies have large depreciation numbers, impairment charges, write-downs, and unusual tax situations. EBITDAX is also a modification often used, the X being exploration expenses. Acreage valuation is another method using transactions in the various regions as a guide to figure out \$M/Acre. Reserve replacement ratio is yet another metric for this industry.

Exploration & Production EV/EBITDA Multiples





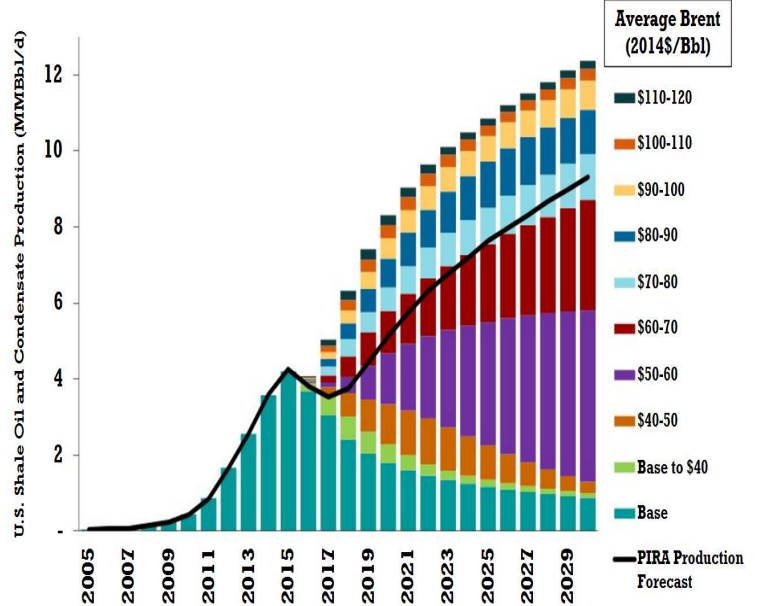
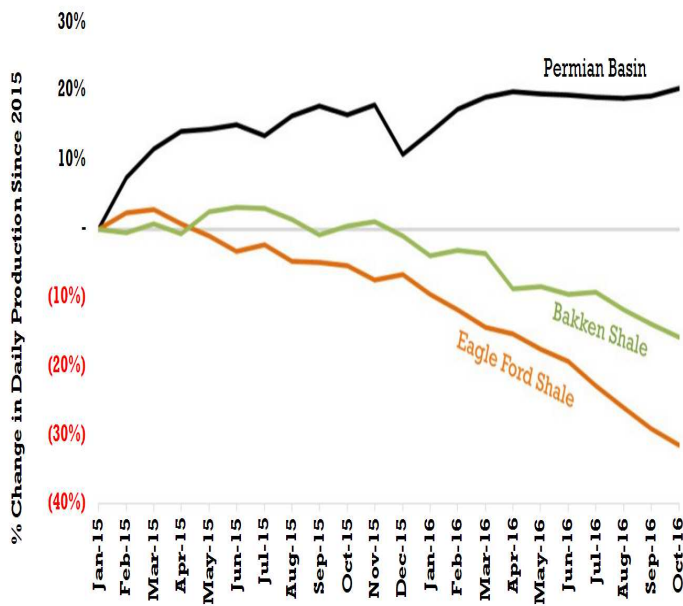
I put together a sheet breaking down all the key metrics for the Oil & Gas Upstream names:

Majors	EV	EV/D ACF	EV/EBIT DA	Debt/EBIT DA	Oil Mix	2016 Production /Day (Mboe)	2016 Production Growth	2017 Production	2017 Production Growth	EV/Production	Proved Oil Reserves (PR)	EV/PR (Oil)	Proved Gas Reserves	PRA C	RRC	Production Costs
CLR	24,494	10X	11X	2.3X	57%	220	0%	240	9.60%	111.34	700.5	34.97	3151.8	\$42.43	\$17.77	\$9.44
APC	45,521	8.9X	7.4X	1.8X	65%	827	-11.50%	695	-10.90%	55.04	850	53.55	5991	\$11.08	\$24.00	\$9.15
MRO	18,006	7.3X	7.4X	2X	55%	405	-8.50%	391	0.90%	44.46	752	23.94	1151	\$3.35	\$19.11	\$15.96
EOG	59,225	11.1X	11.6X	0.9X	51%	555	-3%	629	12.40%	106.71	1470.7	40.27	3489.8	\$10.02	\$19.35	\$14.11
NBL	20,994	9.5X	7.9X	1.9X	29%	425	12%	429	1.90%	49.4	432	48.6	2711	\$5.49	\$23.01	\$10.43
APA	30,538	7.9X	6.8X	1.6X	52%	520	-6%	511	-3.10%	58.73	584.5	52.25	1572.8	\$5.46	\$109.43	\$12.76
CHK	15,379	5.7X	7X	3.7X	25%	638	-4.30%	598	-7.50%	24.11	497.2	30.93	6041	\$15.00	\$63.78	\$13.11
Gas Levered E&P																
RRC	12,815	10.3X	11.4X	3.2X	10%	260	4%	277	16%	49.29	602.3	21.28	6277.7	\$9.23	\$4.45	\$7.13
COG	11,745	9.4X	11.6X	0.5X	5%	260	6%	312	9.60%	45.17	55.7	210.86	7856	\$17.59	\$3.73	\$6.07
SWN	8,920	6.9X	7.2X	2.2X	10%	369		354	-3%	24.17	49.7	179.48	5917	\$3.81	\$14.38	\$5.98
EQT	13,391		7.8X	2.1X	3%	338	26%			39.62	144.4	92.74	9110.3	\$3.60	\$6.09	\$4.00
SMID Cap E&P																
PE	7,215	11.1X	12.3X	4.8X	67%	37	68%				124	58.19				
RSPP	5,644	8.6X	9.4X	3.8X	73%	29.8	24%		83%	189.4	136.9	41.23	133.5	\$14.63	\$18.60	\$11.01
PDCE	3,468	8.5X	6.2X	1.6X	40%	65.26	39%		15%	53.14	162.7	21.32	660.7	\$38.96	\$9.70	\$8.03
XEC	12,576	10.4X	11.4X	2X	28%	164	-7%		11%	76.68	232.1	54.18	1517	\$6.23	\$16.19	\$11.15
NFX	9,703	8.5X	8.8X	3.1X	38%	59	38%			164.46	281	34.53	1305	\$3.18	\$35.12	\$11.08
CXO	20,179	12.2X	11.7X	2X	61%	165	5%		20%	122.3	367.8	54.86	1534.1	\$8.86	\$22.68	\$12.11
FANG	7,778	13X	12.2X	1.7X	73%	45	26.80%		30%	172.84			715	\$22.66	\$185.35	\$20.29
CRC	5,734	10.8X	6.6X	7X	65%	138	-13%			41.55	525	10.92				
MTDR	2,587	9.7X	9.9X	4.2X	51%	29.5	12%			87.69	101.6	25.46				
OAS	4,882	7.8X	7.4X	5.5X	85%	47.5	-2%		49%	102.78	185	26.39	199.8	\$16.33	\$34.24	\$16.71
WLL	6,734	7.4X	7X	5X	71%	120	-25%			56.12	709.6	9.49	665.7	\$11.80	\$17.27	\$15.80
EPE	4,810	7.8X	6.9X	3.6X	55%	86	-27%			55.93	389.6	12.35	938	\$12.96	\$19.69	\$11.28
BCEI	936	10X	11.5X	6.7X	58%	21.5	-28%			43.53	101	9.27				
LPI	4,659	12X	11.5X	7.6X	46%	51.27	10%			90.87						
AR	12,524		8.6X	1.8X	20%	112	20%		25%	111.82	613	20.43	9553	\$16.42	\$4.63	\$8.89
EGN	5,277		10.2X	1.8X	64%	54.5	2%		20%	96.83	282.4	18.69	433.9	\$23.87	\$21.69	\$13.48
QEP	5,052		6.1X	4X	37%	20.5	-3%			246.44	251.9	20.06	2108.9	\$8.35	\$26.69	\$12.35
SM	4,686		5.6X	2.8X	31%	55	-12%			85.2	260.7	17.97	1264	\$12.86	\$14.89	\$12.14
WPX	6,272		10.4X	4.5X	65%	83.5	16%		25%	75.11	218	28.77	2190.2	\$11.80	\$39.61	\$9.91

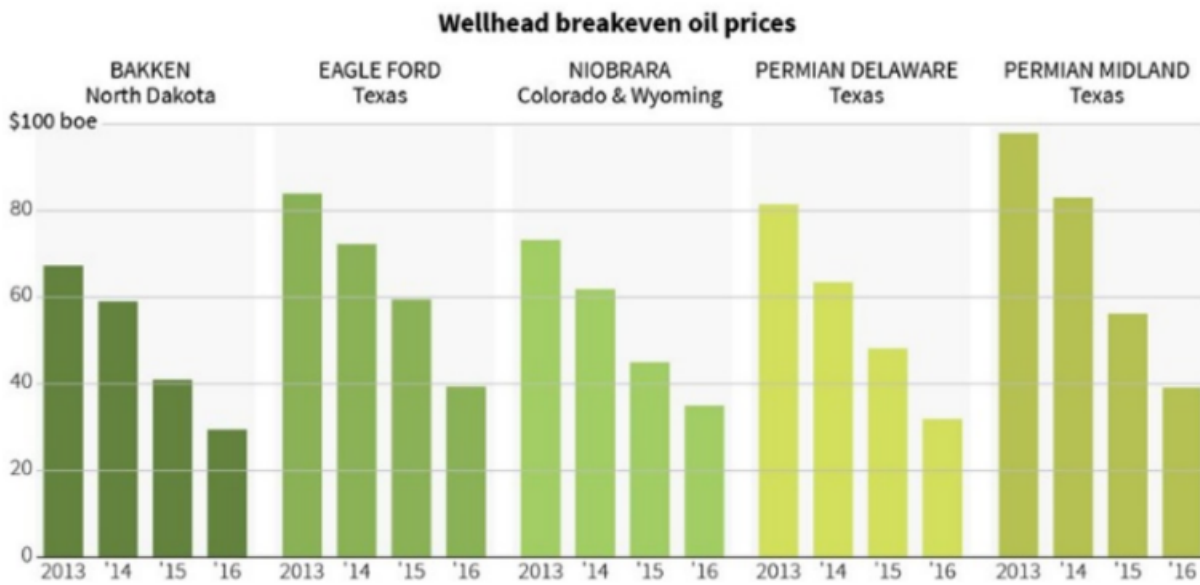
It is also important to know where these companies have exposure, an example from last year is the Permian Basin is the only major US oil shale region seeing growth since the downturn began, as shown below. PXD, CXO, EGN, and APC are leaders in this region. STACK has been seen as an important region in 2H16 and that momentum likely carries over.

Permian Basin is the only growing major U.S. oil shale since downturn began

U.S. shale industry needs \$55 to \$60 oil to keep production flat



The falling cost of U.S. shale production



Source: NASWellCube

Among the Majors, **Conoco (COP)** is the clear value play on EV/EBITDA as well as EV/Production. COP is also expecting to make a lot of asset sales in 2017. Exxon (XOM) has a lower Oil mix and is the lowest cost producer with a high RRC and strongest balance sheet. For the large cap E&P names, **Pioneer (PXD)** is the clear production growth leader, but also already trades at a premium EV/Production ratio. I see **Devon (DVN)** and **Continental (CLR)** as most attractive at < 9X EV/EBITDA, low EV/Production and EV/Reserves versus peers, and being the low cost producers. Both CLR and DVN also have less leverage on the balance sheets. **EQT Corp (EQT)** is the best looking Natural Gas large cap as the low cost producer and trading fairly cheap to peers at 7.8X EV/EBITDA after a strong 2016 production growth year. In the SMID Cap E&P space, **PDC Energy (PDCE)** stands out as the low cost producer trading cheap to peers on valuation metrics while also having a strong balance sheet. **Newfield (NFX)** is another attractive name as a lower cost producer with a high RRC and low PRAC, while **Antero (AR)** is a quality small cap natural gas play, and one that has seen some notable institutions invest in this year when researching 13F filings. **QEP Resources (QEP)** also stands out as cheap at 6.1X EV/EBITDA and 20X EV/Reserves while being a lower cost producer with a high RRC. QEP is a player in the Permian Basin and seeing drilling costs plummet, but also acreage in the Williston Basin and Haynesville.

Oil & Gas Services:

Components: *BRS, CKH, CLB, DNOW, DRQ, FET, FMSA, FTI, GE, HAL, HCLP, MDR, MRC, NOV, OII, OIS, PDS, RES, SLB, SLCA, SPN, SYR, G, WFT*

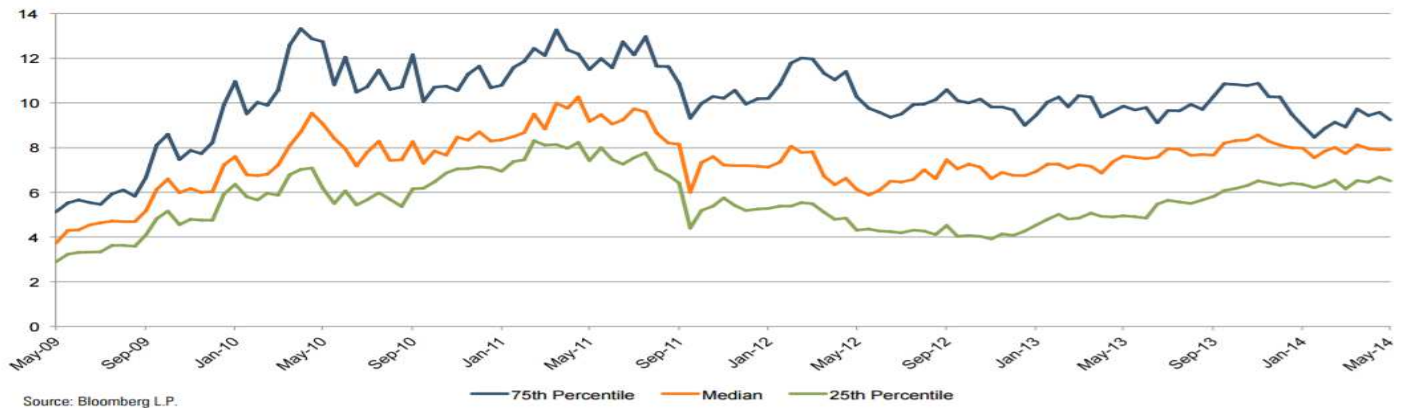
The Energy Services group also trades very correlated to its underlying commodity and is closely tied to the E&P companies as their CAPEX budgets directly impact demand for the services group. With the sharp downturn in Oil prices, a lot of companies cut production targets resulting in a major downturn in earnings for this group, but recent indications from the CEO's of leaders like Halliburton (HAL) and Schlumberger (SLB) are seeing a modest uptick and signs of stabilization. The weekly rig count data is also closely correlated with performance in this group.

One very positive sign for the group was the late October \$30B deal that saw General Electric (GE) merge its Oil & Gas Services unit with Baker Hughes (BHI). In May, Technip announced a \$13B merger with FMC Tech (FTI), and the EU just announced antitrust clearance. In August of 2015, Schlumberger (SLB) acquired Cameron (CAM) for \$14.6B. The deals in the space has left a limited amount of investment options.

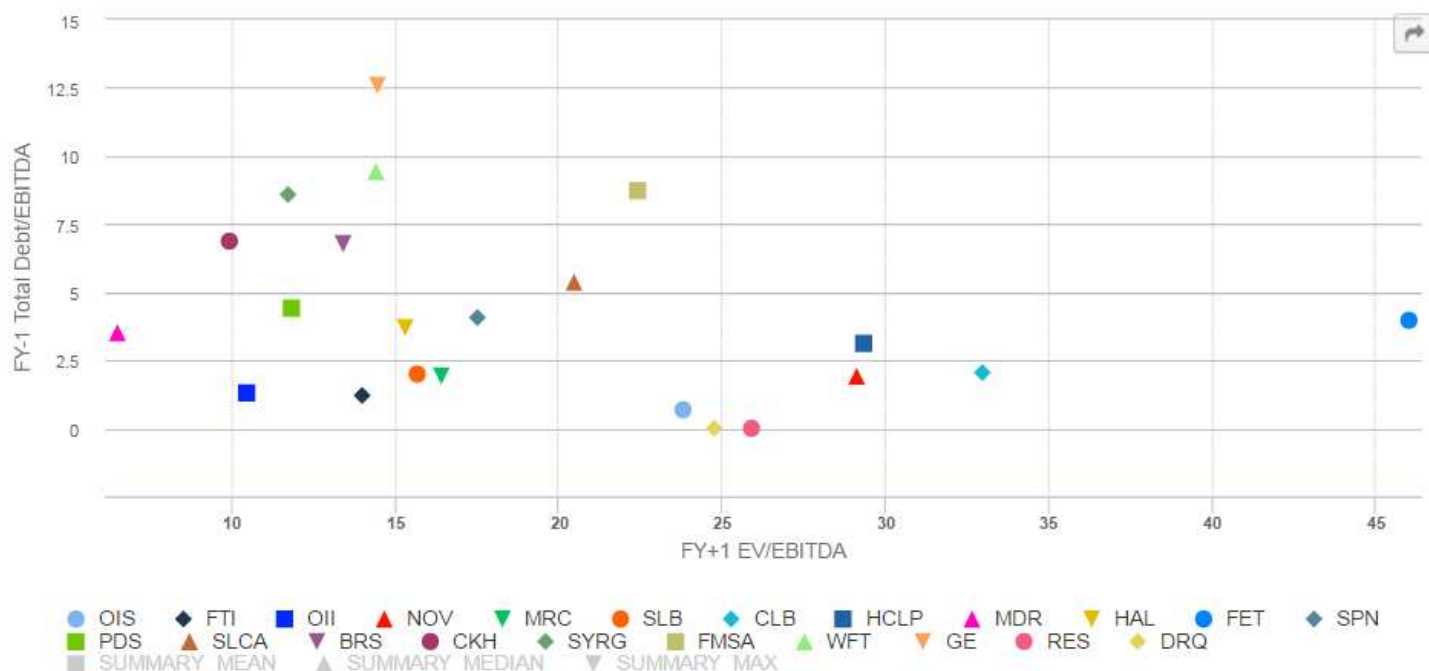
EV/EBITDA, EV/Revenues, EBITDA margins and looking at debt levels with balance sheet ratios will all be appropriate in analyzing this group. The stocks are trading quite rich to historical EV/EBITDA around 8.5X. The group currently has an average EV/EBITDA of 19.4X, EV/Sales 3.6X, EBITDA margins 15.9%, Debt/EBITDA at 4.2X and ROE of -2.4%.

The four names trading under 20X EBITDA with Debt/EBITDA below 2X are **Oceaneering (OII), Schlumberger (SLB), FMC Tech (FTI) and MRC Global (MRC)**. SLB is also an EBITDA margin leader at 25%, though at 4X EV/Sales is priced more aggressively than peers. **FTI and OII** both stick out as cheap on EV/Sales with average to above-average EBITDA margins. **Forum (FET)** screens as a lower quality name rich at 46X EBITDA, leveraged at 4X Debt/EBITDA, and with ROE -6% and EBITDA margins weak at 6.7%.

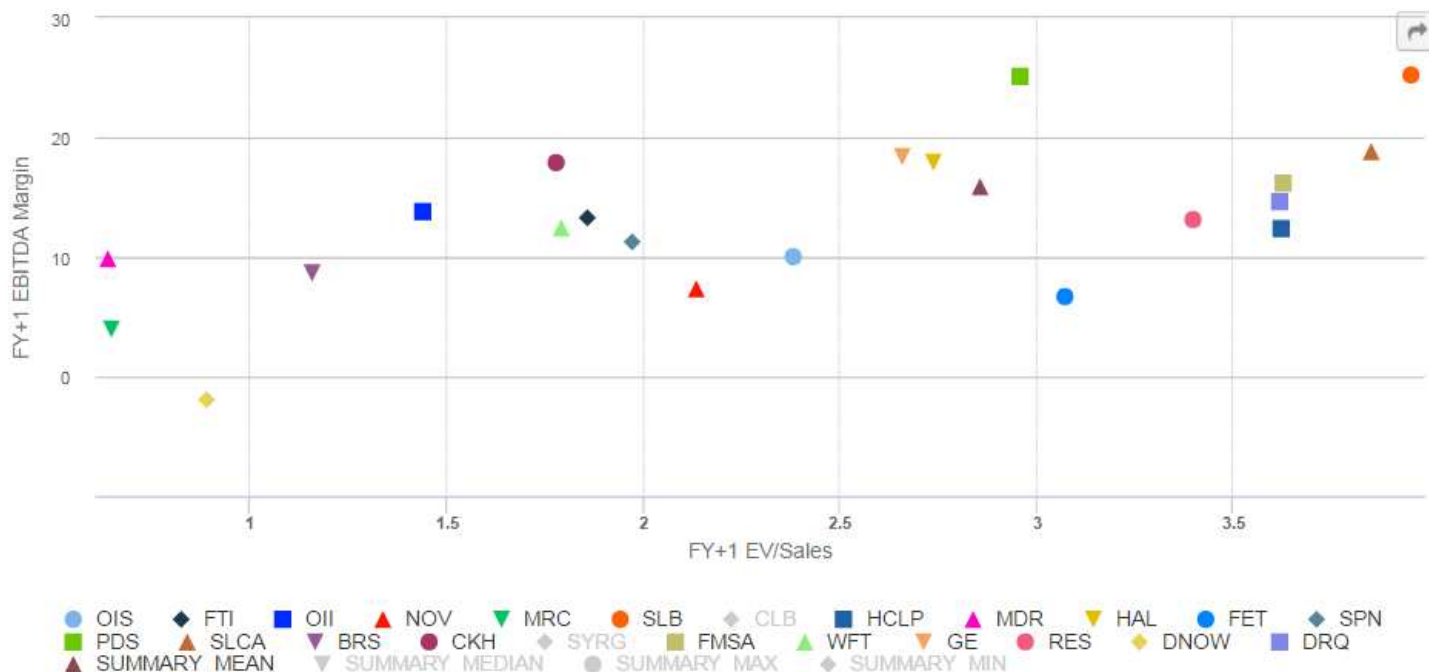
Oilfield Services & Equipment EV/EBITDA Multiples



EV/EBITDA versus Debt/EBITDA



EV/Sales vs/ EBITDA Margins



Pipelines/Midstream - MLP's:

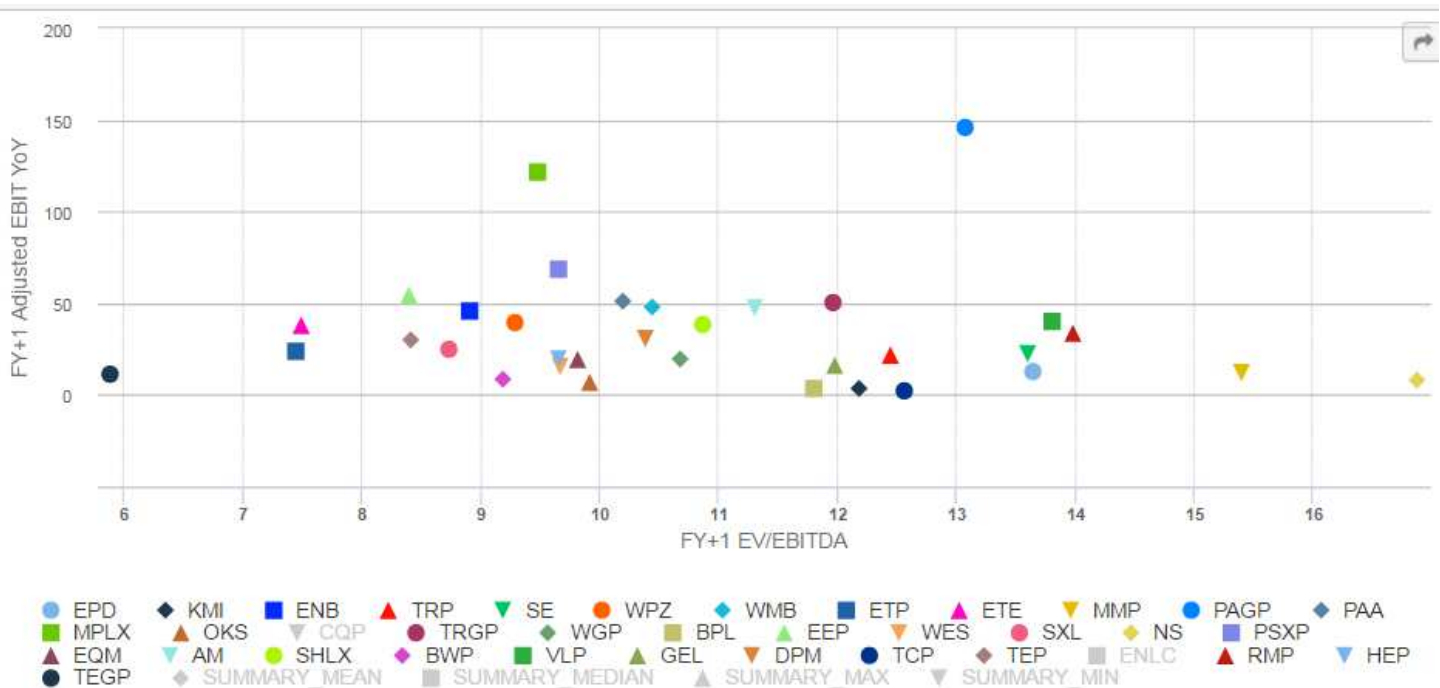
Components: *AM, BPL, BWP, DPM, EEP, ENB, ENLC, EPD, EQM, ETE, ETP, GEL, HEP, KMI, LNG, MMP, MPLX, NS, OKS, PAA, PAGP, RMP, S E, SHLX, SXL, TCP, TEGP, TEP, TRGP, TRP, VLP, WES, WGP, WMB, WPZ, PSXP*

The midstream energy group consists mainly of MLP's and traditional EBITDA-based multiples are often used to value the companies, and a group where dividend yield plays a larger role for investors and take into considering distribution history and growth. Similar to the other Energy-based industries, the underlying commodity determines much of the movements of these stocks as it impacts the demand for midstream operations, and as we saw earlier in 2016 when credit was a concern in the Energy industry from weak prices, much of this group sold off sharply. The Distributable Cash Flow Coverage ratio is one way to evaluate the health of a MLP.

Of the 37 components, the average current EV/EBITDA multiple for FY17 us 11X, ROE of 14.2%, and 5.6X Debt/EBITDA. The names with flat to positive Y/Y distribution growth as well as a Coverage Ratio > 1 are shown below (via MLPData.com)

Commodity	Value Chain	Ticker	LP/GP	Name	YoY Dist Growth -	Price/DCF	WTD	MTD	YTD	TTM	Dist Yield
Oil	Refining	TEP	LP	Tallgrass Energy Partners	32.50%	14.72	-0.15%	3.52%	20.64%	10.65%	6.79%
Oil	Refining	PSXP	LP	Phillips 66 Partners LP	24.07%	21.08	3.30%	1.31%	-23.85%	-21.04%	4.73%
Oil	Refining	TLLP	LP	Tesoro Logistics LP	16.67%	13.51	5.16%	0.87%	0.53%	-1.16%	7.40%
Oil	Refining	SRLP	LP	Sprague Resources LP	11.94%	10.6	3.02%	-1.16%	28.95%	14.99%	9.43%
Oil	Refining	SXL	LP	Sunoco Logistics Partners LP	11.35%	11.66	-9.20%	-5.27%	0.23%	-10.06%	8.58%
Oil	Refining	MMP	LP	Magellan Midstream Partners	9.84%	20.73	2.94%	3.29%	7.02%	14.23%	4.82%
Oil	Refining	MPLX	LP	MPLX LP	9.57%	16.31	1.94%	0.28%	-9.41%	-10.61%	6.13%
Oil	Refining	SE	GP	Spectra Energy Corp	9.46%	25.76	1.38%	0.78%	81.08%	60.62%	3.88%
Oil	Refining	GEL	LP	Genesis Energy LP	9.38%	12.24	0.47%	-1.86%	0.70%	-6.95%	8.17%
Oil	Refining	WES	LP	Western Gas Partners LP	9.03%	16.75	-0.30%	2.68%	26.07%	22.16%	5.97%
Oil	Refining	HEP	LP	Holly Energy Partners LP	7.21%	13.89	8.93%	8.22%	13.62%	6.57%	7.20%
Oil	Refining	TLP	LP	Transmontaigne Partners LP	5.26%	15.36	3.12%	10.23%	70.96%	88.27%	6.51%
Oil	Refining	BPL	LP	Buckeye Partners LP	4.26%	13.28	0.87%	2.70%	5.95%	4.06%	7.53%
Oil	Refining	NS	LP	NuStar Energy L.P.	0.00%	10.76	-0.15%	2.15%	28.40%	25.86%	9.30%
Oil	Refining	USAC	LP	USA Compression Partners LP	0.00%	8.55	-2.60%	-3.12%	74.59%	33.47%	11.69%
Oil	Refining	BWP	LP	Boardwalk Pipeline Partners LP	0.00%	42.47	-0.29%	-0.70%	33.98%	36.39%	2.35%
Oil	Refining	ENLC	GP	EnLink Midstream, LLC	0.00%	17.7	1.12%	18.36%	26.38%	8.60%	5.65%
Oil	Refining	ENBL	LP	Enable Midstream Partners	0.00%	11.58	-9.52%	2.23%	73.93%	66.51%	8.62%
Oil	Refining	ENLK	LP	EnLink Midstream Partners LP	0.00%	11.33	0.63%	6.57%	16.04%	27.00%	8.82%
Oil	Refining	WPZ	LP	Williams Partners LP	0.00%	10.88	1.76%	5.61%	44.99%	41.19%	9.19%
Oil	Refining	OXS	LP	ONEOK Partners LP	0.00%	13.04	0.07%	3.67%	47.23%	47.13%	7.67%
Oil	Refining	BKEP	LP	Blueknight Energy Partners LP	0.00%	11.47	4.72%	16.15%	28.65%	18.72%	8.72%
Oil	Refining	TRGP	GP	Targa Resources Corp	0.00%	14.27	2.97%	18.31%	105.40%	37.00%	7.01%

EV/EBITDA versus FY+1 Y/Y EBIT Growth



Taking into account all of the valuation, growth, balance sheet, and distribution metrics, the names that screen the best for this group are **Phillips 66 Partners (PSXP)**, **Tallgrass Energy Partners (TEP)**, **Sunoco Logistics (SXL)**, and **Western Gas Partners (WES)**.

Refiners (Downstream):

Components: *ALDW, ALJ, CLMT, CVI, DK, HFC, INT, MPC, PARR, PBF, PSX, SUN, TSO, VLO, VVV*

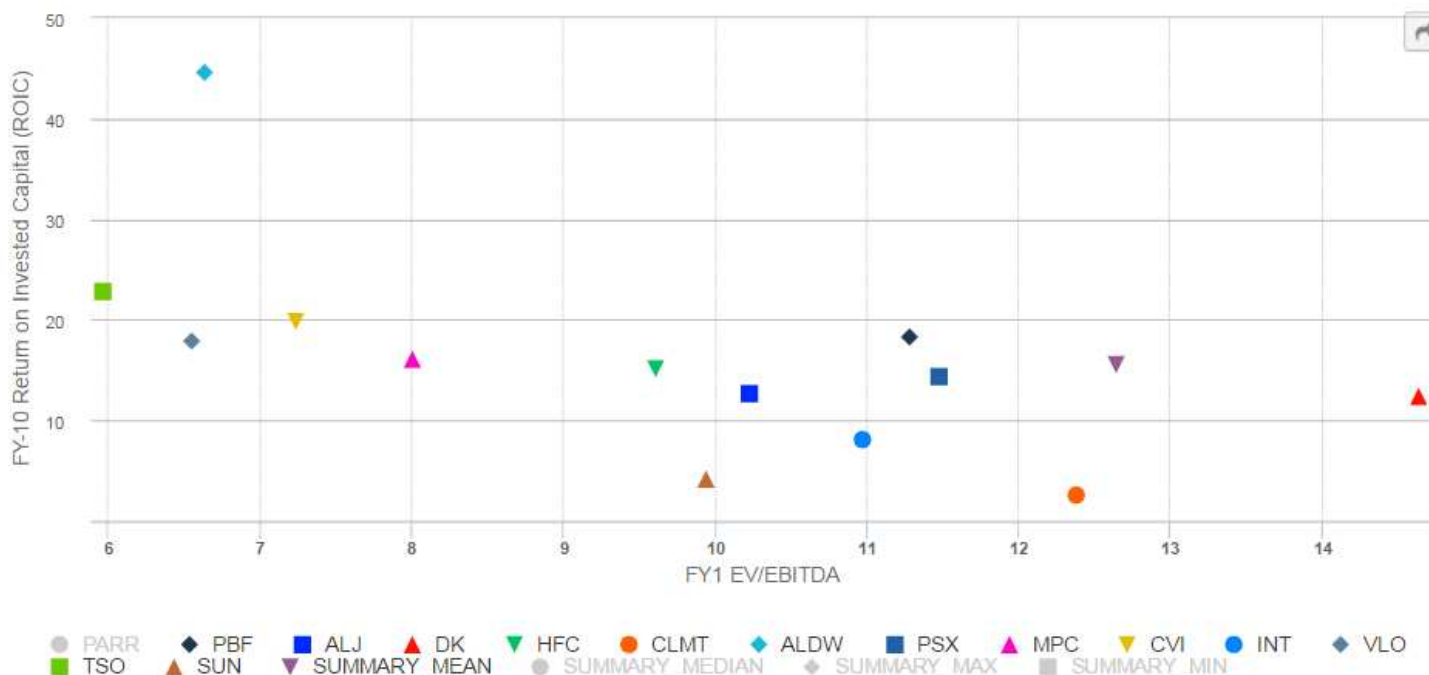
The refining group is one of the smaller ones and has always been one of the more correlated, the names tend to move together in multi-day trend moves, and much of it is tied to the crack spreads, the price of selected finished products

minus the total barrels of crude needed to create those products. The crack spread benchmarks differ across various regions, and I provided a useful table below. It is a group that is great to trade, but less alluring to invest with the ever-changing margins leading to very inconsistent and volatile earnings. It is also a group where geographical presence is important due to the differing prices from supply/demand in different regions of the US, and the World for that matter. Every Wednesday the EIA releases oil demand and inventory data that can gauge US refined products demand, an indicator worth paying attention to for trading this space. Another metric in refining is the Nelson Complexity Index, which assigns a number to the complexity of a certain physical or chemical process, and scores the refinery on how much crude can be run by those complex processes in relation to the facility's overall processing capacity, the higher the number the better. The numbers for the larger players are provided in a table below. Cost efficiency is also extremely important in this group as the companies have little pricing control, so refinery utilization is often a number observed as well as operational costs per barrel of produced product, and this data is also provided below. Levered FCF Margin and ROIC are two key metrics for this group as overall industry dynamics leave little room for income/revenue growth, so cash flow generation is important.

The group has seen a few deals, as recent as 11-17 Tesoro (TSO) made a \$6.4B offer for Western Refining (WNR), and this following Western Refining (WNR) buying Northern Tier (NTI) for \$2.52B in October.

Among the names in this group, **Philips 66 (PSX)** and **Marathon Petro (MPC)** look to be the most attractive large caps, both with lower operational costs. **CVR Energy (CVI)** is an attractive small cap with low operational costs and strong utilization. **TSO** is cheap on EV/EBITDA with a high ROIC and low operational costs, but its utilization rates are a concern, though the recent deal for Western Refining (WNR) could make it a much more attractive play.

EV/EBITDA versus ROIC



Company	Nelson Complexity Index	Company	Refinery Utilization	Operational Costs Per Barrel of Produced Product
Valero	11.1	Valero	92%	\$8.75
Phillips 66	11.4	Phillips 66	84%	\$6.64
Marathon Petroleum	11.6	Marathon Petroleum	97%	\$6.47
Tesoro	9.5	Tesoro	82%	\$6.51
PBF Energy	11.7*	PBF Energy	86%	\$7.43
HollyFrontier	12.1	HollyFrontier	94%	\$7.47
CVR Refining LP	11.5	CVR Refining LP	117%	\$6.18
Western Refining	8.2	Western Refining	110%	\$6.59
Alon USA Energy	9.4	Alon USA Energy	93%	\$5.77
Delek US Holdings	9.2	Delek US Holdings	64%	\$7.02
Northern Tier Energy LP	11.5	Northern Tier Energy LP	96%	\$5.81

Renewable Energy:

Components: AEIS,CREE,FSLR,HASI,ITRI,NEP,NYLD,ORA,PEGI,SPWR,TPIC,TSLA,VECO

This group does not feature a lot of names and it was a rough year for many of the names now trading at small market caps. Heading into 2017 things are not looking all that attractive either with the new administration not very friendly towards alternative energy. In this group we have a hodgepodge of Solar, Smart Grid, Electric Vehicle, LED Lighting, Utility and Wind Power related stocks. It is such a diverse group that each name really had to be looked at individually as the comparable analysis is not ideal.

The recent numbers out of the solar sector have been terrible with leader FSLR cutting guidance multiple times, so an area I continue to avoid. A report out in November showed investment in renewable energy is down 15% this year and likely peaked for at least 5 years in 2015. Renewables have mainly been used for electricity generation, and the next frontier will be expanding usage to industrials, building, and transportation sectors. Yuan-Sheng Yu of Lux Research expects energy generation from renewables to essentially flat line under Trump, growing just 2.3% through 2024. Much of the renewable energy trade in 2017 will be based on how the new administration deals with tax credits in the space. A glimmer of hope for the industry is the promise of \$500B in infrastructure investment that could modernize the US electrical infrastructure, and eliminate the power-grid constrains that impede long-term growth for renewable sources. The IEA released a more promising report on 11-22 expecting wind and solar to be clear winners over the next 25 years in Energy.

In terms of performance in 2016, the top names were AEIS at +99%, ITRI at +80%, ORA at +35.5%, and VECO at +30%. **AEIS** is a name that immediately sticks out as it is one that always posts fantastic earnings numbers, and still only trades 18X Earnings. AEIS is diversified with exposure to various industries. ITRI is a \$2.51B provider of metering solutions that trades 22.5X Earnings and 23.4X FCF. NEP is a \$1.41B operator of clean energy projects trading 16X Earnings and 0.68X Book with a 5.25% yield that offers nice exposure to the group while collecting a healthy dividend.

TPI Composites (TPIC) is a more risky small cap with a \$500M market cap that makes wind blades and components, and at 7X EV/EBITDA it screens fairly cheap, though low margins and Debt/EBITDA at 3.5X concerning.

Cree (CREE) remains interesting at \$2.56B market cap as a leader in LED lighting, though margins always the issue with increasing competition. Shares have been basing above the \$21 level for two years and has a cash-rich balance sheet with minimal debt and short interest has been coming down. CREE is expected to return to double digit revenue growth 4 quarters from now, so may be a nice story for later in 2017 as it rerates.

Consumer Goods: *The outlook for the consumer goods sector in 2017 is mixed. On one hand the sharp rise in bond yields is making the consumer goods (XLP) group look less attractive with many names peaking in June at historically high valuations. A reflationary environment favors a rotation away from low volatility and dividend names. On the other hand, a change to tax policy to put more money back into consumers' pockets can spur spending and boost the discretionary plays. The group remains rich on valuation consider low growth and margins.*

Truck and Auto Related:

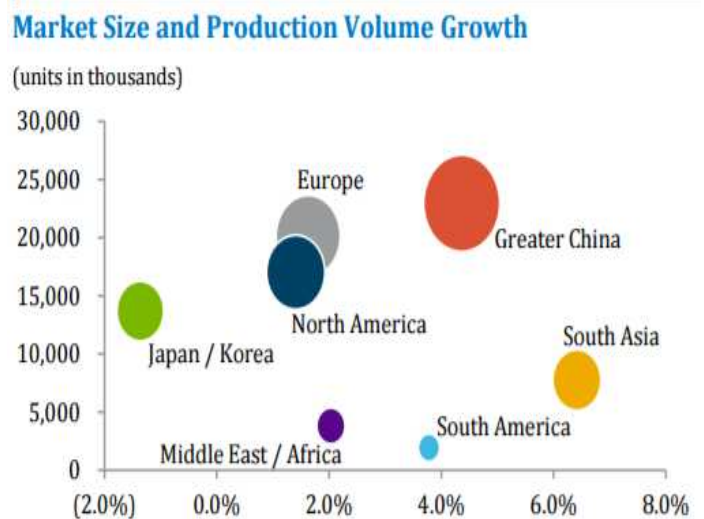
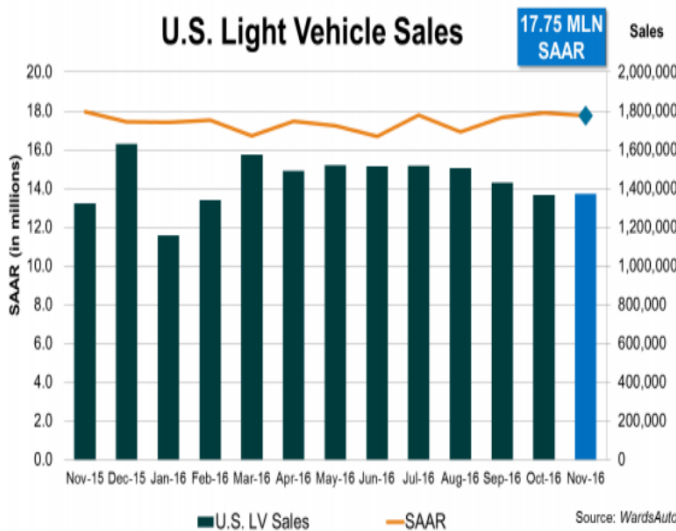
Components: *ADNT, ALSN, ALV, AN, BWA, CMI, CPRT, CTB, DAN, DLPH, DORM, DW, F, FCAU, GM, GNTX, GPC, GPI, GT, HOG, HY, KAR, KMX, LAD, LEA, LKQ, MGA, MNRO, NAV, OSK, PAG, PATK, PCAR, PII, RACE, RBA, TEN, THO, THRM, TTM, VC, WBC, WGO*

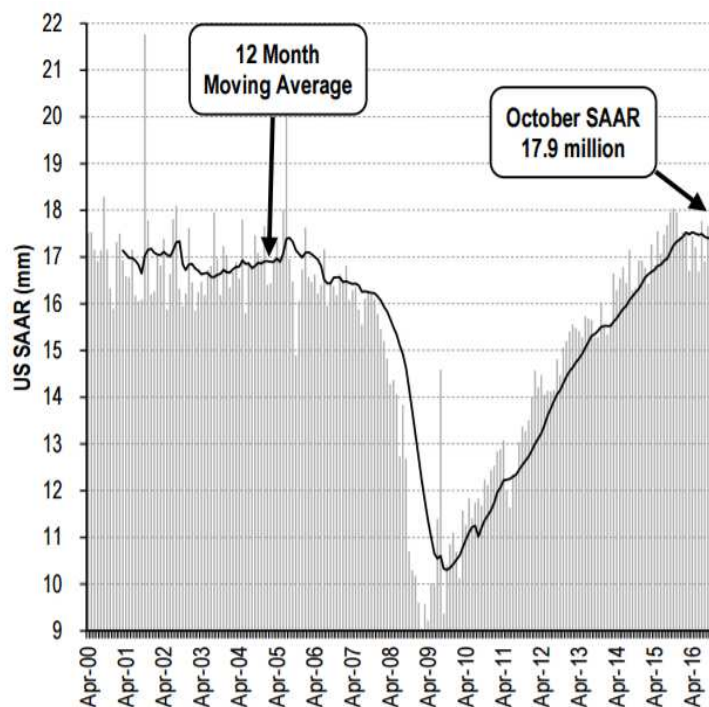
This group I compiled has a few industries wrapped under the same Truck & Auto theme, so we have Auto Dealerships, Auto Manufacturers, Auto Parts, Recreational Vehicles, and lastly the Heavy Truck makers. The top performers in this group for 2016 were the RV related plays (THO +85%, DW +75%, WGO +70%) and the Heavy Truck related plays (NAV +250%, OSK +83%, CMI +68%, PCAR +35%). The latter is a bit of a surprise considering all of the cautious commentary about the North American Trucking Cycle hitting a peak last summer.

We can return to more traditional valuation metrics for this group like EV/EBITDA, P/E, and P/OCF while also taking into account debt coverage ratios, inventory turnover, and operational efficiency ratios in a highlight competitive industry with high capital expenditures such as gross margins, ROIC and ROE. Specific to the auto dealerships, same store sales trends is a required metric.

Industry data is also very important in timing investments in this group with the cyclical nature of auto production levels, so taking into account gasoline prices, consumer financial health, and overall state of the economy are a must. Government regulations, such as CAFÉ mandates will require automakers to invest in technology to improve fuel efficiency and reduce emissions, set to rise to 55mpg in 2025 from 38.6mpg in 2016. Safety features and connected car are also top themes in this industry with Automaker becoming pseudo-tech companies. Autonomous vehicles is another major theme that is set to change the automotive landscape.

SAAR, seasonally adjusted annualized sales rate, is often used to evaluate the auto industry, and the latest data in November showed strong truck demand, while overall SAAR is flat Y/Y in 2016 versus 2015, and December will determine if a new sales record is achieved. While sales are relatively flattening in the US, the opportunity in China and Emerging Markets is key for automakers. The mix has been a big shift in 2016 as seen below with cars losing sales and trucks gaining. Pricing data is showing average transaction prices slowing and incentives creeping up, as well as rising inventories, a few red flag indicators.



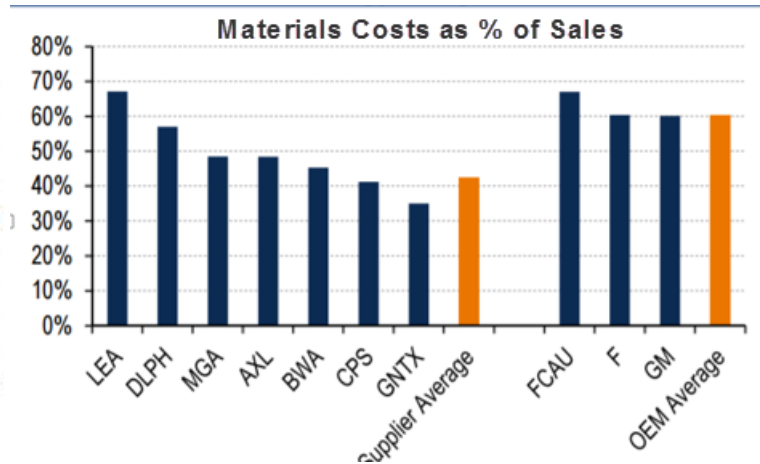


The auto dealerships is the first group to look at and the online auction players having much healthier margins and growth, and although **Copart (CPRT)** is the leader in margins, ROE and ROIC with the healthiest balance sheet, though it also trades at a 33% premium to **KAR Auction (KAR)** which is attractive at 9X EV/EBITDA with 41.9% margins, ROIC 9.2%, and ROE 20.8%. In the more traditional dealerships, **Asbury Auto (ABG)** stands out as cheap at 9X EV/EBITDA and 9X Earnings with leading margins and ROIC, though revenue growth not as attractive as a **Lithia Motors (LAD)**, and **Auto-Nation (AN)** a leader that is most undervalued with the strongest balance sheet, so I favor the latter.

Company	Current Market Cap	FY2 EV/EBITDA	FY2 P/E	FY1 Normalized EPS YoY	FY2 Normalized EPS YoY	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Gross Margin	FY1 Return on Equity (ROE)	FY-10 Return on Invested Capital	FY-10 Total Debt/EBITDA	
CPRT (Copart Inc)	X	6,232	12.3x	20.04x	11.0%	10.5%	10.9%	5.6%	44.2%	32.5%	18.4%	1.4x
KAR (Kar Auction Services, Inc.)	X	5,759	9.5x	17.45x	38.2%	14.6%	16.5%	7.7%	41.9%	20.8%	9.1%	2.9x
AN (Autonation, Inc.)	X	4,515	8.3x	10.44x	1.6%	6.5%	4.0%	3.8%	15.5%	17.9%	9.9%	3.5x
PAG (Penske Automotive Group, Inc.)	X	4,358	13.7x	12.04x	6.4%	8.8%	4.6%	2.3%	14.7%	18.4%	6.3%	7.2x
RBA (Ritchie Bros Auctioneers Inc)	X	3,973	16.5x	28.11x	(0.6%)	11.3%	9.7%	5.9%	88.4%	16.6%	15.8%	0.5x
LAD (Lithia Motors Inc)	X	2,278	10.3x	10.92x	0.1%	11.3%	10.3%	10.4%	14.9%	17.5%	8.8%	5.4x
GPI (Group 1 Automotive Inc)	X	1,561	11.1x	9.50x	25.5%	4.5%	2.6%	1.5%	14.6%	16.5%	5.0%	6.8x
ABG (Asbury Automotive Group Inc)	X	1,261	9.2x	8.96x	6.5%	6.5%	(1.8%)	2.3%	16.3%	45.8%	9.2%	5.3x
SAH (Sonic Automotive Inc)	X	940	11.0x	9.68x	1.7%	9.5%	0.6%	2.9%	14.7%	12.4%	5.0%	7.7x
CRMT (Americas Carmart Inc)	X	355	9.9x	13.11x	116.4%	17.3%	18.3%	3.6%	40.7%	9.9%	4.2%	--
Mean		3,123	11.2x	14.03x	20.7%	10.1%	7.6%	4.6%	30.6%	20.8%	9.2%	4.5x

For the large auto manufacturers **General Motors (GM)** is the best value while also having near best of call ROE and the strongest ROIC at 14.6% while offering a 4.29% yield. **Ferrari (RACE)** is the other favorite name as a growth investor, a luxury brand, so trades 12.8X EV/EBITDA which is well above the 6.3X average. RACE is set to deliver 8% EPS growth and 6% revenue growth next year in an industry lacking much growth, and an impressive ROIC at 11.4% with gross margins of 49.7% comparing to the industry average of 18.8%.

Company	Current Market Cap	FY2 EV/EBITDA	FY2 P/E	FY1 Normalized EPS YoY	FY2 Normalized EPS YoY	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Gross Margin	FY1 Return on Equity (ROE)	FY-10 Return on Invested Capital	FY-10 Total Debt/EBITDA	
TM (Toyota Motor Corporation)	X	179,581	7.8x	10.88x	62.6%	1.0%	(5.1%)	0.9%	16.7%	10.1%	5.5%	4.1x
GM (General Motors Co)	X	53,992	2.1x	6.20x	0.5%	(5.0%)	7.0%	(1.3%)	14.4%	22.8%	14.6%	4.7x
HMC (Honda Motor Co Ltd)	X	52,933	6.9x	11.23x	45.5%	5.7%	(11.1%)	1.3%	3.1%	6.7%	2.3%	5.7x
F (Ford Motor Co)	X	48,640	6.4x	7.46x	(6.1%)	(9.4%)	(4.7%)	(0.3%)	13.1%	25.0%	3.2%	8.2x
FCAU (Fiat Chrysler Automobiles N.V.)	X	11,628	1.6x	3.66x	--	20.1%	3.5%	3.6%	15.5%	14.7%	1.9%	3.4x
RACE (Ferrari N.V.)	X	10,219	12.8x	22.68x	32.2%	8.3%	4.9%	6.2%	49.7%	258.8%	11.4%	3.1x
Mean		59,499	6.3x	10.35x	27.0%	3.5%	(0.9%)	1.7%	18.8%	56.4%	6.5%	4.9x



In the Recreational Vehicle group we have seen strong moves with very strong business trends for the RV plays specifically. **Winnebago (WGO)** looks extremely cheap at 4.9X EV/EBITDA compared to an 8.6X peer average while delivering 36% EPS growth this year and 22.5% next year with an 18.5% ROIC and clean balance sheet. **Brunswick (BC)**, which gets around 80% of revenues from its Marine/Boat segment, is cheap at 6.9X EV/EBITDA with double digit EPS growth, gross margins well above peers at 27.3%, ROIC of 18% and a healthy balance sheet. **Thor (THO)**, a name that has risen more than 80% YTD, looks rich at 8.8X EV/EBITDA and poor margins and ROE while set to face difficult comps in 2017. A name set to face much easier comps in 2017 that could come back into favor is **Polaris (PII)**, a very well-run company with 0.5X Debt/EBITDA and best of class ROIC of 37.6%. **Patrick Industries (PATK)** is a small cap supplier to the industry with very impressive growth and a 22% ROIC.

Company	Current Market Cap	FY2 EV/EBITDA	FY2 P/E	FY1 Normalized EPS YoY	FY2 Normalized EPS YoY	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Gross Margin	FY1 Return on Equity (ROE)	FY-10 Return on Invested Capital	FY-10 Total Debt/EBITDA	
HOG (Harley Davidson Inc)	X	10,555	12.2x	14.19x	5.1%	8.5%	(11.4%)	2.1%	35.5%	37.7%	8.8%	5.1x
PII (Polaris Industries Inc.)	X	5,603	8.1x	16.63x	(48.5%)	51.5%	(7.3%)	19.7%	24.3%	26.7%	37.6%	0.5x
THO (Thor Industries Inc)	X	5,336	8.8x	14.62x	25.4%	10.2%	47.3%	7.1%	14.7%	2.3%	19.2%	0.8x
BC (Brunswick Corp)	X	4,563	6.9x	12.78x	38.5%	14.7%	9.9%	6.8%	27.3%	23.6%	18.3%	1.0x
DW (Drew Industries Inc)	X	2,552	9.2x	17.89x	69.5%	13.3%	16.7%	10.0%	25.8%	26.1%	17.5%	0.3x
PATK (Patrick Industries Inc)	X	1,063	10.3x	16.71x	31.5%	15.8%	30.4%	9.4%	16.7%	34.7%	16.7%	2.4x
WGO (Winnebago Industries Inc)	X	899	4.9x	11.78x	36.1%	22.5%	44.1%	14.7%	13.6%	20.6%	18.5%	0.0x
Mean		4,368	8.6x	14.94x	22.5%	19.5%	18.5%	10.0%	22.5%	24.5%	19.5%	1.4x

The auto parts segment can further be broken down into specific focuses which each trade at different historical multiples. The interior includes names like LEA and ADNT, Fluid/Air Systems is TEN, Body & Chassis with DAN, AXL and MGA, Powertrain with BWA, SAFETY/Electronics are DLPH, GNTX, MEI, VC, THRM, and ALV, and Aftermarket are FDML, SMP, DORM, MPAA, and LKQ.

Tenneco (TEN) is a favorite value play in the group at 4.8X EV/EBITDA and 9X Earnings with double digit EPS growth, and impressive ROE and ROIC at 59.8% and 24.1% respectively. TEN also plays on the emission control theme. Magna (MGA) is a large cap trading very cheap on valuation and set to see accelerating growth while also potential to eventually work with Apple or Uber on a car.

Delphi (DLPH), more in the electronic and safety space, is also an attractive large cap at 7X EV/EBITDA, and positive EPS/Revenue growth with leading ROE and ROIC.

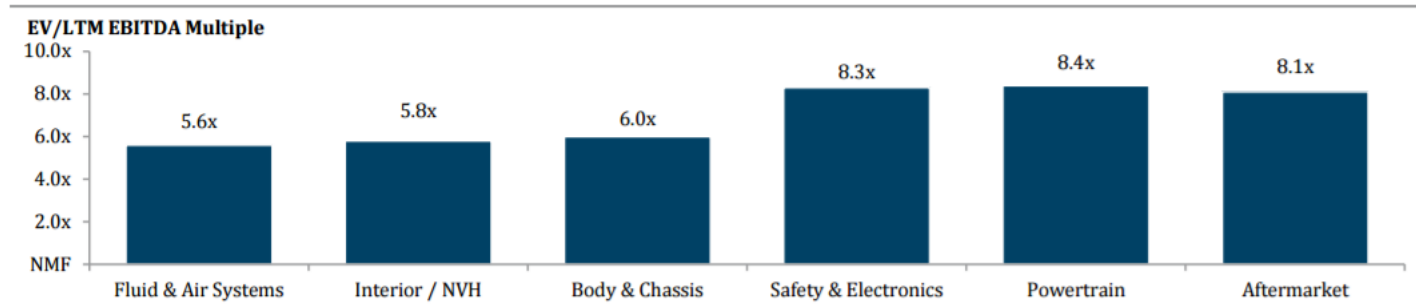
LKQ (LKQ) is the preferred after-market play, and though it trades at premium valuation, it is the top growth play in the group, while **Dorman (DORM)** a smaller cap play with no debt and solid metrics as well.

Adient (ADNT), a spin-off from Johnson Controls (JCI) focused on interior, is the only name with notable options positioning, the April \$50 calls with 11,500X in open interest from buyers.

Douglas Dynamics (PLOW) is a small cap at \$715M market cap that looks rich at 11X EBITDA with uninspiring metrics, but as a play on snow/ice is susceptible to the weather for earnings volatility.

Company	Current Market Cap	FY2 EV/EBITDA	FY2 P/E	FY1 Normalized EPS YoY	FY2 Normalized EPS YoY	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Gross Margin	FY1 Return on Equity (ROE)	FY-10 Return on Invested Capital	FY-10 Total Debt/EBITDA	
DLPH (Delphi Automotive Plc)	X	17,258	7.0x	9.80x	19.3%	7.4%	8.7%	3.4%	21.0%	62.1%	29.0%	1.6x
MGA (Magna International Inc)	X	16,237	4.7x	7.17x	19.0%	11.6%	13.3%	4.5%	14.4%	22.2%	17.4%	0.8x
LKQ (Lkq Corp)	X	9,914	10.7x	15.64x	27.7%	13.9%	25.7%	12.2%	37.8%	14.7%	10.3%	1.9x
LEA (Lear Corp)	X	9,179	5.0x	8.96x	31.5%	6.6%	2.5%	3.9%	11.6%	32.3%	19.9%	1.3x
ALV (Autoliv Inc)	X	9,056	7.1x	14.37x	31.0%	5.5%	10.8%	6.0%	20.5%	16.2%	12.1%	1.5x
GT (Goodyear Tire & Rubber Co /Ohv)	X	7,772	4.8x	6.84x	49.8%	10.5%	(7.0%)	2.5%	27.7%	24.9%	10.5%	2.6x
BWA (Borgwarner Inc)	X	7,682	6.3x	10.16x	9.6%	8.9%	13.8%	3.3%	22.0%	19.0%	13.0%	1.9x
WBC (Wabco Holdings Inc.)	X	5,639	11.0x	16.74x	(1.6%)	5.9%	6.7%	5.1%	28.3%	38.3%	29.6%	1.2x
GNTX (Gentex Corp)	X	5,338	7.4x	14.19x	12.5%	8.6%	9.9%	8.0%	39.6%	19.9%	16.8%	0.4x
TEN (Tenneco Inc)	X	3,240	4.8x	8.97x	18.0%	11.1%	4.0%	4.9%	16.8%	59.8%	24.1%	1.5x
VC (Visteon Corp)	X	2,715	6.3x	16.32x	182.0%	2.4%	(3.9%)	2.9%	14.6%	18.4%	13.8%	1.0x
DORM (Dorman Products, Inc.)	X	2,521	12.2x	22.03x	15.8%	9.9%	6.4%	8.3%	38.9%	18.7%	18.8%	0.0x
DAN (Dana Inc)	X	2,480	4.9x	9.27x	46.0%	6.3%	(4.8%)	3.7%	14.6%	33.2%	13.7%	2.5x
CPS (Cooper-Standard Holdings Inc.)	X	1,694	4.7x	8.75x	14.6%	6.2%	2.8%	3.3%	19.1%	25.4%	10.7%	2.1x
AXL (American Axle & Manufacturin...)	X	1,208	3.6x	5.13x	3.8%	(2.0%)	1.6%	2.9%	17.8%	57.2%	18.7%	2.5x
SMP (Standard Motor Products Inc)	X	1,157	9.6x	15.31x	38.1%	15.5%	9.3%	6.0%	31.3%	15.1%	11.7%	0.5x
THRM (Gentherm Inc)	X	1,114	7.1x	12.49x	(6.2%)	7.9%	7.2%	7.3%	31.9%	20.3%	20.7%	0.6x
PLOW (Douglas Dynamics, Inc)	X	717	11.1x	19.99x	(30.3%)	19.3%	4.3%	16.1%	31.8%	18.3%	13.8%	2.1x
Mean		5,829	7.1x	12.34x	26.7%	8.6%	6.2%	5.8%	24.4%	28.7%	16.9%	1.4x

EBITDA Multiples by Sub-Segment

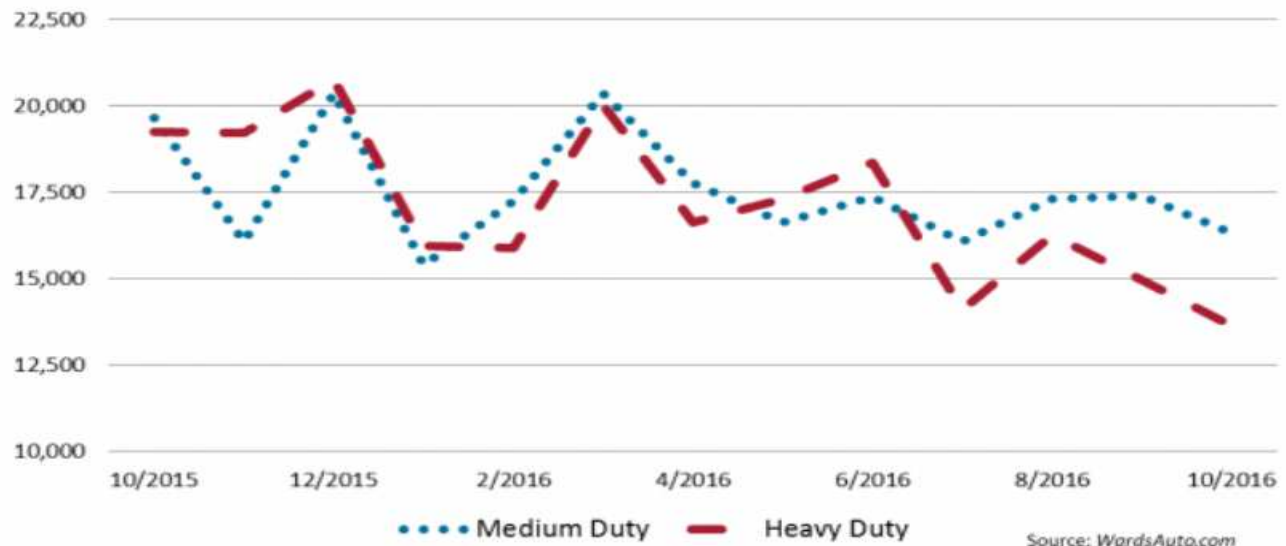


The medium and heavy truck group is fairly small for names with a major focus, though a lot of Industrials have a role, such as Eaton (ETN) with 18% exposure to Vehicle as a leader in fuel economy and emission reduction. Ametek (AME) is a leader in dashboard instruments for heavy trucks, Idex (IEX) exposure to powertrains for medium & heavy trucks, Donaldson with engines, and Parker Hannifin (PH) with hydraulic transmissions. These names will be covered later in Industrials as there are many business segments.

Oshkosh (OSK) is one of the healthier names in the group with exposure to a variety of areas and shares up more than 80% this year. **Cummins (CMI)** is the ROIC leader at 19.3% and also with 3,000 March \$150/\$160 call spreads recently bought as the Company plans to sell its filtration business. **PACCAR (PCAR)** trades at a premium 12.4X EBITDA and 19.5X earnings, but looks underserved considering weak growth and industry-worst margins. **Navistar (NAV)** has been a big winner this year with a major turnaround after Volkswagen bought a 16.6% stake, and many think it eventually is fully acquired. Overall, **Cummins (CMI) and Oshkosh (OSK)** are my favored names for 2017 in this group.

Company	Current Market Cap	FY2 EV/EBITDA	FY2 P/E	FY1 Normalized EPS YoY	FY2 Normalized EPS YoY	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Gross Margin	FY1 Return on Equity (ROE)	FY-10 Return on Invested Capital	FY-10 Total Debt/EBITDA	
CMI (Cummins Inc)	X	24,055	10.2x	18.14x	(12.6%)	(1.2%)	(9.3%)	(2.3%)	24.1%	18.6%	19.3%	0.6x
PCAR (Paccar Inc)	X	22,119	12.4x	18.10x	(13.5%)	(10.7%)	(15.6%)	(5.6%)	15.8%	21.6%	8.8%	2.7x
ALSN (Allison Transmission Holding...)	X	5,612	12.1x	24.97x	(12.0%)	17.1%	(9.3%)	1.3%	46.6%	25.0%	10.5%	3.4x
OSK (Oshkosh Corp)	X	5,189	9.8x	19.56x	6.0%	6.4%	5.4%	1.6%	16.5%	13.0%	9.7%	1.6x
NAV (Navistar International Corp)	X	2,512	10.0x	19.51x	(227.0%)	158.1%	(2.8%)	6.1%	16.4%	(1.6%)	--	--
Mean		11,897	10.9x	20.05x	(51.8%)	33.9%	(6.3%)	0.2%	23.9%	15.3%	12.1%	2.1x

U.S. Medium and Heavy Truck Sales



Food, Beverage, and Cigarettes:

Components: APFH, BGS, BUD, BUFF, CAG, CALM, CCE, COT, CPB, DEO, DPS, FIZZ, FLO, GIS, HRL, HSY, INGR, JJSF, K, KHC, KO, LANC, LNCE, LW, MGPI, MJN, MKC, MNST, MO, NTRI, PEP, PF, PM, POST, PPC, RAI, SAFM, SAM, SJM, STZ, TAP, THS, TR, TSN, TWNK, USFD, VGR

This industry has come under heavy selling pressure in 2H16 after many of the stocks hit historically high valuations due to their yield/safety appeal in a World of low yielding Bonds, but with the recent shift in bond yields, the group has become a source of funds. M&A was a big theme for the group in the early part of the year and the Mondelez (MFLZ) \$23B offer for Hershey (HSY) which failed seemed to mark a peak in activity. The US Food Industry is expected to grow at a 2.9% CAGR through 2022 according to PMMI with meat and snack foods expected to outperform. Another headwind is rising soft commodity prices that can impact margins as the group seems to have found a price bottom. One more headwind is the oncoming growth with meal kits impacting grocery store traffic, as is the impact of the push to e-commerce for food shopping.

Hershey (HSY) has 53% exposure to soft commodities, and General Mills (GIS) and Kellogg (K) each with around 13% exposure to grain prices. Packaging costs impacts Dr. Pepper (DPS) at 50%, Campbell Soup (CPB) at 31.5%, Coca Cola (CCE) at 25% and Coke (KO) at 24%.

The push towards natural and organic is one trend dominating the food industry. Health and Wellness (H&W) now accounts for 10-15% of overall sales with the following CAGR: Natural Products 11.3%, organic 12.4%, and Gluten Free at 15%, which is a large discrepancy with the 1.5% growth for traditional products. The large Food & Beverage manufacturers have spent more than \$18B in deals since 2012 in acquiring H&W companies, and estimate multiples growing to above 2X sales in Food and 3X in Beverages. The impact of new brands coming to market, as seen with over 20% of current brands available appearing within the last four years, is impacting shelf space and a competitive threat to the larger players losing market share.

Health and Wellness for Packaged Goods Companies

Company	Share			3-yr growth CAGR				M&A purchases		VC fund
	Natural	Organic	Gluten-free	Natural	Organic	Gluten-free	Overall	# acquisitions	\$ sales	
Campbell Soup Co	8.8%	2.8%	15.8%	12.0%	30.3%	5.2%	1.5%	3	\$800mn	Acre Ventures; \$125mn
Conagra Inc	2.7%	0.3%	11.3%	11.1%	15.9%	3.9%	-2.1%	1	n/a	
General Mills	4.8%	3.0%	28.8%	9.9%	7.6%	6.0%	-0.9%	4	>\$300mn	301
Hain Celestial Group	98.2%	40.4%	27.8%	7.7%	7.7%	18.3%	7.3%	6	>\$600mn	Cultivate Ventures
Kellogg Company	4.7%	1.0%	1.8%	-13.1%	-1.1%	13.1%	-2.3%	1	n/a	eighteen94 capital; \$100mn
Mondelez International Inc	0.6%	0.2%	0.7%	15.8%	0.3%	50.6%	2.3%	1	\$40mn	
Pinnacle Foods Group Llc	13.0%	0.7%	19.8%	24.5%	25.3%	7.6%	0.5%	1	\$975mn	
The Hershey Co	0.8%	0.0%	15.4%	85.0%	0.2%	3.1%	4.0%	2	\$105mn	
The Kraft Heinz Company	1.5%	0.1%	9.1%	4.7%	8.5%	-3.7%	-0.8%	0	n/a	
Treehouse Foods	2.1%	0.0%	3.2%	8.0%	-31.1%	15.2%	-5.2%	2	\$195mn	
Overall industry	6.9%	2.6%	11.9%	11.3%	12.4%	15.0%	1.5%			

Category	% new brands*	2015 sales (\$ bn)
Liquid Coffee	48.1%	2.3
Peanut Butter	38.2%	2.2
Rte Cereal	33.8%	8.7
Yogurt	31.1%	7.7
Frozen Waffles Pancakes And French Toast	30.6%	1.2
Baby Food	30.4%	1.8
Wholesome Snacks	30.1%	4.8
Liquid Tea	29.2%	0.5
Ketchup	27.6%	0.8
Salty Snacks	26.1%	26.7

*Defined as those with no sales in Nielsen xAOC in 2012

Traditional valuation metrics are useful in this group with P/E, EV/EBITDA, P/S, and EBITDA margins, while FCF/Debt is a custom ratio that has long correlated with strong stocks in this industry.

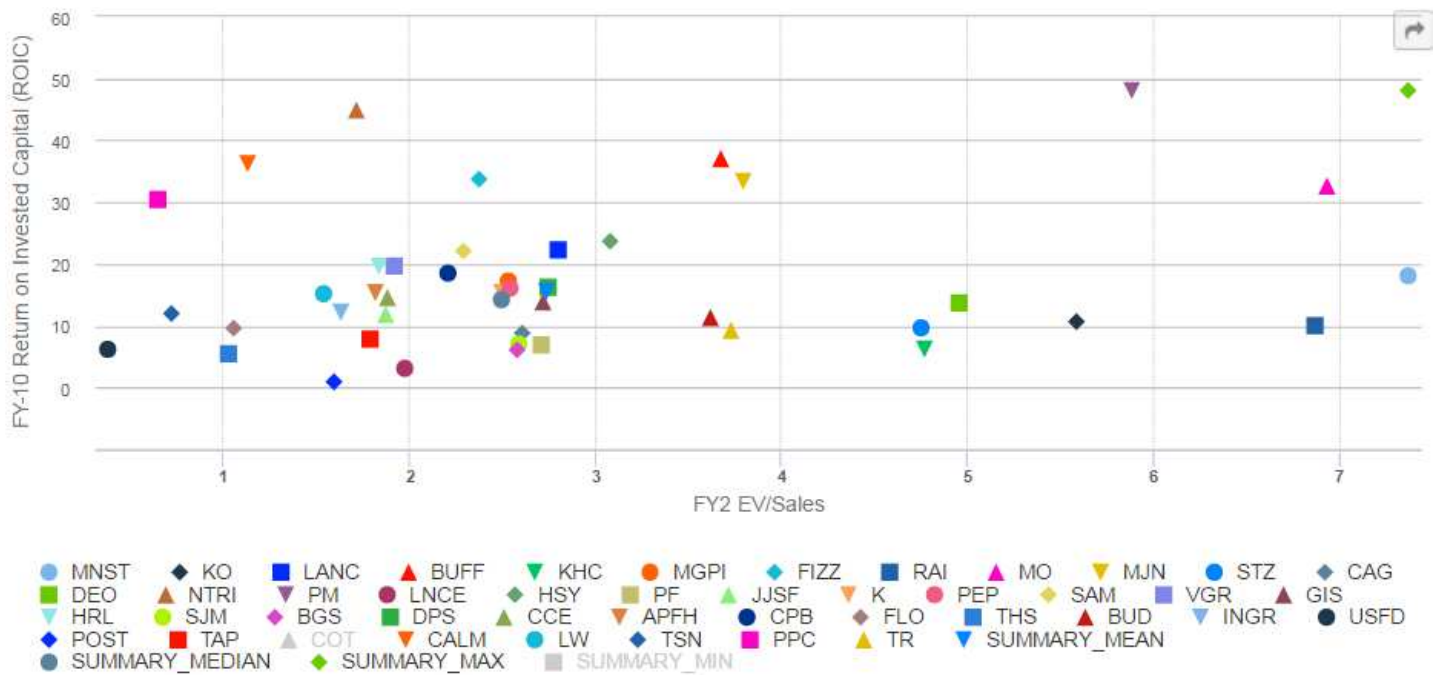
Campbell Soup (CPB), Mead Johnson (MJN), Altria (MO), Pepsi (PEP), Coca Cola (KO) and Ingredion (INGR) stand out as strong FCF/Debt ratios.

The cigarette names are the margin leaders with **Altria (MO)** the most attractive name in that group. **Monster (MNST)** is the high margin growth name in the beverage group, though trades at a healthy premium valuation already, but as a name Coca Cola (KO) has invested in, the likely eventual outcome is a full takeover. **Lancaster Colony (LANC)** is a smaller name at \$3.65B that trades at a premium valuation, but attractive metrics and could make for a nice M&A target. **Pinnacle Foods (PF)** with a \$5.7B market cap also is fairly attractive versus peers and has shown much stronger price-action during the downturn in the group. **Campbell Soup (CPB)** is a favorite large cap trading cheap to peers with strong FCF and has made nice acquisitions into the H&W area. **Ingredion (INGR)** is another name to consider at 8.9X EBITDA with 18% EBITDA margins and strong FCF. On the other side, **McCormick (MKC)** is a name at premium valuation of 14.4X EBITDA but does not carry very impressive growth/efficiency metrics.

The meat products group are the low margin names, and among those names **Sanderson Farms (SAFM)** is the best looking value.

Nutrisystem (NTRI) is an interesting small cap with shares up 70% YTD. At 1.7X Ev/Sales with double digit revenue growth and a ROIC near 45%, shares remain attractive.

EV/Sales vs. ROIC



Home Related Goods:

Components: *BC, CLX, ENR, FBHS, HELE, IRBT, KNL, LEG, LZB, NWL, POOL, SCS, SCSS, SPB, TPX, TUP, WHR*

Company	Current Price	1Year Return	Current Market Cap	FY2 P/E	FY2 EV/EBITDA	FY2 EV/Sales	FY2 Total Revenue YoY	FY2 Normalized EPS YoY	FY1 EBITDA Margin	FY-10 Return on Invested Capital	FY2 Free Cash Flow	FY2 Net Debt
NWL (Newell Brands Inc)	\$45.68	4.3%	22,036	15.29x	12.2x	2.3x	10.5%	3.6%	18.1%	14.2%	1225.30	12,078
CLX (Clorox Co /De/)	\$114.05	(9.5%)	14,683	20.07x	12.2x	2.7x	3.1%	6.7%	21.7%	28.7%	202.77	1,999
WHR (Whirlpool Corp.)	\$166.86	5.9%	12,533	10.46x	6.6x	0.8x	3.6%	12.8%	11.4%	13.8%	1099.96	4,364
FBHS (Fortune Brands Home & Sec...)	\$53.81	(2.2%)	8,303	17.26x	10.8x	1.8x	7.8%	13.9%	15.6%	11.0%	453.66	1,307
SPB (Spectrum Brands Holdings, Inc.)	\$117.30	24.7%	6,968	18.02x	9.9x	1.9x	2.9%	11.9%	19.3%	12.0%	600.29	3,345
LEG (Leggett & Platt Inc)	\$48.05	5.7%	6,423	18.27x	10.8x	1.8x	4.2%	3.5%	16.3%	17.7%	255.33	739
BC (Brunswick Corp)	\$50.88	(1.0%)	4,563	12.78x	6.9x	0.9x	6.8%	14.7%	13.0%	18.3%	303.78	14
POOL (Pool Corp)	\$99.86	22.4%	4,128	25.88x	15.0x	1.7x	6.0%	12.0%	10.8%	23.1%	141.92	360
TPX (Tempur Sealy International, Inc.)	\$63.28	(18.2%)	3,664	13.77x	9.5x	1.6x	2.9%	16.8%	16.5%	7.9%	281.40	1,596
TUP (Tupperware Brands Corp)	\$54.18	(2.3%)	2,739	11.76x	8.2x	1.5x	1.3%	6.4%	17.9%	18.7%	211.85	708
ENR (Energizer Holdings, Inc.)	\$43.98	32.5%	2,715	15.08x	9.6x	2.0x	0.9%	9.0%	20.0%	20.6%	209.29	756
HELE (Helen Of Troy Ltd)	\$83.45	(17.7%)	2,326	12.51x	11.4x	1.8x	3.4%	10.2%	14.4%	12.7%	5569.43	523
SCS (Steelcase Inc)	\$15.43	(21.8%)	1,825	11.82x	6.2x	0.6x	3.4%	22.0%	9.0%	20.5%	76.92	100
IRBT (iRobot Corp)	\$55.82	71.3%	1,515	29.63x	12.5x	1.8x	14.1%	33.8%	13.3%	10.5%	54.81	(203)
LZB (La-Z-Boy Inc)	\$29.83	11.7%	1,459	16.10x	7.9x	0.8x	5.5%	14.2%	10.2%	14.8%	62.14	(105)
KNL (Knoll Inc)	\$26.73	23.2%	1,312	14.71x	8.7x	1.2x	3.6%	7.7%	13.7%	15.3%	65.80	182
SCSS (Select Comfort Corp)	\$22.33	(4.2%)	1,003	14.43x	5.7x	0.7x	9.0%	31.3%	11.2%	21.0%	97.52	(51)
Mean	--	7.3%	5,776	16.34x	9.7x	1.5x	5.2%	13.6%	14.9%	16.5%	641.89	1,630

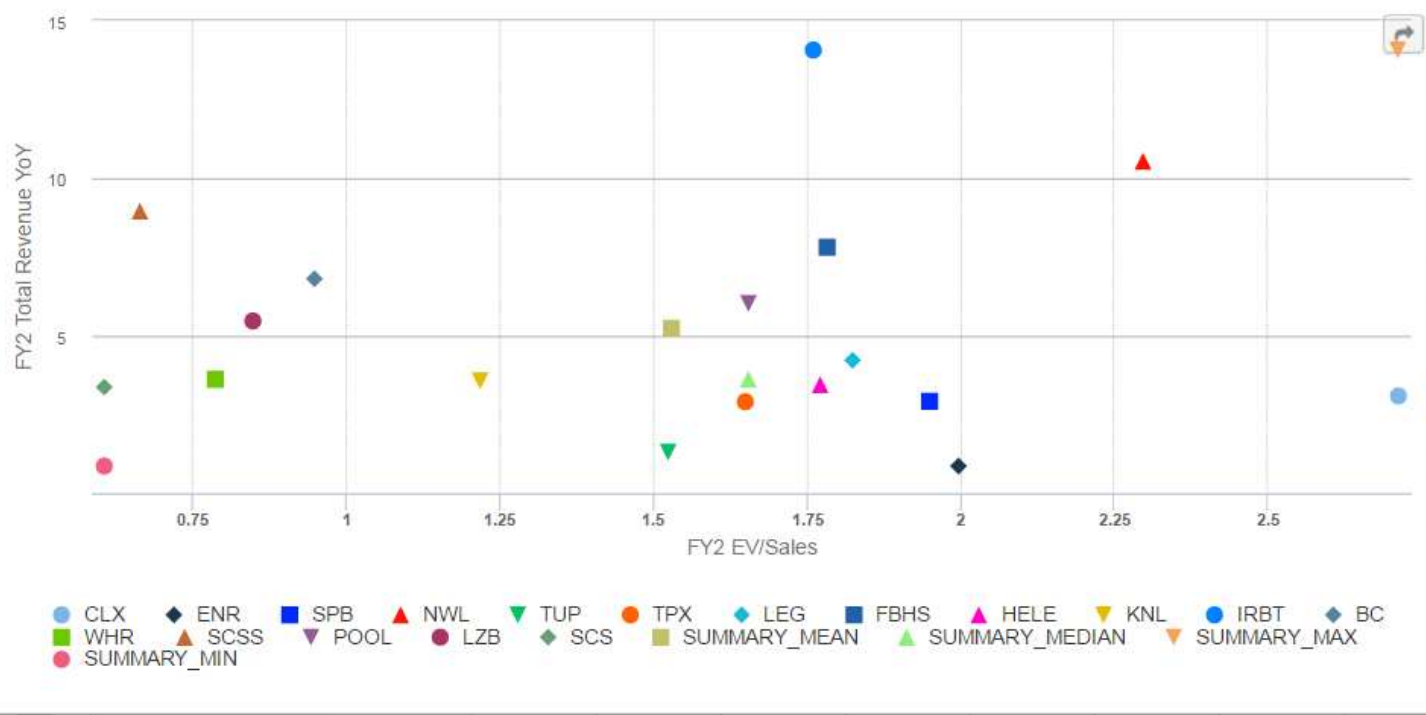
This is a fairly diverse group of housing related products ranging from appliances to pool equipment to cleaning products. The big winner in this group in 2016 was iRobot (IRBT) with shares gaining more than 70%, and remains one of the more exciting growth names in the group. Spectrum (SPB) and Energizer (ENR) are also top performers, and each margin larders with near 20% EBITDA margins.

Clorox (CLX) trades rich at 12.2X EBITDA and 2.7X EV/Sales, but is the leader with 21.7% EBITDA margins and a 28.7% ROIC. **Pool Corp (POOL)** is another richly valued name with shares near new highs climbing more than 20% this year, but at 15X EBITDA with 10.8% EBITDA margins, it looks less deserving of this premium valuation.

Energizer (ENR) with a \$2.7B market cap has strong margins, ROIC > 20%, and trades in-line with peers. ENR has a strong balance sheet with solid FCF and can look to acquisitions as an upside catalyst. **Leggett & Platt (LEG)** with a \$6.38B market cap is the top furnishing play with strong FCF and operational efficiency ratios.

Select Comfort (SCSS) is a \$1B small cap that stands out as trading very cheap at 5.7X EV/EBITDA and 0.7X EV/Sales with 21% ROIC and healthy revenue and EPS growth rates. Mattress firms have long been favorite targets of Private Equity with steady cash flows, and tend to track the housing market.

Revenue Growth vs. EV/Sales



Household, Personal Care & Services:

Components: *BFAM, CHD, CL, COTY, ECL, EL, ELF, EPC, HAS, HLF, KMB, MAT, MATW, NUS, PG, SCI, SCL, UL*

The top growth trends in consumer personal care are Male Grooming, Food for Skin Products, Natural/Organic Products, and Hand-Crafted Products. The primary driving force to the global personal care market is rising disposable income.

The top performer in 2016 for this group was Nu-Skin (NUK) with shares +45% YTD, whole toymakers Mattel (MAT) and Hasbro (HAS) with strong years each up around 20%.

Edgewell Personal Care (EPC) immediately stands out as cheap in this group at 11.5X EBITDA, 2.3X EV/Sales and strong FCF. Mattel (MAT) at 10.9X EBITDA and 2X EV/Sales with strong FCF and projecting well above peer revenue growth is another standout.

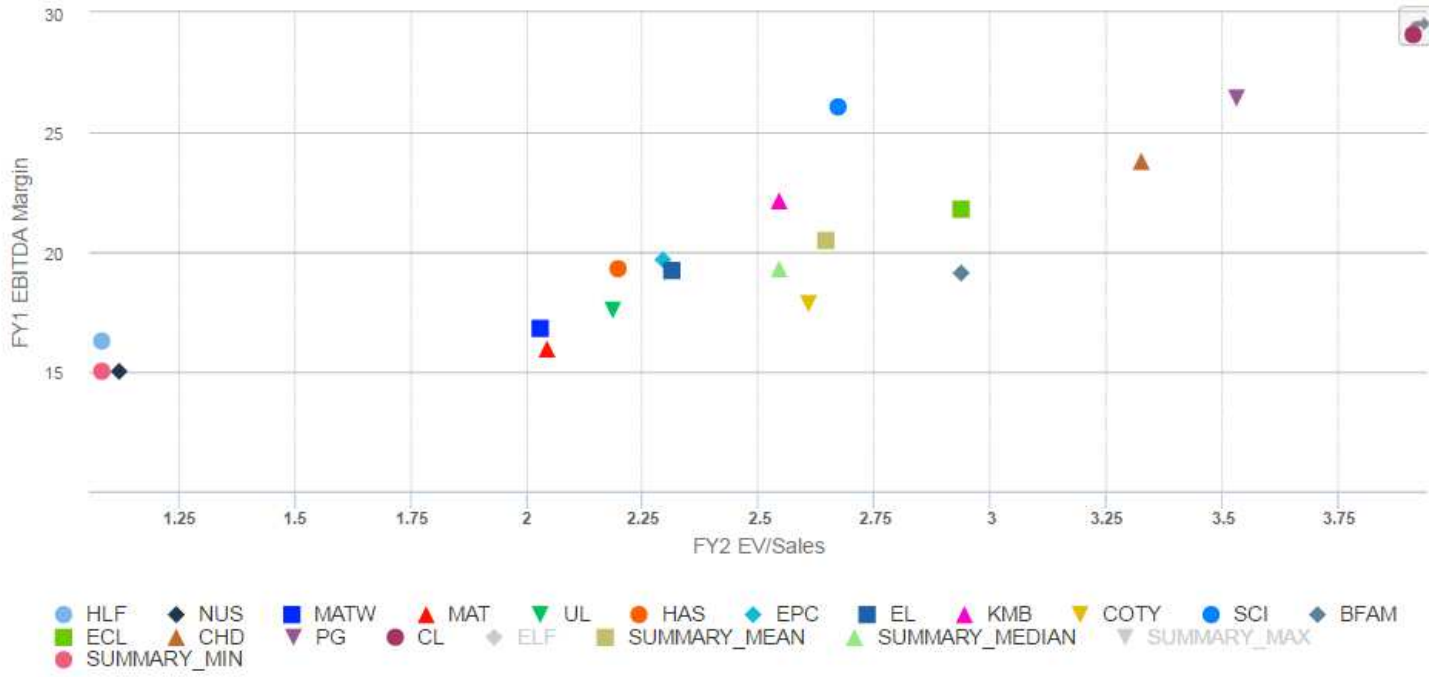
Colgate (CL) is a name in this group trading at premium valuation, but does lead at 29.1% EBITDA margins and ROIC of 33% with very strong FCF. CL tends to be tied to emerging markets where it generates its growth. CL has been a best in class organic growth story and if FX stabilizes can return to margin expansion.

Church and Dwight (CHD) with an \$11.2B market cap is an underappreciated name in this group, though trading at a premium multiple of 13.7X EBITDA and 3.3X EV/Sales, it has impressive EPS growth, 23.8% EBITDA margins and a very high FCF/Debt ratio.

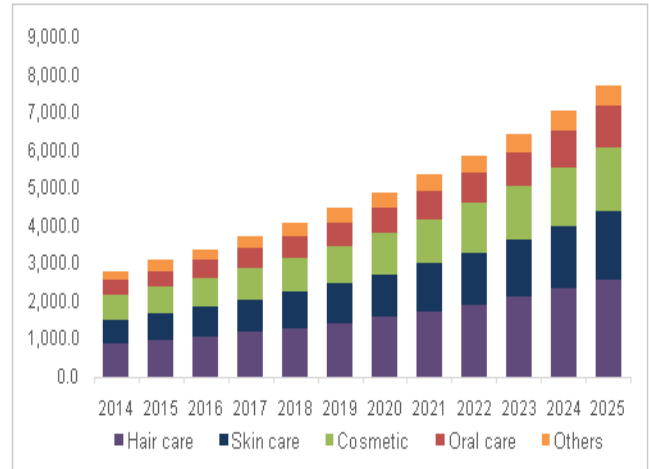
Ecolab (ECL) is a \$34.55B Company providing water, hygiene and energy technologies. It is a well-run company, but at 13X EBITDA, 24X Earnings and a ROIC of just 11.7%, shares appear quite overvalued.

Service Corp. (SCI) is a \$5.15B provider of deathcare services that stands out with 26% EBITDA margins and also cheap at 10.2X EBITDA and 2.7X EV/Sales. SCI has bought back 10% of its shares outstanding since 2011, offers a 1.92% dividend yield, and has posted strong EPS growth in an inelastic business. SCI is a beneficiary of the aging US demographics.

