# The Stock Market: Where Do We Go from Here?

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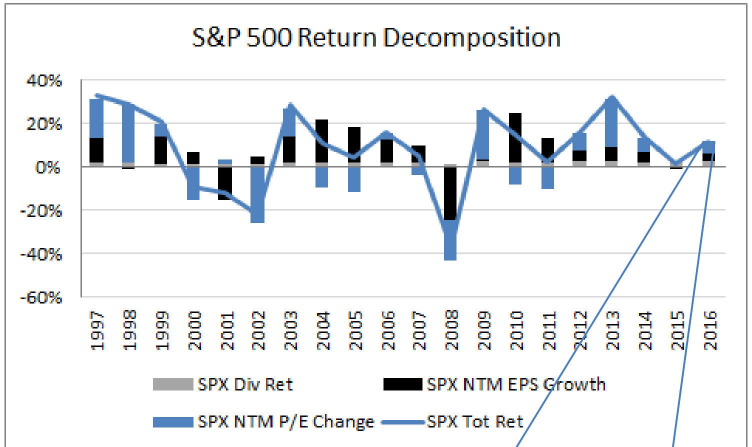
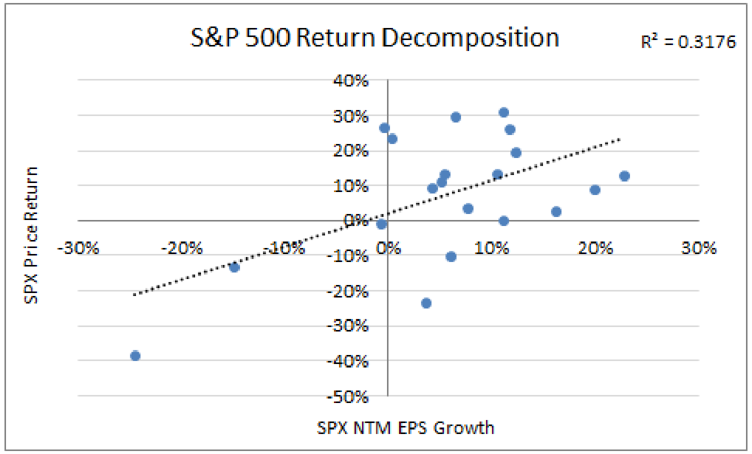
# The stock market has run up - is it exhausted or will it continue to surge ahead?

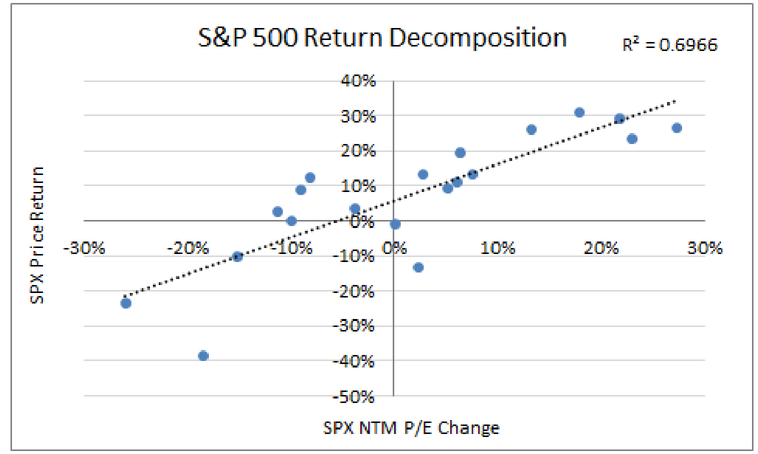
- It's all about
  - Expectations
  - Earnings
  - Valuation
  - Excesses
- Conclusion: *cautiously* forward awaiting correction
  - Historical evidence of relationship between earnings growth and returns suggests there room to rise, but elevated expectations and many assets moving to highs is cause for alarm

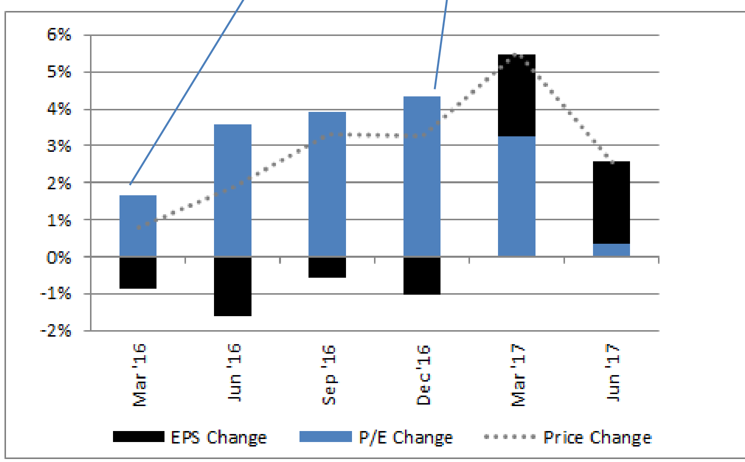
# P/E x E = Price; while P/E is important long-term, earnings take over in 2017

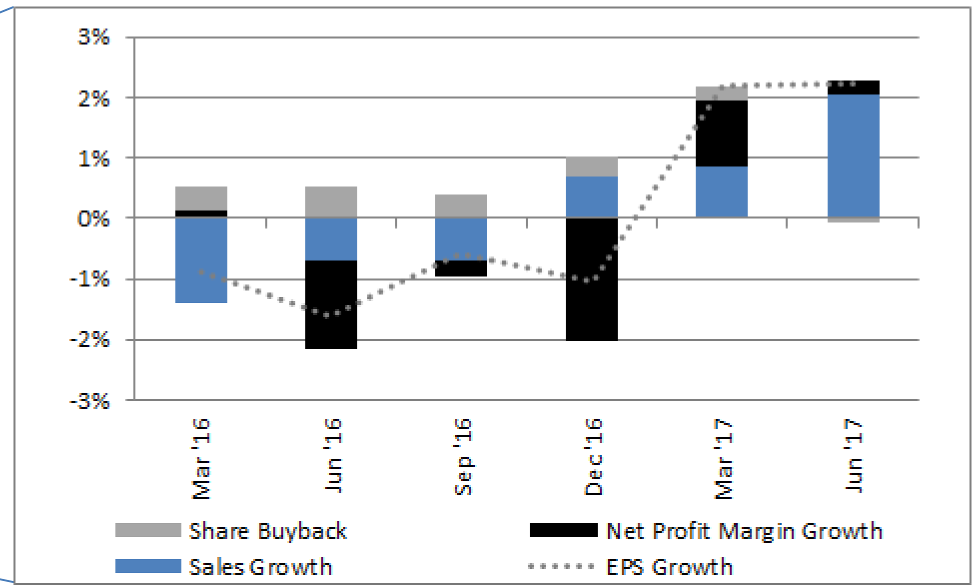
- P/E up in anticipation of earnings growth (and due to low interest rates)
  - 2017 is delivering EPS growth, recently fuelled by sales growth



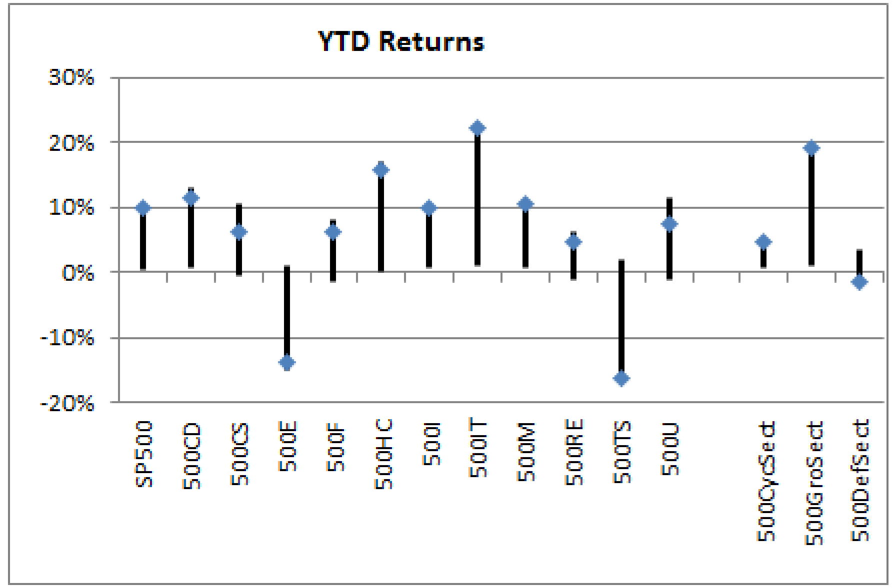




Source: Spellman, FactSet.

# The market has rallied and is near a high, with growth leading the charge this year

- Defensives (staples, utilities, and telecom) lag YTD as higher rates coming and non-commodity cyclicals (consumer discretionary and industrials) keep up

| | Price Returns | | | | | |
|---|---|---|---|---|---|---|
| Name | 1M | 3M | 52W | YTD | 3Y | 5Y |
| S&P 500 | 1.1% | 5.1% | 13.6% | 9.9% | 24.4% | 79.2% |
| Russell Mid Cap | 0.7% | 4.3% | 11.9% | 8.2% | 20.9% | 84.1% |
| Russell 2000 | 1.5% | 4.8% | 18.2% | 5.2% | 24.0% | 77.3% |
| S&P 500 Value | 0.1% | 2.5% | 10.1% | 3.9% | 15.4% | 68.2% |
| S&P 500 Growth | 2.0% | 7.2% | 16.2% | 15.2% | 32.1% | 88.7% |
| 500 Consumer Discretionary | 0.6% | 3.8% | 11.9% | 11.5% | 35.0% | 107.7% |
| 500 Consumer Staples | -2.3% | -1.1% | -1.1% | 6.2% | 21.6% | 54.9% |
| 500 Energy | -2.1% | -5.4% | -7.8% | -13.7% | -33.7% | -7.4% |
| 500 Financials | 1.9% | 7.3% | 29.2% | 6.4% | 33.2% | 107.9% |
| 500 Health Care | 2.8% | 8.8% | 7.9% | 15.9% | 29.9% | 105.6% |
| 500 Industrials | 0.4% | 6.6% | 16.0% | 9.9% | 26.6% | 92.3% |
| 500 Information Technology | 4.2% | 10.1% | 32.0% | 22.1% | 51.8% | 114.2% |
| 500 Materials | 1.8% | 6.7% | 12.2% | 10.6% | 9.6% | 55.3% |
| 500 Real Estate | -0.8% | -0.9% | -5.1% | 4.7% | 14.8% | 32.5% |
| 500 Telecommunications Services | -7.5% | -10.9% | -19.1% | -16.2% | -9.2% | -1.8% |
| 500 Utilities | -3.5% | 0.5% | 0.2% | 7.5% | 22.1% | 39.1% |
| 500 Cyclicals | 0.5% | 3.7% | 12.0% | 4.6% | 11.8% | 66.6% |
| 500 Growth | 3.5% | 9.5% | 19.5% | 19.1% | 41.2% | 111.6% |
| 500 Defensive | -4.5% | -3.9% | -6.8% | -1.4% | 11.4% | 30.0% |

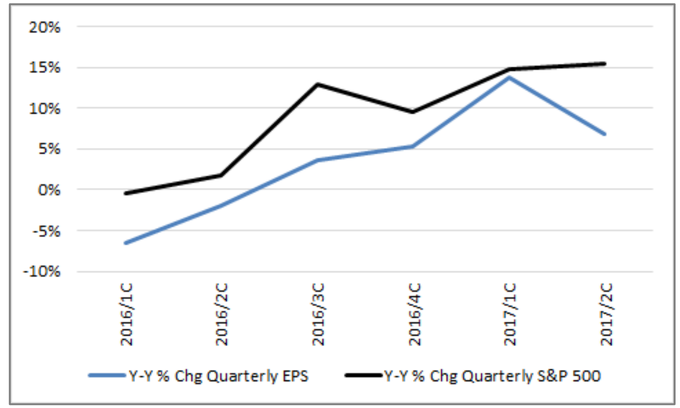



Bars denote range of returns, and dot notes current return

Source: Spellman, FactSet, CD = consumer discretionary, CS = consumer staples, E = energy, F = financials, HC = healthcare, I = industrials, IT = information technology, M = materials, RE = real estate, TS = telecommunication services, U = utilities.