EV/Sales vs. EBITDA Margins



U.S. organic personal care market revenue, by product, 2014 - 2025 (USD Million)



Packaging and Paper:

Components: *ATR,AVY,BERY,BLL,BMS,CCK,GEF,GPK,IP,KS,MNI,OI,PKG,SEE,SLGN,SON,SWM,UFS,WRK*

Company		Current Price	1Year Return	Current Market Cap	FY1 EV/EBITDA	FY2 P/E	FY2 Total Revenue YoY	FY2 Normalized EPS YoY	FY1 EBITDA Margin	FY-10 Return on Invested Capital	FY-10 Total Debt/(EBITDA CapEx)	FY-10 Days Inventory Outstanding
IP (International Paper Company)	X	\$51.41	29.2%	20,755	8.2x	12.64x	6.1%	19.4%	16.9%	13.1%	4.7x	54.85
WRK (Westrock Co)	X	\$51.52	16.7%	12,937	7.7x	16.51x	1.1%	9.7%	16.5%	4.5%	5.3x	54.35
BLL (Ball Corp)	X	\$73.59	7.0%	12,860	14.6x	17.14x	18.7%	24.2%	15.2%	13.2%	9.1x	54.09
SEE (Sealed Air Corporation)	X	\$46.42	2.5%	8,973	11.4x	15.58x	3.4%	14.4%	17.1%	13.1%	5.2x	55.40
PKG (Packaging Corp Of America)	X	\$87.15	30.2%	8,204	9.3x	15.66x	4.5%	15.4%	19.9%	12.7%	2.9x	54.01
CCK (Crown Holdings Inc)	X	\$51.72	1.7%	7,268	9.1x	12.48x	2.4%	6.0%	15.8%	13.6%	6.1x	62.97
AVY (Avery Dennison Corp)	X	\$72.71	13.7%	6,383	9.6x	16.61x	4.5%	8.8%	12.9%	17.1%	1.8x	40.99
BERY (Berry Plastics Group Inc)	X	\$48.48	31.9%	5,916	8.6x	14.90x	5.0%	15.8%	18.8%	--	--	--
SON (Sonoco Products Co)	X	\$52.96	27.2%	5,288	9.5x	18.79x	(1.5%)	3.1%	13.5%	11.2%	2.5x	36.44
BMS (Bemis Co Inc)	X	\$50.10	8.5%	4,655	10.2x	16.80x	3.3%	10.3%	14.8%	10.4%	3.9x	62.87
ATR (Aptargroup Inc)	X	\$73.38	(0.1%)	4,600	10.7x	22.03x	3.4%	7.3%	20.2%	10.9%	2.6x	73.60
GPK (Graphic Packaging Holding Co)	X	\$12.59	(5.7%)	4,017	8.1x	15.68x	0.8%	8.9%	17.8%	9.6%	3.9x	58.64
OI (Owens-Illinois, Inc.)	X	\$17.90	(4.9%)	2,903	6.4x	7.18x	1.4%	8.4%	19.0%	6.9%	15.2x	73.85
SLGN (Silgan Holdings Inc)	X	\$49.29	(7.0%)	2,735	9.5x	15.25x	1.4%	18.0%	13.0%	10.2%	6.3x	66.91
GEF (Greif Inc)	X	\$53.63	62.1%	2,556	7.6x	17.11x	1.1%	9.6%	13.8%	--	--	--
UFS (Domtar Corp)	X	\$39.56	(0.7%)	2,468	5.5x	12.28x	3.8%	2.3%	12.9%	7.9%	3.0x	65.13
KS (Kapstone Paper & Packaging C...	X	\$21.37	(8.1%)	2,044	9.1x	13.56x	5.0%	38.9%	12.6%	7.6%	6.6x	52.86
SWM (Schweitzer Mauduit Internatio...	X	\$41.76	1.5%	1,273	8.6x	12.19x	0.8%	6.7%	22.1%	10.0%	4.4x	74.66
MNI (Meadwestvaco Co)	X	\$14.19	3.5%	107	7.5x	--	(3.4%)	(96.6%)	13.2%	4.8%	6.4x	68.96
Mean		--	11.0%	6,102	9.0x	15.13x	3.3%	6.9%	16.1%	10.4%	5.3x	59.45

The packaging industry is mainly broken into Rigid, Paperboard, Plastic and Labels and industry average EBITDA multiples have risen to 10X. For the stocks above, the breakdowns are as follows: Plastics: BERY, ATR, BMS, SEE; Paperboard: GEF, GPK, IP, WRK, PKG, KS; Metals/Glass: BLL, CCK, OI, SLGN; and Labels: LABL. Sonoco (SON) is a diverse player that does not fit in one group.

The industry is strongly tied to demands from consumer packaging, and raw material and energy costs play a key role. There is a strong correlation with consumer confidence as an indicator of personal consumption to the packaging industry. The seven success factors for companies in this sector are management of raw material inflation, reduction of waste, effective capital expenditure, operation performance measurement, profitability management, innovation, and supply chain management.

EV/EBITDA, Revenue Growth, EBITDA Margins, and Cash Flows are all important metrics to observe in this group. EBITDA-Capex spread has been found to be a useful measure of performance of packaging companies. Working Capital Metrics like days sales outstanding, says inventory outstanding, and says payable outstanding are also useful to assess management.

The group currently trades above 10X EBITDA which is above its 8X historical average over a 10 year period, and EV/Sales at 1.6X compares to an average of 1.1X. A steepening yield curve, the spread between the 10 year and 2 year, has historically been positive for the paper/forest stocks in the group.

In 2016 the group has put in some strong performances led by GEF (+62%), BERY (+32%), PKG (+30%), IP (+29%), and SON (+27%). Ball Corp (BLL) trades at a premium valuation of 14.6X EBITDA and 1.6X EV/Sales as the name expected to see the most growth after its transformational deal for Rexam.

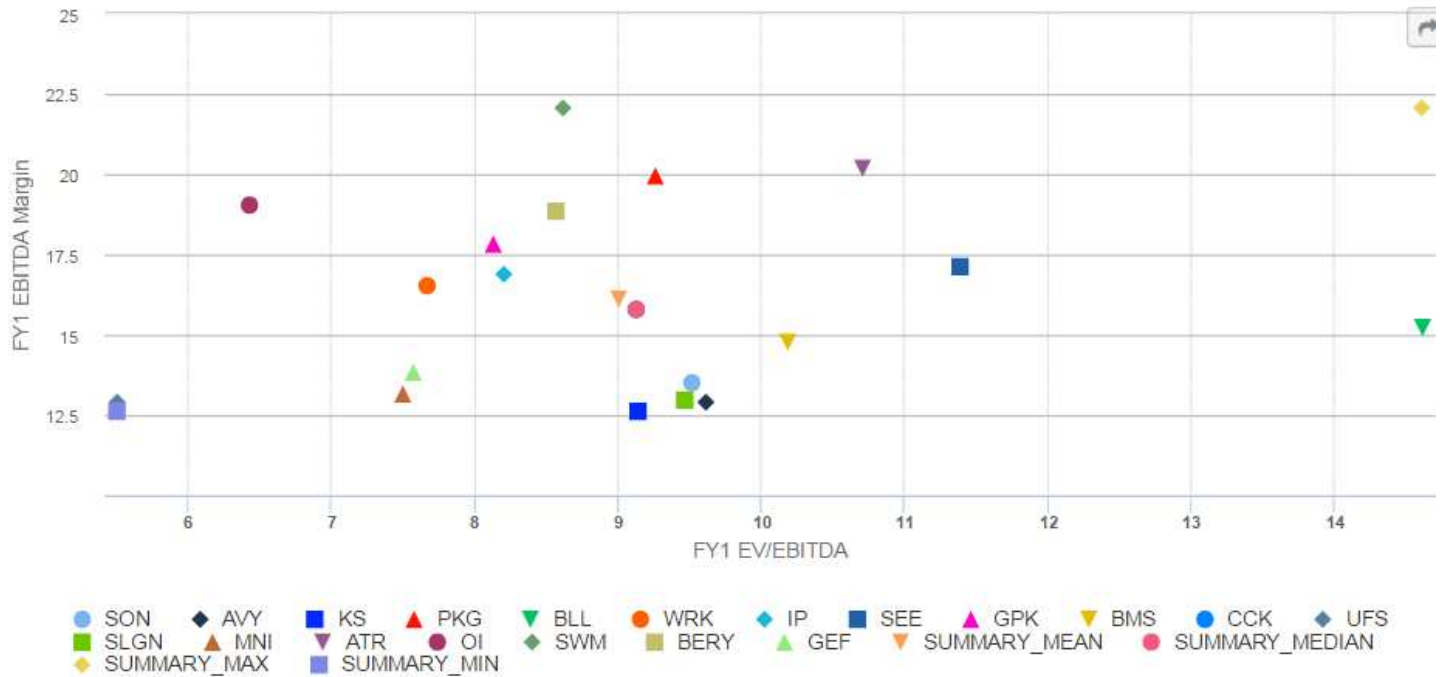
Packaging Corp (PKG) with an \$8B market cap trading 9.3X EV/EBITDA and 1.8X EV/Sales and above average ROIC and EBITDA margins stands out as a best of breed play.

Berry Plastics (BERY) is another top name with a \$5.9B market cap that was a strong performer in 2016 but still only trades 8.6X EBITDA with 15.8% forward EPS growth and 18.8% EBITDA margins.

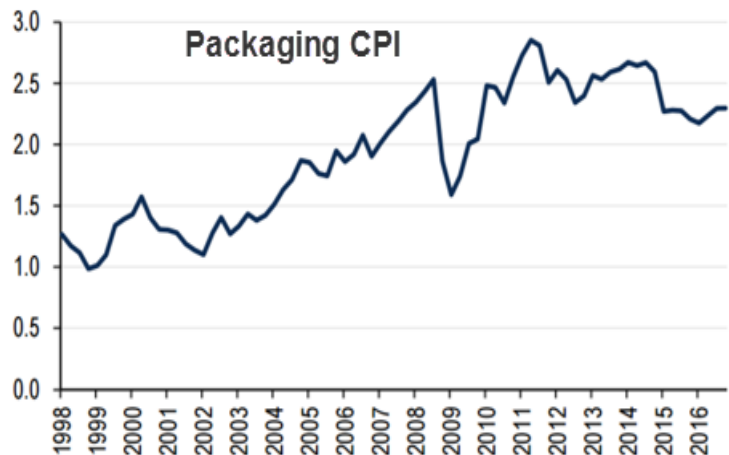
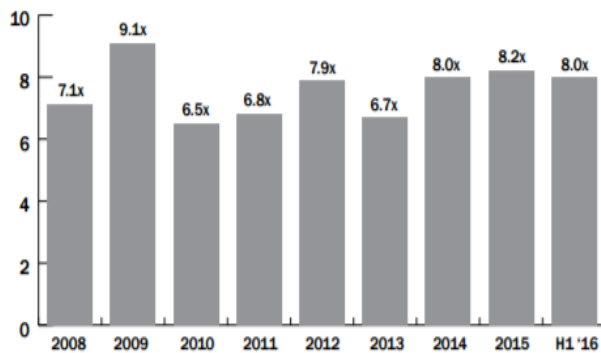
Avery Dennison (AVY) at 9.6X EBITDA and 1.2X EV/Sales with solid revenue/EPS growth and the leader in ROIC at 17% while also having impressive Inventory Mgmt. metrics is another quality name. It has some of the lowest EBITDA margins in the industry, so room for expansion, and could be a future upside catalyst.

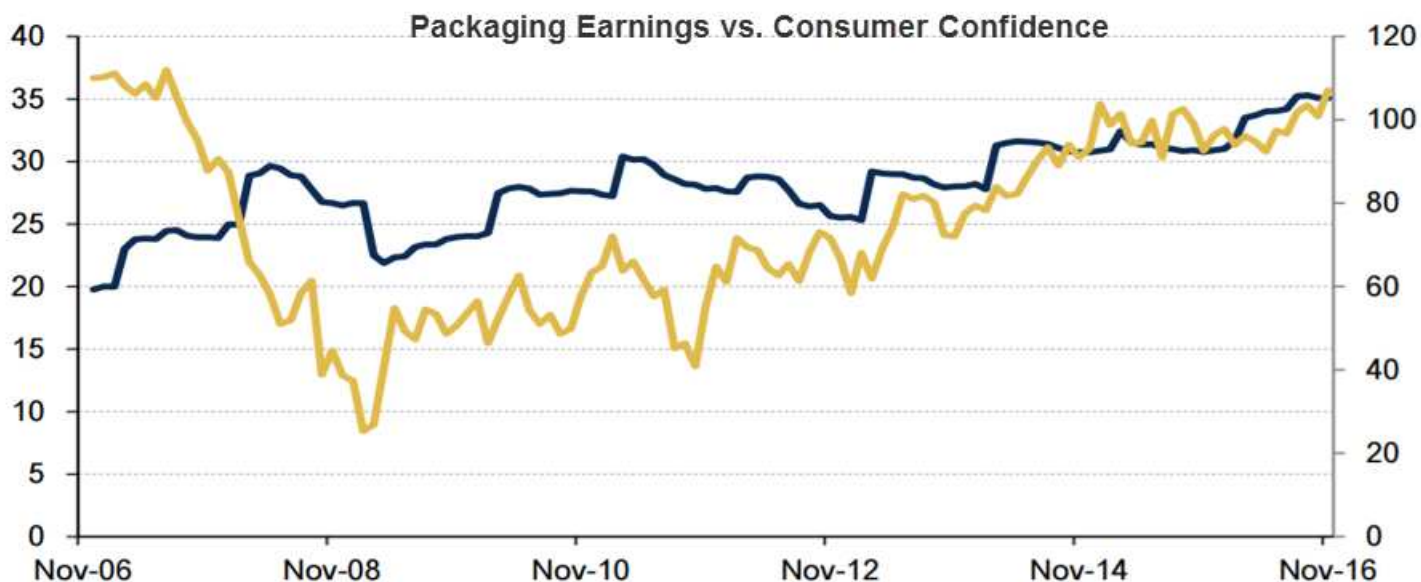
Sonoco (SON) would be a least favorite name and one to consider on the short side in a pair trade, the \$5.3B market cap Company with shares +27% this year trades 9.5X EBITDA and 19X Earnings with a very poor growth outlook for revenues and EPS, and below average ROIC and EBITDA margins. **Silgan (SLGN)** is another name with weak relative metrics.

EV/EBITDA vs. EBITDA Margins



PACKAGING TRANSACTIONS: AVERAGE EV / EBITDA MULTIPLE





Textile – Apparel & Footwear:

Components: *CAL, COH, COLM, CRI, DECK, FOSL, GCO, GIII, GIL, HBI, KATE, KORS, LULU, NKE, OXM, PVH, RL, SHOO, SIG, SKX, TIF, UAA, VFC, WWW, CROX, VRA*

The apparel industry has seen plenty of headwinds in 2016 with store traffic weakness from excess retail capacity with the growth of e-commerce, a weak pricing environment with heavy promotional activity, and market shifts to lower margin value stores and "Fast Fashion." Personal Consumption data is showing clothing/footwear as taking less of the pie over the last few years, a downward trend. Athletic footwear was long the impervious group but recent sales numbers have sharply declined as have the ASP's. Online continues to show growth while brick and mortar sales struggle, so having a strong e-commerce infrastructure is vital.

Evaluation of this group uses basic metrics like P/E and P/S, and also have to pay close attention to margins and inventories.

In 2016 performance was very split in the group with 20%+ gainers including COH, GCO, SHOO, DECK, VRA, WWW, COLM and PVH, while 20% or more losers including KATE, NKE, HBI, SIG, CROX, UA and GIII. The common theme in the winners are high ROIC, Y/Y gross margin improvement, and high levered FCF margin. There also looks to have been a move from growth to value underway in the group with the low P/E names outperforming the high P/E names by a wide margin.

Skechers (SKX) is a low valuation name down 12% YTD trading 0.9X EV/Sales versus the peer average of 1.5X while having stronger than average revenue/EPS growth, a ROIC of 19%, and healthy Days Inventory Outstanding. It is a name facing easier comps in 2017 that could return to success.

Under Armour (UAA) remains the premiere growth play and has had a tough 2016 as margins contract with a bigger push into footwear, but 2017 sets up as an easier Y/Y comp. It continues to grow internationally and signed a 10 year contract with the MLB. Valuation remains at a major premium despite shares -32% YTD, but recent options flow with large opening put sales indicates investors are comfortable with this name near \$27.50/share.

Carter's (CRI) with a \$4.6B market cap is another favorite among the larger plays as children's clothing shopping is less susceptible to some of the industry headwinds and CRI at 1.5X EV/Sales is cheap for having a ROIC above 20%, climbing gross margins, strong FCF, and elite inventory management.

Van Heusen (PVH) is the other larger cap name that screens as quality at 1.3X EV/Sales with strong margins and FCF, and excellent inventory management. PVH will face tough comps going forward which could limit upside.

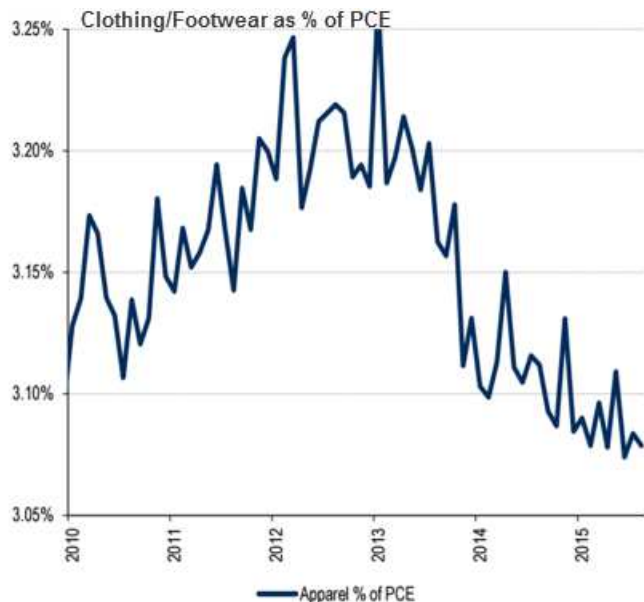
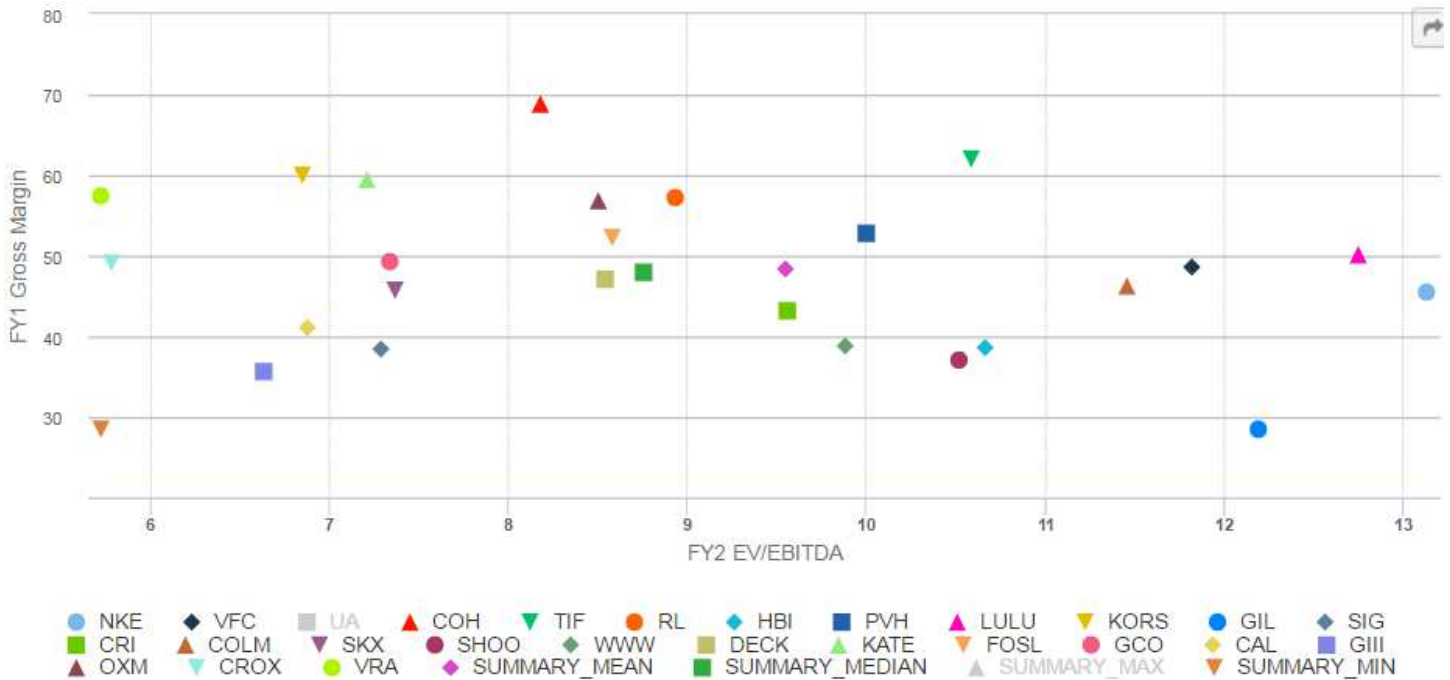
Michael Kors (KORS), in luxury, is an out of favor name with a \$7.6B market cap that screens very cheap at 10X Earnings and 6.8X EBITDA while having 60% gross margins, ROIC 33.9%, and the best FCF margin of 18% among all the names, so this is looking attractive at these levels. The main issue here is the slowdown in growth which has re-rated shares, but it now becomes a value play at these levels.

Oxford Industries (OXM) is an interesting small cap in the group trading 17X Earnings, 1.2X EV/Sales, and a margin leader among the non-luxury apparel names. Steve Madden (SHOO) is another small cap that screens well at 17.55X Earnings, 1.5X EV/Sales with climbing gross margins, a high ROIC of 22%, and near the top for levered FCF margin at 8.2%.

Hanesbrands (HBI) shares are down 25% YTD but the stock still looks like an attractive short trading 1.8X EV/Sales with low margins and a bunch of red flags in key metrics, a company that made a lot of acquisitions over the past few years that could catch up to it. Gildan (GIL) is another name that screens as rich with weak margins and is a top short.

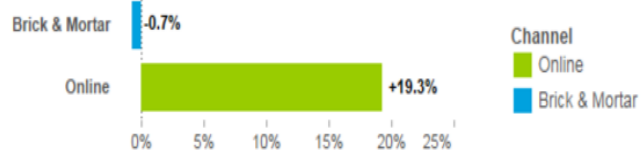
M&A has really been lacking in this group, but a few potential targets for 2017 are KATE and VRA in luxury, and SKX and WWW in footwear. COLM is a name I like as a target in apparel, while OXM would be a nice bolt-on deal for a larger player as well.

EV/EBITDA vs. Gross Margins

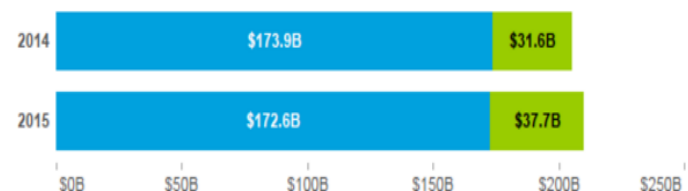


U.S. Apparel Industry Trends

YOY % Change in Sales (12 ME June)



\$ Sales by Channel (12 ME June)



U.S. Footwear Industry Trends

YOY % Change in Sales (12 ME June)



Total Sales \$ by Channel (12 ME June)



Financials: *Financials are having a strong close to 2016 as the Fed is set to hike rates in December to start a trajectory higher, though expected to be slow and steady, and also the new administration set to relax regulations and hurdles to the industry. Banks also benefit from a strong economy, and the current outlook is for GDP growth to accelerate with new infrastructure spending plans. Financials have been increasing dividend payouts over the past five years and earnings have become more stable, and over the last three months earnings revisions have risen to the highest level in two years. Financials should outperform with the rising yields and steepening curve while valuation remains attractive as ROE and dividend payouts rise, but could use a near-term pullback given the sharp end of year rally.*

Banks:

Components: *ALLY, BAC, BBT, BOH, BOKF, C, CBSH, CFG, CFR, CIT, CMA, FHN, FITB, GS, HBAN, JPM, KEY, MS, MTB, OZRK, PACW, PB, PNC, RF, SBNY, SIVB, SNV, STI, TCBI, TFSL, USB, WAL*

This group is looking mainly at the \$3.5B+ Banks, and there are a number of smaller cap options as well, but it becomes cumbersome for comparison purposes. There are 52 regional banks in the \$1B to \$3.5B market cap range. The group tends to trade very correlated as Macro influences outweigh individual company attributes, but there are still plenty of metrics to find the best investments.

The main metrics for evaluation Bank stocks include ROE, ROA, P/B, P/E, NIM trends, Dividend, Cost/Income Ratio, Balance Sheet (Deposits), Credit Quality (Charge-Offs, Nonperforming Assets/Loans, Loan Loss Reserves, Tier 1 Capital)

Among the larger players, the top NIM names are BAC, C, BBT, FITB, RF, and HBAN. On a Price/Book valuation, the names that continue to trade below book value are ALLY, CIT, C, CFG, and BAC. Stocks trading 1X to 1.3X Book Value include RF, MS, STI, PNC, KEY, FITB and GS. Names with 10%+ ROE are BOH, WAL, USB, OZRK, SBNY, WFC, SIVB and CBSH. The top ROA names are OZRK, PACW, WAL, PB, USB, BBT and WFC.

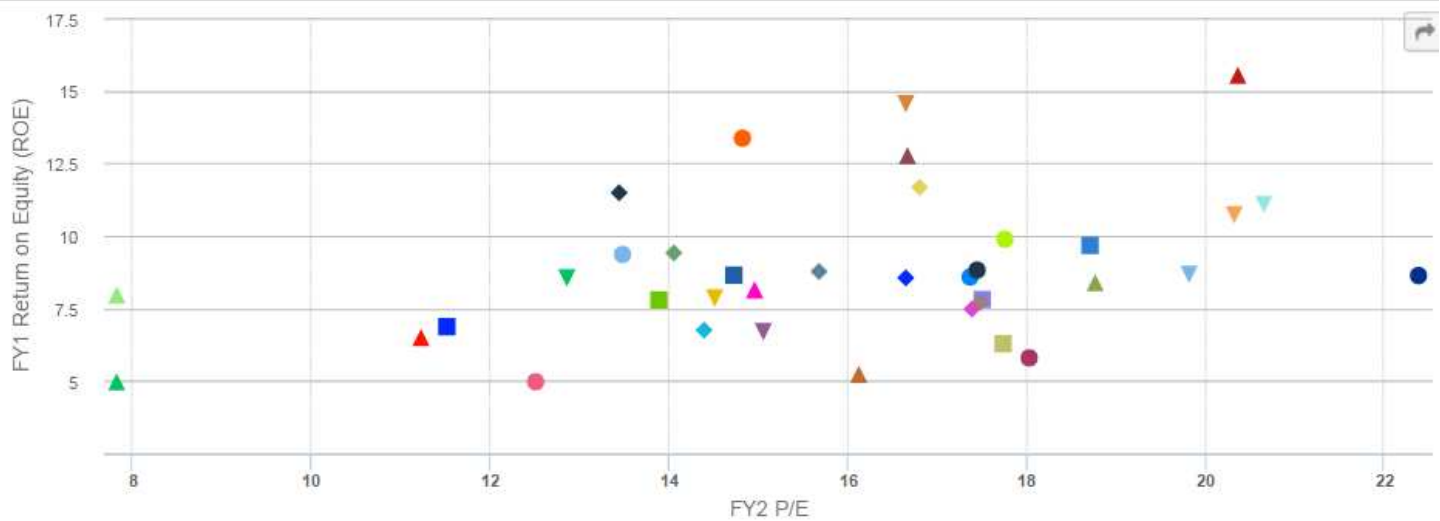
The top performing Bank stocks of 2016 that have gained 35% or more YTD are CMA, RF, TCBI, CFR, PB, BOKF, FHN, BOH, SIVB, KEY, MS, CBSH, WAL, CFG. Regional Banks dominate that list as more sensitive to interest rates.

After looking through all the metrics, favored large cap Banks for 2017 are **US Bancorp (USB), Goldman Sachs (GS), Citi (C), Huntington (HABN) and Regions Financial (RF)**. Smaller cap favorites are **Commerce (CBSH), Cullen/Front (CFR), Bank of the Ozarks (OZRK) and Western Alliance (WAL)**.

For the sub \$3.5B names I ran a similar screen and attractive names are **First Financial (FFIN), Ameris (ABCB), Heartland (HTLF), Eagle (EGBN), and First Busey (BUSE)**.

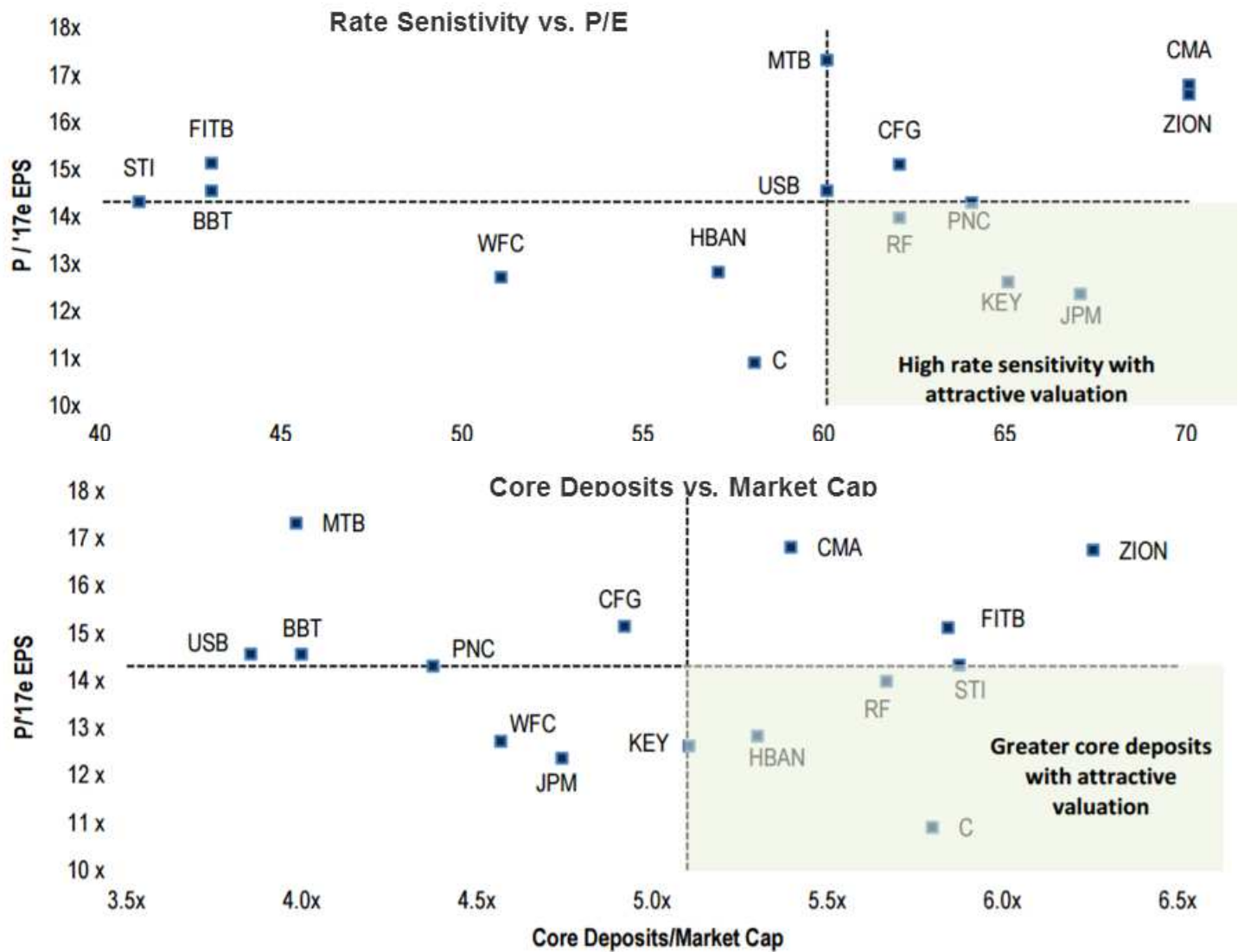
There has been significant short and long term bullish options activity in the Banks since July 2016, the favorite names consistently have been CMA, CIT, KEY, RF, and C.

P/E vs. ROE



Top 100 Institutions by Asset Size (to change sort click header title)

#	Institution	Symb	# Emp	Total Assets	Avg Earn Assets	Net Interest	NIM
1	JPMorgan Chase & Co.	JPM	193,587	2,249,249,804,000	1,945,148,668,500	11,737,402,000	2.41
2	Wells Fargo & Company	WFC	235,641	1,767,983,818,000	1,587,979,489,500	11,819,417,000	2.98
3	Bank of America Corporation	BAC	146,255	1,682,563,000,000	1,489,832,500,000	12,931,000,000	3.47
4	Citigroup	C	161,462	1,356,986,438,000	1,179,149,989,500	10,070,001,000	3.42
5	U.S. Bank	USB	68,353	448,401,205,000	393,467,672,000	2,944,052,000	2.99
6	Capital One Financial	COF	49,592	385,185,593,000	343,591,587,000	5,308,267,000	6.18
7	PNC Bank	PNC	51,018	357,858,693,000	314,137,345,000	2,091,186,000	2.66
8	Bank of New York Mellon Corporation	BK	37,922	325,228,307,000	285,481,806,000	748,183,000	1.05
9	Toronto-Dominion Bank	TD	25,243	285,645,190,000	251,176,505,500	1,846,628,000	2.94
10	State Street Bank and Trust Company	STT	30,357	251,545,405,000	200,899,320,000	585,649,000	1.17
11	Branch Banking and Trust Company	BBT	35,733	217,378,053,000	188,000,631,000	1,490,538,000	3.17
12	HSBC Holdings PLC		5,822	203,760,064,000	190,782,410,500	639,334,000	1.34
13	SunTrust Bank	STI	22,028	200,200,764,000	179,662,891,000	1,334,008,000	2.97
14	Morgan Stanley	MS	870	178,889,000,000	177,628,000,000	904,000,000	2.04
15	Charles Schwab Bank	SCHW	589	165,183,000,000	158,629,500,000	675,000,000	1.70
16	Goldman Sachs Bank USA	GS	802	158,429,000,000	135,575,500,000	385,000,000	1.14
17	Citizens Financial Group	CFG	17,598	150,358,582,000	132,715,375,500	959,762,000	2.89
18	Fifth Third Bank	FITB	18,022	140,771,408,000	126,370,975,500	961,157,000	3.04
19	KeyCorp	KEY	19,251	134,190,688,000	122,608,739,000	794,984,000	2.59
20	M&T Bank Corporation	MTB	16,586	130,533,592,000	112,291,698,000	865,308,000	3.08
21	Regions Bank	RF	21,368	124,196,151,000	108,324,223,500	847,850,000	3.13
22	The Northern Trust Company	NTRS	16,621	119,702,457,000	110,823,106,000	308,959,000	1.12
23	MUFG Union Bank	MTU	12,135	116,911,780,000	104,729,773,500	744,013,000	2.84
24	Ally Bank	ALLY	1,521	114,517,805,000	100,619,877,500	686,335,000	2.73
25	Bank of Montreal	BMO	12,007	106,690,698,000	94,846,525,000	634,970,000	2.68
26	BNP Paribas		12,346	102,409,034,000	89,917,554,500	669,628,000	2.98
27	The Huntington National Bank	HBAN	15,265	100,416,340,000	79,335,042,000	646,086,000	3.26
28	Banco Santander	BSAC	10,014	90,730,445,000	78,762,644,500	489,404,000	2.49
29	Discover Financial Services	DFS	10,904	89,358,806,000	84,724,765,000	1,936,066,000	9.14
30	American Express Company	AXP	493	85,038,430,000	83,831,915,000	1,058,783,000	5.05



Insurance:

Components: *AFSI, AHL, AIG, AIZ, AJG, ALL, AON, AV, AWH, AXS, BRK.B, CB, CINF, CNO, ENH, FAF, FNF, HIG, ING, LNC, MET, MFC, MMC, ORI, PFG, PGR, PRA, PRI, PRU, RE, RGA, RLI, RNR, SLF, TMK, TRV, UNM, WLTW, WRB, XL*

This group is broken into Life & Health (MET, PRU, AFL, LNC, UNM, TMK, PFG), Property and Casualty (BRK.B, ALL, TRV, CB, CINF, PGR, WRB, CNA, L), Multi-Line (HIG, AIG, AIZ), Reinsurers (RGA, RE, AGL, RNR, AHL), and Brokers (AON, MMC, WLTW, AJG, BRO, PRI, AFSI). ROE is a strong measure of profitability and P/B often used in valuation, while specific ratios to the group are combined and operating ratios, underwriting leverage, investment yield, and investment return. The most simplistic, yet effective approach, is looking at Price/Book and Price/Earnings compared to ROE, which has shown the strongest coefficient of determination of performance.

The P&C Insurance group differs from many other companies as revenues hold less importance and metrics like Net Premiums Written and Net Premiums Earned, and their respective ratios are observed. The combined ratio is another metric, the sum of the Loss and Expense ratios, and 100% minus that ratio is the Underwriting Margin. Investment income is also closely watched, often called Float, and secondary source of earnings and closely tied to the rate environment. Reserves is another balance sheet item of important, and a Reserves-to-Loss ratio should be in the 2.5 to 1 range.

The Reinsurance group tends to insure the P&C companies against various natural disasters and other events. The combined ratio is one again important here, and this business is very cyclical with Hurricane Season, June 1st to November 30th, while most policies are written near the end of the calendar year.

Looking first at the Insurance Brokers, AON and MMC have the superior ROE, but each also trade more than 5X Book while peers are closer to 2.2X. **Arthur Gallagher (AJG)** with a \$9B market cap at 2.43X Book with double digit EPS

growth looks fairly attractive and can benefit from lower taxes as the name with the highest 2017 tax rate in the group at 34.8%. It also offers a superior dividend yield at 3% and has been effective with an aggressive M&A strategy.

Moving on to Life & Health, there are four names up more than 30% this year with PFG, LNC, PRU and UNM. The group trades at an average of 12X Earnings and 11.8X EV/EBITDA with a 9% ROE. PRU is the name set to benefit most from easing regulations and rising interest rates. **Principal Financial (PFG)** stands out as best of breed with a 13.1% ROE, trading 12.6X Earnings and above average growth and free cash flows. **American Financial (AFG)** is a name trading at a premium valuation of 1.43X Book and 14.25X Earnings that looks unwarranted with its below average growth and efficiency metrics.

The P&C group trades at an average of 13.85X Earnings with an 8.9% ROE. CINF, one of the smaller names in the group, was the top performer this year followed by CNA and L. In this group, **Chubb (CB)** stands out as the best value for a top tier play, trading 12.5X Earnings, 1.28X Book, solid EPS growth, and a ROE above 10%. CB also has a combined ratio of 86% versus peers at 92.8% on average. **Cincinnati Financial (CINF)**, the top performer of 2016, looks overvalued at 1.8X Book and 25X Earnings with a ROE of just 7.9%, so one I would expect valuation to fall back in-line.

The reinsurance group has one clear value name in **Reinsurance Group of America (RGA)**, the \$8.2B Company trading 12.7X Earnings and 1X Book despite having best in class 10% ROE and 5.3% ROA.

This interest rate sensitive group has seen a lot of large bullish call positioning in January 2018 since July of 2016, the favorite names of option traders are MET, AIG, PRU, ALL, HIG, and LNC.



	2014	2015A	2016E	2017E	2018E	15:Q3	15:Q4	16:Q1	16:Q2	16:Q3A
Average year-to-year change in:										
Net Premium Written	4.3%	6.0%	3.8%	3.4%	3.8%	12.1%	0.4%	10.6%	7.3%	3.4%
NI	-5.8%	-1.2%	6.8%	3.2%	2.1%	-5.1%	-2.2%	-4.6%	6.1%	18.3%
Op EPS	3.9%	-7.4%	-2.5%	18.8%	9.2%	-14.9%	-12.4%	-22.9%	-19.9%	5.1%
Op Income	6.2%	-6.5%	-5.4%	9.5%	2.0%	-10.9%	-9.3%	-16.0%	-20.2%	2.6%
Book Value (a)	9.9%	2.9%	10.3%	5.8%	6.5%	0.5%	0.1%	3.0%	2.9%	1.8%
Surplus (a)	4.8%	5.9%	6.5%	3.1%	3.5%	1.6%	1.1%	3.0%	0.9%	2.1%
Average:										
Loss Ratio	60.2%	61.2%	62.6%	62.2%	62.3%	60.9%	62.4%	60.4%	65.5%	61.6%
Expense Ratio	30.7%	31.3%	31.5%	31.2%	31.1%	31.0%	31.3%	32.1%	31.5%	31.3%
Combined Ratio	91.0%	92.6%	94.2%	93.4%	93.4%	92.0%	93.7%	92.5%	97.0%	92.8%
ROE	9.8%	8.5%	7.9%	8.9%	9.1%	5.6%	9.3%	7.1%	7.0%	9.0%

Exchanges, Brokers, and Asset Mgmt.:

Components: *AMG, AMP, AMTD, APAM, APO, BEN, BK, BLK, BX, CBOE, CG, CME, ETFC, EV, IBKR, ICE, IVZ, KKR, LAZ, LM, LPLA, MKTX, N AVI, NDAQ, NTRS, OAK, RJF, SCHW, SEIC, SF, TROW, VOYA, WDR, WETF*

This group within the Financials includes the Asset Managers, Investment Brokerages and Exchanges. This is another group seen to benefit from a rising rate environment with Exchanges and Brokers particularly sensitive to rates.

In the investment brokerage group, DARTs is a group-specific metric released monthly, daily average revenue trades. The group also tends to benefit from strong markets and increased trading activity. Net Interest Margin, Net New Assets, and Total Client Assets are other observable metrics. The improving rate/market backdrop and lower tax rates are both tailwinds into 2017, while questions remain on potential rising costs/competition. Increased capital flexibility should lead

to dividend raises, buybacks, and further M&A. Ameritrade announced a \$4B deal for Scottrade in October. AMTD, SCHW, and ETFC have each seen sizable bullish call positions opened for 2017/2018, and been a focus of option traders since July 2016. **Schwab (SCHW)** is the best of breed name in the group, though trades at a premium valuation, and at this stage I think **E-Trade (ETFC)** may offer the greatest upside for 2017.

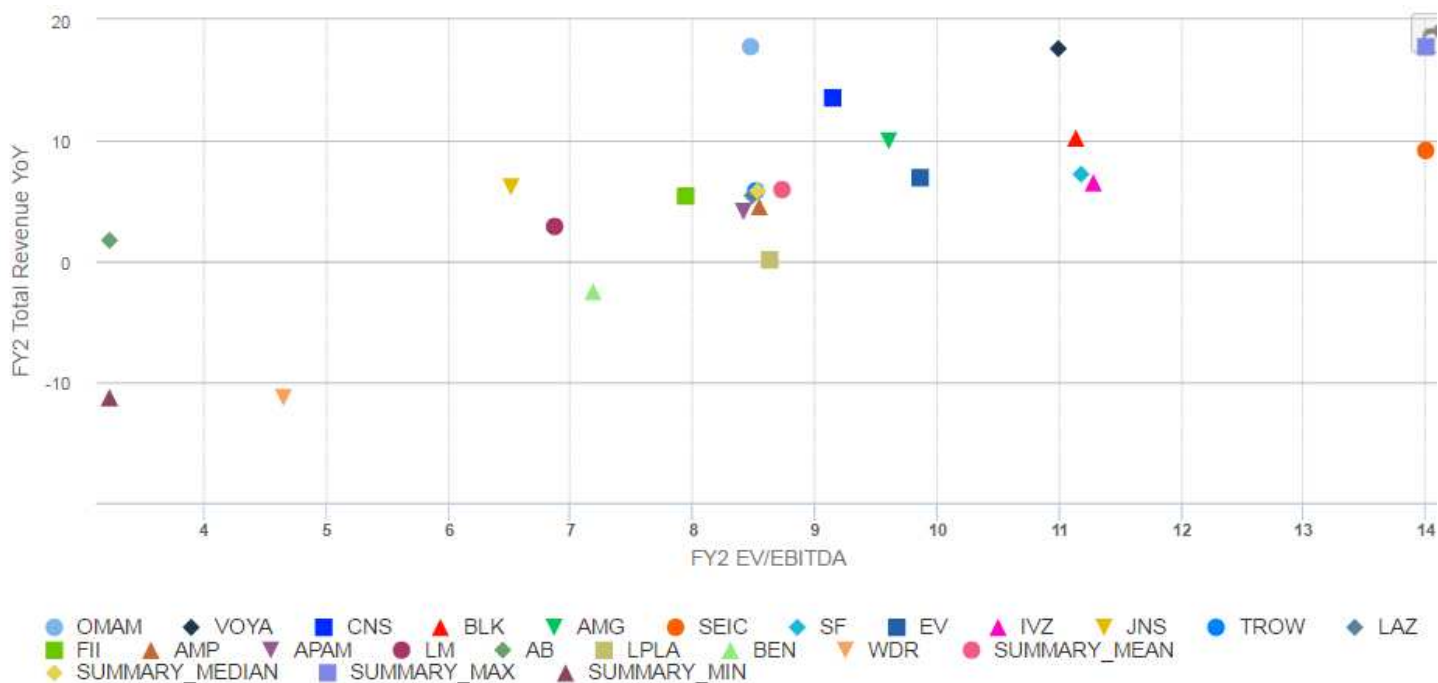
In the Asset Manager group, benefits should be seen from pro-growth policies and tax reforms, though the ability to see new funds remains in question with the recent shift to passive investing. The group can be broken into Traditional (AB, AMG, APAM, BEN, BLK, CNS, EV, FII, IVZ, JNS, LM, OMAM, TROW, VRTS, WDR, WETF) and Alternative (APO, ARES, BX, CG, FIG, KKR, OAK, OZM). One specific ratio for the traditional names in Market Cap / AUM (shown below). For the Alternative Managers, Price / Distributable Earnings (DE), and Distributable Earnings / Unit. Looking at flows the last 12 trailing months, on the Equity side, growth leaders are BLK, AMG, FII, STT and Vanguard seeing the most inflows but not publicly traded. On the Fixed Income side, flow growth LTM seen at APAM, BLK, CNS, IVZ, LM, STT, and TROW.

Starting with the more traditional asset managers, **Affiliated (AMG)** looks notably cheap at 10.9X Earnings, 9.6X EBITDA, 1.2 Market Cap / AUM, ROE of 19.6% and 47% Levered FCF Margins. AMG did see a sharp decline in revenues this year, but will now face easier comps in a better environment for 2017. **Federated (FII)** screens well as a small cap winner, trading cheap at 14.2X Earnings, 0.8X Market Cap / AUM, ROE of 31% and above-average EPS/Revenue growth while seeing positive equity flows. **Janus (JNS)** is another name that screens very cheap at 14.5X Earnings, 6.5X EBITDA targeting 13.5% EPS growth in 2017 and 6.1% revenue growth. Granted, it is coming off a poor year and metrics like ROE and Levered FCF Margin are lagging peers, but from a pure value perspective, a name to consider. **Cohen and Steers (CNS)** is yet another small cap attractive name at 9.2X EBITDA with some of the strongest EPS/Revenue growth numbers in the group, a high ROE/ROA, and strong margins. It is valued a bit rich from a Market Cap / AUM perspective, but seems warranted and could also be a nice M&A target. **Lazard (LAZ)** is a name I have long seen as a perfect M&A target in this group considering all the mergers among the sell-side firms, while **Franklin (BEN)** is the one name that has seen massive call buying, and its exposure to Energy should be a plus in 2017 after being a negative much of 2016.

The alternative asset management group features a few names that have seen massive bullish options positioning in 2H16, notably **BX** and **KKR**. The group is tricky to evaluate with so many moving parts, so those two remain favorites for 2017, while **Apollo (APO)** screens as fairly cheap. **Ares Mgmt. (ARES)** is the small cap that I would focus on, trading fairly cheap on valuation metrics in a strong industry with the leading ROE.

Company	Ticker	Curr Mkt Cap / AUM %	MRQ AUM Billions \$	Curr Mkt Cap / AUM %		
Traditional Asset Managers						
AllianceBernstein	AB	1.2				
Affiliated Mgrs Group	AMG	1.2				
Artisan Partners	APAM	2.2				
Franklin Resources	BEN	3.0				
BlackRock	BLK	1.2				
Cohen & Steers	CNS	2.7				
Eaton Vance	EV	1.4				
Federated Investors	FII	0.8				
Invesco	IVZ	1.6				
Janus Capital	JNS	1.2				
Legg Mason	LM	0.4				
Old Mutual	OMAM	0.8				
T. Rowe Price	TROW	2.2				
Virtus	VRTS	1.5				
Waddell & Reed	WDR	1.9				
WisdomTree	WETF	3.9				
Alternative Asset Managers						
			P/DE	DE/unit(\$M)		
Apollo Global Management	APO		11.0	1.75	189	4.2
Ares Management	ARES		12.8	1.34	97	3.7
The Blackstone Group	BX		10.5	2.46	361	8.4
The Carlyle Group	CG		7.5	2.08	169	3.0
Fortress Investment Group	FIG		-	-	70	2.8
Kohlberg Kravis Roberts & Co.	KKR		7.6	2.00	131	9.4
Oaktree Capital Group	OAK		13.7	3.02	100	6.4
Och-Ziff Capital Management	OZM		NM	0.45	39	3.7

EV/EBITDA vs. FY+1 Revenue Growth (Traditional Asset Managers)



The Exchanges are expected to have strong Q4 results with the Election induced volatility in trading, and a group that has undergone a lot of consolidation the past few years. The latest deal in September was CBOE agreeing to buy BATS Global for \$3.2B. Similar to the online brokers, the Exchanges announce monthly trading statistics which can be helpful in assessing. The US Futures market saw strong numbers in November which bodes well for CME, while Options also saw strong growth and is a good signal for NDAQ, CBOE and ICE. CBOE's largest contributor is Index Options at 46%, CME's more balanced with IR Futures at 26% and Energy Futures 19%, ICE's Commodities Derivatives at 30% and Other at 45%, while NDAQ Other at 74%. Exchanges are generally valued on P/E with primary factors being revenue mix and growth expectations, competition and barriers to entry impacting pricing, and management's ability to manage margins and cash flow.

CME Group (CME) trades at a premium 16X EBITDA and 25.8X Earnings, but has margins and cash flow metrics well above peers. **Nasdaq (NDAQ)** is a name I like at this level, trading just 11.3X EBITDA and 16.25X Earnings with double digit EPS growth, 10% ROE, and expecting best in class revenue growth next year. NDAQ is lower than peers for margins and Levered FCF Margin, but room for improvement and I like the \$1.1B deal for ISE earlier this year.

US Equity Market Share

U.S. Cash	Nov Market Share	M/M Change	YY Change
ICE	23.3%	-40 bps	-58 bps
IEX	1.8%	-5 bps	175 bps
NDAQ	17.4%	57 bps	-49 bps
Other	37.2%	-23 bps	-19 bps

US Options Market Share

U.S. Options	Nov Market Share	M/M Change	YY Change
CBOE	29.4%	120 bps	456 bps
ICE	18.2%	134 bps	-139 bps
NDAQ	33.2%	-133 bps	-417 bps

Financial Tech and Services:

Components:ACIW,ADP,AXP,BCO,BKFS,BR,CATM,CBG,CLGX,COF,CSGP,DFS,EEFT,EFX,ENV,FDC,FDS,FIS,FISV,FLT,GPN,HA WK,HRB,INFO,MA,MCO,MORN,MSCI,NCR,PAYX,PYPL,RLGY,RMAX,SPGI,SQ,SYF,TNET,TRI,TSS,V,VNTV,VRSK,WEX,WU

This expansive groups falls under the Financials umbrella but features an array of different industries with Credit Services, Payment Processors and Technology, Financial Data Analytics, and Real Estate Services.

Interestingly, the top two performers in this group in 2016 are providers of ATM's with NCR +68% and CATM +60%. The payment processors group was very hot to start 2016 posting impressive earnings, but has cooled lately and set to face tougher comps in 2017. Analytics is becoming more important and with Banks entering a better environment it should benefit the names providing services to the Banks.

The credit card / services group including MA, V, AXP, DFS, COF, SQ, PYPL and SYF is one where we look at industry-specific metrics like NCO (net charge-off) and DQ (delinquency) rates. It is also a group set to benefit from higher rates, reduced regulations, and increased consumer optimism. PayPal (PYPL) is the disruptor in this group with the increased amount of online transactions and now has partnerships with both V and MA. Square (SQ) is another up and coming name in the group with the growth in mobile payments.

Visa (V) and **MasterCard (MA)** are the clear leaders but have lagged in 2016, though ongoing themes in Tech with Tokenization, Push Payments, and IoT are incremental revenue growth factors moving forward, and the potential in China remains immense. Card spending rose 7.4% last year as consumers continue to move from cash to plastic and Visa has a 47% market share of purchase volume in the US. MasterCard trades at a premium valuation to Visa as it is seeing better organic sales and purchase volumes, and gaining share in the US debit market. In 2017, I prefer **Visa (V)** with the integration of the Visa Europe acquisition and bringing on the Costco and USAA card deals which has closed the gap with MasterCard in the US credit market to the tightest since Q1 2012. **AXP, DFS, and COF** have made strong runs since the Election on the growth to value rotation and at 13.35X, 11.9X, and 11.45X Earnings respectively, remain cheap though unexciting. **Synchrony (SYF)** is the other preferred name at 12X Earnings with double digit EPS growth ahead, and recent results showing strength in loan growth, NIM, and credit. As the leading provider of private label credit cards, it should see tailwinds from the strong credit cycle and continue to generate above-average growth. Lastly, **PayPal (PYPL)** remains a favorite large cap growth name to own with the secular growth trends of online payments and mobile payments (Venmo). The concerns with its network agreements driving margin pressures seem to have been misplaced, and PYPL continues to post impressive growth in its key metrics like TPV (total payment volume), and transactions per customer. Shares have underperformed since the Election on fears of a repeal of the Durbin Amendment, an overhang until there is more clarity.

The payment processors group includes ACIW, GPN, EEFT, VNTV, FISV, WU, FDC and TSS. Technological advancements such as mobile point of sale, contactless, and near-field communication has led to an increase in payment channels for retail customers. Consolidation has been a theme in this group with a number of deals, including Total System's (TSS) \$2.35B purchase earlier this year of TransFirst and Global Payments (GPN) deal for Heartland Payments. This group benefits from rising transaction numbers which Tech is driving, and can expect a greater regulatory environment and heightened security. It is also opening up cross-sell opportunities for fraud-related tools, analytics, loyalty services, etc. for these companies to make money on value-add services.

Global Payments (GPN) screens as the best in breed play and at 17.3X Earnings and 12.2X EBITDA, attractive on valuation. GPN is forecasting strong EPS/Revenue growth, has above-average margins, and generating strong FCF. The Heartland Payment acquisition likely adds upside to 2017 estimates. GPN also has International exposure (Europe 22%), and expect to see improvements from that segment. **Vantiv (VNTV)** is a close second in this group with its history of strong execution, outstanding operational metrics, and strong position in the US market.

Company	Current Market Cap	1Year Return	FY1 P/E	FY2 P/E	FY2 EV/EBITDA	FY1 Normalized EPS YoY	FY2 Normalized EPS YoY	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Return on Equity (ROE)	FY1 Return on Assets (ROA)	FY2 EBITDA Margin	FY-10 Levered FCF Margin	
FISV (Fiserv Inc)	X	22,739	11.9%	23.57x	21.07x	13.1x	38.0%	11.8%	5.4%	6.0%	33.0%	12.3%	35.1%	18.8%
VNTV (Vantiv, Inc.)	X	11,289	10.4%	21.27x	18.71x	14.4x	182.1%	13.7%	(39.9%)	8.0%	32.1%	8.3%	47.7%	21.3%
GPN (Global Payments Inc)	X	11,098	1.1%	20.57x	17.30x	12.2x	72.1%	18.9%	12.8%	7.4%	15.7%	4.8%	34.8%	17.0%
WU (Western Union Co)	X	10,667	16.4%	13.34x	12.80x	9.2x	0.5%	4.2%	(1.1%)	1.5%	56.8%	8.9%	24.9%	16.9%
TSS (Total System Services Inc)	X	9,127	(11.5%)	17.66x	15.81x	10.6x	43.6%	11.7%	50.2%	15.7%	19.5%	8.0%	23.8%	14.3%
EEFT (Euronet Worldwide Inc)	X	3,879	(0.6%)	18.53x	16.30x	9.3x	119.5%	13.7%	9.6%	9.2%	21.0%	7.9%	19.0%	7.9%
ACIW (Aci Worldwide, Inc.)	X	2,327	(10.5%)	46.36x	39.44x	11.4x	(41.1%)	17.5%	(6.4%)	4.5%	6.2%	3.7%	25.8%	12.8%

Exhibit 1

Electronic payments volume is expected to grow at about 7% annually over the next five years

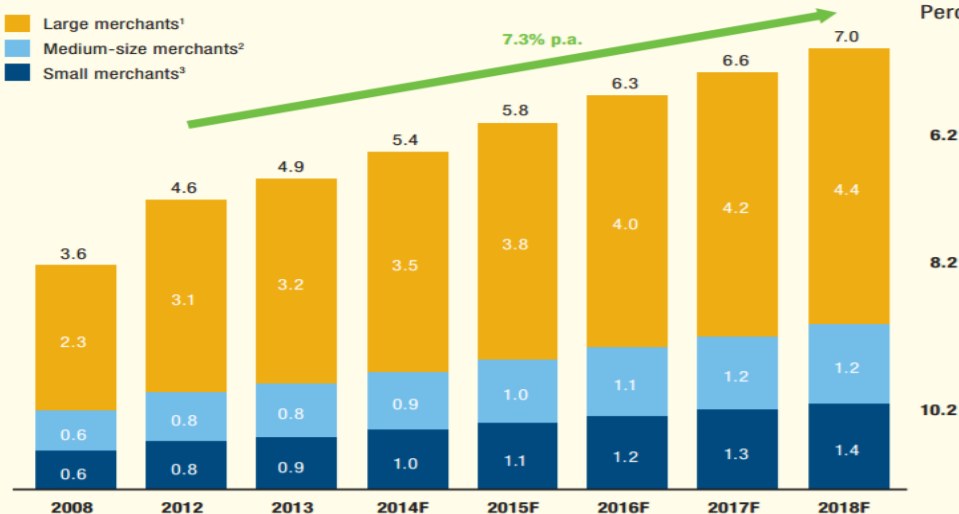
\$ trillions

Large merchants¹
Medium-size merchants²
Small merchants³

2013-18 CAGR Percent

¹ Greater than \$100 million in electronic sales volume
² \$5 million to \$100 million in electronic sales volume
³ Less than \$5 million in electronic sales volume

Source: McKinsey U.S. Payments Map



The property management and real estate focused names are RLG, RMAX, CSGP, BKFS and CBG. The strong housing data seen throughout Q4 should be a boost to earnings when these names report in January/February. **RMAX** has been a top performer with shares +40% YTD as it shifts to a 100% franchise model and re-acquires independent regions.

Black Knight (BKFS) is an interesting spin-off from Fidelity that offers a platform for banks to lower costs and improve regulatory compliance, and in Q3 posted 14% Y/Y revenue growth and 10% EBITDA growth. It remains relatively undiscovered by the market and offers nice upside in 2017. **CBRE Group (CBG)** is the clear value play in the group at 14X Earnings and 8.9X EBITDA, a low margin play but also a positive growth story. Fears of a peaking/slowing commercial real estate market as weighed on shares, but this is a name I noticed a lot of the smarter hedge funds I track added new stakes in Q3 filings.

The Financial Analytics and Data names are TRI, CLGX, MSCI, FIS, BR, MORN, FDS, EFX, VRSK, SPGI, MCO, INFO, and ENV. **MSCI Inc. (MSCI)** is a favorite in this group with a \$7.65B market cap posting impressive growth, strong cash flows, and best in class margins. **Broadridge Financial (BR)** is a \$7.8B provider of investor communication and tech solutions trading attractive to peers on valuation at 10.8X EBITDA with double digit EPS growth, ROE at 36%, and 19% ROIC. The one negative to BR is its lower margin profile. **IHS Markit (INFO)** should be in for a strong 2017 with the merger likely seeing better than expected synergies and leading to a beat and raise year. **Factset Research (FDS)** is a consistently strong growth story that trades at a modest premium to peers, but offers the best ROE, ROE, ROIC and above average FCF growth. **Verisk Analytics (VRSK)**, a provider of risk assessment, is richly valued at 24.7X Earnings and 15X EBITDA. Its key verticals are insurance, natural resources, and financial services, which all look well positioned into 2017, so close monitoring of its quarterly results is required. Its dominant market position, high margins, and expansion into large verticals makes it worthy of premium valuation. Overall there is a lot to like about this group, and there are plenty of quality choices.

The specialized payments and ATM group includes HAWK, WEX, FLT, CATM and NCR. **Cardtronics (CATM)** remains a favorite small cap, one I wrote about on 7/15/16 for SeeItMarket.com. It offers strong growth and continues to gain market shares in a large TAM. **Fleetcor Tech (FLT)** has lagged a bit this year but remains the best growth and top executing company in the group, trading now at 18.75X Earnings with 55%+ EBITDA margins and FY17 should see the \$1B+ deal for STP contribute to stronger results while its end-markets also rebound.

The remaining names include HRB for tax services, ADP/PAYX/TNET for payroll services, and BCO for money transfer. ADP/PAYX are the two leaders but now pricey compared to historical levels and with the economy hitting near full employment and well out of a recession, I am not seeing a great opportunity to own these names at current levels. **Automatic Data (ADP)** shares are trading at record highs and 24X Earnings, 15X EBITDA with limited growth prospects and relatively low margins, so could be a name that sees multiple contraction in 2017.

Healthcare: *Uncertainty is the primary word that comes to mind for this sector in 2017 with the change in leadership that is expected to repeal/change Obamacare which provided a boom for many healthcare names as more people were insured and undergoing medical procedures. Furthermore, continued scrutiny on drug pricing remains a major overhang for the Biotech/Pharma companies that have utilized price increases to drive profits with relatively low volume growth. M&A is often a featured theme for the Biotech sector, and there is a ton of cash for the large Pharma/Biotech companies looking to boost late-stage and early-stage pipelines, so much of the opportunity in the group*

revolves around selecting companies with encouraging pipelines and future growth, as opposed to backwards looking at past financial data. There is value to be found in the sector with relative P/E at a multi-year low and near an all-time low relative to consumer staples. It also is an underowned group as mutual funds moved out of positions into Election risk despite more positive earnings and revision trends than other sectors, though recent deceleration in this trend. Sentiment is low in the group entering 2017 despite being the strongest growth contributor during the current recovery and is relatively cheap among the more defensive sectors.

Biotech:

Components: ACAD, ACOR, AGIO, AIMT, ALDR, ALNY, ALXN, AMGN, ARIA, AVXS, BIIB, BLUE, BMRN, CELG, CHRS, CLVS, DERM, EXEL, FGEN, FLXN, FOLD, FPRX, GILD, GWPH, HALO, ICPT, INCY, ITCI, JAZZ, JUNO, KITE, LGND, LXR, NKTR, ONCE, OPHT, OPK, PBYI, PT LA, RARE, RDUS, REGN, SAGE, SGEN, SRPT, TSRO, VNDA, VRTX, XLRN, XON

In this group of 51 stocks, only VNDA, INCY, VRTX, ACOR, REGN, ALXN, LGND, CELG, BIIB, AMGN and JAZZ are expected to be EPS positive next year, which makes traditional valuation metrics like P/E difficult. EV/Revenues is another approach, a 10 year average of 7X for companies with \$500M+ in revenues. Risk-Adjusted-Value is one way to value early-stage Biotech companies, Market Potential*Market Share*Likelihood of Approval, though a lot of those inputs are subjective.

It is best to break the names into mid/large caps (\$5B+) and small caps. The smaller cap names clearly carry more risk, but also better upside potential with more of the future valuation tied to uncertain futures for drugs in clinical trials. The potential for M&A in 2017 is great if there is more clarity on drug pricing scrutiny, and repatriation of overseas cash. The top 5 US Pharma companies hold nearly \$250B in overseas funds. M&A was down in 2016 to \$90B from \$270B the prior year. The larger cap names I see as top M&A targets are **Seattle Genetics (SGEN), BioMarin (BMRN), Incyte (INCY), Tesaro (TSRO) and Vertex (VRTX).**

On valuation in the larger cap names, **Celgene (CELG)** remains the best of breed name, an \$88B Company generating impressive growth and margins with a deep pipeline and history of strong execution from management. **Incyte (INCY)** is the other preferred name, trading very rich on valuation, but its pipeline continues to show impressive results and poised for 40% revenue growth next year. **Gilead (GILD)** is the cheap name, but has been a value trap all of 2016 as it uses cash to buy back stock instead of M&A to boost and diversify its business which is seeing increased competition and pricing concerns. It has the potential to be a rebound play in 2017 if management makes an aggressive move.

BioMarin (BMRN) is an attractive play in rare diseases that has managed well through the industry weakness and along with **Alexion (ALXN)** has seen some large Jan. 2017 ITM calls bought that sit in open interest.

Company	Current Market Cap	YTD %chg	FY2 P/E	FY2 EV/Sales	FY2 Normalized EPS YoY	FY2 Total Revenue	FY2 Total Revenue YoY	2017/2018 Gross Margin	FY-10 Total Debt/EBITDA	FY1 Return on Equity (ROE)	FY-10 Return on Invested Capital	FY-10 Total Asset Turnover	
AMGN (Amgen Inc)	X	106,716	(9.4%)	11.45x	4.4x	8.4%	23,506	3.1%	85.8%	2.9x	28.0%	15.1%	0.3x
GILD (Gilead Sciences Inc)	X	95,792	(25.8%)	6.70x	3.2x	(5.3%)	28,282	(6.3%)	88.0%	0.9x	83.8%	57.2%	0.8x
CELG (Celgene Corp /De/)	X	87,947	(3.5%)	16.13x	7.2x	18.9%	13,198	16.9%	95.9%	4.8x	54.6%	22.8%	0.4x
BIIB (Biogen Inc.)	X	62,613	(2.3%)	13.77x	5.2x	3.4%	11,953	3.7%	87.3%	1.2x	38.9%	29.9%	0.6x
REGN (Regeneron Pharmaceuticals...)	X	39,302	(27.9%)	26.07x	6.5x	21.6%	5,764	16.5%	95.6%	0.3x	26.6%	25.3%	0.9x
ALXN (Alexion Pharmaceuticals Inc)	X	29,601	(28.5%)	23.44x	8.8x	21.5%	3,570	15.5%	91.5%	4.0x	10.0%	4.5%	0.3x
VRTX (Vertex Pharmaceuticals Inco...)	X	19,004	(37.7%)	33.28x	8.4x	196.6%	2,225	31.4%	87.3%	--	3.9%	(10.2%)	0.4x
INCY (Incyte Corp)	X	18,953	(2.6%)	69.58x	12.3x	142.6%	1,536	39.4%	94.7%	6.5x	70.0%	6.7%	0.8x
BMRN (BioMarin Pharmaceutical Inc)	X	14,213	(21.2%)	--	10.5x	(71.0%)	1,317	18.1%	82.9%	--	(19.3%)	(4.7%)	0.3x
SGEN (Seattle Genetics, Inc.)	X	9,174	54.6%	--	17.1x	(10.5%)	502	19.7%	88.5%	0.0x	(17.9%)	(27.0%)	0.5x
TSRO (Tesaro, Inc.)	X	6,935	167.7%	--	39.6x	(20.4%)	162	244.7%	83.0%	--	(238.7%)	(105.4%)	0.0x
JAZZ (Jazz Pharmaceuticals Plc)	X	6,124	(25.5%)	8.96x	4.7x	14.4%	1,685	12.9%	93.2%	1.8x	29.5%	19.5%	0.4x
OPK (Opko Health, Inc.)	X	6,116	9.7%	--	4.2x	(97.2%)	1,429	14.6%	51.5%	--	(0.2%)	(1.1%)	0.2x

For the smaller names, Asset Turnover looks to be a good metric aligning with names I prefer in the group. I'll briefly touch on a few of these names below. Options activity monitoring is extremely helpful in this group to see where the smart money is positioning.

Five Prime Therapeutics (FPRX) is a \$1.52B biotech focused on cancer immunology and immunotherapy, multiple clinical candidates in Phase 1 and 1b, and partnered with Bristol Myers (BMY). Its lead drug Cabiralizumab has shown compelling data in gastric cancer, and in 2017 will see combo data with Opdivo.

Dermira (DERM) is a \$1.06B biotech focused on dermatologic diseases, a promising candidate for moderate-to-severe chronic plaque psoriasis.

Vanda (VNDA) is a \$699M biotech with a focus on central nervous system disorders, its primary approved products are for sleep-wake disorder and schizophrenia. VNDA announced earlier this year it is exploring a potential sale, and has 7,500 Jan. 2017 \$18/\$15 bull risk reversals in open interest.

Flexion (FLXN) is a \$600M biotech focused on anti-inflammatory therapies for musculoskeletal conditions. FLXN's Zilretta is looking to become a leader in treatment for OA Knee Pain. FLXN has seen sizable insider buying and also a buyer of 1,000 February \$17.50 calls that remains in open interest. FLXN's breakthrough drug targets a \$2.8B market with potential approval as early as Q2 2017.

Sage Therapeutics (SAGE) is a \$1.92B biotech focused on central nervous system disorders, its lead candidate is for treatment of SRSE and also a candidate for post-partum depression. SAGE is targeting highly unmet areas and has strong management experiences with 8 key data readouts expected in 2017.

Lexicon (LXRX) is a \$1.62B biotech focused on a variety of diseases such as carcinoid syndrome, type 1 diabetes, type 2 diabetes, glaucoma, and IBS. LXRX faces a February 28th, 2017 FDA approval decision for telotristat ethyl in carcinoid syndrome.

Aimmune Therapeutics (AIMT) is a \$1.16B biotech focused on treatment of peanut and other food allergies. AR101 is its lead investigational drug for peanut allergy with Q4 2017 top-line data expected and could see shares run into that event.

Pharma, Drugs, and Generic:

Components: *ABBV, AKRX, AZN, BMY, DPLO, EGRX, ENDP, GSK, HZNP, IRWD, JNJ, LCI, LLY, MDCO, MNK, MRK, MYL, NBIX, NVO, NVS, PCRX, PFE, PRGO, SHPG, SNY, TARO, TEVA, UTHR, VRX, ZTS*

The Pharma group faces the same headwinds as Biotech and 21 of the 30 components are down 15% or more YTD. IRWD, JNJ, and MRK have been the lone outperformers. The generics group has been under the most pressure with many of the names down 40% or more this year.

Company	Current Market Cap	YTD %chg	FY2 P/E	FY2 EV/Sales	FY2 Normalized EPS YoY	FY2 Total Revenue	FY2 Total Revenue YoY	2017/2018 Gross Margin	FY-10 Total Debt/EBITDA	FY1 Return on Equity (ROE)	FY-10 Return on Invested Capital	FY-10 Total Asset Turnover
JNJ (Johnson & Johnson)	305,325	11.7%	15.72x	3.9x	6.3%	75,522	4.8%	70.1%	0.9x	25.1%	18.2%	0.5x
PFE (Pfizer Inc)	192,367	(0.8%)	12.07x	4.0x	8.7%	55,414	4.7%	78.9%	2.1x	22.8%	12.9%	0.3x
MRK (Merck & Co., Inc.)	168,930	16.7%	15.73x	4.5x	3.2%	39,874	(0.1%)	75.7%	1.3x	21.0%	15.5%	0.4x
NVS (Novartis Ag)	166,070	(18.7%)	14.38x	3.7x	2.7%	49,415	1.2%	69.4%	1.4x	12.5%	12.5%	0.4x
SNY (Sanofi)	105,129	(4.3%)	13.73x	3.0x	(3.8%)	38,548	(1.2%)	69.6%	1.5x	9.9%	11.4%	0.3x
ABBV (Abbvie Inc.)	100,009	6.8%	11.19x	4.6x	14.0%	28,282	9.9%	81.3%	3.6x	148.6%	29.4%	0.6x
BMY (Bristol Myers Squibb Co)	95,327	(14.9%)	19.13x	4.7x	4.3%	19,974	3.3%	74.5%	2.5x	30.9%	13.5%	0.5x
GSK (Glaxosmithkline Plc)	91,956	(6.6%)	13.70x	3.0x	7.1%	37,144	6.1%	68.9%	2.8x	101.0%	20.5%	0.5x
NVO (Novo Nordisk A S)	90,020	(37.1%)	15.97x	5.4x	3.6%	16,227	2.2%	84.0%	0.0x	76.6%	85.8%	1.2x
LLY (Lilly Eli & Co)	74,903	(18.1%)	17.10x	3.7x	12.7%	21,663	3.2%	75.8%	1.6x	23.8%	16.4%	0.6x
AZN (Astrazeneca Plc)	68,655	(18.7%)	14.76x	3.8x	(10.9%)	21,714	(6.2%)	82.6%	1.7x	22.5%	19.9%	0.4x
TEVA (Teva Pharmaceutical Industri...)	37,068	(44.4%)	6.61x	2.9x	7.1%	24,916	14.8%	59.0%	1.7x	12.8%	12.3%	0.4x
SHPG (Shire Plc)	33,997	(15.8%)	10.97x	3.8x	17.6%	15,158	34.0%	75.9%	0.6x	18.5%	25.7%	0.4x
ZTS (Zoetis Inc.)	25,630	9.8%	22.17x	5.7x	20.5%	5,209	6.6%	67.7%	4.5x	68.7%	15.1%	0.7x

Shire (SHPG) with a \$34B market cap looks attractive on valuation at 11X Earnings, 3.8X EV/Sales and a strong balance sheet. SHPG has a long runway for 10%+ EPS growth with potential new blockbuster drugs like Xiidra and SHP643 to propel its HAE franchise.

AstraZeneca (AZN) also trades relatively cheap with a 3.31% dividend yield and has seen a massive accumulation of call options for April and July expirations. AZN currently has a very weak outlook for revenues and EPS, but an exciting pipeline with five key Phase 3 read-outs due in 2017 with a total of \$18B in peak sales, and also 3 launches expected in 2017 with \$3.3B estimated peak sales. The biggest catalyst will be MYSTIC Phase 3 for durvalumab / tremelimumab in 1L lunch cancer with PFS data expected 1H17.

Zoetis (ZTS) is a favorite name with it being a leader in animal health, an area that has less risks than the human health names. ZTS is undergoing operational improvements and recently announced a new repurchase program that could see 6% of shares outstanding bought back. New products will drive growth in the companion animal segment and could lead to upside to estimates in 2017.

Sanofi (SNY) is a low quality name in this group, a \$105B market cap trading 13.75X Earnings with a weak outlook for Revenues/EPS, and a low ROIC name. **Pfizer (PFE)** is another low quality name in the group, though its massive cash hoard could be put to use in 2017 and be a cause for optimism.

Merck (MRK) has been a winner in 2016 with momentum from Keytruda, and on the other side of that success has been **Bristol Myers (BMY)** which has lost ground. BMY has seen a significant amount of bullish options activity since shares traded down to the \$50 level, and could come back into favor in 2017 with positive data read-outs.

Looking at the sub \$25B names there is not a lot to like, a bunch of names under heavy selling pressure with broken trends and plenty of fundamental headwinds.

Eagle Pharma (EGRX) is one of the few healthy trend names, a name trading 14.5X Earnings, 2.9X EV/Sales with a clean balance sheet and 40%/63% Revenue/EPS growth forecasted for FY17. EGRX has five products delivering profits with Bendeka its key asset, developed for Teva (TEVA) to replace Treanda, and sees Ryanodex as its next big product.

Managed Care, Hospitals, Distributors and Labs/Testing:

Components:A,ABC,ACHC,AET,AMNL,ANTM,BIO,BRKR,CAH,CHE,CI,CNC,CRL,CVS,DGX,DVA,ESRX,EVHC,HCA,HSIC,HUM,IDXX,INCR,LH,LPNT,MCK,MD,MGLN,MOH,NEOG,PAHC,PKI,PMC,PRAH,PRXL,PTHN,Q,QGEN,SCAI,THC,UHS,UNH,VWR,WBA,WCG,WOOOF

The first group to look at is the Managed Care and Pharma Distribution companies. The Managed Care industry is attempting to undergo major consolidation with Anthem (ANTM) bidding for Cigna (CI), and Aetna (AET) trying to buy Humana (HUM). The deals have drawn scrutiny from regulators and remain up in the air. A few smaller deals with WellCare (WCG) agreeing to buy Universal American (UAM) for \$800M in November, and Centene (CNC) acquiring HealthNet (HNT) in July. The group is seen to benefit from both rising rates and tax reform. The Pharma Distribution stocks (CAH, MCK, ABC, ESRX) have come under selling pressure lately with drug pricing scrutiny set to further cramp margins. WellCare (WCG) has been the top performer with shares +78% YTD, and United Health (UNH) +38.5% as its Optum business has been very strong.

United Health (UNH) is the top performer in the group and does trade at a premium valuation of 11.4X EBITDA versus the peer average closer to 9X, but also is well above peers on nearly every metric with a strong outlook for double digit EPS growth, so it remains the top name into 2017.

Cigna (CI) is the most compelling value at 8.7X EBITDA with best in class EBITDA margins. If its buyout from Anthem fails to materialize, CI receives a large break-up fee that can be used to buy back stock. CI is the least levered of the names with the best capital redeployment capacity, and financial engineering along could call for 2018 estimates to be raised sharply.

CVS Health (CVS) is an out of favor name, down 15% YTD, that I think can make a nice recovery in 2017, now trading cheap at 13.65X Earnings and 8.5X EBITDA. CVS should benefit from its OptumRx network deal announced earlier this year, and tax reform can add to EPS.

MCK, CAH, and ABC uptrends are completely broken and although multiples are cheap, there are too many uncertainties that can cause a continual trend of lowering forward estimates. Of the three, I consider AmerisourceBergen (ABC) to be best of breed.

The next group to look at is the Hospitals, Home Health, and Wholesale Equipment stocks. The stocks in this group do not look overly compelling at current levels, a real lack of growth and unimpressive margins/ROIC. A repeal/overhaul of Obamacare is likely to be negative for hospitals and companies with exposure to hospital spending.

Chemed (CHE) is an attractive small cap, a \$2.5B provider of hospice and palliative services trading 19.8X Earnings with 15% EBITDA margins and 20% ROIC. CHE owns Roto-Rooter plumbing and drain cleaning service which accounts for 28% of revenues, and seems like a unit it could look to sell. VITAS Healthcare is the other unit, and only has a 7% market share in the US and hits the theme of an aging US population.

The final group includes Labs, Research, and Diagnostics. **IDXX** more than doubled any other member's performance with shares +70% YTD, followed by relatively underfollowed **BIO** +31%. **DGX** is +31% on the year, well ahead of closest peer **LH** at +4%, showing relentlessly strong price action. The contract research organization (CRO) names are directly tied to biopharma R&D spend, so tied into the pricing concerns weighing on revenues, and thus budgets. The CRO space is facing headwinds such as increased complexity of trials, shortage of talent, and slowing backlog conversion.

Pantheon (PTHN) is an attractive small cap that is a recent IPO that has seen some notable hedge funds take new stakes. PTHN trades 15.7X Earnings and 10.4X EBITDA with some of the best growth in its class and is seeing margin expansion and strong FCF generation. PTHN develops 25 of the top 100 global drugs.

Qiagen (QGEN) has been a 2016 favorite in the group as a leading provider of technologies used in life sciences and molecular diagnostics. At 23X Earnings and 5X EV/Sales, QGEN does trade at a premium valuation, but is also a margin leader and new products should make 2017 a solid growth year.

Pra Health (PRAH) is a top 2015-2018 growth play in the CRO space trades 18.8X Earnings and 12.5X EBITDA. PRAH is a small cap still owned 50% by KKR and has a strong history of posting solid quarterly results.

Medical Devices, Equipment, and Supplies:

Components: *ABMD, ABT, ALGN, ALOG, BABY, BAX, BCR, BDX, BSX, CMN, CNMD, COO, DXCM, EW, GMED, HAE, HOLX, HRC, IART, ICU I, ILMN, ISRG, MASI, MDT, MSA, MTD, NUVA, NVRO, NXTM, PDCO, PEN, PODD, RMD, SNN, STE, STJ, SYK, TFX, TMO, VAR, WAT, WMGI, WST, XRAY, ZBH, ZLTQ*

The medical device/technology group was one of the strongest the first half of the year, but then saw some sharp sell-offs in the second half as overall Healthcare weakness weighed, and a few earnings reports from leaders like Edward's (EW) underwhelmed. Even with the recent weakness, 21 of the 45 components are +15% or more YTD. Much of the selling was a sector rotation move, but also a group no longer seeing revenue acceleration. There are concerns that changes to ACA will impact surgical procedure volumes, but although Obamacare drove overall hospital volumes, the impact to procedures was minor. Valuations in Med-Tech are back to parity with the S&P, so there are likely some opportunities in quality names for 2017. The medical device industry is expected to grow 6.1% in 2017 to \$302B.

To attack such a large group I will first look at the \$10B+ names which trade at an average P/E of 19.33X, 13.6X EBITDA, 4.2X EV/Sales, 30% EBITDA margins, 23% ROE, 16.7% ROIC, 15% Levered FCF Margin, and Net Debt / EBITDA of 2X.

Hologic (HOLX) is a top play in the group, the \$11B maker of diagnostic and surgical products for women trades 16.8X Earnings, 12X EBITDA with 37% EBITDA margins and strong free cash flow. HOLX has been seeing solid growth with new products and been in a deleveraging cycle, and now may pursue M&A. HOLX has a strong new product cycle continuing in 2017 and new management has shown promise.

CR Bard (BCR) with a \$15.9B market cap trades 19X Earnings, 12.9X EBITDA with 33.6% EBITDA margins, 26.8% ROIC and solid FCF. BCR has been a consistent beat and raise name throughout 2016, and double digit EPS growth remains the expectation for 2017. BCR ranks 2nd to only Edward's (EW) for cash conversion, 5 year FCF / Adjusted Net Income. Emerging markets and new products are BCR's growth opportunities.

Baxter (BAX) is a cheap name in this group at 10.8X EBITDA and 2.4X EV/Sales, though other metrics screen weak compared to peers as the company undergoes a transformation. Baxter has room to meaningfully improve margins, optimize its portfolio and improve operations to allow it to be priced at a higher multiple. Baxter also retained a 20% stake in Baxalta which was acquired by Shire, and Baxter could realize \$5B which can be used for capital allocation and friendly shareholder activities.

In the \$5B to \$9B group, **Align (ALGN)** is a \$7.85B dental technology company that is the clear growth leader with a very high ROIC, but also trades at a premium valuation of 33X Earnings and 21X EBITDA. ALGN can continue higher as a momentum play as long as it delivers each and every quarter. **ResMed (RMD)** also screens well at 14.4X EBITDA and 20.35X Earnings with double digit EPS growth, 28% EBITDA margins, and a 16.3% ROIC. RMD is releasing new masks for 2017, so a successful product cycle could be a big boost to shares.

For the small caps, **Inogen (INGN)** was a favorite play in 2016 and shares are +60%, but remains one of the more attractive names, the \$1.3B maker of oxygen concentrators. INGN is projecting accelerating EPS growth through 2018, is growing revenues and has a clean balance sheet. INGN is disrupting the traditional O2 industry and remains an attractive long term growth story. **NuVasive (NUVA)** with a \$3.4B market cap at 13.5X EBITDA, 3.6X EV/Sales with impressive revenue and EPS growth and 25% EBITDA margins stands out as the best value for growth name, and also could make a compelling takeover target with spinal products seeing M&A the past year. **PEN and NVRO** are the two revenue growth

leaders that carry pricey valuations of 6.3X EV/Sales, but also offer the best returns when/if the group comes back into favor.

Industrials: *The Industrial group has been one of the strongest since the results of the Election with the planned \$500B infrastructure spend boosting many names across the sector. The Aerospace/Defense industry should also see benefits from a pro-military spending administration. Many of the Industrial names with exposure to Energy markets will face much easier comps in 2017 as Energy has stabilized and rebounded and is an area of opportunity as estimates shift higher. The other area within this group is Residential Construction, and with mortgage rates soaring since the Election, a slowdown in housing sales is to be expected, and could weigh on a number of names with exposure. An area showing some promise into 2017 facing easier Y/Y comps as well is Agriculture related equipment names as the cycle looks to have bottomed. Automation and Robotics is a strong theme in the Industrial group leading to lower costs and better efficiency. Other mega-trends include population growth requiring more electricity, energy efficiency, intelligent products and connectivity, and environmental concerns. Lastly, the Transports group has been very strong to finish the year, and is very cyclical with the economy. There are so many diverse markets within the Industrial group that it makes it the most interesting to do deep dives into earnings reports and discover read-throughs for other companies operating in those markets. Some of those markets include Electrical, Hydraulics, Aerospace, Defense, Oil & Gas, Power Systems, Vehicle, Pumps and Flow, Artificial Lift, HVAC, Food Equipment, Automation and Controls, Residential Equipment, Connectivity, Water Systems, Welding, and Tools. This group is more sensitive to the USD and interest rates while capital intensity brings higher credit risk.*

Aerospace/Defense:

Components: *AER,AJRD,BA,BWXT,COL,CW,ERJ,ESL,FLIR,GD,HEI,HII,HRS,HXL,KLXI,LLL,LMT,MANT,MOG-A,MRCY,NOC,OA,RTN,SPR,TDG,TDY,TGI,TXT,UTX,WWD*

Overall the Aerospace & Defense group performed fairly well in 2016 with numerous names up 20% or more, the top 7 performers were all small caps with MRCY, CW, KLXI, MANT, HEI, WWD, and TDY. In Aerospace, growth has continued to be better than the rest of the Industrial markets, though news recently that Boeing is cutting production of the 777 which could weigh on a number of its suppliers. The Aerospace group also has two large players in Honeywell (HON) and United Tech (UTX) that are actively seeking M&A deals. Commercial aircraft is expected to rise 8% in 2017 and an additional 4% in 2018 while Defense is expecting 3-5% annual growth in spending globally the next three years, the US accounting for 45-50% of global defense spending, but growing slower. The Defense group is well positioned for increased spending under a Trump Presidency, and the stocks have long been correlated to political changes. Aerospace industry drivers include accelerating fleet renewal with fuel efficiency and increasing global passenger and cargo miles.

Rockwell Collins (COL) recently announced plans for a \$6.4B acquisition of **BE Aero (BEAV)**, a deal valued at 13.6X EBITDA which is a bit above the 13X historical deal average for the industry. Starboard Value LP has since acquired a stake in COL suggesting it drop the bid for BEAV and instead look to sell itself. The options market has positioned bullish in **COL** since shares traded below \$80, and seems to think shares are worth \$110 to \$115. COL is attractive at 10X EBITDA with strong EBITDA margins near 25%.

Looking at the \$10B+ companies first, we have an average 11X EBITDA multiple, minimal revenue growth FY16/17 at 2%/3.5%, EPS growth at 9.2%/7.7% for FY16/17, EBITDA margins at 18.4%, ROIC 15.6%, and 2X Debt/EBITDA.

TransDigm (TDG) trades at a premium valuation of 12.4X EBITDA as the leading double digit EPS growth name and superior EBITDA margins at 46.5% as a leading player in the commercial aerospace aftermarket. TDG has strong FCF but also very levered with a long history of acquisitions, currently around \$1B dry powder after posting a \$1.4B special dividend.

Textron (TXT) with a \$13B market cap at 16.5X Earnings, 9.5X EBITDA and 8% EPS growth is an attractive value. It lags peers on ROIC and EBITDA margins, but I see the business jet market at a better spot on the cycle compared to commercial, and also should see better sentiment with the new administration.

General Dynamics (GD) with a \$53B market cap trades 11.3X EBITDA with 15% EBITDA margins and an impressive 20%+ ROIC. GD is seeing strong momentum from its new Gulfstream planes, and has more defensive characteristics with Debt/EBITDA at just 0.1X.

L-3 (LLL), a top performer in 2016 with shares +32%, looks unattractive at 12X EBITDA, 19X Earnings with a weak growth outlook, low EBITDA margins at 11.7%, and a ROIC below 10%. Investors have bid shares higher in anticipation of margin improvement, but even with the improvement it is still below peers and the growth outlook has been sub-par.

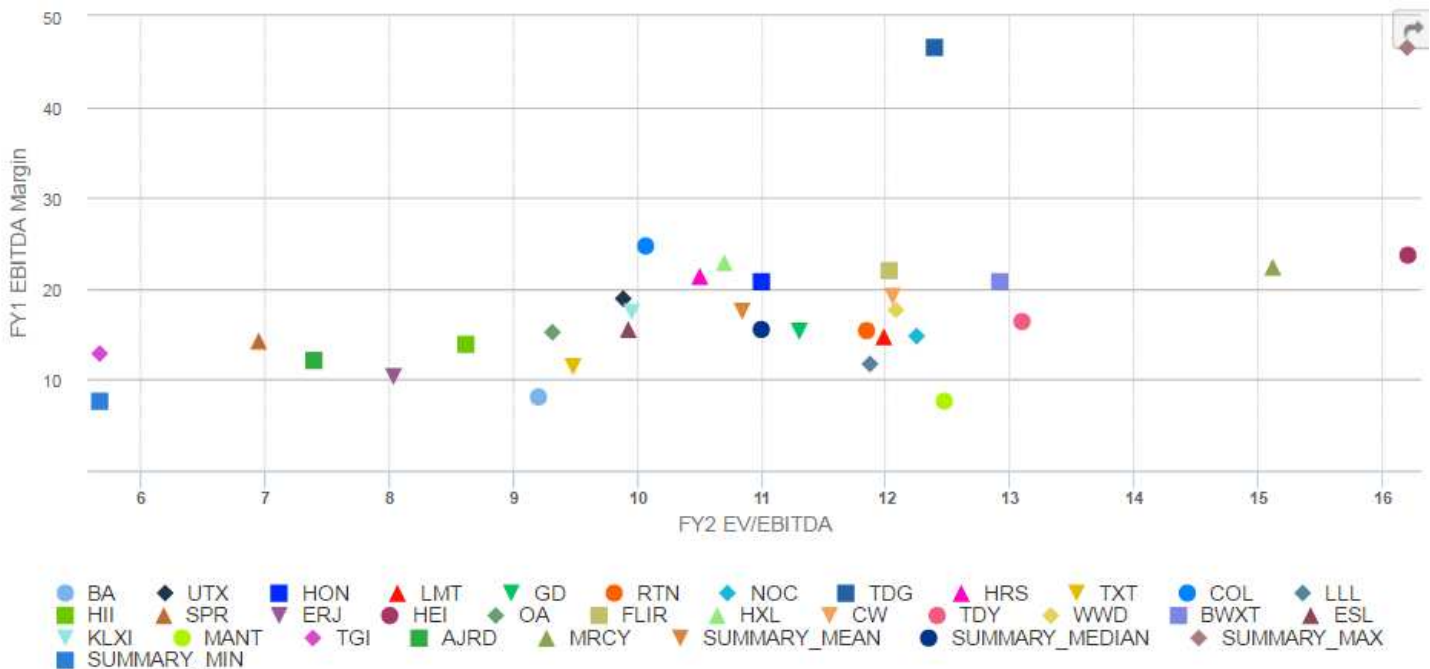
Hexcel (HXL) remains a favorite of the smaller trades, the \$4.8B Aerospace supplier trades 10.7X EBITDA with steady revenue/EPS growth, 22.8% EBITDA margins and a 15.7% ROIC. HXL is guiding 6-9% annual growth through 2020. HXL may face some headwinds if further production cuts are announced in the industry, but is a top beneficiary of the shift to composites in commercial aerospace.

BWX Technologies (BWXT), a \$3.85B provider of nuclear components, trades 12.9X EBITDA with 20.8% EBITDA margins and a 17.5% ROIC. BWXT should be a beneficiary of Trump's plans to increase the US Naval fleet. BWXT receives 88% of sales from the US government and has a long-term stable revenue stream. Double digit EPS growth and best in class ROE make it solid small cap pick in the industry.

Woodward (WWD) is a final favorite with shares trading 12.1X EBITDA and projecting 24.6% EPS growth in 2017, the strongest year in a long time. WWD has strong exposure to the Narrowbody style which is growing much faster than Widebody, and as its Aerospace unit (60%) has grown consistently, its Industrial unit (40%) is hitting a bottom of a cycle, so can expect 2017 to be a year of beat and raises.

The group has not seen much options activity outside of HXL with positions in 2,000 March \$45 calls and 1,000 June \$50 calls. Embraer (ERJ), a foreign play, recently saw over 5,000 April \$20 calls bought to open as a trader sees the struggling name recovering.

EV/EBITDA vs. EBITDA Margin



Industrial Machinery and Equipment:

Components: AGCO, AME, AOS, AZZ, B, BDC, CAT, CFX, CLC, CNHI, CR, CW, DCI, DE, DHR, DOV, EMR, ENS, ETN, FELE, FLS, FTV, GE, GG, GNRC, HEES, IEX, IR, ITT, ITW, JBT, LII, MFS, MIDD, MMM, MTW, NDSN, NPO, OSIS, PH, PNR, ROK, ROP, RXN, ST, TEX, URI, WTS, XY, L, ZBRA

It was a very strong year for Industrials with 32 of these 52 components gaining 25% or more on the year, and many have rallied sharply since the Election on expectations for a large Infrastructure spending push in the US. We are also closing the year with strong global PMI momentum which is closely correlated with the Industrial sector performance. JBT shares were +73.5%, a top small cap pick from last year's report, and continues to post impressive numbers each quarter. Many of the names have also recovered from early year weakness as Oil has recovered back above \$50 and an improved outlook for the Oil & Gas industry heading into 2017. The top 11 performers each gained over 50% and are all sub \$6B market caps, so it pays to do the fundamental research and find the lesser known winners. Understanding the end-markets of each of these companies is vital for investing/trading. Caterpillar (CAT) at a recent conference noted that benefits from fiscal stimulus is unlikely to be seen before late 2017, so many of these names are extended and could pull in early in 2017 for better entry levels. The rising rates and strong US Dollar environment is also a headwind to many of the names with International exposure in Emerging Markets, so also important to mainly stick to US-centric names and exposure levels are shown in the chart below. As seen with the 3M (MMM) 2017 outlook, companies are not counting on

the boost from fiscal policy action and being conservative with a base macro scenario, so the opportunity in this group may lie more in 2H17 when some benefits begin to be realized and FY18 estimates begin to rise.

The biggest beneficiaries from a 15% lowered corporate tax rate scenario are ITT, FTV, EMR, ROK, HON, DOV, MMM, and AME. The names with the most significant international cash positions that can benefit from repatriation are DCI, HON, FLS, PH, CFX, ROK, ITT, DOV, and EMR.

To first look at the 17 names with \$10B+ market caps, the average P/E is 17.4X, EBITDA multiple at 15.3X, EBITDA margins at 19.5%, ROA at 7.7% and ROIC at 8%. **Ingersoll Rand (IR)** has been a top performer all year with its HVAC exposure as shares have climbed 43.5%, and interestingly screens as the cheapest name at 10.9X EBITDA.

Parker Hannifin (PH) screens cheap at 11.1X EBITDA and expecting to return to 10% EPS growth in 2018. PH with exposure to Aerospace and Energy markets looks well positioned to accelerate organic growth and also recently made a strong strategic acquisition of CLARCOR (CLC). With ROA above 9% and ROIC above 12% it is above peer averages and Debt/EBITDA very low at 0.6X.

Dover (DOV) is another relatively cheap name at 11.2X EBITDA and is an Industrial with a lot of exposure to Energy markets, expecting 21.5% and 15% EPS growth the next two years forward after 3 years of Y/Y declines, and seemingly at the bottom of a cycle with potential to return to \$5/share+ in earnings, leaving shares with at least 20% upside.

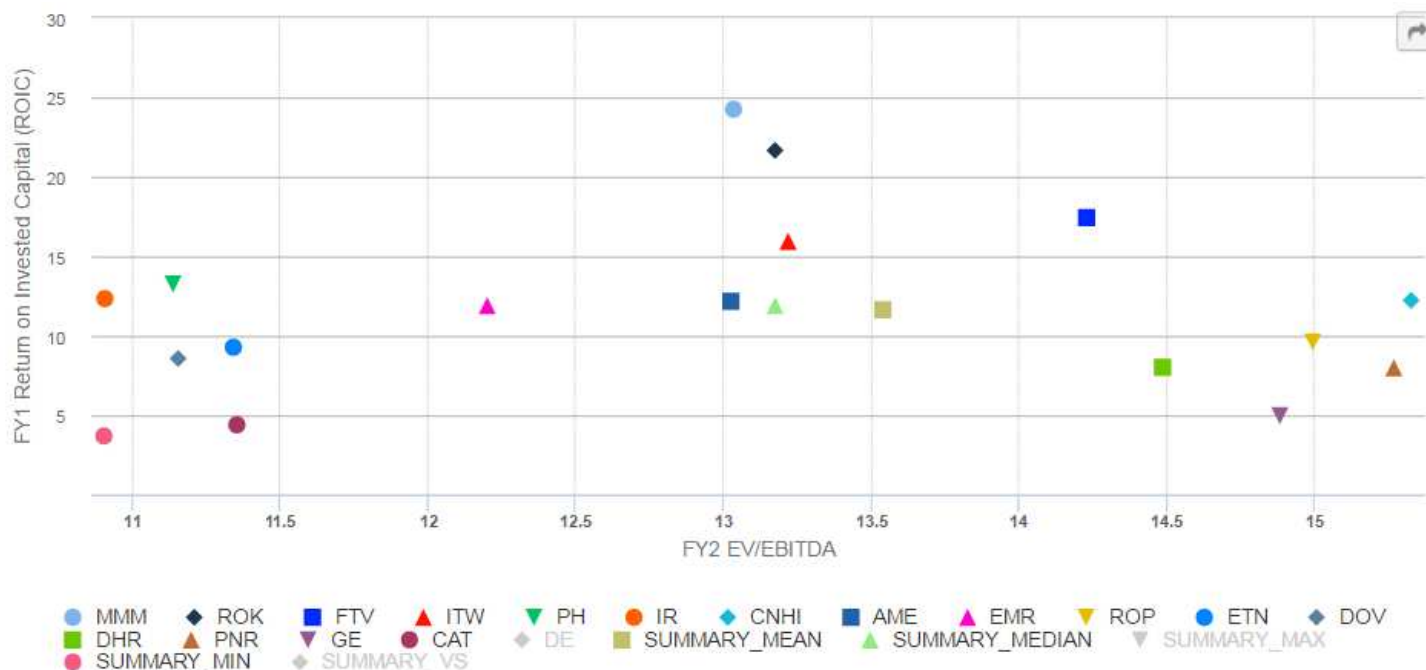
Deere (DE) is a top play for this group despite trading rich at 20.4X EBITDA and 19.7X Earnings. DE also screens poorly on all the other metrics and is over-leveraged, but the play here is that the Ag cycle is bottoming, and after earning just \$4.81/share in 2016, see potential to earn \$10/share+ as the cycle rebounds. Price-action and options activity also suggest that DE is a name to own.

Roper (ROP) is a top revenue growth and margins name with impressive cash flows. ROP has long been a strong outperformer with an asset light model and leadership positions in niche markets. ROP receives 70% of its EBITDA from Medical and RF Tech/Software segments and is active with strategic acquisitions while also growing strong organically.

Illinois Tool (ITW) is another quality name trading historically rich at 20.5X Earnings and 13.2X EBITDA, but offers consistent top and bottom line growth with 26% EBITDA margins near the best in class, 13.9% ROA and 15.9% ROIC. ITW has one of the best managements in the industry and a diversified portfolio including Automotive OEM, Test & Measurement, Food Equipment, Polymers & Fluids, Welding, Construction Products and Specialty Products.

Pentair (PNR) stands out as over-valued at 15.3X EBITDA with low quality growth and sub-par ROA and ROIC while being levered at 4.1X Debt/EBITDA. PNR is looking to sell its Valves & Controls business, but it's most recent guidance for 2017 was uninspiring as it continues to post sluggish results.

EV/EBITDA vs. ROIC (\$10B+)



In the \$4.5B to \$9.5B market cap range we start to see industrial names with more specialized/focused businesses. Six of the fifteen names are up 55% or more YTD. There are a lot of good looking names in this group expecting to see accelerating growth, and therefore expanding multiples.

Xylem (XYL) with a \$9B market cap was a favorite for 2016 and with shares up 40% it remains a favorite. XYL is a double digit EPS growth name and its recent Sensus acquisition for \$1.7B will allow it to improve margins and growth. XYL is a unique play on water infrastructure which I see as very critical going forward.

AO Smith (AOS) with a \$7.4B market cap trades 12X EBITDA and a leading ROIC above 20%. AOS is posting annual revenue growth in the 6-10% range and a double digit EPS growth name seen out to at least 2018. AOS is a key player in the water heater market and also has 30% of sales now coming from China. AOS has more than a 50% market share in commercial and 40% in residential. Rising steel costs is making it raise the prices of its water heaters. AOS sees a big opportunity in India to become a leader as well. My one concern is the China business and potential conflicts with the new administration's trade policy.

Nordson (NDSN) has a \$6.3B market cap and trades fairly rich at 13.4X EBITDA with strong 26% EBITDA margins and a 15% ROIC. NDSN is growing revenues at a 5% annual clip and forecasting EPS growth of 3.7% and 8.5% the next two years forward after 31% growth in 2016. On 12-13, NDSN posted another fantastic quarter and has a lot of momentum heading into 2017. NDSN has exposure to dispensing systems as well as industrial coating systems and is seeing strong bookings and backlog growth trends. NDSN is a technology company hiding in an industrial group.

Middleby (MIDD) has a \$7.8B market cap and trades rich at 15.4X EBITDA with 22% EBITDA margins and a 16.6% ROIC. MIDD grew revenues 23.5% in 2016 with its active acquisition approach and forecasts 8% growth the next two years while EPS growth in the 15-20% makes it deserving of a premium multiple. MIDD is a play on the foodservice industry with 55% exposure to commercial, 30% to premium residential, and 15% to food processing. Despite its acquisitions it is at a low level of leverage of 1.58X Debt/EBITDA. It sees growth opportunities in Beverage/Ice, a \$3B market, and Combi-Oven entering North America, a \$1B opportunity.

Ilex (IEX) has a \$7.4B market cap and trades 14X EBITDA with 24.6% EBITDA margin and 13.7% ROIC. IEX is looking at 5% annual revenue growth and 5-10% EPS growth. IEX revenues are broken into Fluid/Metering Tech, Health & Science, and Fire & Safety segments. IEX sees significant opportunities to expand via M&A in its core niche markets and estimates \$2.7B in capital available over the next 5 years.

Sensata (ST) is a \$6.8B name that has lagged in 2016 with shares -8.5% YTD, but now trades cheap at 11.6X EBITDA with 25% EBITDA margins and 14% ROIC. ST has seen its multiple contract going from a 20% annual revenue growth name in 2014/2015 to just 7.5% in 2016 and forecasting around 3% the next two years forward, but does see EPS growth accelerating back to 8-10%. ST is seeing margins expand and is deleveraging. ST is a maker of sensors and controls, and Automotive is one key end-market including Class 8 trucks where the market was hit hard the last two years, but looks to be bottoming out. ST is currently out of favor, but at current valuation is once again attractive for the long term opportunity.

Flowserve (FLS) and Colfax (CFX) are two names in this group that screen as low quality. FLS trades 13.5X EBITDA with weak growth, 14.6% EBITDA margins and a ROIC below 10%. CFX trades 11.8X EBITDA with 12.6% EBITDA margins and a ROIC at 4.6%. Weakness in the Energy end-market has impacted results at both, but peers have managed through the downturn much better, and generally those are the names to also own for the upturn.

Company	Current Price	1Year Return	Current Market Cap	FY2 P/E	FY2 EV/EBITDA	FY2 EV/Sales	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Normalized EPS YoY	FY2 Normalized EPS YoY	FY1 Gross Margin	FY1 EBITDA Margin	FY1 Return on Assets (ROA)	FY1 Return on Invested Capital	FY1 Levered FCF Margin	FY-10 Net Debt/EBITDA	
XYL (Xylem Inc.)	X	\$50.99	39.2%	9,136	21.91x	12.0x	2.1x	5.9%	21.0%	9.1%	14.8%	39.7%	16.9%	7.6%	12.3%	9.6%	1.0x
URI (United Rentals, Inc.)	X	\$106.30	60.7%	9,001	12.45x	6.2x	2.9x	(1.4%)	0.4%	39.5%	3.5%	41.7%	46.8%	7.5%	10.4%	17.3%	2.9x
MIDD (Middleby Corp)	X	\$136.93	26.7%	7,844	24.24x	15.5x	3.5x	23.5%	8.9%	19.0%	16.1%	39.3%	22.0%	14.1%	16.6%	11.8%	1.7x
AOS (Smith A O Corp)	X	\$49.91	28.9%	7,369	24.11x	11.9x	2.4x	6.3%	9.0%	16.1%	12.8%	41.5%	19.7%	11.7%	20.1%	8.2%	--
IEX (Ilex Corporation)	X	\$93.51	22.9%	7,128	22.84x	14.1x	3.6x	5.5%	5.5%	4.6%	9.8%	44.1%	24.6%	10.7%	13.7%	17.0%	1.0x
ST (Sensata Technologies Holding ...)	X	\$40.43	(7.2%)	6,775	12.62x	11.5x	3.0x	7.5%	2.6%	35.8%	9.6%	35.3%	25.2%	8.1%	14.0%	13.8%	4.7x
LII (Lennox International Inc)	X	\$157.75	21.6%	6,701	20.17x	13.1x	2.0x	4.4%	4.4%	36.2%	12.2%	29.5%	14.5%	19.6%	36.9%	6.3%	1.6x
FLS (Flowserve Corp)	X	\$50.56	22.1%	6,560	23.13x	13.5x	2.1x	(12.5%)	(3.9%)	(10.1%)	1.3%	31.5%	14.6%	6.4%	9.6%	5.6%	1.7x
NDSN (Nordson Corp)	X	\$104.54	64.0%	5,977	19.86x	12.8x	3.6x	3.8%	4.9%	7.4%	8.8%	56.2%	26.2%	12.0%	15.3%	14.6%	2.2x
DCI (Donaldson Co Inc)	X	\$44.12	62.5%	5,785	24.92x	14.9x	2.6x	0.3%	4.2%	6.5%	9.7%	34.8%	17.4%	--	16.4%	9.5%	0.9x
GGG (Graco Inc)	X	\$84.24	22.5%	4,708	23.40x	14.0x	3.7x	1.6%	3.0%	(41.9%)	6.1%	53.2%	26.3%	16.0%	18.2%	15.1%	1.0x
CFX (Cofax Corp)	X	\$38.21	62.7%	4,687	23.31x	12.2x	1.6x	(7.4%)	(0.9%)	(10.7%)	6.0%	31.7%	12.6%	2.9%	4.6%	6.0%	2.4x
CW (Curtiss Wright Corp)	X	\$104.00	55.9%	4,624	23.60x	12.1x	2.4x	(3.2%)	1.4%	1.7%	7.8%	35.6%	19.1%	6.1%	9.2%	14.5%	1.6x
CR (Crane Co /De)	X	\$75.74	61.9%	4,475	17.31x	10.0x	1.7x	(0.4%)	1.0%	(14.1%)	5.3%	35.5%	16.8%	7.6%	14.2%	7.7%	0.8x
ZBRA (Zebra Technologies Corp)	X	\$84.50	22.9%	4,472	13.35x	10.7x	2.0x	(2.3%)	0.9%	(836.2%)	16.5%	46.0%	17.5%	3.6%	11.8%	7.6%	5.2x
Mean	--	--	37.8%	6,349	20.48x	12.3x	2.6x	2.1%	4.2%	(49.1%)	9.4%	39.7%	21.3%	9.6%	14.9%	11.0%	2.1x

For the sub-\$4.5B names in the group, the top performer for the year was **John Bean Tech (JBT)**, shares up 80%, and was a top pick from last year's report. JBT is growing revenues rapidly and EPS at 20%+/year. JBT gets the majority of its revenues/profits from Food-Tech, and the remaining from Aero-Tech. JBT also has a 3 year average cash conversion rate above 100% and the food-tech industry has a 3 year CAGR of 13%.

Barnes Group (B) has a \$2.57B market cap trading just 10.2X EBITDA with 22.8% EBITDA margins and 9.2% ROIC. B's revenue split is 65% Industrial and 35% Aerospace with Auto being a major end-market for its molding solutions and engineered components. B has posted strong results throughout 2016 and is well-positioned for 2017 with expanding auto production, commercial aerospace growth, and a strong balance sheet for more acquisitions while continuing to expand margins.

Belden (BDC) has a \$3.2B market cap and trades 9.1X EBITDA with 18% EBITDA margins and an 11.8% ROIC. BDC currently has a low 2.5% revenue growth outlook and sees EPS reaching \$5.60 in 2018 from \$5.23 in 2016. BDC is deleveraging and has \$500M dry powder ready for M&A. BDC is a diversified industrial with Broadcast Solutions, Enterprise Connectivity, Industrial Connectivity, Industrial IT and Network Security its 5 business segments. BDC plays well into the automation and connections theme with 26B networked devices expected by 2020 from current levels of 16B and video consumption by 2020 projected at 3X 2015 levels. BDC's recent bolt-on acquisitions have provided strong ROIC, so a trustworthy management to do more value added deals.

Franklin Electric (FELE) has a \$1.95B market cap and trades 13.4X EBITDA with 15.6% EBITDA margins and a ROIC of 10.4%. FELE derives 77% of revenues from water systems and 23% from fueling systems, and is the #1 global supplier to agricultural irrigation pumping systems. FELE is expecting around 5% revenue growth and 11% EPS growth next year. With a rebound expected in both farmers' incomes and oil and gas spending, FELE is positioned well into 2017. A strengthening US Dollar is one big headwind with 40% of its water-division revenues coming from developing markets.

Building Materials and Tools:

Components: *AAON, ACM, ALLE, AMWD, APOG, AWI, AXE, AYI, BECN, BLD, BLDR, CBI, CRH, CSL, CSTE, DOOR, DY, EME, FAST, FIX, FLR, GVA, GWW, HDS, HW, JCI, JEC, KMT, LECO, LPX, MAS, MHK, MLM, MSM, MTZ, OC, PRIM, PWR, ROCK, ROLL, RYN, SNA, SSD, SUM, SWK, TKR, TREX, TTC, USG, VMC, WCC, WY, WIRE*

This group includes building materials, HVAC suppliers, contractors and heavy construction, industrial equipment distributors, and tools. With the infrastructure plans North American construction should be a strong area in 2017, while residential is a bit more uncertain due to rising mortgage rates, but more money in consumer's hands should counter that somewhat, and the remodel cycle likely remains strong. The AIA forecasts 5.6% growth in nonresidential construction for 2017. Housing starts and new home sales remain around 30% below historical trends with tight inventory, so pent-up demand can drive strong homebuilding in 2017.

First, looking at the wholesale distributors (GWW, FAST, HDS, MSM, WSO, WCC) we have a group trading at average 12.6X EBITDA with 13.4% EBITDA margins and 16.2% ROIC. Wesco (WCC) was the top performer gaining 60% on the year and Grainger (GWW) the weakest but still climbed 20%.

Fastenal (FAST) is the top play in the group trading at premium valuation of 15X EBITDA and 27X Earnings, but EBITDA margins above 22%, ROA above 21%, ROIC at 23.9%, strong free cash flows and Debt/EBITDA of just 0.3X set it apart from the other names. FAST is forecasting for both revenues and EPS to enter a period of acceleration, though needs to manage expenses better and maintain its leadership in margins to justify the valuation.

The next group to break down are the Contractors and Engineering & Construction firms. It is important to look at where the companies have exposure, whether it be Telecom, Utility, Oil & Gas and/or other areas. This group includes FLR, JEC, ACM, PWR, EME, CBI, MTZ, KBR, DY, TTEK, FIX and GVA. The group trades at an average of 9.1X EBITDA with 7.6% EBITDA margins and 8.6% ROIC, so a low multiple industry due to its low margins and return on capital. In terms of 2016 performance, MTZ blew away the group with 125% gains while CBI was the laggard with shares down more than 10%.

Dycom (DY) is the growth, margins, and ROIC leader of this group with its exposure to the Telecom industry, tower construction a major driver. DY also trades at one of the cheapest multiples, 6.6X EBITDA, and although shares are down YTD due to multiple contraction as growth has slowed, it now looks very cheap and attractive to its peers.

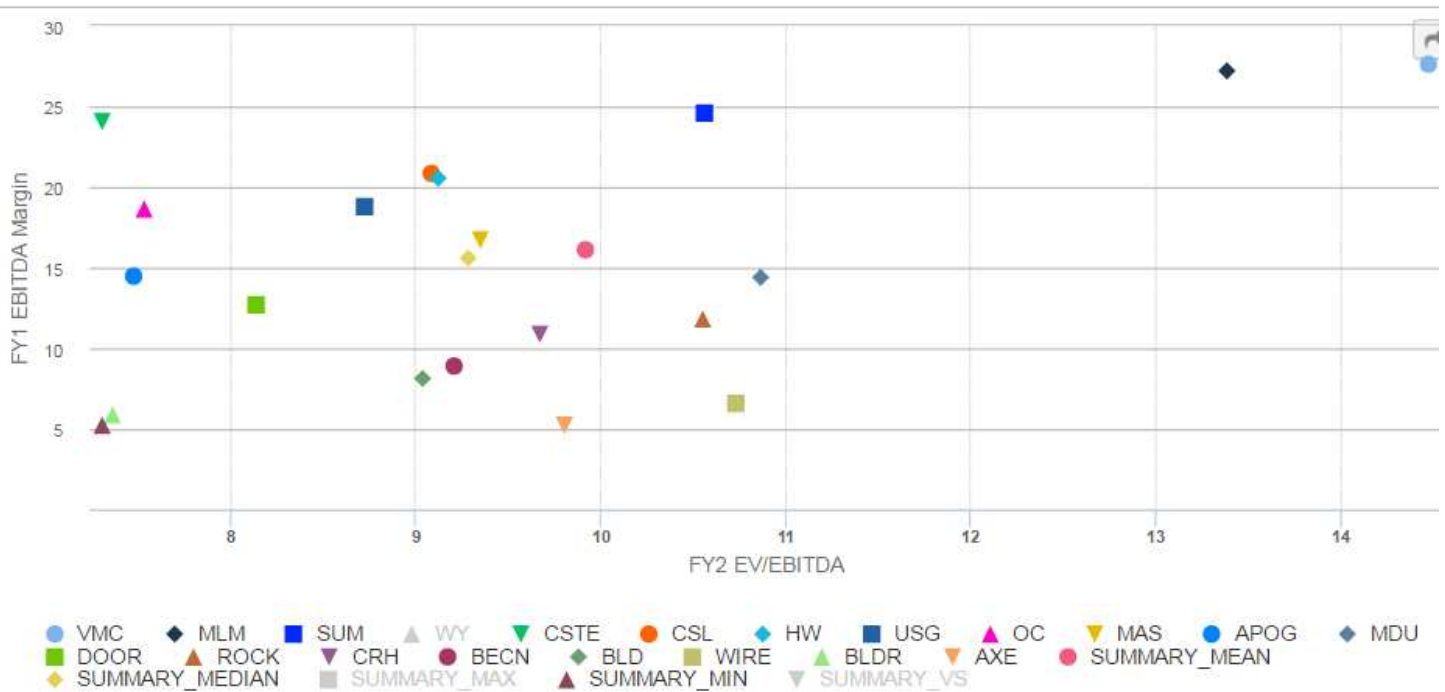
Granite Construction (GVA) is another small cap at a \$2.28B market cap that looks compelling, trading 8.9X EBITDA and EBITDA margins of 6.5%, ROIC of 4.7% unimpressive, but projecting 13% revenue growth in both 2017/2018, and EPS reaching \$3.40/share by 2018 from \$1.57 in 2016. GVA is perfectly positioned for an infrastructure theme in 2017 and has a strong balance sheet with a large backlog.

Tetra Tech (TTEK) is another intriguing small cap with a \$2.45B market cap at 10.1X EBITDA with above-average EBITDA margins of 12%, ROIC at 11.7%, strong FCF and entering a period of double digit EPS growth. TTEK provides consulting and engineering services for the water infrastructure industry, and has 25% exposure to US Federal Government, 15% to US State & Local, 30% to US Commercial, and 30% International.

EMCOR (EME) is a bit larger than the other names highlighted with a \$4.5B market cap, but stands out as a name posting strong earnings reports throughout 2016. EME is a leading specialty construction and building services provider, a leader in refinery/petrochemical turnaround services with 94% US exposure. EME is seeing Services revenues climb to now 50% of total revenues which is more recurring and provides less earnings volatility.

The actual building materials group includes AXE, ROCK, CSL, WY, OC, MLM, MAS, HW, CSTE, DOOR, APOG, VMC, BECN, BLD, BLDR, SUM, USG, WIRE and CRH. On average, the group trades 9.9X EBITDA with 16% margins and 12% ROIC. MLM is one of the largest names with a \$14B market cap and was also a top performer with shares gaining more than 50% YTD.

EV/EBITDA vs. EBITDA Margins



Martin Marietta (MLM) is the clear leader with a \$14B market cap trading 13.3X EBITDA with strong EPS growth, expecting to earn \$9.20/Share in 2017 compared to \$4.50 in 2015. MLM has strong margins, pricing power and seeing encouraging demand from a construction spending upcycle while also generating strong cash flows to support capital returns. MLM will benefit from any major infrastructure spending and already set to benefit from the Highway Bill.

Masco (MAS) is trading 9.3X EBITDA with a strong 16% ROIC and low leverage. MAS is expecting 5% annual revenue growth and EPS growth of 22.5% in 2017 and 15% in 2018. The company has been undergoing a transformation to lower costs and optimize its portfolio. Its main markets are plumbing products, decorative architectural, cabinetry and windows and it has 79% exposure to North America. MAS is 85% exposed to DIY, a strong theme, and its paints sales are through Home Depot (HD).

Carlisle (CSL) has a \$7.35B market cap and trades 9.1X EBITDA with 20.8% EBITDA margins and a 32.3% ROA. CAL is forecasting 4-5% annual revenue growth and 6-10% EPS growth. CSL has five reporting segments: Construction Materials, Interconnect Technologies, Fluid Technologies, Brake and Friction, and Foodservice. CSL is posting record margins in 2016 and seeing strong US commercial roofing trends. The company has deployed \$2.4B in M&A since 2008.

Owens Corning (OC) is the pure value name at 7.5X EBITDA, another name seeing modest 3-4% revenue growth and 5-10% EPS growth. OC is very tied to the residential construction industry and primary businesses are Roofing, Insulation and Composites. OC has seen roofing margins come down from 20% in 2013 to 15% in 2015, and a turnaround in these margins can boost shares. Insulation has struggled with concerns of over-capacity.

Apogee (APOG) is a growth at a reasonable price small cap, trading 7.5X EBITDA with just a \$1.4B market cap and ROIC near 20%. APOG is seeing double digit revenue growth and EPS growing 28% in 2017 and 15% in 2018. APOG's main units are Architectural Glass, Architectural Framing, and Architectural Services. Its main exposure is to office buildings and the company has a strong history of revenue growth and increasing margins.

Summit Materials (SUM) is another small cap worth a closer look, a \$3B market cap trading 10.6X EBITDA with very strong 24.6% EBITDA margins and 12.6% ROIC. SUM is expecting EPS to jump 47% in 2016 and 38.8% in 2017. SUM sees us in the early innings of a strong construction cycle and has high barriers to entry in the materials market. Its main markets include Asphalt, Cement, Aggregates, and ready-mix Concrete. US aggregates pricing has been rising since 2003 which supports strong margins.

U.S. AGGREGATE PRODUCTION (in billions of short tons) & PRICING¹



The last group are providers of tools and remodel supplies, and includes AAON, SNA, SSD, TTC, LECO, ALLE, KMT, SWK, TKR, ROLL, AMWD, MHK, AWI, TREX and AYI. This group trades at an average of 11.7X EBITDA, 20.4X Earnings with 20% EBITDA margins.

Accuity Brands (AYI) is the standout growth play with 13-15% revenue growth CAGR expected through 2018 and EPS growth above 20%. The \$10.65B company is an industry leader in smart lighting and sees 50% of sales from new construction and 50% from renovation. AYI is an industrial that is also a play on Tech themes like IoT and energy management.

Allegion (ALLE) has a \$6.3B market cap trading 13.3X EBITDA with 23% EBITDA margins and a ROIC above 26%. ALLE is projecting around 5% annual revenue growth and 9-10% EPS growth. ALLE is a leading provider of security products and solutions serving both residential and non-residential markets. ALLE is generating strong organic growth and cash flows while innovating and expanding in emerging markets.

Snap-On (SNA) has a \$9.9B market cap and trades cheap at 10.5X Earnings for having leading EBITDA margins of 27.3% and a ROIC above 17% with low-leverage. SNA is growing revenues at a 5% clip and EPS closer to 10%. SNA generates 29% of sales from its commercial/industrial group, 38% from tools, and 27% from repair systems and information. SNA's ROA of 13.2% is also well above peers and as growth looks set to reaccelerate, its multiple should expand.

Trex (TREX) is a fantastic small cap company with a \$2B market cap trading 13.9X EBITDA with 25.8% EBITDA margins and a ROIC near 60% with strong FCF. TREX is growing revenues 7.5-8% annually and EPS set for double digit growth through 2018. TREX is the World's largest maker of high performance composite decking and railing, and it continues to benefit from trends of consumers putting more money into their properties, especially outdoor spaces. TREX consistently is gaining market share and composite decking offers a value proposition over wood. TREX is also environmentally friendly with its products made 95% from recycled content. The repair and remodeling market is expected to grow 7.5% through 2017 and 34% of home improvement spending goes to exterior property.

Homebuilders & Waste Mgmt.:

Components: *ADSW, CAA, CLH, CVA, DHI, ECOL, KBH, LEN, MDC, MTH, NVR, PATK, PHM, ROL, RSG, SERV, SRCL, TMHC, TOL, TPH, WC N, WLH, WM*

The homebuilders group for the most part has underperformed in 2016 despite the recent surge in housing starts. Mortgage rates have jumped sharply since October which could put further strain on sales in 2017. The other issue with the homebuilders is peak gross margins as raw material costs are coming out of a major bottom. New home sale growth over the next two years is projected at 7.5% in 2017 and 5.5% in 2018. Home prices have risen on average 5% in 2016 and Zillow predicts another 2.7% rise next year while CoreLogic HPI forecasts a 5.3% rise through August of next year. The Pacific Northwest is expected to be the hottest market. Millennials coming into peak buying power years is a potential tailwind that could boost home sales.

In the waste management and home services group we have a small selection of names, but some strong performers in 2017 with the two largest waste management companies, WM and RSG, each gaining around 30% YTD. The ability to raise prices while seeing stable volume growth has boosted results. This group is trading on average 11.5X EBITDA with 24.2% EBITDA margins and an 8% ROIC. Positives for the waste management industry include CPI data rising, infrastructure stimulus and tax reform, and recyclable commodity prices. With this there would be an expected rise in volumes for construction & demolition as well as landfill, to go along with the strong pricing environment.

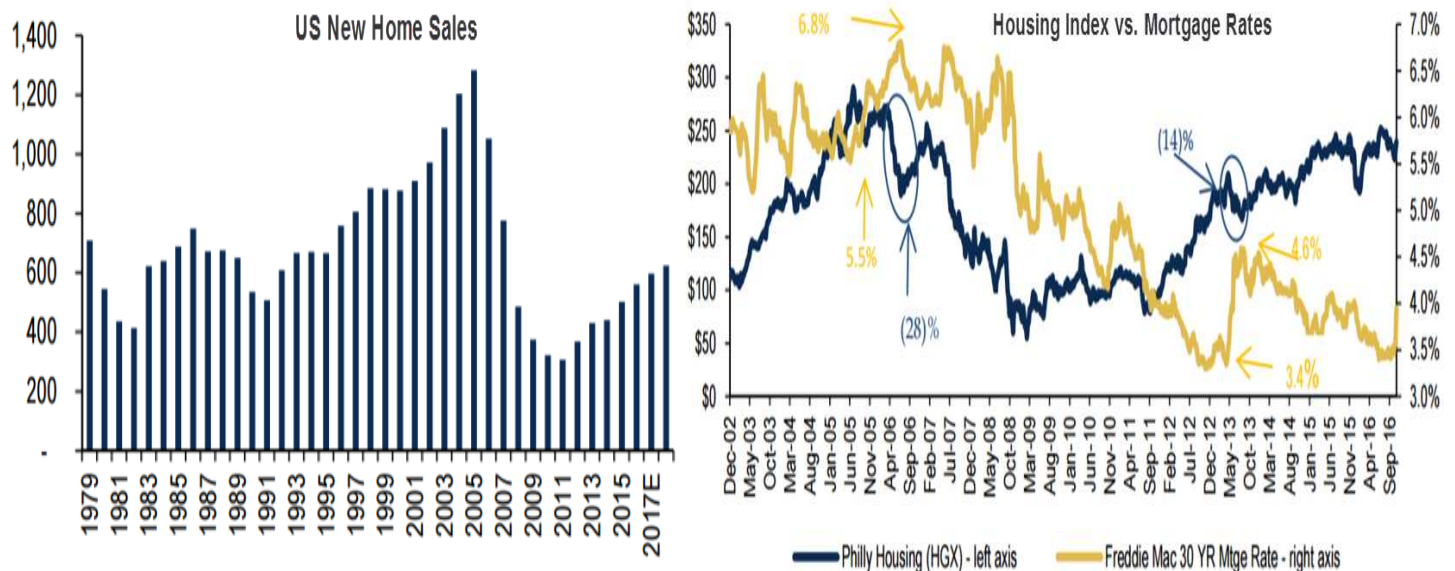
Waste Mgmt. (WM) is the best of breed name trading at 10.3X EBITDA, a slight premium to **Republic (RSG)**, but with stronger revenue/EPS growth, better ROA and ROIC, and strong free cash flows. WM looks positioned for a strong 2017 with multiple industry tailwinds.

Rollins (ROL) is a strong ancillary play on housing, the \$7.26B Company trades rich at 20.5X EBITDA with 20% margins, but a very high 37.9% ROIC and 23.3% ROA. ROL is forecasting 5% annual revenue growth an acceleration back to double digit EPS growth. ROL is a leader in pest control services and has a retention rate of greater than 90% with customers, a business that is very inelastic to economic climates. ROL's business is 70% residential and 30% commercial.

Moving on to residential construction, the group saw bifurcation in 2016 as KBH, WLH, CVCO, and TMHC all are up 20% or more while larger names like NVR, TOL, CAA, LEN, and DHI are negative for the year. With rising costs a concern, one measure to look at is SGA as a % of revenues, and NVR, PHM, and TOL have the lowest numbers. November housing starts and building permits were down sharply Y/Y and missed forecasts, so the higher rates showing some early impact. The group is trading on average at 9.7X Earnings, 8.7X EBITDA with 11.9% EBITDA margins, 6% ROA and 8.5% ROIC.

Pulte (PHM) immediately stands out as a cheap name at 7X EBITDA with strong double digit revenue growth and EPS expected to reach \$2.55/share by 2018 from 2016 levels at \$1.53. The West accounts for 23% of revenues as its largest exposure followed by the Southeast at 21%. It also has one of the better balance sheets with far less leverage than peers at 1.8X Debt/EBITDA compared to the average of 5X.

NVR (NVR) is the other quality name as the ROIC leader at 22.6%, the next closest is **DHI** at 10.3%. NVR has a \$6.2B market cap trading 8.5X EBITDA with double digit revenue growth and expecting EPS growth to accelerate to 20% and 17% the next two years forward. NVR could be a major beneficiary of tax reform with 100% of profits in the US and a current rate at 37% which could drive buybacks to boost EPS going forward. NVR is not as liquid as peers, but is a strong fundamental company with many competitive advantages and attractive valuation.



Transports (Airlines, Rail, Trucking, & Shipping):

Components: *AAL, ALGT, ALK, CHRW, CNI, CP, CPA, CSX, DAL, EXPD, FDX, FWRD, GWR, HA, HTLD, HUBG, JBHT, JBLU, KEX, KNX, KSU, LSTR, LUV, MATX, NSC, ODFL, R, RYAA, SAIA, SAVE, SKYW, SWFT, TRN, UAL, UNP, UPS, WAB, WERN, XPO*

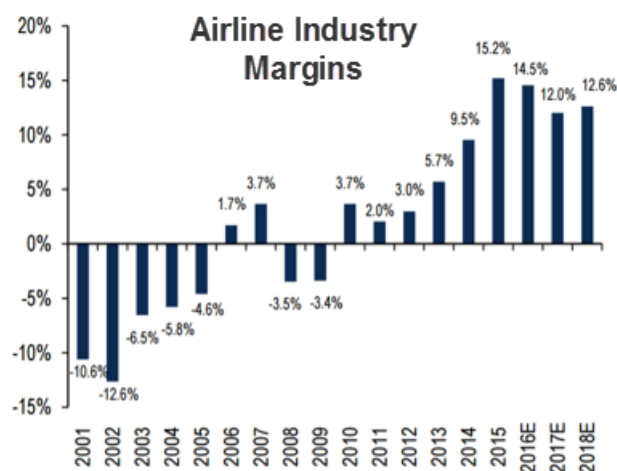
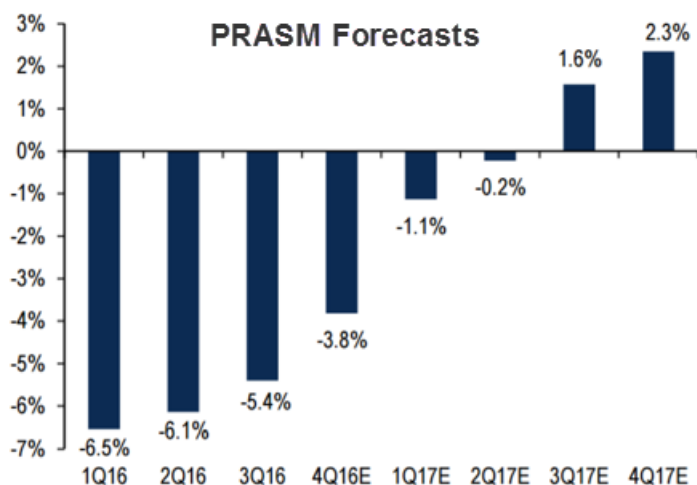
This group is fairly straightforward in breaking down into groups, Airlines, Rails, and Freight/Shipping/Trucking. Clearly the Transports are closely tied to the economy, and one group that has really outperformed since the Election on hopes of stronger US GDP growth moving forward.

The airline group has many of its own metrics that it reports monthly such as Passenger Revenue per Available Seat Mile (PRASM), Revenue Passenger Miles (RPM), Average Seat Mile (ASM), Cost per Available Seat Mile (CASM), and Load Factor. The group recently saw a vote of confidence from Warren Buffett as Berkshire Hathaway's largest new purchases were American Air (AAL), Delta Air (DAL), and United Continental (UAL) in Q3. The group has often traded at a steep discount to other Industrials despite much stronger ROE, ROIC, Margins, and FCF/Share while having a strong economic moat protecting it from much new competition. The charts below depict the improving PRASM outlook for the industry and how well margins have recovered since the early 2000's as the group as consolidated and added on ancillary fees when traveling, yet sentiment across the group from investors remains fairly negative. Profitability has also been boosted by lower fuel prices. Recent commentary from the group has noted strong booking trends since the Election.

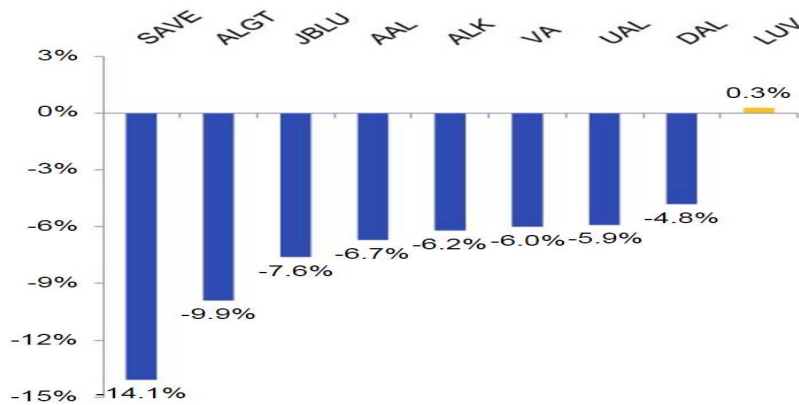
Looking at the major airlines they are expecting modest 2-4% revenue growth in 2017 and looks to be a transition year with EPS expected to be down Y/Y before a sharp recovery in 2018.

Southwest Air (LUV) has the best looking profile, a combination of stronger revenue/EPS growth with leading ROA, margins, and ROIC while having the cleanest balance sheet, and at 6.1X EBITDA is not pricey. LUV has been expanding its margins since 2012 as has ROIC as it integrated AirTran, optimizes its network, modernizes the fleet, and utilizes its rewards program. It also led the industry in 1H16 for RASM at +0.3% while all other peers were negative. LUV is the low-cost leader in the industry allowing it to withstand downturns much better than peers.

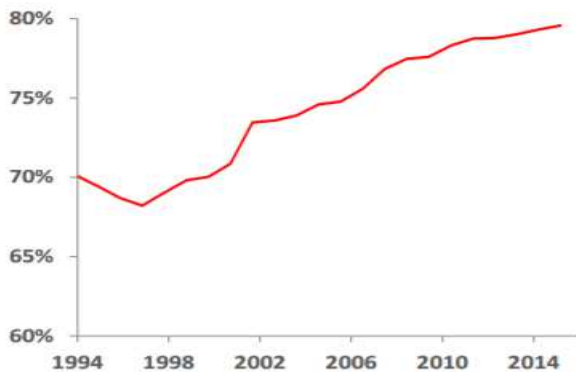
Hawaiian Holding (HA) stands out among the regional airliners as the best name, trading 5.2X EBITDA which is cheap to regional peers and with a ROIC of 22% and strong FCF. HA grew EPS 70% in 2016 and sees it coming down 8% Y/Y in 2017 while revenues grow above a 5% rate, and recently raised RASM guidance while transitioning its fleet through 2020. If there is any further consolidation in the airline industry, HA would be the name I could see acquired.



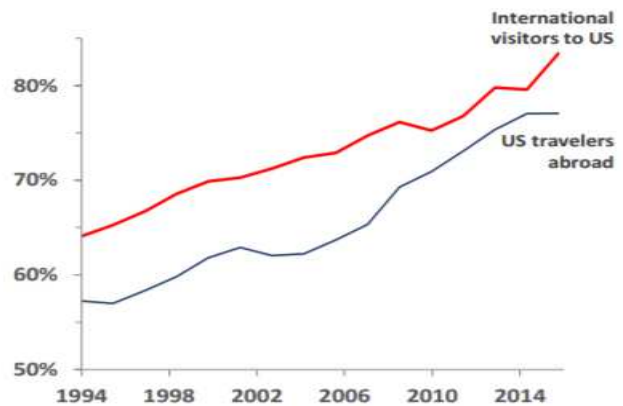
1H 2016 Unit revenues (RASM)



Leisure trips are increasing
U.S. domestic travel



Leisure travel spending is increasing



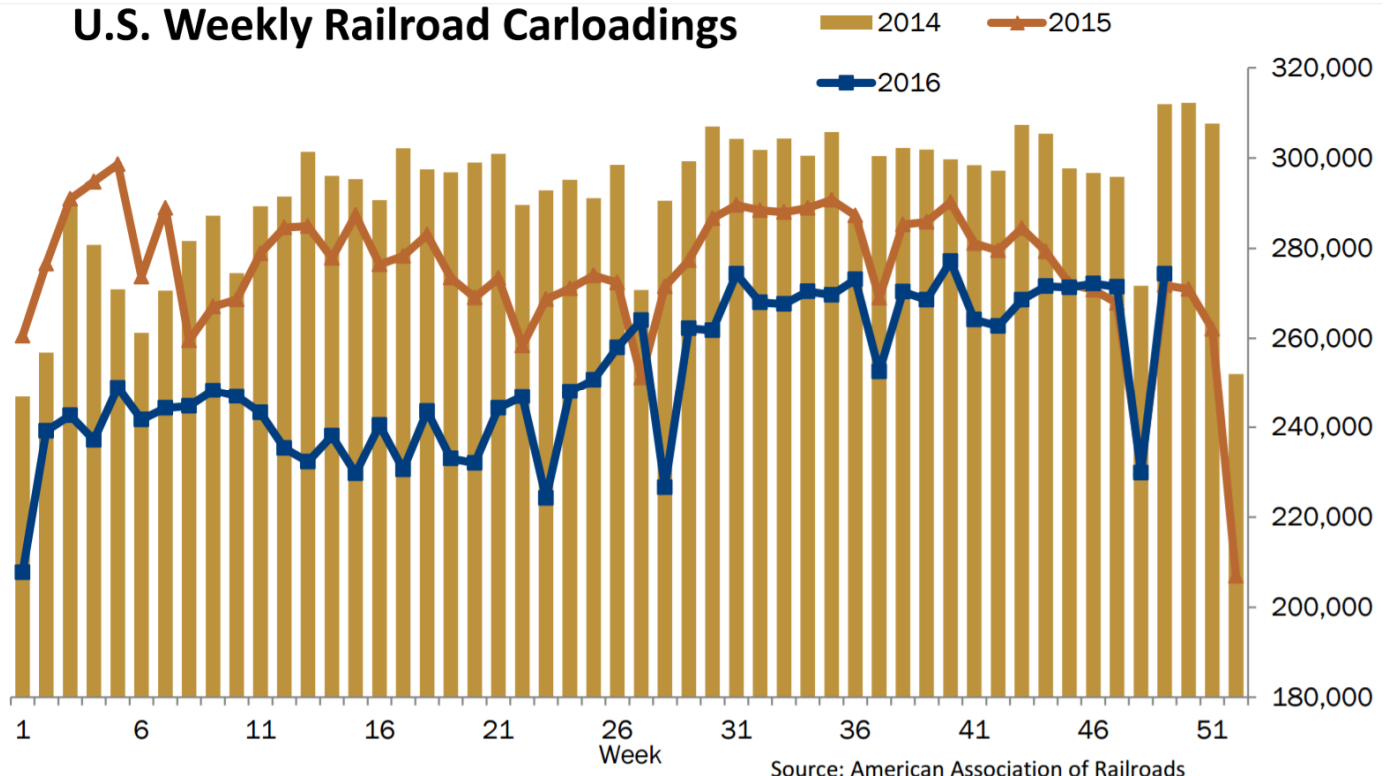
The railroad industry has performed well in 2016 with CSX Corp (CSX) the leader gaining more than 40%. The group is primarily dependent on Intermodal, Industrial Products, Automotive, Chemicals, Agricultural Products, and Coal. Many of the commodity-based areas have been under pressure for quite some time, but seeing a bottom of the cycle which bodes well for shipping volumes going forward. The industrial products group is tied to housing and construction, so a group that could really benefit from US infrastructure spending. The rail industry has plenty of metrics of note that analyze network efficiency, the main ratio looked at is Operating Ratio (operating expenses as % of revenue), while pricing/volume trends tend to be what investors care the most about.

The group trades on average 17.65X Earnings, 10X EBITDA with 44.6% EBITDA margins and 11.2% ROIC.

The Canadian operators (CNI and CP) have the strongest metrics, but trade at a premium valuation and carry some concerns with the new Administration redoing NAFTA.

Union Pacific (UNP) is the best domestic operator to own, the \$85B Company trades 10X EBITDA with 46.6% EBITDA margins and a 13.3% ROIC. UNP is targeting double digit EPS growth through 2018 and is well positioned for the commodity cycle turn as well as a pick-up in construction. UNP also carries a high 37.5% effective tax rate and could see a boost from a reduction in corporate taxes. UNP is a case of buying when conditions are poor ahead of the upturn, recent core pricing was at the lowest level in over a decade and volumes remained soft. The options market has been positioning for upside in UNP as well for the near and long term.

U.S. Weekly Railroad Carloadings



The next group is delivery, freight, services and suppliers, trading on average at 9.5X EBITDA with 14.5% EBITDA margins and 15% ROIC. The group recently has come under some pressure with reports of **Amazon (AMZN)** entering into the industry.

Fed-Ex (FDX) and UPS (UPS) are in their own class and have traded well this year continuing to benefit from the surge in ecommerce sales while also seeing lower fuel costs. At 6.8X EBITDA, FDX trades at a major discount to UPS' 10.2X, but lags in margins, ROA, ROIC and FCF. FDX has been undergoing a major restructuring plan to lower costs and improve these metrics, but has a long way to catch up to UPS. Despite the premium valuation, **UPS** remains the name to own as the much better run business, and its Orion driver optimization technology should add further efficiencies.

The third-party logistics operators are seeing margins get squeezed with weak truck pricing compared to capacity, seen with CHRW last quarter which posted its worst margins since Q1 2014, and EXPD had similar issues missing estimates sharply.

XPO Logistics (XPO) is the name to own in that group at 7.4X EBITDA and hitting a key inflection point after hitting profitability following cost-cuts. XPO in November raised its 2017 EBITDA target to \$1.35B, a 17% increase Y/Y. XPO currently lags peers in efficiency and FCF metrics while having a very leveraged balance sheet, but is undergoing a major transformation and expect multiples to be re-rated higher.

Matson (MATX) is a small cap at \$1.6B that looks fairly cheap trading 7.7X EBITDA with 7 straight years of revenue growth and after EPS dropped in 2016 forecasting 8-12% EPS growth forward. MATX is the leading US carrier in the Pacific providing to economies of Hawaii, Alaska and Guam. It also does a lot of freight movement with China, which is one concern with recent disputes that could lead to trade wars. MATX is coming off a poor quarter, but the stabilization of Oil should boost Alaska's economy and could see a rebound for business in 2017, so one to monitor closely.

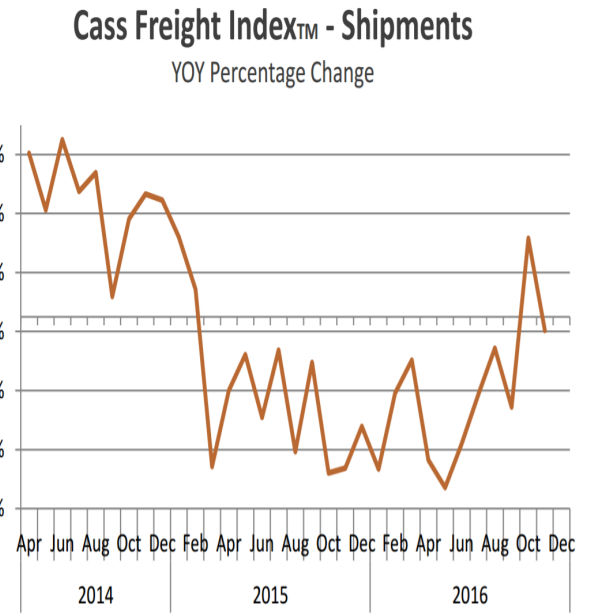
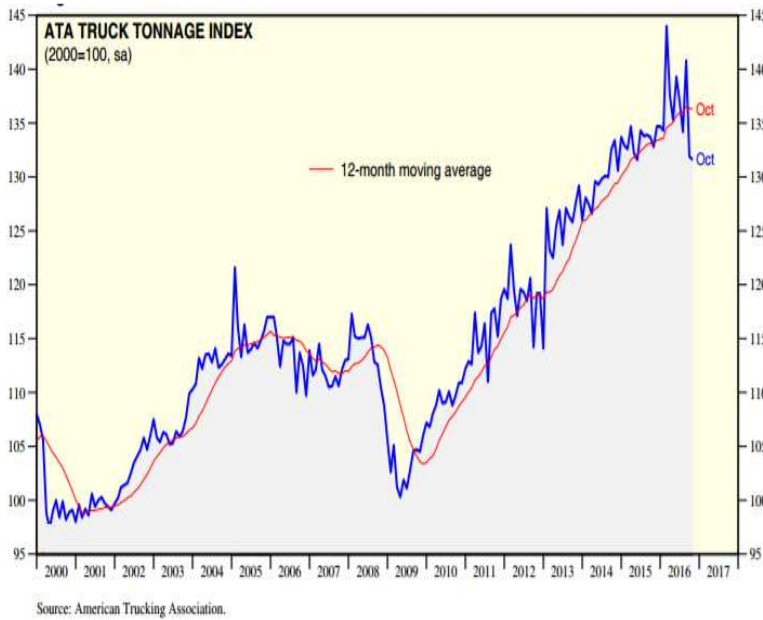
Forward Industries (FWRD) is the other attractive small cap trading 9.6X EBITDA with 13.8% EBITDA margins, 11.9% ROIC and solid FCF with a strong balance sheet. FWRD was growing revenues 20% annually in 2014/2015 and slowed in 2016, but forecasting a reacceleration in 2017 while targeting 12% CAGR for EPS growth in 2017/2018. FWRD has weathered a sluggish environment the past year, and has potential to rebound sharply if freight demand picks up with a rebounding economy.

The trucking group is another small one and trades on average 8.5X EBITDA with 19% EBITDA margins and 13% ROIC. The ATA Tonnage Index (shown below) has shown some softness the last few months, and this also supported by the Cass Freight Index, though both sharply rebounded from early 2016 lows and Q4 has been seasonably weak since 2013.

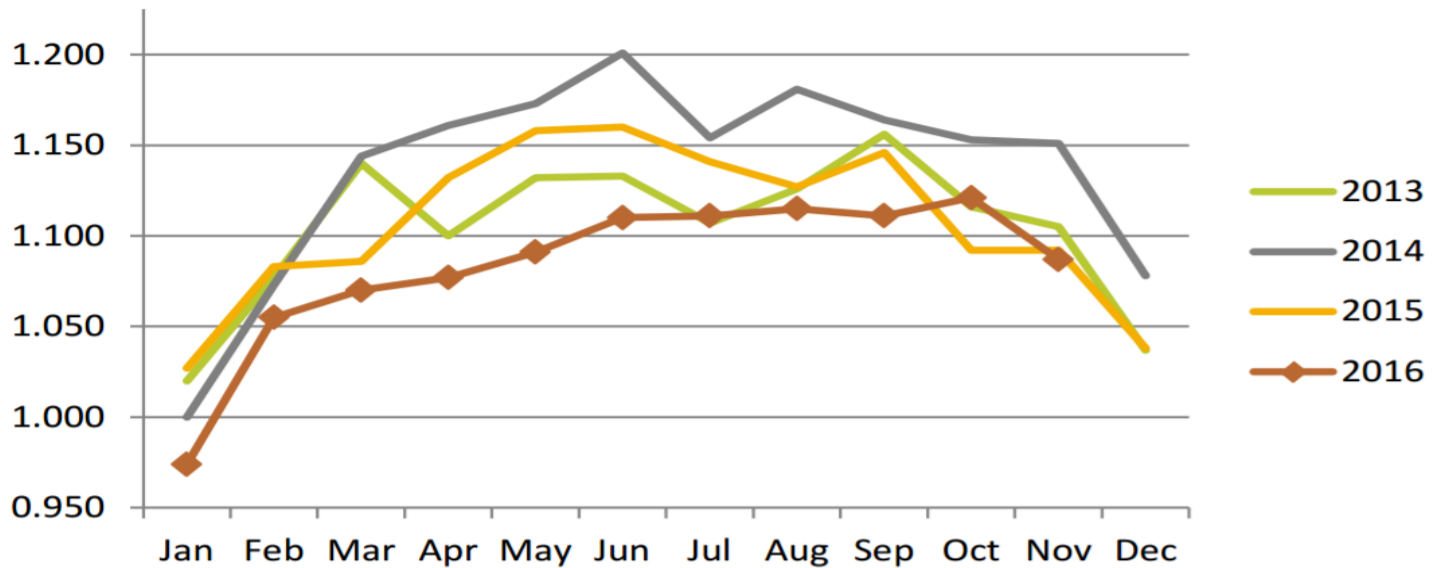
JB Hunt (JBHT) and Old Dominion (ODFL) are the two largest and highest quality names in the trucking industry, both forecasting double digit EPS growth and having strong ROIC and ROA. **JBHT** gets the slight edge for me with better

metrics, a strong intermodal outlook, better FCF, and could be aided both by infrastructure and corporate tax policy going forward.

The rest of the names do not look very compelling, **Saia (SAIA)** was always my preferred small cap from its solid execution but has very weak margins compared to peers. **Heartland Express (HTLD)** is one small cap to keep an eye on with its superior margins, strong FCF, and cheap valuation at 8.2X EBITDA, but has seen revenues drop sharply the last two years. If capacity tightens and it can return to revenue growth, shares could be a nice value at these levels.



Cass Freight Index™ - Shipments



Consumer Discretionary/Services: *In 2016 this group has seen its fair share of ups and downs and as a group is trading about in-line with the market returns. Traditional brick and mortar retail continues to struggle to compete with ecommerce. The media industry is struggling to combat "cord-cutting" and is seen as ripe for consolidation with AT&T recently making an offer for Time Warner. It was a tough year for restaurants as consumers continue to "eat-local" and now the industry also faces rising commodity and wage costs. Travel & Leisure was one of the better performing segments with consumers shifting to spending more on experiences than products, and the gaming industry started to face much easier Y/Y comps in Macau. The lodging industry performed fairly well with travel strong, but also face rising competition from the likes of Home-Away and Airbnb. Heading into 2017 a stronger economy will be important for the group with potential for tax cuts and easing credit, and consumer confidence continues to rise. The discretionary sector has underperformed in the last three Fed tightening cycles, one risk, while demographics are favorable with Millennials entering peak-spending years and fueling increased consumption, but also are changing*

where/how money is spent as noted earlier. Further risks include rising margin pressures and weaker sales growth due to rising oil prices, wage growth, and potential for restrictive trade policies.

Retail and Apparel Stores:

Components: AAP, AEO, ANF, ASNA, AZO, BBBY, BBY, BIG, BKE, BURL, CATO, COST, CWH, DDS, DG, DKS, DLTR, DSW, EXPR, FIVE, FL, GCO, GES, GME, GPS, HD, JWN, KSS, LB, LOW, M, MIK, OLLI, ORLY, PLCE, PRY, PSMT, RH, ROST, SBH, SHLD, SIG, SPLS, TGT, TJX, TSC O, ULTA, URBN, WMT, WSM

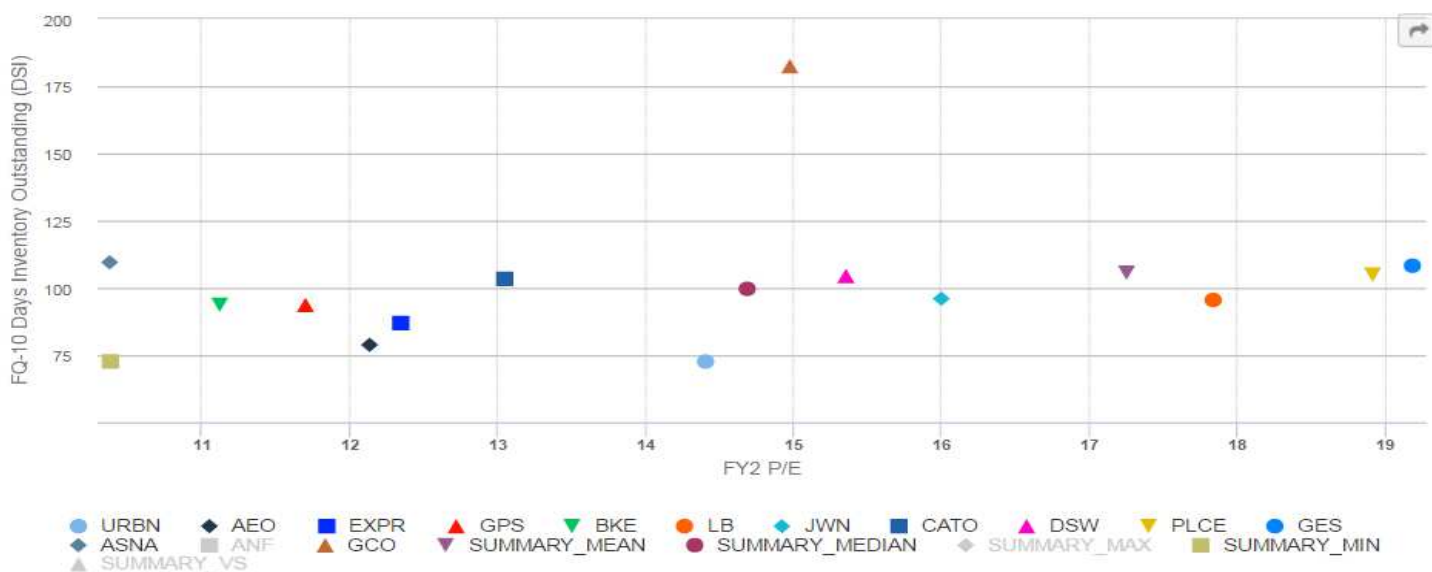
This is a large group that can be broken down into Department/Discount Stores, Apparel, Auto & Home, and Specialty (Electronics, Jewelry, Sporting, and Office). Some industry-specific ratios are often utilized such as same store comparable sales, square footage growth, and looking at revenues/square foot. Companies exposed to higher % of sales outside the US with already low tax rates and high foreign sourcing like GPS, NKE, PVH, VFC and QSR face increased risks in 2017.

Starting with apparel stores, the group trades on average at 17.25X Earnings, 0.7X EV/Sales with 40% gross margins and a ROIC of 10.7%.

American Eagle (AEO) is the only name that screens strong across a number of metrics, the \$2.975B teen retailer trades 12.15X Earnings and 0.7X EV/Sales with 37.9% margins, and 24.6% ROIC and better than peers for inventory turnover. AEO is in the midst of a turnaround and has posted some solid numbers this year, though mall traffic woes remain an overhang. In an industry lacking much attractiveness, AEO stands out as cheap and one that is gaining market share and has sustainability.

Buckle (BKE) screens cheap at 11.1X Earnings and its metrics are well above peers with 41% margins, 18.9% ROIC, and industry-leading 11.1% Levered FCF Margins. However, BKE sales trends have been terrible, though easier comps in 2017 could make this a turnaround story. BKE has over 25% of its float short, but I do see some value at these levels if sales trends bottom out, and the type of name that could attract private equity interest.

Days Inventory Outstanding vs. P/E (Apparel Stores)



The Department/Discount store group trades on average 17.4X Earnings, 1X EV/Sales and with 32.7% margins and 16.5% ROIC. Burlington (BURL) was a standout in 2016 with shares gaining more than 100%, followed by Ollie's (OLLI) which climbed 75%. Dillard's (DDS) is the lone name down for the year at -6.8% though one that has recently seen call buying for May expiration, and could be back under the activist spotlight to unlock its real estate value. It's not a group worth spending too much attention as Amazon (AMZN) continues to disrupt the entire brick and mortar industry, and ecommerce remains a small, but growing, portion of total retail sales in the US.

TJX Co. (TJX) and Ross (ROST) are the ROIC leaders at 32.1% and 27% and have long been considered best of breed for this group. In 2016, ROST outperformed TJX by a wide margin, YTD return of 29% versus 9% for TJX. I think in 2017 we see **TJX** close that gap, it is now cheaper on valuation, has a higher ROIC, and is a favorite of Millennials, one of the few retailers seeing strong traffic-driven comps and improving margins while gaining market share. TJX also has a 38% tax rate that could come down sharply.

Target (TGT) is the other favorite large cap with a \$43B market cap trading cheap at 13.9X Earnings while offering a 3.13% dividend yield. TGT also has a 10.7% ROIC and one of the stronger inventory metrics. TGT is also a favorite of the Millennials and is a clear beneficiary of the low-to-middle class incomes rising, and in November posted a strong report while raising its Q4 comp guidance.

Ollie's (OLLI) is the best in class small cap with the company expecting 15%+ annual revenue growth and 15-20% EPS growth through 2019. OLLI has top gross margins at 40.7% and a 5.1% ROIC that has room for improvement, trading rich as a growth name at 27.5X Earnings. OLLI currently has just 213 stores in 19 states and sees the potential for 950 stores, and comparable store sales rose 4.4% in 2015 and 6% in 2015. OLLI also uses smart marketing and its "Ollie's Army" loyalty program has driven strong results.

The Auto & Home group underperformed in 2016 with Advanced Auto (AAP) up 12% the only outperformer. The group trades on average at 17.5X Earnings, 1.5X EV/Sales and 39.7% gross margins with a 24.7% ROIC.

Home Depot (HD) is a name to stick with as a best of breed play that is fairly Amazon-immune and continues to post impressive sales metrics. The \$165B Company trades 18.9X Earnings with 34.2% margins and a 31.2% ROIC. Pent-up demand of home ownership, rising home prices and a continual strong trend of home renovation will drive solid results for HD in 2017.

Tractor Supply Co. (TSCO) is a name that struggled in 2016 with shares down 10% YTD after a few poor quarters, but in 2017 will face easier comps and should start to see the benefits of a recovering Ag-cycle that puts more money in farmers/ranchers pockets. TSCO is still growing revenues better than the majority of its peers and operates with a 30%+ ROIC. TSCO has steadily been growing its store count to 1,600 in 2016 with a 5 year CAGR of 8.3% and targets 2,500 stores in total. I also like its recent acquisition of Pet-Sense which has 130+ stores in 25 states targeting 15-20% annual store growth.

Among the auto parts names **AutoZone (AZO)** is the value at 15.7X Earnings and also has leading gross margins, ROIC above 46%, and strong FCF. AZO is expecting acceleration in comps in 2017 aided by weather in the Northern US and also has a strong buyback program having reduced its total shares outstanding by more than 20% since 2012. The auto parts group also is one of the more Amazon-proof retail lines of business.

In the specialty group we have just 10 stocks with an average P/E at 14.7X with 38% gross margins and 24% ROIC. Best Buy (BBY) has seen an incredible resurgence in 2016 with shares up more than 55%, and Dick's Sporting Goods up the same.

Ulta Salon (ULTA) is the premium growth name in the group with revenues growing 22% this year and 18% and 15% the next two years. ULTA does trade rich at 32.8X Earnings but a strong 18.9% ROIC. ULTA continues to gain market share in the beauty industry and recently showed accelerating comps. ULTA can grow for a long time, currently just a 4% share of the \$127B beauty market, and in 2016 its loyalty program grew a record 28% Y/Y.

Dick's Sporting (DKS) looks well positioned to continue its strong performance from 2016, shares cheap at 7.3X EV/EBITDA and 0.8X EV/Sales while projecting double digit revenue growth in 2017 and 21.7% EPS growth. DKS is growing market share, enhancing store productivity, and strengthening its position in ecommerce which has a 39% CAGR since 2010. DKS currently has just 644 stores in 47 states and sees a \$4B opportunity for new stores, a target of 1,100 stores. DKS should continue to gain market share with Sports Authority filing for bankruptcy in 2016 and closing stores.

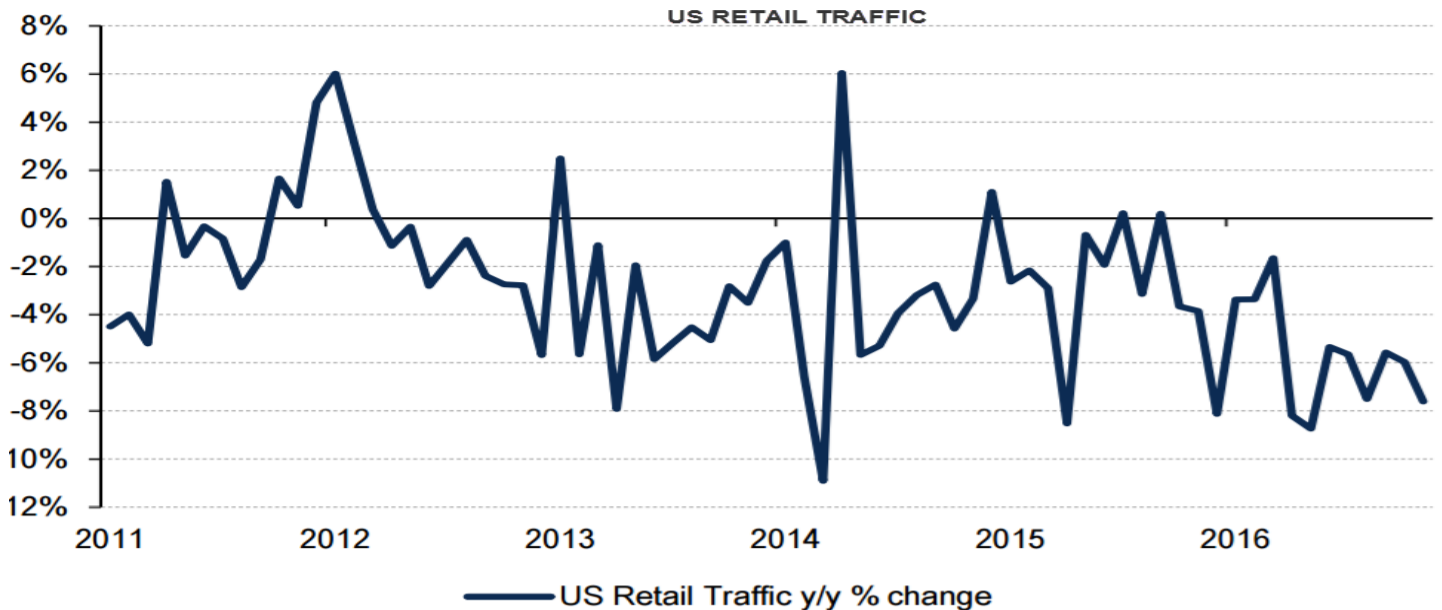
Michaels (MIK) is a smaller cap at \$4.45B that looks attractive on valuation at 10.5X Earnings and 7.9X EBITDA. MIK's 39.2% gross margin and 36% ROIC are also very strong versus peers. MIK is coming off a weak quarter and has seen comps deteriorate, so it is more of a wait and see story. MIK operates in a low growth \$30B Arts & Craft industry, but it has an industry-leading position and strong profitability metrics. It is more favorable to many retailers having positive traffic growth and less ecommerce risk.



INTERNATIONAL EXPOSURE

Company	Ticker	% North America	% International	% Europe	% Asia	% LatAm/Other
PVH Corp (3)	PVH	54%	46%	31%	10%	5%
Ralph Lauren Corp	RL	65%	35%	21%	15%	--
Carter's (2)	CRI	89%	11%	1%	1%	1%
Nike	NKE	45%	55%	23%	15%	17%
VF Corp (4)	VFC	61%	39%	23%	9%	7%
Under Armour	UA	94%	6%	--	--	--
Foot Locker (5)	FL	75%	35%	21%	3%	--
Columbia Sportswear (6)	COLM	65%	35%	14%	15%	6%

Ticker	Company Name	Foreign Sales	% Europe Sales	% China	% Japan	Total % Asia Pac	Canada	% Other / Unknown
TIF	Tiffany & Co.	56%	12%		13%	38%		6%
FOSL	Fossil Group, Inc.	54%	33%			15%		5%
COH	Coach, Inc.	43%	2%	15%	13%		2%	13%
ANF	Abercrombie	35%	24%					11%
TJX	TJX Companies, Inc.	23%	14%				9%	0%
GPS	Gap, Inc.	23%	5%			10%	7%	1%
KATE	Kate Spade	19%						19%
SIG	Signet Jewelers	15%	11%				4%	0%
URBN	Urban Inc.	13%						13%
AEO	American Eagle	12%						12%
PLCE	Children's Place	12%					12%	0%
LB	L Brands, Inc.	11%						11%



Media, Advertising and Entertainment:

Components: *AMC, AMCX, CBS, CCO, CMCSA, CNK, DIS, DISCA, FOXA, HSNI, IMAX, IPG, LBRDK, LGF, LMCK, LYV, MSG, NFLX, NWSA, NXST, OMC, OUT, QVCA, RGC, SBGI, SIX, SNI, TGNA, TV, TWX, VIAB, WWE*

The Media stocks have underperformed the market for the most part in 2016 as pressure continues to come from "cord-cutting". AT&T's recent \$85B offer for Time Warner (TWX) has boosted many of the stocks on hopes of further consolidation, though the market is skeptical that regulatory agencies allow that deal to go through. The cable industry may benefit from the new administration with the reversal of the Open Internet Order derisking retail price regulation, and also less regulatory interference overall.

Netflix (NFLX) with a \$53B market cap remains the top growth name in the industry and has changed the way media is consumed, a major disruptor that is just now starting to turn into a powerful earnings story after years of focusing on growing revenues. NFLX is projected to grow EPS to near \$3/share in 2019 from current levels of around \$0.40/Share in 2016, and Revenues to over \$15B from \$8.8B. Its move into original content has made it a service that is very "sticky" with very few willing to unsubscribe, and although subscriber growth numbers will slow from rapid rates, still a lot of room for expansion in the US and especially in International markets. NFLX also makes a lot of sense as a perfect acquisition target for Disney (DIS), a Company that can pull off a deal of that magnitude.

Comcast (CMCSA) is the largest name in the group with a \$167B market cap but remains one of the best ways to play the group with attractive valuation at 8X EBITDA while having multiple levers with its exposure to high speed internet and its NBC Universal segment. It has also partnered up with Netflix on streaming, which could later lead to a larger tie-up. CMCSA will be launching a mobile version of its video platform in 2017, and continues to post strong gains in cable and video. It will be important to watch the T/TWX deal, if approved it could intensify competition for Comcast.

Scripps Network (SNI) is another favorite Media name with a \$9B market cap trading 8.6X EBITDA with leading 41% EBITDA margins and near best of class ROIC of 14% with impressive 20.5% levered FCF margin. SNI is only guiding for 4% revenue growth and 5-7% EPS growth the next two years, but the owner of lifestyle brands like HGTV, Food Network, DIY Network, and Travel Channel has a nice niche, and if there is further consolidation in the industry, makes a nice target.

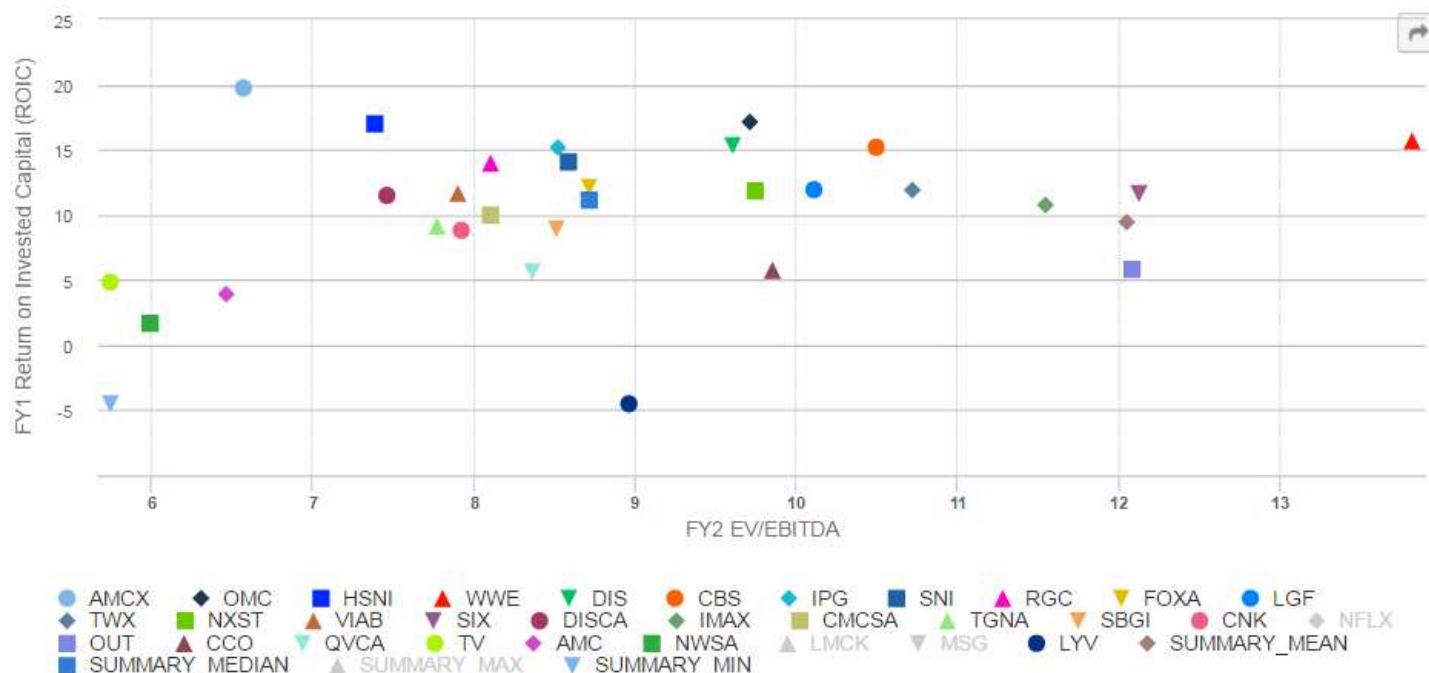
Discovery (DISCA) with an \$11.3B market cap is another name with strong EBITDA margins at 37.7%, trading cheap at 7.5X EBITDA and a ROIC of 11.5% with strong FCF and lower leverage. DISCA is looking for growth to reaccelerate in 2017 and remains a double digit EPS growth story. DISCA has also been investing in some interesting future technology areas for media, involved in social media and virtual reality, and large International presence with 49% of revenues. DISCA's Eurosport gives it exposure to the strongest area of cable, live sports.

AMC Networks (AMCX) with a \$3.6B market cap is the notable small cap, trading just 6.6X EBITDA while leading all names with a 19.7% ROIC, and strong levered FCF margin at 14%. AMCX is guiding to right around 5% annual revenue growth and 7.5% EPS growth. AMCX has seen mixed results lately with weaker advertising results but has also managed expenses very well and "The Walking Dead" can boost results for Q4 into 2017. AMCX has potential to eventually bundle with Hulu and/or may be ripe for M&A with its cheap valuation.

Nexstar Broadcasting (NXST) is another impressive small cap at a \$1.92B market cap, trading at a premium valuation of 17.25X Earnings and 9.7X EBITDA, but very impressive history of growth with 36% EBITDA margins, 11.8% ROIC and leading 26% levered FCF margin. NXST's EPS in 2018 is set to nearly double 2015 levels. NXST operates 104 TV stations and also a bunch of community web portals. NXST digital media and retransmission fee revenues in FY15 grew 92.4% Y/Y and remains a great area to be exposed. Nexstar acquired Media General (MEG) early in 2016 for \$4.6B. NXST is seeing a big boost from Political Ad spend this year, so could see tough comps in 2H17.

Investors looking for yield can take a look at **Outfront (OUT)** (5.45%), **Six Flags (SIX)** (4.34%), and **Regal Entertainment (RGC)** (4.29%).

EV/EBITDA vs. ROIC



Restaurants & Grocery:

Components: *ARMK, BJRI, BLMN, BWLD, CAKE, CASY, CBRL, CMG, CORE, DIN, DNKN, DPZ, DRI, EAT, HAIN, IMKTA, JACK, KR, MCD, PFGC, PLAY, PLKI, PNRA, PZZA, QSR, SBUX, SFM, SHAK, SONC, SYY, TXRH, UNFI, USFD, WEN, WING, YUM*

It felt like a tough environment for restaurants in 2016 but 12 of the 35 names are up 20% or more YTD. The group is closely tied with consumer spending trends and will face headwinds in 2017 from rising wages and input costs. Two of the top performers were the Pizza names **Domino's (DPZ)** and **Papa John's (PZZA)**. **Jack in the Box (JACK)** is another strong name trading to record highs, as are **Cheesecake Factory (CAKE)**, **Cracker Barrel (CBRL)** and **Texas Roadhouse (TXRH)**. This coming just a few months after Stifel and Jefferies each issues bearish notes of a recession in the industry, and seeing at least 18 months of challenges including softer same store sales and higher labor costs. A recent National Restaurant Association survey showed 45% of consumers indicating they are not eating out as often. Traffic and Same Store Sales have been trending lower most the year, but if consumers start to benefit from a stronger economy and tax cuts, the numbers could improve.

First, looking at the \$5B+ restaurants the group trades at 26.3X Sales, 13.7X EBITDA with 27.7% EBITDA margins and a ROIC of 23.6%. Valuation looks quite rich for a group facing slowing sales, so a few short opportunities.

Darden (DRI) and **Restaurant Brands (QSR)** are the two value names trading less than 10X EBITDA. **DRI** looks like a potential winner in 2017 as the best value in the group with a very low Debt/EBITDA, and its sub-par gross margins have plenty of room for expansion. DRI is turning around Olive Garden and also likely to see more success from its To-Go business. DRI operates on a large scale and is really starting to use technology to become more efficient, and offers a cheap valuation with a 3% dividend.

Starbucks (SBUX) has lagged the market this year with shares down 3% YTD and some uncertainty into 2017 after surprise news that Howard Schultz is stepping down as CEO. SBUX is still an impressive growth story, an \$84B market cap growing revenues 8-10% annually and EPS growth expected to accelerate through 2019. SBUX has been a leader in technology for consumer brands and has a very strong loyalty program, also expecting over 5,000 stores in China by 2021.

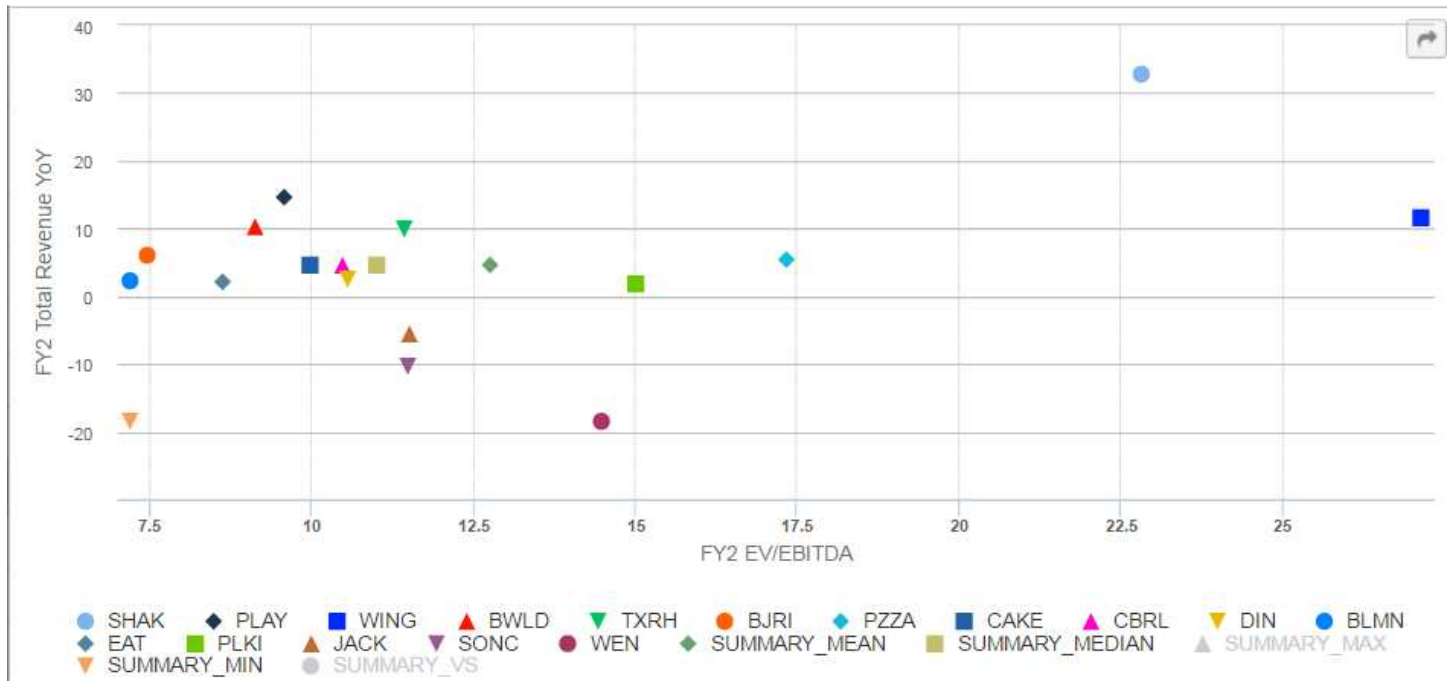
Chipotle (CMG) continues to look like a short trading 18.6X EBITDA and continuing to lower its outlook while having industry-worst margins and ROIC. CMG will continue to struggle from an image problem and be hurt by rising labor and commodity costs.

Next to look at the smaller cap restaurants the group trades on average 12.8X EBITDA with 21% EBITDA margins and an 18.7% ROIC.

Buffalo Wild Wings (BWLD) with a \$3B market cap is trading at just 9.1X EBITDA with a 16.3% ROIC. BWLD revenue growth has come down and normalized closer to 10% through 2017 while EPS growth is set to reaccelerate to 18.9% for 2017. BWLD will face a tough Q4 Y/Y comp and wing price inflation remains a hurdle, but remains a premium growth

name and opportunity for capital returns and refranchising. BWLD currently has 1,185 locations with 585 franchised and 600 company-owned. Refranchising has worked for numerous names in the past and can lead to buybacks and improving sales/margins as well as increasing ROIC.

FY17 Revenue Growth vs. EV/EBITDA

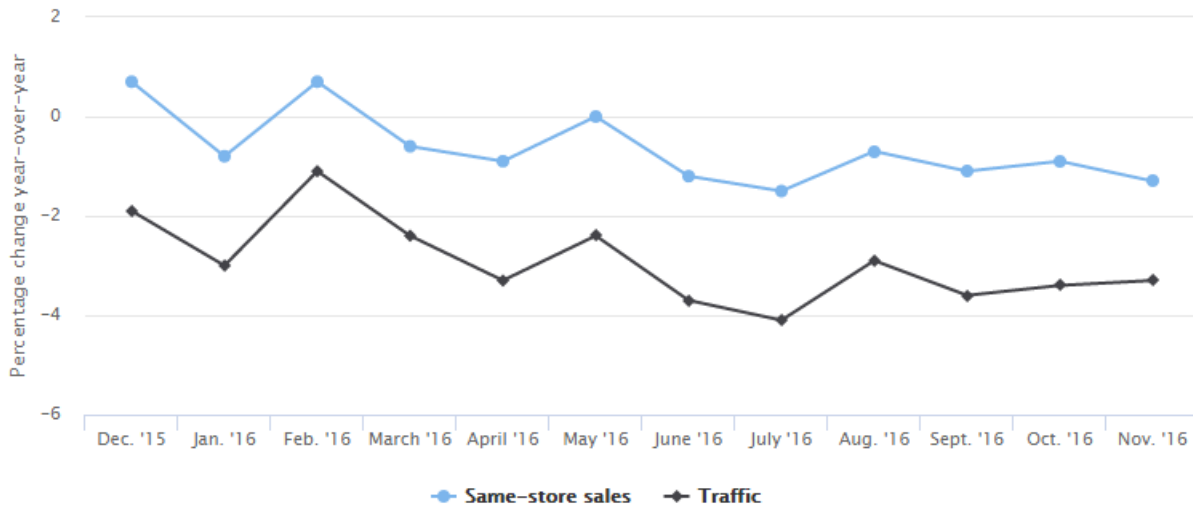


Lastly, the food suppliers and grocers (KR, WFM, SYY, CASY, HAIN, SFM, PFGC, UNFI, CORE, IMKTA, USFD) trade at average 9.5X EBITDA with 6% EBITDA margins and 9.8% ROIC. Overall this is not a very exciting industry for growth investors, and **Sysco (SYY)** offers the best dividend yield at 2.34%, a name that could be in play for 2017 with the potential to try a merger with **US Foods (USFD)** again with an easier regulatory environment.

Casey's General (CASY) with a \$4.88B market cap trading 8.9X EBITDA with a 13.1% ROIC is one attractive name in this group, set to return to double digit revenue growth in 2017 and EPS growth of 15% and 11% the next two years forward. As an operator of convenience stores, CASY should benefit from rising consumer confidence and lower fuel costs. CASY also has aggressive expansion plans looking to acquire or build 77 to 116 stores. CASY is targeting 10.2% same store sales growth in prepared foods and fountain for 2017 with 62.5% margins. Option traders have positioned bullish in the name as well with 1,500 May \$120 calls and 2,000 May \$125 calls bought to open.

Black Box Intelligence: Same-store sales, traffic

Figures may differ from previously published data. Source: TDn2K



Nation's Restaurant News

Business Services and Consulting:

Components: *ABM, ACN, ASGN, BAH, BRC, CDW, CEB, CMPR, CTAS, CTSH, CVG, DLX, DNB, DST, EXPO, FCN, G, GIB, GK, HCSG, HURN, IRM, IT, KFY, MAN, MMS, QUAD, RHI, TMH, UNF, WIT, XRX*

This group includes a variety of different companies but all involved in servicing businesses in some manner, ranging from IT to Staffing to Uniforms to Consulting to Facility Maintenance. A few small caps in this group had very strong years, led by Quad Graphics (QUAD) which is up 200%. The uniform providers (CTAS, UNF, GK) are all 30% or more higher this year as well with the strength in employment.

Gartner (IT), an \$8.55B provider of research and consulting services, is the standout name with double digit revenues and EPS growth expected through 2018, strong margins and FCF, and a high 43.7% ROIC. Gartner has a strong history of growth and still sees vast untapped market opportunities in a World becoming more digital. Its recurring revenue model with strong retention rates allows for little earnings volatility. It sees very little analyst coverage and remains relatively unknown to most investors, but one of the strongest sustainable growth stocks around.

Cognizant Tech (CTSH) is the other strong growth name with a \$34.1B market cap trading just 9.5X EBITDA and 2X EV/Sales, offering good value. CTSH is targeting revenue and EPS growth accelerating back to double digits by 2018. It is a name that Elliott Mgmt. recently disclosed a large position and is pushing to unlock value, and has over 30,000 April \$55 calls in open interest from buyers. Elliott sees shares worth \$80-\$90 by the end of 2017 and capital allocation and margin expansion are two main drivers.