# Positive (and accelerating) EPS growth drives positive returns

- Quarterly Y-Y EPS growth turned positive in 3Q 2016 and was accelerating as market rebounded
  - Rising and accelerating EPS growth is overwhelmingly associated with good returns
    - Consensus: EPS growth is positive through 2018, but Y-Y quarterly EPS growth decelerates immediately (rebounds in 4Q) and TTM slows after 2Q 2018

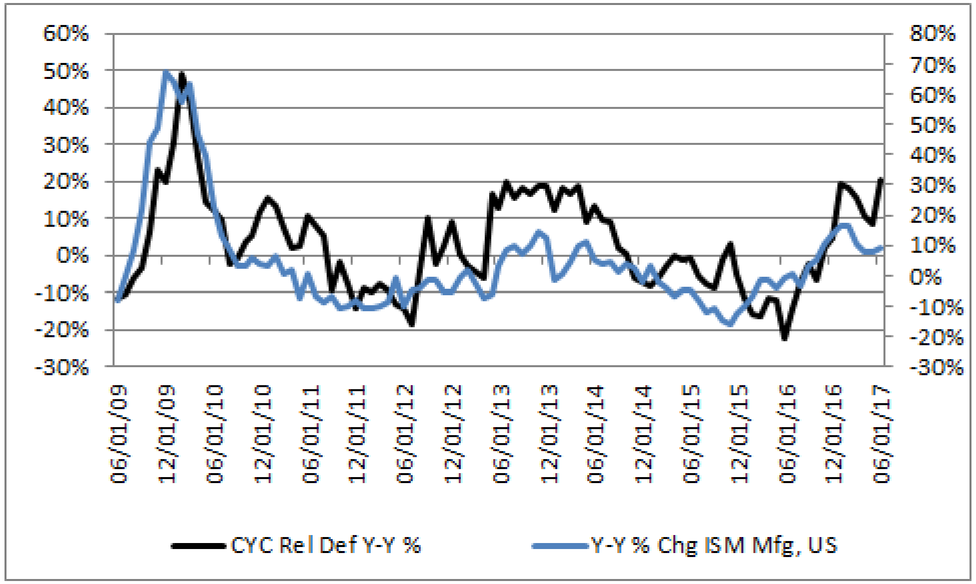


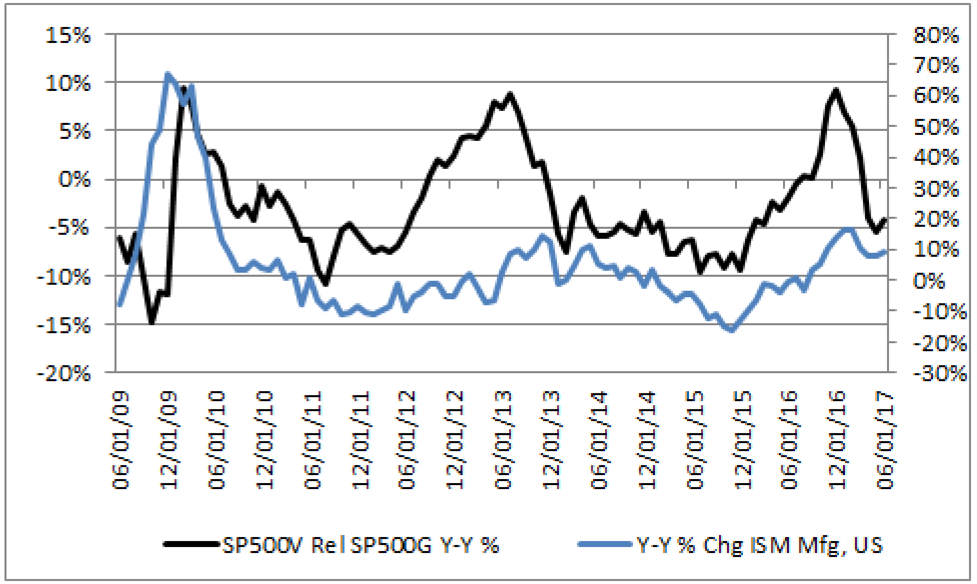

| | LTM EPS Growth Positive | Accel-erating LTM EPS | LTM EPS Growth Positive and Accel-erating | LTM EPS Growth Positive and Decel-erating | LTM EPS Growth Negative and Accel-erating | LTM EPS Growth Negative and Decel-erating | Total Count | Price Return Positive | LTM EPS Growth Positive and Price Return Positive | LTM EPS Growth Negative and Price Return Positive | LTM EPS Growth Positive and Accel-erating and Price Return Positive | LTM EPS Growth Positive and Decel-erating and Price Return Positive | LTM EPS Growth Negative and Accel-erating and Price Return Positive | LTM EPS Growth Negative and Decel-erating and Price Return Positive |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Since 1873 | 1046 | 830 | 687 | 359 | 143 | 539 | 1728 | 1084 | 761 | 323 | 530 | 231 | 90 | 233 |
| Percent of Months | 61% | 48% | 40% | 21% | 8% | 31% | | 63% | 73% | 47% | 77% | 64% | 63% | 43% |
| Since 1970 | 364 | 267 | 236 | 128 | 31 | 169 | 564 | 411 | 284 | 127 | 182 | 102 | 26 | 101 |
| Percent of Months | 65% | 47% | 42% | 23% | 5% | 30% | | 73% | 78% | 64% | 77% | 80% | 84% | 60% |
| Since 1980 | 275 | 202 | 174 | 101 | 28 | 141 | 444 | 343 | 234 | 109 | 135 | 99 | 23 | 86 |
| Percent of Months | 62% | 45% | 39% | 23% | 6% | 32% | | 77% | 85% | 64% | 78% | 98% | 82% | 61% |
| Since 1990 | 205 | 142 | 125 | 80 | 17 | 102 | 324 | 253 | 189 | 64 | 111 | 78 | 13 | 51 |
| Percent of Months | 63% | 44% | 39% | 25% | 5% | 31% | | 78% | 92% | 54% | 89% | 98% | 76% | 50% |
| Since 2000 | 132 | 82 | 75 | 57 | 7 | 65 | 204 | 143 | 120 | 23 | 65 | 55 | 4 | 19 |
| Percent of Months | 65% | 40% | 37% | 28% | 3% | 32% | | 70% | 91% | 32% | 87% | 96% | 57% | 29% |

Source: Spellman, FactSet, Shiller data, annual returns and growth rates.

# Economy drives cyclical/defensive and value/growth call – YTD tilt to weakening

- A tail of many markets as economy (depicted with ISM mfg. index) jump starts and stalls
  - Run up of cyclicals/value throughout 2016 to about March 2017



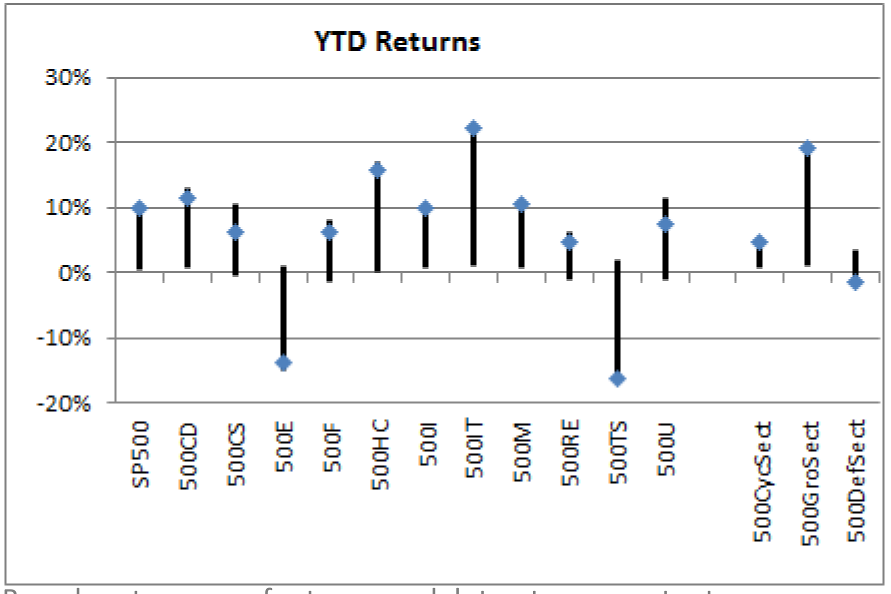

Source: Spellman, FactSet, Institute for Supply Chain Management, cyclicals include CD, E, F, I, and M, and defensives include CS, TS, and U.

# Technology normally leads and defensives lag during strong market

- Technology has charged ahead, while defensives lagged in 2017

| | Sector | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | CD | CS | E | F | HC | I | IT | M | TS | U |
| % Annual Outperformance | 63% | 44% | 50% | 44% | 54% | 50% | 63% | 53% | 42% | 44% |
| % Outperformance if S&P 500 Up | 62% | 24% | 41% | 41% | 43% | 52% | 70% | 51% | 46% | 40% |
| % Outperformance if S&P 500 Down | 66% | 95% | 72% | 52% | 83% | 45% | 45% | 58% | 33% | 56% |
| Difference | -3.4% | -71.5% | -30.4% | -10.7% | -39.5% | 6.5% | 24.2% | -7.2% | 12.9% | -16.6% |
| | S&P 500 | | | | | | | | | |
| % Annual Periods Up | 72% | | | | | | | | | |

Source: Spellman, FactSet; last 19 years, annual returns measured monthly.




Bars denote range of returns, and dot notes current return

# It's not just the stock market, most assets/factors pointing up (this is worrisome)

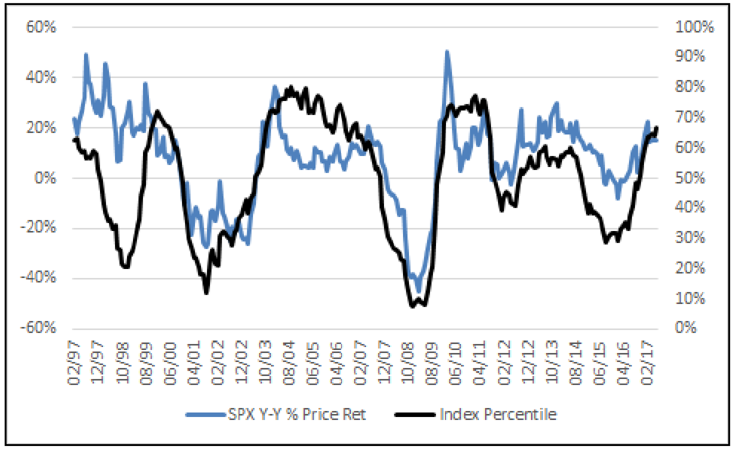
- S&P positively or negatively correlated with 13 variables
  - 9 of 13 pointing in same "up" direction
  - Overall composite level lofty
    - Positively correlated with returns
    - Poised for correction

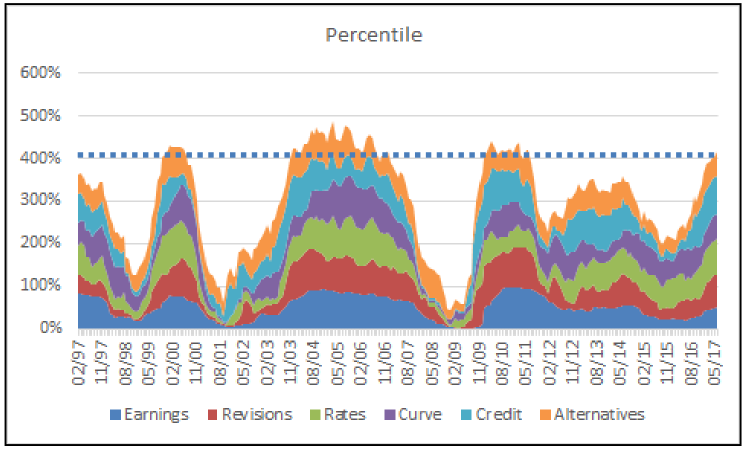
Components of composite

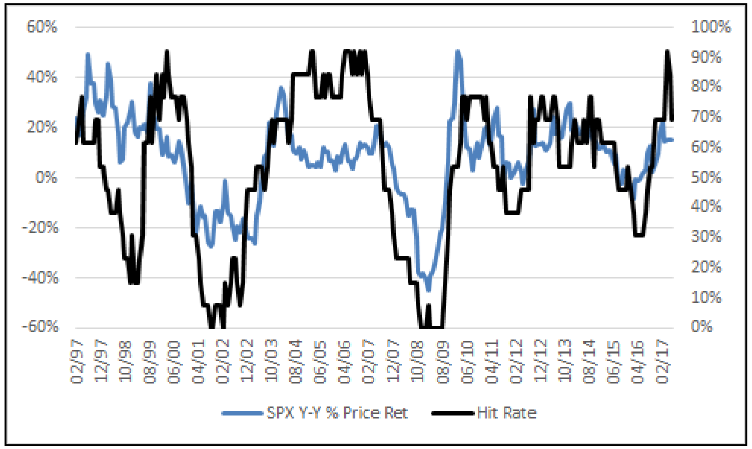
| 100.0% | Total |
|---|---|
| 13.3% | SPX Y-Y % LTM EPS Growth |
| 13.3% | SPX Y-Y % NTM EPS Growth |
| 13.3% | SPX (Up-Down)/(Up+Down) 6 Mo Avg |
| 3.3% | Y-Y Chg 10-Yr Treasury |
| 3.3% | Y-Y Chg 2-Yr Treasury |
| 3.3% | Y-Y Chg Fed Funds |
| 3.3% | Y-Y Chg in 10-Yr-Fed Funds |
| 3.3% | Y-Y Chg in 10-2 Yr Treasury |
| 3.3% | Y-Y Chg in Fed Funds - Core CPI |
| 20.0% | Y-Y Chg in HY - 10-Yr Treasury |
| 6.7% | Dollar Broad Y-Y % Chg |
| 6.7% | GSCI Price Y-Y % Chg |
| 6.7% | Gold Y-Y % Chg |