Dividend investors can take a look at **Iron Mountain (IRM)** with a 6.85% yield and forecasting double digit EPS growth in both 2017 and 2018. IRM receives 75% of business from records and information management, 15% from data management, and 10% from shredding.

Moving on to the smaller names, **Deluxe Corp (DLX)** is a \$3.47B provider of marketing solutions and other services for small businesses and financial institutions, two "end-markets" that will be bolstered by a strengthening economy. DLX is trading cheap to peers at 13.8X Earnings and 8.2X EBITDA while having impressive margins and a ROIC of 20%. In Q3 its marketing solutions & other services unit grew revenues 16% and now accounts for 33% of the total. DLX is positioned well for its eighth straight year of growth in 2017.

MAXIMUS (MMS) is another name that looks fairly cheap and attractive at 16.25X Earnings and 1.3X EV/Sales with a 29.8% ROIC. MMS valuation has come lower as a former name growing revenues 20-25% annually only grew 14.5% in 2016 and projecting just 4.7% growth in 2017 before reaccelerating in 2018, but maintaining double digit EPS growth. The issue is that the Affordable Care Act as a strong positive driver for the company and now could see a pause in federal government programs with a new administration. MMS is likely more of a 2H17 story, but a name to monitor if it can return to its former growth profile.

Publishing and Education:

Components: *DV, EDU, GCI, HMHC, JW-A, LOPE, PSO, RRD, SCHL, TIME, XRS*

This is a small and for the most part uninteresting group of stocks. The China names **EDU/XRS** are the clear growth leaders but also valued at a premium and always questionable to trust the accounting.

Grand Canyon Education (LOPE) stands out as the best name, the \$2.77B Company trades 17.2X Earnings and 8.8X EBITDA with leading margins and ROIC above 23%. LOPE has posted double digit revenue growth through 2016 and forecasts 8-9% in 2017/2018. LOPE is positioned uniquely in an industry that was under scrutiny in 2015 and is seeing accelerated enrollment growth and market share gains.

Travel, Leisure and Gaming:

Components: *BYD, CAR, CCL, CHDN, CHH, CTRP, EXPE, FUN, H, HLT, HTZ, IGT, IHG, LVS, LQ, MAR, MGM, MPCL, MTN, NCLH, PCLN, PE, NN, RCL, RRR, SABR, SGMS, STAY, TRIP, VAC, WYNN, WYNN*

This group includes Casinos/Resorts, Lodging and Rental Cars, Online Travel Agencies, and Cruise Ships. The cruise ship names are all red on the year but have made strong moves higher since July, while rental car plays also have lagged this year and continue to face business competition from the growth of Uber. The big M&A news this year was the Marriott/Starwood \$13B deal. Hilton (HLT), another lodging name, is undergoing a split into 3 companies spinning off real estate and timeshare businesses.

The casino plays have been top performers since the summer as Macau bottomed and starting to once again see some Y/Y growth after a year of tough comps. Japan recently approved a Gaming Bill that could make it the third largest

gaming market at \$20B, a major opportunity longer term for MGM, WYNN, and LVS. Macau-related stocks took a dive recently on reports that China was planning to cut its Union Pay ATM withdrawal limit in Macau, but the reports were subsequently denied and the stocks yet to recover from selling off. Policy changes on capital controls are a main risk to the group going forward.

The two suppliers of devices/technology to the gaming industry, IGT and SGMS, trade 7.2X and 7.9X EBITDA respectively, while IGT has the stronger balance sheet and a much better ROIC at 10.1%. Neither name looks overly compelling from a growth standpoint.

Las Vegas Sands (LVS) is the best of breed gaming stock with a \$45B market cap trading 12X EBITDA with leading margins, ROA, and ROIC. LVS has strong exposure to Macau and its new Parisian site has seen strong early results, and LVS also seeing improvement in Singapore. LVS also has optionality in Japan and is the dominant Macau player while being a leader in operating makes it more defensive to peers.

Churchill Downs (CHDN) is an interesting \$2.5B small cap trading 9X EBITDA with an 8.9% ROIC and targeting EPS of \$7/share in 2017, up 100% from 2014 levels. CHDN's iconic Kentucky Derby brand continues to set all-time records and it is positioned in online wagering and mobile gaming industries. Big Fish Games, its mobile division, posted 23% revenue growth YTD 2016. CHDN also has seven casinos and 3 hotels located in six different states. Its TwinSpires division is the largest legal online wagering platform for horseracing. EBITDA margins have expanded to above 25% from 21% in 2011.

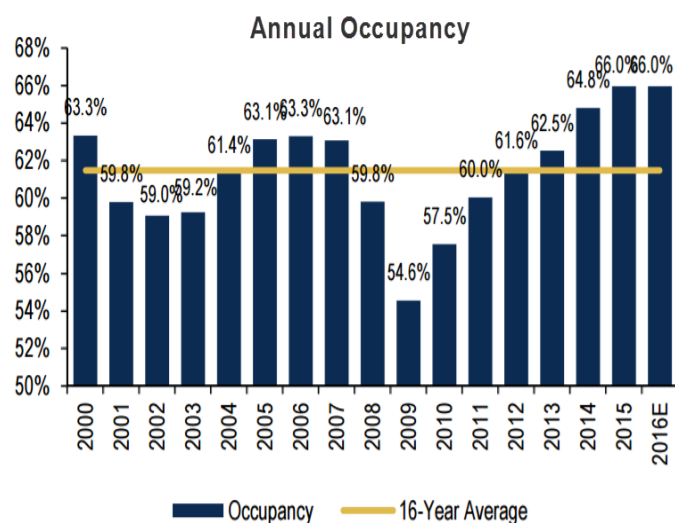
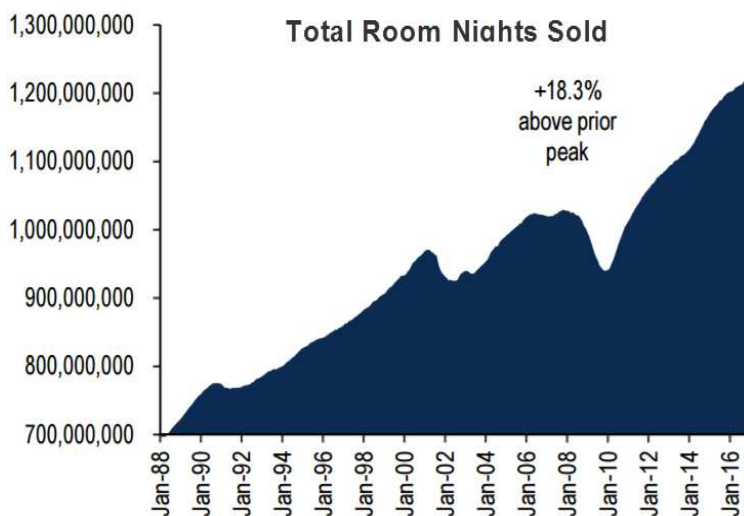
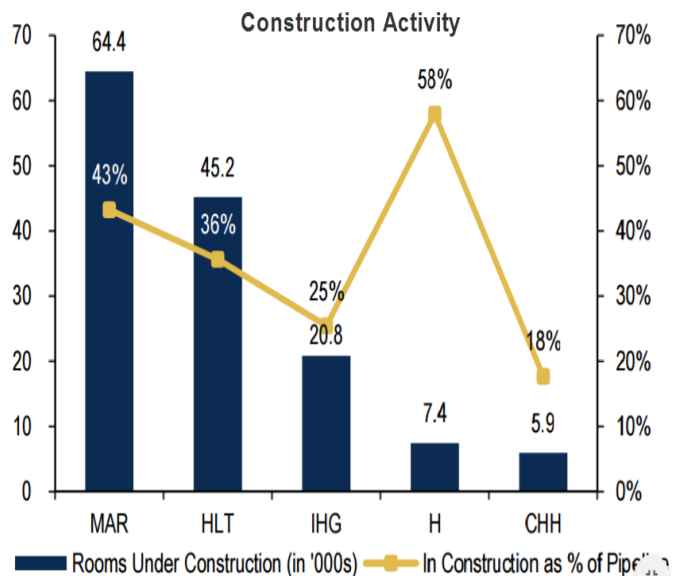
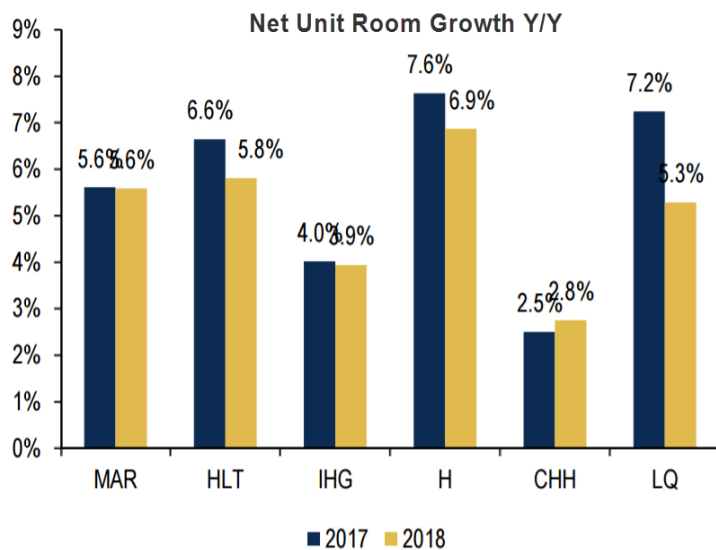
RevPAR is a key metric used for the lodging industry, an indicator that is highly correlated with GDP on a 6 month lag. Recent earnings across the hotel group with occupancies, rates and margins suggest the group is in the late cycle, but the potential for renewed economic strength can extend the move. The industry also faces stiff competition from home-sharing companies like Airbnb and Home-Away. The industry faces a supply/demand imbalance which is a headwind that limits pricing power, and occupancy is already at its highest level in 35 years.

The two rental car plays, CAR and HTZ, trade around 11.2X Earnings with very low margins and low ROIC businesses. Declining rental rates, volumes, and car utilization all make this an industry to avoid from the long side, and CAR a potential short into 2017.

The lodging stocks are trading on average at 22.3X Earnings and 11.3X EBITDA. **Marriott (MAR)** remains the clear leader and excels in nearly every financial metric while undergoing a transformational merger with Starwood (HOT), but does already fetch a premium valuation.

Wyndham (WYN) looks notably cheap to peers trading at 9.5X EBITDA and 12.5X Earnings while Marriott (MAR) is at 13.6X EBITDA and 21X Earnings, and Hilton (HLT) at 12X EBITDA and 27.8X Earnings. WYN has a consistent history of growth and with 11.4% EPS growth in 2016 expects closer to 9% in 2017 and 2018. WYN also has some optionality with its #1 timeshare business. WYN has excellent free cash flow and has seen shares outstanding shrink by 27% since 2011.

Choice Hotels (CHH) is the small cap favorite in the group, the \$3.15B Company trades rich at 21.3X Earnings and 14X EBITDA, but way above peers with a ROA of 23% and ROIC of 42% while having a much more conservative balance sheet to peers. CHH has shown a history of steady revenue growth and EPS growth in the 7-10% range since 2014 and projected through 2018. CHH is coming off two consecutive beat and raise quarters. CHH has outperformed peers on RevPAR and its focus more on leisure over corporate has led to better results.



The last two groups to look at are the Online Travel (OTA) and Cruise companies. The OTA's have a few industry-specific metrics always looked at such as gross bookings and room night growth.

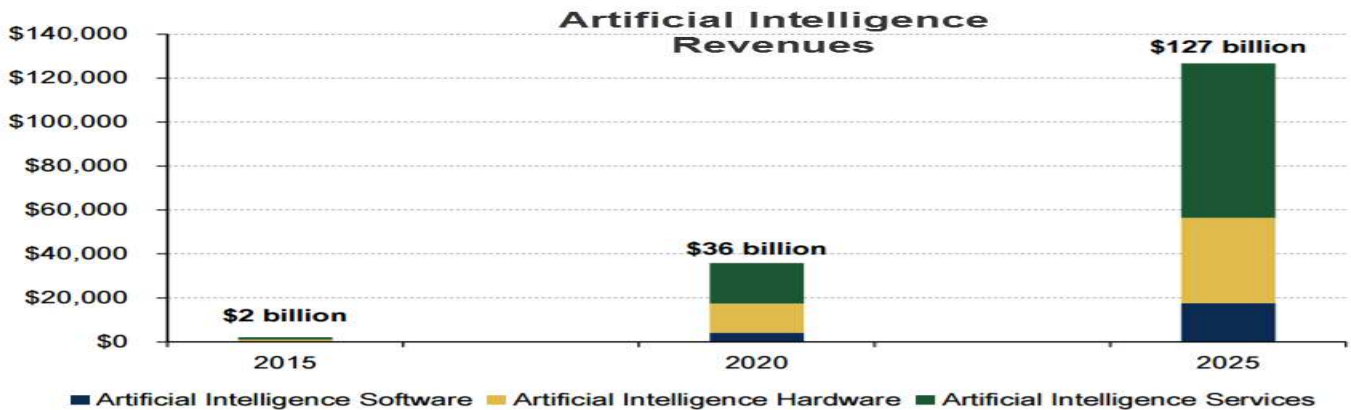
Expedia (EXPE) and Priceline (PCLN) are both great growth companies, and EXPE trades cheaper on valuation and its acquisitions of Orbitz and Home-Away should continue to pay off. However, **PCLN** is the best operator in the group with strong FCF and a conservative balance sheet. The \$73.45B large cap is impressive with 15% annual revenue growth seen ahead of 15-17% EPS growth. Its Booking.com is growing rapidly with large market potential across various travel experiences and has the global scale to be a major success. PCLN has done some key acquisitions such as Booking.com, Agoda, Open-Table, and Kayak and is likely on the hunt for more deals with \$13.7B in cash, and would be a major beneficiary of a repatriation legislation. The strong USD is a headwind for PCLN and could allow EXPE to outperform in the near-term, and while both are long term winners as the OTA market remains a small slice of a large pie, PCLN is best positioned.

The cruise industry looks to be positioned well into 2017 with a strong travel market and rising consumer confidence. The addition of routes to Cuba can boost growth. The Cruise Line International Association projects 25.3M passengers in 2017, which compares to 15.8M in 2007 and 24.2M in 2016, steady growth. Twenty six new ships are set to debut in 2017. The main risks are geopolitical and the strengthening US Dollar.

Norwegian Cruise (NCLH) is the smaller name of the group and trades 11.4X Earnings and 10.2X EBITDA with leading margins and ROIC. NCLH has seen revenue growth normalize after rapid expansion in 2014-2015 and projecting 8-10% CAGR while EPS growth maintains in the 10-20% annual rate. The CEO in late August bought a \$3M position at \$35.94/share, a vote of confidence after some weakness in the stock. **Carnival (CCL)** is the value play in the group with strong FCF, but NCLH has the most upside if it can contain expenses and see a rebound in pricing.

Dividend investors may want to consider **Cedar Fair (FUN)**, a \$3.55B operator of amusement parks with a 5.36% yield that trades attractive at 9.8X EBITDA with strong margins, 11.8% ROA and 14% ROIC.

Technology: *The Tech sector performed well in 2016 with Semiconductors providing most of the top gainers for the year with a surge in M&A and strong demand for chips in data centers and automotive. Software, represented by IGV, lagged with it up just 8% YTD, and Internet and Cyber-Security also lagged overall market returns. Networking was an outperforming segment with a 20% YTD return. Tech is where we find most of the exciting growth names and also where stock-picking is most critical, a lot of opportunities discovering small cap names that go on epic runs. Nvidia (NVDA) was a standout all year gaining more than 220%, and a name that was crushing quarterly estimates for a long time, so it is very important to watch the quarterly reports and stick to the names operating best. Tech captures a lot of the big themes going into 2017, one being Artificial Intelligence which plays a role in nearly every industry, currently a \$3.6B market expected to grow to \$36B by 2020. The Internet segment faces regulatory uncertainty, tough Y/Y comps, and margin pressures in 1H17, though the global ad spend environment is expected to rise 15% to \$212B. The overall sector remains flush with cash for further M&A, including Oracle (ORCL) with \$66B and Microsoft with \$136B. The chip segment continues to show strong signal with accelerating Y/Y growth and in October total semiconductor sales hit a new monthly record of \$30.5B. IHS forecasts 4.8% growth in the Semi industry for 2017 led by Industrial & Auto at 7% growth. Tech is one of the few sectors facing increased regulatory risk under the new administration and may be seeing peak margins as a group, so stock selection is important. Valuations are cheap relative to other sectors given the growth, and balance sheets are very strong.*



Software - Cloud, Security and SaaS:

Components: ACXM, ADBE, ADSK, ALRM, APIC, AZPN, BLKB, BSFT, CALD, CARB, CHKP, CRM, CSOD, CTSH, CTXS, CUDA, CYBR, DATA, DOX, EBIX, EGHT, FEYE, FFIV, FIVN, FTNT, GWRE, HUBS, IMPV, INTU, JKHY, LOCK, LOGM, LXFT, MANH, MB, MIME, MSFT, NEWR, NOW, NTCT, NTNIX, ORCL, OTEX, PANW, PAYC, PCTY, PEGA, PFPT, QLYS, QTWO, RHT, RNG, RPD, SAP, SHOP, SPLK, TEAM, TWLO, TWOU, ULTI, VEEV, VMW, VRNT, WAGE, WDAY, WK, ZEN

This is a large group with 65 stocks and 22 of which were down 10% or more in 2016 with some notable names in cyber-security (FEYE, IMPV, PANW, RPD), & cloud/SAAS (CRM, DATA, NEWR, PCTY, TEAM, NTNIX, ZEN, HUBS, WDAY, NOW). It was a bifurcated group with 22 names that were up 20% or more in 2016 as well, including big names like F-5 (FFIV), VMware (VMW), Autodesk (ADSK), Intuit (INTU) and Citrix (CTXS). The top secular themes for 2017 are Artificial Intelligence (MSFT, CRM, ADBE, SPLK, HUBS, ZEN), Business Intelligence (DATA, SPLK), Digital Transformation of Enterprise (SAP, ORCL, CRM, ADBE), Line of Business IT (CRM, HUBS, ZEN, BOX), Bi-modal IT (MSFT, ORCL, INTU), Cloud transitions (ADBE, ADSK, SPLK, DATA), public cloud deflationary pressure (negative VMW, RHT), software defined data center, next-gen applications, and IoT (MSFT, CRM, SPLK, ALRM). A breakdown of the themes and impact is below.

	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	11)	12)
	AI	BI	Digitization	LOB/ shadow IT	BI-modal IT	Cloud transitions	Public cloud deflation	SDDC	Next Gen apps devt	IoT	UCaaS	Cloud Security
CRM	+	+	+	+	+		+		+	+		
MSFT	+	+	+		+	+	+/-	+/-	+	+	-/+	
INTU			+			+	+					
NOW			+		+		+		+			
HUBS	+		+		+		+					
ORCL		+/-	+		+/-	+/-	+/-	+/-	+/-			
ADBE	+		+			+	+		+			
VMW			-	-	-	-/+	-	+/-	-			
ADSK						+/-	+/-					
SYMC					-		-					+
CTXS			-		+/-	?	-/+	+/-				
RHT			-/+	-	+/-		-	+/-	+/-			
SPLK	+	+		+	+	+/-	+/-			+		
VEEV			+		+		+					
GWRE			+		+	+	+					

Legend: + positive, +/- mixed but more positive, -/+ mixed but likely more negative, - negative

Dividing them up by size is the easiest approach, so starting with the \$15B+ names:

Company	Current Market Cap	1Year Return	FY2 P/E	FY1 Adjusted EBIT YoY	FY1 Cost of Goods Sold	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Gross Margin	FY2 EV/Sales	FY-10 Return on Invested Capital	FY1 Levered FCF Margin	
MSFT (Microsoft Corp)	X	494,668	15.9%	19.76x	34.2%	5.0%	9.9%	5.9%	63.3%	4.4x	19.7%	28.1%
ORCL (Oracle Corp)	X	159,581	7.1%	13.91x	19.3%	(1.3%)	1.3%	3.3%	80.3%	4.0x	13.7%	30.5%
SAP (Sap Se)	X	102,701	9.3%	17.15x	32.6%	(10.2%)	6.9%	6.4%	71.6%	4.1x	15.5%	14.0%
ADBE (Adobe Systems Inc)	X	52,353	15.4%	21.96x	26.9%	15.5%	19.9%	18.9%	87.5%	6.0x	18.2%	32.3%
CRM (Salesforce Com Inc)	X	48,428	(9.6%)	54.35x	888.5%	21.9%	25.6%	21.8%	75.9%	4.8x	(20.5%)	16.4%
CTSH (Cognizant Technology Soluti...)	X	34,394	(5.6%)	15.50x	21.9%	9.3%	8.9%	9.6%	40.0%	2.1x	18.4%	12.1%
VMW (Vmware, Inc.)	X	33,493	45.9%	17.36x	74.9%	(10.5%)	6.1%	5.3%	87.1%	3.6x	18.8%	30.0%
INTU (Intuit Inc)	X	30,325	23.7%	23.84x	38.2%	4.0%	7.9%	8.4%	84.6%	5.6x	41.7%	23.5%
ADSK (Autodesk Inc)	X	16,847	26.3%	-	--	(19.0%)	(19.1%)	7.4%	85.2%	7.3x	150.6%	3.9%
CHKP (Check Point Software Techn...)	X	14,933	5.1%	17.47x	11.9%	3.5%	6.3%	5.8%	88.7%	6.1x	20.3%	54.7%
CTXS (Citrix Systems Inc)	X	14,263	23.1%	16.32x	125.1%	(17.8%)	4.1%	4.0%	85.2%	4.0x	25.6%	29.4%
Mean		91,090	14.2%	21.76x	127.3%	0.0%	7.1%	8.8%	77.2%	4.7x	29.3%	25.0%

Microsoft (MSFT) is nearing a \$500B market cap and trades 19.75X Earnings and 4.4X EV/Sales with a 2.46% dividend yield, and is flush with cash despite its large Linked-In (LNKD) acquisition earlier this year. MSFT is forecasting nearly 10% revenue growth for 2017 and sees EPS growth accelerating through 2019. MSFT is becoming the leader in cloud with Azure and the struggling PC segment is becoming less impactful to overall results, though for now still the largest segment. It has great momentum into 2017 and is a favorite large cap Tech name.

Adobe (ADBE) now has a \$52B market cap and is growing revenues at a rapid rate with 20% growth seen for 2017 and 19% in 2018 while EPS grows more than 25% per year, a major growth name for a large cap. ADBE's new model of subscriptions is giving it strong operating leverage and ADBE is capitalizing on "digital disruption", a major theme in Tech. At 22X Earnings and 6X EV/Sales, ADBE is trading at a premium, but it is delivering near unparalleled earnings power the next 3-5 years out and is positioned in all the right places.

Intuit (INTU) screens well among the names with a \$30B market cap trading 23.85X Earnings and 5.6X EV/Sales while having strong 85% margins and a ROIC above 40%. INTU sees revenue growth coming down from the 12% growth in 2016 to 8% but reaccelerating the next 2-3 years while EPS growth remains in the 12-15% range annually. INTU is another story of transitioning to the cloud with online users growing 12% CAGR 2012-2016 versus desktop users -1%. INTU is also entering new markets, though one risk I see is a simplified tax system leading to less demand for its products. INTU does have potential for 20% EPS upside in 2017 if its tax rate moves to 20% from 26%.

The notable options action in this group has focused most bullish in MSFT, CTSH, VMW and ADSK. There are a lot of attractive names in the group from a strong business standpoint, but many are hitting relatively rich valuations and face

risk of decelerating growth in 2017 (VMW, CTXS, CHKP). **Salesforce.com (CRM)** remains a stellar growth company with a large and growing market, but has shown weak price-action this year after making some questionable acquisitions, so one to monitor.

In the \$5B to \$15 group, we have a number of top growth stocks, and a few of the SAAS leaders like WDAY, TEAM, SPLK and NOW have performed poorly, as have the cyber-security names PANW and FTNT. **Fortinet (FTNT)** has come down to a compelling valuation at 2.8X EV/Sales and has seen some large Jan. 2017 call buying as well as a sizable March bullish risk reversal into recent weakness, a name that would make a strong acquisition target for a large Tech player wanting more cyber-security exposure. **F-5 (FFIV)** has been a top performer with shares up 50% YTD and remains lower priced at 3.8X EV/Sales, but does offer less growth potential. FFIV was reportedly looking to sell itself and could find a buyer in 2017. PANW, NOW, SPLK, and WDAY each saw sharp jumps in COGS in 2016 while sharp drops in EBIT. **Veeva (VEEV)** led the group with a 53% gain in 2016 and is an excellent company with its exposure to the life sciences industry, but at 8.3 EV/Sales shares are very rich.

Company	Current Market Cap	1Year Return	FY2 P/E	FY2 EV/Sales	FY1 Adjusted EBIT YoY	FY2 Normalized EPS YoY	FY1 Cost of Goods Sold	FY1 Total Revenue YoY	FY2 Total Revenue YoY	FY1 Gross Margin	FY-10 Return on Invested Capital	FY1 Levered FCF Margin	
RHT (Red Hat Inc)	X	14,452	(1.3%)	31.00x	5.0x	90.9%	17.1%	5.6%	18.1%	14.0%	86.5%	20.5%	30.1%
WDAY (Workday, Inc.)	X	13,867	(12.6%)	246.94x	6.3x	(107.0%)	892.9%	16.8%	34.5%	27.6%	72.0%	(0.2%)	4.5%
NOW (ServiceNow, Inc.)	X	12,875	(10.1%)	74.40x	7.0x	(207.9%)	51.4%	28.5%	37.7%	30.2%	69.4%	11.1%	14.9%
PANW (Palo Alto Networks Inc)	X	11,590	(30.6%)	34.07x	4.6x	(312.1%)	33.5%	4.3%	31.0%	28.6%	78.6%	22.1%	37.5%
FFIV (F5 Networks Inc)	X	9,481	50.5%	15.83x	3.8x	41.8%	10.9%	(1.6%)	7.4%	6.5%	84.5%	38.7%	28.4%
DOX (Amdocs Ltd)	X	8,844	9.6%	14.86x	2.0x	37.0%	7.0%	10.7%	4.1%	3.9%	31.8%	14.7%	14.9%
OTEX (Open Text Corp)	X	8,110	29.4%	14.48x	4.3x	68.9%	7.9%	0.5%	14.8%	3.2%	72.5%	16.1%	21.6%
SPLK (Splunk Inc)	X	7,273	(1.4%)	105.32x	5.2x	(117.3%)	58.6%	29.4%	39.3%	27.9%	84.1%	3.0%	15.8%
JKHY (Henry Jack & Associates Inc)	X	6,991	15.6%	26.52x	4.6x	7.5%	8.9%	4.3%	4.9%	6.0%	43.2%	23.1%	19.4%
VEEV (Veeva Systems Inc)	X	5,882	53.6%	53.12x	8.3x	99.7%	18.0%	14.7%	31.9%	20.5%	69.8%	16.5%	22.1%
TEAM (Atlassian Corp Plc)	X	5,818	(16.1%)	53.97x	6.5x	--	33.6%	25.1%	32.8%	27.4%	84.4%	(14.9%)	26.8%
ULTI (Ultimate Software Group Inc)	X	5,405	(4.2%)	46.59x	5.5x	270.5%	23.8%	19.3%	26.3%	24.0%	63.6%	21.5%	10.9%
FTNT (Fortinet Inc)	X	5,103	(6.3%)	36.50x	2.8x	636.8%	26.3%	13.7%	24.6%	16.9%	74.1%	8.7%	20.7%
Mean		8,899	5.9%	57.97x	5.1x	42.4%	91.5%	13.2%	23.6%	18.2%	70.3%	13.9%	20.6%

Red Hat (RHT) is a favorite in this group when looking at all the metrics, the \$14.45B Company trading 5X EV/Sales and 31X Earnings has leading 86.5% gross margins, a ROIC above 20% and strong FCF. RHT sees double digit revenue and EPS growth through 2019. RHT is posting consistent 15-20% billings growth and there has been some concern of a slow-down for RHEL on a shift to public cloud and also a risk of middleware slowing as Oracle moves to Platform as a Service (PAAS), but results have yet to show any weakness until its most recent quarterly report on 12/21 and shares sold off sharply, so one that is in the "penalty box" until next quarter.

Jack Henry (JKHY) shares are up 15% in 2016 and is not comparable to the other names on growth, but remains an underfollowed great business trading 4.6X EV/Sales with a 23% ROIC and strong FCF. JKHY is guiding for 5-6% revenue growth and 7-10% EPS growth and has consistently beat its forecasts. As a provider to financial institutions it could see upside to estimates with tailwinds in that group for 2017 that should see increased spending.

Next up the \$2.3B to \$4.5B companies and we start to get to some names that make nice acquisition targets like SHOP, CSOD, DATA and PFPT.

EV/Sales vs. FY17 Revenue Growth



Wage-Works (WAGE) has a \$2.6B market cap and trades 4.2X EV/Sales with a 12.2% ROIC and 28.9% levered FCF margin. WAGE is projecting 30% revenue growth in 2017 and 25% EPS growth, aided by its acquisition of ADP's consumer health spending account business. WAGE is a leading provider of consumer directed benefit services to employers, a \$6B market and has around a 10% market share. The Company recently announced a partnership with Uber allowing commuters to pay for rides using pre-tax funds from Wage-Works Commuter accounts.

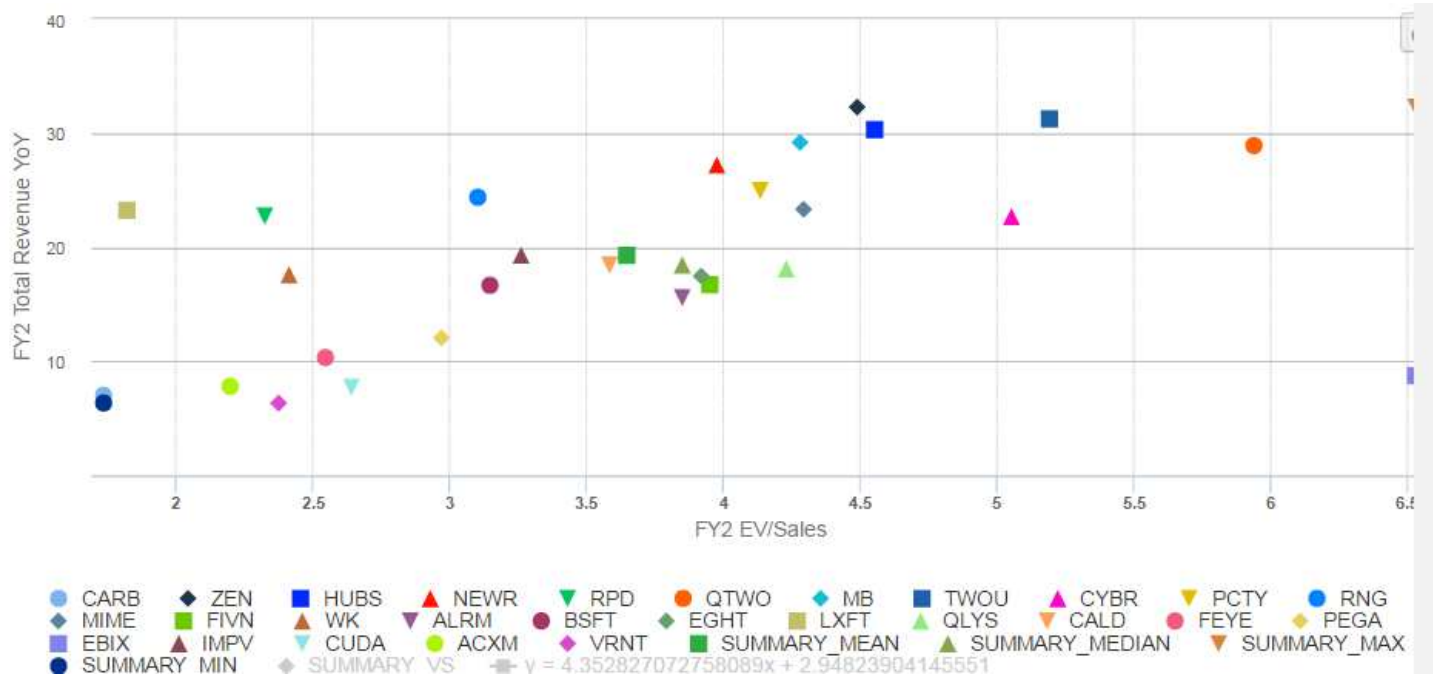
Log-Me-In (LOGM) has a \$2.49B market cap and trades 6X EV/Sales with a 22% ROIC and 27.7% levered FCF margin. LOGM is forecasting 15% revenue growth in 2017 and 16.5% EPS growth, a strong history of top and bottom line growth. The provider of cloud-based services to connect people at the workplace announced a transformational merger in 2016 with Citrix's Go-To-Family to create an industry leader. Its markets include collaboration, identity & access, and customer engagement services, all together a \$10B+ market. The deal will result in substantial synergy opportunities and EBITDA and FCF expected to jump sharply.

Blackbaud (BLKB) has a \$3.1B market cap and trades 4.4X EV/Sales with a 15.6% ROIC and 13.6% levered FCF margin. BLKB has posted 12-15% annual revenue growth from 2013 to 2016, but expected to fall closer to 8.5% for 2017 and 2019, while EPS growth also slows to a 15% CAGR. BLKB is the dominant provider of fundraising software to nonprofit and education sectors. Migration to the cloud as accelerated organic growth and margins, and with revenue growth set to slow the focus will be on margin expansion and FCF growth. BLKB has seen Salesforce.com (CRM) attempting to compete, but BLKB remains a niche leader and could make it an M&A target. Charitable giving tracks GDP historically, so 2017 could set up for a beat and raise type year. BLKB sees a \$15B market opportunity that it currently has less than 15% penetration, and is also planning on ventures into new markets, while growth in mobile giving is another opportunity.

Aspen Tech (AZPN) has a \$4.28B market cap and trades 8.5X EV/Sales with 90% gross margins. AZPN shares have risen nearly 50% YTD and has been a favorite long much of the year, and though valuation has become rich, it's improving end-markets for 2017 set up for another strong year. AZPN has been beating estimates all year even in a tougher environment and its exposure to Energy, Chemicals, and Engineering and Construction markets positions it well for fiscal policy spending, and the Street's estimates seem to be underestimation the upside potential. AZPN provides these companies with optimization software solutions with a high ROI.

For the companies under \$2.3B we have a lot of names that struggled in 2016 with RPD, PCTY, NEWR, WK, LXFT, FEYE and IMPV all down 20% or more, while MIME, EBIX, FIVN, CARB, ALRM, MB and EGHT were all up 30% or more. The smaller names tend to have smaller niche markets and paying attention to the health of those markets is vital to stick to the healthy trends. I will highlight a few names with healthier metrics.

EV/Sales vs. 2017 Revenue Growth



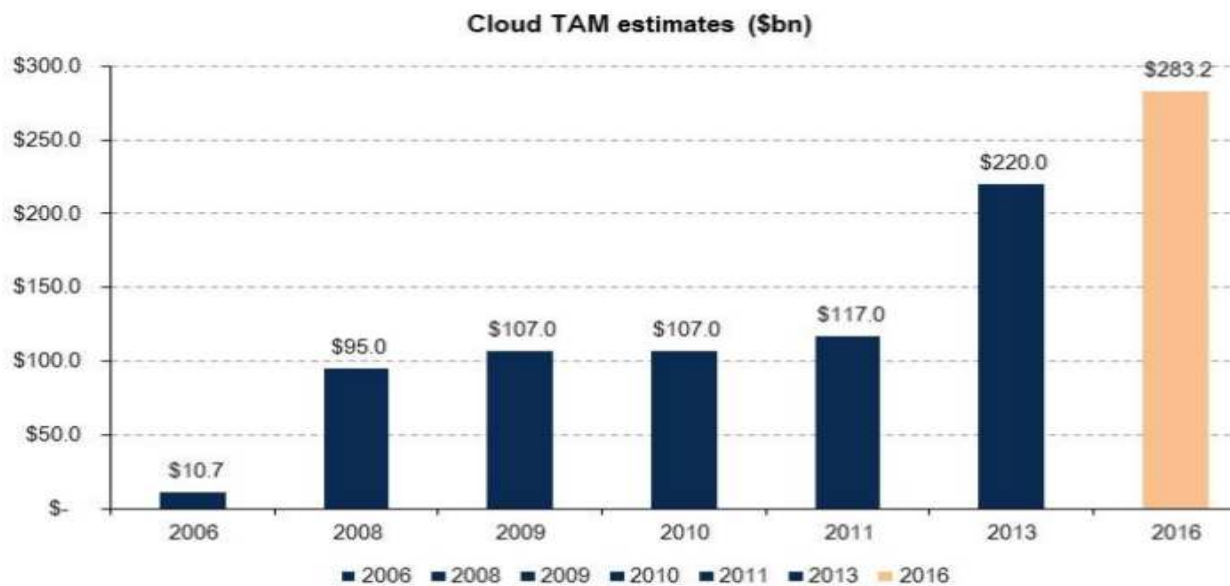
Luxoft (LXFT) is one of the big 2016 losers with shares down 30%, but valuation now very cheap at 1.8X EV/Sales while having a 33.8% ROIC. The \$1.8B provider of technology consulting solutions and services has 31.6% exposure to the UK which has weighed on shares since Brexit. It's main vertical in Financial Services at 65.6%, followed by Auto and Transport at 13%. LXFT has a strong history of growth and seeing numerous account wins, while FCF has a 48.7% 4 year CAGR. LXFT is a value name with strong growth and should close the gap to peers in 2017, or may even be a nice acquisition target for Cognizant Tech (CTSH).

PegaSystems (PEGA) has a \$2.74B market cap and trades 3X EV/Sales with 71% gross margins and a 20% ROIC. PEGA is expecting double digit revenue growth through 2018 and EPS to hit \$1.29 in 2018, up from \$0.94 in 2016. PEGA provides strategic applications to businesses in a growing ecosystem and a long term 20% Revenue CAGR. As a leader in CRM for customer engagement it offers a strategic value and was one of the names leaked in an internal memo from Salesforce.com (CRM) of potential acquisition targets. PEGA has strong growth and the mix shift to recurring and cloud will enable upside to margins while trading below peer average valuation. PEGA is likely in the early stages of the business process automation solution opportunity which will allow it to grow for many years.

Broadsoft (BSFT) has a \$1.27B market cap and trades 3.1X EV/Sales with 77% gross margins and a 20.5% ROIC. BSFT is guiding for 15%+ revenue growth through 2018 and sees EPS growth reaccelerating in 2017. BSFT is a leader in cloud communications and competes with other small cap growth names like NICE, FIVN, and RNG. BSFT has a healthy deal pipeline and is expanding its TAM with new products in contact center and collaboration.

Alarm.com (ALRM) has a \$1.25B market cap and trades 3.8X EV/Sales with 63.5% gross margins and 13.5% ROIC. ALRM was a 20% annual revenue growth company now projecting 15.5% in 2017. It is one of the few options available to play the strong Connected Home & Business theme, and has reached a subscriber base of 2.6M, plenty of room for further growth. The IoT market is expected to grow to \$29B in 2020 from \$7B in 2015, and the opportunity for security systems is immense with 133M US households and 22.5M currently using monitored systems. ALRM also has plans to expand to Europe and India within the next 12 months. With a renewal rate of over 93% there should be little volatility in revenues/EPS while having opportunity for upside to estimates with customer additions and new markets. ALRM has a dominant share in the US independent dealer network with a lot of barriers to entry. ALRM has been posting beat and raise quarters all year, giving confidence in management.

Qualys (QLYS) and Cyberark (CYBR) are two cyber-security names that screen attractive with the group not performing all that well in 2016, but still an important growth theme for IT spending allocation going forward. At 4.1X and 5X EV/Sales respectively with similar growth, but CYBR with stronger margins, ROIC, and FCF, both look to be values in an area that is also ripe for M&A as large Tech companies want exposure to these markets. CYBR has an early leadership position in privileged account security and has seen large wins in the government vertical. CYBR is rapidly adding new customers and new products are allowing for cross-selling opportunities. QLYS focuses on vulnerability management, and its cloud platform continues to add new solutions, increasing the TAM. QLYS is gaining share on the competition and operates a high-margin recurring revenue business with no CAPEX.



Software – Specific Verticals:

Components: *ABCO, ANSS, ATHN, ATVI, CDW, CERN, COTV, CSRA, EA, EGOV, ELLI, EPAM, GLOB, HQY, INOV, INVA, KEYS, MDRX, MDSO, NICE, NLSN, NSIT, PINC, PRGS, PTC, RP, SPSC, TTD, TTWO, TYL*

The \$6B+ names include the top two videogame makers, a couple names with ties to Healthcare and others with ties to government spending. On average the stocks trade 3.8X EV/Sales with a 17% ROIC. **PTC Inc. (PTC)** was the top performer gaining 36% YTD as a leading provider of IoT and AR platform and operates in Computer-Aided Design (CAD), Product Lifecycle Mgmt. (PLM), IoT, and Augmented Reality (AR) segments. Similar to ADBE/ADSK, it is undergoing a shift to a cloud subscription model which has made investors more excited about its prospects.

Electronic Arts (EA) is a top pick as it continues to deliver excellent quarters and the \$24B Company trading 19X Earnings and 4.1X EV/Sales with strong FCF and a ROIC above 40%. EA sees 12% revenue growth and 17% EPS growth for 2017 and is taking part in the shift to mobile and digital gaming. EA has a strong lineup of titles and Battlefield is selling very well that can carry upside to estimates in 2017. Comps will be tougher in 2017 but the company is on the forefront of the major growth wave in e-sports and is monetizing gaming in new ways. FIFA is EA's largest franchise and showed very strong numbers last quarter including extra content revenues, and overall EA's mix shift to digital is a positive for the company. Mass Effect Andromeda is expected to be the next big title launch, set for Spring 2017 release.

Cerner (CERN) looks cheap at 3.1X EV/Sales and 18.9X Earnings with some of the best top-line growth in this group, leading 84% margins and a ROIC above 18%. The company forecasts 8-9% annual revenue growth through 2018 which is an adjustment for a name that posted 30% growth in 2015, and accelerating 9-12% EPS growth. Shares are down nearly 20% YTD after some weaker than expected earnings reports and rising costs. The major concern into 2017 is the uncertainty with healthcare reform and the impact on stocks serving the hospital industry. CERN does have a broken uptrend and formed a large head and shoulders topping pattern on the weekly, so best to avoid until we have more clarity on healthcare reform.

CSRA (CSRA) is the deep value name at 1.5X EV/Sales and 15.4X Earnings, though low margins at 21.4% make it deserving of a lower multiple, but still a strong business with a 22% ROIC. CSRA is the spin-off from Computer Sciences that focused on government services, and expects 18.6% revenue growth in 2017 though EPS growth of just 3.7%. As a provider of IT services to the government, CSRA looks positioned well for many of the new administration's plans. It's coming off a 1.9X book to bill ratio quarter and posted record EBITDA margins. CSRA has \$15B+ in contract backlog with \$50B on new business in the pipeline.

The \$2B to \$4.5B names include a lot of names focused in the Healthcare vertical which has struggled in 2016 and remains uncertain into 2017. **Health-Equity (HQY)** was the top performer up 52% YTD as a provider of managed flexible spending accounts, benefitting from employment trends. **Take-Two (TTWO)** was another top mover up 42% YTD in the videogame industry. One trend I see with a number of these names is costs rising faster than revenues, which is troublesome.

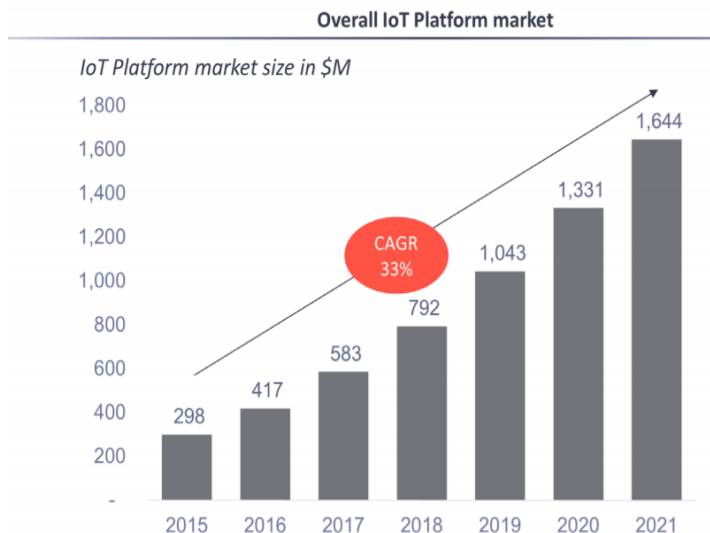
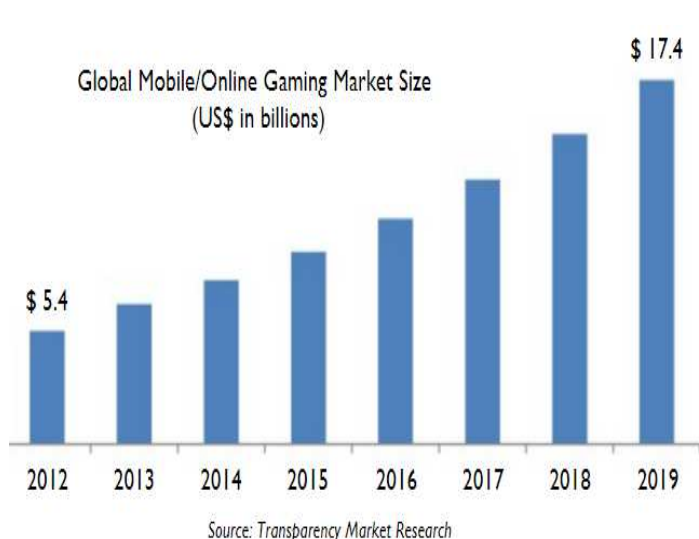
NICE Systems (NICE) has a \$4B market cap trading 17X Earnings and 2.5X EV/Sales with 70% gross margins and a 14.7% ROIC while keeping costs near flat Y/Y and revenues up 11%. NICE is projecting double digit annual EPS growth through 2018, and recently completed a strategic acquisition of inContact (SAAS). NICE is taking market share, seeing rising profitability and growing its TAM. NICE is a name with a long runway for growth and well positioned across Tech trends with a strong history of operational excellence, a real strong investment.

Real Page (RP) has a \$2.45B market cap trading 33.7X Earnings, 3.7X EV/Sales with 60% margins and a 14% ROIC. It's a name I wrote about on 5-25-16 as a compelling value for growth name and shares have since risen 40%. RP is disrupting a large industry with its value-added solutions and has room for further EBITDA margin expansion. It provides solutions to the rental housing industry with a large addressable market. RP is projected to earning \$1.09/share in 2018, nearly double the \$0.55/share from 2015. RP is planning on exploiting the analytics opportunity in the rental housing market, another potential growth driver. RP is set to make \$570M in revenues this year and has targeted \$1B for 2020 and 30% EBITDA margins.

The sub \$2B names has some strong performers in 2016 like **EGOV, PRGS, and NSIT**.

Insight Enterprises (NSIT) shares have climbed 60% over the past year and the \$1.46B company has long been a favorite value name, currently still fairly cheap at 15.35X earnings, albeit a low margin/growth name with a ROIC at just 10.8%. NSIT recently announced a \$258M deal for Datalink (DTLK) and is coming off a strong beat and raise quarter. NSIT helps businesses run smarter both on the hardware and software side with 71% of sales in North America. NSIT's consulting, technical, and managed services target a highly fragmented market.

Advisory Board (ABCO) is a \$1.3B small cap trading 16X Earnings and 2.1X EV/Sales with a 22.7% ROIC. ABCO is projecting annual revenue growth around 6-7.5% and EPS growth in the 10-15% range. ABCO is mainly focused on Healthcare and Education sectors, and the former has been the major overhang of late with concerns on Hospital spending in the new environment. ABCO is a prime example of a quality company that is facing industry headwinds and shares have been potentially overly punished and expectations have been lowered.



PC and IT:

Components: *AAPL, CACI, CRAY, CSC, DDD, DLB, EFII, FIT, GRMN, HPQ, IBM, JBL, LOGI, NUAN, PLT, PRLB, SAIC, SNX, SSYS, SYNT, TR MB*

This group features more of the hardware related names including giants like Apple and IBM, and also the 3D Printing, Navigation, and Electronic Components. The overall IT spend environment is expected to be muted in 2017 with just 0.3% growth, and hardware especially weak including desktops -26%, laptops -4%, storage -7%, and servers -8%. Hardware, Storage, and IT Services are all pointing to downtrends in spending, while software is the lone bright spot. The PC industry did start to show some signs of bottoming in 2016 and will face easy Y/Y comps in 2017 that could drive some upside to earnings. With that said, there are a few attractive situations in the industry we can take a closer look at.

Apple (AAPL) with a \$625B market cap remains cheap at 11.6X Earnings, 5.9X EV/EBITDA and 32.1% EBITDA margins with ROIC at 23%. AAPL shares are only up 8% YTD. It could be the biggest beneficiary of repatriation and falling corporate tax rates with \$200B of cash overseas. Although the smartphone market may be oversaturated, the struggles

at Samsung should allow Apple to gain more market share. After launching the iPhone 7 as a bit of a stopgap, expect more excitement around the iPhone 8, and Apple will continue to see a positive mix shift as the Services business sees steady growth. Timing Apple shares has always been about getting ahead of a new product cycle by a month or two and may once again be a second half story in 2017. The company has also made inroads into enterprise with its devices and has opportunities to enter new growth markets like autonomous vehicles and artificial intelligence. The optionality of its potential to use cash to reaccelerate growth is one of the more exciting features of the stock.

Dolby (DLB) has a \$4.7B market cap trading 20.25X Earnings and 10.4X EBITDA with 32.6% EBITDA margins and a 10% ROIC. DLB is projecting 5-6% annual revenue growth for 2017/2018 along with 10-15% EPS growth. DLB is a case of having a dominant market position with strong cash flows and room for margin expansion. Vision, Cinema and Mobile markets are allowing Dolby to ignite growth. DLB has a debt-free balance sheet, strong FCF and a 1.22% dividend yield.

Electronics for Imaging (EFII) is a small cap name with a \$2B market cap trading 15.75X Earnings and 9.9X EBITDA with 17.3% EBITDA margins and a 12% ROIC. EFII is projecting steady 10-12% revenue growth for 2017 and 2019 with just under 15% EPS growth. EFII is seeing recurring revenues grow and has been actively acquiring smaller companies. The company is positioned to capture the trend of analog to digital transformation, current penetration of around 12% for digital printing. Last quarter EFII posted strong growth in Industrial Inkjet and productivity software, but the legacy Fiery businesses declined, one concern, but its entry into the corrugated packaging printing market in 2017 is a reason for optimism. As a leader in the early innings of a major trend towards Digital Print, the company has a long runway for growth.

Options activity in this group has been minimal, the only standouts being a 10/26 buyer of 20,000 Jan. 2019 \$145 calls in **AAPL** for \$12M and a 10/10 buyer of 7,950 July \$110 calls for \$10M, **HPQ** with an 11/29 buyer of 10,000 May \$16 calls for \$700K, and **IBM** with a 10/20 buyer of 10,000 June \$170 calls for \$2M and also has seen June \$180 calls bought to open for \$1.3M.

Networking and Storage:

Components: *ACIA, ADTN, AKAM, ANET, ARRS, BOX, CIEN, COMM, CSCO, CTL, CVLT, FNSR, GIMO, GTT, HPE, IIVI, INFN, JNPR, LITE, LVL, NMBL, NTAP, NTGR, OCLR, PI, PSTG, SMCI, STX, TDC, TEL, UBNT, VSAT, WDC, ZAYO*

This group was one of the real bright spots in Tech for 2016 with just 4 of 34 components negative for the year, and some major winners mostly in the optical space riding the 100-G wave. The main divisions in the industry are Wireless, Wireline, Routing/Switching, Optical, and Voice/IMS. Voice/IMS is the only major equipment vertical growing for telecom equipment providers while Optical is seeing a strong trend upwards since 2013. Global wireless capex is expected to decline 4% in 2017, less than the 8% decline in 2016. In the switching market, Data Centers have been the area of growth with strength in cloud deployment, though faces tough comps in 4Q16 and 1Q17. In that space, Cisco (CSCO) has steadily been losing market shares to Juniper (JNPR) and Arista (ANET). The main beneficiaries of repatriation would be CSCO, JNPR, UBNT, and FFIV, while telecom deregulation and lowered corporate tax rates can also be positives in 2017. Fiber and 5G are expected to be strong growth themes moving forward. In storage we are seeing HDDS in a secular decline with a move in favor of Flash. Network Attached Storage (NAS) and Storage Area Network (SAN) are both seeing weak IT spend trends and the shift to public cloud is negatively impacting storage spending in traditional IT data-centers. Cloud-to-Cloud backup, Open Source Containerization, High-Capacity Flash, Nonvolatile Memory Express (NVMe), and Software-Defined Storage are some of the hotter trends for 2017.

First, looking at the \$10B+ names in the group that trade on average 14.65X Earnings, 6.1X EBITDA with 27.8% EBITDA margins and 12% ROIC.

Akamai (AKAM) is the margin leader of the group and the only name expecting double digit revenue growth in 2017, a 13% ROIC and strong FCF as well. It does trade at a premium valuation of 23.4X Earnings and 10.4X EBITDA, but the CEO has been buying substantial amounts of stock in the \$50-\$67 range. AKAM forecasts have it entering a new accelerating growth stage which should support its valuation. As a leader in Content Delivery Network (CDN) services, AKAM is well positioned for a lot of the major Tech themes such as Internet streaming and ecommerce while also having strong growth in its security business. AKAM also fits well for 2017 with lower taxes, less regulation and more incentives to spend on infrastructure.

Juniper Networks (JNPR) with a \$10.75B market cap trades 12.65X Earnings and 7.5X EBITDA with 27% EBITDA margins, 13.4% ROIC and strong FCF and ROA. JNPR is hitting stride with a new product cycle and gaining market share while seeing Support & Services become a larger part of its revenue mix. JNPR has transitioned nicely and now capitalizing on the cloud vertical. In September the company filed a change of control agreement which makes it a more likely acquisition target.

Moving to the \$2.5B to \$9B market cap names, the average EV/EBITDA multiple jumps to 10.3X but a lot of exciting growth names in this group.

Arista Networks (ANET) is valued rich at 28.45X Earnings and 15.7X EBITDA, but justified as one of the more exciting growth names in Tech with 30% EBITDA margins and a 31.7% ROIC. ANET is guiding for 21.7%/17.2% annual revenue growth the next two years and sees \$4/share in EPS by 2018 from 2016 levels of \$3.10. ANET has been stealing share from Cisco in the high speed data center switching market and considering its share is 14.9% versus CSCO at 53.1%, a lot of room to continue this trend. ANET is the best play to capitalize on cloud networking as more companies migrate to its offerings. The one major overhang with the shares has been the constant litigation challenges which brings headline risk, but to this point has been winning those battles.

Zayo Group (ZAYO) is a name I have changed my view on after seeing it as a short early last year, I have done a 180. The \$8B company trades 10.4X EBITDA with leading 51.6% EBITDA margins and modeling 20% revenue growth in 2017 and also turning profitable. It does have a highly levered balance sheet, one concern. ZAYO should continue to see strong demand from the accelerated growth in major cloud platforms, roll-outs of new OTT video services like DirecTV Now, and ramping small cell deployments. ZAYO recently announced a \$1.42B acquisition of Electric Lightwave that increases its connectivity offerings. ZAYO has been winning contracts and after Level 3 (LVLT) was bought by Century-Link (CTL), it would not surprise me to see ZAYO become a target itself.

Finisar (FNSR) may be the best value for growth name trading just 12.55X Earnings and 7.8X EBITDA. The company is the most attractive in the optics space and is projecting double digit revenue and EPS growth through 2019 and has been posting very impressive quarters in 2016. The company has a lot of cash, is expanding margins, and outgrowing the industry. It would make a lot of sense for the company to acquire one of the smaller plays in an industry seeing strong growth, such as Oclaro (OCLR). A deal would likely be seen as a positive and allow for it to see multiple expansion.

Ubiquiti Networks (UBNT) screens as an absolute growth leader that carries a premium valuation, but its 36% EBITDA margin, 44% ROIC, and 29.5% ROA are head and shoulders above its peers. The one red flag with UBNT is that nearly 30% of its float is short, but price-action and momentum have remained strong the entire time it's been a highly shorted name as it continues to post beat and raise quarters. Shorts may be concerned with rising inventory and the company at the tail end of a product cycle, so it likely is one to avoid at this valuation.

Lastly, the names trading under \$2.5B includes a lot of potential M&A targets and some very strong names with exciting growth prospects.

Gigamon (GIMO) has a \$1.7B market cap and trades at a premium valuation of 30.45X Earnings and 14.3X EBITDA with impressive margins and a 39% ROIC. GIMO has grown revenues over 40%/year in 2015 and 2016 and expects that to be 26%/22% the next two years forward with an EPS vision of potentially \$2/share in 2018, a significant jump from \$0.80 in 2015. GIMO is in the sweet-spot of the trend for carriers to upgrade networks to faster speeds to handle the ever growing traffic, and has significant potential to expand margins over the next few years. GIMO provides visibility solutions for monitoring networks and is benefitting from the strong growth at Amazon Web Services (AWS). Over the long term, this is one of the best positioned small cap Tech names.

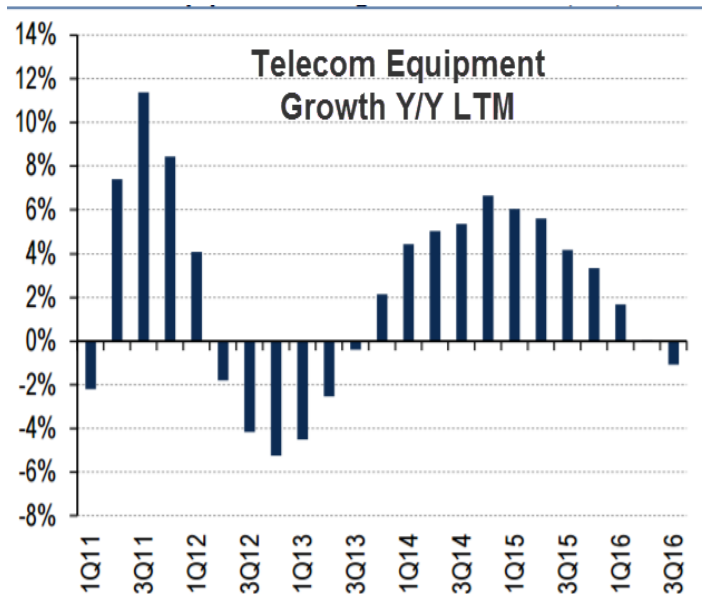
GTT Communication (GTT) has a \$1.05B market cap and has seen shares gain 50% YTD, trading cheap in this group at 7.5X EBITDA, though a highly levered balance sheet with the majority of debt maturity out to 2022. GTT is set to grow revenues 40% in 2016 and another 40% next year, while EPS has been coming down since \$0.54/share in 2015, but expected to hit \$1.11/share in 2018. GTT provides a suite of cloud networking services to enterprise, government, and carrier with enterprise accounting for 74% of revenues and receives 87% of revenues in the US. GTT is expanding margins and has 90% of revenues recurring with low capex. It has been active with acquisitions to expand its scale including the recent Hibernia deal which is a positive. GTT receives very little attention and continues to fly under the radar of most investors.

Oclaro (OCLR) has a market cap of \$1.58B trading 15.6X Earnings and 10X EBITDA with better margins than its small peers and a high 37% ROIC. OCLR makes lasers and optical components and revenues expected to surge 43.7% in 2017 while EPS jumps over 200%, the longer term EPS outlook at \$0.73/share for 2019 which is a major jump from \$0.17/share in 2016 and likely see estimates rise. OCLR is a prime M&A target for an industry expected to see consolidation. It is a top play on the 100G theme with its 100G sales growing 140% Y/Y last quarter and represented 72% of sales.

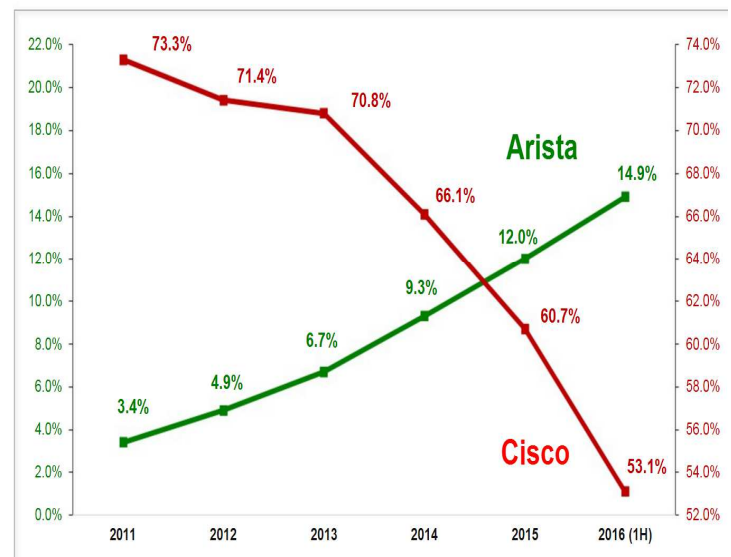
Ii-Vi (IIVI) was one of my best discoveries in 2016 in early September with shares at \$21 and proceeded to climb 50% over the next few months. I discovered it with unusual call activity in April and much of that open interest still remains. The \$1.85B company now trades 20X Earnings and 9.4X EBITDA and sees 11% revenue growth for 2017. IIVI has made

10 acquisitions since 2010 and with a 20% market share in the \$1.9B laser solutions market with a focus on Industrial, it is positioned strong for 2017. Optical Communications is 82% of its Photonics segment and benefitting from North American Metro buildout, Data Center Infrastructure, China Broadband, and Undersea Network deployments. IIVI last quarter showed extremely strong bookings and carries significant momentum into 2017.

Options activity positioning bullish has been seen in ADTN, IIVI, WDC, ARRS, OCLR and ZAYO.



High Speed Data Center Switching Market Share in Ports (10/40/100GbE)



Internet Information:

Components: *AMZN, BABA, BIDU, COUP, CRTO, DLTH, EBAY, ETSY, FB, GDDY, GOOGL, GRUB, IAC, JCOM, JD, LN, MELI, MTCH, NLSN, NTES, P, SFLY, SIRI, SSTK, STMP, TWTR, VRSN, W, WB, WBMD, WIX, YELP, YHOO, YNDX, YY, Z, ZNGA*

The Internet industry contains some of the major market leaders like Amazon, Google, and Facebook. 2016 was the first year that digital ad spending surpassed TV spending at \$72B to \$71B, and expect this trend to continue especially with the struggles of the TV industry. Mobile and Social remain the main avenues of growth in digital ad spending. The ecommerce trend remain a major growth market with sales expected to reach near \$500B in 2018 from just \$300B in 2014. When you think about ecommerce sales as a % of total retail sales only being less than 10%, the clear opportunity for long term growth is obvious. Heading into 2017 tough comps may limit upside early in the year, but the expectation is for a stronger second half. The user of artificial intelligence to drive user engagement and targeting can drive upside to estimates, though many names in the group also face margin pressures from growing investments in technology. The better ad targeting will drive higher ROI and enable better pricing which can lead to upside to earnings. A risk into 2017 would be the elimination of Net Neutrality from the Trump administration which has been hinted, and would raise operational costs resulting in lower margins with NFLX, FB, GOOG, TWTR, and AMZN most at risk. **Facebook (FB)** remains a powerful growth company with a lot of optionality of additional revenue streams, but until this overhang of inflated user metrics passes, best to avoid as it also has been showing weak relative price-action, but likely becomes a 2H17 story.

To start with the \$10B+ companies:

Amazon (AMZN) carries a \$365B market cap and is a Company I think that becomes the first \$1 Trillion market cap. It has arguably the best CEO in the World and has positioned itself as a dominant player in nearly every Tech growth theme. The opportunity to continue to expand its core ecommerce business is immense as noted in the stats earlier, while Amazon Web Services (AWS) is a juggernaut growing at insane rates. AMZN is on pace to hit \$200B revenues in 2018, a massive company nearly doubling its revenues in 3 years is unheard of, while EPS likely is 300% higher from 2016 levels. It is the best growth large cap to own over the long term with a significant MOAT.

Alphabet (GOOG/GOOGL) remains a compelling value name with shares up just 5.5% this year, the \$545B company trading 19.3X Earnings and 11X EBITDA with a 21% ROIC. Tough comps and margin pressures will be in focus in 1H17, but think come summer it's a nice name to position in. New enhanced Search ad formats and the usage of AI should drive upside, and it has its hands in many other exciting areas of tech including Enterprise Cloud, and YouTube continues to be an extremely valuable asset. It would also likely utilize cash from repatriation to aggressively buyback stock and

potentially seek some value-added acquisitions. GOOG is projecting 15% revenue CAGR for 2017-2018 and 16-20% EPS growth, impressive for a company of its size.

eBay (EBAY) is one of the cheaper names with a \$33B market cap trading just 14.2X Earnings and 9.3X EBITDA and undergoing a major transition of its platform that can drive beat and raises throughout 2017 while also having optionality with its Stub-Hub business. EBAY is a strong FCF name, the best FCF yield in its industry. The one concern early in 2017 is the USD strength with 59% of its GMV International, but would be a buyer for the long term on any weakness.

In the \$4B to \$9B range:

Yandex (YNDX) has a \$6.6B market cap trading 23X Earnings and 11X EBITDA with 35% EBITDA margins and a ROIC of 15%. YNDX is expected to post 20% revenue growth and 25% EPS growth in 2017. The leading search engine provider in Russia with a 55% market share is also diversified with businesses in ecommerce and classifieds, though Google has been gaining market share. YNDX's expanding markets and the potential for the Russian economy to strengthen as Oil appears to have bottomed makes it an intriguing growth name to own for 2017.

Match Group (MTCH) has a market cap of \$4.44B trading 20.3X Earnings and 11.4X EBITDA with 33% EBITDA margins and a 20% ROIC, the recent spin-off of Interactive Corp (IAC). MTCH is targeting 15% annual revenue growth and around 17% EPS growth the next two years forward, known for its dating apps but also has various academic based services. MTCH's main driver is Tinder, an app seeing robust growth and ample monetization potential. Tinder only trails Spotify, Line, JBO Now, and Netflix among most popular apps. As MTCH continues to optimize and improve its platform I think it translates to strong results throughout 2017.

For the sub \$4B names we have a lot of specific niche names in Internet like food delivery (GRUB), Commerce/Retail (W, DLTH, ETSY, SFLY, COUP, STMP), Advertising (CRTO), Review (YELP), Gaming (ZNGA), and Web Design (SSTK, WIX).

J2 Global (JCOM) trades 14X Earnings and 9X EBITDA with strong margins and FCF with an 18% ROIC. JCOM has been posting strong topline growth for many years and sees 18-20% through 2018 while EPS growth 15-18% range, impressive history of success. JCOM operates in two segments, Business Cloud Services and Digital Media, both major growth areas for Tech. The one concern with JCOM has been its acquisitions but it remains a strong FCF growth and margin expansion story at attractive valuation.

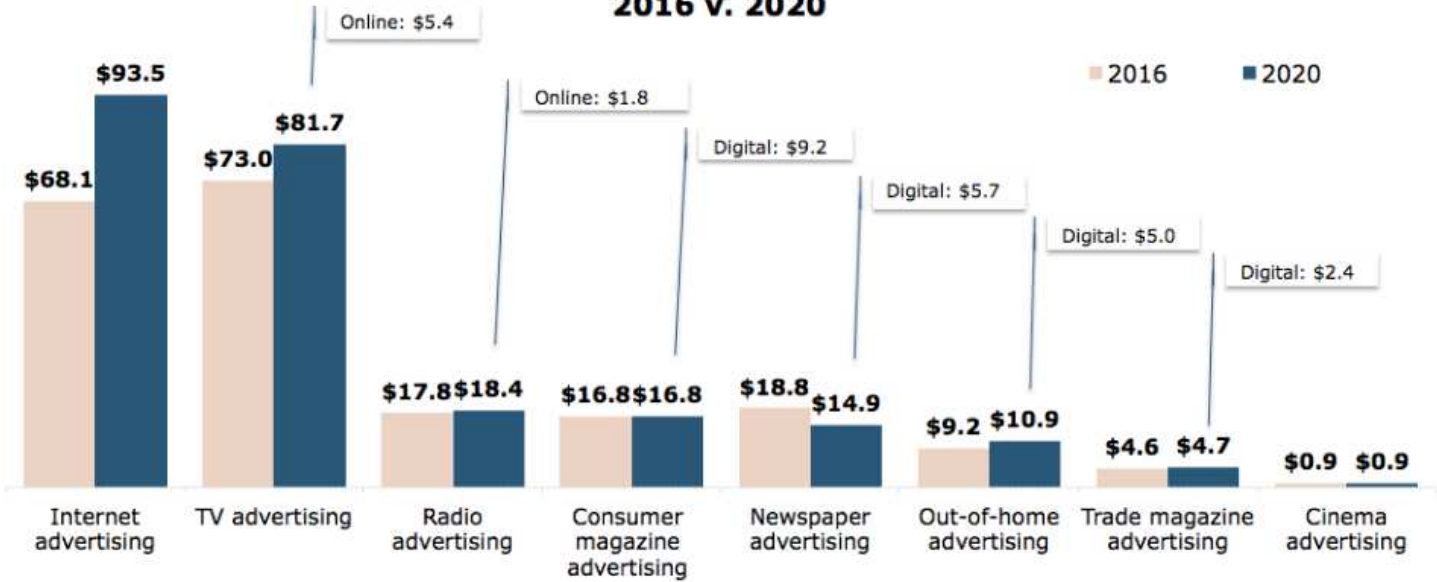
Stamps.com (STMP) now has a \$1.975B market cap and trades 12.2X Earnings and 10.5X EBITDA with shares just gaining 3.5% YTD. STMP has 82.5% margins and a ROIC above 50% with very strong FCF. After growing revenues 45% in 2015 and 66% in 2016, growth will slow to 16% in 2017, and EPS growth of 13.8% puts earnings at \$9.50/share, nearly double 2015 levels. STMP is an exciting play on continued strength in ecommerce. EBITDA margins are expanding and while customer and ARPU growth may be slowing it is priced as a no growth stock, which it clearly is not. STMP has been absolutely crushing Street estimates throughout 2016 and until that stops, the momentum will continue.



US Advertising Media Market Sizes

in US\$ billions | traditional media figures include online equivalents (e.g. \$10.9B in OOH advertising includes \$5.0B in digital OOH)

2016 v. 2020



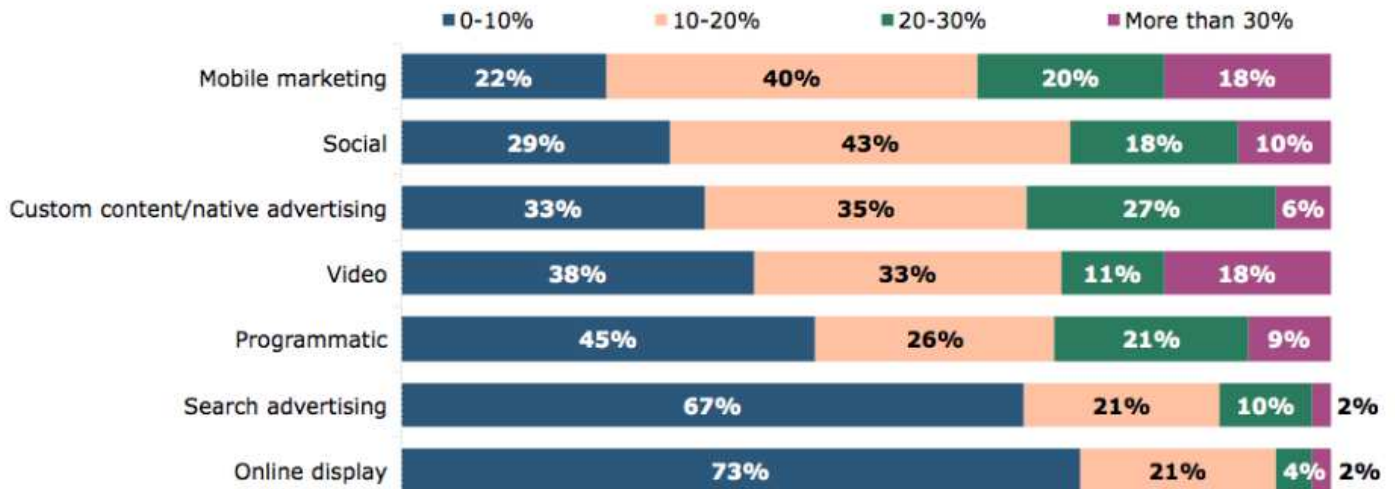
MarketingCharts.com | Data Source: PwC Global Entertainment and Media Outlook: 2016-2020



Digital Advertising Growth Rate Expectations, by Category

% of respondents, based on a global survey of more than 5,700 executives in advertising, marketing services, digital marketing, marketing technology, media technology, media or digital media

in 2017

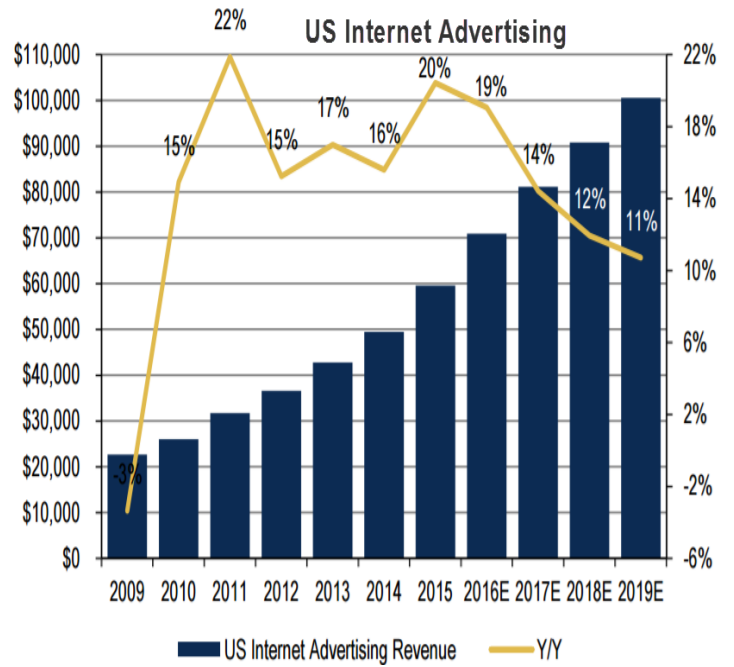
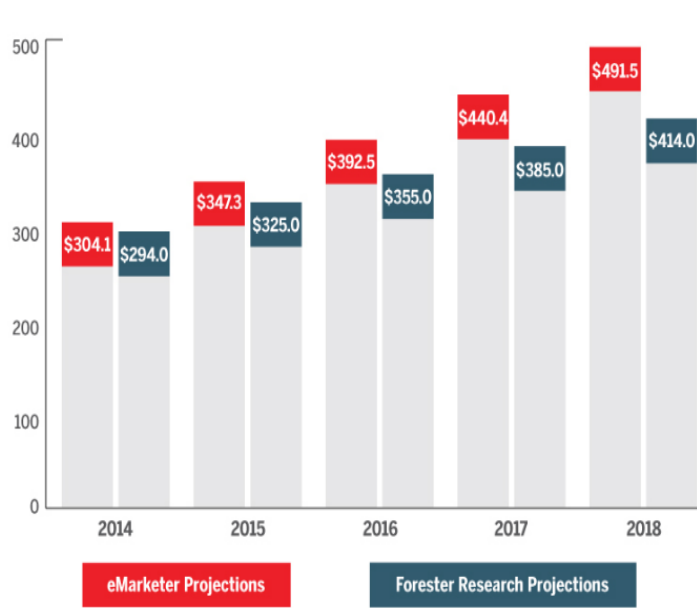


Figures exclude mentions of "Don't know"

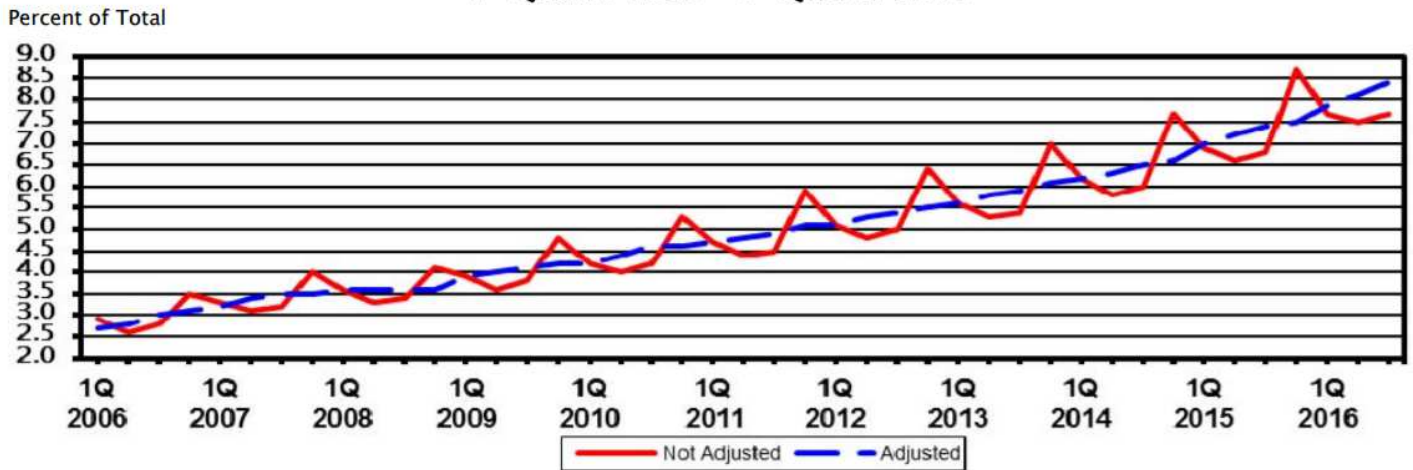
MarketingCharts.com | Data Source: AdMedia Partners

U.S. E-Commerce Sales, 2014-2018

E-commerce sales will reach nearly \$500 billion by 2018. Sales (in billions)



Estimated Quarterly U.S. Retail E-commerce Sales as a Percent of Total Quarterly Retail Sales: 1st Quarter 2006 – 3rd Quarter 2016



Semiconductors:

Components: *ADI, AMAT, AMD, AOSL, BRKS, AMBA, AMKR, ASML, AVGO, CAVM, CDNS, CRUS, CY, DIOD, IDTI, INTC, INVN, IPGP, IPI, KLAC, LRCX, MBL, MCHP, MLNX, MPWR, MSCC, MSI, MTSI, MU, MXIM, NVDA, NXPI, ON, POWI, QCOM, QRVO, SIMO, SLAB, SMT, SNPS, SWKS, SYNA, TER, TSM, TSRA, TXN, VSH, XLNX*

The Semiconductor group has been a leader for Tech in 2016 with the industry up more than 35% YTD, driven by the strong growth of chips in nearly every industry with Automotive, IoT, Data Center, and Industrial being some of the stronger areas. Consolidation was also a major theme in 2016 with numerous large M&A deals that should translate to upside in results for 2017. Nvidia (NVDA) was the real power mover in 2016 with shares gaining 225%+. There is still ample room for M&A with larger cap names wanting exposure to some of the areas the smaller cap names are focused and excel enable to diversify away from legacy areas struggling for growth. We enter 2017 with strong momentum both in price-action and indications from SIA on underlying sales. While we could see some near-term softness with Smartphone and Enterprise chips, the more fragmented markets like IoT, Gaming, Cloud Data Center, Industrial, and Automotive remain very strong. The industry is seeing better margins and FCF from years of consolidation and also indications of newfound pricing power.

With 45 names in the group I will once again break them into market cap tiers.

The \$20B+ names include INTC, TSM, QCOM, TXN, AVGO, NVDA, ASML, AMAT, MU, and ADI. Nvidia (NVDA) was a top pick for last year's outlook and continues to post stellar results, but is now priced for perfection (40X Earnings and 6.8X EV/Sales) and faces a high bar into 2017, so can likely find better performers for the year ahead.

Intel (INTC) has a \$175B market cap and trades cheap at 13.15X Earnings and 2.9X EV/Sales with a 17.4% ROIC and 2.82% dividend yield. INTC has traded at a discounted valuation due to its exposure to the PC industry but is making strides in improving its mix to better growth areas. In September, INTC cited better PC demand which would be a major bonus if that segment recovers, but it also is expecting reacceleration in data centers with the Broadwell server launch, and the early start to better operating margins. 5G wireless and autonomous cars are major upcoming growth areas that INTC is positioned. INTC may also be ready to do another deal following its acquisition of Altera in 2015.

Broadcom (AVGO) was a top pick from last year's outlook last well and shares performing well this year up 23%, a name notorious for its acquisition strategy and to this point has done a stellar job of integrating deals. AVGO trades 11.9X Earnings and 4.7X EV/Sales with a 2.26% dividend yield, strong FCF and 46.5% EBITDA margins, well above the peer average. With leadership across mobile, enterprise and cloud markets and the recent focus back on organic growth and capital returns it is trading far too cheap as a leader in a strong industry.

Analog Devices (ADI) has a \$22.6B market cap and trades 19.5X Earnings and 5.1X EV/Sales, a bit rich to peers, but with leading margins and an 18% ROIC. ADI announced a major transformational deal for Linear Tech (LLTC) in 2016 where synergies are expected to be strong and ADI is well-positioned for the industrial and infrastructure spending ramp. ADI will be at CES to present new auto, IoT, and consumer products. ADI's management is second to none and think this LLTC deal can drive a long period of relative outperformance.

Micron (MU) shares have gained over 60% this year but remain priced very cheaply at 1.6X EV/Sales and 8.5X Earnings just as the supply/demand situation has turned favorable. MU just recently posted a stellar quarter and has closed its Inotera deal, and commented that NAND and DRAM inventories are tight. It also provided a favorable outlook on margins from cost improvements, while any pricing strength in 2017 would really set it up for a phenomenal year. The market for DRAM products has increased, moving away from PCs and into better growth areas. I would like to see MU bolster its balance sheet, but 2017 sets up as a favorable environment for the seriously undervalued name.

The \$7B to \$20B group includes LRCX, XLNX, SWKS, MCHP, MSI, KLAC, MXIM, AMD, SNPS, MBL, CDNS and QRVO. On average the group trades 16X Earnings, 3.6X EV/Sales with 33% EBITDA margins and 19% ROIC. Two of the names in this group, XLNX and MXIM, are seen as the next major M&A targets with margin leadership.

KLA Tencor (KLAC) is the best looking name in the Semi Equipment group after its \$10.6B merger with LAM Research (LRCX) was cancelled. KLAC trades 13.65X Earnings and 3.7X EV/Sales with the strongest growth outlook, best margins and leading ROIC and levered FCF margins. KLAC has the highest exposure to 3D NAND and is expecting to release a few new products in 2017. KLAC has exposure to two of the fastest growing areas of wafer fab equipment with etch and deposition.

Cadence Design (CDNS) is the preferred name in the high margin Electronic Design Automation (EDA) group compared to Synopsys (SNPS), trading a bit richer on valuation but a better growth, margin, ROIC and FCF profile. The group recently saw Mentor (MENT) acquired at a healthy premium. CDNS is taking some near-term weakness as it transitions its business to one with better margins and sustainable growth, but the long term opportunity is there. The

EDA industry tracks R&D in the semiconductor industry and is expected to see secular trends like Mobility, Cloud and IoT drive growth.

The last three top names I trimmed the screen down to were XLNX, MXIM, and SWKS, the first two clear takeover targets and have much stronger margins (gross, not EBITDA), but I see more value for growth in the latter with room to gain ground on the margin side and could make a strategic acquisition itself.

Skyworks Solutions (SWKS) has a \$14.5B market cap trading 11.15X Earnings, 3.4X EV/Sales with 34% ROIC. SWKS is expecting 7% and 10% revenue growth in 2017 and 2018 respectively, and 10%/14% for EPS growth. With shares down 1% YTD I think it's a name that has reset the expectations bar and can outperform in 2017. It will be a name to target ahead of the iPhone 8 cycle. SWKS is one of the few Semi stocks where sentiment is low, but utilizing its strong balance sheet to diversify would be a smart move in my view, and think it is a prime candidate for multiple expansion.

The \$2.5B to \$7B group includes MSCC, IPGP, ON, TER, CAVM, CY, CRUS, MPWR, IDTI, SLAB, AMKR, and MTSI. The group trades 18X Earnings and 3.7X EV/Sales on average with 27% EBITDA margins and 19% ROIC. It has a number of attractive takeover targets with MSCC, ON, CY, MPWR, and SLAB. **Monolithic Power (MPWR)** has long been a favorite growth name, but now at 30X Earnings and 7.1X EV/Sales the upside seems minimal outside of M&A. **Microsemi (MSCC)** was another favorite much of 2016 but now has been bid up in anticipation of M&A as it explores a sale, so again, upside likely minimal.

IPG Photonics (IPGP) has a \$5.33B market cap trading 19X Earnings and 4.2X EV/Sales with a 21% ROIC and 41% EBITDA margins. The company is expecting 11% revenue growth and 13% EPS growth in 2017. IPGP is a global leader in industrial fiber lasers which are replacing traditional lasers, and a significant opportunity remains to gain market share. The applications for fiber lasers fit well with 2017 infrastructure spending plans, and IPGP is expanding its addressable market. IPGP also has a great balance sheet with \$14/share in cash.

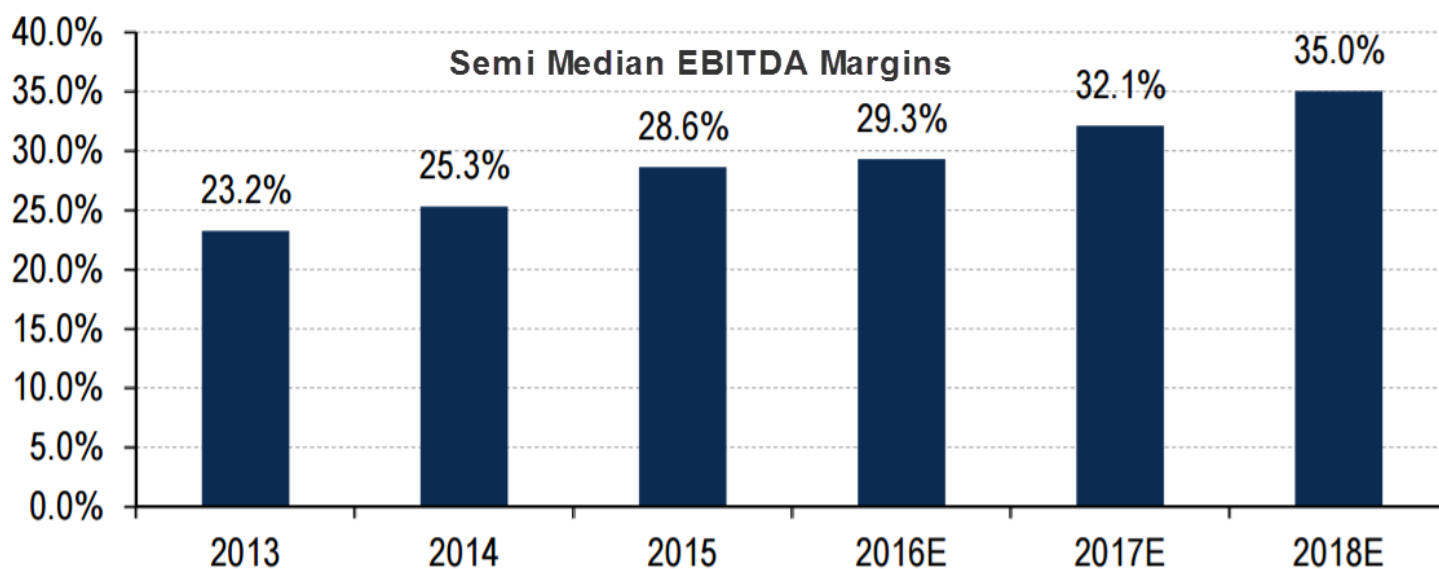
Silicon Labs (SLAB) with a \$2.72B market cap trades 3.4X EV/Sales with a 13.4% ROIC and on the lower end of the EBITDA margin spectrum at just 18%. SLAB is seeing a major mix improvement with 41% of revenues now coming from IoT, 19% from Infrastructure, and 25% from Broadcast. SLAB has minimal exposure to PCs and handsets and positioned more in growth markets like IoT and Automotive Radio. SLAB looks well positioned into 2017 for its market exposure and is a major turnaround story that most of the Street has yet to discover.

The sub \$2.5B names are VSH, TSRA, SMTC, POWI, MLNX, SYNA, IPHI, AMBA, SIMO, DIOD, AOSL and BRKS. We start to get down to more niche plays here and trade on average 2.5X EV/Sales with 24.6% EBITDA margins and 9.9% ROIC. **IPHI** has been a long time favorite small cap that gained 70% this year as a leader in data centers, while even smaller **AOSL** shares have gained 135% this year.

Silicon Motion Tech (SIMO) has a \$1.6B market cap trading 11.65X Earnings and 2.3X EV/Sales with 28% EBITDA margins and a 38% ROIC. SIMO also trades < 6X cash with very little debt and targeting 10-12% EPS growth for 2017 and 2018. The bullish case for SIMO lies with the strong trends being seen in SSD demand, a company focused on Embedded and Expandable Storage markets. SIMO recently saw a sell-off on earnings after a long history of beat and raise quarters as concerns of sales contraction and higher expenses weighed. It could be an inflection point for the stock, but if it shows early in 2017 a return to growth, it's a name to own.