Correlation to SPX Y-Y % change

| Since February 1997 | SPX Y-Y % Price Ret |
|---|---|
| SPX Y-Y % Price Ret | 1.00 |
| SPX Y-Y % LTM EPS Growth | 0.46 |
| SPX Y-Y % NTM EPS Growth | 0.65 |
| SPX (Up-Down)/(Up+Down) 6 Mo Avg | 0.56 |
| Y-Y Chg 10-Yr Treasury | 0.43 |
| Y-Y Chg 2-Yr Treasury | 0.53 |
| Y-Y Chg Fed Funds | 0.55 |
| Y-Y Chg in 10-Yr - Fed Funds | (0.32) |
| Y-Y Chg in 10-2 Yr Treasury | (0.32) |
| Y-Y Chg in Fed Funds - Core CPI | 0.57 |
| Y-Y Chg in HY - 10-Yr Treasury | (0.60) |
| Dollar Broad Y-Y % Chg | (0.18) |
| GSCI Price Y-Y % Chg | 0.21 |
| Gold Y-Y % Chg | (0.18) |



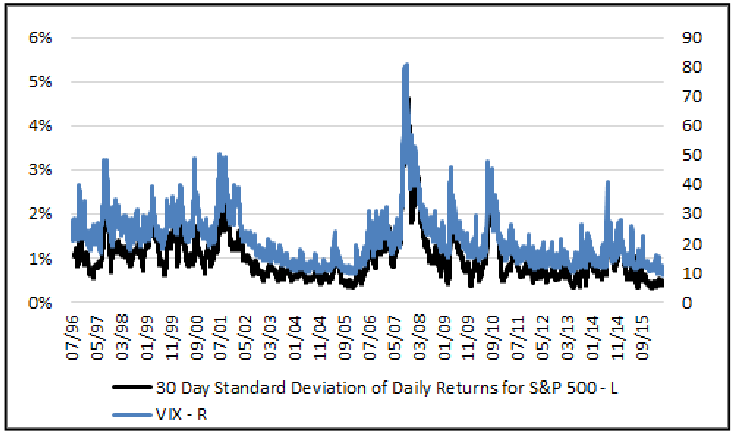

Source: Spellman, FactSet, Federal Reserve System, Merrill Lynch Fixed Income, S&P GSCI, U.S. Department of Labor.

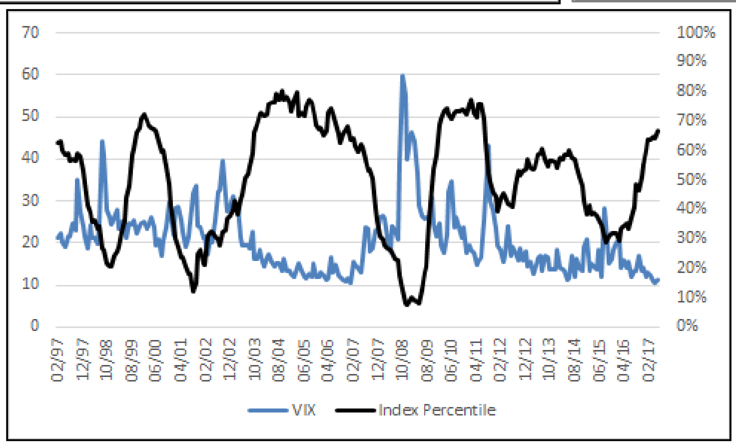
# Correction is overdue and volatility is low

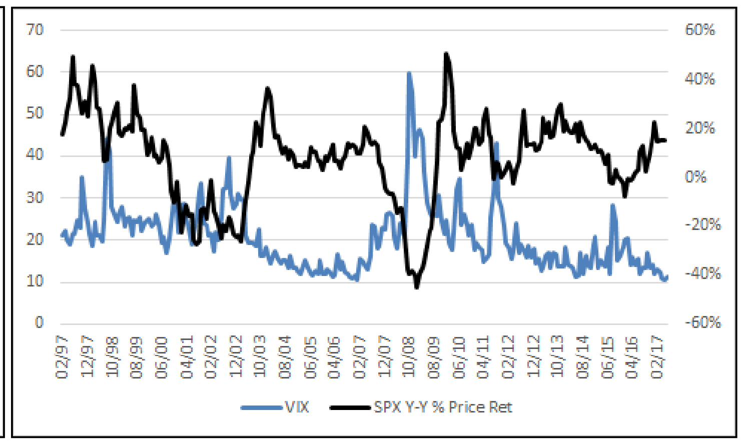
- 274 days since 5% correction
  - 59% of days 5%+ off high
  - 88 days before first break 5% below a high
- Implied (VIX)/actual volatility very low
  - Normal when market at a high

| 13046 | Number of Market Days Over Last 50 Years |
|---|---|
| 7645 | Days 5%+ Below High |
| 5910 | Days 10%+ Below High |
| 59% | Percent of Days 5%+ Below High |
| 45% | Percent of Days 10%+ Below High |
| 148 | Days First Break 5%+ Below High |
| 71 | Days First Break 10%+ Below High |
| 1.1% | Percent of Days First Break 5%+ Below High |
| 0.5% | Percent of Days First Break 10%+ Below High |
| 88 | Average Number Days Before First Break 5%+ Below High |
| 184 | Average Number Days Before First Break 10%+ Below High |
| 43 | Days First Break 5%+ Below High w/o Making New High |
| 14 | Days First Break 10+ Below High w/o Making New High |
| 0.3% | Percent of Days First Break 5%+ Below High w/o Making New High |
| 0.1% | Percent of Days First Break 10%+ Below High w/o Making New High |
| 303 | Average Number Days Before First Break 5%+ Below High w/o Making New High |
| 932 | Average Number Days Before First Break 10%+ Below High w/o Making New High |
| 274 | Number of Days Since 5% Correction |
| 378 | Number of Days Since 10% Correction |

Source: Spellman, FactSet, data last 50 years.



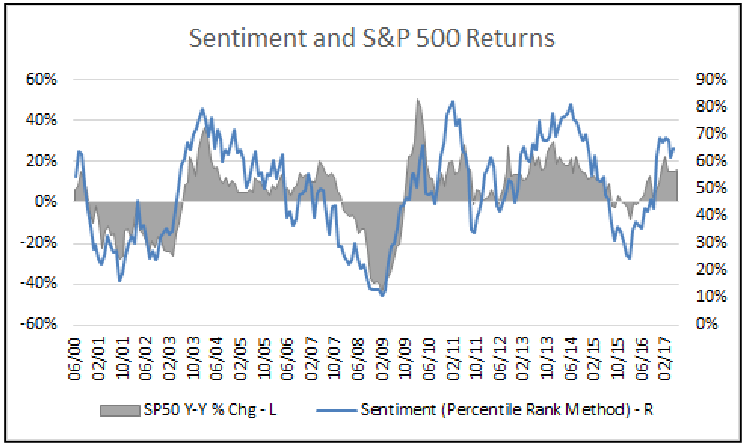



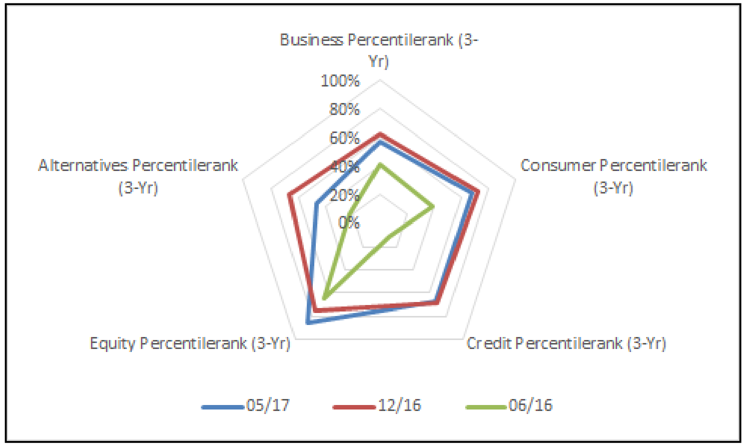



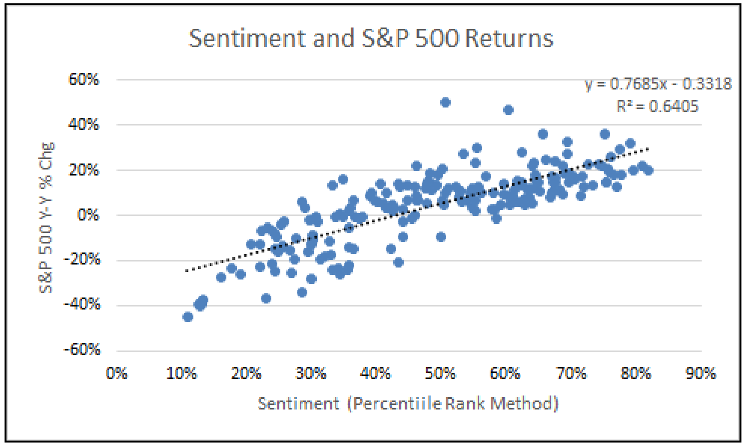

Source: Spellman, FactSet, CBOE.

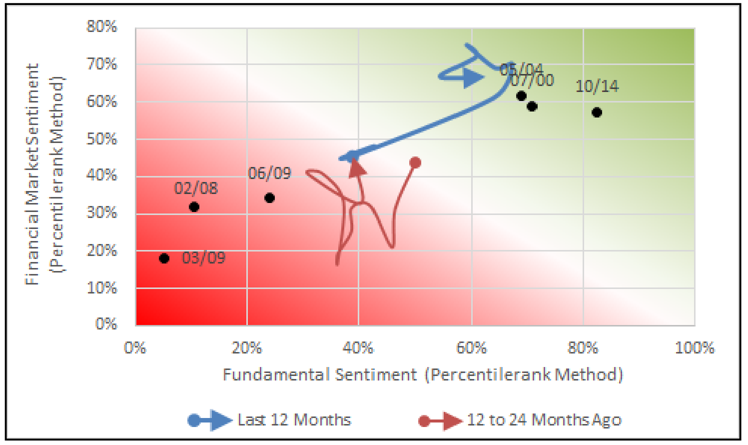
# Warning: sentiment beginning to weaken from high levels

- Weakening sentiment is a negative driver as it is positively correlated with returns
  - All variables improved over last year, led by financial factors
  - Recent deterioration in alternatives and business factors, while credit and equity near all time high



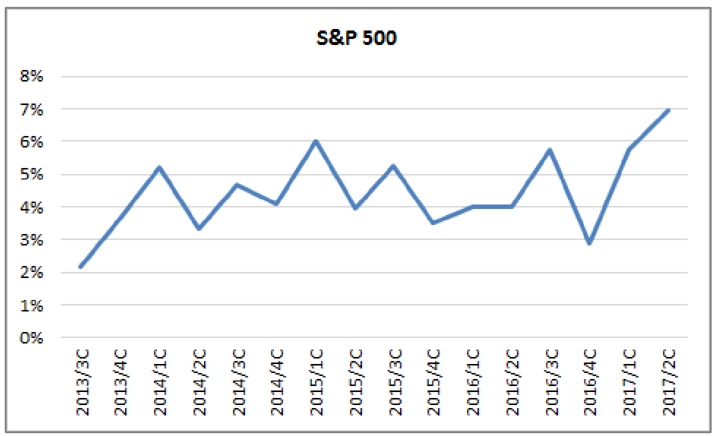

Source: Spellman, FactSet, sentiment index includes financial market variables in equities (multiples, revisions, and technical factors), credit markets (real rates, yield curve, and credit spreads), and alternatives (dollar, gold, oil, other commodities, put/call, volatility, and margin balances) and fundamental factors in business (ISM manufacturers index, small business confidence, investment spending, and lending growth) and consumer (consumer confidence, AAII surveys, and fund flows) areas.

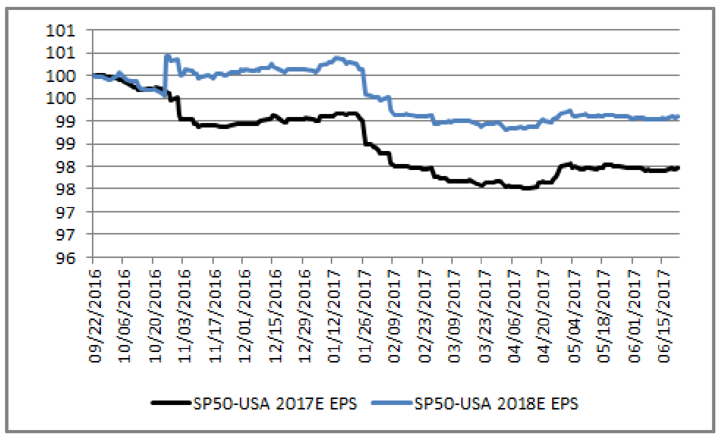
# Earnings growth remains robust

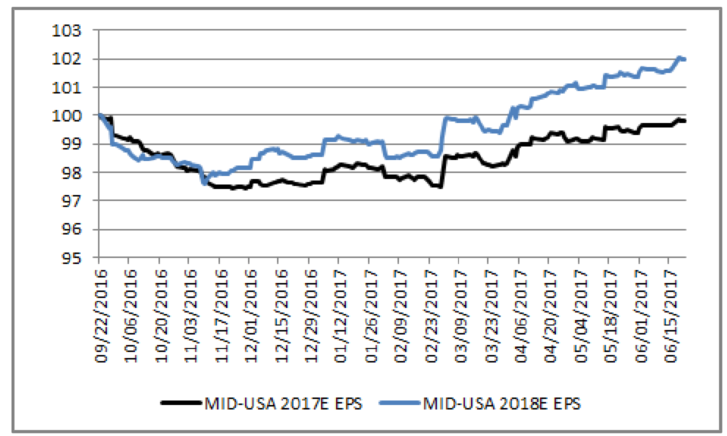
- Double digit expected S&P 500 EPS growth
  - The market rallied as EPS improved throughout 2016
  - Easy comparisons through 4Q 2017, *but* then we anniversary high past rates of growth as we enter 2018

| | EPS Growth | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Market | 2016/1C | 2016/2C | 2016/3C | 2016/4C | 2017/1C | 2017/2C | 2017/3C | 2017/4C | 2018/1C | 2018/2C | 2018/3C | 2018/4C |
| Russell 3000 | -7.2% | -1.6% | 3.3% | 4.9% | 13.8% | 6.8% | 8.2% | 13.5% | 11.7% | 15.0% | 13.3% | 13.0% |
| S&P 500 | -6.5% | -1.9% | 3.6% | 5.3% | 13.8% | 6.9% | 7.0% | 12.2% | 9.9% | 13.0% | 11.8% | 11.4% |
| Russell Mid Cap | -6.7% | 0.8% | 5.3% | 1.7% | 11.8% | 8.5% | 10.6% | 16.2% | 17.0% | 16.2% | 13.0% | 12.4% |
| Russell 2000 | -15.7% | 1.8% | -4.3% | 4.9% | 9.3% | 0.4% | 30.9% | 24.8% | 37.8% | 38.6% | 29.7% | 25.1% |

  - Strong surprise so expect near double digit growth in 2Q
  - Revisions up (best for mid-cap)



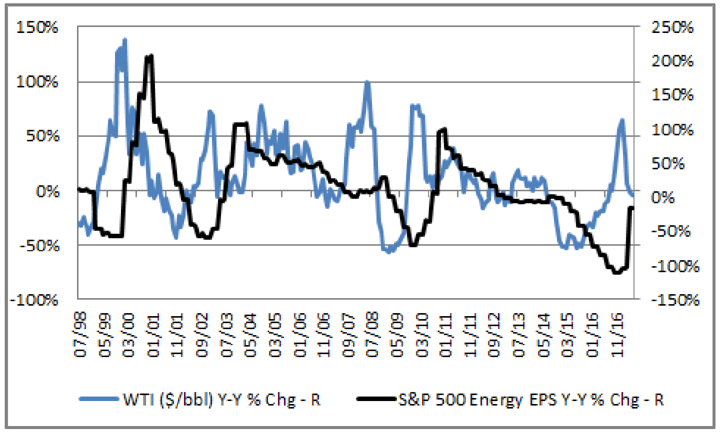



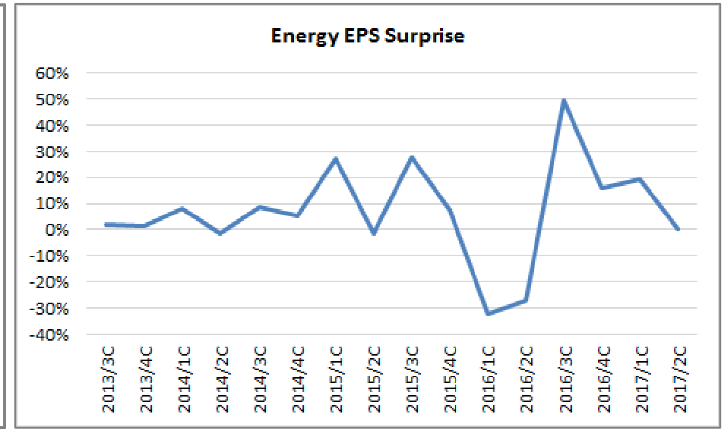



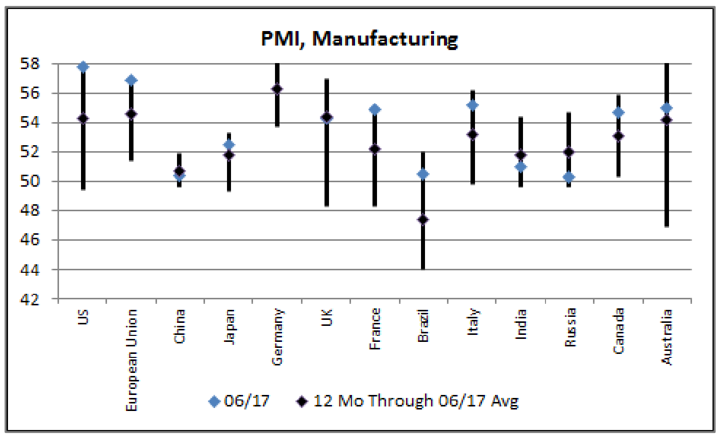

Source: Spellman, FactSet.

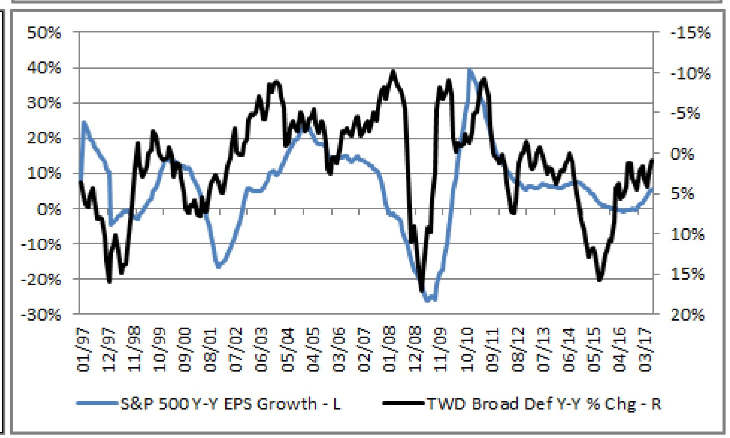
# Wild cards: energy sector, US dollar, and world ex US

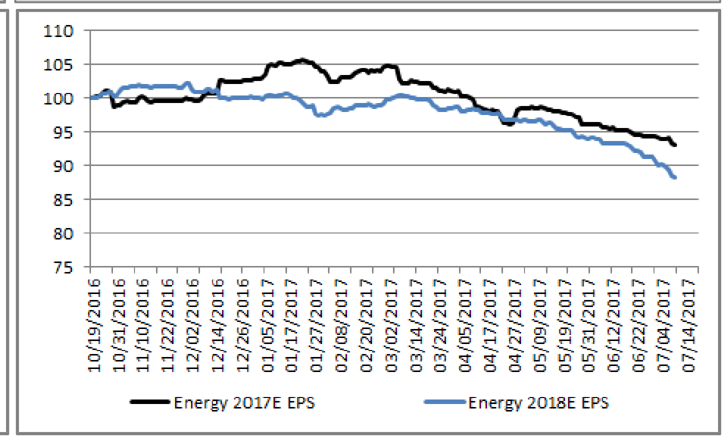
- Energy contributes 2.6% and 1.1% to S&P 500 growth in 2017 and 2018
  - EPS expected to rise 240.0% in 2017 and 41.5% in 2018
  - EPS highly dependent on oil prices (with a lag)
  - Surprise positive over last several quarters, but revisions are down
- Weak dollar boosts S&P 500 EPS
  - 30% S&P 500 revenue outside US
  - Weak dollar sign of strength/ higher rates elsewhere
  - Helps emerging markets/ commodities
  - Reflects US political uncertainties



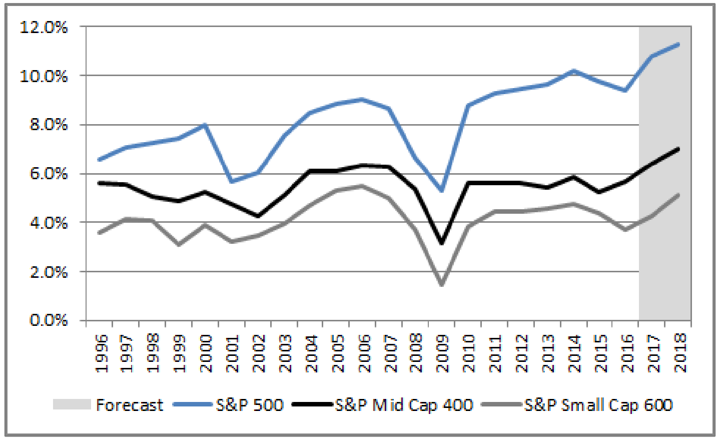



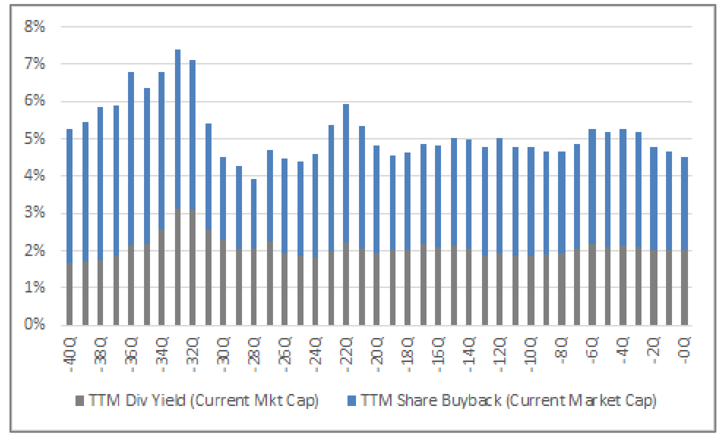



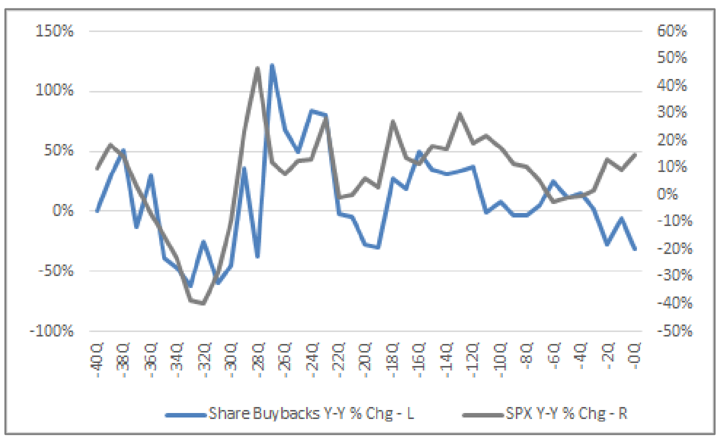

Source: Spellman, FactSet, Federal Reserve System, ISM, Markit Economics.

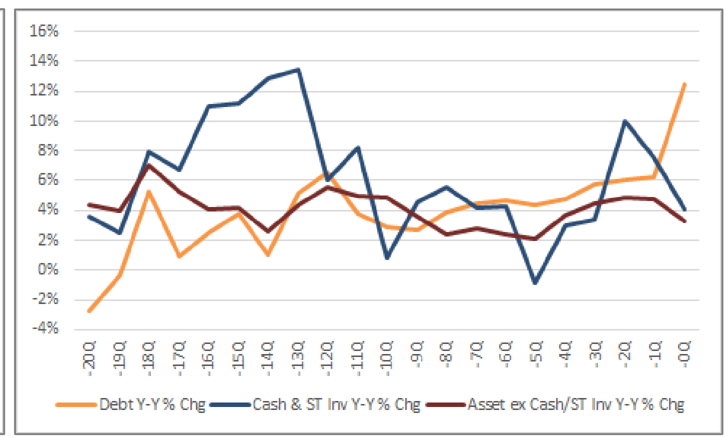
# Even if sales growth slows, buybacks can help, yet margins are high

- Higher EPS dependent on higher margins, but how much higher can they go?
- Buybacks helping
  - Healthy total distribution between 4% and 5% of market cap
  - But management buys high! Recently slowing buyback activity, perhaps because management has been using debt to buy shares and debt ratios have risen!