Semtech (SMTC) has a market cap just over \$2B trading 19.1X Earnings and 3.4X EV/Sales with 28% EBITDA margins and a 12% ROIC. SMTC projects 9-10% annual revenue growth through 2019 and EPS growth near 20% in 2018/2019. SMTC currently is near \$550M in revenues and has outlined a path to \$1B. SMTC is another transformation story having shifted its revenue mix more towards Enterprise Computing and Industrial, and away from Communications. SMTC is positioning itself in higher growth markets and thus far is delivering on its objectives. Although shares are trading above its historical averages, it is becoming a growth story with attractive metrics and a strong outlook.

The group has seen plenty of bullishness in the options market, names like AMD, CY, MSCC, MU, TER, TXN, ON and XLNX.



Electronics and Technical Instruments:

Components: *APH, ARW, AVT, AVX, AXE, BHE, CGNX, CLS, COHR, FLEX, GLW, HUBB, LFUS, LPL, MEI, MKSI, NATI, OLED, ORBK, PLXS, TEL*

This is basically a group of misfits that did not fall into other groupings, a collection of some display Tech names, provider of electronic components, automation, and etc.

Cognex (CGNX) is a name worth highlighting due to how much it blows away all of these names on metrics. CGNX trades wildly rich at 36X Earnings and 25X EBITDA but 77% gross margins, 16.7% ROIC, and 25.8% levered FCF margin to go with strong double digit growth on both the top and bottom line. CGNX is targeting 20% CAGR in factory automation and is penetrating multiple interesting markets like logistics ID and mobile computing. As the World's leader in machine vision systems there is a long runway for growth as factory automation trends higher. It is a name where you can look past current valuation and ahead to major opportunity for an area it is a leader.

Amphenol (APH) has a market cap of \$21B and shares up 27.5% YTD but a name very few follow closely. It trades at a premium valuation of 23X Earnings and 14.7X EBITDA, but with strong EBITDA margins at 23% and ROIC at 15%. APH also has a strong growth profile with 5% revenue growth and 10% EPS growth. APH has diversified end-markets and plenty of room to do further large M&A. APH is a leading manufacturer of interconnect products with exposure to Automotive, Industrial, Broadband, IT, Medical, Mobile and Defense industries. APH's growth should be closely correlated with global economic growth driving the demand for more connectivity requirements. It is the highest quality name in an industry with a positive outlook.

The smaller cap names in this group has some interesting growth names with strong history of execution like COHR, MKSI, LFUS, ORBK and PLXS. **Coherent (COHR)** is a laser play in this group that is impressive, but prefer **IPGP** which I covered earlier due to its margin leadership.

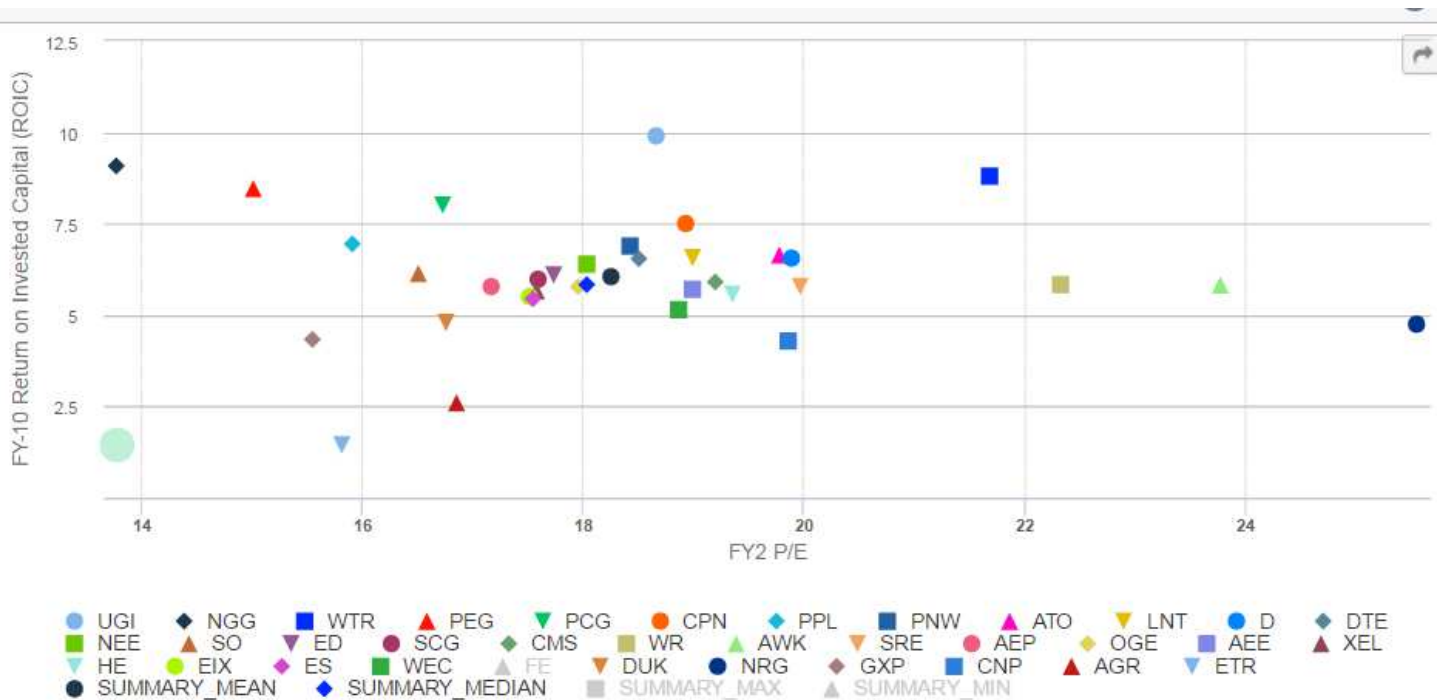
MKS Instruments (MKSI) has a \$3.2B market cap trading 17X Earnings and 10.4X EBITDA with 20% EBITDA margins and a 17% ROIC. MKSI revenues are set to grow 58% in 2016 and another 18.7% in 2017 with EPS growth of 212% next year. MKSI is a provider of innovative solutions for the most complex technology problems and is closely tied to the Semiconductor industry. MKSI has a leadership position in all of its markets and revenue exposure of 53% to Semi, 17% to Industrial Tech, 14% to Research, and 11% to Life Sciences. Cloud connectivity, Power consumption and more functionality are all needs for the Semi market where MKSI makes a difference. In February, MKSI announced a \$1.4B deal to acquire Newport (NEWP) which expanded its addressable market by \$4.8B and should start seeing benefits from this deal next year. The aggressive spending being seen in 3D NAND will boost MKSI growth in 2017.

Littlefuse (LFUS) has a market cap of \$3.46B trading 22X Earnings and 14X EBITDA with 22% EBITDA margins and a 16% ROIC. LFUS posted 20% revenue growth in 2016 and expects another 10% in 2017 while EPS growth of 12% projected in both 2017 and 2018. The leader in circuit protection is seeing fantastic growth from multiple megatrends, and management has delivered above and beyond its promises the last few years. The circuit protection business is seeing gains from automotive electronics, electric vehicles, and IoT with room to grow in data center and home automation. It also has ample opportunities to grow its Power and Sensor units and has been acquisitive in the past.

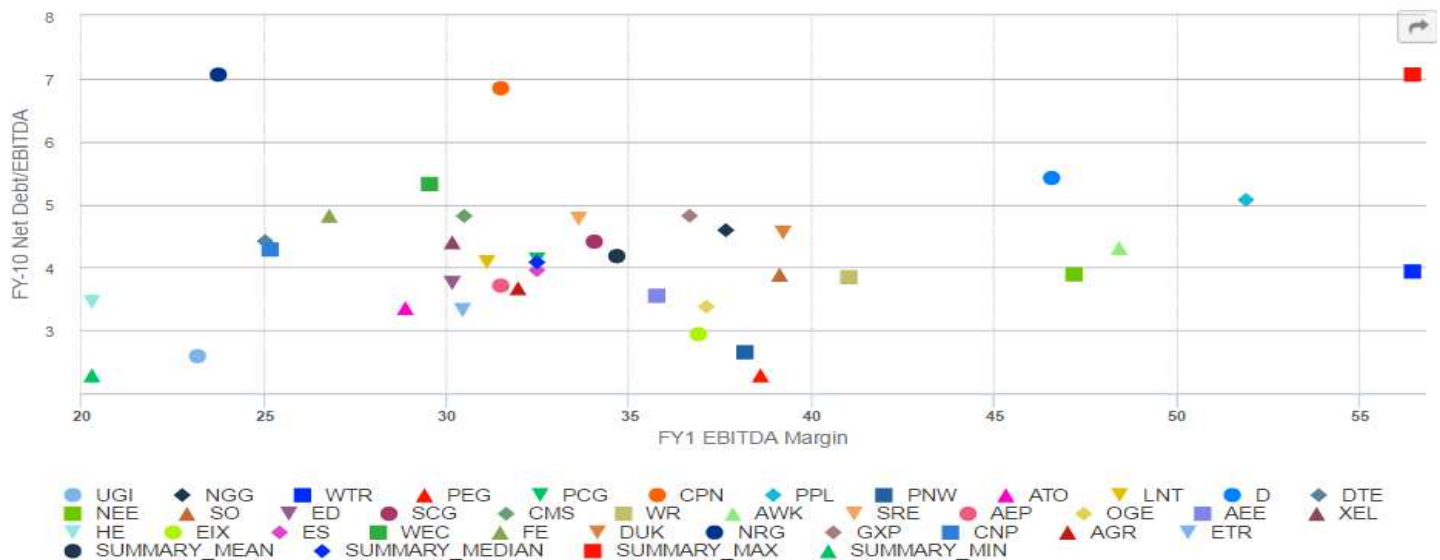
Utilities: *The Utility enters 2017 after a strong performance in 2016 gaining around 16% and remaining in an uptrend from the 2009 lows. The main challenge for the group into 2017 is the rising interest rate environment and with bond yields rising, the group's allure as being a safety/yield focused investment area loses some allure. It's is not an overly exciting group for stock selection. It is a group where we pay more attention to the balance sheet as they often carry a lot of debt for the significant infrastructure requirements. Location is also important due to the regulatory environment for allowing customer rates to be raised, notably Florida, Texas and California are utility-friendly states. Rising inflationary and 10-year yield expectations will contract multiples across the group. Expectations for higher growth is likely to lead to underperformance for the group as a bond proxy, and it is a sector with a negative correlation to rates while fundamentals are fairly weak with no earnings growth and a compressed spread between dividend yields and 10 year Treasury yields.*

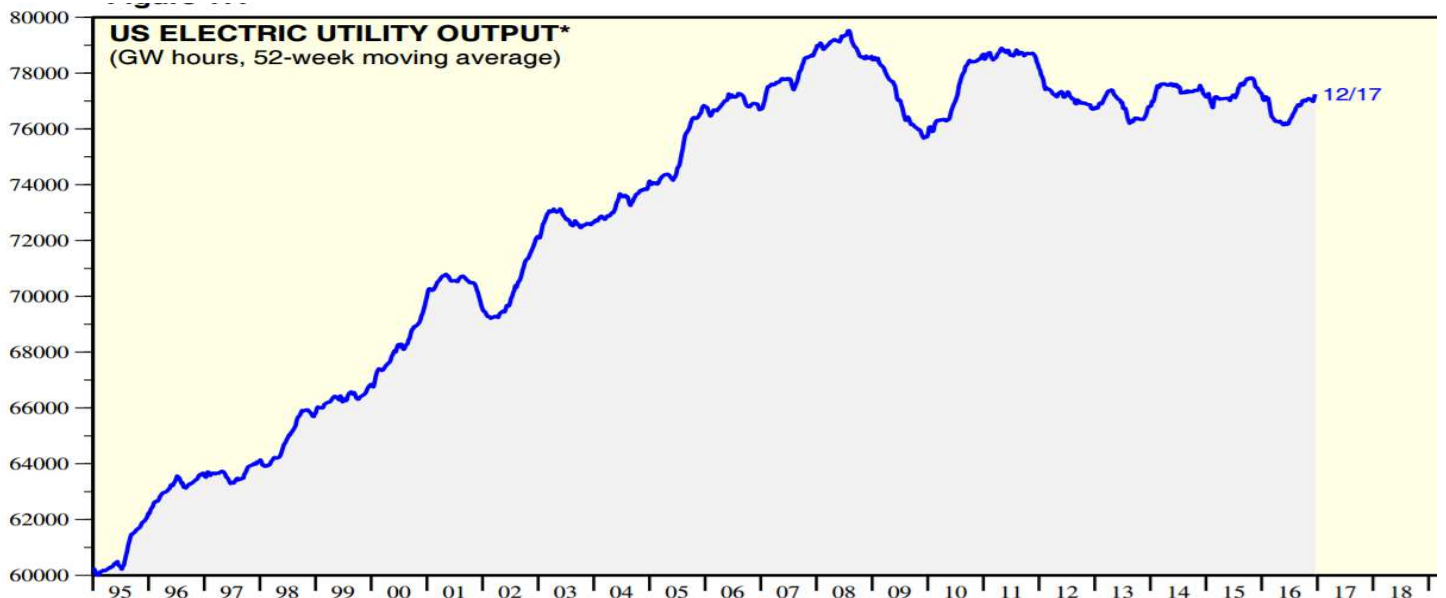
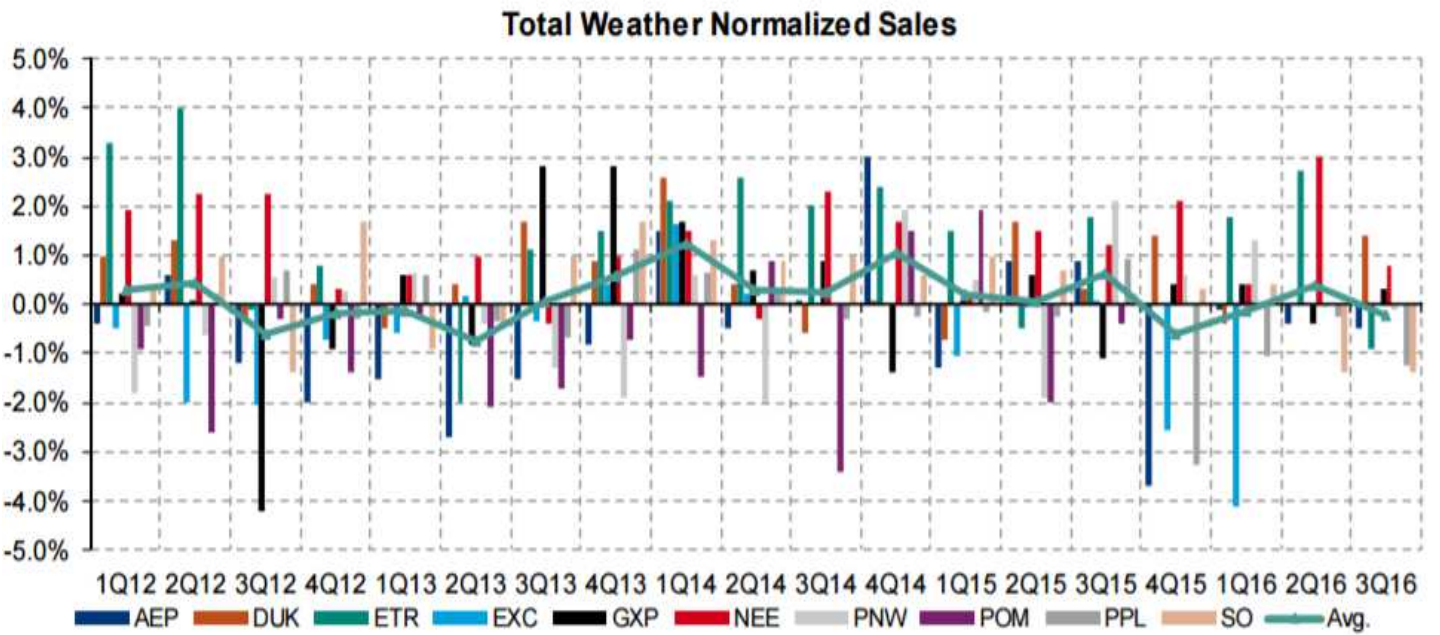
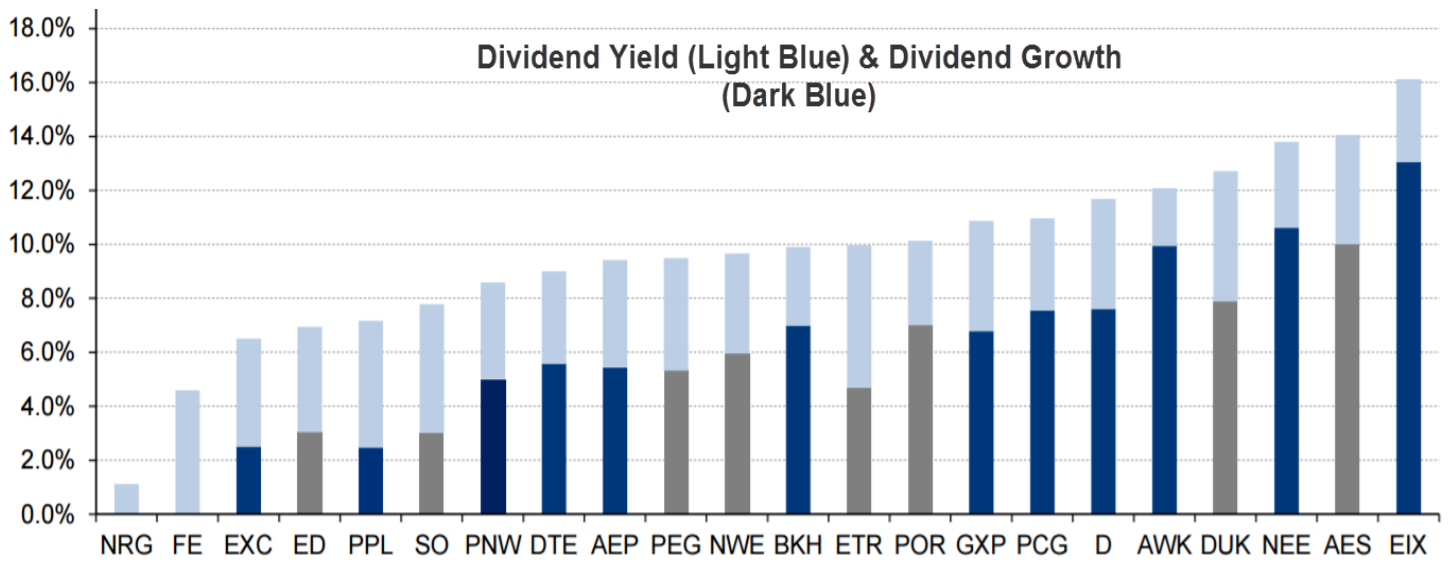
The Utility stocks still offering 4%+ dividend yields are NGG, ETR, FE, AGR, SO, PPL, DUK and CNP. Without going into too much detail on the group after running screens for various metrics, the top quality names to own are **Dominion (D)**, **CenterPoint (CNP)**, **UGI Corp. (UGI)**, **Aqua America (WTR)**, **PG&E (PCG)** and **Public Enterprise (PEG)**.

P/E vs. ROIC



EBITDA Margin vs. Net Debt / EBITDA





2016 Q4 Notable Insider Trades

Stock	Date	Purchaser	Purchase Price	\$ Value	Current Price	% Change
ABT	12-16-2016	EVP Robert Ford	\$39.09	\$499,375	\$38.27	-2.10%
WYNN	12-16-2016	Director Daniel Wayson	\$93.83	\$3,518,625	\$86.97	-7.31%
OCUL	12-16-2016	President/CEO Amarpreet Sawhney	\$7.85	\$355,605	\$8.28	5.48%
BABY	12-16-2016	President/CEO James Hawkins	\$35.20	\$352,000	\$34.60	-1.70%
VIA	12-16-2016	President/CEO Bob Bakish	\$34.85	\$1,045,500	\$39.05	12.05%
PAYC	12-15-2016	President/CEO Chad Richison	\$45.73	\$1,143,250	\$45.76	0.07%
VIA	12-14-2016	Director Ronald Nelson	\$34.80	\$696,000	\$39.05	12.21%
MDT	12-14-2016	Director Robert Pozen	\$73.21	\$1,000,049	\$71.86	-1.84%
PODD	12-12-2016	SVP Manufacturing Charles Alpuche	\$37.70	\$248,820	\$37.54	-0.42%
UTX	12-09-2016	Director Brian Rogers	\$107.94	\$539,700	\$110.46	2.33%
MDCO	12-09-2016	EVP, Chief Corp. Dev Officer Chris Cox	\$33.20	\$3,502,600	\$34.38	3.55%
SITE	12-07-2016	CEO Doug Black	\$32.80	\$492,000	\$34.72	5.85%
COR	12-06-2016	President CEO Paul Szurek	\$68.92	\$482,440	\$77.27	12.12%
SOHU	12-05-2016	CEO Charles Zhang	\$33.60	\$537,600	\$34.34	2.20%
PODD	12-05-2016	CEO, COB Patrick Sullivan	\$33.89	\$1,355,600	\$37.54	10.77%
CLX	12-02-2016	Director David Mackey	\$114.90	\$574,500	\$120.54	4.91%
EW	12-02-2016	CVP of Critical Care, Catherine Szyman	\$83.43	\$1,073,744	\$93.21	11.72%
TDG	12-01-2016	Director Raymond Laubenthal	\$245.39	\$1,766,808	\$249.91	1.84%
HD	11-30-2016	Director Mark Vadon	\$129.87	\$1,948,050	\$135.03	3.97%
SKX	11-30-2016	CEO Robert Greenberg	\$21.96	\$10,980,000	\$24.49	11.52%
MHK	11-30-2016	Director Frans de Cock	\$200.00	\$750,000	\$202.26	1.13%
POST	11-23-2016	Director William Stiritz	\$75.48	\$9,057,600	\$80.24	6.31%
EA	11-22-2016	Director Richard Simonson	\$78.06	\$513,245	\$80.34	2.92%
HD	11-22-2016	Director Jeffrey Boyd	\$128.27	\$1,282,700	\$135.03	5.27%
DUK	11-22-2016	EVP, Pres. Natural Gas Business	\$74.00	\$1,098,900	\$77.22	4.35%
FRSH	11-22-2016	Director David Mounts	\$4.42	\$442,000	\$4.57	3.39%
ARMK	11-21-2016	COB Eric Foss	\$34.50	\$3,021,027	\$35.90	4.06%
AGN	11-21-2016	President/CEO Brent Saunders	\$189.13	\$992,933	\$201.91	6.76%
KLIC	11-21-2016	President/CEO Ernie Chen	\$15.31	\$313,855	\$16.09	5.09%
NI	11-18-2016	EVP, Pres. Columbia Gas Pablo Vegas	\$21.75	\$468,517	\$22.00	1.15%
BHI	11-16-2016	Director Gregory Brenneman	\$58.84	\$5,001,400	\$64.38	9.42%
CCI	11-15-2016	SVP/CFO Daniel Schlanger	\$79.74	\$250,384	\$86.94	9.03%
OXY	11-15-2016	Director William Klesse	\$64.89	\$648,900	\$71.68	10.46%
AGN	11-15-2016	CFO Maria Hilado	\$210.64	\$299,530	\$201.91	-4.14%
HTZ	11-15-2016	EVP/CIO Tyler Best	\$27.93	\$399,958	\$21.16	-24.24%
OMF	11-14-2016	EVP John Anderson	\$18.06	\$361,200	\$22.18	22.81%
LGF	11-14-2016	Director Gordon Crawford	\$23.04	\$921,600	\$26.09	13.24%

Stock	Date	Purchaser	Purchase Price	\$ Value	Current Price	% Change
MED	11-14-2016	Director Jeffrey Brown	\$38.71	\$387,100	\$42.36	9.43%
ABT	11-14-2016	Chairman Miles White	\$40.54	\$4,923,826	\$38.27	-5.60%
QRVO	11-10-2016	CFO Mark Murphy	\$51.66	\$516,600	\$54.74	5.96%
OLN	11-10-2016	Pres. Epoxy Pat Dawson	\$22.54	\$450,800	\$25.98	15.26%
APA	11-09-2016	Director Chansoo Joung	\$58.02	\$870,300	\$65.13	12.25%
CTL	11-09-2016	Director Arthur Owens	\$23.35	\$999,380	\$24.02	2.87%
GE	11-09-2016	CEO Jeff Immelt	\$29.24	\$1,462,000	\$31.78	8.69%
GOGO	11-09-2016	Director Charles Townsend	\$9.69	\$2,907,000	\$9.52	-1.75%
EFX	11-08-2016	Director Mark Templeton	\$123.64	\$420,376	\$118.49	-4.17%
TGI	11-07-2016	EVP Integrated Systems Tom Holzthum	\$25.50	\$255,000	\$27.80	9.02%
GCI	11-04-2016	Director John Louis	\$7.56	\$254,016	\$9.77	29.23%
PLOW	11-03-2016	President/CEO James Janik	\$25.95	\$259,500	\$34.60	33.33%
FISV	11-02-2016	Group Pres. Devin McGranahan	\$99.21	\$1,488,150	\$107.23	8.08%
GOLF	11-02-2016	President/CEO Walter Uihlein	\$17.00	\$1,190,000	\$19.21	13.00%
CPN	11-02-2016	Director Benjamin Moreland	\$11.08	\$554,000	\$11.52	3.97%
NUVA	11-01-2016	Director Patrick Miles	\$58.97	\$1,000,544	\$66.38	12.57%
ABT	11-01-2016	Director Sally Blount	\$39.24	\$200,124	\$38.27	-2.47%
HEES	10-31-2016	CEO John Engquist	\$13.73	\$466,820	\$23.24	69.26%
NWL	10-31-2016	President Mark Tarchetti	\$48.15	\$598,793	\$45.44	-5.63%
NWL	10-31-2016	CEO Michael Polk	\$49.68	\$372,600	\$45.44	-8.53%
EFX	10-28-2016	Director Thomas Hough	\$123.85	\$247,700	\$118.49	-4.33%
BLK	10-28-2016	Director William Demchak	\$341.11	\$409,332	\$384.02	12.58%
BABY	10-27-2016	President/CEO James Hawkins	\$38.30	\$383,000	\$34.60	-9.66%
KMB	10-27-2016	Director Robert Dercherd	\$113.59	\$227,180	\$114.54	0.84%
T	10-27-2016	Director Geoffrey Yang	\$36.91	\$1,001,331	\$42.56	15.31%
ITW	10-27-2016	Director Jay Henderson	\$111.94	\$447,760	\$123.37	10.21%
BJRI	10-26-2016	Director Noah Elbogen	\$33.57	\$503,550	\$39.60	17.96%
IBM	10-26-2016	Director David Farr	\$149.93	\$194,909	\$166.29	10.91%
KMI	10-26-2016	Director Fayez Sarofim	\$21.41	\$14,987,000	\$21.05	-1.68%
GPC	10-21-2016	Chairman Thomas Gallagher	\$89.24	\$267,720	\$96.88	8.56%
CREE	10-21-2016	President/CEO Charles Swoboda	\$22.22	\$222,200	\$27.23	22.55%
ALNY	10-14-2016	Director David Pyott	\$37.00	\$1,032,300	\$40.61	9.76%
ATU	10-13-2016	President/CEO Randal Baker	\$22.55	\$225,500	\$26.75	18.63%
AZZ	10-11-2016	President/CEO Thomas Ferguson	\$55.24	\$414,293	\$65.00	17.67%
BABY	09-28-2016	Pres/CEO James Hawkins	\$38.48	\$384,800	\$34.60	-10.08%
SYRG	09-22-2016	CFO James Henderson	\$5.95	\$297,500	\$9.06	52.27%
HDS	09-22-2016	Chairman, CEO Joe DeAngelo	\$31.07	\$997,347	\$43.10	38.72%
HY	09-22-2016	Chairman Alfred Rankin	\$48.47	\$909,394	\$65.25	34.62%
GCO	09-20-2016	SVP David Baxter	\$51.34	\$256,700	\$62.05	20.86%

Stock	Date	Purchaser	Purchase Price	\$ Value	Current Price	% Change
ULTA	09-20-2016	Director Dennis Eck	\$234.45	\$2,578,950	\$256.10	9.23%
AMBC	09-20-2016	CEO Tavakoli Nader	\$18.06	\$216,720	\$22.62	25.25%
PAH	09-19-2016	Director Martin Franklin	\$8.25	\$8,662,500	\$9.79	18.67%
ADMS	09-16-2016	Director William Ericson	\$16.48	\$1,037,861	\$17.22	4.49%
GME	09-16-2016	EVP Michael Mauler	\$26.91	\$269,100	\$25.29	-6.02%
PNK	09-16-2016	CEO Michael Sanfilippo	\$11.20	\$232,400	\$14.52	29.64%
SPB	09-15-2016	Chairman David Maura	\$127.47	\$254,940	\$121.71	-4.52%
WKHS	09-14-2016	Director Benjamin Samuels	\$5.28	\$757,680	\$7.34	39.02%
KAR	09-12-2016	Director Mark Hill	\$41.78	\$501,360	\$42.44	1.58%
MSG	09-13-2016	Executive Chairman Jim Dolan	\$182.96	\$900,346	\$174.61	-4.56%
QSR	09-12-2016	Director Roberto Motta Thompson	\$46.98	\$1,033,560	\$47.56	1.23%
PBF	09-12-2016	CEO Thomas Nimbley	\$21.84	\$1,092,000	\$27.76	27.11%
ANF	09-09-2016	Pres. Merchandising Fran Horowitz	\$17.32	\$259,800	\$11.93	-31.12%
ZBRA	09-09-2016	SVP, GC Jim Kaput	\$68.22	\$235,837	\$86.05	26.14%
BECN	09-08-2016	Director Carl Bernquist	\$44.81	\$224,050	\$46.82	4.49%
DG	09-01-2016	Director Michael Calbert	\$75.53	\$981,890	\$73.96	-2.08%

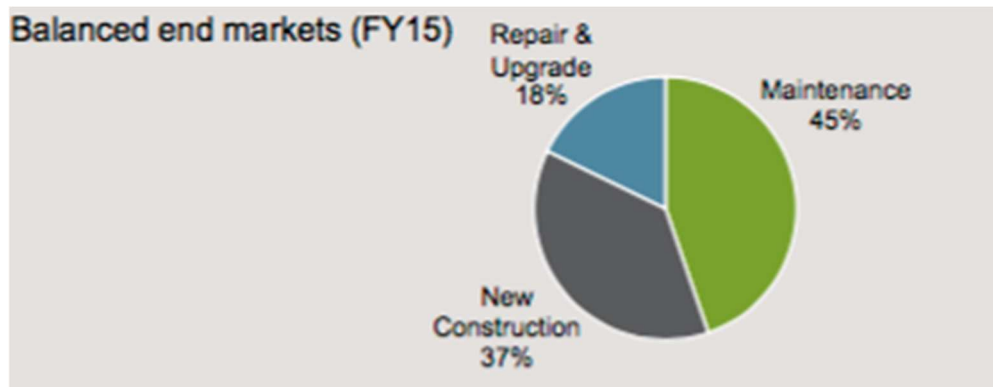
CoreSite Realty (COR) saw a notable insider buy in December from President and CEO Paul Szurek of 7,000 shares at \$68.92, a more than \$482,000 investment. Szurek bought 1,000 shares in August for \$81.20 and represents the only open market insider buying in the name in the last five years. Szurek was a Director at COR since 2010 and became the President/CEO in 2016 and comes from years of experience at Security Capital, a publicly traded REIT, and Regency Centers. The \$3.74B data center REIT trades at 21.5X FFO, 9.8X sales, and 8X book with a 4.04% dividend yield. Revenue has risen each of the last five years by double-digits and expecting 14.4% Y/Y growth in 2017. EPS is expected to grow 17.8% in 2017 to over \$1.70 per share and margins remain strong at 70.7%. COR continued to show growth across most metrics in Q3 with realized rent growth of 4% on 162 new data center leases at \$187/square foot. COR recently opened a new data center in Santa Clara which has 62% leased, a record for the company. COR is undergoing development in three key areas including Los Angeles and Denver which are both expected to be completed in Q2 2017. COR is in a sweet-spot for tech growth with exposure to networking and the growth of the public cloud with seven key developments in Silicon Valley. They have client exposure to media (DIS, ATVI, SNE, VIAB, AAPL), enterprise (CSCO, ANTM, WMT, BBY), mobile (T, DISH, VZ, CMCSA), and cloud (AMZN, MSFT, BOX). COR has seen revenue rise at 19% CAGR since 2013 and FFO rise 25% CAGR. Analysts have an average target for shares of \$80.50 with 8 buy ratings and 3 hold ratings. KeyCorp upgraded shares to Overweight on 12-21 seeing attractive earnings growth and a healthy balance sheet with less leverage than some peers. The firm thinks COR's focus on smaller, profitable leases provides attractive ROI and NAV growth. Citi upgraded shares to Buy on 12-8 seeing bookings improving in the latter half of 2017. Institutional ownership rose 2.37% last quarter while short interest remains at 9.19%, although down from 11.26% in October. COR shares have been very strong since mid-2014 trading higher by \$25 to over \$87.50 in 2016. Q4 saw some weakness in the name which re-tested the 38.2% Fibonacci of the bullish run at \$65.

Site One Landscape (SITE)

debutted in May and has seen steady insider buying all year from c-level executives and Directors. On 12-6, CEO Doug Black bought 15,000 shares at \$32.80, a \$492,000 investment and follows a buy on 5-18 or 45,000 shares at \$21, a more than \$945,000 investment.

Other notable buys include

EVP of Strategy Pascal Convers buying 27,250 shares in May at \$21, a more than \$550,000 buy. The \$1.41B company which focuses on irrigation supplies, fertilizer products, and turf care equipment trades at 25.2X earnings, 0.87X sales, and 54X cash. SITE saw 13.7% revenue growth in 2016 and expecting 7.9% Y/Y growth in 2017 to over \$1.7B with EPS growth of 20%. SITE is the largest wholesale distributor of landscape supplies in the US and focuses their end-markets on maintenance, new construction, and repairs in both residential and commercial. SITE has benefitted from pricing power and scale which is allowing for margin expansion (up 180 basis points in 2016) and growth over the last two years. They're also executing on a strategic M&A platform which has integrated some smaller, value-added deals including Bissett, Glen Allen Nursery, and Loma Vista Nursery. The company has more than \$200M available for deals into the new year and expects to use cash flow for growth and paying down debt over the next 2-3 years, targeting a Debt/EBITDA level of 2-3X. Analysts have an average target for shares of \$35 with 4 buy ratings and 2 hold ratings. Baird initiated coverage in June at Buy and RBC raised their price target to a Street High \$37 on 6-23 seeing solid demand and execution by the company. Sun Trust was out positive on 8-18 seeing strong margining growth trends and demand in their residential end-markets for some time. Institutional ownership rose 160.53% last quarter, Clayton Dubilier a top buyer of 17.7M shares, their fourth largest position. Short interest is 4.13% of the float.



Activist Investor Interest

Icahn Capital: AIG (AIG), Cheniere (LNG), PayPal (PYPL), Freeport McMoRan (FCX), Xerox (XRX), Navistar (NAV), Allergan (AGN), Manitowec (MTW), Hertz (HTZ), Herc Holdings (HRI), Herbalife (HLF)

Pershing Square (Bill Ackman): QSR Brands (QSR), Mondelez (MDLZ), Air Products (APD), Valeant (VRX), Howard Hughes (HHC), Platform Specialty (PAH), Chipotle (CMG), Zoetis (ZTS), Canadian Pacific (CP);

Third Point (Dan Loeb): Baxter (BAX), Dow Chemical (DOW), Allergan (AGN), Facebook (FB), Google (GOOGL), Monsanto (MON), Constellation Brands (STZ), Danaher (DHR), TransDigm (TDG), Apple (AAPL), Alibaba (BABA), Charter (CHTR), Sotheby's (BID)

Starboard Value: Perrigo (PRGO), Yahoo (YHOO), Marvel Tech (MRVL), Advanced Auto (AAP), Brink's (BCO), Depomed (DEPO), WestRock (WRK), HP Enterprise (HPE), Macy's (M), Stewart (STC), Baxter (BAX)

Jana Partners: ConAgra (CAG), Willis Towers (WLTW), HD Supply (HDS), Johnson Control (JCI), Computer Sciences (CSC), Harris (HRS), Coca Cola Enterprises (CCE), Marathon Petroleum (MPC), Universal Health (UHS)

Elliot Associates: Hess Corp (HES), Arconic (ARNC), Allergan (AGN), Citrix (CTXS), CDK Corp (CDK), Symantec (SYMC), Interpublic (IPG), Lifelock (LOCK), Marathon Petroleum (MPC), Encana (ECA), Pulte Home (PHM)

Clinton Group: General Electric (GE), Goldman Sachs (GS), JP Morgan (JPM), T Rowe Price (TROW), Wells Fargo (WFC), ThermoFisher (TMO), Mylan (MYL), Danaher (DHR), Boston Scientific (BSX), Clorox (CLX)

Engaged Capital: Benchmark (BHE), Tivo (TIVO), Sun Optical (STKL), MagnaChip (MX), Medifast (MED), Jamba Juice (JMBA), ComScore (SCOR), Trimas (TRS), Ruby Tuesday (RT), Libbey (LBY)

Soroban Capital: Charter (CHTR), Anheuser Busch (BUD), Autodesk (ADSK), Williams (WMB), NXP Semi (NXPI), LyondellBasell (LYB), Marathon Petroleum (MPC), Union Pacific (UNP), Walgreen Boots (WBA)

Southeastern Management: Level 3 (LVLT), Wynn Resorts (WYNN), Fed-Ex (FDX), Consol (CNX), Google (GOOG), Scripps (SNI), United Tech (UTX), Chesapeake (CHK), Graham Holdings (GHC), Ralph Lauren (RL)

Triam Fund: Sysco (SYY), General Electric (GE), Mondelez (MDLZ), Bank of NY (BK), DuPont (DD), Pentair (PNR), Wendy's (WEN)

Value Act Capital: Microsoft (MSFT), Baker Hughes (BHI), Morgan Stanley (MS), Twenty First Century Fox (FOX), Willis Towers (WLTW), Alliance Data (ADS), CBRE Group (CBG), Allison Transmission (ALSN), Armstrong Worldwide (AWI), Valeant (VRX)

Taconic Capital: Ally Financial (ALLY), KLA Tencor (KLAC), Amaya (AYA), Vereit (VER), FMC Tech (FTI), Monsanto (MON), Molson Coors (TAP), Procter & Gamble (PG), eBay (EBAY), Synchrony Financial (SYF)

Sandell Asset Mgmt.: Bob Evans (BOBE), Yahoo (YHOO), Media General (MEG), ConAgra (CAG), CIT Group (CIT), Ally Financial (ALLY), SuperValu (SVU), KLA Tencor (KLAC),

Marcato Capital: Sotheby's (BID), Goodyear (GT), Buffalo Wild Wings (BWLD), Bank of NY (BK), United Rentals (URI), Computer Sciences (CSC), Signet Jewelers (SIG), Macy's (M), IAC Interactive (IAC), Alliance Data (ADS)

Greenlight Capital: Apple (AAPL), General Motors (GM), AerCap (AER), Consol (CNX), Time Warner (TWX), Chemours (CC), Mylan (MYL), Yahoo (YHOO), Voya Financial (VOYA), Michael Kors (KORS), Calpine (CPN)

Notable Hedge Funds Top Holdings

Top 50 Hedge Funds Top 50 Holdings (In Order of Number of Funds with Top 10 Holding): AMZN, FB, CHTR, GOOGL, AAPL, MSFT, YHOO, AGN, BAC, PCLN, V, LNKD, C, AVGO, STJ, DAL, STZ, HUM, BABA, EXPE, JPM, LBTYK, MIC, PYPL, BRK/B, UAL, WMB, AIG, LBRDK, TMUS, WFC, DVMT, WWAV, CFG, COMM, DLTR, IM, MGM, NFLX, ALLY, AAL, APC, BIIB, MA, MRK, PXD, BIDU, ICE, APD, MON

Best Performing YTD: **CHTR** (47.91%), **WWAV** (41.5%), **TMUS** 40.54%, **COMM** (38.39%), **PXD** (38%)

Worst Performing YTD: **AGN** (-39.2%), **LBTYK** (-23.57%), **LNKD** (-13.3%), **BIDU** (-11.66%), **DAL** (-2.75%)

Top 50 Largest Short Positions (In Order of \$ Value): XOM, IBM, T, CAT, CVX, BA, GE, PG, ABT, DIS, INTC, TGT, DOW, WMT, CMCSA, JNJ, AZO, VZ, CVS, QCOM, F, ORLY, ABBV, ACN, ESRX, GM, PFE, CRM, LRCX, ORCL, SLB, TXN, D, EA, OMC, CSCO, KO, CCL, REGN, NKE, FCX, UNH, MCD, COST, PM, DLR, PEP, AXP, OXY, MMM

Top Hedge Fund Holding Changes as of Q3 Filings

Largest % Increases: AMD, HBAN, KEY, BABA, CHK, PG, ECA

Largest # of New Filers: JCI, BABA, QCOM, AAPL, AMZN, INTC, WFC, AMAT, BIIB, CELG, MRK, FB, SE

Largest % Decreases: JD, PBR, MCD, UBS, TEVA, GLW, KR, AIG

Largest # of Filers Sold Out: BMY, GILD, WFC, ESRX, CTSH, MCD, DHR, NKE, PYPL, TGT, SBUX, AGN

Fund Performance in 2016 by Strategy

Fig. 1: Asset Flows* by Strategy, 2015 - Q3 2016

Strategy	2015 Asset Flows (\$bn)	Q1 2016 Asset Flows (\$bn)	Q2 2016 Asset Flows (\$bn)	Q3 2016 Asset Flows (\$bn)	2016 YTD Asset Flows (\$bn)	Q3 2016 AUM (\$bn)	Percentage Change in AUM over 2016
CTAs	24.6	13.7	2.9	10.5	27.1	253	13.5%
Credit Strategies	4.2	-11.9	-14.3	2.0	-24.2	235	-2.8%
Equity Strategies	60.3	-9.7	-15.6	-2.2	-27.4	831	2.9%
Event Driven Strategies	-1.8	-2.8	3.4	-0.6	0.1	174	5.2%
Macro Strategies	-25.8	-6.4	-4.9	-1.2	-12.5	959	4.3%
Multi-Strategy	27.5	12.8	-1.6	-25.0	-13.8	429	-0.4%
Niche Strategies	1.3	-1.5	-0.2	0.3	-1.4	13	-7.7%
Relative Value Strategies	-18.8	-8.7	10.4	-16.4	-14.6	343	-0.3%
Total Industry	71.4	-14.3	-19.9	-32.5	-66.7	3,236	2.9%

Source: Preqin Hedge Fund Online

The Big Ones (Top 15 Holdings)

Berkshire Hathaway (Warren Buffett): KHC, WFC, KO, IBM, AXP, PSX, USB, MCO, CHTR, DVA, GE, GS, AAPL, GM, VRSN

Soros Fund Mgmt. (George Soros): LBRDK, AGRO, WMB, CACQ, TIVO, CHDN, ABX, ZTS, TVPT, VMW, PYPL, AMZN, MODN, HPE, EBAY, INTC, CZR

BP Capital (T Boone Pickens): WPX, KMI, SUN, SPN, HZN, LNG, FET, APC, RSPP, GT, CVX, RRC, BHI, WES, HAL, NWL, WLK, PTEN

Renaissance Technologies (Jim Simons): HD, MDY, TMO, EPD, AAPL, PEP, NXPI, DHR, APD, MRK, ADP, DIS, UNP, TJX, MAS, CHD, BA, COST

Omega Advisors (Leon Cooperman): FDC, NAVI, AER, HRG, AIG, GOOGL, TRCO, AGN, UAL, OMF, PVH, WBA, DOW, MSI, ASH, ASPS, SHPG

Paulson & Co (John Paulson): SHPG, AGN, MYL, TEVA, GLD, MNK, AIG, STAY, VRX, AKRX, AU, CACQ, ENDP, NG, VMW, HPE, SGYP, RLG, CZR

Appaloosa Management (David Tepper): ETP, GOOG, WPZ, AGN, ALL, FB, WHR, OC, TERP, SYF, MHK, ABY, HUN, HCA, AAPL, HDS, KMI, YHOO

Tudor Investment Corp (Paul Tudor Jones): PEP, HOLX, PVTB, LNKD, BIIB, ITC, MRK, CST, ADS, FB, SHW, SYT, GOOGL, VIPS, JCI, MA, BCR, EVER, MEG

Duquesne Capital (Stanley Druckenmiller): ABBV, FCX, BABA, ABT, MRK, AVGO, ATVI, ABX, AMZN, AEM, HDB, PSTG, EOG, ZTS, BAC, FB, AMAT

Tiger Management (Julian Robertson): CELG, MSFT, GOOG, COMM, P, FB, PCLN, BMY, RCL, BX, SHPG, HZNP, TTOO, MGNX, RYAA, NVLS, VLRS, DAL, GILD, GOOGL, MGM, WYNN, BUD

Bridgewater Associates (Ray Dalio): INTC, AAPL, MSFT, ESRX, SU, CSCO, JNPR, GILD, AMAT, PFE, BMY, NE, CNQ, TXN, SWN, URI, ADS, ENDP

Fisher Asset Management (Ken Fisher): AMZN, AAPL, JNJ, V, HD, PFE, MSFT, GE, JPM, TSM, UTX, CMCSA, GOOGL, BRK/B, DIS, WFC, INTC

Millennium Management (Israel Englander): PG, COTY, PCG, MRK, AAPL, CMS, DVN, FB, GOOGL, MSFT, PNW, AMAT, EBAY, FIS, APC, GXP, AEP

Oaktree Capital (Howard Marks): APFH, TRCO, FBP, ALLY, SBLK, BANR, DYN, TSM, TRNC, MTG, ITUB, GNRT, BABA, CX, NMIH, IBN, XCO, SWMC, CCS

Baupost Group (Seth Klarman): LNG, VSAT, SYF, AGN, AR, PBF, DVMT, FOXA, TBPH, PYPL, FOX, INVA, VRTV, KERX, NSAM, OLN, VMW, ATRA, LVNTA, CLNY, IMOS, NRF

D.E. Shaw: AMZN, AAPL, CVS, MCD, BIIB, V, WMT, HUM, DIS, BMY, VMW, YHOO, AMAT, BRK/B, UTX, LNKD, GOOG, INTC, VRSN, ESRX, HD

Farallon Capital (Thomas Steyer): STJ, LNKD, SBAC, CHTR, AGN, SIG, GOOG, HDS, ITC, CTSH, FLT, INFO, TDG, HLF, GD, MSFT, CTXS, PCLN, SSNC, ALSN

Maverick Capital (Lee Ainslie): PFE, PM, SABR, PCLN, UHS, COMM, WCN, LRCX, ORLY, LVLTL, NOC, GOOG, AXP, AAPL, FB, BUD, TDG, DG, CMCSA, CSC, RDN

Viking Global (Anreas Halvorsen): AMZN, FB, GOOGL, COG, ECA, TEVA, MSFT, AVGO, MA, APD, JD, BIIB, TMUS, SWN, CP, APC, LLY, STZ, BAC, RICE, RRC, LYB, GPOR

Adage Capital (Phil Gross and Robert Atchinson): AAPL, MSFT, AMZN, APC, BRK/B, CVX, PBYI, GOOG, FB, JNJ, T, JPM, NBL, MRK, VZ, BAC, WFC, PG, GT

Lone Pine Capital (Stephen Mandel): CHTR, DLTR, EBAY, AMZN, STZ, NKE, FLT, PCLN, MSFT, EXPE, FB, ATVI, EA, ULTA, GOOG, TDG, EQIX, MNST, YUM, VMC, BABA, ADBE, LNG, TV, AVGO

Two Sigma Advisors (John Overdeck and David Siegel): MAR, AMZN, DO, DD, HD, WMT, MCD, GOOGL, VZ, CELG, WFC, ABBV, LMT, NKE, EXPE, VMW, LRCX, AMAT, ORCL

Highfields Capital (Jonathon Jacobson): MAR, BEN, HLT, DD, ABBV, GOOG, AMT, TEVA, MON, IAC, MIK, WMB, BEAV, WBA, CBS, SU, ICE, APC, MGM, CF, MSFT, AER

AQR Capital (Cliff Asness): MSFT, AAPL, PG, JNJ, TSN, WMT, PEP, PNC, HPQ, INTC, AMZN, UNH, GOOG, FB, CSCO, AMAT, AEP, TSM, UAL, NOC, BABA

Discovery Capital (Rob Citrone - Tiger Cub): K, CTRP, FB, V, AVGO, AMZN, S, TPX, PBR, ATVI, BIDU, XEC, YPF, PBR, CPE, M, VLRS, MCD, LLL

Coatue Mgmt. (Philippe Laffont - Tiger Cub): FB, AAPL, LBRDK, ATVI, NFLX, GOOG, EA, AVGO, EQIX, JD, BABA, LBTYK, LBTYA, PYPL, AMZN, TWX, AMT, INTC, NVDA, FFIV, ILMN, TMO, HAIN, ZAYO

Hoplite Capital (John Lykouratzos - Tiger Cub): SEE, GPK, GOOG, FB, GRA, DNKN, ISBC, ADBE, UNH, UHS, AAPL, WBA, MSFT, CBS, AVGO, DE, SLB, STZ, APC

Point72: GOOGL, FB, ZTS, AMZN, SRPT, APC, DLTR, BG, YHOO, AAP, LOW, NWL, CMCSA, SHW, COP, AAPL, HAL, V, ECA, VRX, THS, AVGO, MHK

Hawk's 55 Smart Funds (Top 10 Holdings):

Abrams Capital: WU, MSFT, BEN, MFS, NSAM, WFC, BKS, BNED, OZM, VIP

Akre Capital: AMT, MA, MKL, MCO, DLTR, V, ROP, KMX, ESGR, ORLY

Alkeon Capital: GOOGL, MSFT, NTES, DLTR, SNPS, CELG, AMZN, ICE, AMT, MA

Altimeter Capital: UAL, EXPE, DATA, PCLN, CTRP, ALK, PSTG, DAL, AAL, ZG

Alyeska Investment Group: AAPL, GOOG, PANW, CTSH, KHC, WFM, BDX, MHK, SYK, XRX

Anchor Bolt Capital: GT, BERY, LUV, HON, LEA, GM, SEE, EQT, ALB, HES
Ariel Investments: KMT, LAZ, FAF, LH, BIDU, IPG, AXE, JLL, NTRS, ZBRA
Aristotle Capital: WFC, TVPT, SPR, SKX, WEB, ODP, BBY, TREE, ZBRA
Artal Group SA: BUFF, LXRX, WTW, INCY, ALNY, GS, BABA, BMRN, BLUE, ARRY
Bloom Tree: PCLN, AMSG, MSFT, CTSH, FNF, ANTM, PYPL, GOOG, FLT, HAWK
Blue Ridge Capital: ADSK, CHTR, FB, CDK, AMZN, FLT, TDG, AGN, HDS, CP
Brave Warrior: SCHW, AR, BAM, LBTYK, HCA, CMPR, JPM, PRI, ST, AXTA
Brookside Capital: RDUS, MRK, AGN, SABR, VSAT, DATA, CTXS, FIS, MGM, DOX
CAM Group: V, ECL, HD, FB, GOOG, GILD, CVS, LTD, DG, AMZN
Cantillon Capital: FIS, SPGI, ADI, WLTW, GOOGL, ECL, BIDU, ZTS, HOG, GOOG
Canyon Capital: YHOO, MGM, ALLY, BERY, BKD, CMCSA, SCI, CAR, GILD, HCA
Criterion Capital: SPLK, NOW, WDAY, PANW, CRM, AMZN, FB, COMM, NFLX, CHTR
Diamond Hill: ABT, C, XEC, PFE, MS, GOOGL, UTX, COF, CSCO, JPM
Edgepoint: WCC, WBC, AIG, WFC, TEL, UBNT, GNRC, LYV, RLG, UNP
Findlay Park: MSFT, ACN, BRK/B, BCR, MDT, FISV, CSCO, KO, CMCSA, WCN
Gardner Russo: NSRGY, BRK/A, PM, MA, BUD, WFC, UN, MO, MLM, CMCSA
Gilder Gagnon and Howe: AMZN, NFLX, FB, TSLA, NXTM, TWOU, APA, PAYC, HUBS, ALNY
Herndon Capital: AES, SPGI, PM, ABBV, LYB, AAPL, WDC, CBG, MO, TJX
Hitchwood Capital: ABC, AMZN, FB, SHW, GOOGL, V, TAP, CHTR, MHK, AMT
Hound Partners: SPR, TSO, HLT, SERV, BIDU, CRI, CHTR, MEG, IPXL
Kensico Capital: STZ, AIG, LNG, MSFT, V, ARMK, ESRX, WBA, WBMD, MFS
Lakewood Capital: C, MA, HCA, CMCSA, BIDU, WRK, ICE, CHTR, FDX, ORCL
Lateef Mgmt.: GOOGL, FB, IMS, ADSK, NLSN, HOLX, DLPH, CELG, UPS, NWL
Locust Wood: SU, LVNTA, JPM, LBRDK, PX, GD, LDOS, BLL, HHC, GOOGL
Lyrical Asset Mgmt.: AVGO, AET, GLW, CMCSA, EOG, SYMC, AFL, TEL, ETN, ANTM
Melvin Capital: FB, LOW, GOOGL, AMZN, V, SHW, CASY, STZ, AAP, PCLN
New South Capital: OTEX, TGNA, ZBRA, AZO, GIB, VSAT, MSM, TMO, DNB, DISCA
Oak Ridge: MIDD, BURL, EPAM, SNCR, WSO, FTNT, MMS, WCN, AOS, DEPO
Passport Capital: MRVL, JCI, BABA, CXO, RICE, AGN, PE, LBTYK, SINA, SYMC
Pennant Capital: TAP, AGN, GOOG, LVNTA, STZ, DLTR, TDG, FLT, ACHC, ETFC
Polen Capital: V, FB, GOOG, NKE, PCLN, SBUX, ACN, ADBE, TJX, ORCL, ADP
Sachem Head: ADSK, CHTR, CDK, FLT, GOOGL, AGN, DVMT, TMH, MIK, EVHC
Sailingstone Capital: TRQ, RRC, SQM, AR, SWN, LPI, NBL, CPN, COG, KOS

Samlyn Capital: ARMK, STZ, MA, BIIB, UNH, AGN, K, APD, HDB, RACE

Southern Sun: DAR, CNC, CLH, PII, THO, AGCO, TKR, TRN, AMSG, CBI

Stockbridge Partners: TDG, SBAC, CHTR, AWI, MPLX, ST, LPLA, WBC, NORD, KSU

Sustainable Growth Advisors: V, AAPL, LOW, AMZN, CERN, MDLZ, CL, GOOG, FLT, PCLN

Three Bays Capital: CHDN, CY, YHOO, ICE, UAL, ST, WMB, OPHT, AGN, IMS, Q

Tourbillion Capital: POST, DISH, EXPE, CTRP, HPE, SYF, AVGO, AMH, HRG

Triple Frond: LBTYK, CHTR, SCHW, MCO, TDG, SBAC, V, DVA, NORD

Turtle Creek: GIL, MITL, BWA, OTEX, PRAA, CLH, SSNC, TSCO, HEI/A, TJX

Valinor Mgmt.: STZ, LNG, APD, FLT, QSR, IMS, GOOGL, CHKP, FB, EVHC

Vontobel Mgmt.: BABA, ABEV, FMX, PM, GOOG, NTES, MA, MO, AMZN, V

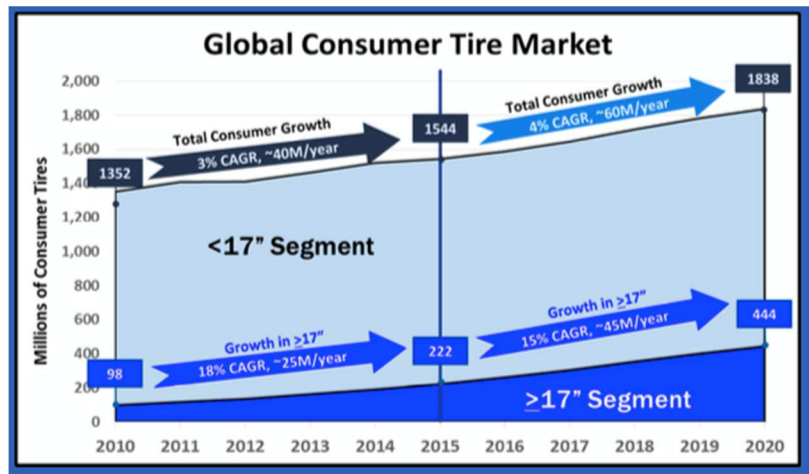
Wasatch Advisors: CSOD, ULTI, CPRT, KNX, SGEN, CAVM, ICLR, ENSG, SAVE, MMYT

Wedgewood Partners: AAPL, BRK/B, PCLN, KHC, SLB, V, CTSH, GOOGL, QCOM, VRSK, ESRX

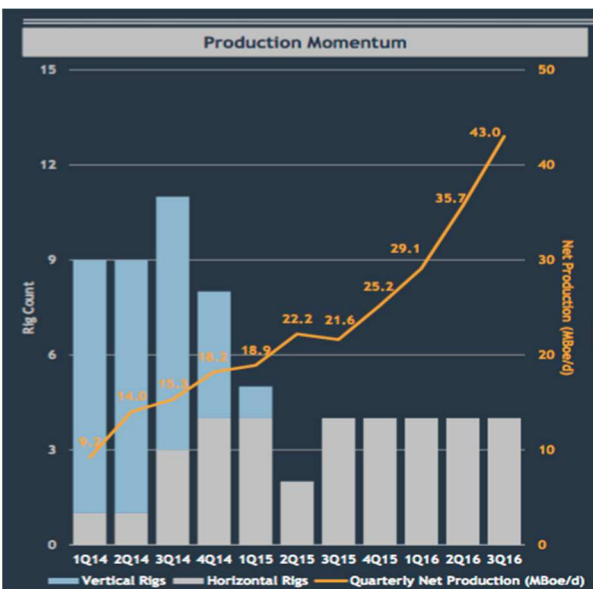
Hedge Fund Spotlight Trade Ideas

IHS Markit (INFO) is a \$14.95B provider of data and analytics for various end-markets including finance, government, and individual businesses. The company has several government contracts and provides trade data to more than three quarters of the S&P 500. The \$14.97B company trades 17.2X earnings, 6.97X sales, and 1.43X book. Sales rose 5% in 2015 and 25% in 2016 with estimates for 29.3% Y/Y growth in 2017. Shares were up 17% on the year. INFO has superior gross margins to the industry at 63.3% and nearly a 5% FCF yield. The company highlighted strong growth in their transportation, maritime, and aerospace/defense businesses in mid-November and seeing a turnaround in resources. Energy information should see a continued growth in 2017 with oil prices recovering. Analysts have an average target for shares of \$39 with 9 Buy ratings, 6 Hold ratings, and 1 Sell rating, Barclays and Baird upgrading to Buy in early September, the latter citing strength in their overall portfolio and mission-critical solutions. The firm thinks INFO could continue to deploy capital for M&A to bolster their offerings. The company is continuing to see merger synergies in 2017 and expects \$35M in cost savings and \$10M in revenue synergies. They have a three-year goal of \$125M in cost saving and \$100M in sales synergies. They expect to do a \$1B buyback in 2017 and 2018. Tesuji Partners, a \$1.2B firm in NY which runs a very concentrated book bought more than 9M shares in Q3 2016, their second largest holding and only new position. It represents 27% weight in their portfolio. General Atlantic, Canadian Pension Plan, Artisan Partners, Senator Investment Group, Blue Ridge Capital, and Brahman Capital are other notable holders.

Goodyear Tire (GT) is an \$8.29B maker of tires and related products which trades at 7.29X earnings, 0.54X sales, and 1.85X book value with a 1.85% dividend yield. GT has seen sales fall each of the last five years but expected to return to growth in 2017 up 2.4% Y/Y. Goodyear laid out an ambitious plan to increase operating income by 2020 at a September Investor meeting including hitting \$3B in SOI and cumulative FCF of over \$5B available for shareholders and debt repayment. Goodyear is the best-in-class in tires greater than 17" with margin expansion last quarter in their Americas business of 200



basis points and seeing better CAGR through 2020 than the under 17" markets. The group should see long-term benefits with more vehicle miles traveled, better gas prices, and better fuel consumption keep more cars on the road longer. Commercial volumes have impacted GT in the past years with US volumes down 12% last quarter. GT is focusing on cost controls and debt repayment with roughly \$1B allocated towards paying down their debt over the next three years and almost \$2B allocated towards CapEx. Analysts have an average target for shares of \$35 with seven buy ratings and one hold rating. Jefferies started shares at Buy on 11-29 with a \$36.50 price target and Berenberg started at Buy on 11-22. Argus was out positive in November seeing improved earnings outlook with lower raw material costs helping cut costs. Institutional ownership fell 1.63% last quarter but notable holders include Adage Capital with 8.4M shares, Anchor Bolt with 7.1M shares, and Lyrical Asset Management with 5.1M shares. Marcato took a 4.3M share position, their second largest, in August and called for the company to return more than \$4.5B in equity to shareholders. The firm is calling for specific margin targets and more transparency on raw material costs as well. Short interest is 7.55% of the float.



Parsley Energy (PE) is a \$7.41B oil and gas company which trades at 12X EV/EBITDA, 2.9X book and 13X cash. PE has strong gross margins at 78.2% vs the rest of the industry. Looking at oil-specific metrics, shares trade at 11.1X EV/DACF and 195X EV/Production with 67% oil mix and 68% production growth in 2016. PE saw revenues jump this year over \$460M and expecting 85% Y/Y growth in 2017 to over \$800M. PE is a top player in the Permian Basin which is a highly sought-after region in the US with crude and natural gas properties. The company is in two of the largest subsidiary basins in the region including the Midland Basin which has significant undiscovered oil assets. PE is set to benefit in 2017 and 2018 from a boost in drilling activity in the region and potential new discoveries including those in the Wolfcamp A + B. In their recent investor presentation, the company outlined key advantages to Wolfcamp thickness especially in the Upton and Reagan counties which PE has a great presence. This is allowing the company to expand drilling locations and reported promising

results from their first 3-well stacked pad in the region this year. The company has been a top production name in the space and in November raised their 2016 guidance to 37,000-39,000 boe/day with a fifth horizontal rig being deployed. The company is also considering additional rigs for 2017. Many shale companies are going to also benefit from OPEC's recent deal to cut production which makes it more attractive to pump oil. On 11-15, EIA reported that the Permian now holds almost as many rigs as the rest of the US combined with 220 and reaching production of 2M bbl/day of oil. Analysts have an average target for shares of \$33.50 with 22 buy ratings and 5 hold ratings. KeyCorp raised their price target to \$44 on 11-22 and FBR started covered in September at Outperform with a \$41 price target. UBS was out positive on 11-3 seeing more room for production growth in 2017. Institutional ownership rose 7.9% last quarter. Zimmer Partners is a top holder with 6.8M shares, their top position and a 6.17% weight, and Van Eck holds 6M shares. Passport Capital started a new 2.55M share position last quarter. Short interest is 13.08% of the float but flat since mid-2015.

Biotech Catalysts for 2017

Acorda Therapeutics (ACOR) (\$19, \$837M Market Cap)

Key Events to Watch: The company will report Phase 3 data for CVT-301 for the treatment of OFF episodes of Parkinson's disease in the 1Q of 2017 with an NDA expected shortly after. They will also initiate a Phase 2 trial for CVT-427 for the treatment of migraines in the 1H of the year. In July 2017, the 30-month stay on generic Ampyra expires. They expect Phase 3 data for tozadenant by year-end 2017.

Recent Pipeline Notes: The company reported Phase 3 data for Dalfampridine in Post Stroke Walking Difficulties in Q4 of 2016. They also acquired Tozadenant for the treatment of Parkinson's disease from Biotie Therapies in December. The company has been in a long-running patent battle over Ampyra with four different generic companies seeking ANDA approvals.

Short Interest and Trends: 13.5% and falling steady since October 2015 when it was 25%.

Institutional Ownership: Rose 1.21% last quarter; notable holders include Scopia Capital with 4.2M shares, Baker Bros. with 3.6M shares, and Eagle Asset Management with 1.6M shares.

Insider Buying in 2016: None

Sell-Side View: RBC was out previewing the SF Healthcare Conference in late December on January 9-11 and sees the company updating Q4 and 2017 Ampyra guidance of \$525-\$540M, 8-10% growth. OPEX guidance is also likely given and the firm expects flat growth. JP Morgan upgraded to Overweight on 12-1 and Goldman Sachs initiating at Sell earlier this year seeing their lead product Ampyra close to fully realizing its commercial opportunity and IP threats will continue to pressure shares.



Aerie Pharmaceuticals (AERI) (\$39, \$1.24B Market Cap)

Key Events to Watch: The company will submit an NDA for Rhopressa for the treatment of glaucoma sometime in January 2017 after withdrawing their submission in September due to manufacturing issues. Rhopressa met its primary endpoint in Phase 3 trials in ROCKET-4 trials. The company has Phase 3 data for roclatan, the Mercury 2 trial, for the treatment of glaucoma due in the Q2 of 2017.

Recent Pipeline Notes: The company reported Phase 3 trials for roclatan for the treatment of glaucoma met its primary endpoint on September 14, 2016.

Short Interest and Trends: 21.6% and down from July when it was 32.5%.



Institutional Ownership: Rose 16.8% last quarter; notable holders include Foresite Capital, Deerfield Management, Orbimed, and Perceptive Advisors. Baker Bros own a small stake, their 48th largest.

Insider Buying in 2016: Director Gerald Cagle bought 4,646 shares in April for \$18.24 per share. In July, Foresite Capital, a 10% holder, bought 250,000 shares at \$17.50.

Sell-Side View: RBC was out positive on 11-3 noting the company has high chance of being acquired with Rhopressa looking poised to be approved and ahead of a second set of Phase III data for its Roclatan drug. The firm has a \$54 PT.

Aegis started shares at Buy with a \$63 price target on 11-1. Brean was out positive on 10-6 raising their price target to 463 from \$48 seeing potential in future European launches and Japanese trials. HC Wainwright has a \$66 PT.

Agios Pharmaceuticals (AGIO) (\$44, \$1.74B Market Cap)

Key Events to Watch: The company expects Phase 3 data for AG-120 for the treatment of frontline acute myeloid leukemia harboring an IDH1 mutation in the 1H of the year.

Recent Pipeline Notes: The company initiated a Phase 2 trial for AG-120 for the treatment of IDH1 mutant cholangiocarcinoma in the Q4 2016. They submitted an NDA for AG-221 for the treatment of advanced hematologic malignancies with an IDH2 mutation in 2016. Phase 2 data for AG-348 for the treatment of pyruvate kinase deficiency was released at EHA in June. In December, the company halted development of AG-519.

Short Interest and Trends: 45.64% and rising since January when it was 29.6%.

Institutional Ownership: Rose 11.04% last quarter; notable holders include BB Biotech with 2.6M shares, Clearbridge with 1.4M shares, and Flagship Ventures with just under 1M shares. Redmile and Balyasny were bought buyers last quarter.

Insider Buying in 2016: None

Sell-Side View: Leerink cut their price target for shares on 12-16 to \$45 from \$56 given the rising uncertainty in pyruvate kinase deficiency after the company had halted development of AG-519. Canaccord was out on 12-16 noting that the trial halt doesn't impact AG-348 which is the more important PKD asset and still viewed as viable. The firm notes that no serious adverse events have arisen and while the FDA news is disappointing the company still has several levers for growth. JP Morgan was out noting that AGIO remains one of their top picks with potential approval for AG-221 in AML with their partner Celgene.



Alder Bio (ALDR) (\$22, \$1.13B Market Cap)

Key Events to Watch: The company has Phase 3 topline data from their ALD403 PROMISE 1 trial for the treatment of frequent episodic migraine in the 1H of 2017. The primary endpoint of the trial is the mean reduction in migraine days from baseline over weeks 1 to 12. The company is targeting a 2018 BLA submission with positive data. ALDR is expecting data from the PROMISE 2 trial for ALD403 in 2018.



Recent Pipeline Notes: In March, the company released positive Phase 2B data for ALD403 in chronic migraine which met primary and secondary endpoints. Positive 24-week data was released in July.

Short Interest and Trends: 29.05% and steadily rising since 2004 when it was under 5%.

Institutional Ownership: Fell 1.37% last quarter; notable holders include Cormorant Asset who has 1.68M shares

Insider Buying in 2016: None

Sell-Side View: Piper was out positive on 11-25 with a \$47 PT seeing short-term volatility due to

CGRP patent challenges are an overreaction and focus should be on the upcoming data. BMO Capital initiated shares at

Outperform on 11-10 with a \$42 price target and Aegis has a Buy rating and \$42 price target. JP Morgan was out on 9-13 seeing high probability of success for ALD403 and seeing peak sales of \$1B. Brean thinks the company can be on the market in 2018 and 2019 in the US and Europe with more than \$1B in global revenue by 2022.

Alnylam (ALNY) (\$41.50, \$3.38B Market Cap)

Key Events to Watch: The company has Phase 3 data for Patisiran for the treatment of familial amyloidotic polyneuropathy in patients with ATTR due in mid-2017. They expect to initiate a Phase 3 trial in fitusiran for the treatment of hemophilia in early 2017. The company expects to initiate a Phase 3 trial for ALN-TTRsc02 for the treatment of ATTR amyloidosis pending positive Phase 1 initial data in December. The company expects ALN-HBV Phase 1/2 data for the treatment of chronic hepatitis B virus sometime in mid-2017 after starting trials in July.

Recent Pipeline Notes: The company discontinued a trial for revusiran for the treatment of ATTR in patients with familial amyloidotic cardiomyopathy in October. They released initial data for ALN-G01 for the treatment of primary hyperoxaluria Type 1 in September and also presented early data for ALN-CC5 for the treatment of Paroxysmal Nocturnal Hemoglobinuria at ASH.

Short Interest and Trends: 19.88% and rising since January when it was 9.6%.

Institutional Ownership: Rose 4.52% last quarter; notable holders include Baillie Gifford with over 3.3M shares, Gilder Gagnon and Howe with 1.3M shares, and BB Biotech. 12 West owns 700,000 shares, their fourth largest position, and Blue Ridge Capital owns just more than 1.3M shares.

Insider Buying in 2016: Sanofi, who owns an equity stake, bought shares in February at \$69.75, more than \$14M worth. SVP and Chief Business Officer Alexandre Gros bought 1,000 shares in February. Director Michael Bonney bought 2,000 shares at \$58.36 in March and Director David Pyott bought 27,900 shares in October at \$37, a \$1M buy.

Sell-Side View: Jefferies was out positive on 12-5 noting that recent data showed Fitusiran efficacy in 16 hemophilia inhibitor patients better than analyst's expectations with a median annualized bleeding rate reduced to zero. They also noted that givosiran Phase 1 data showed encouraging initial results in reducing porphyria attacks in symptomatic patients. Piper raised their price target to \$118 ahead of two different Phase 3 trials next year. Needham was out cautious on 11-16 after the company announced Sanofi had exercised its option to co-develop fitusiran and the company not takes a greater share of revenue.



Ariad Pharmaceuticals (ARIA) (\$12.50, \$2.3B Market Cap)

Key Events to Watch: The company has Phase 1/2 initial data due in 2017 for the treatment of NSCLC. They have a PDUFA data on April 29, 2017 for brigatinib for the treatment of anaplastic lymphoma kinase positive (ALK+) metastatic NSCLC.

Recent Pipeline Notes: The company initiated enrollment for Phase 3 trials in Iclusig for the treatment of second-line chronic phase CML which is expected to be completed in 2018.



Short Interest and Trends: 21.76% and down from over 30% in January 2015.

Institutional Ownership: Rose 19.19% last quarter; notable holders include Sarissa Management with 12.8M shares and Consonance Capital with 8.6M shares. Palo Alto Investors and Redmile both own stakes.

Insider Buying in 2016: In February, President/CEO Paris Panayiotopoulos bought 61,099 shares at \$4.91, a more than \$299,000 investment and in May bought another 26,990 shares at \$7.41, a \$199,000 investment.

Sell-Side View: Deutsche Bank started shares at

Hold on 11-3 with a \$9.50 price target seeing headline risk from pricing as pressuring shares and overshadowing any news flow from their pipeline. Jefferies cut their price target to \$11 on 10-26 seeing pressures over Iclusig pricing as overly aggressive but a drug with clear therapeutic value. William Blair raised their price target to \$15 in late October. The firm raised their peak sales estimates for Iclusig to \$1.1B from \$900M and raised their peak sales estimate for Brigatinib to \$790M from \$640M behind a better profile analysis from ESMO. Analyst Y. Katherine Xu models Iclusig in chronic myelogenous leukemia at \$9 per share and brigatinib at \$6 per share, with a 90% probability of success in ALK+ non-small-cell lung cancer. She also sees ARIA as a top takeover candidate with the pending approval of brigatinib.

Array Bio (ARRY) (\$9, \$1.45B Market Cap)

Key Events to Watch: The company has a PDUFA meeting on June 30, 2017 for binimetinib for the treatment of NRAS melanoma cancer. ARRY completed its NDA in June 2016 after positive Phase 3 data. The company will also submit an NDA for binimetinib for the treatment of BRAF mutant melanoma cancer after positive Phase 3 data in September. The filing is expected in 2017 and also expecting data from part two of the trial around mid-year.

Recent Pipeline Notes: The company released Phase 3 data for selumetinib SELECT-1 for differentiated thyroid cancer in August which failed to meet its primary endpoint. A Phase 3 trial in binimetinib for the treatment of recurrent low-grade serous ovarian cancer was discontinued in April. Finally, the company started a Phase 3 trial for encorafenib for the treatment of BRAF-mutant colorectal cancer with data expected in 2018.

Short Interest and Trends: 14.79% and down from over 25% in May 2015.

Institutional Ownership: Rose 19.23% last quarter; Orbimed a top holder with 14M shares and Redmile Group with 16M shares, their top holding. Sarissa Capital owns 4.3M shares, their fourth largest, and Baker Bros own 3.3M shares.

Insider Buying in 2016: 10% holder Redmile Group has been accumulating shares from \$3.19 to \$4.58.

Sell-Side View: Cowen started shares at

Outperform on 11-4 with a \$10 price target and JP Morgan raising their price target to \$8 on 9-27, noting that they are increasingly confidence in approval for both encorafenib and binimetinib for the treatment of BRAF+ melanoma. They see a \$325M opportunity in the US alone for the two. Jefferies was out positive on 9-26 with a \$10 price target seeing two approvals for the drug and noting the melanoma space is a \$1B market. JP Morgan sees \$3/share value from both approvals.



AveXis (AVXS) (\$51.50, \$1.35B Market Cap)

Key Events to Watch: The company is expecting Phase 1 data from their AVXS-101 trial for the treatment of spinal muscular atrophy (SMA) type 1 in the 1H of the year. The pivotal trial is to be initiated in the 1H of the year as well. The trial will reflect a single-arm design and enroll 20 patients.



Recent Pipeline Notes: None

Short Interest and Trends: 9.45% and rising to new highs, up steady since IPO data in March.

Institutional Ownership: Rose 50.66% last quarter; notable holders include Deerfield Management with 2.2M shares and RA Capital with 1.7M shares. RA Capital, BB Biotech, and Boxer Capital all added to positions.

Insider Buying in 2016: On 8-22, SVP of Manufacturing bought 5,000 shares at \$20, on 2-19 Director Bong Koh bought 100,000 shares at \$20

Sell-Side View: Goldman Sachs raised their price target to \$91 on 11-30 seeing peak penetration for

AVXS-101 to four years instead of five and thinks Japan and ROW sales will help push peak sales estimates to \$925M, up from \$805M, by 2026. The firm sees a 2020 launch date. BMO Capital has an \$80 price target and on 11-2 noted they see a 70% chance of the drug launching in late 2017 or early 2018 with positive data.

BioMarin (BMRN) (\$86, \$14.37B Market Cap)

Key Events to Watch: The company has a PDUFA for Cerliponase Alfa on April 27, 2017 after being delayed three months. They also expect to file an NDA in the Q1 for PEG-PAL for the treatment of Phenylketonuria after Phase 3 trials met their primary endpoint but missed their secondary. The company will initiate a Phase 2B trial for BMN 270 for the treatment of hemophilia A in the 2H of the year.

Recent Pipeline Notes: The company received a CRL for Kyndrisa for the treatment of Duchenne Musclar Dystrophy in January. In June, they terminated a program for Reveglucosidase Alfa for the treatment of Pompe Disease. They updated Phase 2 data for Vosoritide for the treatment of achondroplasia in October and plan to initiate a Phase 3 trial. In 2014, the company had Vimizim for the treatment of Morquio A Syndrome approved by the FDA.

Short Interest and Trends: 5.25% and rising since May 2015 when it was 3%.

Institutional Ownership: Rose 5.44% last quarter; notable holders include Baker Bros with 4.8M shares, Temasek, Palo Alto Investors, and Sands Capital.

Insider Buying in 2016: None

Sell-Side View: Cowen was out on 12-9 noting the company is their top pick for 2017 with the expected launch of two new products over the next 12-18 months and rising expectations for two additional programs to advance into pivotal trials. Gabelli started shares at Buy with a \$109 price target seeing the company with the best orphan drug portfolio in the sector and potential for \$2.2B in sales by 2020. Gabelli also thinks Gilead could target an orphan drug company in 2016 and BMRN could be a nice buy. Piper downgraded shares to Neutral on 11-7 seeing the company



in a transition phase to more of an earnings-driven story and thinks more data is needed with the achondroplasia program, the hemophilia gene therapy program and the long-term safety profile of Pegvaliase.

CoLucid Pharmaceuticals (CLCD) (\$37.75, \$698M Market Cap)

Key Events to Watch: The company has the SPARTAN Phase 3 data for Lasmiditan due in the 2H of 2017, which enrolled over 2,500 patients to treat up to eight migraine attacks per month for one year. On 11-14, the company updated enrollment status noting that they had reached over 50% of the expected patient pool.

Recent Pipeline Notes: The company reported positive SAMURAI trial Phase 3 data for Lasmiditan for the treatment of migraines on September 6th. The study met its primary endpoint achieving a reduced migraine related disability at the two-hour time point and was well tolerated with no adverse cardiovascular events.



Short Interest and Trends: 11.03% and rising sharply since August when it was less than 1%.

Institutional Ownership: Rose 118.36% last quarter; notable holders include Perceptive Advisors with more than 500,000 shares and Adage Capital. Great Point started a new 400,000 share position.

Insider Buying in 2016: Novo Ventures, an equity stake holder, bought 100,000 shares on 9-13 for \$20 per share, a \$2M investment.

Sell-Side View: On 9-19, Ladenburg was out positive noting that the company has M&A potential with positive lasmiditan data and seeing

\$45.71 per share value as a standalone company and over \$65 per share in a buyout. Piper raised their price target to \$36 on 9-15 noting that further lasmiditan data will de-risk the stock and the SAMURAI trial showed strong efficacy in line with the FDA's expectations.

Clovis Oncology (CLVS) (\$44.50, \$1.74B Market Cap)

Key Events to Watch: The company has a PDUFA date on February 23, 2017 for rucaparib for the treatment of ovarian cancer. The company's NDA was accepted in September. CLVS will also report data in the 2H of 2017 for rucaparib's ARIEL 3 trial for the treatment of ovarian cancer patients with a BRCA-like mutation. The company completed enrollment for the randomized maintenance study and expects a supplemental NDA shortly after. CLVS will initiate a Phase 3 trial for rucaparib for the treatment of castration-resistance prostate cancer in Q1 2017.

Recent Pipeline Notes: The company stopped clinical development of their lung cancer treatment rociletinib following notification from the FDA of a CRL before its June 28, 2016 PDUFA. The company terminated enrollment in ongoing studies and withdrew EU regulatory approval. They also discontinued development of lucitanib.

Short Interest and Trends: 31.16% of the float and rising from 11% in early 2014.

Institutional Ownership: Rose 2.45% last quarter; Palo Alto Investors a notable holder with 3.8M shares, Consonance Capital owns 3.5M shares, and Pointstate Capital owns 2.8M shares. Redmile Group is a top holder with 2M shares, their fourth largest position.



Insider Buying in 2016: None

Sell-Side View: Chardan started shares at Sell with a \$15 PT on 10-25, the firm seeing the lack of efficacy and safety signals in their rucaparib drug posing considerable risks ahead of the PDUFA. They don't see a statistical advantage to rucaparib over existing treatments and the product has caused more adverse events than approved drugs. Piper was out positive on 10-7 noting they see approval for rucaparib in BRCA patients who have received 2+ lines of therapy. They raised their price target to \$42 on 10-4 noting all signs point to approval in the 3L+ setting.

Exelixis (EXEL) (\$15.50, \$4.28B Market Cap)

Key Events to Watch: The company has Phase 3 data for XL184 cabozantinib for the treatment of advanced hepatocellular cancer due in 2017.

Recent Pipeline Notes: The company had cabozantinib for the treatment of metastatic renal cell cancer approved in April. The company had Vemurafenib for the treatment of BRAF V600 mutation-positive advanced melanoma approved on November 10. They initiated a Phase 3 trial for CS-3150 for the treatment of essential hypertension in September. In 2014, the company's Phase 3 COMET-2 trial for cabozantinib for the treatment of castration-resistance prostate cancer failed to meet its primary endpoint.



seeing the company as one of the best biotech names to own into 2017. Deutsche Bank started shares Buy with a \$17 price target on 11-3, a top pick in mid-cap biotech. Stifel raised their price target to \$17 on 10-11 seeing the net effect of any immunotherapy-based regimen moving to front-line will be offset by the elimination of immunotherapy as a second-line treatment option, making cabozantinib de facto standard-of-care.

Amicus Therapeutics (FOLD) (\$5, \$644M Market Cap)

Key Events to Watch: The company will report Phase 3 data for SD-101 for the treatment of epidermolysis bullosa in the 1H of the year. SD-101 is a novel, late-stage topical treatment and potentially first to market for EB. The company is exploring options for worldwide regulatory submissions and was granted breakthrough therapy designation in 2013 following Phase 2B studies.

Recent Pipeline Notes: The company reported Phase 1/2 data for ATB200 for Pompe Disease in Q4. In early December, the company was notified by the FDA that they were requesting more data for migalastat HCI for the treatment of Fabry Disease, a major setback for the company. Enrollment in the trials will continue in 2017 and data is not expected until 2019 at the earliest.



Short Interest and Trends: 9.41% and falling from over 50% in late 2014.

Institutional Ownership: Rose 15.51% last quarter; notable holders include Meditor Group, Orbimed, and Baker Bros who hold 4.9M shares. Point72 added over 2M shares last quarter and Two Sigma took their position over 2.5M shares. Balyasny and Acadian were also buyers of shares last quarter.

Insider Buying in 2016: In May, Director Lance Willsey bought 60,000 shares at \$4.96, a \$297,000 investment.

Sell-Side View: Piper was out positive on 11-14

Short Interest and Trends: 30.91% and down from around 40% in March.

Institutional Ownership: Rose 4.62% last quarter; notable holders include Victory Capital with 4M shares, Palo Alto Investors, and Redmile Group. Perceptive Advisors holds 14M shares, their third largest position.

Insider Buying in 2016: Redmile bought over 66,000 shares on 6-13 and General Counsel Ellen Rosenberg bought 15,000 shares on 6-6 at \$7.67, a \$115,000 investment.

Sell-Side View: Cowen cut their price target to \$12 from \$15 on 11-29 noting the planned GI trial has a good chance of success. JP Morgan was out positive in July noting that the company has a deep pipeline with not just migalastat but also Zorblisa and Pompe and success in any of the three should boost shares materially higher. They see 20-100% upside with two or more successful trials.

Global Blood Therapeutics (GBT) (\$15, \$539M Market Cap)

Key Events to Watch: The company will report data for their Phase 2A trial in GBT440 for the treatment of sickle cell disease in adolescents sometime in 2017. They are also expecting Phase 2A data for GBT440 for the treatment of idiopathic pulmonary fibrosis in 2017 after starting trials in June. The company is currently undergoing Phase 3 trials for GBT440 for the treatment of sickle cell disease in adults with topline data due in early 2019.

Recent Pipeline Notes: The company initiated Phase 2A trials for GBT440 for the treatment of hypoxemia in patients with idiopathic pulmonary fibrosis (IPF) in November 2016.



Short Interest and Trends: 40.28% and flat for the year

Institutional Ownership: Fell 10.5% last quarter; Perceptive Advisors added to their stake which now sits at 2.3M shares and Dreihaus Capital notable buyers of shares.

Insider Buying in 2016: In January, Chief Medical Officer Eleanor Ramos bought 12,000 shares at \$20.86, a \$250,000 investment, and followed a \$230,000 buy in December 2015. SVP of Chemistry Hing Sham bought 2,000 shares at \$20 in August.

Sell-Side View: Roth was out positive on 12-5 with a \$47 price target seeing recent data for GBT440, its

investigational drug for patients with sickle cell anemia, at the 2016 ASH meeting as a key de-risking moment for the pivotal trial. Cowen raised their price target to \$83 from \$80 on 10-25. Wells Fargo started shares at Outperform on 9-30 with a \$75-\$81 price target seeing GBT440 as a best-in-class hemoglobin modifier and estimates peak sales at \$2.7B.

GW Pharmaceuticals (GWPH) (\$114, \$2.83B Market Cap)

Key Events to Watch: The company has Phase 2 data for Sativex for the treatment of spasticity due to cerebral palsy due in the Q1 of 2017. They expect to release data for GWP42006 for the treatment of epilepsy in 1H for the year and Phase 2 data for the treatment of autism expected to be initiated in Q3 2017. Finally, they expect an NDA for Epidiolex for the treatment of dravet syndrome due in the 1H of the year.

Recent Pipeline Notes: In December, the company reported Phase 3 data for Epidiolex for the treatment of infantile spasms and Phase 3 data for the treatment of Lennox-Gastaut syndrome met its primary endpoint in June data. They have a Phase 3 trial for Epidiolex for the treatment of tuberous sclerosis complex ongoing. Phase 2 data for GWP42004 for the treatment of Type 2 diabetes failed to meet its primary endpoint. Phase 3 trials for Sativex for the treatment of cancer pain failed to meet its primary endpoint and the company is evaluating next steps.

Short Interest and Trends: 11.11% and steady with two-year trends.

Institutional Ownership: Rose 20.6% last quarter; notable holders include Scopia Capital with 1.88M shares, Deerfield with 1M shares, and Viking Global. Victory Capital started a small position last quarter.

Insider Buying in 2016: None

Sell-Side View: Cantor raised their price target to \$208 on 12-5 following positive Epidiolex data presented at AES and the firm thinks the data illustrates "robustness and remarkable consistency" across two distinct forms of epilepsy, Lennox Gastaut and Dravet syndrome. Analyst Elemer Piros thinks the company is in good shape for an NDA covering both indications by the end of the 1H of 2017. Leerink was out positive on 12-5 following Dravet data given his expectation of approval, a fast launch, and a robust commercial opportunity in an area of very high unmet medical need. Goldman started shares at Buy on 10-7 seeing \$1.6B in peak sales for Epidiolex and thinks the company is worth \$189 on a fundamental basis and \$349 in M&A value.



Halozyme (HALO) (\$10.50, \$1.32B)

Key Events to Watch: The company plans to initiate Phase 1/2 trials for **Tecentriq** and **PEGPH20** for the treatment of pancreatic and gastric cancers sometime during the year. They expect Phase 2 PFS data from **PEGPH20** for the treatment of pancreatic cancer in early 2017.



Recent Pipeline Notes: The company had HYQVIA, a subcutaneous treatment for patients with primary immunodeficiency, approved in 2014. They initiated a Phase 1/2 trial for Eribulin in combination with PEGPH20 for the treatment of HA HER2-negative breast cancer in July 2016. In August, they discontinued a trial for PEGPH20 in combination with docetaxel for the treatment of NSCLC.

Short Interest and Trends: 24.96% and rising since January when it was 13.3%.

Institutional Ownership: Rose 1.05% last quarter; top holders include BB Biotech with 7.3M shares, Baker Bros. with 1.7M shares, and Fisher

Asset Management. New buys from Iridian Asset Management and Kennedy Capital.

Insider Buying in 2016: None

Sell-Side View: Deutsche Bank initiated shares at Buy with a \$12 price target on 11-3; Wells Fargo was out positive on 11-8 noting that they view upside potential greater than downside risk for PEGPH20 given that ENHANZE platform success with Herceptin SC

Incyte (INCY) (\$104, \$19.36B Market Cap)

Key Events to Watch: The company has two notable Phase 2 trials ongoing. First, the company expects data for Epacadostat for the treatment of multiple tumor types and Phase 2 data for Ruxolitinib for the treatment of NSCLC. The company expects data in 2018 from Epacadostat with Keytruda for the treatment of first line metastatic melanoma after positive Phase 3 data in June.

Recent Pipeline Notes: The company initiated a Phase 3 trial for Ruxolitinib for the treatment of graft versus host disease in Q4 of 2016 and stopped a Phase 2 trial into the treatment of colorectal cancer in January. They also discontinued a trial for the treatment of pancreatic cancer which was in Phase 3 trials due to lack of efficacy. In January 2016, partner Eli Lilly submitted an NDA for Baricitinib for the treatment of rheumatoid arthritis. In 2015, the company initiated a phase 2 trial for Ruxolitinib cream for the treatment of alopecia areata. In 2014, the company had ruxolitinib for the treatment of polycythemia vera approved.

Short Interest and Trends: 3.61% and falling since April when it was near 6%.

Institutional Ownership: Down 0.25% last quarter; notable holders include Baker Bros with 23.4M shares, their second largest, and Sands Capital has 4M shares. Orbimed, Matrix Capital, and BB Biotech all hold notable positions. Viking Global, Redmile, and Passport Capital all were buyers in the quarter.

Insider Buying in 2016: Julian Baker, on behalf of the fund, bought shares in February and March at \$63.53 to \$70.79.

Sell-Side View: RBC was out positive on 12-5 noting that INCB39110 data in GvHD was promising and the high overall response rate was high and the dosage well-tolerated by all patients. Sun Trust was out positive on 11-18 seeing baricitinib as a key profitability driver for the company and set to benefit from positive data on its epacadostat and IOs in solid tumor settings. BMO was positive on 11-17 seeing that the company's Jakafi won't have any meaningful competition after Gilead's momelotinib reported mixed data in myelofibrosis. Leerink thinks that GILD's lackluster results remove a key uncertainty on the company's revenue outlook and combined with the increasing prospects of a repatriation holiday the company becomes a more attractive as an acquisition target.