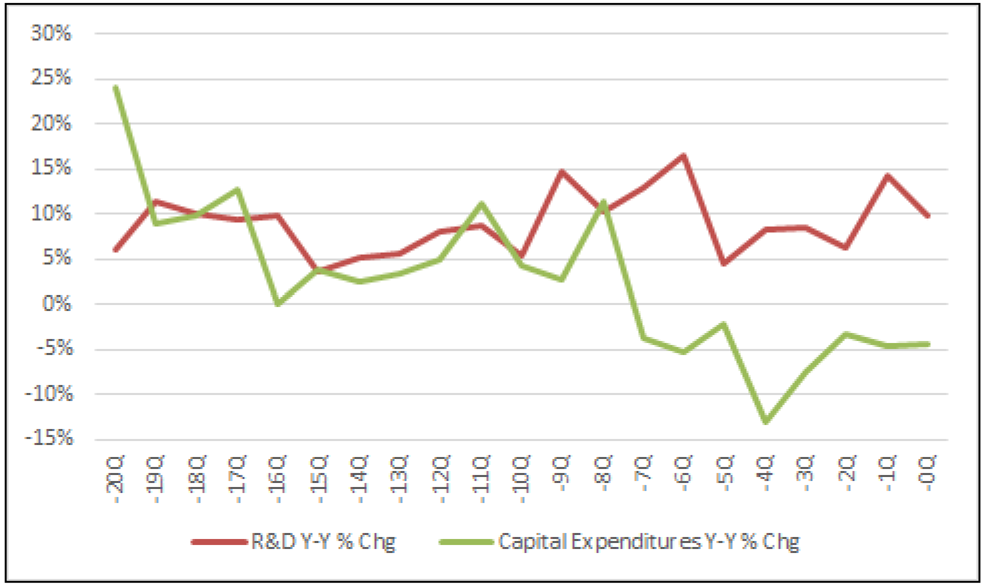



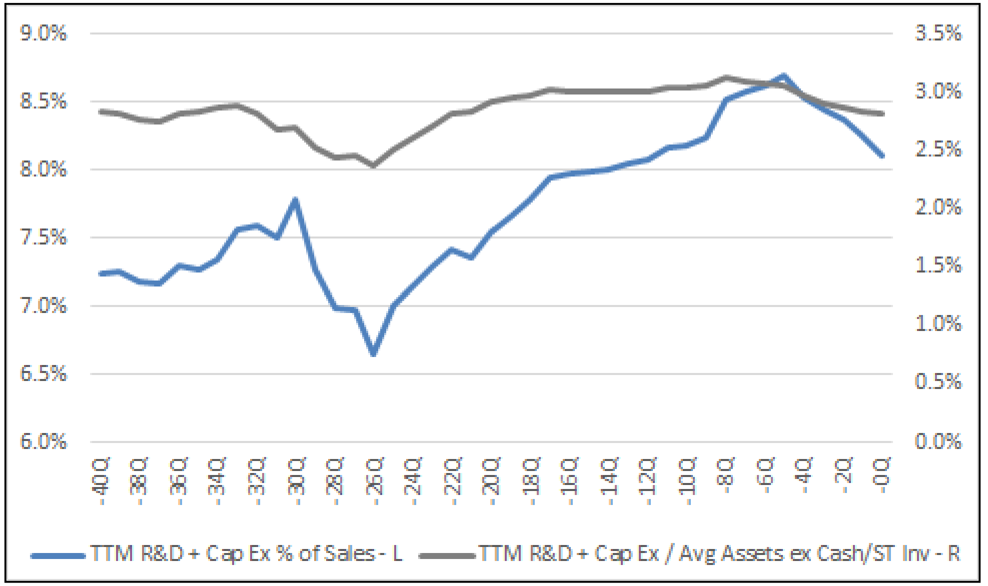




Source: Spellman, FactSet.

# Contrary to popular belief, total investment is moderate to robust

- While cap ex growth has slowed (partly explained by energy), R&D has risen
- R&D + cap ex is moderate to robust

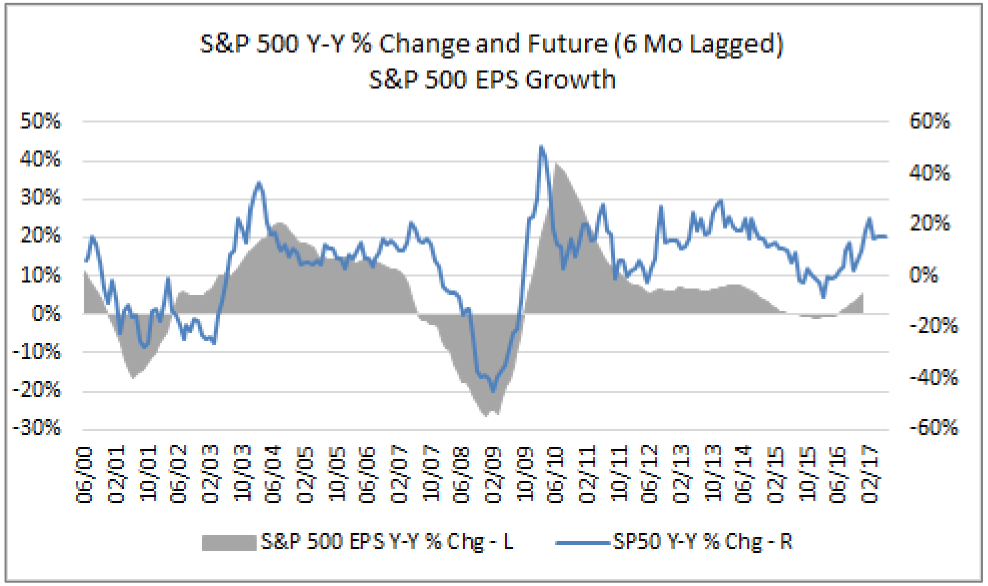



Source: Spellman, FactSet.

# Market leads EPS growth by about six months

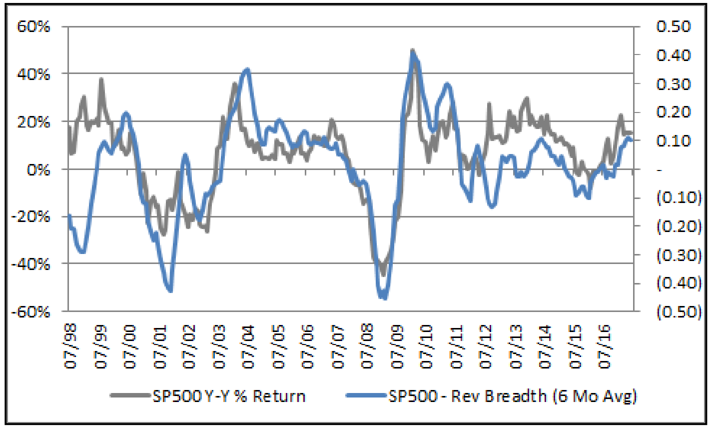
- We have a *little bit* of time…

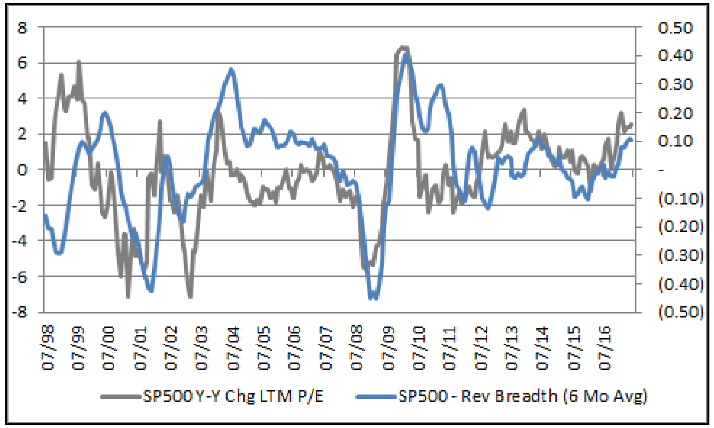


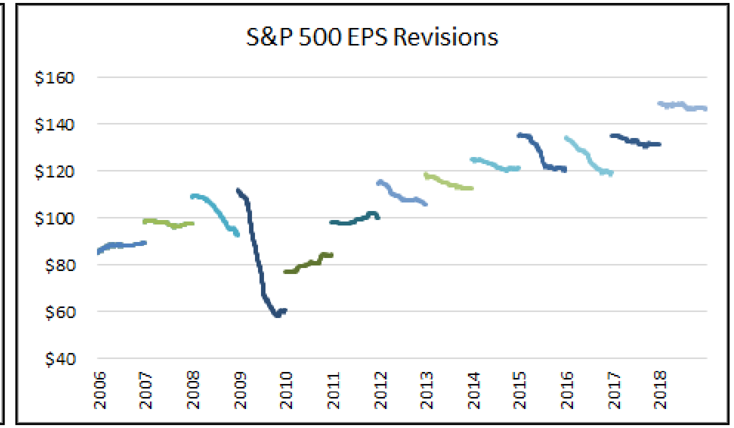

Source: Spellman, FactSet.

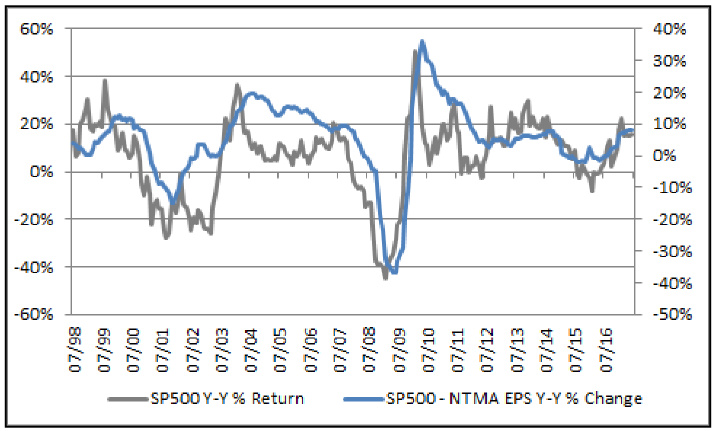
# Why it matters: growth and revisions positively impacting returns

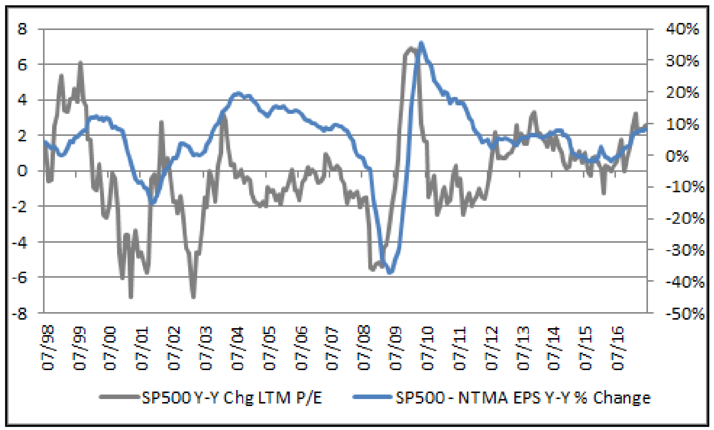
- The market normally rises and P/E expands with revisions and *next* twelve months EPS growth
  - Revisions for 2017 and 2018 down the least in years

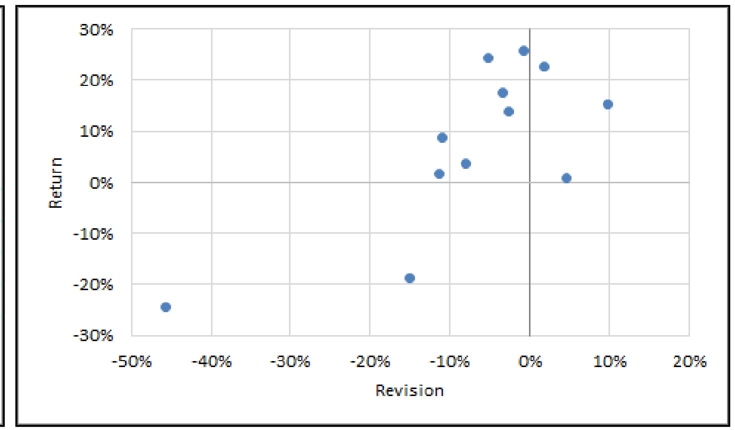


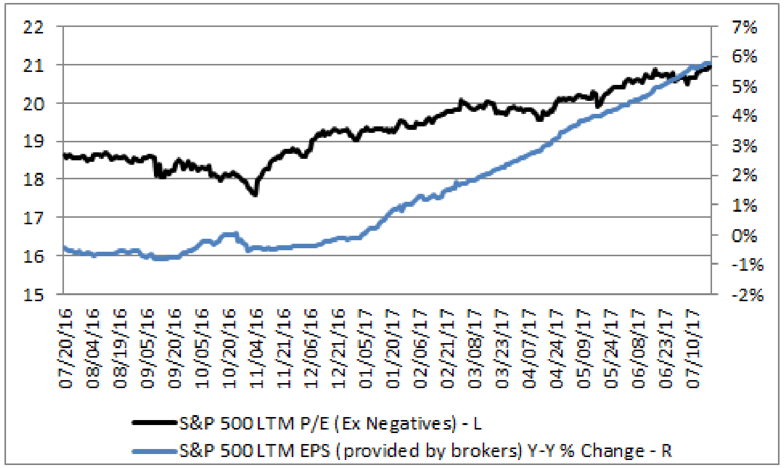



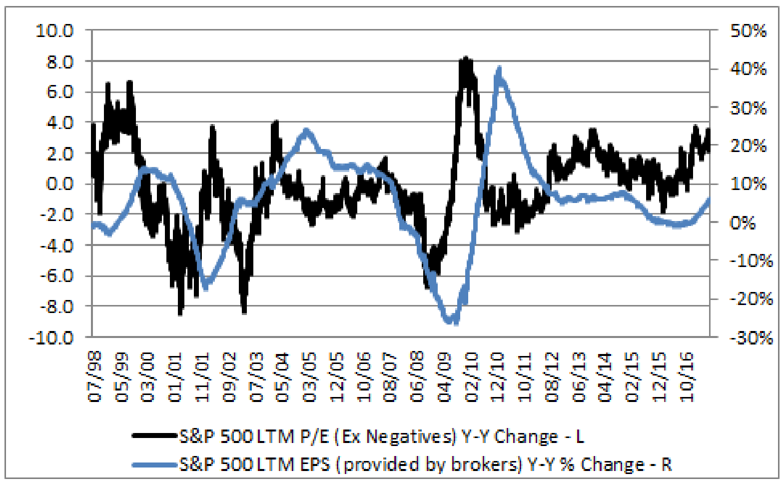




Source: Spellman, FactSet, revision breadth = (number of up minus number of down revisions) / total revisions.

# It is unusual for P/E to expand with LTM EPS growth

- Market is a discounting mechanism, so P/E expansion implies better expected growth
  - But EPS is high and growth has been good…
  - TTM P/E normally declines (expands) as EPS growth rises (falls) as market anticipates the next gyration



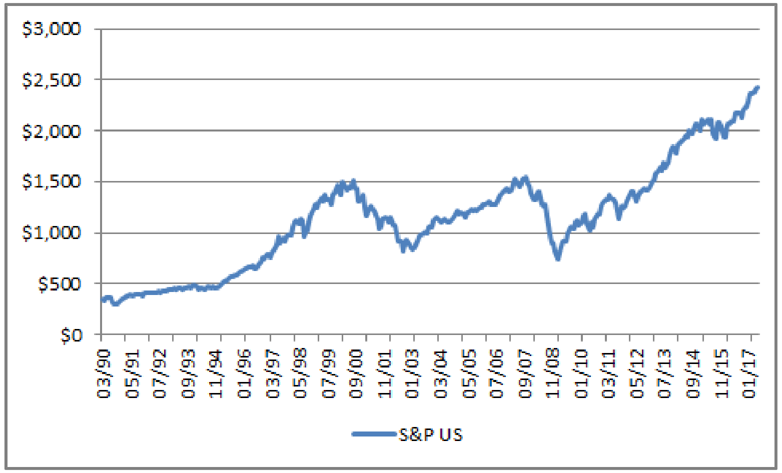



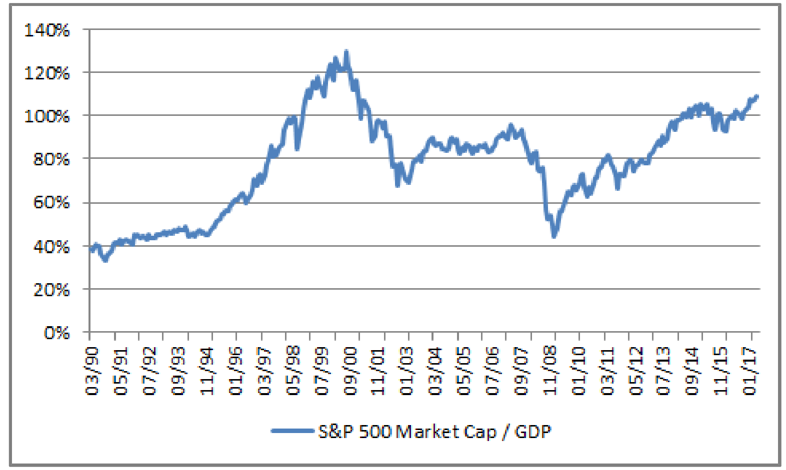

| | TTM P/E Up | TTM P/E Down | LTM EPS Growth Positive and P/E TTM Up | LTM EPS Growth Negative and P/E TTM Up | LTM EPS Growth Positive and P/E TTM Down | LTM EPS Growth Negative and P/E TTM Down |
|---|---|---|---|---|---|---|
| Since 1873 | 881 | 847 | 353 | 528 | 693 | 154 |
| Percent of Months | 51% | 49% | 34% | 77% | 66% | 23% |
| Since 1970 | 280 | 284 | 105 | 175 | 259 | 25 |
| Percent of Months | 50% | 50% | 29% | 88% | 71% | 13% |
| Since 1980 | 250 | 194 | 94 | 156 | 181 | 13 |
| Percent of Months | 56% | 44% | 34% | 92% | 66% | 8% |
| Since 1990 | 176 | 148 | 65 | 111 | 140 | 8 |
| Percent of Months | 54% | 46% | 32% | 93% | 68% | 7% |
| Since 2000 | 97 | 107 | 30 | 67 | 102 | 5 |
| Percent of Months | 48% | 52% | 23% | 93% | 77% | 7% |

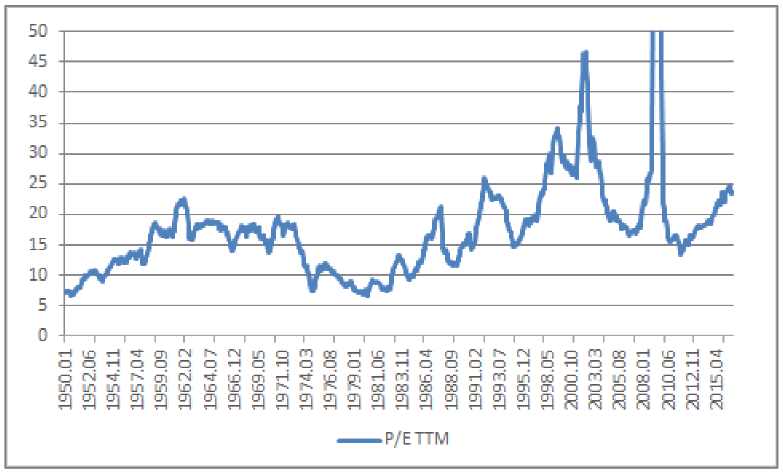
Source: Spellman, FactSet, Shiller data, returns and growth are annual rates.

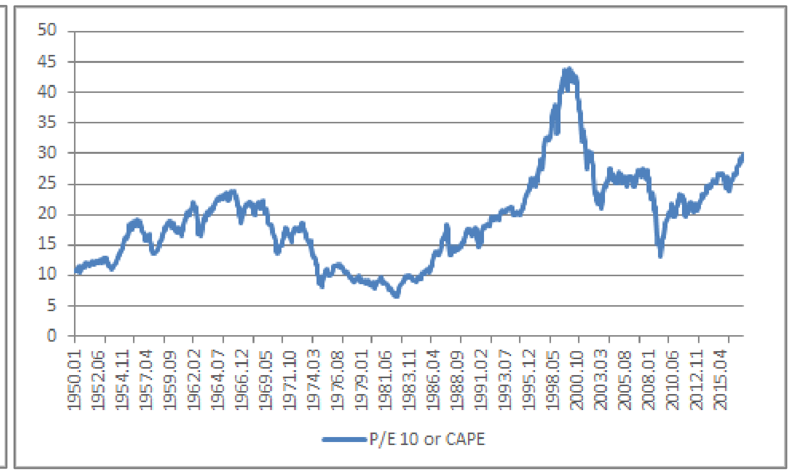
# Many people believe equity valuation is extended

- S&P 500, market cap/GDP, TTM P/E, Shiller P/E (CAPE; to normalize earnings) are all at highs



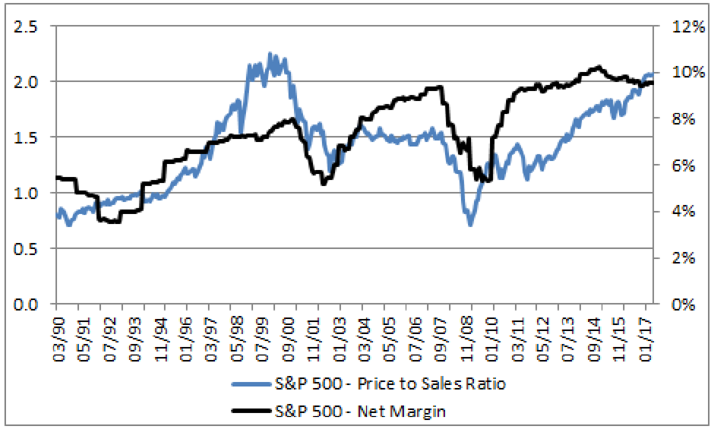



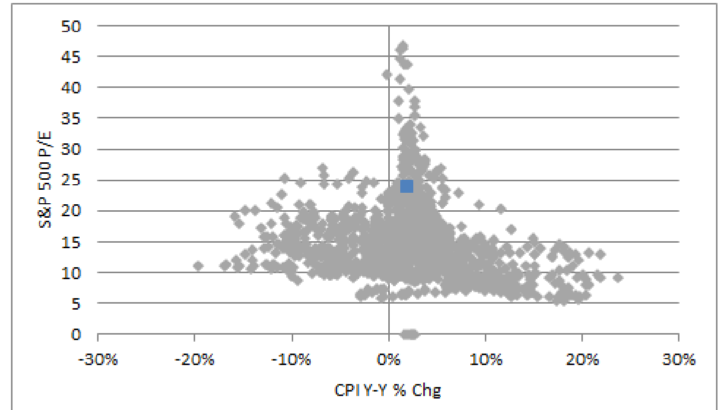




Source: Spellman, FactSet, Shiller data.

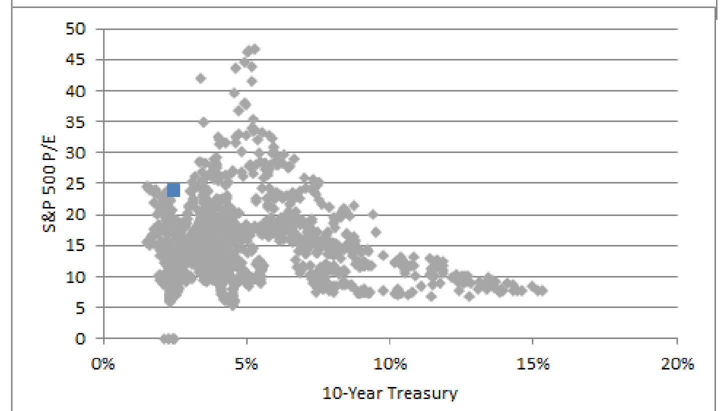
# … But evaluating multiples while ignoring fundamentals is flawed

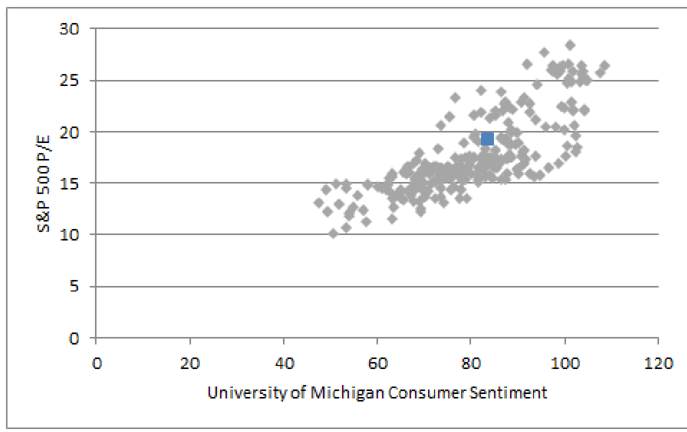
- P/S is high because earnings on sales (margins) justify it
  - Will margins remain high is the question

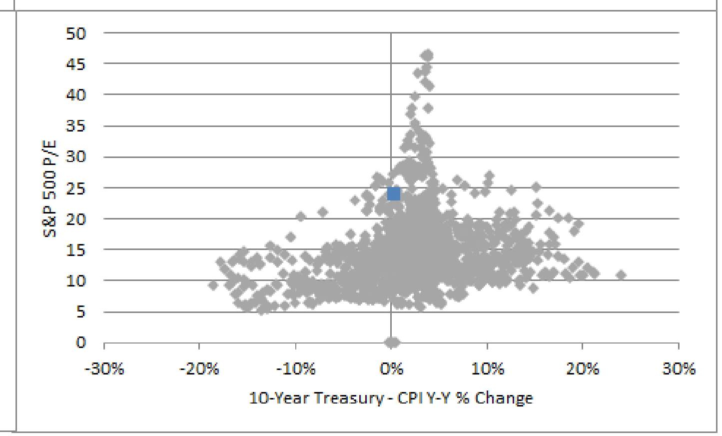



- P/E should be high, as interest rates and inflation are low
  - If rates rise because the economy is on solid footing for growth, then this implies lower risk which may elevate P/E
  - P/E at risk if inflation declines or strengthens, current level is the sweet spot



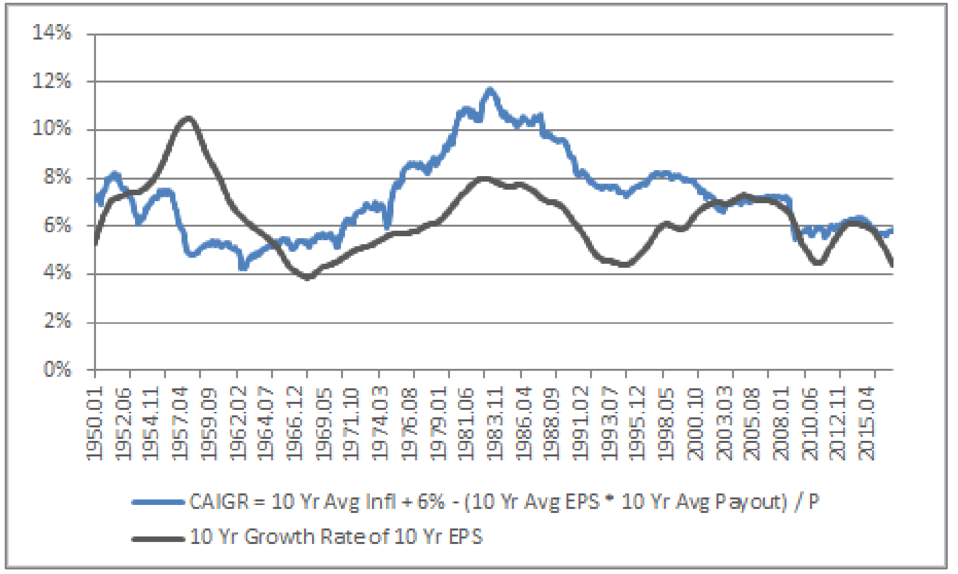




Source: Spellman, FactSet, Shiller data, Conference Board, dot for graphs on right is 12/2016 with Shiller data (since 1/1872), dot on left bottom graph is 6/2017 with FactSet data (since 6/1996).