Ionis Pharmaceuticals (IONS) (\$54.50, \$6.46B Market Cap)

Key Events to Watch: The company expects Phase 3 data for IONIS-TTRRx for the treatment of familial amyloid polyneuropathy in the 1H of the year.

Recent Pipeline Notes: In November, the company reported positive Phase 3 data for Nusinersen for the treatment of children with spinal muscular atrophy with a filing upcoming. They have two Phase 3 trials for Volanesorsen for the treatment of partial lipodystrophy and familial partial lipodystrophy ongoing.



Short Interest and Trends: 12% and down from almost 16% in September 2015.

Institutional Ownership: Fell 1.89% last quarter; notable holders include Clearbridge with 10.8M shares, Baillie Gifford with 8.4M shares, and BB Biotech with 7M shares. Millennium Management was a notable buyer of 1.6M shares.

Insider Buying in 2016: None

Sell-Side View: BMO was out positive on 12-27 noting that Spinrazza data from Biogen (BIIB) was the best possible outcome and the label is broad and has no language regarding subtypes. The firm thinks

that adoption of the Type 2/3 version of the drug should be immediate versus current assumption of 4Q17/1Q18. Leerink raised their price target to \$47 following the data. IONS receives royalty in Spinal Muscular Atrophy (SMA) from the drug. BMO was out positive on IONS following positive Phase 3 data for Volanesorsen which improves improves the chances of success for two upcoming pivotal studies. They also think we could get a positive update at their January 5th Analyst Day.

Ironwood Pharmaceuticals (IRWD) (\$15.75, \$2.25B Market Cap)

Key Events to Watch: The company has Phase 2A data for IW-1973 for the treatment of Type 2 diabetes due in Q1 2017. They have a PDUFA for Linzess for the treatment of Chronic Idiopathic Constipation in early 2017.

Recent Pipeline Notes: The company continues to enroll patients for a Phase 2 study of IW-3718 for the treatment of gastroesophageal reflux disease. They release Phase 2A data for IW-9179 for the treatment of gastroparesis in April 2016 and discontinued development due to disappointing results. They released Phase 2B data for Linaclotide Colonic Release for the treatment of irritable bowel syndrome with Constipation in Q4 2016.

Short Interest and Trends: 16.3% and down from over 26% in October 2015.

Institutional Ownership: Rose 0.84% last quarter; notable holders include Orbimed with 9.9M shares, Adage Capital with 5.4M shares, Bridger management with 3.9M shares, and Ecor1 Capital with 2.8M shares.

Insider Buying in 2016: In February, Director Edward Owens bought 10,000 shares for \$8.32.

Sell-Side View: Cowen was out positive on 12-9 anticipating approval for plecanatide for CIC in January but the firm doesn't see a significant impact on Linzess sales. Evercore was out on 12-13 noting that Phase 2B data in colonic-release Linzess is an under the radar catalyst as expectations are essentially for a failure. If Formulation 1 delivers similar efficacy to Linzess or has better pain relief, it would likely extend the tail or possibly grow the franchise. Their "Blue Sky" scenario is that formulation 2 would show good abdominal pain relief which would open up several new indications for the drug.



Kite Pharmaceuticals (KITE) (\$48, \$2.3B Market Cap)

Key Events to Watch: The company expects a BLA filing for KTE-C19 for the treatment of refractory non-Hodgkins lymphoma in Q1 2017 after giving updated data in September. The company presented initial data for Phase 2 data in KTE-C19 for the treatment of relapsed or refractory mantle cell lymphoma in November 2015 and expects data in 2018.

Recent Pipeline Notes: The company presented Phase 1/2 data for KTE-C19 in adult patients with r/r ALL at ASH in 2016 and Phase 1 data for the treatment of pediatric and young adult patients with r/r ALL. They initiated Phase 1/2 trials for KTE-C19 in refractory diffuse large B-cell lymphoma in October.



Short Interest and Trends: 23.56% and steady all year.

Institutional Ownership: Rose 2.51% last quarter; notable holders include Wildcat Capital with 2.3M shares, BB Biotech, and Viking Global. Victory Capital and Highline Capital both own stakes as well.

Insider Buying in 2016: None

Sell-Side View: HC Wainwright started shares at Buy with a \$78 price target seeing KITE with a big first-mover advantage with KTE-C19 over competition in CAR-T. RBC was out positive on 11-10 seeing a lot of concerns about the company to be mitigated in the next three to six months, as he thinks that it will report positive data in the near to

medium term. Maxim was out positive on 12-5 noting that In a survey of 100 doctors, over two-thirds said they believe CAR-T could change how they treat lymphoma and 86% were impressed with the ZUMA-1 data. The firm has also seen positive feedback from payers.

Lexicon Pharmaceuticals (LXRX) (\$15, \$1.58B Market Cap)

Key Events to Watch: The company has a PDUFA date under priority review on Feb. 28, 2017 for **Telotristat Etiprate** for the treatment of carcinoid syndrome, a rare disease affecting those with mNETs which have spread to the liver and gastrointestinal tract. The date was extended three months due to additional information requested from the FDA.

Recent Pipeline Notes: Phase 3 trial for Sotafilozin for the treatment of Type 1 Diabetes met its primary endpoint in early September while a second trial was due in December. The company will initiate a Phase 3 trial for Sotagliflozin in Type 2 Diabetes by the end of 2016.

Short Interest and Trends: 54.69%, rising sharply since July 2014 when it was under 10%.

Institutional Ownership: Up 0.38% last quarter; Artal Group a top holder with 57M shares and Arrowstreet Capital, Balyasny, and Kingdon Capital all buyers last quarter

Insider Buying in 2016: None

Sell-Side View: Citi was out positive on 9-12 raising their price target to \$25 from \$21 seeing peak share in T1DM for Sotagliflozin at 50%, up from 30%. The firm thinks the Phase 3 data showed strong efficacy and concerns about safety have been lifted; HC Wainwright initiated shares at Buy with a \$26 price target on 10-7



Merrimack Pharmaceuticals (MACK) (\$4.35, \$544M)

Key Events to Watch: The company initiated several Phase 2 trials in 2014 and 2015 which have data expected in 2017. The company started a Phase 2 trial for MM-302 for the treatment of HER2-positive locally or advanced metastatic breast cancer in 2014. The HERMIONE trial is expected to support accelerated approval for application to the FDA. In 2015, the company started Phase 2 trials for Onivyde for the treatment of front-line pancreatic cancer. Long-term events

include 2018 data for MM-141 for the treatment of pancreatic cancer in patients with high serum levels of free IGF-1 and Phase 2 data for MM-121 for the treatment of NSCLC.

Recent Pipeline Notes: The company saw Onivyde for the treatment of second line pancreatic cancer approved in 2015 and planning a Phase 3 trial for Onivyde negative gastric cancer.



Short Interest and Trends: 43.92% and rising sharply since June when it was 25%.

Institutional Ownership: Rose 11.17% last quarter; top holders include Consonance Capital who owns 5.9M shares and Great Point owns 2.4M shares, both buyers of shares.

Insider Buying in 2016: Director Vivian Lee bought 35,000 shares at \$5.50 in February while Director Michael Porter bought 55,000 shares between \$6.11 and \$7.65 from March 2nd to March 21st.

Sell-Side View: JP Morgan was out positive on 11-14 noting that the company could be a good

M&A fit for Shire while the company undergoes a strategic review. They see a deal for SHPG being 1% accretive in 2019 and 2% accretive in 2020. JP Morgan keeps a Neutral rating for shares with a \$7 price target seeing key pipeline catalysts in 2017 as being the first notable opportunity to re-rate shares. BTIG has a neutral rating seeing a slow ramp of Onivyde.

Medicines Co (MDCO) (\$35, \$2.45B Market Cap)

Key Events to Watch: The company expects to file an NDA for Carbavance for the treatment of complicated urinary tract infections due sometime in 2017 after positive Phase 3 data in June.

Recent Pipeline Notes: The company initiated a Phase 2 study in ALN-PCSSc for the treatment of atherosclerotic cardiovascular disease in January 2016. They presented Phase 2 180 day data for PCSKsi ORION-1 for the treatment of atherosclerotic cardiovascular disease in mid-November at AHA. In 2015, MDCO had Raplixa for the treatment of hemostatis approved and also had Cangrelor for the treatment of thrombotic cardiovascular events in patients with coronary artery disease undergoing PCI approved in June 2015. In April 2015, the company had IONSYS for the treatment of acute postoperative pain approved. Oritavancin for the treatment of ABSSSI was approved in 2014.

Short Interest and Trends: 30.51% and rising steady since early 2014 when it was 6%.

Institutional Ownership: Rose 0.92% last quarter; notable holders include Corvex Management with 3M shares, Bridger Management with 2M shares, and Sarissa Capital with 1.75M shares. Boxer Capital bought a new 700,000 share stake during the quarter.

Insider Buying in 2016: In May, Director Frederic Eshelman bought 300,000 shares for \$33.68, a more than \$10M investment and bought another 621,720 shares in December. In June, EVP and Chief Corp. Development Officer Chris Cox bought more than 90,000 shares at \$37.55 and \$37.90, a more than \$3M investment. Cox bought 105,500 shares in December.



Sell-Side View: HC Wainwright started shares at Buy on 12-5 seeing Phase 3-ready inclisiran as the company's most-valuable asset. They have a \$57 price target for shares. RBC raised their price target to \$52 on 11-16 seeing inclisiran data as positive. Analysts Adnan Butt notes the drug has differentiated efficacy and safety in LDL-C reduction and he thinks that safety questions created an overhang on the stock. Leerink raised their price target to \$57 from \$50 on 11-16. The firm raised their probability of success for inclisiran to 60% from 50%.

Nektar Therapeutics (NKTR) (\$12.75, \$1.88B Mkt Cap)

Key Events to Watch: Phase 3 Data for **NKTR-181** in Lower Back Pain Due in Q1. The study is the first efficacy study in opioid-naïve patients with chronic lower back pain. NKTR is also working on a human abuse liability study with data due in the 1H 2017. A second study is planned for opioid-experienced patients. The study received fast-track status from the FDA and targets the \$20B pain management market. The company is also expecting Phase 3 Data from a study with Bayer into **Inhaled Amikacin Solution (BAY41-6551T)** which his due in Q1.

Recent Pipeline Notes: The company had ADYNOVATE for the treatment of Hemophila A approved in late 2015 and MOVANTIK for the treatment of opioid-induced constipation approved in 2014. They have a Phase 3 trial in Cipro DPI for Bronchiectasis due in late 2016 and partnered on Fovista with Ophthotech in late 2016. Their Phase 3 trial in NKTR-102 for metastatic breast cancer failed in early 2015. They have a Phase 1/2 trial in NKTR-214 for the treatment of solid tumors ongoing.



Short Interest and Trends: 12.23% and down from over 25% in October 2015

Institutional Ownership: Down 0.77% last quarter, notable holders include PrimeCap, RA Capital, Camber Capital, and Bridger Management; Westfield Capital added 1.44M shares

Insider Buying in 2016: Director Scott Greer bought 15,000 shares on 10-24 at \$13.50, a \$202,500 investment

Sell-Side View: Aegis started at Buy on 11-8 with a \$21 price target, Piper out positive on 11-4 citing

strength in their commercial products which continue to provide stable revenue; Roth Capital raised their price target to \$23 on 9-28 after announcing a collaboration with Bristol Myers for Opdivo with NKTR-214

Neurocrine Biosciences (NBIX) (\$39, \$3.44B Market Cap)

Key Events to Watch: The company will report Phase 3 data for Elagolix for the treatment of uterine fibroids in 2017. They expect to file an NDA for Elagolix for the treatment of endometriosis in 2017. The company has Phase 2 data for Valbenazine for the treatment of Tourette's due in January 2017. The company has a PDUFA date for Valbenazine for the treatment of Tardive Syndrome on April 11, 2017.

Recent Pipeline Notes: The company had an AdComm meeting for Valabenazine for the treatment of Tardive dyskinesia in February. They reported positive Phase 3 data for Elagolix for the treatment of endometriosis in January 2015 and a second trial in February 2016.

Short Interest and Trends: 6.32% and hitting new 2-year lows, down from over 12.5% in January 2015.

Institutional Ownership: Rose 1.10% last quarter; notable holders include BB Biotech with 3.1M shares, Perceptive Advisors with more than 2.4M shares, and Orbimed with 1.8M shares. Jana Partners started a small position last quarter, 96,210 shares.

Insider Buying in 2016: None

Sell-Side View: Leerink was out reaffirming their positive stance on 12-22 after the recent departure of the company's CFO. The firm thinks the move is a surprise but not a negative since Coughlin will continue to be an employee through 2017 and will remain a long-time shareholder. Oppenheimer started shares at Perform on 11-22 with a \$55 price target while Deutsche Bank started shares with a \$65 price target and Buy rating. BMO was out positive on 10-13 after competitor Myovant's S-1 filing seeing Neurocrine's elagolix with a two to three year lead time over relugolix, setting the stage for both drugs to do well.



Opko Health (OPK) (\$12, \$6.46B Market Cap)

Key Events to Watch: The company has Phase 2 safety data for Factor-VIIa for the treatment of hemophilia due in early 2017. They also expect to initiate Phase 3 trials for fermagate tablets for the treatment of hyperphosphatemia in CKD patients on chronic hemodialysis sometime in the Q2 of 2017.

Recent Pipeline Notes: On June 21, the company received FDA approval for RAYALDEE for the treatment of secondary hyperparathyroidism in chronic kidney disease and vitamin D deficiency. The company reported Phase 3 data for hGH-CTP for the treatment of adults with a growth hormone deficiency in the fourth quarter of the year and initiated a Phase 3 trial for the treatment in children. In 2015, the company had Neurokinin-1 for the treatment of chemotherapy induced nausea and vomiting approved in partnership with Tesoro.



Short Interest and Trends: 23.39% of the float and down from over 30% in January 2016.

Institutional Ownership: Rose 7.49% last quarter; notable holders include Harel Insurance with 2.4M shares, their fifth largest position, and Menorva Mivtachin.

Insider Buying in 2016: CEO and Chairman Philip Frost has consistently accumulated shares throughout the year from \$9.36 to \$10.40. In March, EVP of Administration Steven Rubin bought 1,000 shares at \$10.17 and Vice COB/CTO Jane Hsiao bought 4,800 shares.

Sell-Side View: Jefferies was out cautious on 10-7 noting Medicare administrative contractor Palmetto's no-coverage decision for OPKO Health's

4Kscore prostate cancer test as a major setback. 4Kscore as a key near-term growth driver for OPKO and contractor Novitas will likely follow suit which will make commercial pathway unclear. Standpoint started shares at Buy with a \$16 price target.

Puma Bio (PBYI) (\$33.35, \$1.19B Market Cap)

Key Events to Watch: The company has two sets of data in **Neratinib** due in 2017. The first is Phase 2 readout from the HER2-positive metastatic breast cancer patients with brain metastases and the second is in third-line HER2-positive metastatic breast cancer. Both are due in the 1H of the year.

Recent Pipeline Notes: PBYI had Phase 2 data for **PB272** for treatment of patients with HER2-positive breast cancer in December and Phase 2 data for **Neratinib** monotherapy with high dose loperamide for HER2-positive breast cancer at SABCS on December 8. The company also had data for HER2 mutation at SABCS. In September, the company announced that their NDA filing for **PB272 ExteNET** in HER2-positive early stage breast cancer had been accepted by the FDA. They are planning a Phase 3 trial for **Neratinib plus Tlemsolimimus** for 2017.

Short Interest and Trends: 30.95% and rising from under 10% in July 2014.

Institutional Ownership: Down 5.93% last quarter; notable holders include Adage Capital with 5.6M shares, Orbimed with 2.3M shares, and Point72 with 1M shares. Jana Partners an unusual owner of shares with a new \$5M position last quarter.

Insider Buying in 2016: None

Sell-Side View: Stifel out positive on 11-14 noting that grade 3 diarrhea rates in patients were manageable and grade 4 events were zero across all arms of the trial. JP Morgan calls neratinib an approvable drug based on currently available data but concerns exist with the diarrhea rates in the abstracts posted in Nov. Credit Suisse has a \$111 price target for shares seeing the NDA acceptance a key de-risking event for the stock and seeing improved physician sentiment towards neratinib. They think the use of Imodium prophylaxis to manage the diarrhea is growing in awareness.



Progenics Pharmaceuticals (PGNX) (\$9.35, \$670M Market Cap)

Key Events to Watch: The company will report top-line data for a Phase 2B trial in Azedra for the treatment of pheochromocytoma, rare tumors of the adrenal gland, by March 2017. The company re-started trials after pausing in 2010 due to funding issues. PGNX is building a commercial infrastructure to support a potential launch.



Recent Pipeline Notes: In December 2016, the company initiated a Phase 2/3 trial in PyL for the treatment of prostate cancer. In December, the company reported Phase 3 data for 1404, a study to visualize prostate cancer by targeting prostate specific membrane antigens. In September 2014, the company had Subcutaneous RELISTOR for the treatment of chronic pain approved by the FDA and in July 2016 they had oral RELISTOR approved for the treatment of chronic pain.

Short Interest and Trends: 18.32% and falling since July 2015 when it was over 26%.

Institutional Ownership: Rose 2.25% last quarter; notable holders include Broadfin Capital with 8.9M shares, Baker Bros with 3.65M shares, and Millennium Management.

Insider Buying in 2016: In April, Director Paul Maddon bought 5,000 shares at \$4.90.

Sell-Side View: Aegis started shares at Buy with a \$11 price target on 10-26 and Brean started shares at Buy on 10-4 with a \$11 price target and named a Top Idea on 10-11.

Ultragenyx (RARE) (\$75, \$2.9B Market Cap)

Key Events to Watch: The company is expecting seizure data for UX007 for the treatment of glucose transporter type-1 deficiency syndrome in Q1 2017. In the 1H of the year the company has two different events. First, they expect to file an NDA for rhGUS for the treatment of mucopolysaccharidosis 7 after Phase 3 data in July met its primary endpoint but missed its secondary endpoint. Second, the company has Phase 3 data for KRN23 for the treatment of X-linked hypophosphatemia in the first half. In the 2H of the year, the company will report Phase 3 data for aceneuramic acid extended release for the treatment of GNE myopathy.

Recent Pipeline Notes: The company released Phase 3 data for KRN23 for the treatment of tumor-induced osteomalacia in September and finished enrollment for trials in the treatment of x-linked hypophosphatemia. They initiated a Phase 3 trial for UX007 in the treatment of Glut1 DS patients with the movement disorder phenotype.

Short Interest and Trends: 27.67% and since January when it was 10%.

Institutional Ownership: Rose 6.31% last quarter; top buyers included Polar Capital and Eagle Asset Management; large holders include Adage Capital and Columbia Wanger Asset Management.

Insider Buying in 2016: None

Sell-Side View: Citi downgraded shares on 11-14 to Sell and a \$64 PT after removing Ace-ER sales from his model in the absence of stronger data. Canaccord cut shares to \$108 from \$120 due to an expected increase in R&D spending after the company reported pipeline progress on four clinical candidates and said it expects to file for U.S. KRN23 pediatric approval earlier than expected in the second half of 2017. Piper was out positive on 11-1 with an \$82 price target seeing blockbuster potential in KRN23 in adult and pediatric X-linked hypophosphatemia patients. The firm also sees a greater than 50% chance of success in both UX007 Phase 2 programs, fatty acid oxidation and Glut1 Deficiency Syndrome.



Radius Health (RDUS) (\$39, \$1.65B Market Cap)

Key Events to Watch: The company has a PDUFA date on March 30, 2017 for abaloparatide-SC for the treatment of post-menopausal women with osteoporosis, a subcutaneous injection. In December 2014, the company showed positive top-line data from the Phase 3 ACTIVE clinical trial which met its primary endpoint with a statistically significant reduction in new vertebral fractures versus placebo.

Recent Pipeline Notes: The company has Phase 2 studies ongoing in abaloparatide-TD for the treatment of post-menopausal women with osteoporosis, a transdermal patch. They have Phase 1 trials ongoing for RAD1901 for the

treatment of ER+ breast cancer and Phase 2 data trials for RAD1901 for the treatment of vasomotor symptoms. They have a preclinical program in RAD140 for the treatment of breast cancer as well.



Short Interest and Trends: 41.08% and rising sharply since January when it was 15.5%.

Institutional Ownership: Fell 3.46% last quarter; notable holders include BB Biotech with 4.3M shares, Brookside Capital with 2.3M shares, and Tourbillon with 2M shares. Farallon Capital has a 1.5M share position and Point72 and PointState bought new positions last quarter as well.

Insider Buying in 2016: None

Sell-Side View: Maxim was out disappointed on 12-9 seeing recent Phase 1 data in phase 1b study of RAD1901 in breast cancer

underwhelming and early data from phase I studies suggests that the drug shows a lack of efficacy in the difficult to treat population it is targeting. Cantor also noted the data was below expectations but still sees value in this program which eventually has the makings of a commercial drug. Jefferies was out positive in the Fall after a physician poll shows convenient abalo-TD patch for osteoporosis, if successful, would increase abaloparatide use by 25%-30%. HC Wainwright has a \$71 price target for shares seeing an ABL-TD patch as expanding the market significantly.

Retrophin Pharmaceuticals (RTRX) (\$19.25, \$705M Market Cap)

Key Events to Watch: The company will file an NDA for Liquid ursodeoxycholic acid for the treatment of primary biliary cholangitis (PBC) sometime in 2017. The company acquired the drug in the second quarter of 2016.

Recent Pipeline Notes: The company started a Phase 3 trial for RE-024 for the treatment of pantothenate kinase-associated neurodegeneration in Q4. They released Phase 2 top-line data for Sparsentan (DUET) for the treatment of focal segmental glomerulosclerosis (FSGS) in September. The data was positive showing a significant reduction in proteinuria and complete remission in some cases. In March 2015, the company's Cholbam for the treatment of rare bile acid synthesis disorders was approved.

Short Interest and Trends: 19.25% and rising since June 2015 when it was 8.7%.

Institutional Ownership: Rose 0.79% last quarter; notable holders include Scopia Capital with 4.2M shares, Broadfin Capital with 3.4M shares, and Consonance Capital with 3M shares. Perceptive owns 2.44M shares and Kingdon Capital starting a new position last quarter.

Insider Buying in 2016: In March, Director Jeffery Meckler bought 15,000 shares at \$14.45 to \$15.31, a more than \$200,000 investment.

Sell-Side View: JMP was out positive on 12-15 noting that a recent survey of experts who participated in the Phase 2 study of Retrophin's sparsentan in focal segmental glomerulosclerosis showed strong support for accelerated approval of the drug. BMO raised their price target to \$46 seeing a 55% chance for approval and Leerink thinks the new data presented at ASH provides the company with as good an argument as ever to discuss the potential of accelerated approval with the FDA, although they noted that it won't be a sure thing. They also note that approval for RE-024 is likely set for 2019.



Sage Therapeutics (SAGE) (\$50.36, \$1.87B Mkt Cap)

Key Events to Watch: Phase 3 Data for SAGE-547 for the treatment of SRSE is due in the 1H of 2017 while Phase 2 data for the treatment of Major Depressive Disorder is also expected in the 1H. The company expects Phase 2 Data for SAGE-217 for the treatment of Parkinson's Disease in the 1H of the year as well. In the 2H of the year, they expect three different Phase 2 read-outs from SAGE-217 in Post-Partum Depression and SAGE-547 in essential tremors.

Recent Pipeline Notes: The company reported positive Phase 2 data for SAGE-547 in postpartum depression in July 2016 and expect 202B and 202C trial date in late 2017.



Short Interest and Trends: 21.79% and rising since July when it was 14.26%

Institutional Ownership: Up 24.8% last quarter; notable holders include Oak Ridge Investments, BB Biotech, Palo Alto Investors, and Kingdon Capital; Victory Capital bought over 500,000 shares last quarter in a new position

Insider Buying in 2016: Director Jeffrey Jonas bought 226 shares at \$49.56 in January and Kimi Iguchi, CFO and Treasurer, bought 176 shares in January at \$49.56.

Sell-Side View: Stifel started shares at Buy on 11-14 with a \$50 price target; BMO out positive

on 11-3 seeing a big 2017 for the company with its multi-product neuropsych portfolio with a litany of catalysts throughout the year. The firm thinks the risk/reward for shares is favorable into SRSE data; Leerink started shares at Outperform with a \$68 price target on 10-4, and Canaccord was out positive on 9-6 noting that the FDA's breakthrough designation for SAGE-547 was a rare step among central nervous system disorders and suggests the agency was impressed with the clinical data.

Seattle Genetics (SGEN) (\$52, \$8.72B Market Cap)

Key Events to Watch: The company has Phase 3 data for ADETTRIS for the treatment of frontline Hodgkin lymphoma due in 2017. In the 1H of the year, they expect to file an sNDA for ADCETRIS for relapsed CD30-positive cutaneous T-cell lymphoma after reporting positive Phase 3 data in August. They completed enrollment for a Phase 3 trial of ADCETRIS for the treatment of frontline CD30-positive mature T-cell lymphomas in 2016 and expecting data in 2017 or 2018.

Recent Pipeline Notes: In December, the company reported a clinical hold on early trials of Vadastuximab Talirine for the treatment of frontline acute myeloid leukemia (AML). The company initiated a Phase 2 trial for SGN-CD19A for the treatment of DLBCL cancer in Q3 of 2016. In 2015, the company had ADCETRIS-AETHERA for the treatment of post-transplant Hodgkin lymphoma approved under priority review.

Short Interest and Trends: 18.59% and falling sharply since January 2016 when it was 30%.

Institutional Ownership: Rose 0.72% last quarter; notable holders include Baker Bros with 44M shares, their top position, and PrimeCap with 13.4M shares. Redmile, Baillie Gifford, and Eventide are also top holders.

Insider Buying in 2016: Felix Baker has continued to accumulate shares for his fund between \$28.33 and \$59.36. In February, Director John Orwin bought 2,000 shares at \$28.33.

Sell-Side View: Morgan Stanley was out positive on 12-12 raising their price target to \$72 from \$60 following positive data in AML as well as proof of concept data in combo with Opdivo IO at ASH. ECHELON-1 data will likely shift the story away from Adcetris shortly. Credit Suisse downgraded shares on 12-12 on valuation although noting the company still has best-in-class oncology pipeline. Morgan Stanley started shares at Overweight with a \$60 price target in early September seeing Adcetris will peak at \$2.5B by 2030.



Synergy Pharmaceuticals (SGYP) (\$6, \$852M Market Cap)

Key Events to Watch: The company has a PDUFA on January 29, 2017 for plecanatide for the treatment of chronic idiopathic constipation (CIC). The NDA was accepted in April and supported by two double-blind Phase 3 trials and a long-term safety study.

Recent Pipeline Notes: On December 9, the company reported positive Phase 3 data for plecanatide for the treatment of constipation-predominant irritable bowel syndrome (IBS-C). A second trial was reported in December. The company also released Phase 1B Data for dolanatide for the treatment of mild-to-moderate ulcerative colitis in January with Phase 2 studies planned.



Short Interest and Trends: 15.87% and falling from over 30% in July 2015.

Institutional Ownership: Fell 2.3% last quarter; notable buyers last quarter include Driehaus with 554,000 shares. Great Point is a top holder with 6.4M shares, Orbimed has 5.9M shares, and Kingdon Capital has 1.6M shares.

Insider Buying in 2016: None;

Sell-Side View: Citi was out on 12-12 noting that for plecanatide in its second indication, irritable bowel syndrome-constipation, is likely to increase speculation of a takeover although shares are likely fully valued at this level. They have a \$6.50 price

target. On 9-14, the firm noted that the company is a potential target for Takeda after The Financial Times reported that Takeda is ready to spend as much as \$15B in acquisitions to expand its business in the United States. They see a larger pharmaceutical as better equipped to commercialize plecanatide.

Supernus Pharmaceuticals (SUPN) (\$25.50, \$1.23B Market Cap)

Key Events to Watch: The company will launch a Phase 3 trial for SPN-812 for the treatment of ADHD sometime in 2017. They are also enrolling patients for a Phase 3 trial in SPN-810 for the treatment of impulsive aggression in ADHD throughout the year.

Recent Pipeline Notes: The company has positive Phase 2B data for SPN-812 for the treatment of ADHD in October. In August, the company's drug Trokendi received tentative approval for label expansion to include treatment of migraine headache in adults. The drug is subject to pediatric exclusivity which expires on March 28, 2017. Final approval may not be made effective until this period has expired. In August 2013, Trokendi was approved for the treatment of Epilepsy.

Short Interest and Trends: 4.70% and falling from 15% in October 2015.

Institutional Ownership: Fell 1.02% last quarter; Ranger Investment is a top holder with 1.49M shares and Neumeier Poma owns 1.3M shares.

Insider Buying in 2016: None

Sell-Side View: Cantor started shares at Overweight on 12-16 with a \$32 price target and Cowen raised their shares to \$33 from \$27 on 10-11. The firm was positive on their Phase IIb clinical trial results for SPN-812 in children with ADHD which was more effective with a quicker onset of action and a better side effect profile than other non-stimulant treatments for ADHD. Jefferies has a \$28 price target for shares.



Tesaro (TSRO) (\$135, \$7.08B Market Cap)



Key Events to Watch: The company has Phase 3 data for Niraparib for the treatment of breast cancer due in the 2H of the year and Phase 2 data for Niraparib for the treatment of ovarian cancer due in the 2H of the year. They have a PDUFA data on January 11, 2017 for rolapitant for the treatment of chemotherapy induced nausea and vomiting in HEC patients.

Recent Pipeline Notes: In June 2016, the company had positive Phase 3 data from Niraparib for the treatment of ovarian cancer and submitted an NDA on November 1st. The company's ENGOT-OV16 trial successfully reached its endpoint showed significantly prolonged PFS.

Short Interest and Trends: 49.33% and rising steady since January 2015 when it was 22.75%.

Institutional Ownership: Rose 13.95% last quarter; notable holders include NEA Management with 10.2M shares, while both Perceptive and BB Biotech own just under 1M shares each.

Insider Buying in 2016: Several individuals bought shares on behalf of NEA Management in March at a purchase price of \$35.19 through a private placement. Two Directors from InterWest funds bought shares as well as did Kleiner Perkins.

Sell-Side View: Citi raised their price target to \$151 on 11-4 ahead of an expected niraparib filing and noting the Varubi launch was better than expectations. The firm thinks TSRO's immuno-oncology franchise is not getting credit and sees longer-term upside opportunities for niraparib. RBC has a \$128 price target for shares.

Therapeutics MD (TXMD) (\$6, \$1.12B Market Cap)

Key Events to Watch: The company has a PDUFA for Yuvexy for the treatment of moderate-to-severe vaginal pain on May 7, 2017. The company's NDA was accepted in September and follows positive Phase 3 trials in which Yuvexy showed positive results in dyspareunia and vaginal dryness.

Recent Pipeline Notes: The company released Phase 3 data for TX-001HR for the treatment of moderate-to-severe vasomotor symptoms (VMS) due to menopause. The results were positive in the higher dosage but missed on the lower dosage.

Short Interest and Trends: 49.85% and rising sharply from July 2015 when it was 19%.

Institutional Ownership: Fell 3.45% last quarter; Gilder Gagnon and Howe a notable holder with 3.6M shares while Balyasny and Heartland Advisors are holders as well.

Insider Buying in 2016: Director Cooper Collins bought 16,000 shares at \$6.23 in March, a nearly \$100,000 investment.

Sell-Side View: Cantor started shares at Overweight on 12-16 with a \$34 price target. Stifel was out positive on 12-6 seeing the company's estradiol+progesterone product as first E+P therapy to come to market with a directly addressable market of \$3.5B-\$4.5B if approved. Jefferies was out positive on 12-6 noting recent data in the top two TX-001 doses were statistically significant and clinically meaningful with no safety red flags. They also see a label for Yuvexy without warnings would be a game-changer for the drug by expanding its market to 32M women from 8M.



Vanda Pharmaceuticals (VNDA) (\$16, \$700M Market Cap)

Key Events to Watch: The company is expecting Phase 2 data for VLY-686 for the treatment of chronic pruritus in patients with atopic dermatitis. In the 2H of the year, the company has two notable pieces of data. The first is Phase 2 data for tradipitant in the treatment of gastroparesis and later the company will have Phase 2 data for HETLIOZ for the treatment of jet lag disorder.



Recent Pipeline Notes: In April 2016, the company had Fanapt approved for the treatment of schizophrenia in adults. They began a Phase 3 trial in Q4 for HETLIOZ in the treatment of Smith-Magenis Syndrome. The company had HETLIOZ for the treatment of insomnia approved in 2014.

Short Interest and Trends: 7.27% and falling sharply from January 2015 when it was over 35%.

Institutional Ownership: Rose 9.43% last quarter; notable holders include Paulson & Co with more than 2.15M shares, Orbimed with 750,000 shares, and Acadian Asset Management. Great Point is a 7.99% holder with over 2.7M shares.

Insider Buying in 2016: None

Sell-Side View: Aegis started shares with a \$24 price target and Buy rating on 11-9. Jefferies started shares at Buy with a \$23 price target on 10-6 seeing steady growth in Hetlioz and US sales of Fanapt continue to improve. Piper was out positive on 9-30 noting that the company's gastroparesis treatment data show encouraging signs of efficacy. The firm thinks tradipitant is an underappreciated part of the company's pipeline.

Vertex (VRTX) (\$75.25, \$17.86B Market Cap)

Key Events to Watch: The company has Phase 3 data for VX-661 for the treatment of cystic fibrosis due in the 1H of the year. They also expect Phase 3 data for VX-661 in patients with one copy of the F508del mutation and a second mutation that results in residual CFTR function in the 1H. In the 2H of the year, they expect Phase 2 data for VX-440 for the treatment of cystic fibrosis in combination with texacaftro and ivacaftor. Finally, they expect Phase 2 data for VX-152 in combination with tezacaftor and ivacaftor.



Recent Pipeline Notes: The company received a CRL for Kalydeco in February 2016 for the treatment of cystic fibrosis in children ages 2 and older who have one of the 23 residual function mutations. In September, Orkambi for the treatment of CF in children ages 6-11 with F508del mutation was approved. On November 7, Phase 3 data for Orkambi in the treatment of two copies of the F508del mutation met its primary endpoint. In 2015, Lumacaftor and ivacaftor for the treatment of CF in children ages 12 and older with two copies of the F508del mutation was approved. Kalydeco for the

treatment children ages 2 to 5 with CF and the G551D mutation was approved in March 2015. Kalydeco was approved in 2014 by the FDA.

Short Interest and Trends: 2.91% and rising since July 2015 when it was 1.3%.

Institutional Ownership: Down 0.75% last quarter; notable holders include Two Sigma, Millennium Management, Boston partners, and Canyon Capital who holds a 1.57% weighted position.

Insider Buying in 2016: None

Sell-Side View: Piper was out positive on 12-21 noting that recent competition from Galapagos and AbbVie is notable but that Vertex remains well in the lead with Phase III KALYDECO plus follow-on VX-661 data is expected in the first half of 2017. The firm also thinks the launch of ORKAMBI in homozygous F508del children should reaccelerate Q4 sales and expects EU reimbursement to come on-line in 2017, aiding revenue. William Blair is more concerned seeing The analyst expects "deteriorating pricing" for the Vertex's Cystic Fibrosis franchise starting in 2022 due to competition. Jefferies was out positive on 12-8 After speaking with several teratogenicity experts, the analyst is comfortable that VX-440's fetal effects are unlikely to significantly complicate its regulatory path or commercial attractiveness.

PDUFA Calendar for 1H of 2017

Ticker	Company	PDUFA Date	Drug	Treatment
VCEL	Vericel	1/3/17	MACI	Symptomatic Cartilage Defects of the Knee in Adult Patients
ANAC	Anacor	1/7/17	Crisabole	Mild-to-Moderate Atopic Dermatitis in Children and Adults
TSRO	Tesoro	1/11/17	Rolapitant (IV)	Chemotherapy-induced nausea and vomiting
SGYP	Synergy Pharma	1/29/17	Plecanatide	Chronic idiopathic constipation
NBIX	Neurocrine	2/16/17	INGREZZA	Tardive dyskinesia
CLVS	Clovis	2/23/17	Rucaparib	Advanced mutant BRCA ovarian cancer
CELG	Celgene	2/24/17	Revlimid	Maintenance treatment in newly diagnosed multiple myeloma
LXRX	Lexicon Pharma	2/28/17	Telotristat Etiprate	Carcinoid syndrome

BMY	Bristol Myers	3/2/17	Opdivo	Locally advanced unresectable or metastatic urothelial carcinoma
MRK	Merck	3/15/17	Keytruda	Refractory classical Hodgkin lymphoma
SNY, REGN	Sanofi, Regeneron	3/29/17	Dupilumab	Adult patients with inadequately controlled moderate-to-severe atopic dermatitis
RDUS	Radius Health	3/30/17	Abaloparatide-SC	Postmenopausal women with osteoporosis
RHHBY	Roche	4/11/17	Lucentis	Myopic choroidal neovascularization
AZN	AstraZeneca	4/18/17	ZS-9	Hyperkalaemia
BMRN	BioMarin	4/27/17	Brineura	CLN2 disease in Children
ARIA	Ariad Pharma	4/29/17	Brigatinib	Metastatic ALK-positive non-small cell lung cancer
NVS	Novartis	5/1/17	LEE011	First-line treatment of HR+/HER2-advanced breast cancer
TXMD	Therapeutics MD	5/7/17	Yuvexy	Moderate-to-severe vaginal pain during sexual intercourse
MRK	Merck	5/27/17	ISENTRESS	Treatment of HIV-1 infection
CHRS	Coherus Bio	6/9/17	CHS-1701	Biosimilar to Neulasta
ARRY	Array Bio	6/30/17	binimetinib	Advanced NRAS-Mutant Melanoma
AMGN	Amgen	7/19/17	romosozumab	Osteoporosis in postmenopausal women at increased risk of fracture

Seasonality Charts

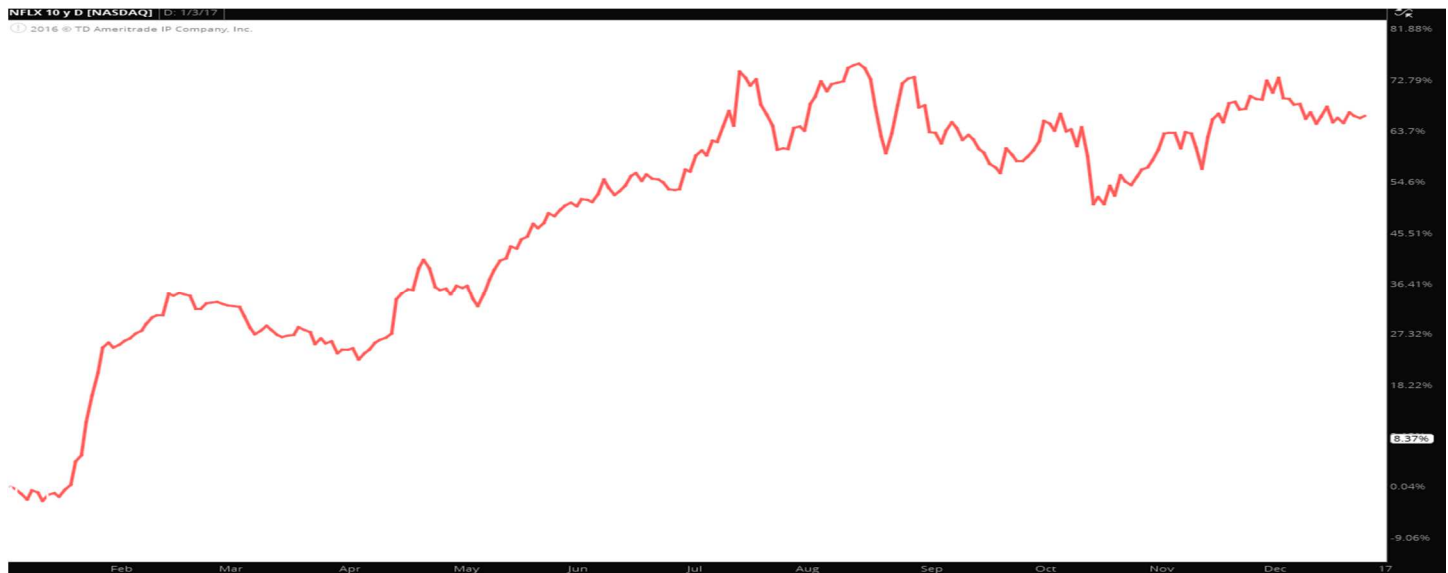
I've chosen to highlight some of the notable performers for each month which are seasonally unique and looking to focus on months which are part of a multi-month trend in the name. Most of the charts are bullish with the focus on rotations in groups but also highlighting at least 15-20 names at the end of each section which are seasonally strong and weak to help set up potential pair trades based on historical returns.

January

SPX Since 1989: Average Move **-0.19%**, Max Move 6.13%, Min Move -8.57%

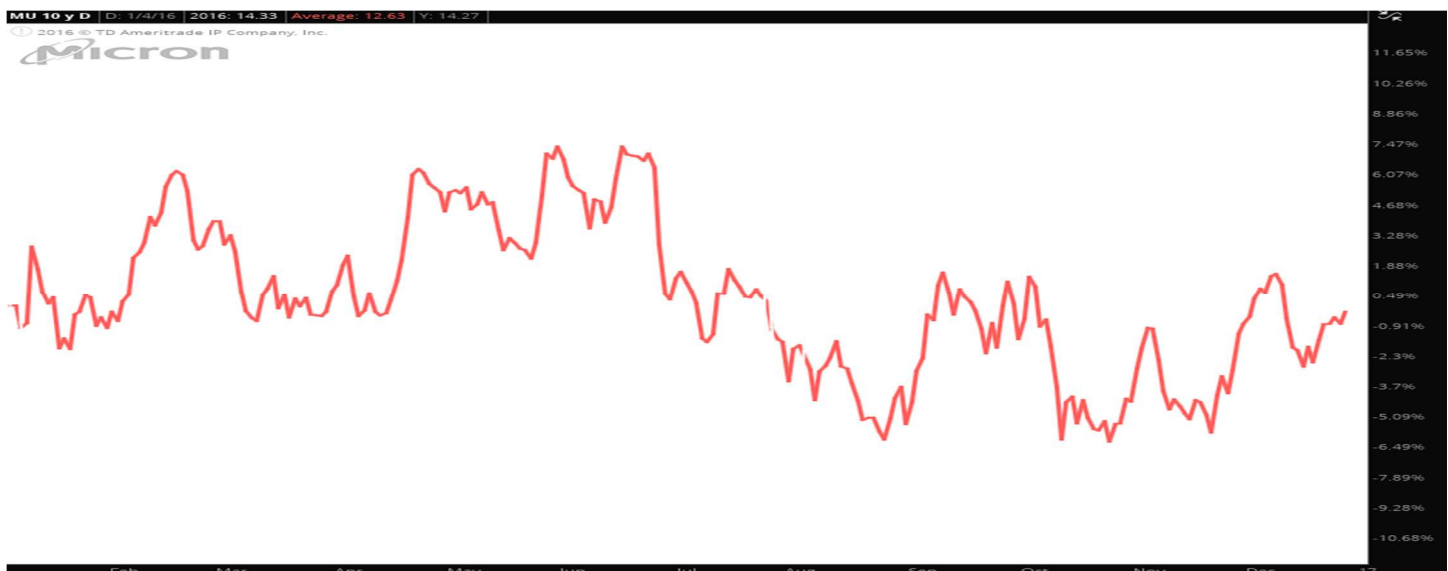
Netflix (NFLX) – 18.6% Average Return

Netflix is seasonally strong in the first half of the year with January the top month with May and March strong as well averaging greater than 4.5% returns since 2003. October is the second strongest month with a 8% average return. The worst months for shares are mid-Summer with July the only month which has negative returns, averaging a 2.02% loss.



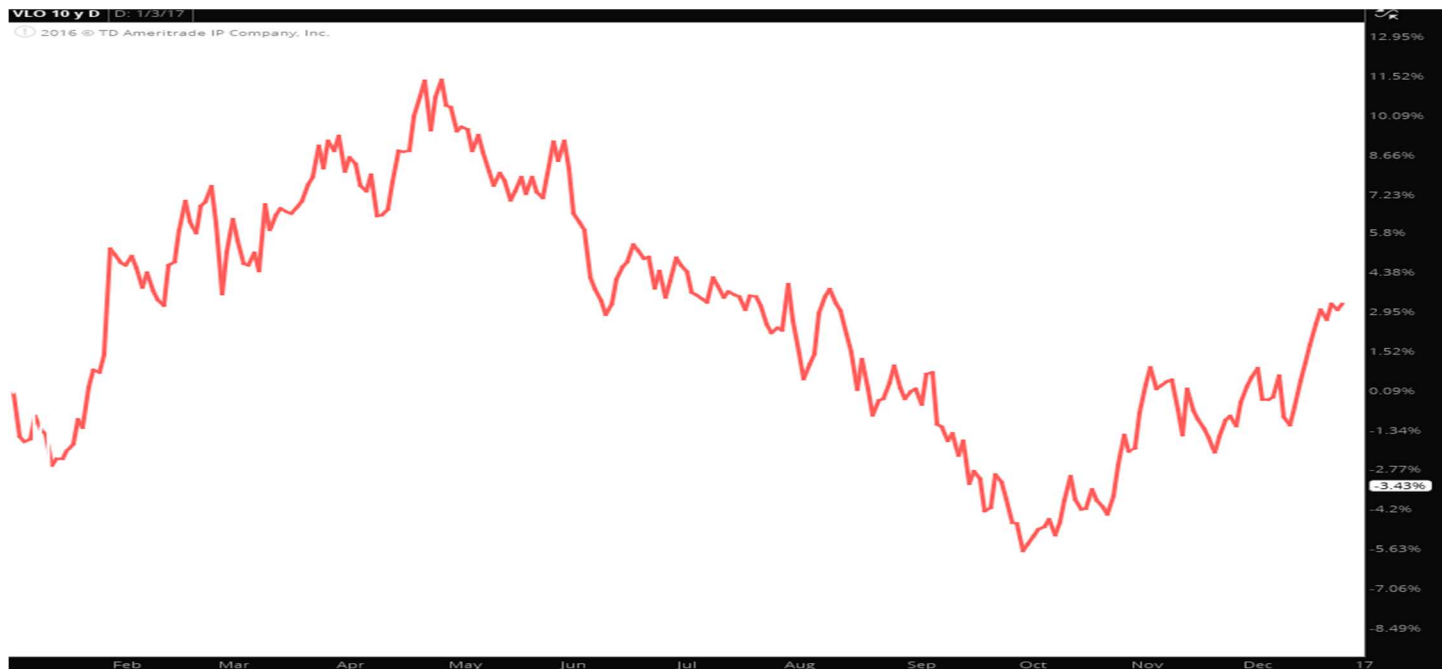
Micron (MU) – 8.76% Average Return

Micron is seasonally strongest in the first half of the year with January and February its top two months on average and May averaging a 4.45% return. Shares have closed lower the last two Januarys but higher five of the prior six. July is seasonally strong as well with 4.39% average return. The weakest months for shares are September (-2%), June (-0.76%), and April.



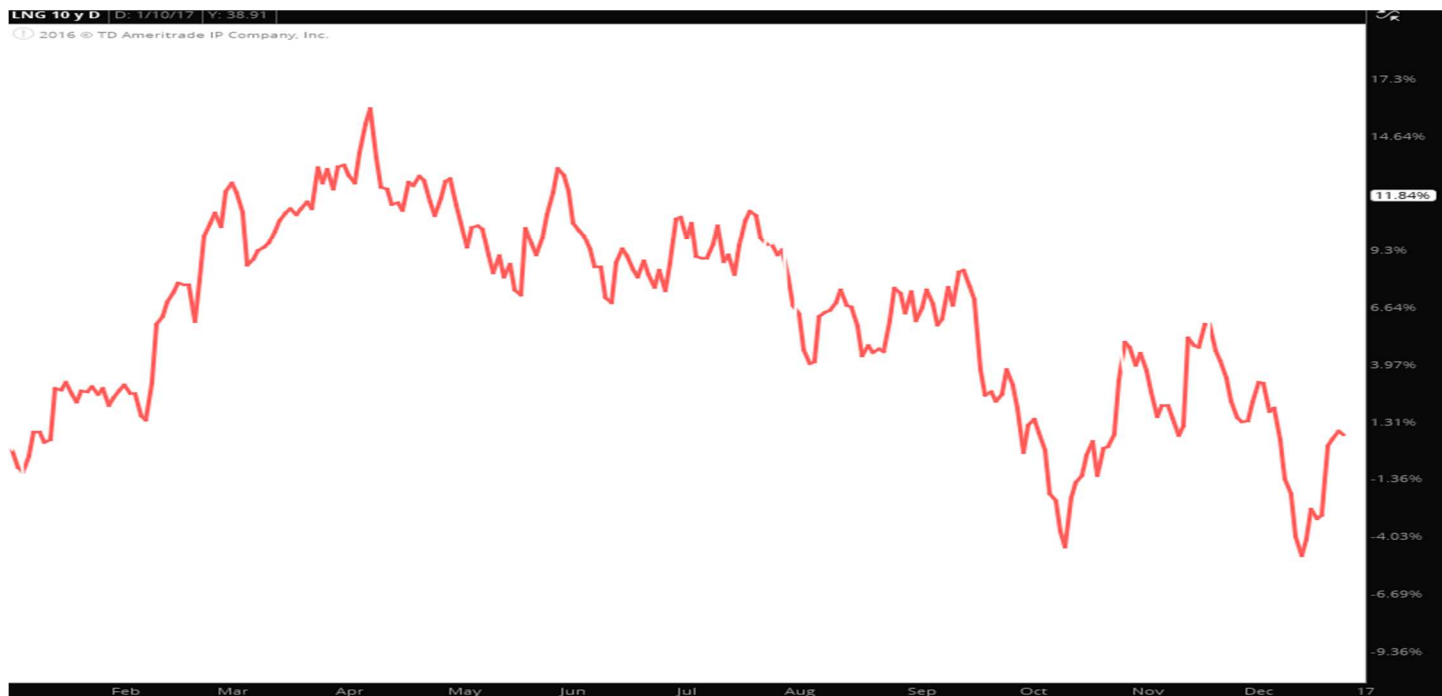
Valero (VLO) – 6.25% Average Return

Valero is seasonally strongest during the first four months of the year with January averaging a 6.25% return since 1990. February and March are the second and fourth best months for shares averaging 3.05% and 5.85% respectively. October is the third best month for shares, up 5.11%. The worst months for shares are June, averaging a 3.96% loss, and September, down over 1%.



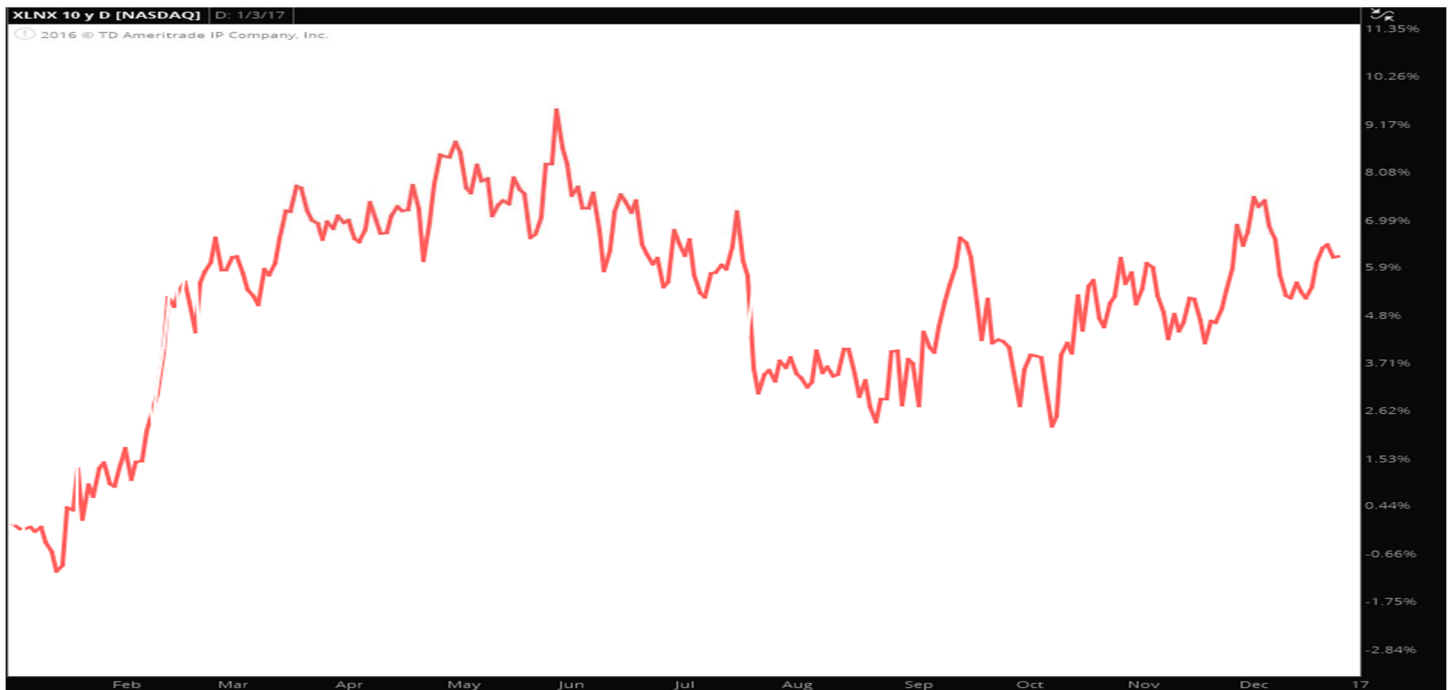
Cheniere (LNG) – 16.61% Average Return

Cheniere is seasonally strongest in December and January with shares averaging a 14.99% and 16.61% return respectively. Shares have closed higher seven of the last eight Januarys. August and October are also strong averaging greater than 8% returns since 1995. The worst months for shares are September, down more than 9%, and March and April which average a nearly 3% loss both months.



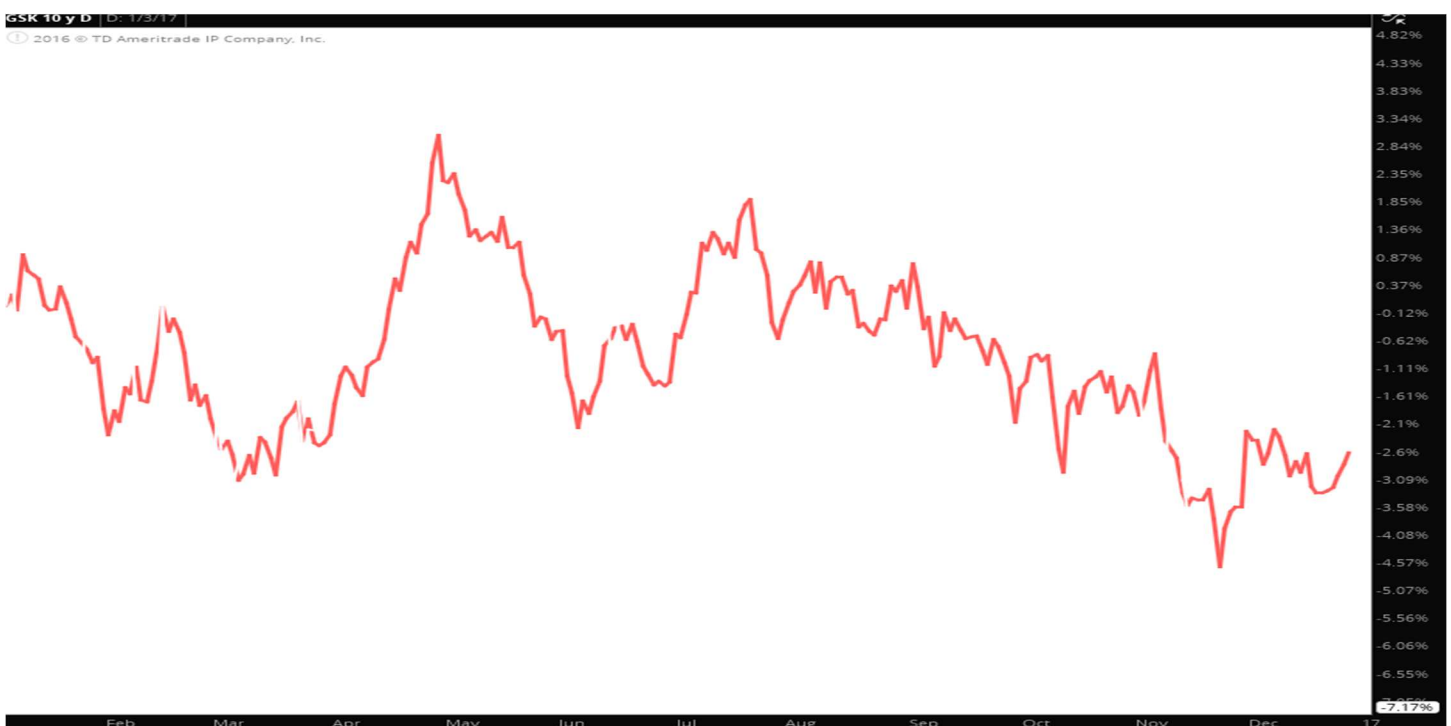
Xilinx (XLNX) – 8.09% Average Return

Xilinx is seasonally strongest in January with an 8.09% return with February and April the next best performing months, 4.67% and 4.29% average return respectively since 1991. Shares have closed higher in January five of the last six years. The fourth-best month for shares is August with shares higher by 3.5%. The worst months for XLNX are June, down 4.65%, and September, down 1.92%.



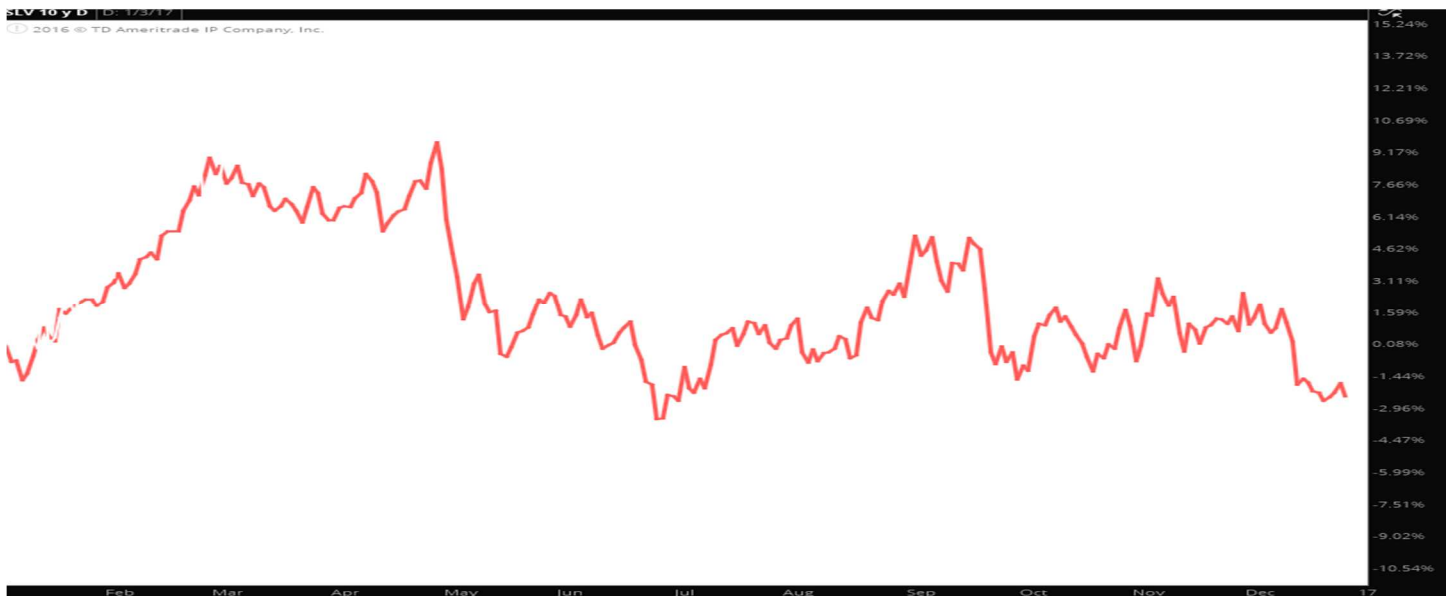
GlaxoSmithKline (GSK): -1.85% Average Return

GlaxoSmithKline is seasonally weak in January with average returns of -1.85%, closing lower the last two years. The second and third weakest months are May and February, down 0.71% and down 0.15% respectively showing early weakness in the first quarter. Shares are seasonally strongest in the Fall with September and October both averaging a 2% return.



Silver (SLV) – 5.31% Average Return

Silver is seasonally strongest in January with a greater than 5% average return. Shares have closed higher four of the last five years. February is the second-best month for shares with a 5.14% average return with April and June the other top months, 2.32% and 2.02% average return respectively. The worst months for shares are May and June, both averaging a 2.5% loss.



Other Notable Winners: BSX, SLV, INTC, GILD, SWHC, SRPT, ETFC, WDC, CXW, LRCX, TSM, TSO, STLD, IDTI, AMAT, XRX, EPD, HCN, JPM, WETF, NUAN, TSCO, FNSR, ON, BBY, AMTD, ATML, CA, KLAC, KBH, MS, LEN, ORCL, MSFT, MXIM, DIS

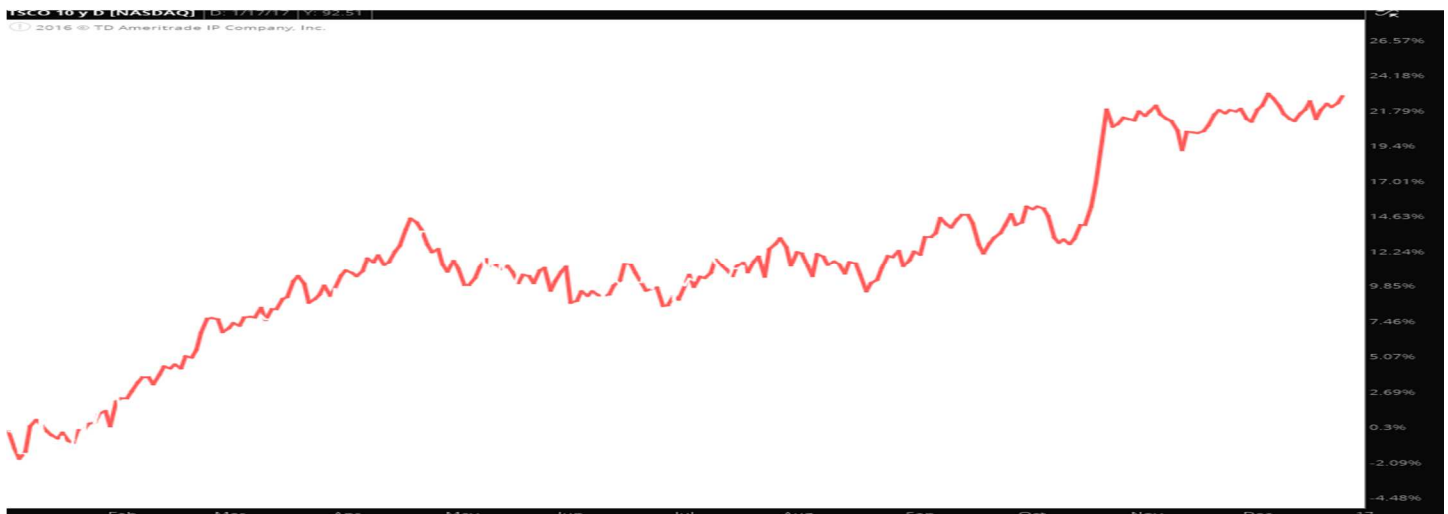
Other Notable Losers: D, AEP, JBL, PAYX, JNJ, NI, EXC, ENB, COG, PPL, MYL, AES, POM, GGP, FCX, AXP, NTAP, CL, MET, MCHP, MMC, GSK, HBAN, SYY, BMY, MO, SU, BBT, DUK, PEP, CAG, USB, EMR, GIS, BP, ABT, MRO, LLY, PG, SWN, PLD, HD, RF, STT, EOG, VFC, CNP, ADM, NFX

February

SPX Since 1989: Average Move 0.27%, Max Move 7.04%, Min Move -10.99%

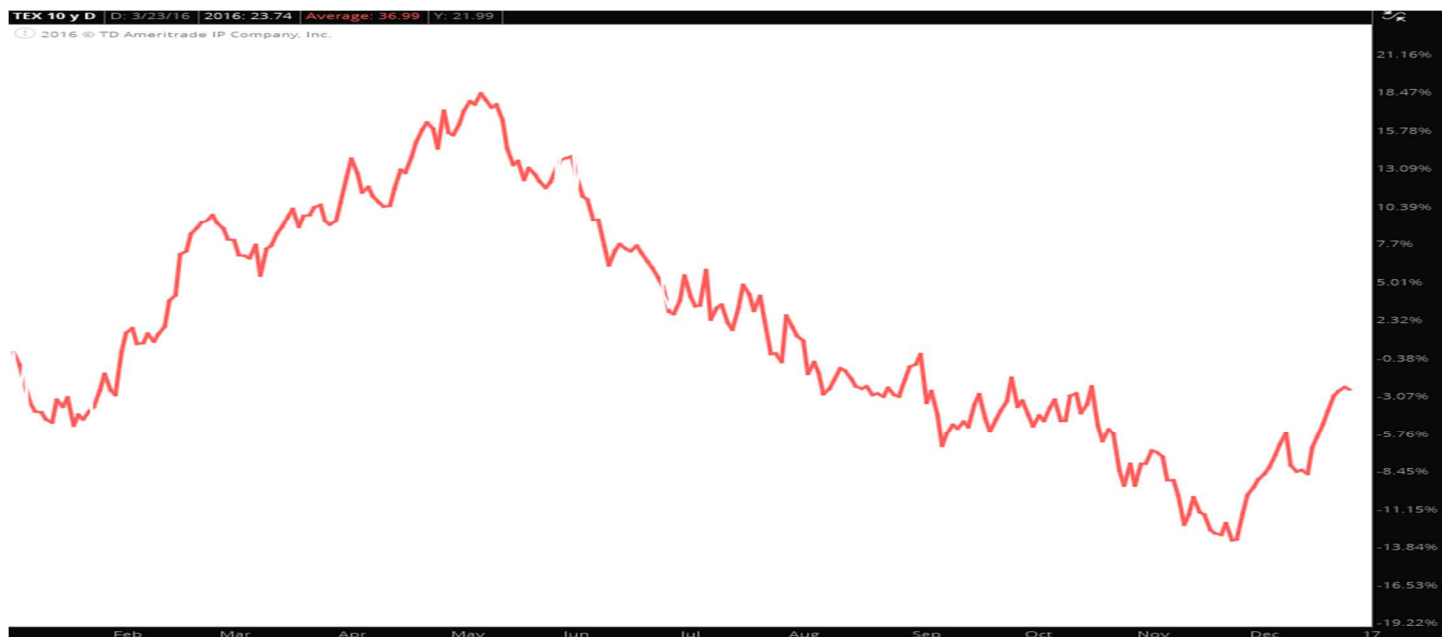
Tractor Supply (TSCO) – 12.95% Average Return

Tractor Supply is seasonally strongest in February with a 12.95% average return since 1994. Shares have closed higher six of the last seven years. The second-best month for shares is January with an average return of 7.56% and followed by April at 3.58%, setting up for a strong run into Spring. The worst months for shares are September and December, down 2.95% and 0.68% respectively.



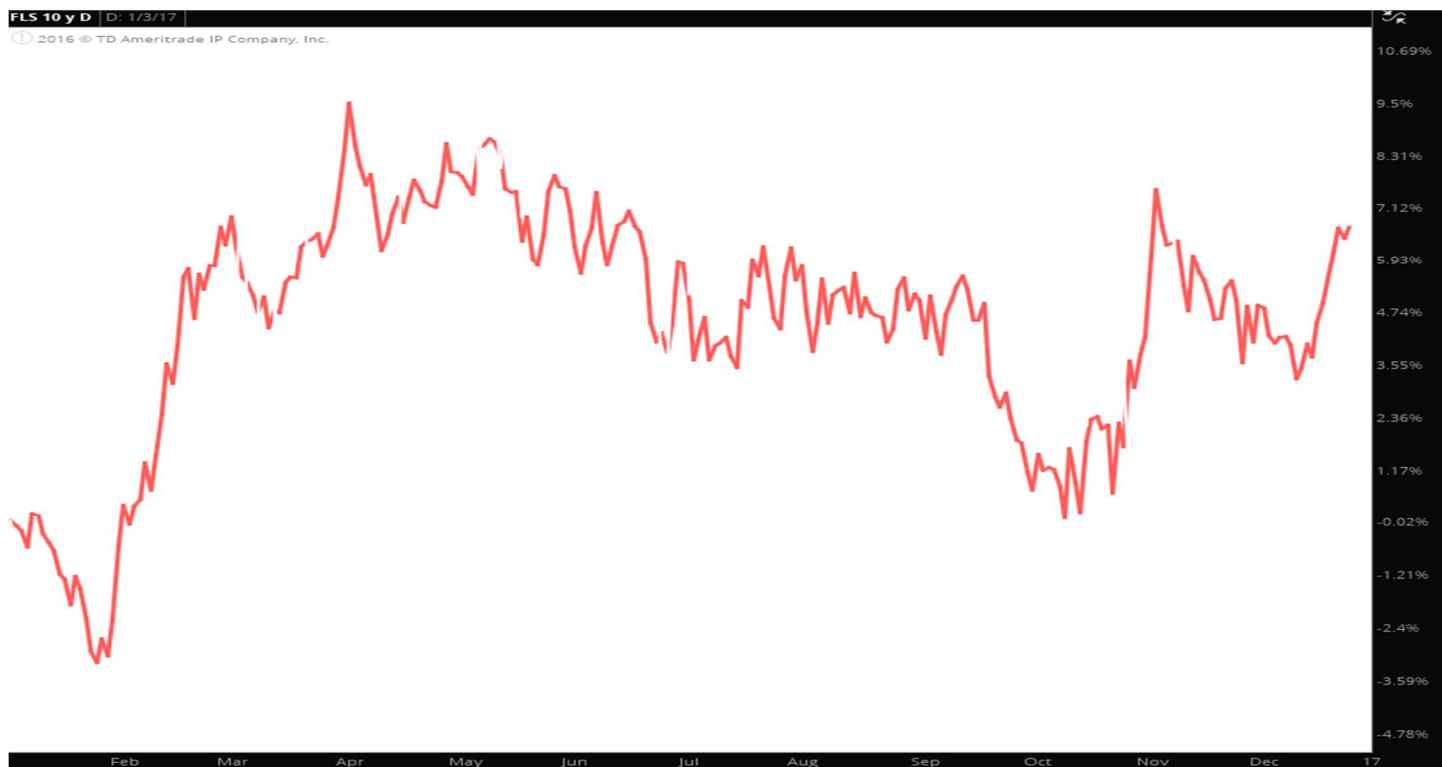
Terex (TEX) – 7.43% Average Return

Terex is seasonally strongest in February with a 7.43% average return since 1991. Shares have closed higher five of the last six years and still topped the S&P in the year it was negative. April is the third strongest month for shares with an average 5.35% return setting up for a nice Spring run. The other top months are November and December. The worst month for shares is June, down 5.35% on average, while August and September both average at least a 2% drop.



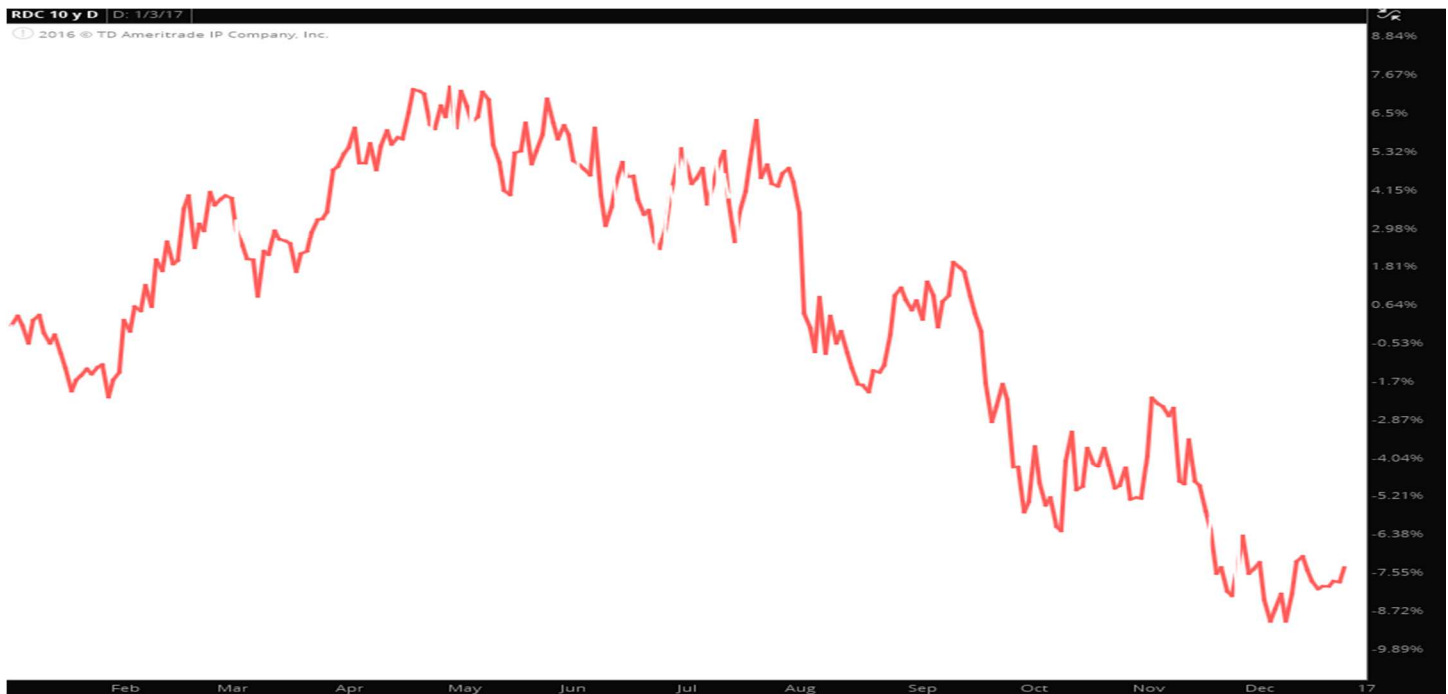
Flowserve (FLS) – 6.02% Average Return

Flowserve is seasonally strongest in February with a 6.02% average return since 1989. Shares have closed higher each of the last five years and six of the last seven. March and April are both top months as well with 3.18% and 5.24% returns respectively setting up for a strong stretch in the Spring. The worst months for shares are September, down 3.42%, and June, down 1.76%.



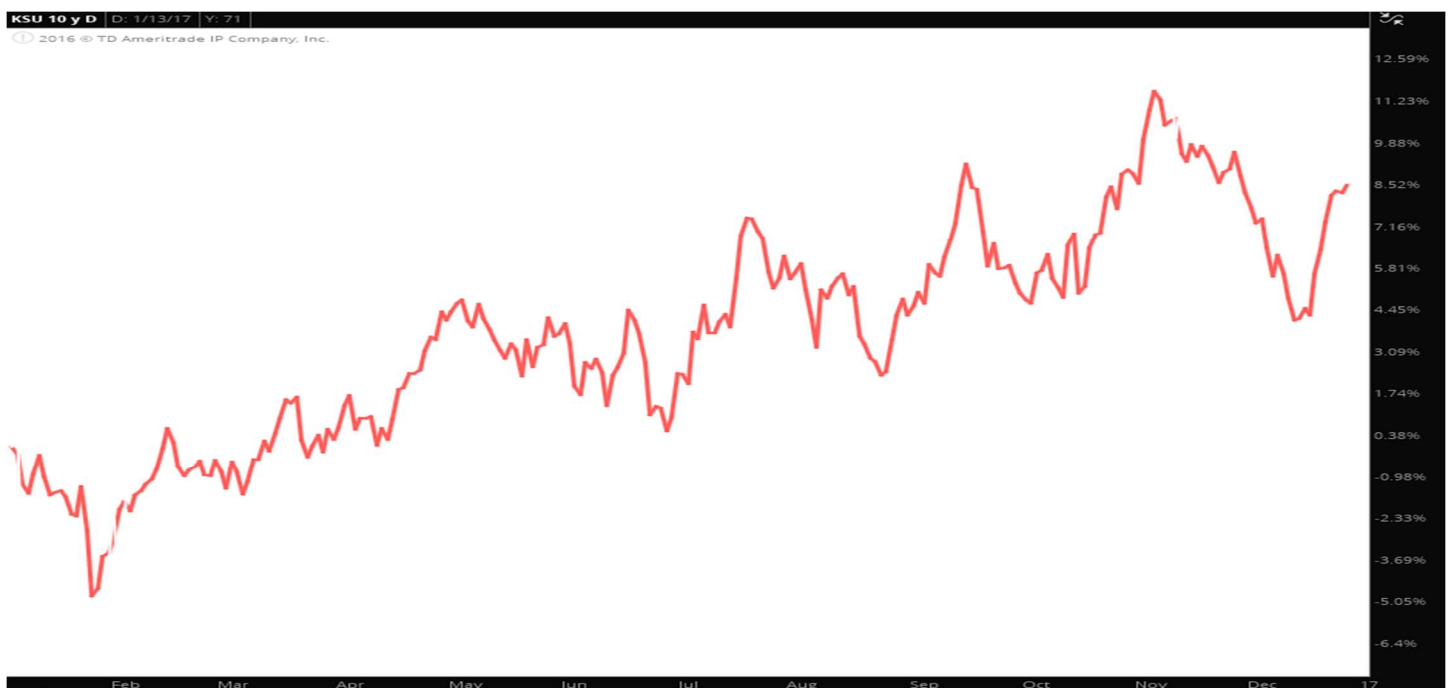
Rowan Companies (RDC) – 5.26% Average Return

Rowan is seasonally strongest in February with a 5.26% average return since 1990. Shares have closed higher each of the last seven years. The next three top performing months for shares are March, April, and May in order with average returns of 4.47%, 4.43%, and 4.12% respectively which sets up for a strong sequence in the early year. The worst months for shares are January, down 3.63%, and both November and June which average more than 2% losses.



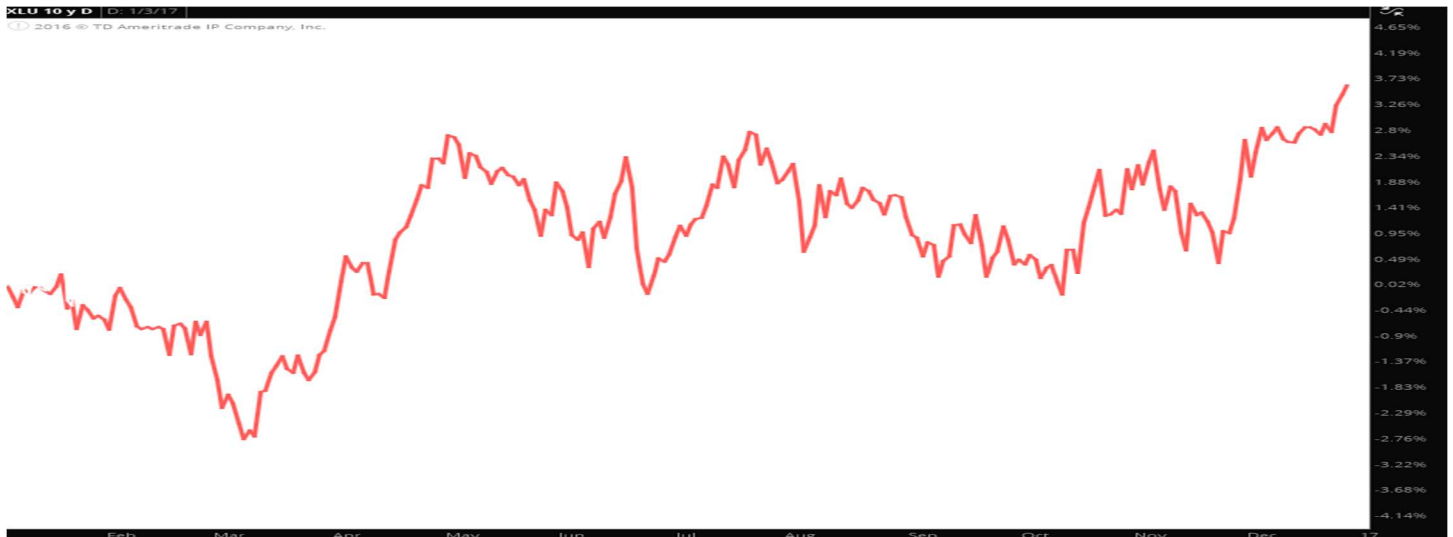
Kansas City Southern (KSU) – 4.56% Average Return

Kansas City Southern is seasonally strongest in February with a 4.56% average return since 1989. Shares have closed higher five of the last six years. March and May are also top months with average returns of 3.33% and 3.38% respectively setting up for a strong Spring run. October is also strong with a 4.03% return. The worst month for shares are August with an average return of -1.45%.



Utilities (XLU) – -1.25% Average Return

Utilities are seasonally weakest in February with an average return of -1.25%. Shares have closed lower four of the last nine years but just one single year greater than a 2.3% return. The next worst months of shares are January, down 0.52%, which sets up for a seasonally weak stretch to begin the year. The best months for shares are March and April. A number individual utilities are also on the list for February including DUK, SO, ED, DTE, PCG, and AES.



Other Notable Winners: CF, CDE, SLW, SPWR, FCX, CRM, KATE, DKS, STX, CY, WFM, QGEN, HP, KND, RDC, VFC, GG, HSY, CCE, DIS, JCP, NEM, FOX, SKX, TCK, MU, WFT, ICE, CTRP, VRX, CNQ, CHS, AVP, HAL, AEM, XLNX, TXN, KSS, NOV, ADI, CERN, MOS, NBL, MAT, LGF, NVO, HRL, CVS, M, BHP, KR, BHI, WBA

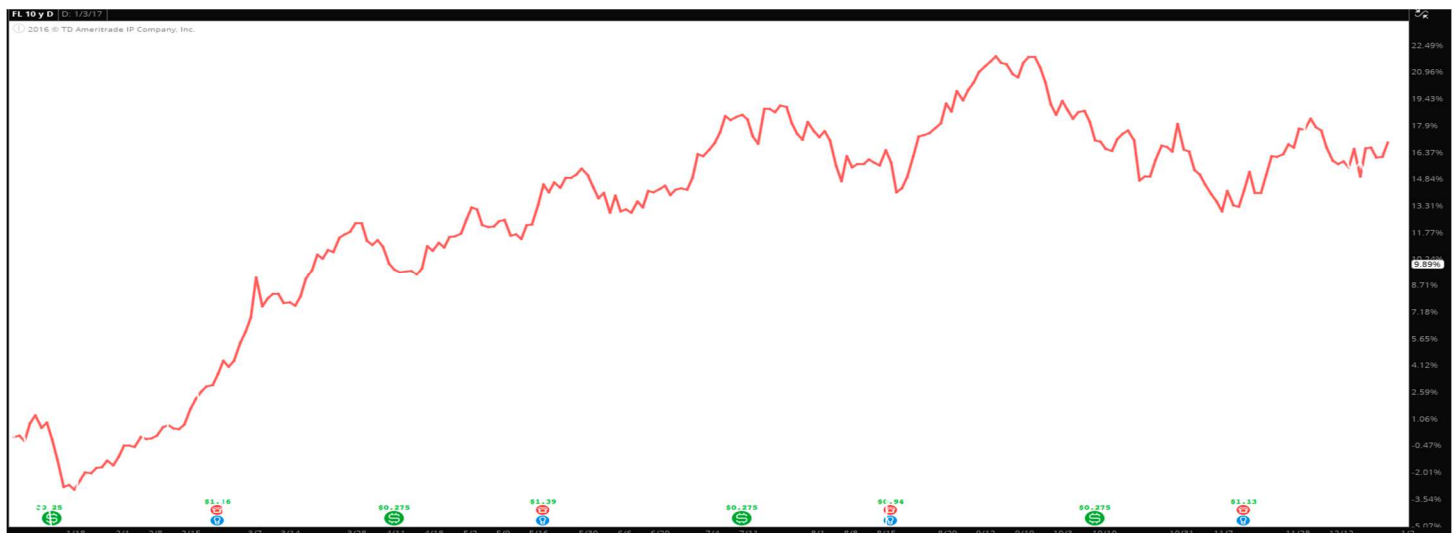
Other Notable Losers: DUK, COF, SO, MDT, LLY, MSFT, CNC, CSCO, AZN, PCG, DTE, MRK, ED, UNH, SHPG, GD, PFE, O, HLS, SNH, TE, CA, WM, SBAC, OKE, AES, HUM, GNTX, XEL, BRFS, HCN, QCOM, WFC, NI, RHI, AEP, D, CCL, CHRW, WEC, PPL, JBL, JNJ, STZ, SYMC, TASR

March

SPX Since 1989: Average Move 1.49% Max Move 9.67%, Min Move -6.42%

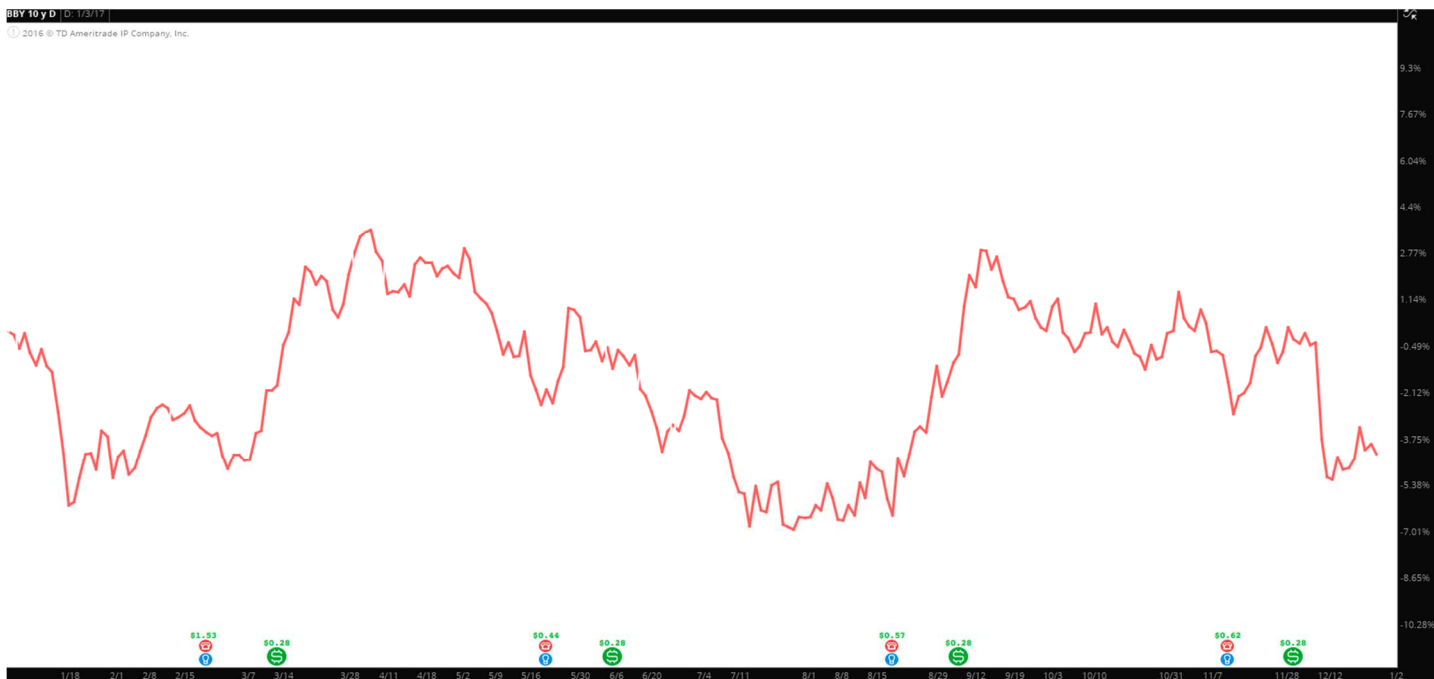
Foot Locker (FL) – 10.20% Average Return

Foot Locker shares are seasonally strongest in March with an average return of 10.20% since 1990. The next best months for shares are April and May which both average nearly a 2% return while November averages a 3.11% return setting up for seasonal strength in the Spring. The worst month for shares is August which is down over 3.97% on average and then October.