# OK CAIGR, which normalizes for earnings, inflation, payout, and the risk premium

- P/E is highly influenced by earnings, interest rates, inflation, the payout ratio, and the risk premium
  - The Cyclically Adjusted Implied Growth Rate (CAIGR) normalizes for "everything"
    - CAIGR equation
      1. $P_0 = E_1$ * payout ratio / (r - g)
      2. r - g = $E_1$ * payout ratio / $P_0$
         - » Note: r = g + $E_1$ * payout ratio / $P_0$ = growth + dividend yield
      3. CAIGR (using normalized variables) = g = r - $E_1$ * payout ratio / $P_0$
    - Normalize
      - 10-year earnings
      - Use inflation + risk premium instead of rates + risk premium for r since rates manipulated by Fed policy
        - » 10-year inflation
        - » Normal risk premium of 6%
      - 10-year average payout ratio
  - *CAIGR = 5.82%, which is low (implies market is cheap versus history), but it is in line with recent actual EPS 10-year growth so valuation is reasonable*




Source: Spellman, Shiller data, for more information on Spellman's CAIGR, see https://coachinvesting.com/2017/02/22/market-expects-6-caigr-cyclically-adjusted-implied-growth-rate/.

# Above average P/E does not reduce the historic probability of positive returns

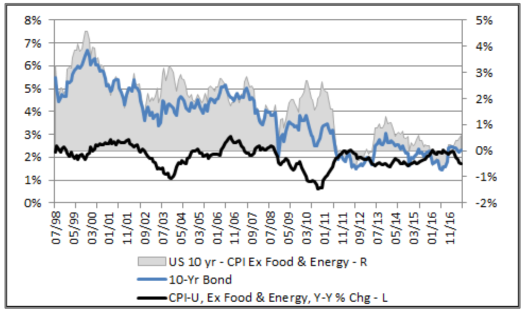
- Since 1877, the odds of positive rolling 12-month returns is 64%
  - Odds improve to 68% when the P/E a year earlier ($P/E_{-1}$) is above the five year average and growth is positive over the year returns are tracked (this represents current conditions)
  - The odds rise to 80% when $P/E_{-1}$ is below average and growth is positive
    - And rises to 100% since 1990

| | Price Return Positive | LTM EPS Growth Positive P/E-1 Above 5 yr Avg and Return Positive | LTM EPS Growth Positive P/E-1 Above 5 yr Avg and Return Negative | LTM EPS Growth Negative P/E-1 Below 5 yr Avg and Return Positive | LTM EPS Growth Negative P/E-1 Below 5 yr Avg and Return Negative | LTM EPS Growth Positive P/E-1 Below 5 yr Avg and Return Positive | LTM EPS Growth Positive P/E-1 Below 5 yr Avg and Return Negative | LTM EPS Growth Negative P/E-1 Above 5 yr Avg and Return Negative | LTM EPS Growth Negative P/E-1 Above 5 yr Avg and Return Positive | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Since 1877 | 1077 | 357 | 169 | 190 | 132 | 399 | 98 | 204 | 131 | 1680 |
| Percent of Months | 64% | 68% | 32% | 59% | 41% | 80% | 20% | 61% | 39% | |
| Since 1970 | 411 | 106 | 46 | 69 | 23 | 178 | 34 | 50 | 58 | 564 |
| Percent of Months | 73% | 70% | 30% | 75% | 25% | 84% | 16% | 46% | 54% | |
| Since 1980 | 343 | 89 | 38 | 51 | 13 | 145 | 3 | 47 | 58 | 444 |
| Percent of Months | 77% | 70% | 30% | 80% | 20% | 98% | 2% | 45% | 55% | |
| Since 1990 | 253 | 64 | 16 | 29 | 11 | 125 | 0 | 44 | 35 | 324 |
| Percent of Months | 78% | 80% | 20% | 73% | 28% | 100% | 0% | 56% | 44% | |
| Since 2000 | 143 | 29 | 12 | 17 | 11 | 91 | 0 | 38 | 6 | 204 |
| Percent of Months | 70% | 71% | 29% | 61% | 39% | 100% | 0% | 86% | 14% | |

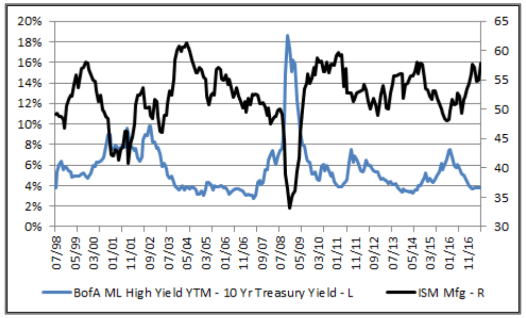
Source: Spellman, Shiller data, returns and growth are annual rates.

# Various assets are pushing limits

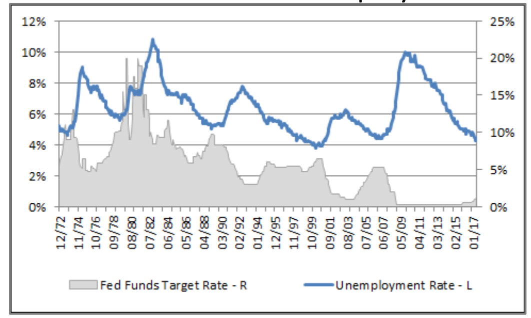
### 10-Year low versus inflation



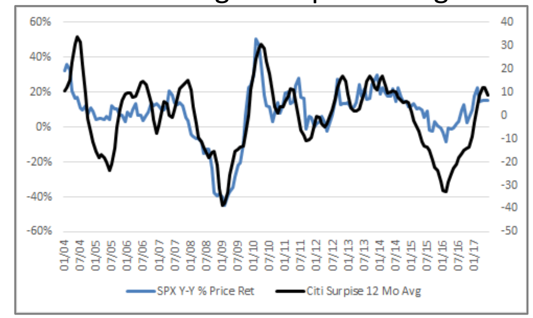

### High yield spreads compressed



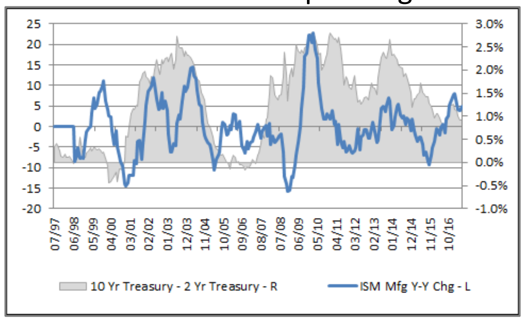

### Fed Funds low vs unemployment



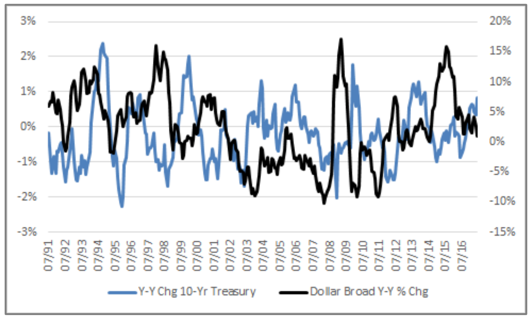

### 12-mo avg of surprise is high



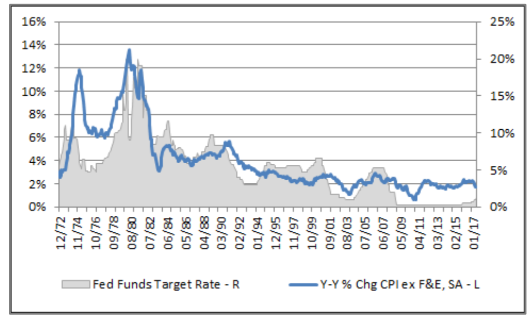

### Yield curve compressing



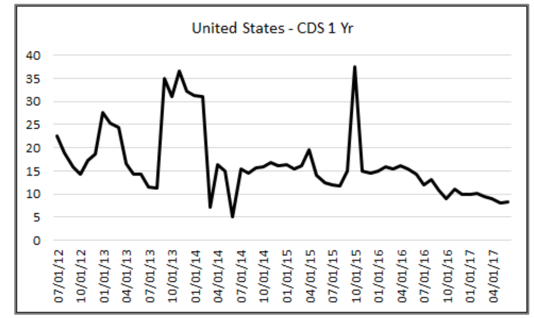

### Dollar leveling off



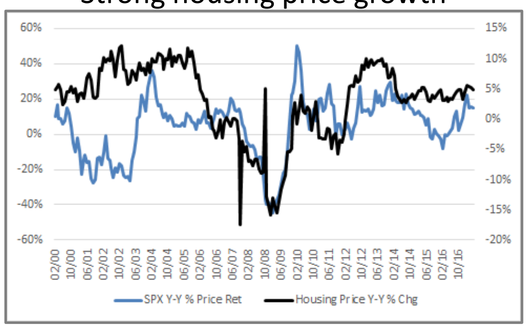

### Fed Funds low vs inflation



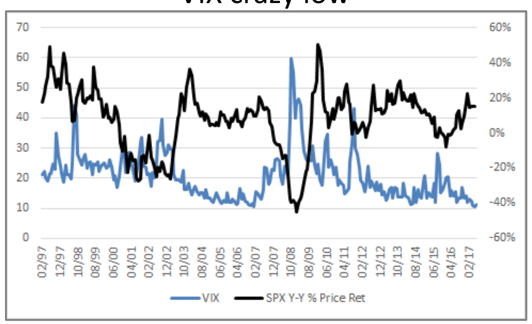

### CDS low



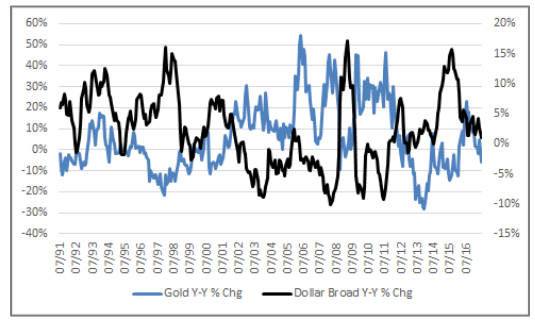

### Strong housing price growth



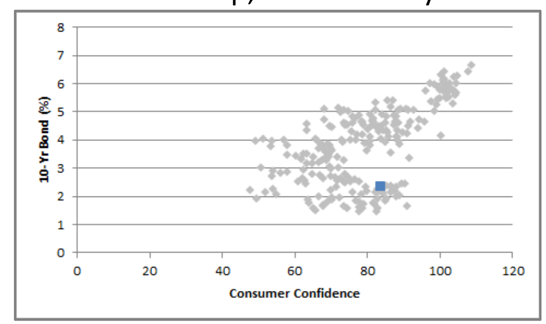

### VIX crazy low




### Gold down



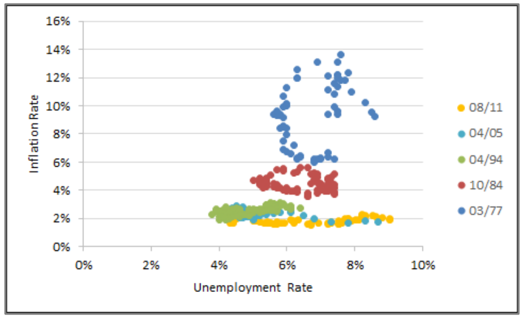

### Confidence up, where is 10-year?



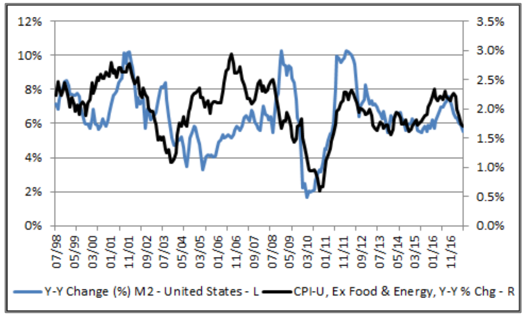

Source: Spellman, FactSet, CBOE, Citigroup, Conference Board, Federal Reserve System, ISM, Merrill Lynch, NAR - National Association of Realtors, US Department of Labor.