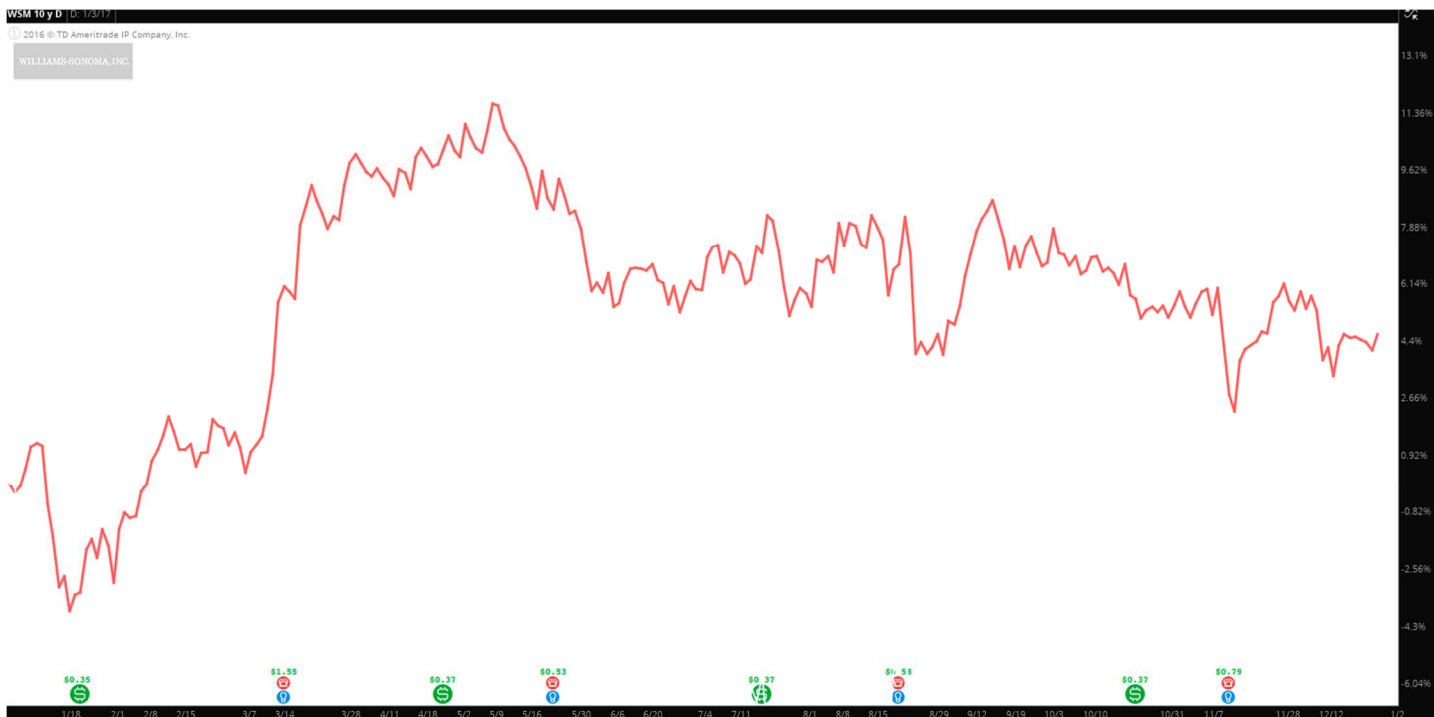
Best Buy (BBY) – 9.13% Average Return

Best Buy shares are seasonally strongest in March with an average return of 9.13% since 1990. The next best months for shares are January and June which both average nearly a 5% return while September is historically higher by over 5% as well. The worst month for shares is December which is down over 5% on average and then July.



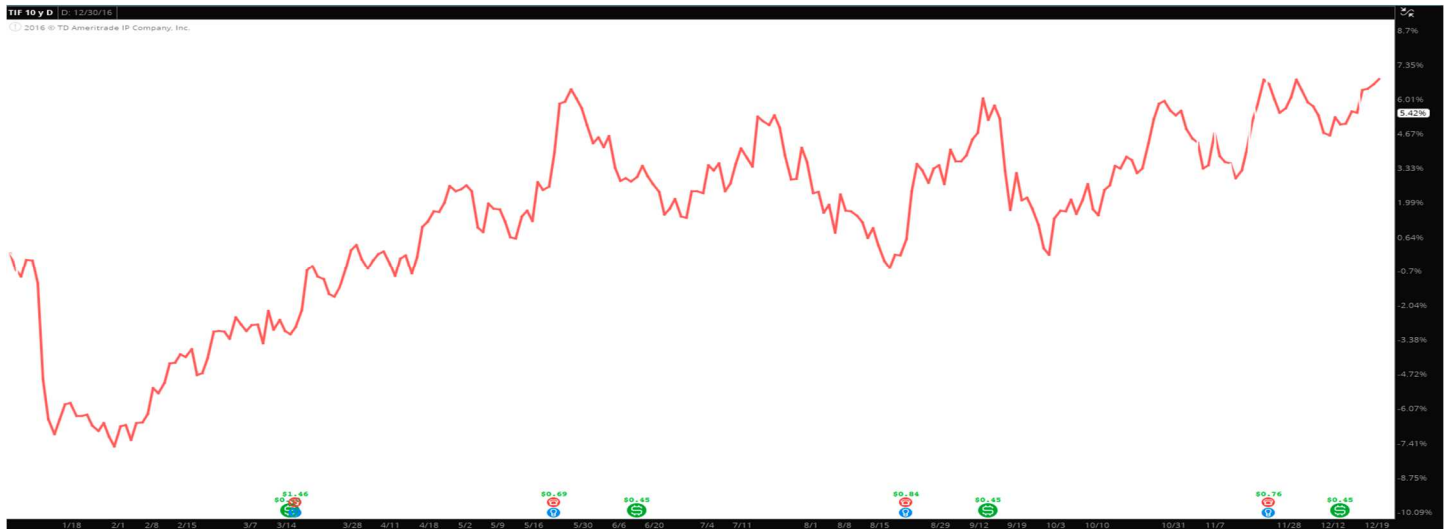
Williams Sonoma (WSM) – 7.88% Average Return

Williams Sonoma shares are seasonally strongest in March with an average return of 7.88% since 1990. The next best months for shares are November, December, and April which average nearly a 4.5% return, so some seasonal strength in the Spring and Fall. Shares are higher four of the last six years in March. The worst month for shares is January which is down over 3.5% on average and then June.



Tiffany (TIF) – 6.84% Average Return

Tiffany shares are seasonally strongest in March with an average return of 6.84% since 1990. The next best months for shares are April and then October and November which average nearly a 4.5% return, so some seasonal strength in the Spring and Fall. Shares are higher eight of the last nine years in March. The worst month for shares is January which is down over 3.38% on average and then September.



Other Notable Winners: PIR, FL, QCOM, BBY, CPE, HOT, WSM, BDN, ADBE, PLCE, ESV, TIF, TJX, GDP, VLY, EOG, ASNA, ROST, MDU, APC, DVN, BAC, LB, APA, WMB, AME, BRS, OII, NBL, PCP, MRO, MUR, FMER, CNP, COP, TSS, FISV, UNM, FITB, RF, CVX, BLL, NI, CVS, PKY, TRN, APD, PEP, M, TAP, NEE, DUK, PBI, GIS; AMD, CAR, TSO, GLW, VLO, MAS, PII, NBR, AAPL, SONC, LOW, ODP, SWN, NKE, EGN, OLN, RDC, NUE, OXY, PGR, IYR, KRE, EWW

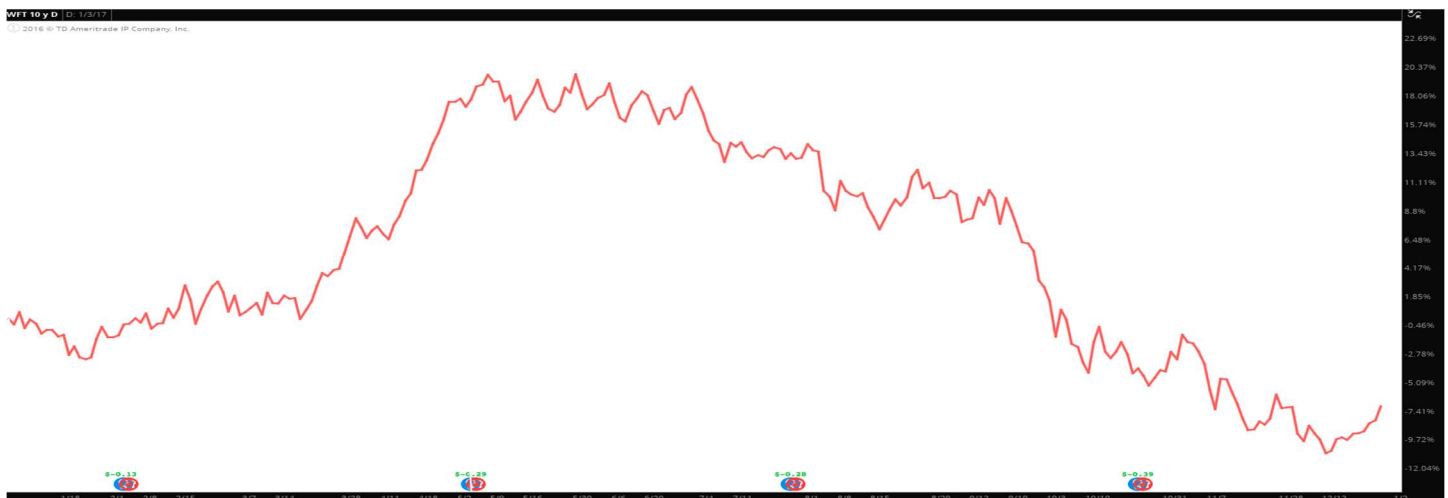
Notable Weakness: CMCSA, AGN, SSYS, MO, PLL, PTC, GILD, ALXN, VRX, MYGN, NG, DYAX, SSRI, FSM, PDLI, VRTX, CF, IDRA, INCY, ALKS, AKRX, IAG, DATA, ONVO, YOKU, PSG, RAI, CLX, TEVA, POT, ENDP, BBRY, MRK, BBVA, INFY, GLD, JNPR, IMGN, SWKS, SERV, CRUS, FB, BIIB, CSC, BLMN

April

SPX Since 1989: Average Move 1.60% Max Move 9.39%, Min Move -6.14%

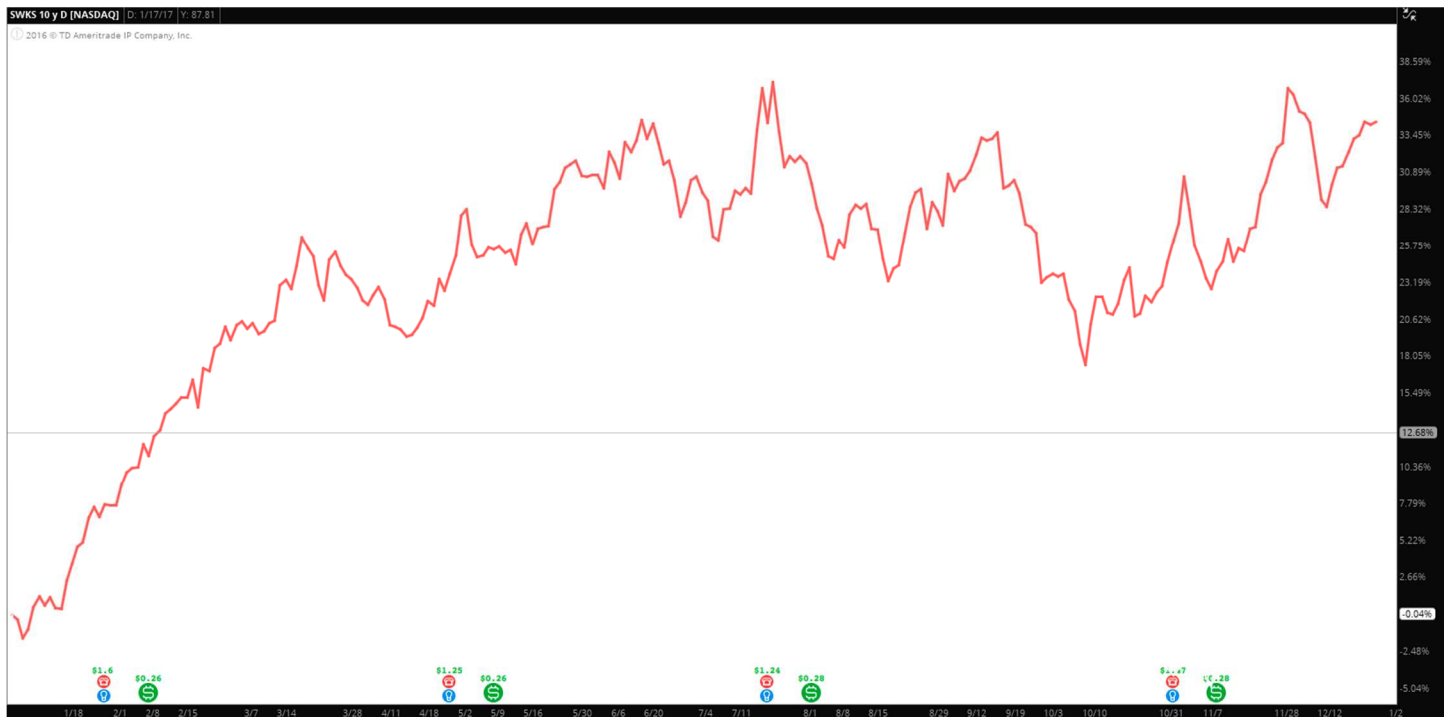
Weatherford (WFT) – 12.00% Average Return

Weatherford shares are seasonally strongest in April with an average return of 12.00% since 1990. The next best months for shares are February and March which both average 6.6% and 3.75% return, so some seasonal strength in the Spring. Shares are higher the last four years in April. The worst month for shares is November which is down over 2.91% on average and then June.



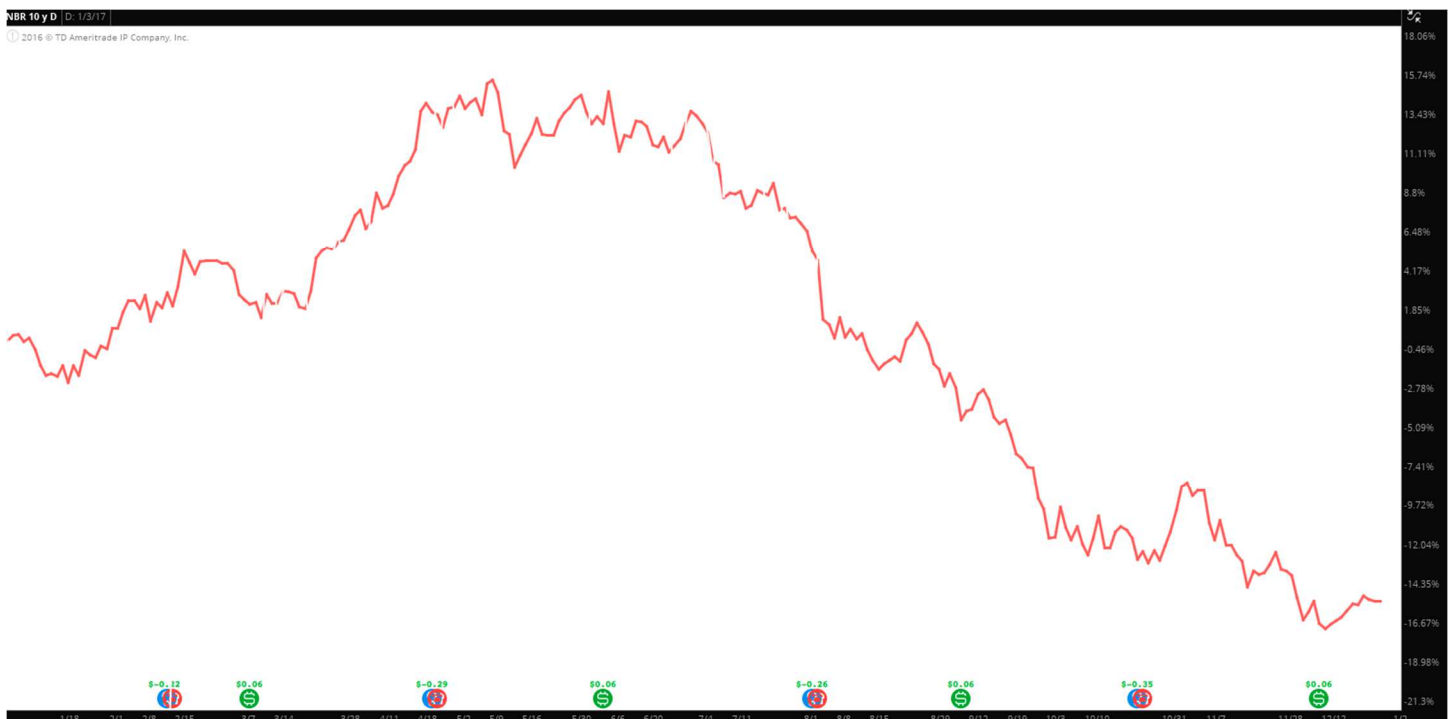
Skyworks (SWKS) 8.57% Average Return

Skyworks shares are seasonally strongest in April with an average return of 8.57% since 1990. The next best months for shares are August and November with an average return of 8.12% and 4.66%. Shares are higher seven of the last ten years in April although closing lower the last two years. The worst month for shares is September which is down over 1.8% on average and then March.



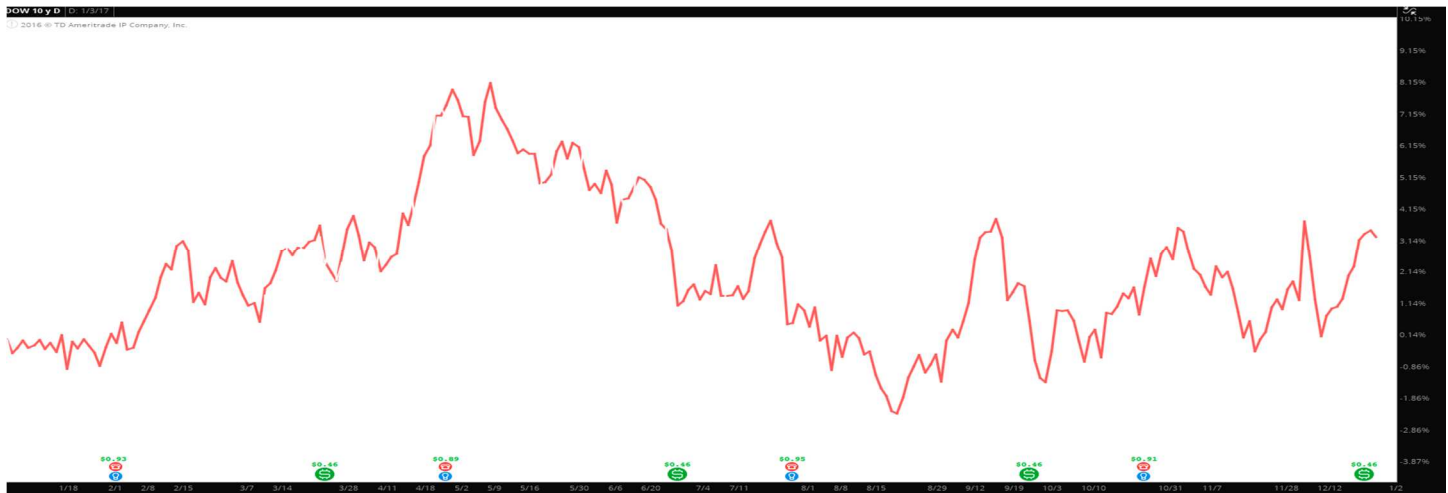
Nabors (NBR) – 7.43% Average Return

Nabors shares are seasonally strongest in April with an average return of 7.43% since 1991. The next best months for shares are March and October which both average 5.44% and 4.4% return, so some seasonal strength in the Spring. Shares are higher the last three years in April. The worst month for shares is July which is down over 2.99% on average and then September.



Dow Chemical (DOW) – 7.10% Average Return

Dow Chemical shares are seasonally strongest in April with an average return of 7.10% since 1990. The next best months for shares are October and December which both average 3.34% and 2.79% return while February is also strong, so some seasonal strength in the Spring and Fall. Shares are higher seven of the last eight years in April. The worst month for shares is June which is down over 2.68% on average and then January.



Other Notable Strength: WFT, F, SWN, RES, SWKS, MTW, BEAV, PPC, APH, BHI, KMT, NBR, THC, PH, DOW, BCS, AXP, SAN, PDLI, AVP, CAT, FAST, COG, PNR, TDW, PII, TRMB, HAL, SLB, OKE, AFL, TXT, ITW, DD, BBVA, PPG, GD, RRD, BHP, AEG, EGN, TXN, ETN, PVA, OXY, NSC, CSX, STR, HES, UNP, EQT, TOT, BP, HBAN, WFC, RIO, ZION, BA, HON, STI, JNJ, LMT, GSK, NNN, ABT, XOM, DTE, PCL; UNG, XLU, XLB, XLE, XLI, OIH, XOP

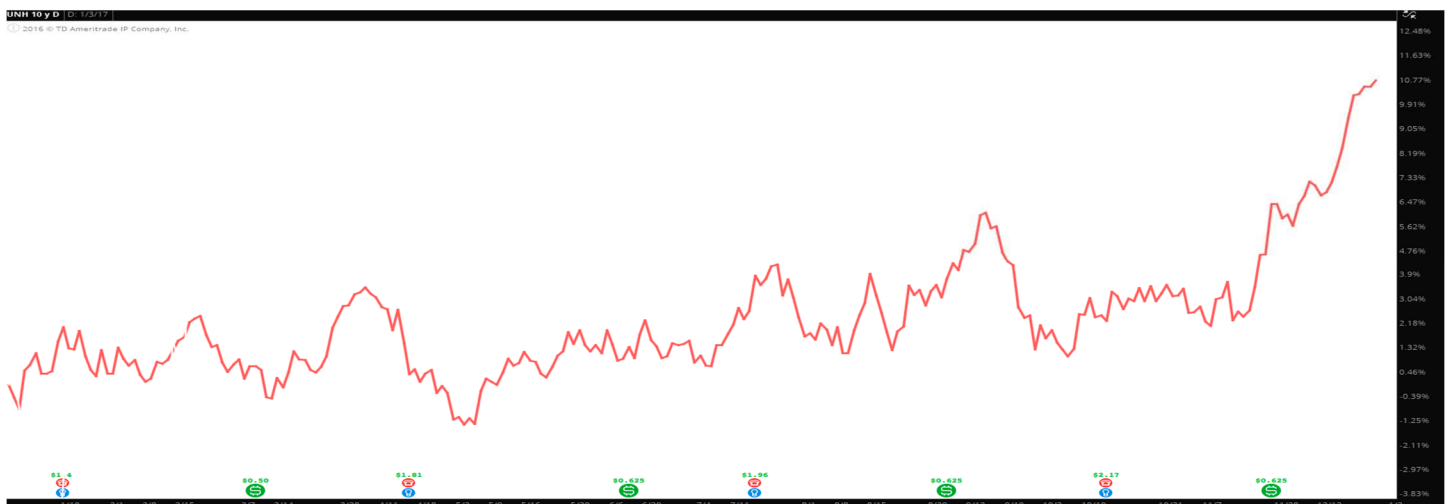
Notable Weakness in April: TWTR, IMPV, QRVO, GRPN, ZNGA, INVN, YELP, BURL, CEMP, SGI, KITE, MDRX, PANW, AVGO, LGF, WNR, AFFX, INFY, MDCO, BMRN, HRB, DEPO, QCOM, ALSN, ATVI, FBHS, BIIB, COST, CELG, CHKP, PSX, CTSH, GIS, HRL, TWO, CAH, PBCT, AMGN, ACHN, IRWD, W, SWFT

May

SPX Since 1989: Average Move 1.05% Max Move 9.20%, Min Move -8.20%

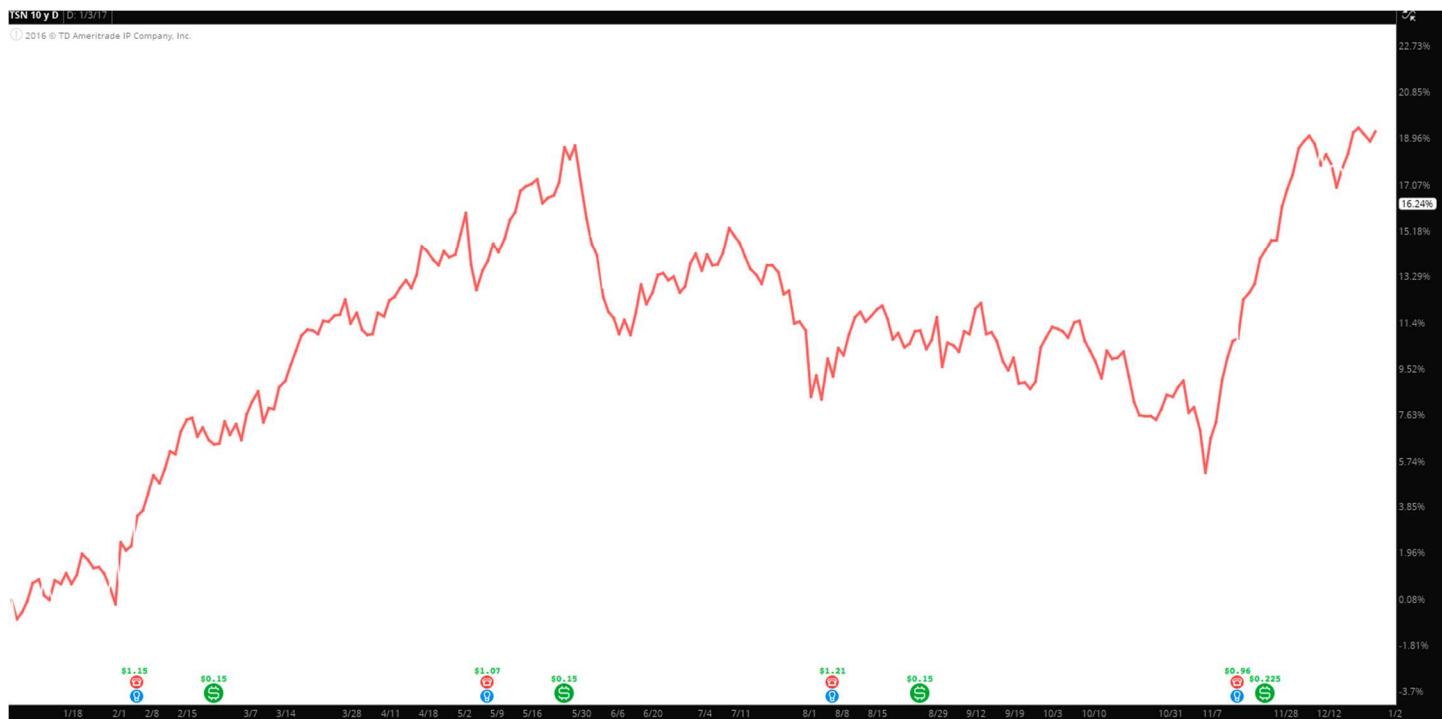
United Health (UNH) – 5.74% Average Return

United Health shares are seasonally strongest in May with an average return of 5.74% since 1990. The next best months for shares are December and November which both average 4.95% and 4.41% return while March is also strong, so some seasonal strength in the Spring and Winter. Shares are higher the last four years in May. The worst month for shares is February which is down over 0.80% on average and then August.



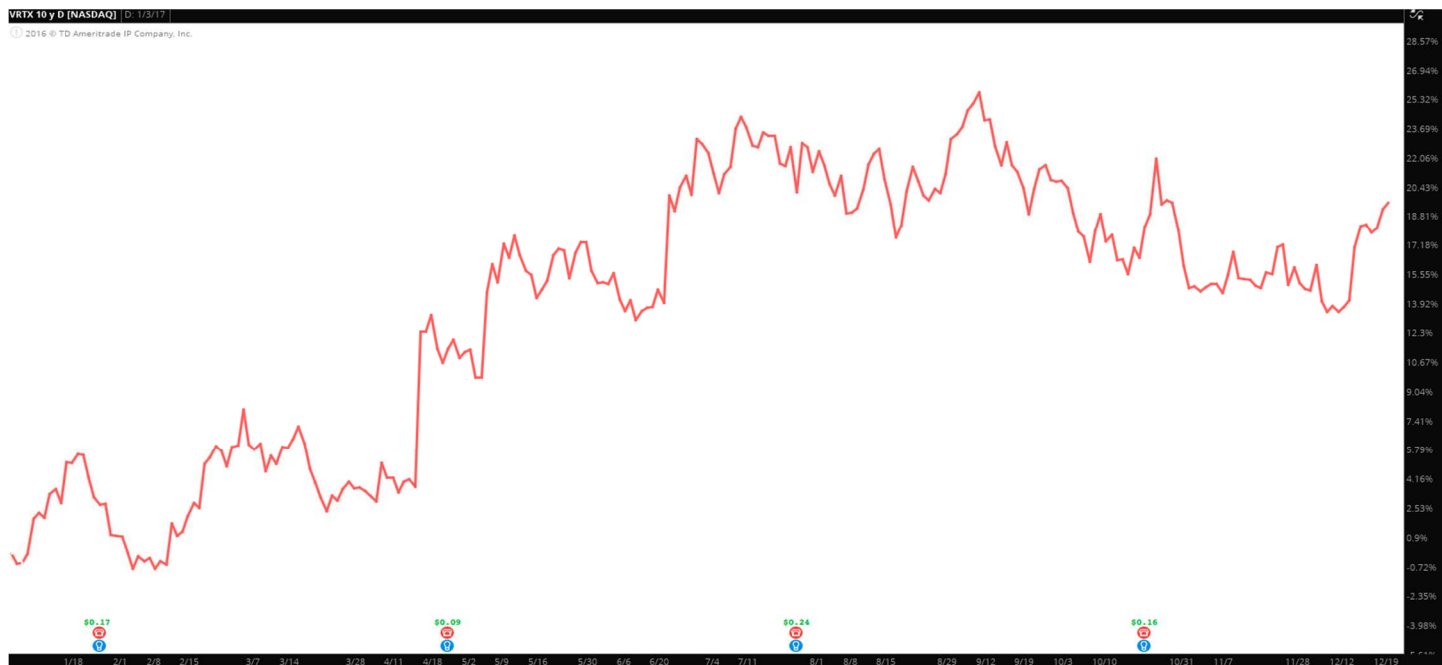
Tyson Foods (TSN) – 4.89% Average Return

United Health shares are seasonally strongest in May with an average return of 4.89% since 1990. The next best months for shares are December and November which both average 3.79% and 3.17% return while April is also strong, so some seasonal strength in the Spring and Winter. Shares are higher four of the last five years in May. The worst month for shares is June which is down over 2.98% on average and then October.



Vertex (VRTX) – 10.21% Average Return

Vertex shares are seasonally strongest in May with an average return of 10.21% since 1992. The next best months for shares are December and August which both average 9.94% and 6.00% return while September is also strong, so some seasonal strength in late Summer. Shares are higher the last five years in May. The worst month for shares is March which is down over 4.53% on average and then November.



Other Notable Winners: VRTX, CAR, MDR, CSC, S, EA, VSH, UNH, PBY, TSN, IGT, FLO, BK, JCI, TYC, MO, SLM, CAH, LNC, STJ, KO, WM, CAG, ETR, AX, FMC, MSI, CMA, SVU, K; IDTI, OII, HUM, SCI, RAD, EXPD, MGA, RRD, MENT, TEVA, LEG, TMO, MDT, ADM, BA, TCB, TEF, CHD, EIX, PPL, GIS, POM, HSY

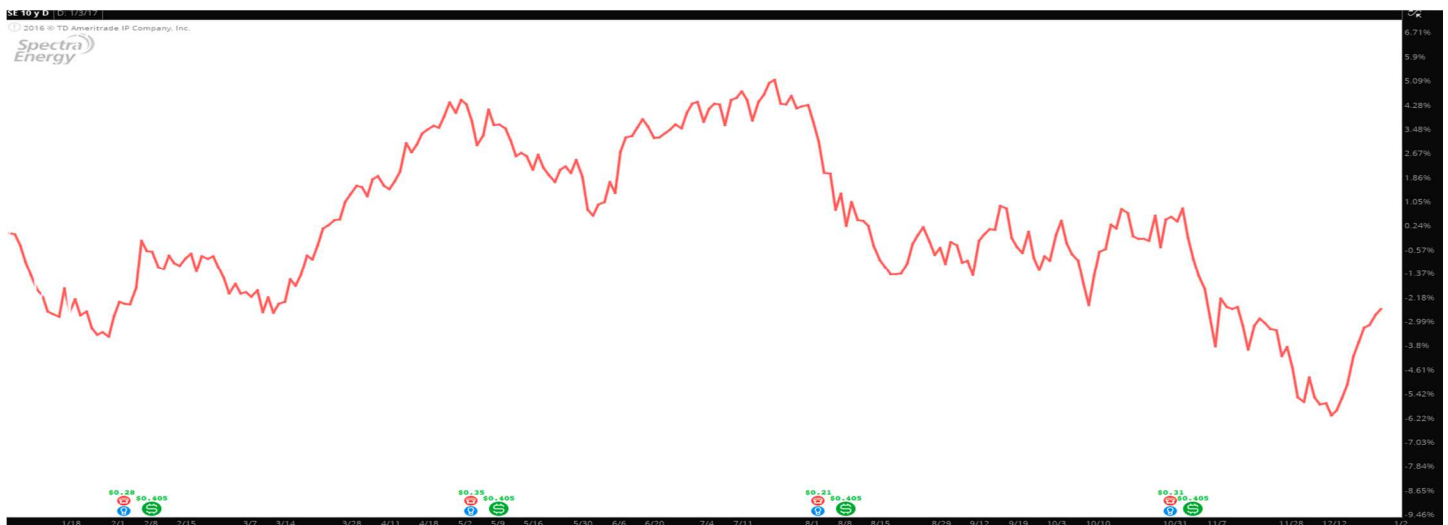
Notable Weakness: GST, SYRG, GPT, FSLR, LINE, MEET, TTM, GTN, TPX, WLK, SIG, DKS, VALE, SLV, PSEC, BBL, SCCO, ARMH, GS, SLW, ITC, PRGO, HOT, CXO, EPD, AWK, SGI, ITB, XHB, LYG, CCI, XPO, KATE, ANF, CDE, KMX, ABEV, BBD, LULU, RIO, HIMX, KBH, MTW, GERN, ACAS, FDX, VIAV, CLF

June

SPX Since 1989: Average Move **-0.50%** Max Move 5.44% Min Move -8.60%

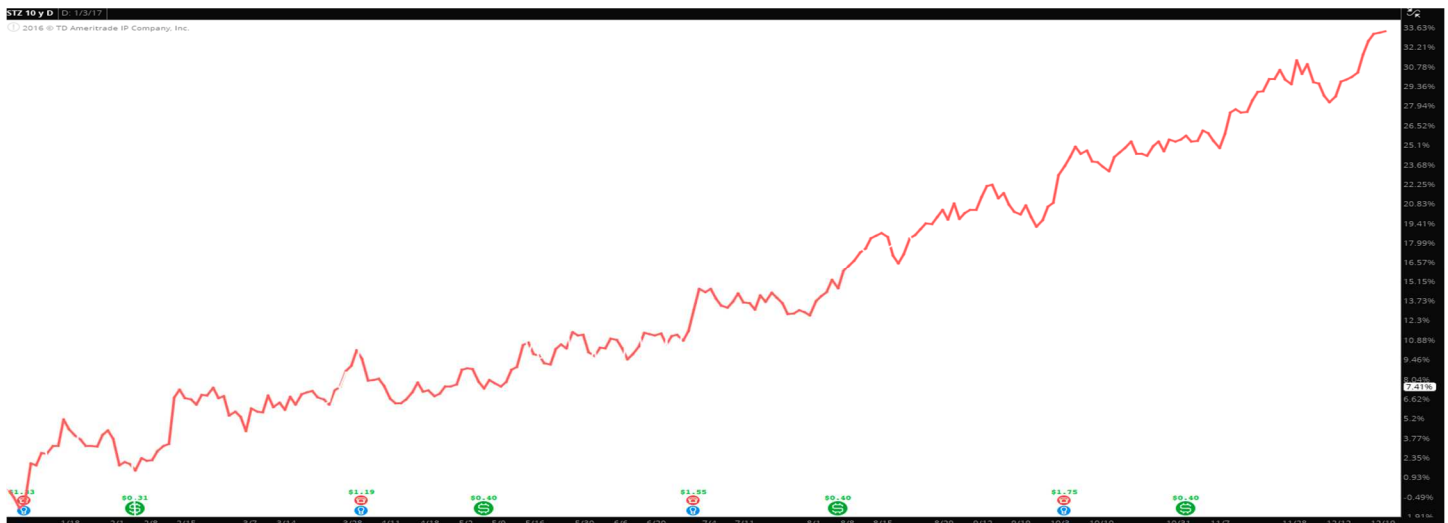
Spectra Energy (SE) – 3.52% Average Return

Spectra Energy shares are seasonally strongest in June with an average return of 3.52% since 2007. The next best months for shares are April and March which both average 3.35% and 2.65% return while February is also strong, so some seasonal strength in the first half of the year. Shares are higher four of the last five years in June. The worst month for shares is November which is down over 2.87% on average and then August.



Constellation Brands (STZ) – 4.18% Average Return

Constellation Brands shares are seasonally strong in June with an average return of 4.18% since 1992. The next best months for shares are December and October which average 6.53% and 2.97% return while May is also strong, so some seasonal strength in the late Spring. Shares are higher two of the last three years in June. The worst month for shares is September which averages a 0.17% return on average and then February.



Other notable strength: ORCL, SE, DVA, EXAS, SYRG, SBGI, BRCD, CXW, INFY, STZ, SRCL, ILMN, HOLX, ETP, VZ

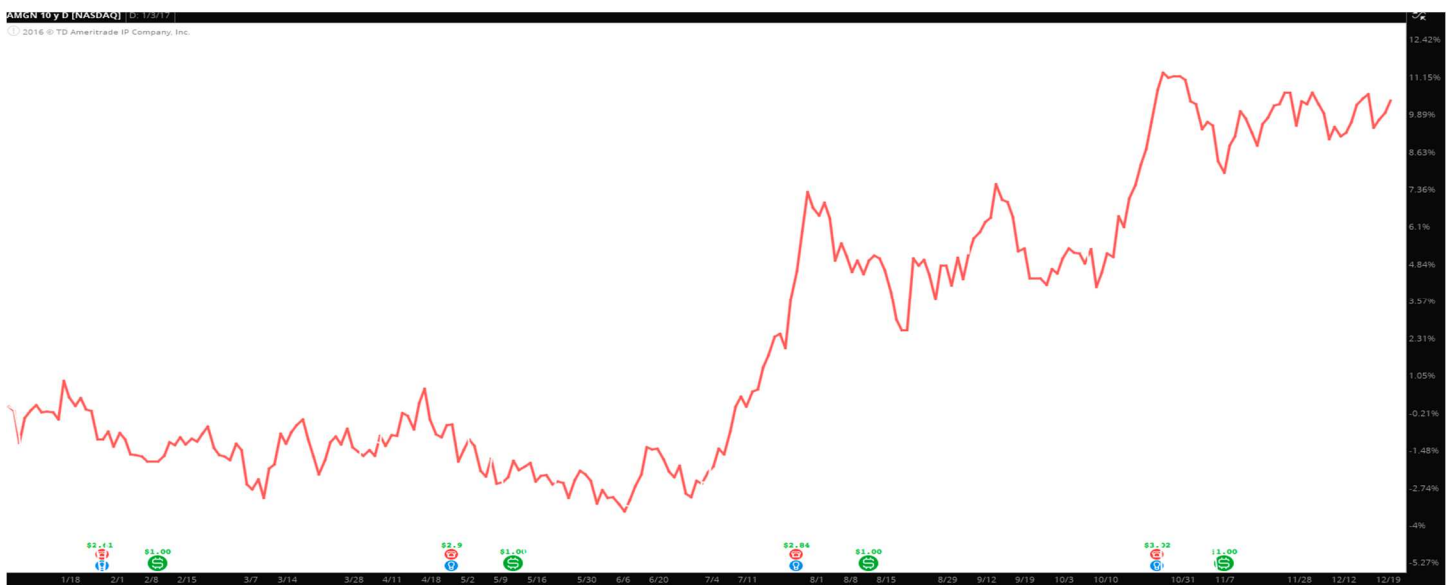
Notable Weakness: ALJ, BKD, UAL, AMD, WETF, DAN, QTM, MPEL, DVAX, WDC, OC, AAL, HUN, PAY, NRF, OCLR, IDTI, QVCA, DAL, XHB, BC, SPN, LVS, TEX, FNSR, MTG, ITB, XLNX, BX, GCI, TTWO, WYNN, GT, MBI, KATE, VLO, HOV, NAV, ETFC, BCS, DWA, CENX, PNC, SPR, WNC, SYMC, MAS, IPG, SEE, MGM, HAS, VIAB, TSN, DISCA, EAT, PH, CS, HST, BK, TRN

July

SPX Since 1989: Average Move 0.83% Max Move 7.81%, Min Move -7.90%

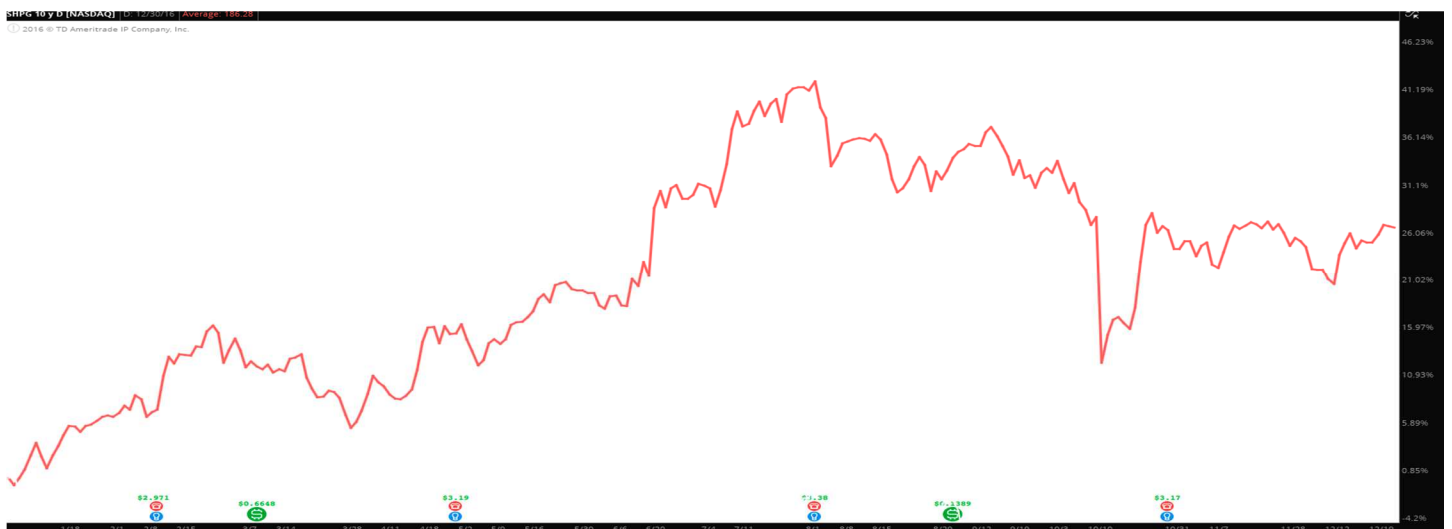
Amgen (AMGN) – 9.62% Average Return

Amgen shares are seasonally strong in July with an average return of 9.62% since 1990. The next best months for shares are December and November which average 4.77% and 2.77% return while May is also strong, so some seasonal strength in the late Spring. Shares are higher the last five consecutive years in July. The worst month for shares is April which averages a 0.45% loss and then June.



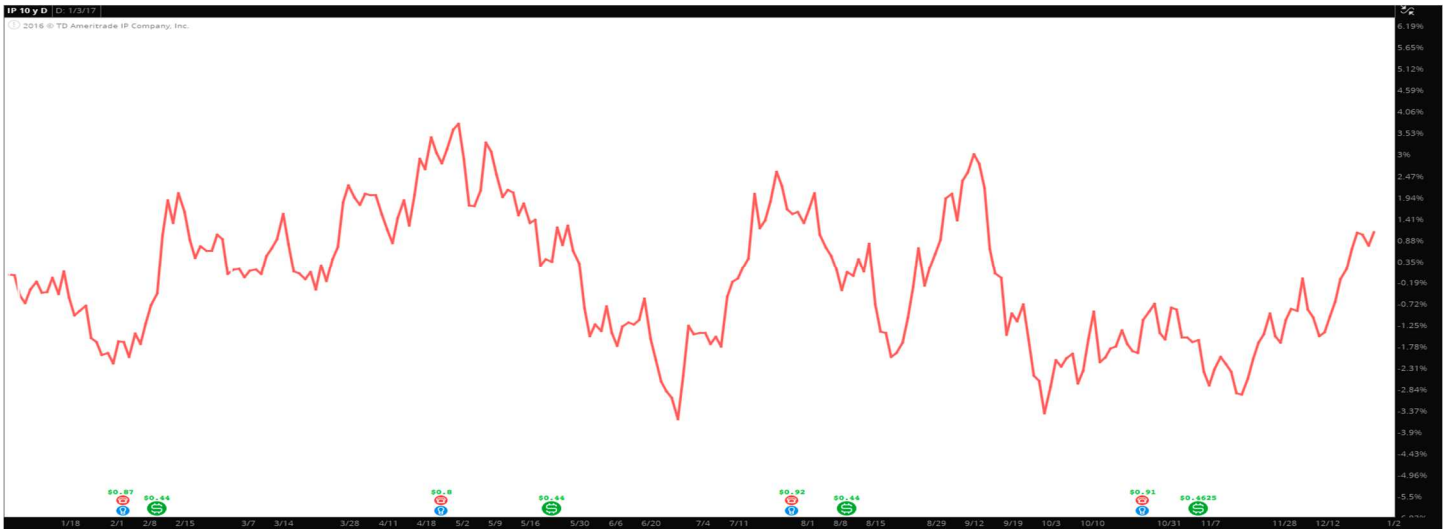
Shire PLC (SHPG) – 5.66% Average Return

Shire shares are seasonally strong in July with an average return of 5.66% since 1998. The next best months for shares are January and June which average 4.06% and 3.41% return while December is also strong, so some seasonal strength in the early Summer. Shares are higher eight of the last nine years in July. The worst month for shares is February which averages a 0.64% loss and then November.



International Paper (IP) – 5.32% Average Return

Amgen shares are seasonally strong in July with an average return of 5.32% since 1990. The next best months for shares are April and December which average 4.96% and 2.63% return while November is also strong, so some seasonal strength in the Winter as well. Shares are higher four of the last five years in July. The worst month for shares is June which averages a 2.44% loss and then January.



Other notable strength – AMGN, ARMH, HOG, CERN, SHPG, XRAY, IP, CNI, HCP, NYCB, IBM, BAX, IBB, BBT, BEAV, STLD, JNPR, HSBC, HCN, CNW, VTR, QGEN, KIM, CSX, BCS, AIV, LUK, NNN, HCBK, CMA, FNFG, PPG, TAP, TRP, CLX, ED

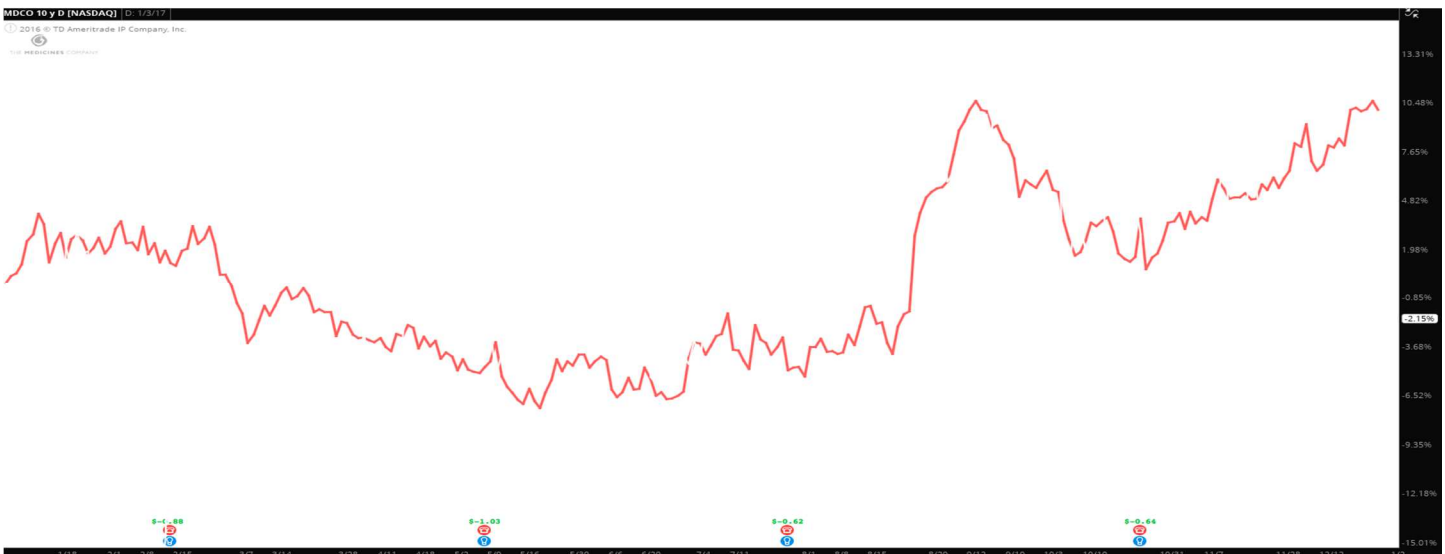
Other notable weakness: MGT, AKAM, AMKR, XCO, LKX, PWR, CPHD, MENT, NVDA, PLUG, SWC, BYD, GG, CRZO, CA, VIAV, DDD, HMY, VRSN, CCJ, ATML, A, GLW, TIVO, S, SM, HNT, DNR, CSIQ, ECA, CPE, AET, CXW, MWW, NBR, DF, PXD, RIG, COH, KBH, ADSK, BVN, INTU, ADBE, FOXA, XBI

August

SPX Since 1989: Average Move -1.00% Max Move 6.07%, Min Move -14.58%

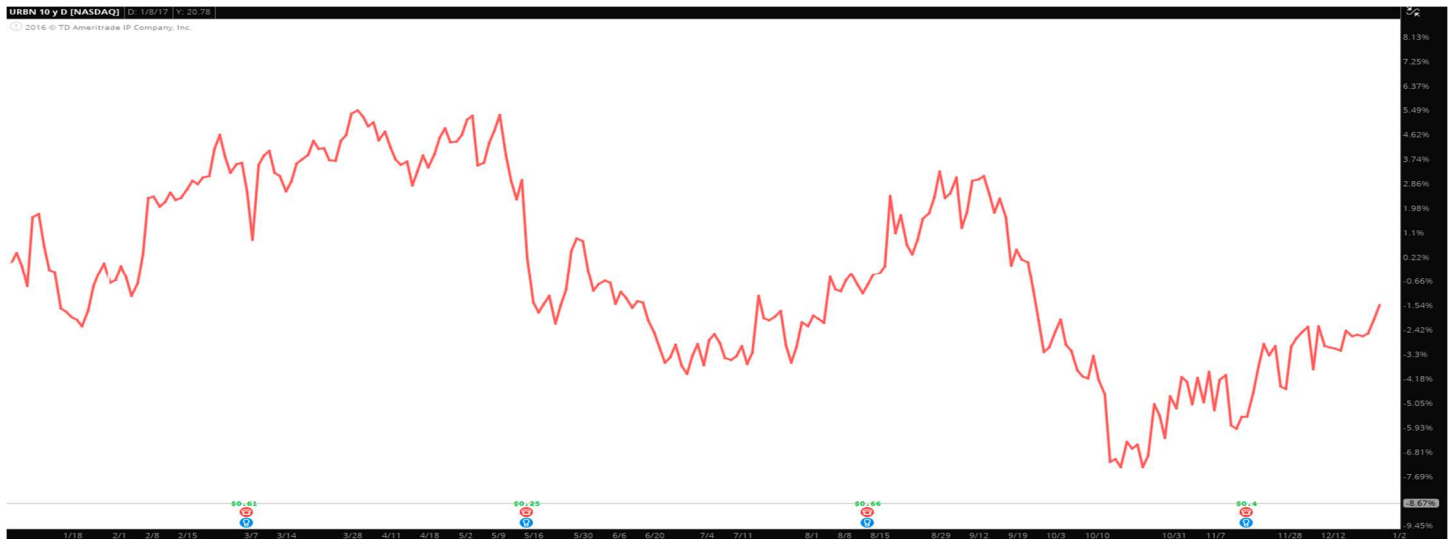
Medicines Co (MDCO) – 5.80% Average Return

Medicines Co shares are seasonally strong in August with an average return of 5.80% since 2001. The next best months for shares are November and December which average 4.83% and 3.90% return while June is also strong, so some seasonal strength into the Summer. Shares are higher four of the last five years in August. The worst month for shares is April which averages a 3.49% loss and then January and October.



Urban Outfitters (URBN) – 6.57% Average Return

Urban Outfitters shares are seasonally strong in August with an average return of 6.57% since 1994. The next best months for shares are November and March which average 5.36% and 4.96% return while April and May are also strong, so some seasonal strength in the Spring and Summer. Shares are higher three of the last five years in August, averaging double-digit gains each year. The worst month for shares is January which averages a 2.24% loss and then October.



Other Notable Strength – URBN, MDCO, MBT, HAIN, AEE, OPK, NVDA, SWKS, CRZO, QLGC, GPOR, EA, ATVI, JBL, GG, CDE, D, CHD, FTR. FNSR, NTES, VRTX, MSTX, EBAY, MXIM, AGN, ERF, CBL, EOG, SRE, MDLZ, WEC

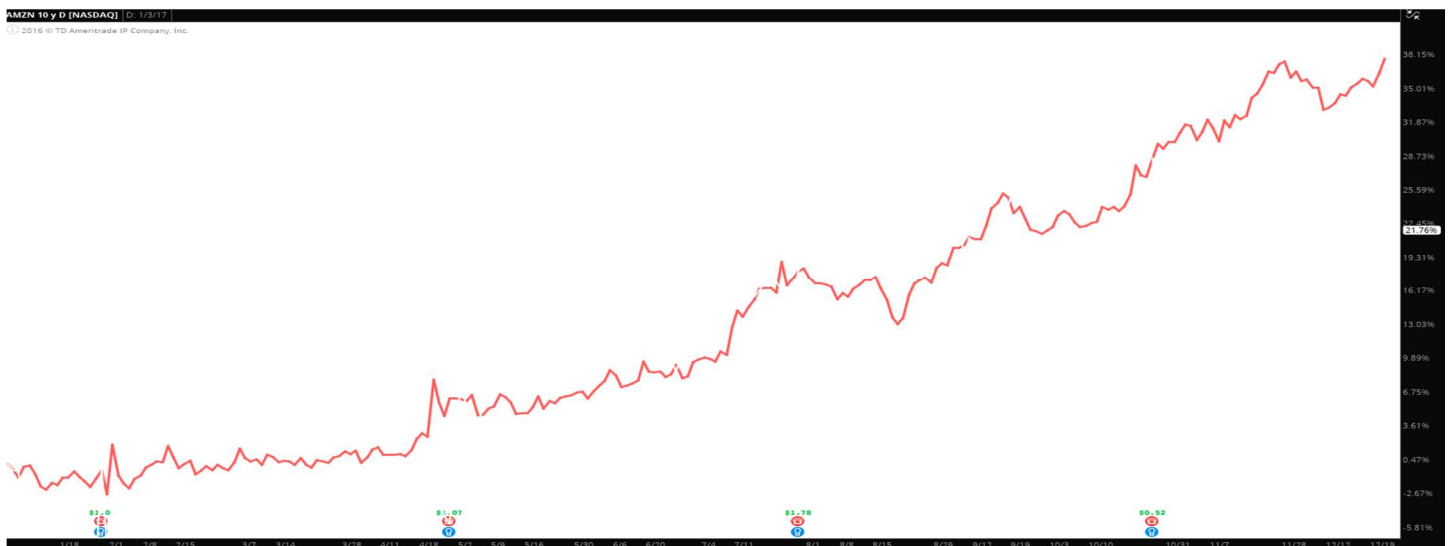
Other Notable Weakness: TXMD, TMUS, SPWR, UNG, MDCA, DHT, FRO, CIEN, JBHT, RSG, MT, STLD, CLDX, F, PIR, SBAC, TTMI, URI, ACAS, FL, DLTR, ASNA, LUV, NAT, DB, CBG, SVU, DIS, NUE, BHI, HPQ, YHOO, XPO, CAA, CMC, PCAR, PDCO, STJ, AOS, CSX, TXT, WDR, WFM, STT, EXPD, ORCL, T

September

SPX Since 1989: Average Move **-0.47%** Max Move 8.76%, Min Move -11.00%

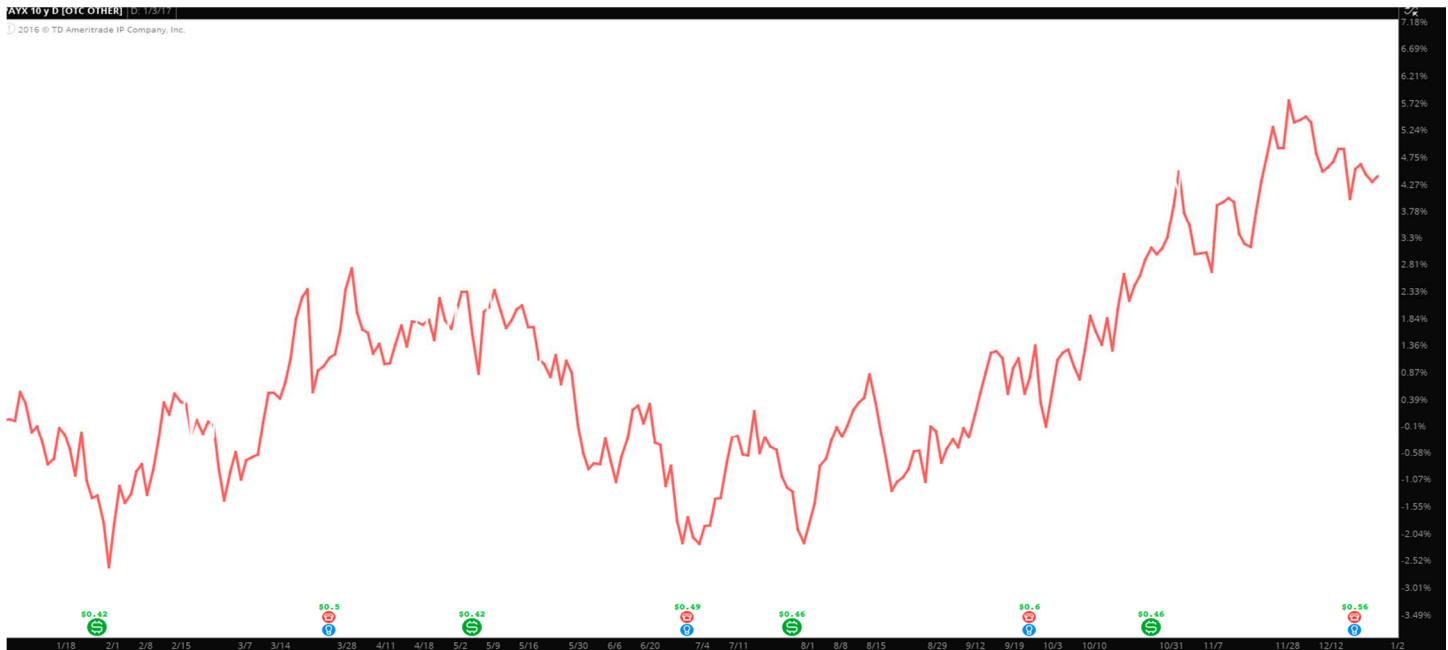
Amazon (AMZN) – 10.04% Average Return

Amazon shares are seasonally strong in September with an average return of 10.04% since 1997. The next best months for shares are April and November which average 8.98% and 8.09% return while March is also strong, so some seasonal strength in the Fall. Shares are higher six of the last eight years in September. The worst month for shares is February which averages a 2.96% loss and then May.



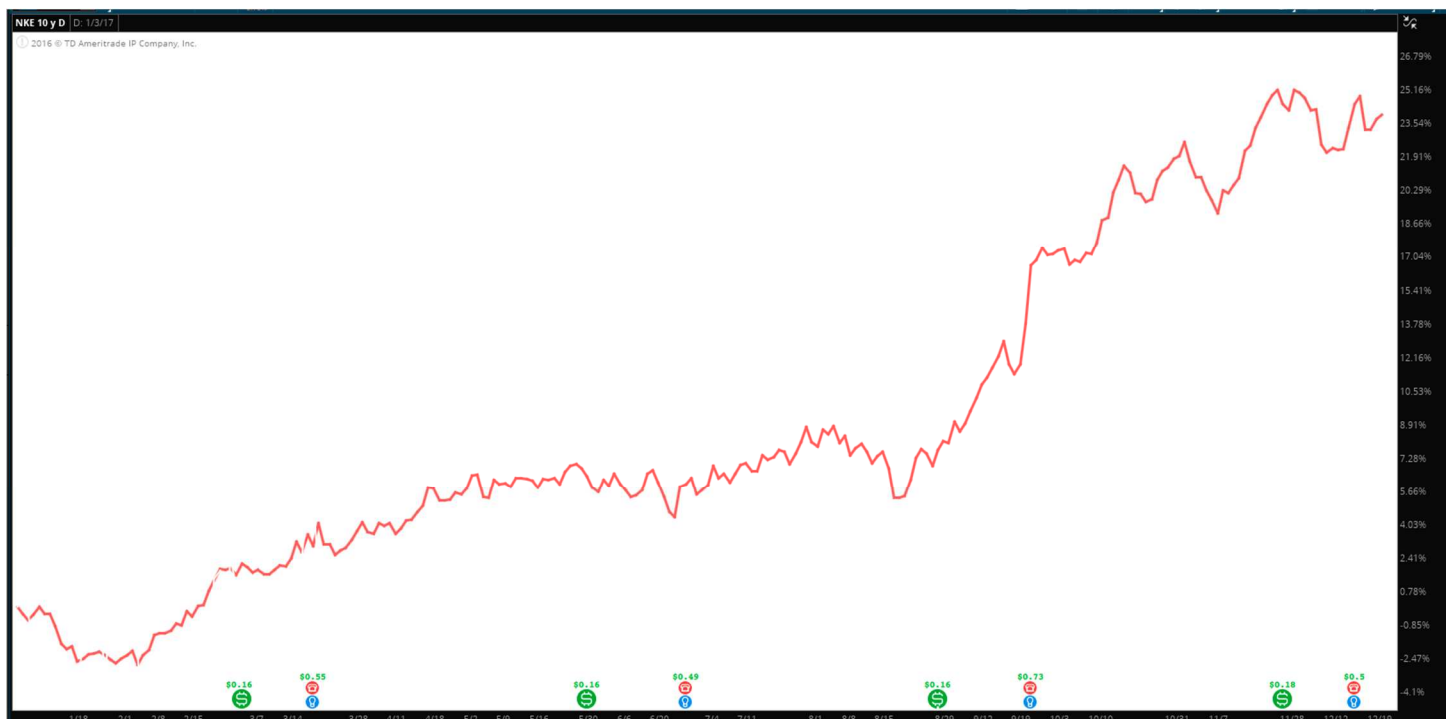
Paychex (PAYX) – 6.12% Average Return

Paychex shares are seasonally strong in September with an average return of 6.12% since 1990. The next best months for shares are October and March which average 4.47% and 3.51% return while November is also strong, so some seasonal strength into the Fall. Shares are higher four of the last five years in September. The worst month for shares is January which averages a 0.82% loss and then May.



Nike (NKE) – 5.34% Average Return

Nike shares are seasonally strong in September with an average return of 5.34% since 1990. The next best months for shares are March and December which average 4.78% and 4.24% return while October and November are also strong, so some seasonal strength in the Fall. Shares are higher three of the last four years in September by more than double-digits. The worst month for shares is August which averages a 2.02% loss and then May.



Other Notable Strength – AMZN, YHOO, PSUN, PAYX, BVN, NKE, PDCO, NVS, T, CPE, PDCE, BBY, NOK, GILD, IRM, DRI, AGN, VIAV, MCO, SPLS, MGM, HCC, TE, GSS, BBY, PDLI, RDEN, AFFX, RIGL, ATVI, OHI, SONC, ELGX, ALL, GD, MYL, CCL, OKE, SO, XEL, GSK

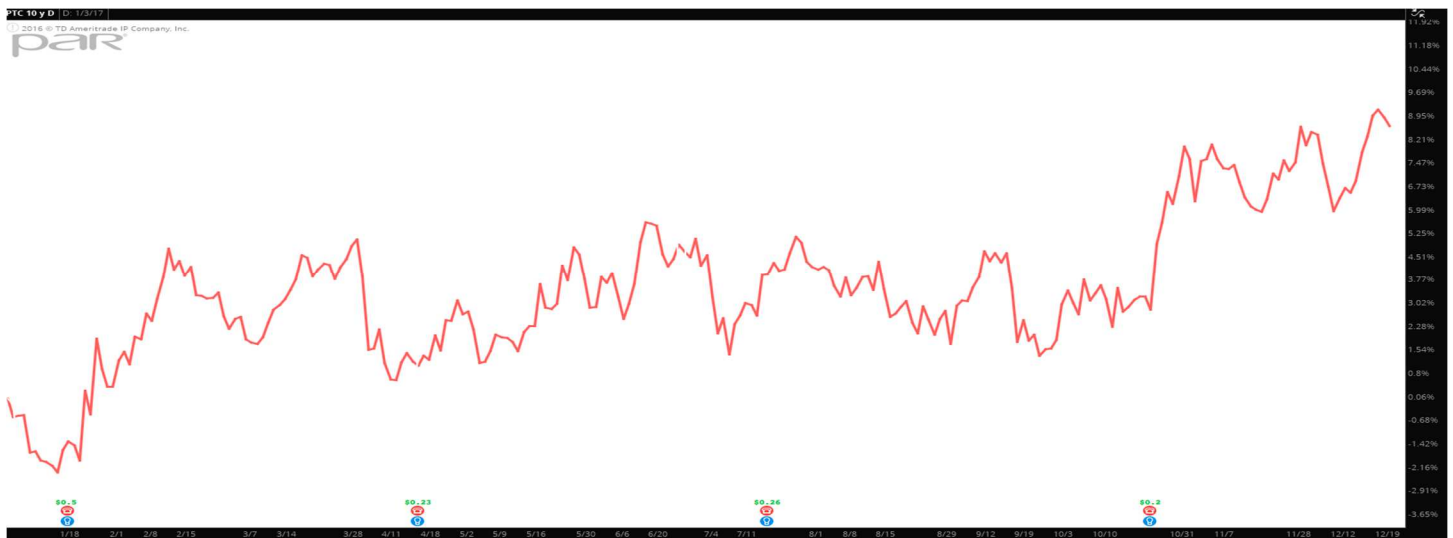
Other Notable Weakness: LNG, SKX, VG, ON, KKD, AGEN, BLDR, GTE, OI, CY, NUAN, CPN, HTZ, AXL, TER, CPG, GPS, X, BEAV, CX, AXLL, LSCC, GGB, TRMB, ARRS, EXEL, GPK, NRG, ABB, CMI, MRVL, CNX, AVP, FIS, LPX, AER, VZZ, MHR, ANF, AA, MOS, ALK, AMAT, BBG, GES, ING, HON, LRCX, FLR, FLS, AAPL, CE, ROST, TSM, CBI, CLF

October

SPX Since 1989: Average Move 1.63% Max Move 10.77%, Min Move -16.94%

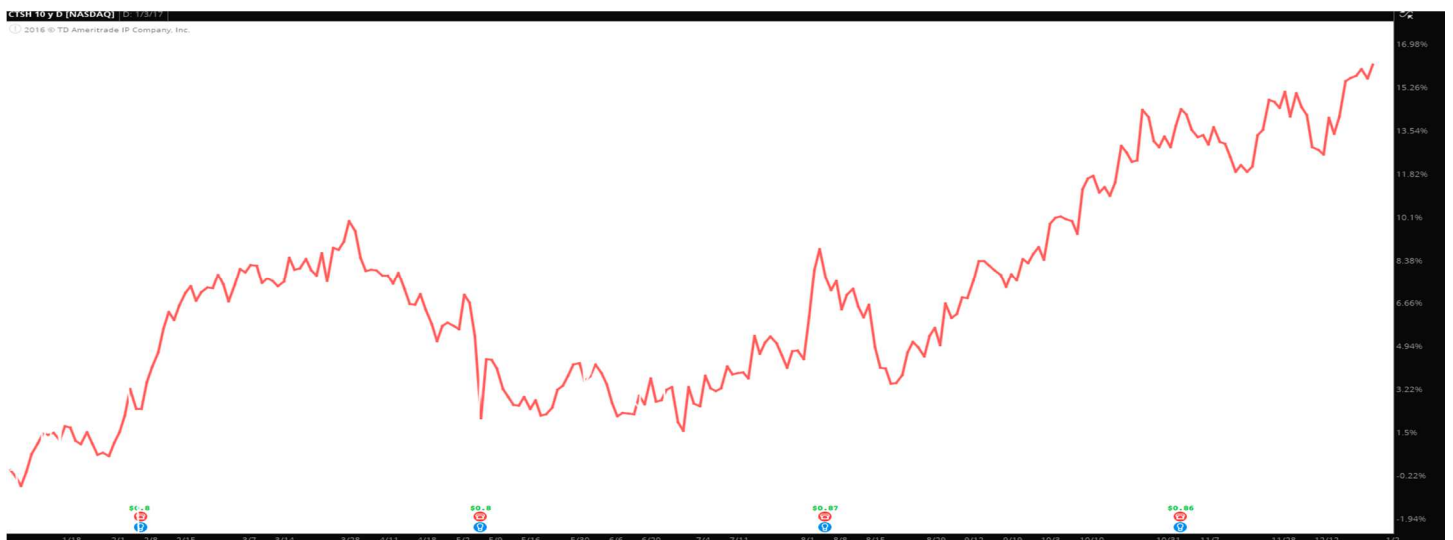
PTC (PTC) – 11.06% Average Return

PTC shares are seasonally strong in October with an average return of 11.06% since 1990. The next best months for shares are November and May which average 4.47% and 3.62% return while February is also strong, so some seasonal strength in the Fall. Shares are higher the last three years in October. The worst month for shares is March which averages a 1.25% loss and then May.



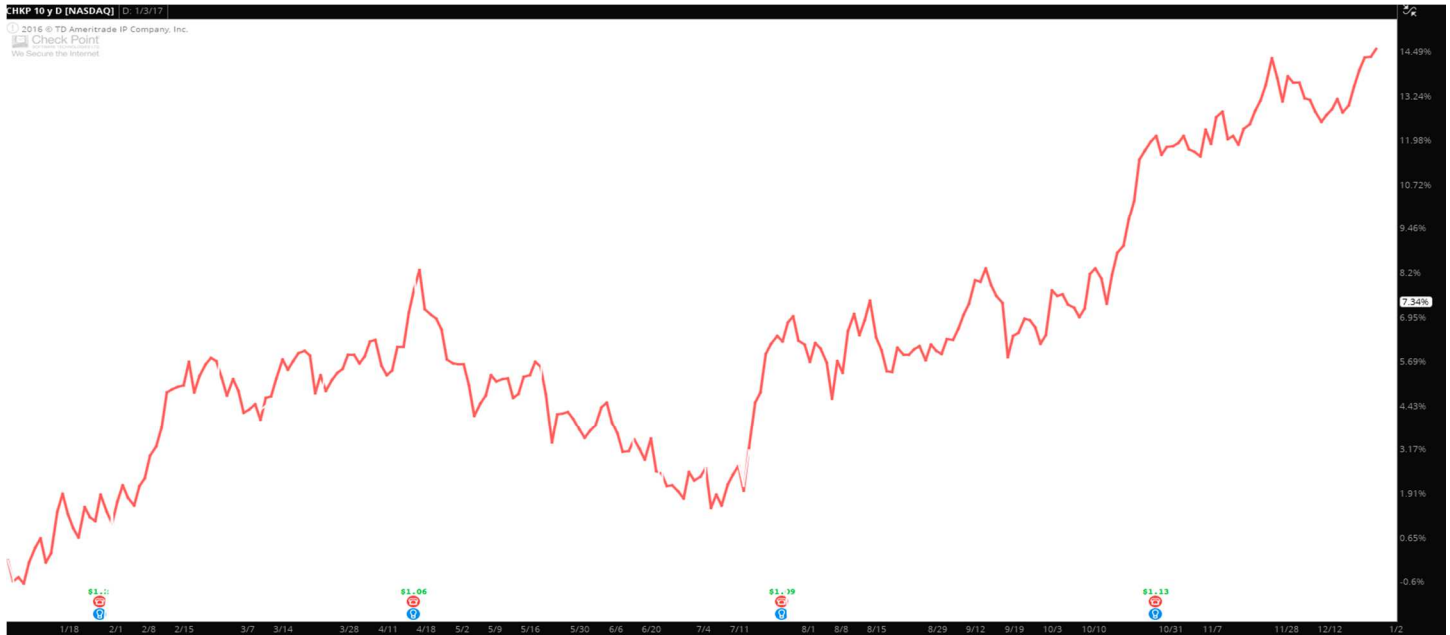
Cognizant (CTSH) – 10.45% Average Return

Cognizant Tech shares are seasonally strong in October with an average return of 10.45% since 1998. The next best months for shares are December and July which average 10.04% and 6.98% return while November is also strong, so some seasonal strength in the Fall. Shares are higher six of the last seven years in October. The worst month for shares is April which averages a 1.33% loss and then May.



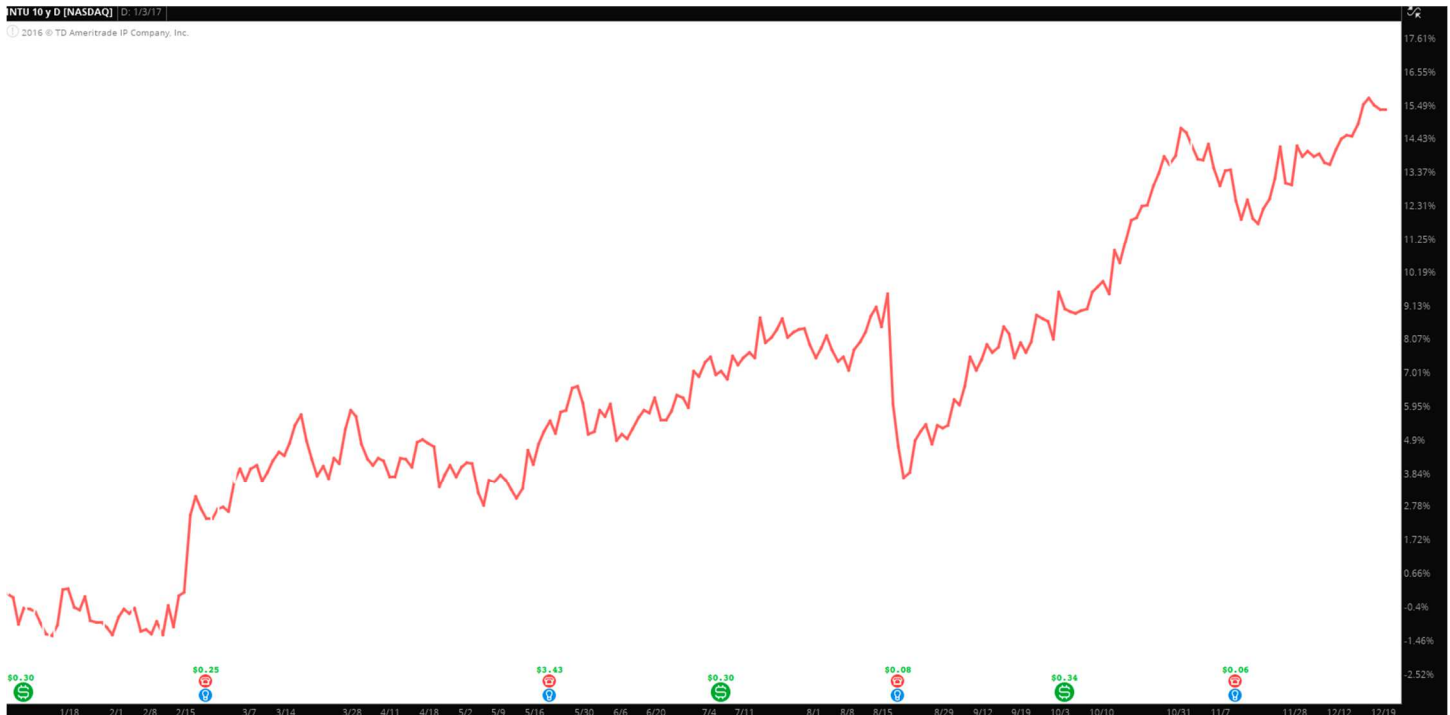
Check Point (CHKP) – 8.68% Average Return

Check Point shares are seasonally strong in October with an average return of 8.68% since 1996. The next best months for shares are November and January which average 4.35% and 4.12% return while December is also strong, so some seasonal strength in the Fall and Winter. Shares are higher the last four years in October and seven of the last eight years. The worst month for shares is April which averages a 1.69% loss and then June.



Intuit (INTU) – 7.77% Average Return

Intuit shares are seasonally strong in October with an average return of 7.77% since 1993. The next best months for shares are November and June which average 4.94% and 4.54% return while August is also strong, so some seasonal strength in the Fall. Shares are higher seven of the last eight years in October. The worst month for shares is July which averages a 2.54% loss and then January.



Other notable strength: CPHD, SUNE, LCI, TASR, PTC, CTSH, VIP, CHKP, CA, BIIB, MYGN, BRCD, INTU, ESI, INFY, ALK, AAPL, IBN, MCHP, NOK, GPN, VOD, PGR, STM, MENT, MSFT, MON, MS, ADM, GS, FDX, MHFI, CL, EXPD, ACE, NUE, CB, ACN, VIV, OMC, TEF, EIX, DHR, SYMC, ADP, COST, SYU, BEN, PG, FHN, CLX, MAT, VZ, TRV, BMY, CPB, WBA, KMB, PFE, PCG, AKAM, LRCX, ADBE, CTXS, EMC, GPS, CSCO, ROST, TTMI, TSM, RCL, CNI, SBUX, SCHW, PH; XLP, XLK

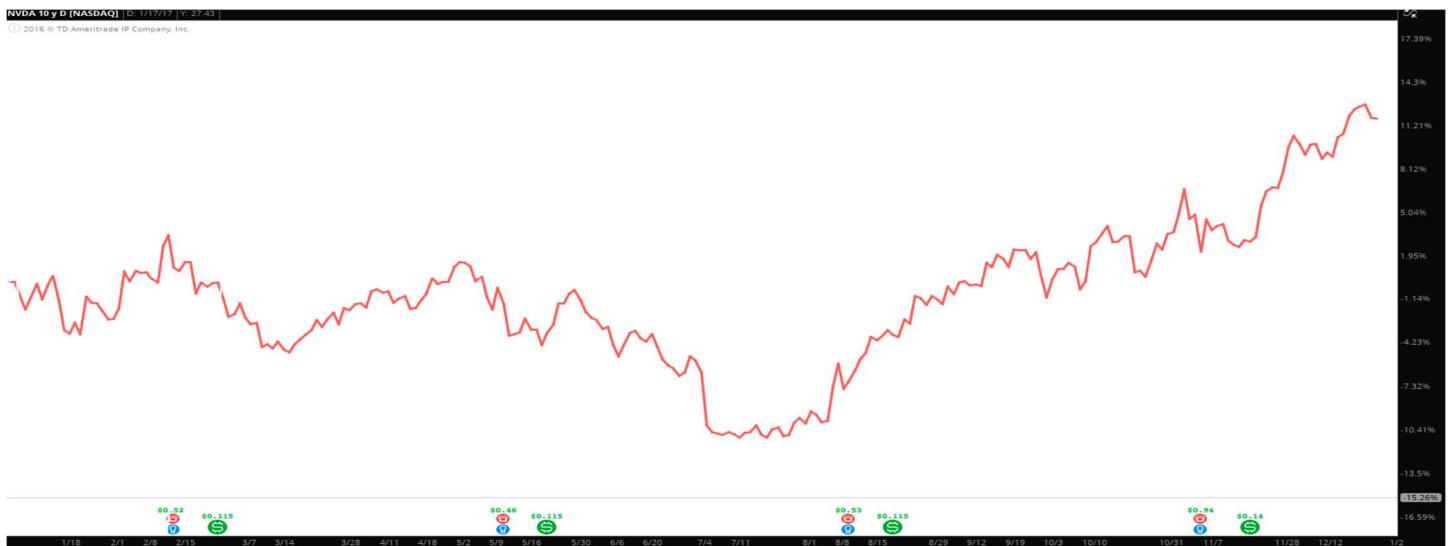
Other Notable Weakness: CYH, HL, EXAS, CDE, KGC, IPXL, ELGX, AEM, ENDP, KND, DAR, THC, PPC, AU, RCI, NEM, PAAS, GPOR, MDR, GFI, ACHC, ABEV, XRX, WEN, ABX, ARIA, EW, CVA, HES, CI, MNST, MCK, ABC, RRC, CAR, ESRX, MRO, NLY, RTN, BAX, LEN, MSI, LMT, NVO, NOC

November

SPX Since 1989: Average Move 1.49% Max Move 7.52%, Min Move -8.01%

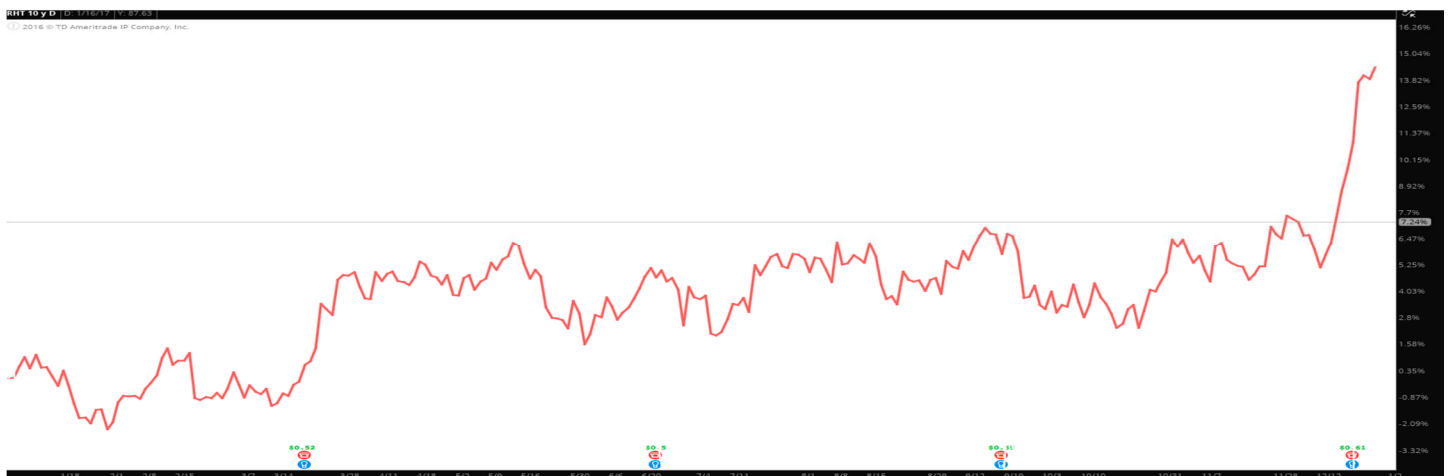
Nvidia (NVDA) – 11.95% Average Return

Nvidia shares are seasonally strong in November with an average return of 11.95% since 1999. The next best months for shares are August and May which average 8.88% and 8.69% return while February and December are also strong, so some seasonal strength in the Winter. Shares are higher the last eight years in November. The worst month for shares is July which averages a 5.87% loss and then June.



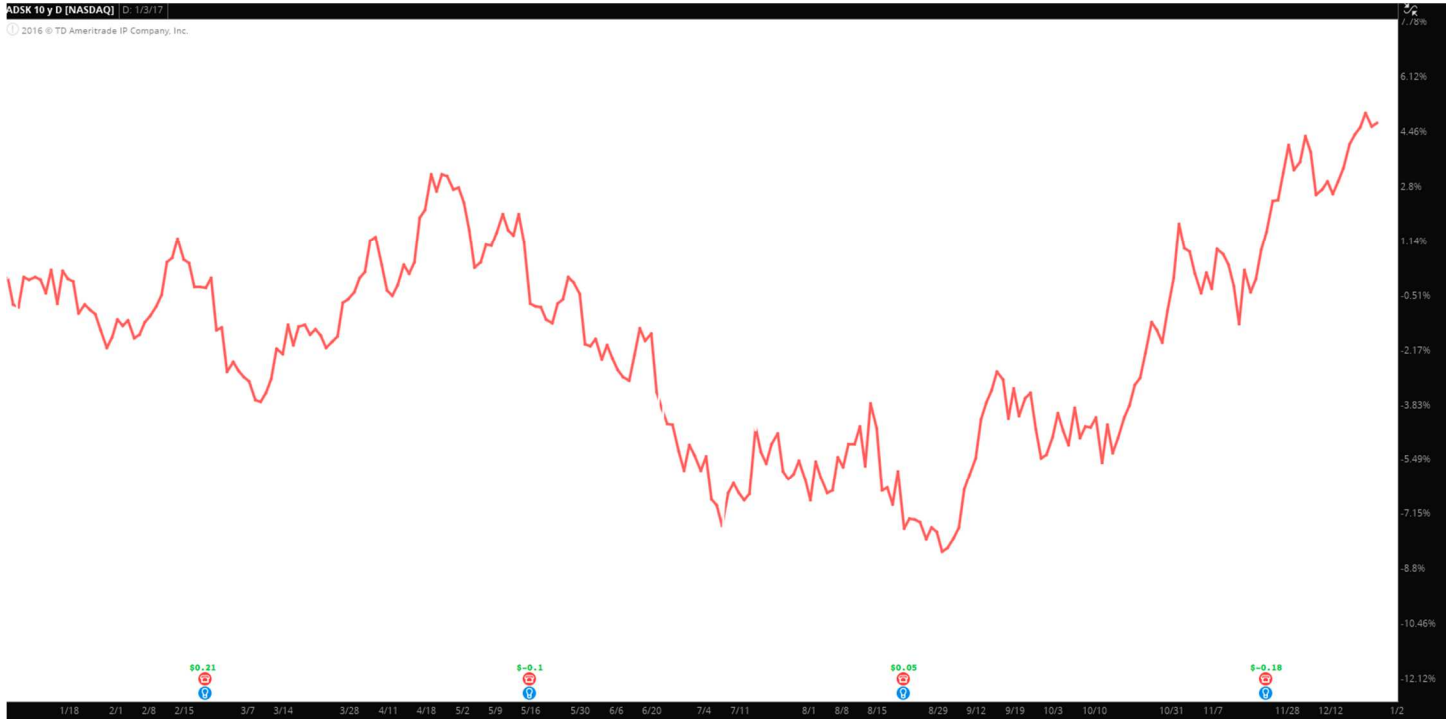
Red Hat (RHT) – 11.50% Average Return

Red Hat shares are seasonally strong in November with an average return of 11.50% since 1999. The next best months for shares are December and September which average 8.62% and 4.24% return while August and May are also strong, so some seasonal strength in the Fall and Winter. Shares are higher the last eight years in November. The worst month for shares is February which averages a 5.46% loss and then April.



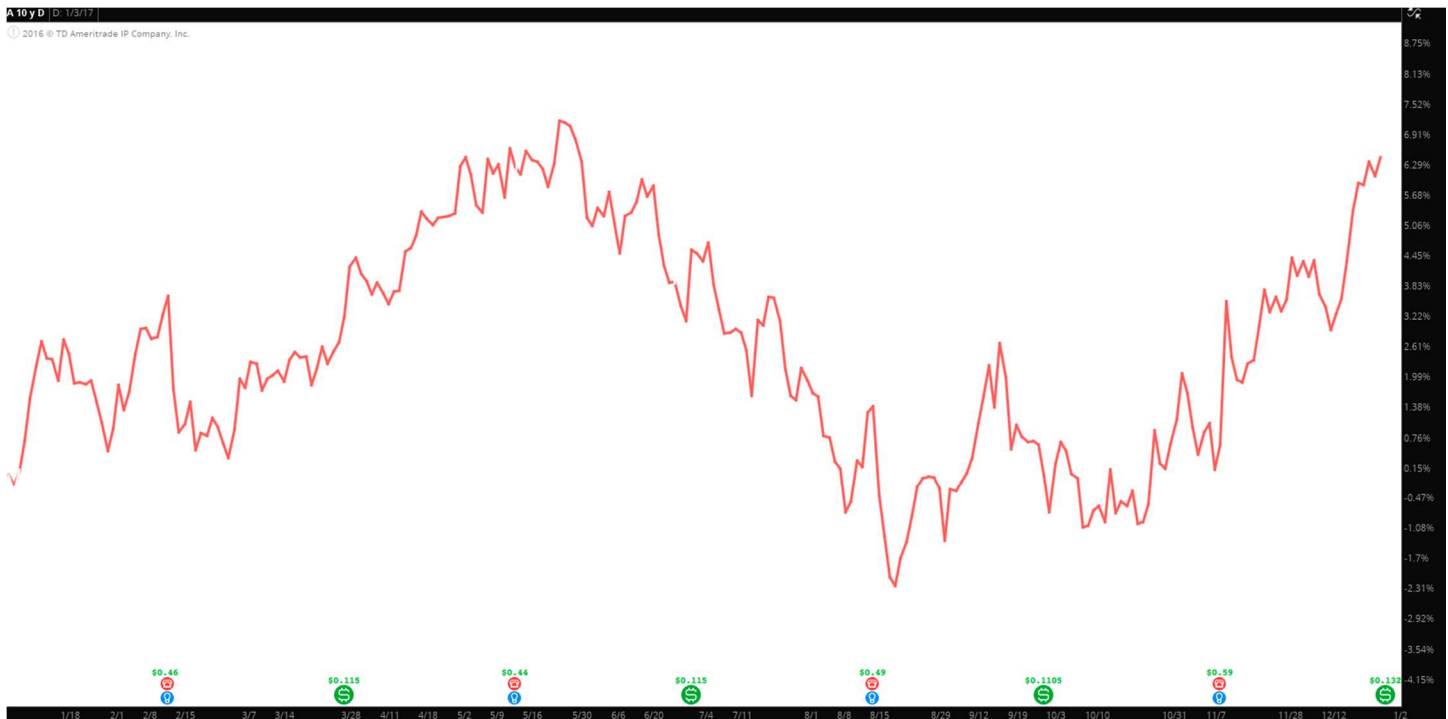
Autodesk (ADSK) – 8.38% Average Return

Autodesk shares are seasonally strong in November with an average return of 8.38% since 1990. The next best months for shares are February and December which average 5.19% and 3.88% return while August is also strong, so some seasonal strength in the Winter. Shares are higher the last five years in November. The worst month for shares is July which averages a 2.63% loss and then June.



Agilent (A) – 6.56% Average Return

Agilent shares are seasonally strong in November with an average return of 6.56% since 1999. The next best months for shares are December and April which average 6.24% and 1.94% return while October is also strong, so some seasonal strength in the Winter. Shares are higher the last eight years in November. The worst month for shares is July which averages a 4.12% loss and then September.



Other notable strength– FNSR, ABB, NVDA, RHT, AMKR, DYAX, AMD, VIAV, ADSK, AMTD, ANF, NKTR, WNC, VRSN, HNT, GLW, GPS, TTMI, ATML, SEE, AOS, A, CSCO, FLEX, CI, VMC, LOW, AET, OLN, CDNS, OZRK, MYL, LUV, ANTM, EMR, DE, JWN, PCAR, SPLS, MCD, UPS, RHI, WMT, COST, KNX, PNC, WEN, CMC, CCJ, HRL, MMM, MRK, LLY, HFC, FTR, RTN, CHD, KEY

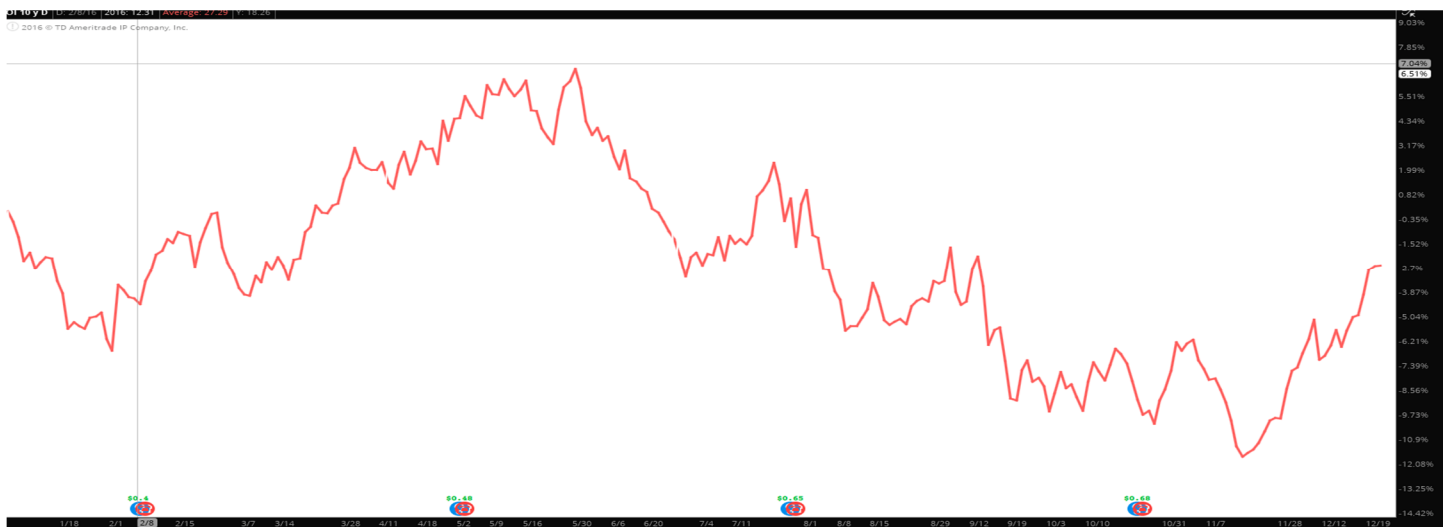
Notable Weakness: NBG, KEG, ESV, OPK, ATW, LYG, NE, WFT, APA, PBR, TDW, NBL, HCN, DDR, PTEN, SNH, KIM, CBL, OII, NFX, STO, SLB, EA, EOG, SU

December

SPX Since 1989: Average Move **1.70%** Max Move 11.16%, Min Move -6.03%

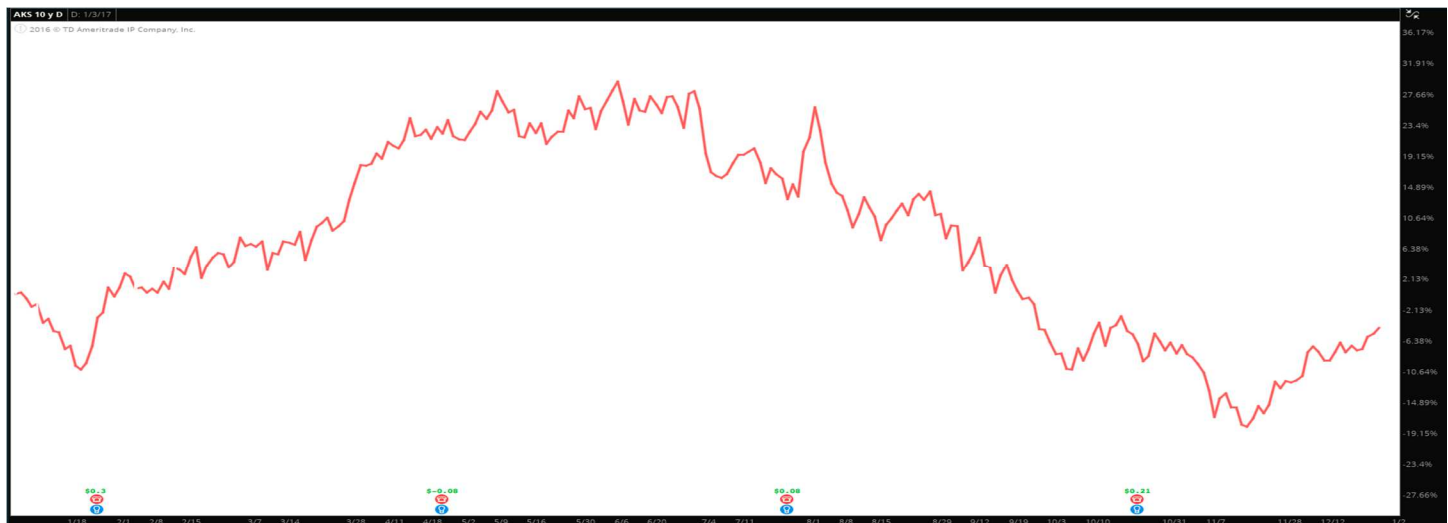
Owens Illinois (OI) – 10.91% Average Return

Owens Illinois shares are seasonally strong in December with an average return of 10.91% since 1991. The next best months for shares are October and May which average 3.83% and 3.61% return while April is also strong, so some seasonal strength in the late Winter into Spring. Shares are higher seven of the last nine years in December. The worst month for shares is September which averages a 6.04% loss and then August.



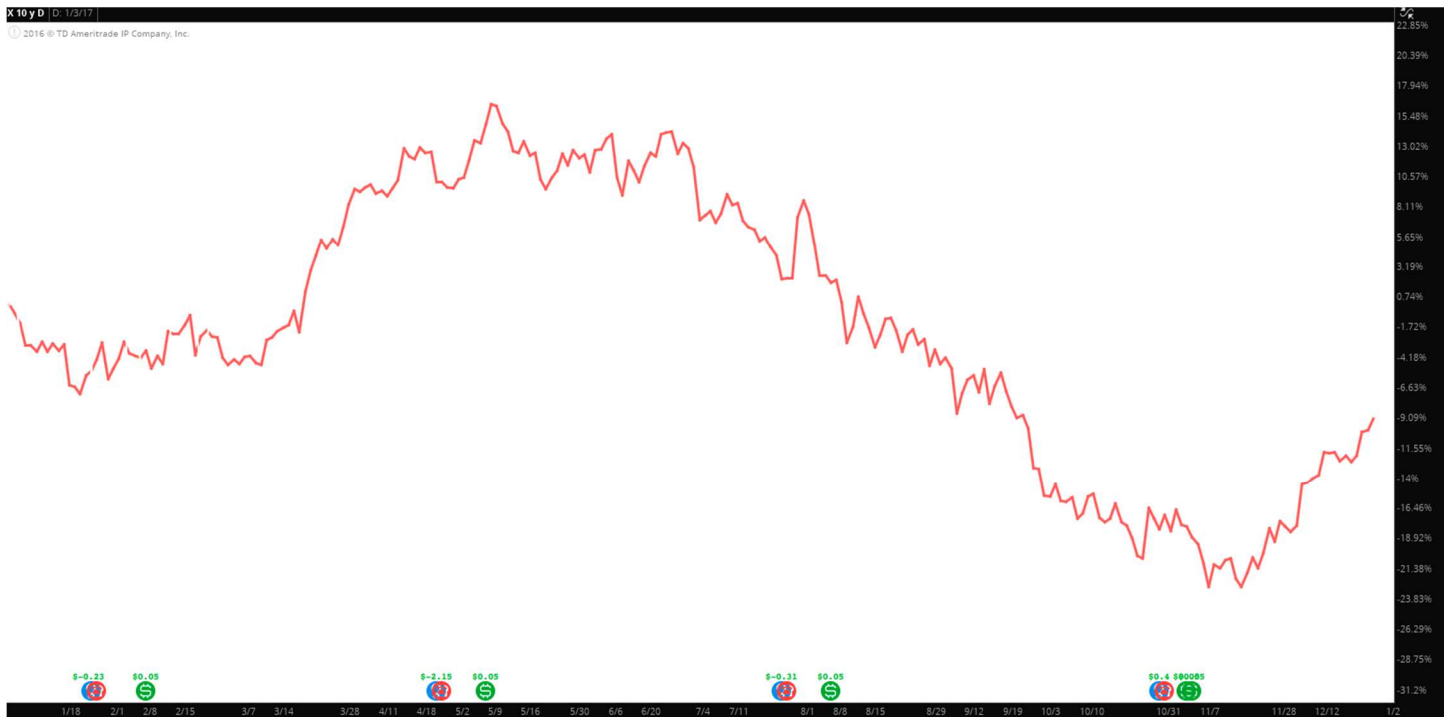
AK Steel (AKS) – 10.41% Average Return

AK Steel shares are seasonally strong in December with an average return of 10.41% since 1994. The next best months for shares are November and March which average 6.19% and 4.86% return while April is also strong, so some seasonal strength in the late Winter and Spring. Shares are higher eight of the last ten years in December. The worst month for shares is September which averages a 6.43% loss and then January.



US Steel (X) – 8.45% Average Return

US Steel shares are seasonally strong in December with an average return of 8.45% since 1991. The next best months for shares are November and March which average 7.38% and 4.76% return while April is also strong, so some seasonal strength in the late Winter into Spring. Shares are higher six of the last nine years in December. The worst month for shares is September which averages a 5.01% loss and then August.

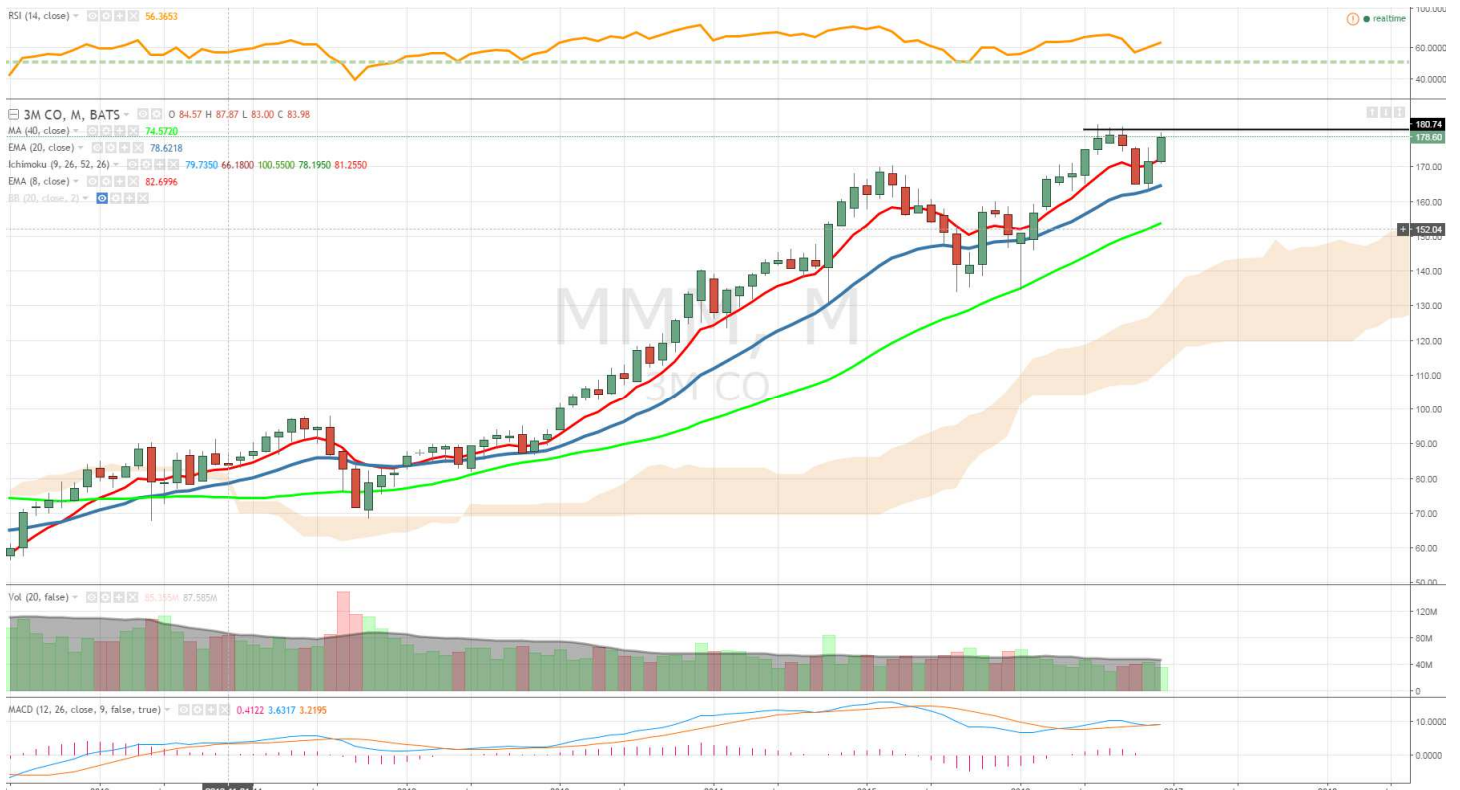


Other notable strength: CENX, INCY, OI, SPF, NTAP, AKS, ERJ, FBR, MTG, LEN, VRX, SBGI, X, SSRI, HLS, TIVO, ROVI, OCR, KBH, ESRX, AES, TER, MOS, EXEL, PHM, GRMN, TOL, CNX, GCI, EAT, TWX, TGNA, STZ, BC, IVZ, RCL, ADI, ALXN, KLAC, DF, MAS, DHI, SYK, CCL, VTR, CRH, TROW, KIM, POT, SONC, CNW, SCHW, PLD, JBHT, IRM, HD, IPG, XLV

Notable Weakness: GDP, AEO, SWHC, CRUS, BBY, SRPT, FINL, MBT, NUAN, PTN, SINA, DLTR, KERX, HAL, ERF, FCX, NPBC, FLO, CHS, TTWO, CNI, TSCO, LRCX, EBAY, CERN

Technical Momentum into 2017 with Consolidation Patterns Near Breakouts or Freshly Breaking Out (\$3B+ Market Caps)

3M (MMM)



Charter (CHTR)



Texas Instruments (TXN)



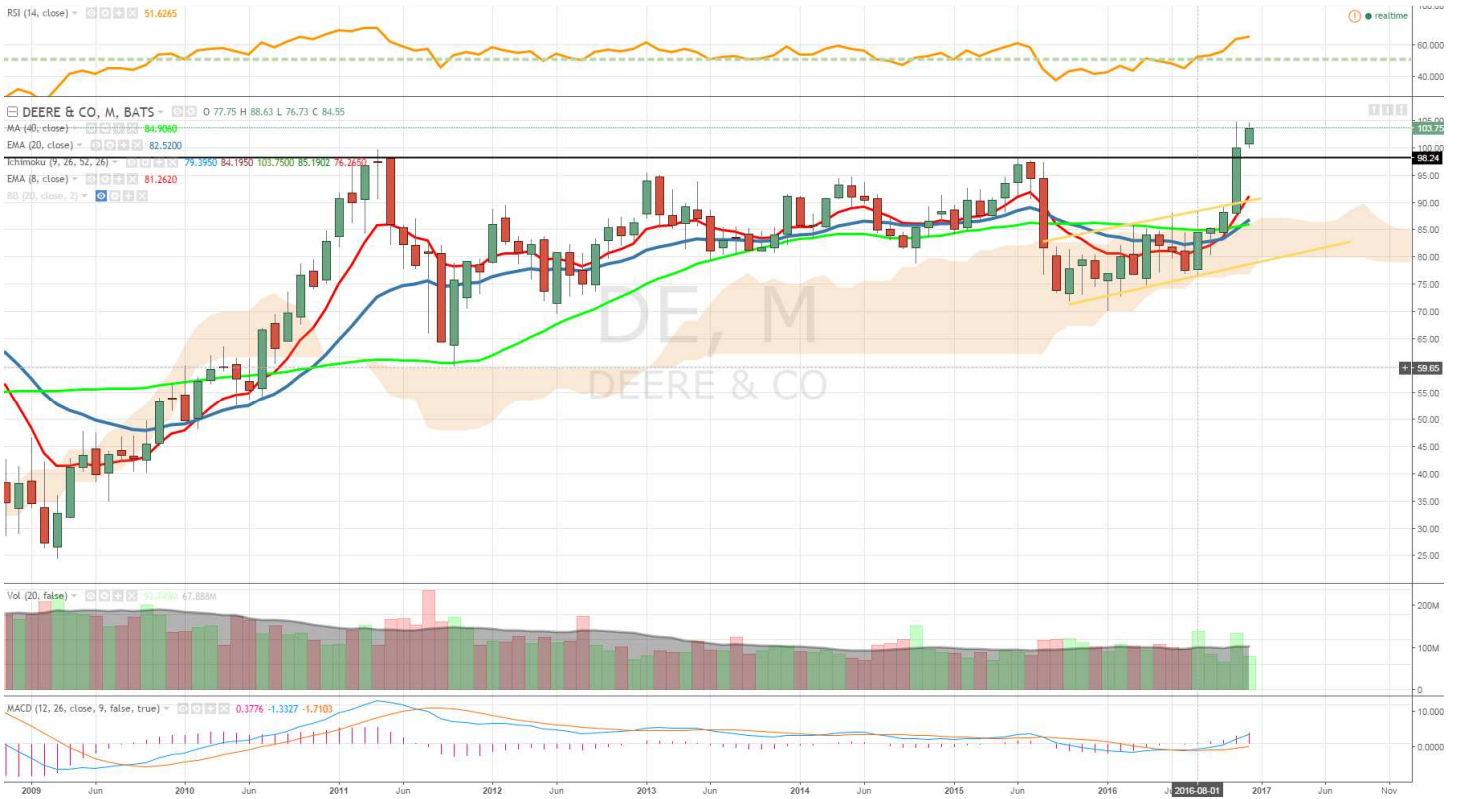
Broadcom (AVGO)



ASML Holding (ASML)



Deere & Co. (DE)



Yum! Brands (YUM)



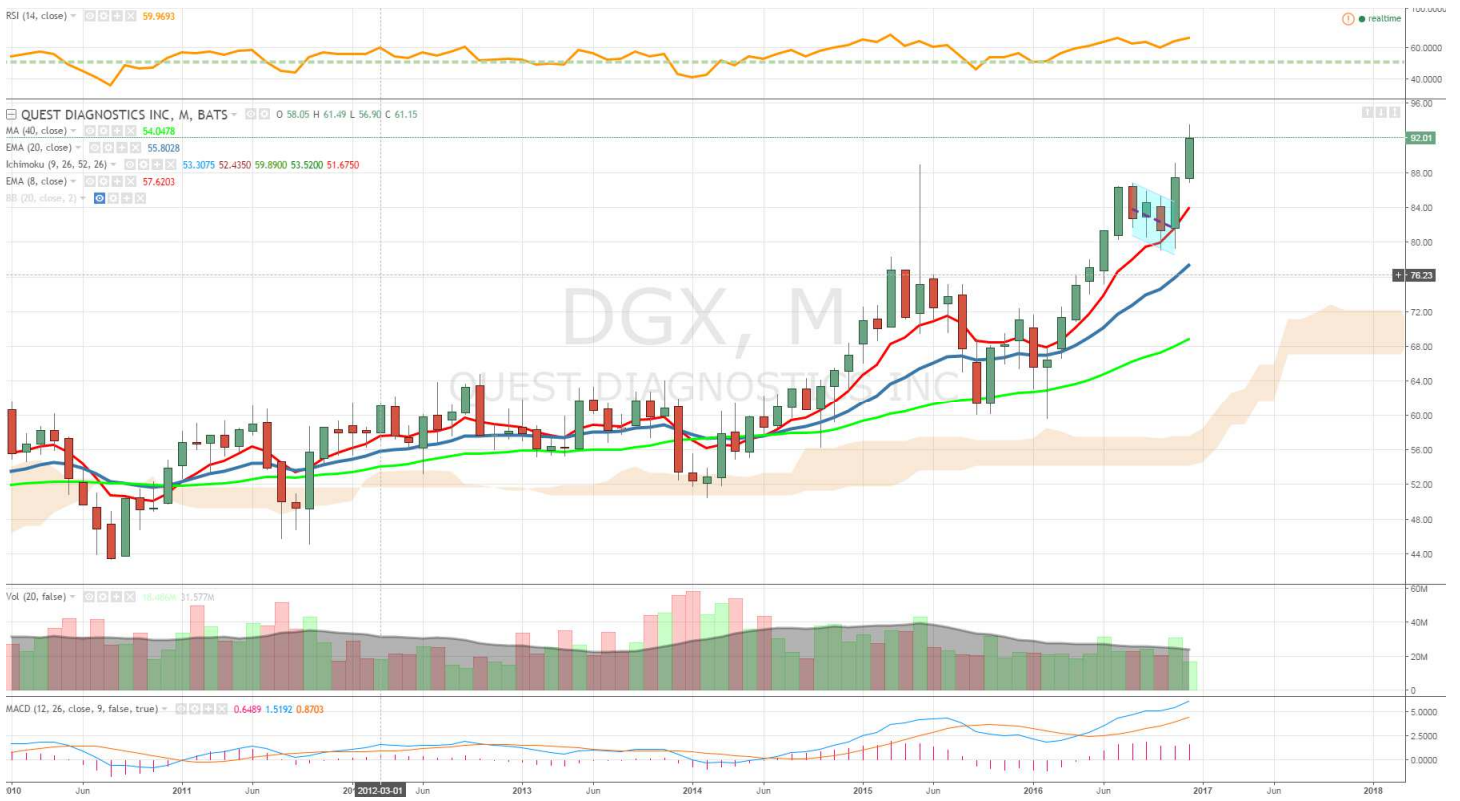
Analog Devices (ADI)



Xilinx (XLNX)



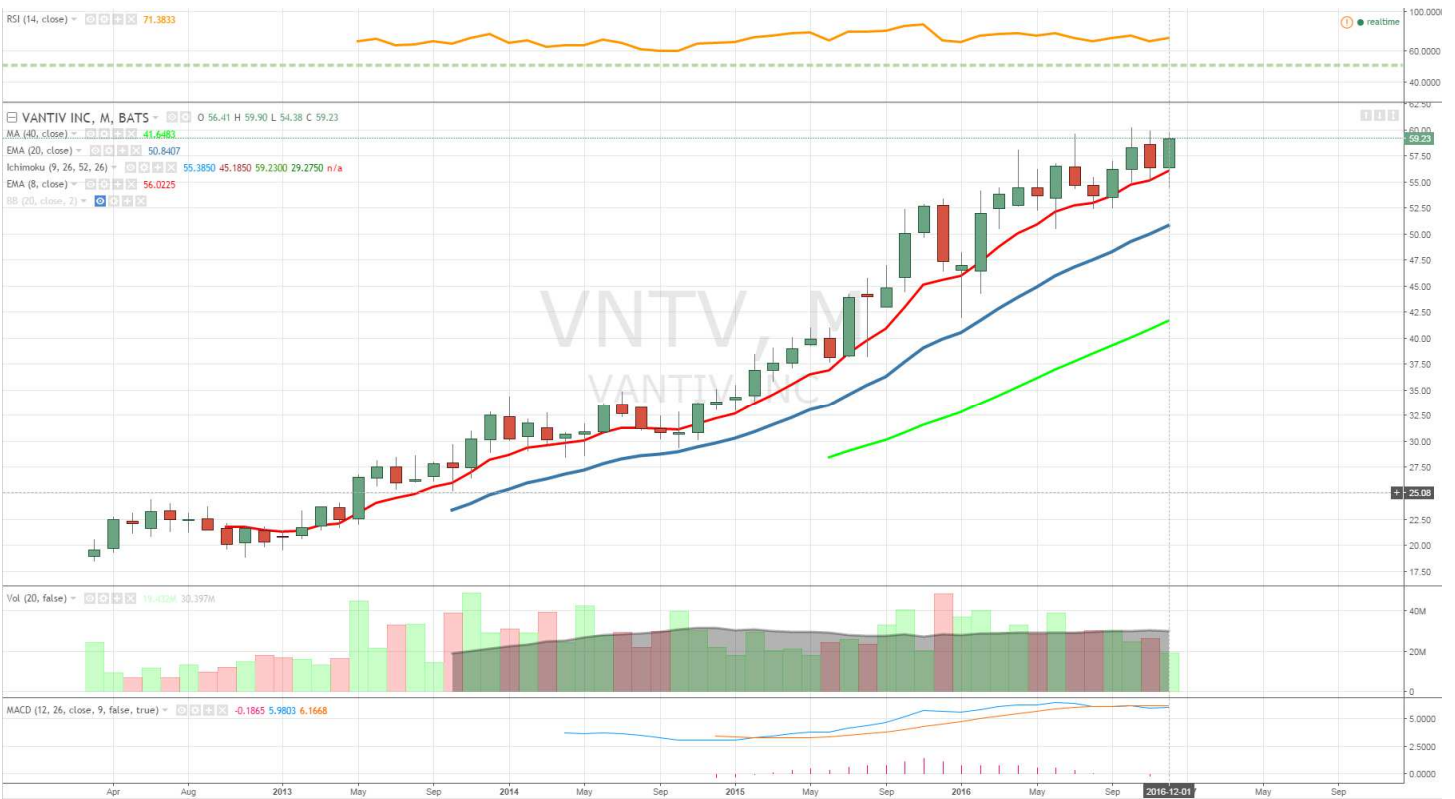
Quest Diagnostics (DGX)



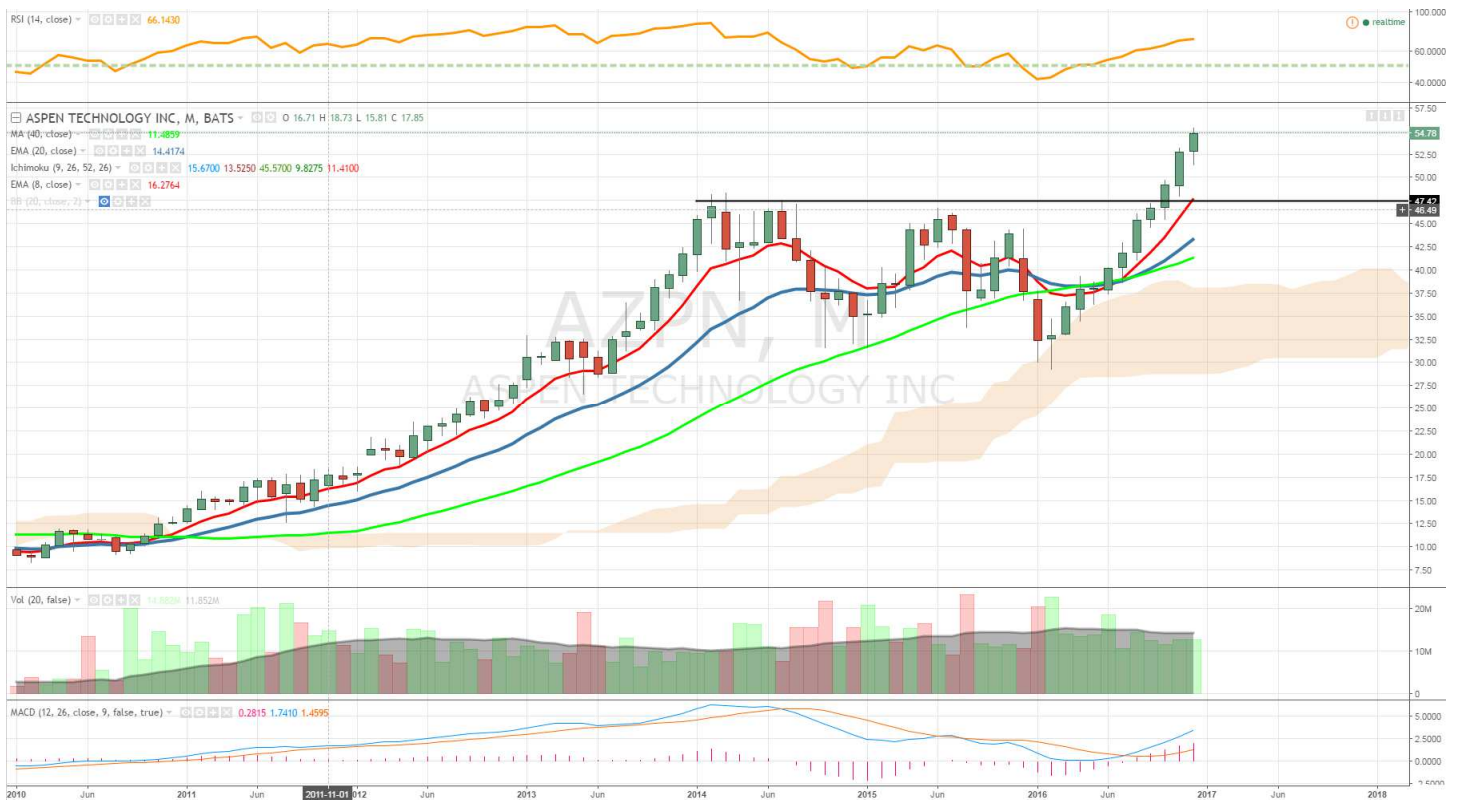
F-5 Networks (FFIV)



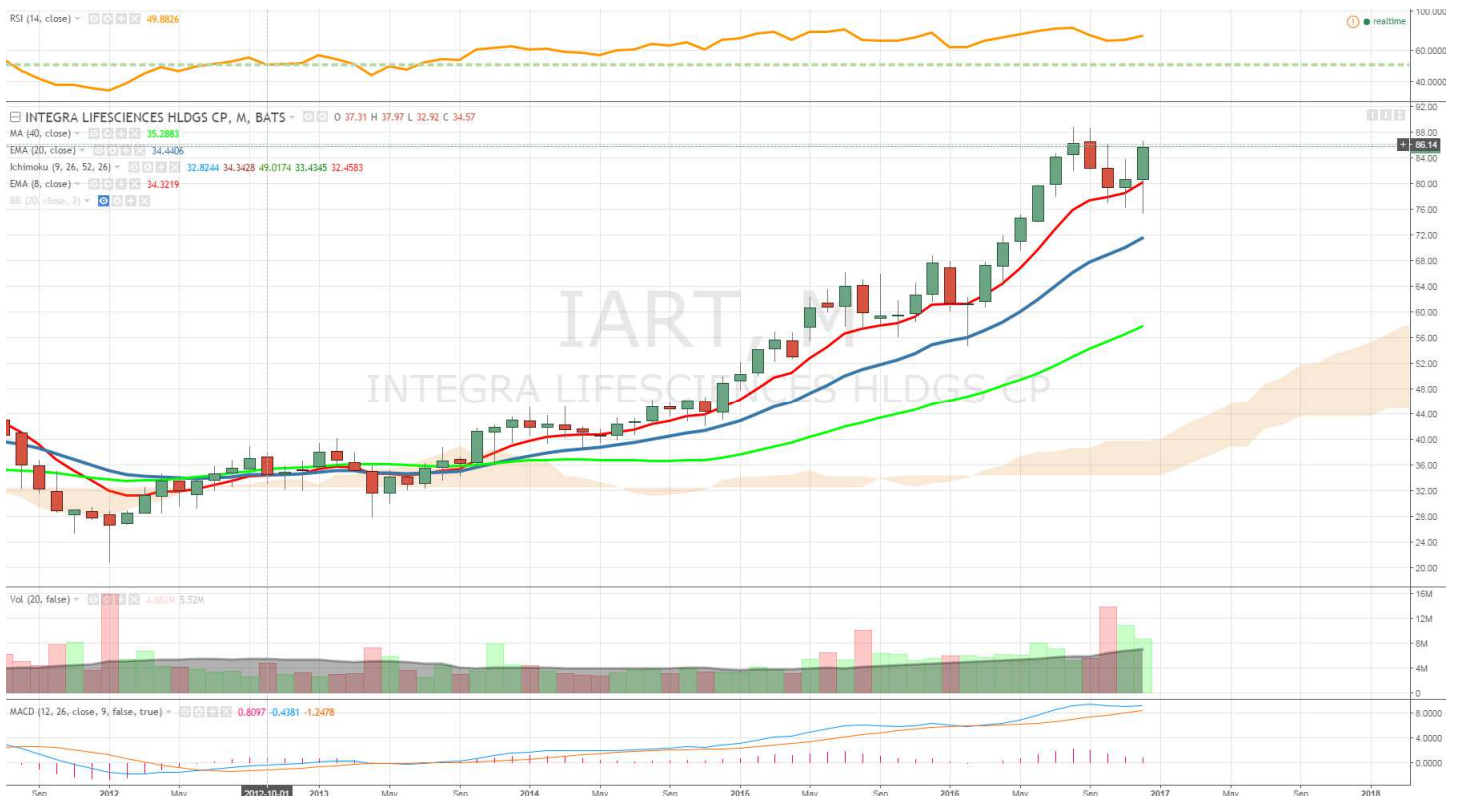
Vantiv (VNTV)



Aspen Tech (AZPN)



Integra Lifesciences (IART)



Large Options Open Interest Positions of Note (February 2017-Jan. 2018 Expirations)

February 2017

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
10/21/2016	BAC 100 17 FEB 17 17 CALL	85,047	\$0.72	\$6,123,384
11/15/2016	BAC 100 17 FEB 17 20 CALL	43,892	\$1.10	\$4,828,120
10/20/2016	AAPL 100 17 FEB 17 125 CALL	15,586	\$2.97	\$4,629,042

12/6/2016	GOOG 100 17 FEB 17 780 CALL	2,008	\$22.60	\$4,538,080
12/21/2016	BIIB 100 17 FEB 17 300 CALL	3,246	\$10.54	\$3,421,284
12/7/2016	MSFT 100 17 FEB 17 60 CALL	13,152	\$2.43	\$3,195,936
12/7/2016	C 100 17 FEB 17 57.5 CALL	7,798	\$3.25	\$2,534,350
12/21/2016	CTSH 100 17 FEB 17 57.5 CALL	11,343	\$2.18	\$2,472,774
11/7/2016	DG 100 17 FEB 17 67.5 CALL	3,962	\$5.28	\$2,091,936
11/30/2016	AMTD 100 17 FEB 17 42 CALL	13,180	\$1.57	\$2,069,260
12/15/2016	MGM 100 17 FEB 17 27 CALL	7,395	\$2.78	\$2,055,810
12/21/2016	SLCA 100 17 FEB 17 55 CALL	5,337	\$3.70	\$1,974,690
11/11/2016	RF 100 17 FEB 17 13 CALL	43,367	\$0.45	\$1,951,515
12/6/2016	AAL 100 17 FEB 17 48 CALL	7,782	\$2.30	\$1,789,860
11/14/2016	AAL 100 17 FEB 17 48 CALL	10,357	\$1.27	\$1,315,339
11/30/2016	HD 100 17 FEB 17 140 CALL	19,012	\$0.94	\$1,787,128
11/23/2016	CVS 100 17 FEB 17 70 CALL	3,042	\$5.40	\$1,642,680
12/5/2016	X 100 17 FEB 17 37 CALL	5,288	\$3.05	\$1,612,840
12/8/2016	LVS 100 17 FEB 17 50 CALL	2,326	\$6.10	\$1,418,860
12/16/2016	MET 100 17 FEB 17 57.5 CALL	10,237	\$1.36	\$1,392,232
12/12/2016	CSOD 100 17 FEB 17 45 CALL	4,746	\$2.90	\$1,376,340
12/6/2016	SBUX 100 17 FEB 17 60 CALL	12,500	\$1.10	\$1,375,000
12/15/2016	UNP 100 17 FEB 17 105 CALL	3,452	\$3.95	\$1,363,540
11/25/2016	AA 100 17 FEB 17 35 CALL	10,506	\$1.25	\$1,313,250
11/21/2016	USB 100 17 FEB 17 50 CALL	11,156	\$1.15	\$1,282,940
11/23/2016	XPO 100 17 FEB 17 48 CALL	5,202	\$2.45	\$1,274,490
12/8/2016	INTC 100 17 FEB 17 37 CALL	16,676	\$0.76	\$1,267,376
12/28/2016	PRU 100 17 FEB 17 110 CALL	5,055	\$2.37	\$1,198,035
12/28/2016	AA 100 17 FEB 17 32 CALL	10,057	\$1.09	\$1,096,213
9/15/2016	RARE 100 17 FEB 17 70 CALL	755	\$15.07	\$1,137,785
11/11/2016	CF 100 17 FEB 17 30 CALL	5,828	\$1.94	\$1,130,632
12/20/2016	NKE 100 17 FEB 17 52.5 CALL	7,379	\$1.51	\$1,114,229
12/7/2016	HES 100 17 FEB 17 60 CALL	2,461	\$4.23	\$1,041,003
12/6/2016	STLD 100 17 FEB 17 38 CALL	4,583	\$2.24	\$1,026,592
12/14/2016	CRM 100 17 FEB 17 75 CALL	5,164	\$1.89	\$975,996
12/20/2016	WFC 100 17 FEB 17 57.5 CALL	6,619	\$1.43	\$946,517
12/8/2016	SBUX 100 17 FEB 17 60 CALL	5,839	\$1.61	\$940,079
12/1/2016	ACIA 100 17 FEB 17 65 CALL	1,035	\$8.87	\$918,045
12/7/2016	CIT 100 17 FEB 17 44 CALL	5,707	\$1.60	\$913,120
10/17/2016	XPO 100 17 FEB 17 39 CALL	5,020	\$1.80	\$903,600
9/8/2016	OAS 100 17 FEB 17 10 CALL	3,370	\$2.50	\$842,500
8/24/2016	LPX 100 17 FEB 17 19 CALL	4,394	\$1.89	\$830,466
11/7/2016	HAIN 100 17 FEB 17 37 CALL	2,215	\$3.65	\$808,475
12/13/2016	YELP 100 17 FEB 17 38 CALL	2,795	\$2.55	\$712,725
12/9/2016	UTX 100 17 FEB 17 110 CALL	2,063	\$3.42	\$705,546
11/22/2016	BLL 100 17 FEB 17 77.5 CALL	2,616	\$2.55	\$667,080
12/20/2016	LNG 100 17 FEB 17 42.5 CALL	3,128	\$1.83	\$572,424
12/22/2016	MAT 100 17 FEB 17 30 CALL	7,502	\$0.74	\$555,148
12/7/2016	MAS 100 17 FEB 17 32 CALL	4,154	\$1.30	\$540,020

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
12/22/2016	DLTR 100 17 FEB 17 80 PUT	6,631	\$3.10	\$2,055,610
7/12/2016	WPPGY 100 17 FEB 17 105 PUT	2,646	7.6	\$2,010,960
12/22/2016	WMT 100 17 FEB 17 70 PUT	8,348	\$2.09	\$1,744,732
12/8/2016	MS 100 17 FEB 17 45 PUT	5,325	\$3.10	\$1,650,750
8/11/2016	KORS 100 17 FEB 17 52.5 PUT	2,119	6.96	\$1,474,824
11/15/2016	TDG 100 17 FEB 17 250 PUT	1,256	\$10.00	\$1,256,000
12/22/2016	USFD 100 17 FEB 17 30 PUT	3,200	\$3.70	\$1,184,000
12/7/2016	ALR 100 17 FEB 17 37 PUT	5,000	\$2.20	\$1,100,000
12/20/2016	ACN 100 17 FEB 17 125 PUT	2,036	\$4.80	\$977,280
12/22/2016	BA 100 17 FEB 17 150 PUT	2,716	\$3.55	\$964,180
12/22/2016	HSIC 100 17 FEB 17 150 PUT	2,139	\$4.33	\$926,187
10/11/2016	JCP 100 17 FEB 17 9 PUT	8,165	\$1.10	\$898,150
10/26/2016	GNRC 100 17 FEB 17 40 PUT	2,042	\$4.00	\$816,800
11/29/2016	HPE 100 17 FEB 17 24 PUT	6,000	\$1.30	\$780,000
11/23/2016	NOC 100 17 FEB 17 240 PUT	1,427	\$5.45	\$777,715
12/15/2016	SAGE 100 17 FEB 17 40 PUT	3,398	\$2.20	\$747,560
12/13/2016	VZ 100 17 FEB 17 55 PUT	2,001	\$3.65	\$730,365
12/1/2016	Z 100 17 FEB 17 35 PUT	2,142	\$3.40	\$728,280
11/30/2016	NBIX 100 17 FEB 17 45 PUT	1,818	\$3.80	\$690,840
12/8/2016	PNRA 100 17 FEB 17 185 PUT	1,882	\$2.77	\$521,314
12/8/2016	FAST 100 17 FEB 17 48 PUT	2,709	\$1.90	\$514,710
12/7/2016	LGND 100 17 FEB 17 100 PUT	1,001	\$5.00	\$500,500

March 2017

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
9/13/2016	NFLX 100 17 MAR 17 100 CALL	6,136	\$9.40	\$5,767,840
11/18/2016	SCHW 100 17 MAR 17 37 CALL	17,803	\$2.79	\$4,967,037
12/5/2016	MIDD 100 17 MAR 17 145 CALL	8,533	\$5.69	\$4,855,277
12/9/2016	BAC 100 17 MAR 17 25 CALL	62,988	\$0.71	\$4,472,148
12/20/2016	NVDA 100 17 MAR 17 110 CALL	5,620	\$7.64	\$4,293,680
12/7/2016	BAC 100 17 MAR 17 21 CALL	20,208	\$2.03	\$4,102,224
10/14/2016	TWTR 100 17 MAR 17 16 CALL	10,000	\$3.75	\$3,750,000
11/18/2016	BUD 100 17 MAR 17 105 CALL	6,305	\$4.70	\$2,963,350
11/8/2016	HDS 100 17 MAR 17 35 CALL	15,000	\$1.95	\$2,925,000
9/9/2016	WLL 100 17 MAR 17 13 CALL	40,000	\$0.65	\$2,600,000
10/27/2016	GM 100 17 MAR 17 35 CALL	50,103	\$0.51	\$2,555,253
11/14/2016	V 100 17 MAR 17 80 CALL	6,916	\$3.35	\$2,316,860
11/30/2016	DE 100 17 MAR 17 110 CALL	10,973	\$2.02	\$2,216,546
12/5/2016	DOW 100 17 MAR 17 57.5 CALL	10,577	\$2.05	\$2,168,285
10/20/2016	AAPL 100 17 MAR 17 130 CALL	10,201	\$2.10	\$2,142,210
10/25/2016	GM 100 17 MAR 17 36 CALL	53,029	\$0.40	\$2,121,160
12/15/2016	NVDA 100 17 MAR 17 105 CALL	3,070	\$6.75	\$2,072,250
12/9/2016	MO 100 17 MAR 17 70 CALL	21,797	\$0.93	\$2,027,121
12/8/2016	BX 100 17 MAR 17 32 CALL	22,948	\$0.75	\$1,721,100

12/15/2016	PRU 100 17 MAR 17 115 CALL	6,035	\$2.72	\$1,641,520
12/16/2016	XLNX 100 17 MAR 17 55 CALL	2,861	\$5.45	\$1,559,245
11/15/2016	MDLZ 100 17 MAR 17 45 CALL	10,016	\$1.47	\$1,472,352
12/1/2016	CMI 100 17 MAR 17 150 CALL	3,158	\$4.40	\$1,389,520
11/30/2016	WLL 100 17 MAR 17 16 CALL	24,361	\$0.56	\$1,364,216
11/9/2016	CS 100 17 MAR 17 15 CALL	20,327	\$0.65	\$1,321,255
11/15/2016	USB 100 17 MAR 17 49 CALL	8,044	\$1.64	\$1,319,216
11/3/2016	POST 100 17 MAR 17 80 CALL	3,054	\$4.30	\$1,313,220
12/21/2016	CRM 100 17 MAR 17 75 CALL	5,913	\$2.19	\$1,294,947
11/30/2016	TWTR 100 17 MAR 17 18 CALL	5,538	\$2.32	\$1,284,816
11/14/2016	SNI 100 17 MAR 17 70 CALL	2,108	\$6.00	\$1,264,800
12/7/2016	FTNT 100 17 MAR 17 31 CALL	5,761	\$2.04	\$1,175,244
12/5/2016	P 100 17 MAR 17 15 CALL	12,142	\$0.94	\$1,141,348
12/19/2016	ALV 100 17 MAR 17 115 CALL	4,001	\$2.75	\$1,100,275
12/9/2016	NFLX 100 17 MAR 17 140 CALL	2,509	\$4.35	\$1,091,415
12/21/2016	CRM 100 17 MAR 17 65 PUT	5,292	\$2.05	\$1,084,860
12/19/2016	SHW 100 17 MAR 17 270 CALL	1,021	\$10.53	\$1,075,113
12/19/2016	BCRX 100 17 MAR 17 10 CALL	5,206	\$1.99	\$1,035,994
12/14/2016	LYB 100 17 MAR 17 90 CALL	2,516	\$4.09	\$1,029,044
12/8/2016	CVI 100 17 MAR 17 25 CALL	3,760	\$2.70	\$1,015,200
12/6/2016	AKS 100 17 MAR 17 12 CALL	10,948	\$0.88	\$963,424
11/3/2016	MET 100 17 MAR 17 52.5 CALL	10,039	\$0.95	\$953,705
12/8/2016	MGM 100 17 MAR 17 30 CALL	6,135	\$1.49	\$914,115
9/8/2016	CPN 100 17 MAR 17 13 CALL	5,001	\$1.79	\$895,179
11/25/2016	FRGI 100 17 MAR 17 30 CALL	3,012	\$2.90	\$873,480
12/21/2016	HAL 100 17 MAR 17 55 CALL	3,143	\$2.73	\$858,039
12/2/2016	MYCC 100 17 MAR 17 14 CALL	9,503	\$0.90	\$855,270
12/21/2016	DYN 100 17 MAR 17 10 CALL	11,729	\$0.69	\$809,301
12/8/2016	FEYE 100 17 MAR 17 15 CALL	5,984	\$1.35	\$807,840
12/7/2016	JPM 100 17 MAR 17 87.5 CALL	3,973	\$2.03	\$806,519
11/28/2016	TSRO 100 17 MAR 17 165 CALL	1,000	\$8.05	\$805,000
12/19/2016	CY 100 17 MAR 17 12 CALL	11,631	\$0.65	\$756,015
12/13/2016	MSFT 100 17 MAR 17 67.5 CALL	7,331	\$1.03	\$755,093
12/16/2016	SYF 100 17 MAR 17 38 CALL	5,005	\$1.49	\$745,745
12/28/2016	F 100 17 MAR 17 12 CALL	10,059	\$0.70	\$704,130

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
9/15/2016	AAPL 100 17 MAR 17 115 PUT	6,661	\$7.76	\$5,168,936
12/19/2016	UNH 100 17 MAR 17 155 PUT	10,000	\$4.25	\$4,250,000
11/21/2016	TSLA 100 17 MAR 17 180 PUT	3,044	\$13.30	\$4,048,520
12/22/2016	DKS 100 17 MAR 17 44 PUT	26,184	\$1.22	\$3,194,448
12/19/2016	RRC 100 17 MAR 17 34 PUT	7,000	\$3.07	\$2,149,000
12/12/2016	DKS 100 17 MAR 17 48 PUT	14,685	\$0.97	\$1,424,445
11/15/2016	CAVM 100 17 MAR 17 55 PUT	2,319	\$6.10	\$1,414,590
12/14/2016	COF 100 17 MAR 17 85 PUT	3,841	\$3.55	\$1,363,555
11/30/2016	DEPO 100 17 MAR 17 19 PUT	5,053	\$2.65	\$1,339,045

11/8/2016	CBOE 100 17 MAR 17 75 PUT	1,107	\$12.04	\$1,332,828
12/8/2016	CXO 100 17 MAR 17 135 PUT	1,624	\$7.86	\$1,315,440
12/12/2016	CVX 100 17 MAR 17 125 PUT	1,360	\$9.20	\$1,251,200
11/11/2016	DPZ 100 17 MAR 17 150 PUT	1,852	\$6.38	\$1,181,576
12/13/2016	VRSN 100 17 MAR 17 75 PUT	5,208	\$2.26	\$1,177,008
12/9/2016	VALE 100 17 MAR 17 9 PUT	10,451	\$1.11	\$1,160,061
12/9/2016	GATX 100 17 MAR 17 60 PUT	3,261	\$3.55	\$1,157,655
12/19/2016	GIL 100 17 MAR 17 25 PUT	9,108	\$1.24	\$1,129,392
11/11/2016	ITW 100 17 MAR 17 120 PUT	2,505	\$4.50	\$1,127,250
11/16/2016	MCD 100 17 MAR 17 115 PUT	2,726	\$3.45	\$940,470
10/11/2016	SHLD 100 17 MAR 17 10 PUT	3,240	\$2.72	\$881,280
11/15/2016	KEX 100 17 MAR 17 65 PUT	1,629	\$5.00	\$814,500
12/21/2016	ORCL 100 17 MAR 17 41 PUT	3,006	\$2.70	\$811,620
12/19/2016	SWN 100 17 MAR 17 11 PUT	5,706	\$1.38	\$787,428

April 2017

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
10/27/2016	MPC 100 21 APR 17 50 CALL	81,775	\$1.50	\$12,266,250
11/14/2016	BAC 100 21 APR 17 20 CALL	61,248	\$1.50	\$9,187,200
10/17/2016	PG 100 21 APR 17 82.5 CALL	11,632	\$7.05	\$8,200,560
10/27/2016	MPC 100 21 APR 17 45 CALL	20,058	\$3.20	\$6,418,560
12/5/2016	CMCSA 100 21 APR 17 70 CALL	17,515	\$2.81	\$4,921,715
11/10/2016	X 100 21 APR 17 25 CALL	8,224	\$3.80	\$3,125,120
11/14/2016	CSCO 100 21 APR 17 31 CALL	16,895	\$1.83	\$3,091,785
11/22/2016	CTSH 100 21 APR 17 55 CALL	10,049	\$3.00	\$3,014,700
9/14/2016	AZN 100 21 APR 17 32.5 CALL	9,387	\$2.75	\$2,581,425
11/29/2016	X 100 21 APR 17 35 CALL	8,533	\$2.96	\$2,525,768
11/29/2016	TWX 100 21 APR 17 97.5 CALL	10,002	\$2.50	\$2,500,500
10/26/2016	CTSH 100 21 APR 17 55 CALL	10,239	\$2.35	\$2,406,165
12/8/2016	DIS 100 21 APR 17 105 CALL	6,269	\$3.83	\$2,350,875
11/17/2016	CIT 100 21 APR 17 40 CALL	6,500	\$3.40	\$2,210,000
11/29/2016	SBUX 100 21 APR 17 57.5 CALL	6,310	\$3.35	\$2,113,850
12/16/2016	JWN 100 21 APR 17 57.5 CALL	10,014	\$2.11	\$2,112,954
12/2/2016	ETFC 100 21 APR 17 35 CALL	7,643	\$2.70	\$2,063,610
10/27/2016	COG 100 21 APR 17 26 CALL	21,769	\$0.86	\$1,872,134
10/21/2016	QCOM 100 21 APR 17 70 CALL	5,011	\$3.70	\$1,854,070
11/15/2016	WBA 100 21 APR 17 92.5 CALL	10,209	\$1.75	\$1,786,575
12/15/2016	CCL 100 21 APR 17 57.5 CALL	12,716	\$1.40	\$1,780,240
12/8/2016	CFG 100 21 APR 17 35 CALL	6,005	\$2.85	\$1,711,425
12/6/2016	EOG 100 21 APR 17 105 CALL	2,341	\$7.31	\$1,711,271
12/28/2016	WBA 100 21 APR 17 85 CALL	4,045	\$3.95	\$1,597,775
12/23/2016	WDC 100 21 APR 17 77.5 CALL	4,833	\$3.00	\$1,449,900
11/16/2016	SGMS 100 21 APR 17 16 CALL	10,235	\$1.41	\$1,443,135
12/13/2016	NVS 100 21 APR 17 72.5 CALL	6,043	\$2.19	\$1,323,417
11/23/2016	COL 100 21 APR 17 85 CALL	1,500	\$8.80	\$1,320,000
10/25/2016	WY 100 21 APR 17 29 PUT	10,000	\$1.30	\$1,300,000

11/28/2016	TXN 100 21 APR 17 77.5 CALL	5,060	\$2.50	\$1,265,000
12/14/2016	KATE 100 21 APR 17 15 CALL	6,011	\$2.10	\$1,262,310
12/2/2016	WRK 100 21 APR 17 50 PUT	3,500	\$3.60	\$1,260,000
11/15/2016	BEN 100 21 APR 17 45 CALL	12,493	\$1.00	\$1,249,300
11/10/2016	AMAT 100 21 APR 17 27 CALL	3,648	\$3.39	\$1,236,672
10/27/2016	DIS 100 21 APR 17 100 CALL	6,051	\$2.04	\$1,234,404
11/28/2016	UPS 100 21 APR 17 120 CALL	5,031	\$2.34	\$1,177,254
12/6/2016	BG 100 21 APR 17 72.5 CALL	3,010	\$3.89	\$1,170,890
12/16/2016	CMCSA 100 21 APR 17 72.5 CALL	5,634	\$2.01	\$1,132,434
11/15/2016	ACOR 100 21 APR 17 20 PUT	2,500	\$4.50	\$1,125,000
12/14/2016	EBAY 100 21 APR 17 30 CALL	5,603	\$2.00	\$1,120,600
12/22/2016	MU 100 21 APR 17 25 CALL	7,276	\$1.45	\$1,055,020
12/1/2016	CHK 100 21 APR 17 7 CALL	7,938	\$1.28	\$1,016,064
12/14/2016	CLF 100 21 APR 17 13 CALL	12,282	\$0.80	\$982,560
12/7/2016	ERJ 100 21 APR 17 20 CALL	5,067	\$1.90	\$962,730
12/15/2016	MA 100 21 APR 17 105 PUT	1,635	\$5.40	\$882,900
12/15/2016	HLT 100 21 APR 17 27 CALL	4,331	\$1.85	\$801,235
12/1/2016	TAP 100 21 APR 17 105 CALL	3,561	\$1.93	\$687,273
10/27/2016	UPS 100 21 APR 17 115 CALL	5,087	\$1.33	\$676,571
12/16/2016	GG 100 21 APR 17 14 CALL	9,093	\$0.74	\$672,882
10/25/2016	MAS 100 21 APR 17 32 CALL	4,000	\$1.65	\$660,000
11/2/2016	ADNT 100 21 APR 17 50 CALL	2,500	\$2.40	\$600,000

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
12/2/2016	AET 100 21 APR 17 135 PUT	3,855	\$10.60	\$4,086,300
10/18/2016	CHKP 100 21 APR 17 80 PUT	3,143	\$6.70	\$2,105,810
12/15/2016	UAA 100 21 APR 17 40 PUT	2,000	\$10.30	\$2,060,000
8/30/2016	AMGN 100 21 APR 17 170 PUT	1,500	\$12.97	\$1,945,500
12/9/2016	SDRL 100 21 APR 17 3.5 PUT	13,866	\$1.17	\$1,622,322
9/21/2016	UA 100 21 APR 17 37.5 PUT	3,500	\$3.60	\$1,260,000
12/7/2016	CC 100 21 APR 17 25 PUT	4,008	\$3.00	\$1,202,400
12/19/2016	MDCO 100 21 APR 17 32 PUT	2,105	\$4.70	\$989,350
12/9/2016	EXC 100 21 APR 17 35 PUT	4,047	\$2.20	\$890,340
11/15/2016	LPLA 100 21 APR 17 35 PUT	2,502	\$3.40	\$850,680
12/23/2016	RDUS 100 21 APR 17 40 PUT	943	\$8.99	\$847,757

May 2017

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
11/10/2016	HUM 100 19 MAY 17 200 CALL	16,501	\$17.10	\$28,216,710
10/12/2016	CAT 100 19 MAY 17 80 CALL	9,942	\$10.29	\$10,230,318
12/6/2016	GILD 100 19 MAY 17 75 CALL	10,051	\$3.86	\$3,879,686
12/1/2016	OXY 100 19 MAY 17 75 CALL	10,649	\$2.63	\$2,800,687
10/20/2016	BLDR 100 19 MAY 17 12 CALL	23,021	\$1.20	\$2,762,520
12/16/2016	DLTR 100 19 MAY 17 85 CALL	4,003	\$6.55	\$2,621,965
12/16/2016	FCX 100 19 MAY 17 15 CALL	16,751	\$1.40	\$2,345,140
12/16/2016	FCX 100 19 MAY 17 13 PUT	15,720	\$1.31	\$2,059,320

12/14/2016	TECK 100 19 MAY 17 20 CALL	4,820	\$4.15	\$2,000,300
12/8/2016	CASY 100 19 MAY 17 120 CALL	1,500	\$9.10	\$1,905,000
12/19/2016	FCX 100 19 MAY 17 14 CALL	10,273	\$1.66	\$1,705,318
12/13/2016	KO 100 19 MAY 17 43 CALL	12,916	\$1.16	\$1,498,256
11/2/2016	CVS 100 19 MAY 17 80 CALL	1,929	\$7.70	\$1,485,330
12/8/2016	DDS 100 19 MAY 17 75 CALL	2,000	\$6.70	\$1,340,000
12/23/2016	PCRX 100 19 MAY 17 40 CALL	3,603	\$3.60	\$1,297,080
11/7/2016	CSOD 100 19 MAY 17 37.5 CALL	4,627	\$2.80	\$1,295,560
12/12/2016	CASY 100 19 MAY 17 125 CALL	2,001	\$6.46	\$1,292,646
12/8/2016	XPO 100 19 MAY 17 60 CALL	5,015	\$2.05	\$1,028,075
11/17/2016	MCO 100 19 MAY 17 110 CALL	3,340	\$2.76	\$921,840
10/11/2016	CB 100 19 MAY 17 125 CALL	1,350	\$6.00	\$810,000
11/29/2016	HPQ 100 19 MAY 17 16 CALL	10,098	\$0.70	\$706,860
12/12/2016	PWR 100 19 MAY 17 36 CALL	2,022	\$3.10	\$626,820
12/1/2016	WMB 100 19 MAY 17 35 CALL	5,000	\$1.25	\$625,000
12/21/2016	AAL 100 19 MAY 17 55 CALL	2,568	\$2.33	\$598,344
12/14/2016	OXY 100 19 MAY 17 80 CALL	3,500	\$1.33	\$465,500

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
9/27/2016	GWPH 100 19 MAY 17 125 PUT	1,536	\$17.10	\$2,626,560
12/5/2016	NKTR 100 19 MAY 17 10 PUT	15,776	\$1.55	\$2,445,280
12/14/2016	BA 100 19 MAY 17 150 PUT	2,736	\$7.45	\$2,038,320
12/21/2016	TLRD 100 19 MAY 17 30 PUT	4,003	\$4.67	\$1,869,401
12/8/2016	FL 100 19 MAY 17 72.5 PUT	1,821	\$3.60	\$655,560
12/16/2016	CHRW 100 19 MAY 17 70 PUT	1,802	\$2.95	\$531,590
12/16/2016	EXPD 100 19 MAY 17 55 PUT	1,500	\$3.40	\$510,000

June 2017

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
11/14/2016	AMZN 100 16 JUN 17 730 CALL	2,562	\$66.50	\$17,037,300
11/14/2016	AMZN 100 16 JUN 17 800 CALL	2,593	\$38.70	\$10,034,910
10/31/2016	MET 100 16 JUN 17 42.5 CALL	10,611	\$6.10	\$6,472,710
11/29/2016	BIDU 100 16 JUN 17 180 CALL	4,012	\$11.76	\$4,718,112
11/11/2016	P 100 16 JUN 17 11 CALL	23,437	\$1.87	\$4,382,719
12/12/2016	T 100 16 JUN 17 40 CALL	15,628	\$2.37	\$3,703,836
12/22/2016	V 100 16 JUN 17 80 CALL	9,034	\$3.55	\$3,207,070
12/7/2016	NWL 100 16 JUN 17 40 CALL	3,856	\$6.80	\$2,622,080
10/31/2016	INTC 100 16 JUN 17 33 CALL	7,002	\$3.27	\$2,289,654
11/22/2016	V 100 16 JUN 17 82.5 CALL	5,270	\$4.16	\$2,192,320
7/20/2016	CSCO 100 16 JUN 17 32 CALL	13,066	1.62	\$2,116,692
10/20/2016	IBM 100 16 JUN 17 170 CALL	10,006	\$2.10	\$2,101,260
12/12/2016	GE 100 16 JUN 17 31 CALL	10,298	\$1.90	\$1,956,620
12/16/2016	UPS 100 16 JUN 17 125 CALL	10,004	\$1.71	\$1,710,684
11/16/2016	VALE 100 16 JUN 17 6 CALL	9,501	\$1.79	\$1,700,679
11/30/2016	DE 100 16 JUN 17 105 CALL	3,152	\$5.25	\$1,654,800
11/11/2016	CS 100 16 JUN 17 15 CALL	11,085	\$1.45	\$1,607,325
11/9/2016	BMJ 100 16 JUN 17 60 CALL	5,106	\$3.03	\$1,547,118

12/21/2016	DOW 100 16 JUN 17 60 CALL	5,173	\$2.86	\$1,479,478
12/7/2016	BBD 100 16 JUN 17 10 CALL	31,371	\$0.47	\$1,474,437
11/14/2016	KKR 100 16 JUN 17 16 CALL	15,967	\$0.92	\$1,468,964
12/1/2016	LNG 100 16 JUN 17 47.5 CALL	5,201	\$2.73	\$1,419,873
12/19/2016	RHT 100 16 JUN 17 75 CALL	1,480	\$9.20	\$1,361,600
12/28/2016	SYF 100 16 JUN 17 37 CALL	4,705	\$2.85	\$1,340,925
11/18/2016	NFLX 100 16 JUN 17 135 CALL	2,013	\$6.35	\$1,278,255
12/22/2016	BUD 100 16 JUN 17 105 CALL	2,352	\$5.30	\$1,246,560
11/9/2016	CELG 100 16 JUN 17 130 CALL	2,318	\$5.15	\$1,193,770
9/19/2016	VZ 100 16 JUN 17 50 CALL	3,484	\$3.30	\$1,149,720
12/23/2016	TWTR 100 16 JUN 17 18 CALL	6,320	\$1.76	\$1,112,320
7/19/2016	INTC 100 16 JUN 17 37 CALL	6,500	1.68	\$1,092,000
11/29/2016	CMCSA 100 16 JUN 17 77.5 CALL	10,000	\$1.07	\$1,070,000
11/15/2016	QCOM 100 16 JUN 17 70 CALL	3,228	\$3.30	\$1,065,240
10/14/2016	SLB 100 16 JUN 17 85 CALL	2,549	\$4.17	\$1,062,933
12/8/2016	LVS 100 16 JUN 17 60 CALL	3,414	\$3.10	\$1,058,340
12/1/2016	V 100 16 JUN 17 82.5 CALL	4,204	\$2.50	\$1,051,000
12/16/2016	GM 100 16 JUN 17 38 CALL	5,241	\$1.94	\$1,016,754
11/14/2016	JPM 100 16 JUN 17 90 CALL	6,863	\$1.45	\$995,135
12/21/2016	JCOM 100 16 JUN 17 90 CALL	2,403	\$3.90	\$937,170
12/6/2016	BBY 100 16 JUN 17 55 CALL	4,342	\$2.08	\$903,136
12/2/2016	IBM 100 16 JUN 17 180 CALL	4,043	\$2.13	\$861,159
12/14/2016	KSU 100 16 JUN 17 100 CALL	4,092	\$1.95	\$797,940
12/21/2016	MGM 100 16 JUN 17 32 CALL	5,988	\$1.33	\$796,404
12/13/2016	TPX 100 16 JUN 17 75 CALL	2,108	\$3.70	\$779,960
12/14/2016	CS 100 16 JUN 17 20 CALL	20,300	\$0.35	\$710,500
10/24/2016	FCAU 100 16 JUN 17 7 CALL	10,000	\$0.71	\$710,000
12/5/2016	MCRN 100 16 JUN 17 12.5 CALL	928	\$6.40	\$593,920

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
11/18/2016	SNI 100 16 JUN 17 75 PUT	3,003	\$9.16	\$2,750,748
12/23/2016	MDXG 100 16 JUN 17 10 PUT	5,045	\$2.25	\$1,135,125
12/22/2016	COST 100 16 JUN 17 160 PUT	1,587	\$7.00	\$1,110,900
12/23/2016	MBLY 100 16 JUN 17 34 PUT	2,250	\$3.90	\$877,500

July 2017

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
10/10/2016	AAPL 100 21 JUL 17 110 CALL	7,951	\$12.97	\$10,312,447
12/13/2016	MSFT 100 21 JUL 17 67.5 CALL	20,186	\$2.49	\$5,026,314
12/22/2016	STZ 100 21 JUL 17 155 CALL	5,137	\$8.90	\$4,571,930
12/21/2016	AMD 100 21 JUL 17 14 CALL	29,188	\$1.39	\$4,057,132
11/9/2016	MSFT 100 21 JUL 17 62.5 CALL	9,946	\$2.84	\$2,824,664
12/20/2016	MU 100 21 JUL 17 22 CALL	7,568	\$2.19	\$1,657,392
12/8/2016	JPM 100 21 JUL 17 90 CALL	3,933	\$3.70	\$1,455,210
12/2/2016	AZN 100 21 JUL 17 30 CALL	10,170	\$1.33	\$1,352,610
11/28/2016	AZN 100 21 JUL 17 30 CALL	10,352	\$1.25	\$1,294,000
12/2/2016	AAPL 100 21 JUL 17 130 CALL	7,631	\$1.55	\$1,182,805

12/7/2016	WFC 100 21 JUL 17 60 CALL	4,215	\$2.78	\$1,171,770
12/13/2016	CTSH 100 21 JUL 17 55 CALL	1,760	\$6.20	\$1,091,200
12/21/2016	DIS 100 21 JUL 17 105 CALL	1,707	\$6.30	\$1,075,410
12/8/2016	HRB 100 21 JUL 17 22 CALL	5,030	\$2.07	\$1,041,210
12/8/2016	CMCSA 100 21 JUL 17 80 CALL	10,004	\$1.00	\$1,000,400
11/29/2016	PYPL 100 21 JUL 17 42 CALL	3,548	\$2.59	\$918,932
12/14/2016	ADSK 100 21 JUL 17 80 CALL	1,102	\$8.30	\$914,660
12/14/2016	TER 100 21 JUL 17 30 CALL	9,965	\$0.85	\$847,025
12/22/2016	ZION 100 21 JUL 17 45 CALL	2,000	\$3.35	\$670,000
12/12/2016	TEX 100 21 JUL 17 33 CALL	2,000	\$3.30	\$660,000
12/19/2016	MAR 100 21 JUL 17 90 CALL	1,125	\$4.35	\$489,375

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
12/9/2016	SDRL 100 21 JUL 17 3 PUT	19,598	\$1.25	\$2,449,750
12/19/2016	AGO 100 21 JUL 17 45 PUT	3,300	\$7.20	\$2,376,000
12/20/2016	BABA 100 21 JUL 17 85 PUT	3,042	\$5.40	\$1,642,680
12/13/2016	TRN 100 21 JUL 17 28 PUT	1,868	\$3.40	\$635,120
12/16/2016	GPRO 100 21 JUL 17 10 PUT	1,786	\$3.20	\$571,520

August 2017

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
11/29/2016	CMCSA 100 18 AUG 17 80 CALL	13,002	\$1.26	\$1,638,252
12/14/2016	BAC 100 18 AUG 17 23 CALL	5,981	\$2.20	\$1,315,820
12/5/2016	BAC 100 18 AUG 17 23 CALL	5,633	\$1.66	\$935,078
12/20/2016	IMMU 100 18 AUG 17 3.5 CALL	3,940	\$1.05	\$413,700

September 2017

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
12/6/2016	C 100 15 SEP 17 60 CALL	2,568	\$4.60	\$1,181,280
12/12/2016	MRK 100 15 SEP 17 65 CALL	3,569	\$3.14	\$1,120,666

January 2018

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
9/15/2016	PCLN 100 19 JAN 18 1455 CALL	810	\$219.50	\$17,779,500
12/6/2016	JPM 100 19 JAN 18 75 CALL	12,767	\$12.68	\$16,188,556
11/28/2016	HUM 100 19 JAN 18 240 CALL	7,653	\$11.30	\$8,647,890
11/9/2016	QCOM 100 19 JAN 18 70 CALL	14,954	\$5.50	\$8,224,700
6/8/2016	V 100 19 JAN 18 110 CALL	50,000	1.35	\$6,750,000
10/31/2016	MRK 100 19 JAN 18 62.5 CALL	16,050	\$4.05	\$6,500,250
5/6/2016	RDS/A 100 19 JAN 18 50 CALL	10,000	5.5	\$5,500,000
11/17/2016	P 100 19 JAN 18 12 CALL	23,733	\$2.16	\$5,126,328

8/18/2016	C 100 19 JAN 18 52.5 CALL	14,654	3.45	\$5,055,630
12/20/2016	STZ 100 19 JAN 18 165 CALL	4,201	\$10.30	\$4,327,030
10/12/2016	MA 100 19 JAN 18 105 CALL	4,600	\$9.40	\$4,324,000
9/7/2016	GM 100 19 JAN 18 32 CALL	12,999	\$3.06	\$3,977,694
11/3/2016	CTL 100 19 JAN 18 23 CALL	12,623	\$2.50	\$3,155,750
12/22/2016	ALXN 100 19 JAN 18 140 CALL	2,004	\$15.40	\$3,086,160
10/25/2016	DATA 100 19 JAN 18 50 CALL	2,663	\$10.40	\$2,769,520
8/3/2016	MS 100 19 JAN 18 25 CALL	5,001	5.51	\$2,755,551
12/1/2016	LNG 100 19 JAN 18 47.5 CALL	5,169	\$5.05	\$2,610,345
8/5/2016	BMY 100 19 JAN 18 70 CALL	5,783	4.46	\$2,579,218
11/16/2016	DIS 100 19 JAN 18 110 CALL	6,340	\$3.80	\$2,409,200
12/5/2016	UNP 100 19 JAN 18 97.5 CALL	1,750	\$13.40	\$2,345,000
8/3/2016	AAL 100 19 JAN 18 50 CALL	15,601	1.49	\$2,324,549
9/9/2016	AMD 100 19 JAN 18 5 CALL	10,037	\$2.30	\$2,308,510
9/22/2016	ETFC 100 19 JAN 18 35 CALL	11,770	\$1.95	\$2,295,150
7/13/2016	COF 100 19 JAN 18 80 CALL	6,020	3.8	\$2,287,600
11/29/2016	CMCSA 100 19 JAN 18 85 CALL	20,000	\$1.12	\$2,240,000
9/22/2016	CMA 100 19 JAN 18 55 CALL	9,630	\$2.30	\$2,214,900
12/13/2016	FNV 100 19 JAN 18 70 CALL	4,013	\$5.30	\$2,126,890
10/31/2016	DATA 100 19 JAN 18 50 CALL	2,123	\$10.00	\$2,123,000
6/3/2016	KHC 100 19 JAN 18 90 CALL	3,801	5.53	\$2,101,953
9/12/2016	FOXA 100 19 JAN 18 25 CALL	8,085	\$2.55	\$2,061,675
12/8/2016	GM 100 19 JAN 18 37 CALL	5,152	\$3.75	\$1,932,000
11/17/2016	AAL 100 19 JAN 18 60 CALL	8,565	\$2.19	\$1,875,735
11/15/2016	WBA 100 19 JAN 18 105 CALL	10,010	\$1.86	\$1,861,860
10/13/2016	UNP 100 19 JAN 18 97.5 CALL	2,001	\$9.11	\$1,822,911
10/28/2016	PAY 100 19 JAN 18 13 CALL	4,000	\$4.40	\$1,760,000
9/6/2016	KKR 100 19 JAN 18 15 CALL	9,750	\$1.76	\$1,716,000
5/13/2016	XPO 100 19 JAN 18 35 CALL	4,500	3.8	\$1,710,000
8/2/2016	SYF 100 19 JAN 18 35 CALL	13,130	1.3	\$1,706,900
11/1/2016	DB 100 19 JAN 18 13 CALL	5,228	\$3.20	\$1,672,960
12/15/2016	WFC 100 19 JAN 18 57.5 CALL	3,392	\$4.85	\$1,645,120
11/18/2016	VMW 100 19 JAN 18 85 CALL	2,670	\$6.12	\$1,634,040
12/22/2016	COF 100 19 JAN 18 90 CALL	1,542	\$9.70	\$1,495,740
10/11/2016	SYMC 100 19 JAN 18 31 CALL	15,002	\$0.99	\$1,485,198
10/13/2016	BX 100 19 JAN 18 25 CALL	7,005	\$2.12	\$1,485,060
5/3/2016	ORCL 100 19 JAN 18 40 CALL	3,091	4.6	\$1,421,860
11/15/2016	MU 100 19 JAN 18 22 CALL	6,913	\$2.00	\$1,382,600
11/23/2016	CS 100 19 JAN 18 15 CALL	7,658	\$1.80	\$1,378,440
12/8/2016	T 100 19 JAN 18 45 CALL	14,410	\$0.95	\$1,368,950
12/1/2016	BWA 100 19 JAN 18 30 CALL	1,502	\$9.07	\$1,362,314
7/19/2016	LNC 100 19 JAN 18 55 CALL	5,630	2.3	\$1,294,900
12/13/2016	JPM 100 19 JAN 18 95 CALL	3,331	\$3.80	\$1,265,780
12/1/2016	WPX 100 19 JAN 18 12.5 CALL	2,350	\$5.30	\$1,245,500

7/8/2016	MS 100 19 JAN 18 35 CALL	14,153	0.86	\$1,217,158
11/23/2016	UNH 100 19 JAN 18 170 CALL	1,508	\$7.60	\$1,146,080
6/6/2016	MDLZ 100 19 JAN 18 50 CALL	3,521	3.21	\$1,130,241
12/15/2016	CRC 100 19 JAN 18 25 CALL	2,500	\$4.50	\$1,125,000
7/13/2016	MET 100 19 JAN 18 52.5 CALL	10,653	1.05	\$1,118,565
11/1/2016	JWN 100 19 JAN 18 50.15 CALL	1,500	\$7.25	\$1,087,500
11/29/2016	LLY 100 19 JAN 18 72.5 CALL	2,429	\$4.08	\$991,032
9/7/2016	ALL 100 19 JAN 18 80 CALL	5,360	\$1.60	\$857,600
7/19/2016	TRV 100 19 JAN 18 135 CALL	3,280	2.6	\$852,800
9/6/2016	OXY 100 19 JAN 18 80 CALL	1,400	\$6.00	\$840,000
9/19/2016	FIVE 100 19 JAN 18 40 CALL	1,000	\$8.26	\$826,000
10/26/2016	CHTR 100 19 JAN 18 300 CALL	508	\$14.00	\$711,200
11/28/2016	TTWO 100 19 JAN 18 50 CALL	1,000	\$7.00	\$700,000

Trade Date	Ticker & Contract	Volume	Price	Net \$ Paid
12/1/2016	PANW 100 19 JAN 18 135 PUT	1,005	\$20.00	\$2,010,000
12/20/2016	HP 100 19 JAN 18 67.5 PUT	2,868	\$7.00	\$2,007,600
8/3/2016	NKE 100 19 JAN 18 57.5 PUT	2,500	7.85	\$1,962,500
12/22/2016	BABA 100 19 JAN 18 77.5 PUT	3,052	\$6.40	\$1,953,280
10/21/2016	TEVA 100 19 JAN 18 52.5 PUT	1,500	\$10.98	\$1,647,000
11/1/2016	GPS 100 19 JAN 18 20 PUT	10,000	\$1.63	\$1,630,000

Notable Short Puts in Open Interest

The following tables look at notable short puts in open interest including the size of the position, the information such as strike and expiration, the dollar value of a potential stock position if they are put shares, and the distance the current stock price is from the short strike. A larger negative number implies that the position is underwater and set to be put shares while a higher number implies that shares are slightly above the short strike. I've included 50 of the current names in our database below and only the names which are between 5-6% of their short strike. I've included short write-ups on three interesting names with short-put open interest.

Apache (APA) has some notable short put open interest in the January \$70 strike, over 6,000 total still in open interest at year-end and below the short-put strike. These trades were put on in mid-December, a very confident trade willing to own shares with a cost-basis near the time of traded. APA has seen several bullish call positions as well accumulate since the April \$60 calls bought on 11-28. The \$25.3B oil and gas company trades at 49.3X earnings, 4.9X sales, and 20.59X cash with a 1.51% dividend yield. APA has traded well with oil recovering and OPEC's production cuts in November. The company is eyeing 28.2% growth in 2017 and a key player in the Permian Basin which is the only growing US shale since the downturn began. Atlantic Equities upgraded shares in September to Accumulate seeing the company's Permian assets worth at least \$24 per share.

CVS Healthcare (CVS) has notable short put open interest at the March \$75 strike, a greater than \$37.5M notional stock position. The trade was put on for \$3.20 on 12-9, a greater than \$1.5M in premium position. CVS has also seen notable accumulation in the June and May bull risk reversals as well as the February \$70 calls. The \$84.52B company trades at 13.49X earnings, 0.49X sales, and 13.4X FCF with a 2.15% dividend yield. CVS shares have traded weak in 2016 but trader calling for a bottom with shares down over 17.5%. At their 12-15 analyst day the company guided to EPS as high as \$5.93 assuming their hit their target \$5B in stock buybacks. The company is undergoing an aggressive capital return plan with over \$18B target by 2021. BAML recently added shares to the US 1 List seeing drug pricing concerns overdone and expecting tax reform and better drug pricing environment in 2017 as tailwinds. Short interest is minimal at 1.19% of the float.

Microsemi (MSCC) is an interesting name which has 1,000 March \$55 short puts in open interest from 11-15, a \$450,000 investment and name which also has some January \$55 calls in open interest. The \$6.5B semiconductor trades at 13.79X earnings, 3.9X sales, and 34X cash with 15-16% EPS growth and strong margins. MSCC has key end-market exposure in automotive, IoT Security, and defense/aerospace which are all important themes in 2017. Shares have traded well in 2016 up over 70% and seeing steady accumulation of shares since July. MSCC bought PMC-Sierra in November 2015 after a long bidding war with Skyworks and could continue to synergies from integration. RBC was out positive in September seeing FCF growing in 2017 and 2018 and the company focusing more on debt reduction. The firm also sees margin expansion following the PMCS deal. Short interest is 13.44%.

Ticker	Options Information	Size	Notional \$ Value of Stock Position	Current Stock Price	Distance From Short Put Strike
ORCL	Jan. 2017 \$41 Short Puts	5,000	\$20,500,000.00	\$38.78	-5.41%
CL	Jan. \$70 Short Puts	8,000	\$56,000,000.00	\$66.27	-5.33%
APA	Jan. \$70 Short Puts	2,500	\$17,500,000.00	\$66.40	-5.14%
APA	Jan \$70 Short Puts	1,845	\$12,915,000.00	\$66.40	-5.14%
EXPE	April \$120 Short Puts	1,000	\$12,000,000.00	\$113.86	-5.12%
CLR	Jan. 2018 \$55 Short Puts	2,000	\$11,000,000.00	\$52.58	-4.40%
VALE	Jan. \$8 Short Puts	10,000	\$8,000,000.00	\$7.71	-3.63%
TWTR	June 2017 \$17 Short Puts	3,000	\$5,100,000.00	\$16.50	-2.94%
TRIP	Jan \$47.5 Short Puts	1,000	\$4,750,000.00	\$46.54	-2.02%
INFY	April 2017 \$15 Short Puts	4,500	\$6,750,000.00	\$14.75	-1.67%
ALLY	Jan. 2017 \$20 Short Puts	5,000	\$10,000,000.00	\$19.71	-1.45%
DHR	Jan. 2018 \$80 Short Puts	1,000	\$8,000,000.00	\$78.95	-1.31%
KO	June 2017 \$42 Short Puts	2,000	\$8,400,000.00	\$41.60	-0.95%
ORCL	June \$39 Short Puts	1,450	\$5,655,000.00	\$38.78	-0.56%
MA	April \$105 Short Puts	1,500	\$15,750,000.00	\$104.71	-0.28%
PRGO	Jan. 2017 \$85 Short Puts	1,640	\$13,940,000.00	\$84.98	-0.02%
XOG	Jan. and March \$20 Short Puts	5,000	\$10,000,000.00	\$20.04	0.20%
STZ	Jan. \$150 Short Puts	3,000	\$45,000,000.00	\$150.79	0.53%
W	May 2017 \$35 Short Puts	1,000	\$3,500,000.00	\$35.25	0.71%
ACOR	April \$18 Short Puts	1,000	\$1,800,000.00	\$18.15	0.83%
WYNN	Jan. \$87.50 Short Puts	2,475	\$21,656,250.00	\$88.34	0.96%
FDX	Jan \$190 Short Puts	1,000	\$19,000,000.00	\$191.86	0.98%
PBR	July \$10 Short Puts	5,000	\$5,000,000.00	\$10.11	1.10%
PYPL	April \$39 Short Puts	1,000	\$3,900,000.00	\$39.58	1.49%
MPC	April \$50 Short Puts	2,000	\$10,000,000.00	\$50.78	1.56%
HDB	July \$60 Short Puts	1,000	\$6,000,000.00	\$60.97	1.62%
CSCO	Feb \$30 Short Puts	6,000	\$18,000,000.00	\$30.53	1.77%
WY	Jan. 2017 \$30 Short Puts	5,000	\$15,000,000.00	\$30.57	1.90%
YNDX	May 2017 \$20 Short Puts	1,500	\$3,000,000.00	\$20.39	1.95%
MSCC	March \$55 Short Puts	1,000	\$5,500,000.00	\$56.15	2.09%

Ticker	Options Information	Size	Notional \$ Value of Stock Position	Current Stock Price	Distance From Short Put Strike
WBA	June 2017 \$82.5 Short Puts	1,850	\$15,262,500.00	\$84.28	2.16%
EXEL	Jan. 2018 \$15 Short Puts	5,000	\$7,500,000.00	\$15.41	2.73%
DE	June \$100 Short Puts	2,000	\$20,000,000.00	\$103.12	3.12%
WRK	April \$50 Short Puts	3,500	\$17,500,000.00	\$51.89	3.78%
F	March 2017 \$12 Short Puts	15,000	\$18,000,000.00	\$12.46	3.83%
ABT	May \$37 Short Puts	1,000	\$3,700,000.00	\$38.42	3.84%
AVGO	Jan \$175 Short Puts	3,850	\$67,375,000.00	\$181.94	3.97%
KO	June 2017 \$40 Short Puts	2,500	\$10,000,000.00	\$41.60	4.00%
DVA	Jan \$62.5 Short Puts	8,000	\$50,000,000.00	\$65.20	4.32%
TV	Jan \$20 Short Puts	8,000	\$16,000,000.00	\$20.89	4.45%
MPEL	Jan. 2018 \$15 Short Puts	5,000	\$7,500,000.00	\$15.68	4.53%
PFE	Jan. 2017 \$31 Short Puts	10,000	\$31,000,000.00	\$32.48	4.77%
ORCL	Jan. 2017 \$37 Short Puts	3,000	\$11,100,000.00	\$38.78	4.81%
ORCL	June \$37 Short Puts	1,000	\$3,700,000.00	\$38.78	4.81%
FNV	Jan \$55 Short Puts	2,500	\$13,750,000.00	\$57.90	5.27%
FNV	April 2017 \$55 Short Puts	1,500	\$8,250,000.00	\$57.90	5.27%
AAL	May \$46 Short Puts	1,000	\$4,600,000.00	\$48.48	5.39%
WY	April 2017 \$29 Short Puts	10,000	\$29,000,000.00	\$30.57	5.41%
CVS	May 2017 \$75 Short Puts	5,000	\$37,500,000.00	\$79.14	5.52%
INTC	March \$35 Short Puts	6,000	\$21,000,000.00	\$36.97	5.63%

DISCLAIMER:

Content: This report was prepared and written by Joseph Kunkle and Alexander Wolsky of OptionsHawk.com

Data Accuracy: This report was prepared from 12-01-16 to 12-31-16 so some of the figures may not be exact as of the end of 2016, but due to the time-intensive nature of the project it was required. The data provided is deemed to be reliable and was collected from multiple sources. Charts are provided courtesy of Finviz.com, Sentieo, Tradingview.com and various publically available corporate presentations and filings.

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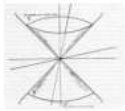
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Relativity Capital Hawk Alpha Discovery Fund Tear Sheet



Relativity
Capital Advisors

Hawk Alpha Discovery

September 2016

Program Description

The Hawk Alpha Discovery strategy is an all capitalization long short equity portfolio utilizing value added options strategies where appropriate. The portfolio is managed by Joseph S Kunkle, Masters from Boston University in Investment Management and G. Thomas Lackey Jr., CMT CFP® CFS to utilize the investing strategy Joe has been following since shortly after beginning OptionsHawk.com and used to generate the audited returns you see here. These returns are presented in a proforma fashion as if management and incentive fees were deducted.

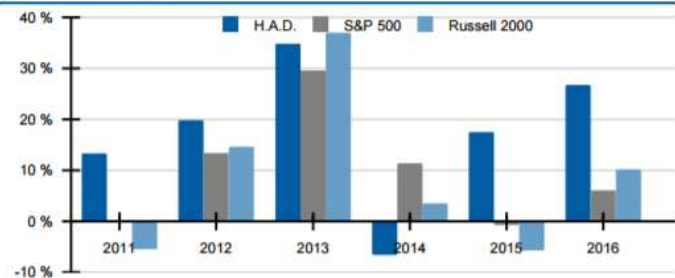
Monthly Performance

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2016	-3.32	2.28	8.08	2.80	0.62	1.45	9.72	2.05	0.93				26.74
2015	0.67	5.31	5.55	0.16	1.28	-1.47	5.28	-3.21	2.40	0.40	1.37	-1.06	17.52
2014	-4.00	9.77	-0.26	-6.87	0.55	3.16	-7.18	5.22	-7.59	-2.20	6.06	-1.73	-6.59
2013	6.26	4.55	3.95	-1.52	2.85	-2.08	4.12	1.49	1.73	0.37	2.17	6.79	34.84
2012	7.17	-4.02	1.28	-1.57	-6.07	7.75	0.75	1.41	5.72	5.49	1.48	-0.13	19.85
2011	5.58	2.97	-2.26	5.47	0.63	-1.89	-1.50	-7.26	-2.93	5.18	3.01	6.61	13.33

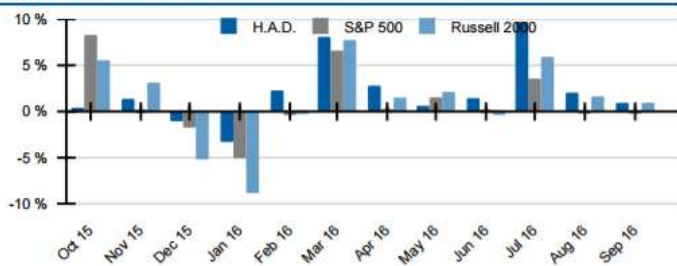
VAMI (Value of Initial \$1,000 Investment)



Annual Returns



Last 12-Months Returns



Volatility (12 Months Rolling)



Return Summary	H.A.D.	S&P 500	Russell 2000
Total Return	154.79%	72.41%	59.72%
Average Annual ROR	17.61%	9.96%	9.03%
Gain Frequency Monthly	68.12%	62.32%	57.97%
Loss Frequency Monthly	31.88%	37.68%	42.03%
Max Monthly Gain	9.77%	10.77%	15.04%
Worst Monthly Loss	-7.59%	-7.18%	-11.37%
Max Drawdown	14.95%	17.03%	25.56%

Risk Summary	H.A.D.	S&P 500	Russell 2000
Annualized Standard Deviation	14.12%	11.53%	15.84%
Sortino Ratio (0%) Annualized	2.13	1.42	0.81
Sharpe Ratio (0%) Annualized	1.23	0.88	0.59
CALMAR Ratio	1.01	0.99	0.30
Annualized Alpha		10.43%	12.73%
Beta		0.73	0.56
Correlation		0.59	0.63

Manager Bio

Joseph S. Kunkle received his Masters of Science in Investment Management from Boston University. Joe utilizes his three prong investment process to identify the top fundamental themes in order to weed out the best investment opportunities in the market, where institutional money is committing with notable options positioning and then using technical positioning to design the trade plan including risk management.

G. Thomas Lackey Jr. CMT CFP® CFS brings over 20 years of industry experience and is the managing partner handling the portfolio details to put these ideas to work. He is responsible for all of the position execution and allocations keeping the portfolio in proper construction and moving fluidly with the research and ideas Joe is identifying.

More information can be found on our website, relativitycap.com

Investment Terms

Minimum Investment	\$250,000
Management Fee	1.5%
Incentive Fee	15%
Lock Up Period	None

Contact Information

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DISCLAIMER: The audited returns provided here are based on the personal trading account of Joe Kunkle utilizing the investing process he followed in this account and will be employed for the Hawk Alpha Discovery strategy. The returns are shown as if the fees were withdrawn each month. Gross returns are available upon request. Past performance is not indicative of future results and there is no guarantee of future returns. You should be aware of the real risk of loss in following any strategy or investment. Strategies or investments will fluctuate in value and price. Investors may get back less than invested. This strategy does not take into account your particular investment objectives, financial situation or needs, consult an advisor or take steps necessary to determine suitability.