# Some signs of moderation and weakness in inflation

Weird, where is inflation?



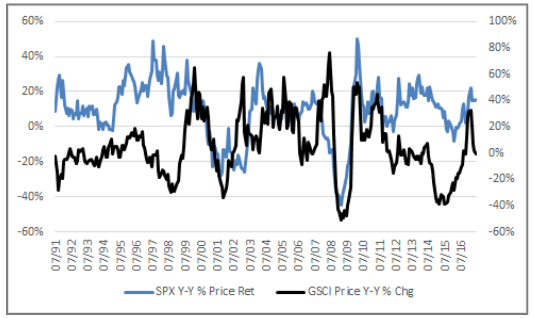

Weird, where is inflation?



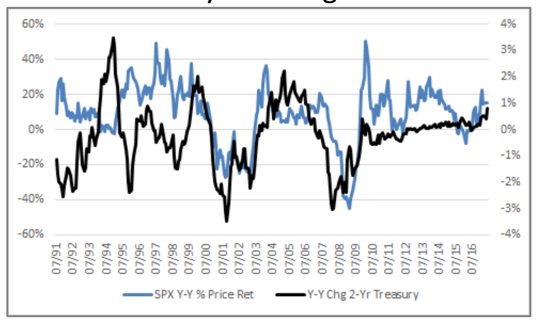

Maybe inflation held in check by:

1. Velocity of money falling as capital is tied up in banks' balance sheets
2. Low capacity utilization/output gap
3. Technology gains
4. Internet (increased competition, buyer power)
5. Low wage growth
6. Productivity growth (late cycle wanes, move to service economy)
7. Dollar strength
8. Low oil prices
9. Debt constraining spending
10. Demographics
11. NAFTA and impact on competition

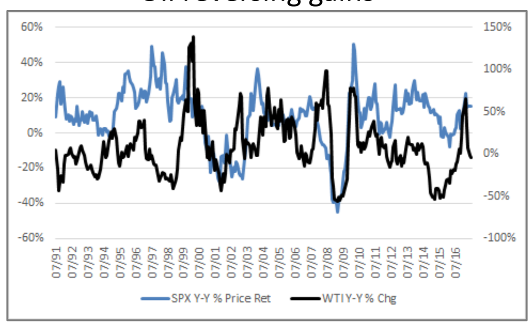
No commodity inflation?



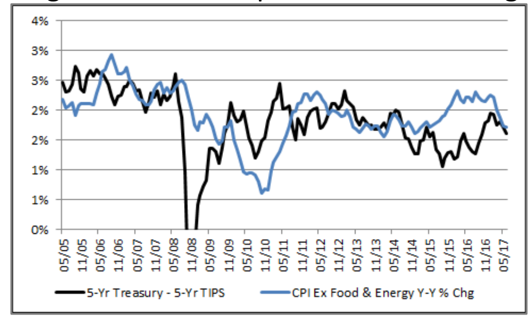

2-year rising



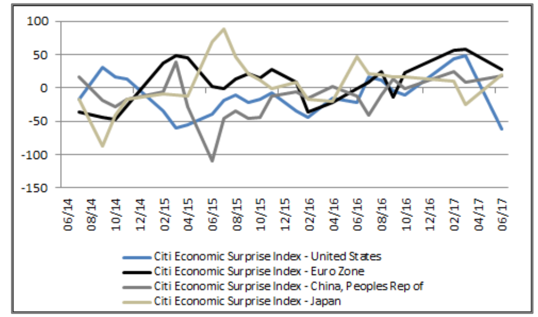

Oil reversing gains




Higher inflation expectations reversing




Recent US surprise is negative

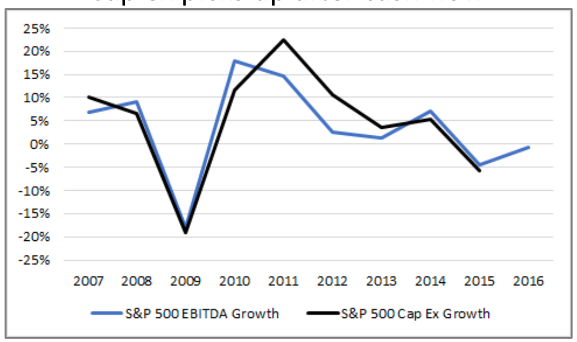



Source: Spellman, FactSet, Citigroup, CRB, Federal Reserve System, S&P GSCI, US Department of Labor.

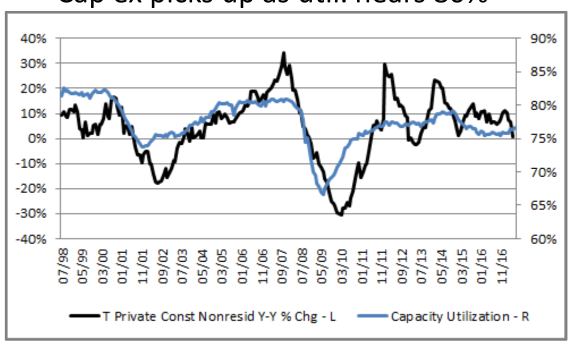
# Markets are excited, but corporate actions are not

- Moderation in cap ex, lending growth, M&A, and IPO activity after prior rebound
  - Why?
    - Conservatism and corporations gotten smarter and/or
    - Lack of need since capacity utilization is low and due to energy/industrial recession and/or
    - Corporate debt extended (slides 13 and 30) and/or
    - Wait and see on tax policy and/or
    - Easier to stay private/independent due to easy financing/boom in private equity?

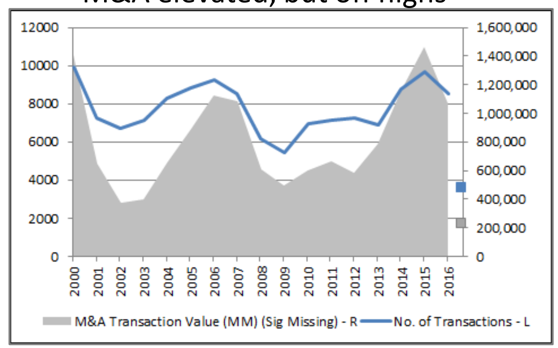
Cap ex picks up after cash flow



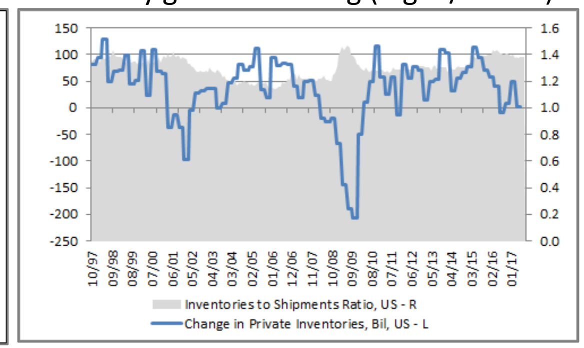

Cap ex picks up as util. nears 80%



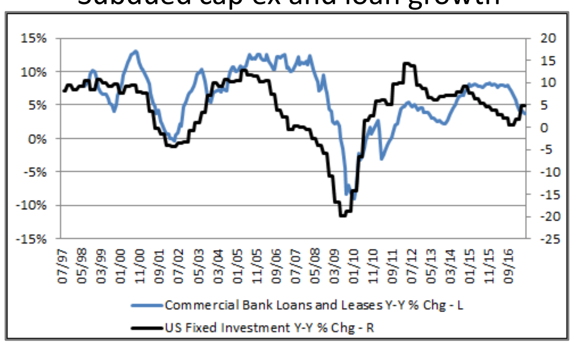

M&A elevated, but off highs



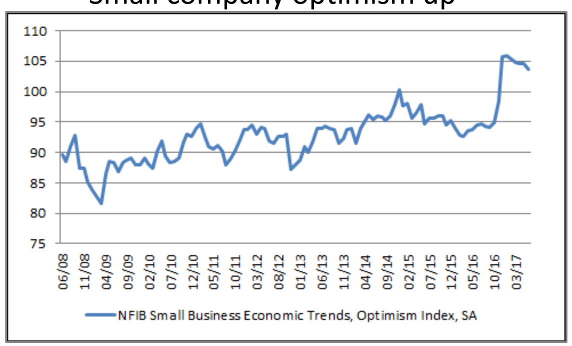

Inventory growth slowing (high I/S ratio)



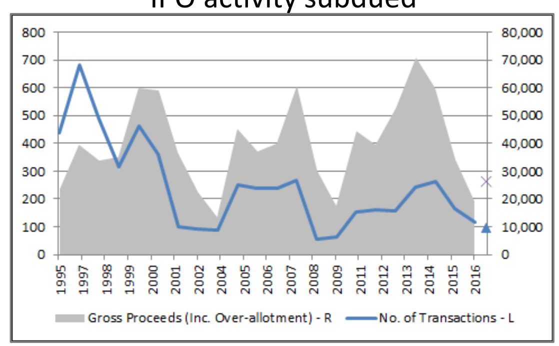

Subdued cap ex and loan growth



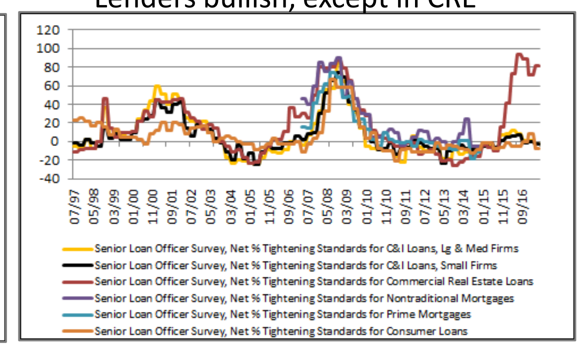

Small company optimism up




IPO activity subdued



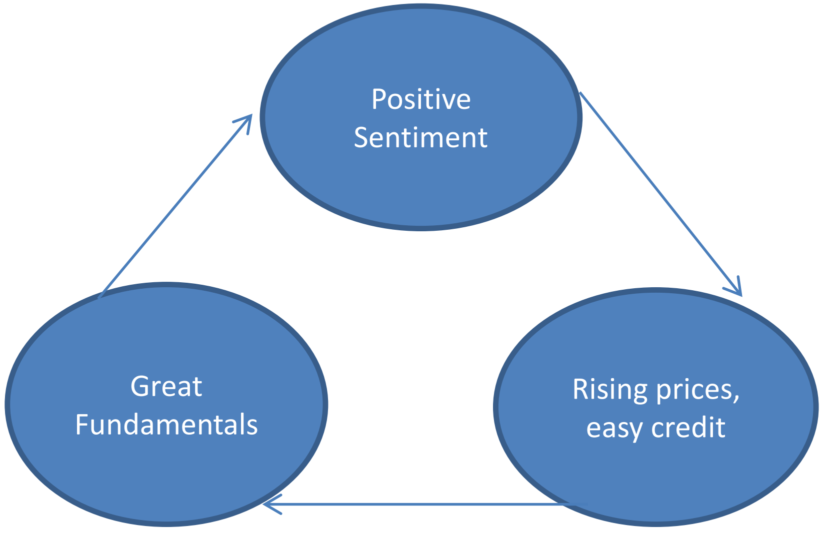

Lenders bullish, except in CRE

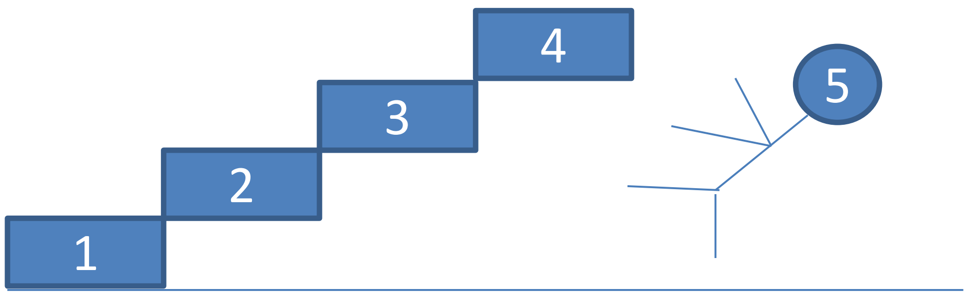



Source: Spellman, FactSet, BEA, Federal Reserve System, NFIB - National Federation of Independent Business, US Census Bureau.

# Looking for signs of excesses

- The end of a cycle – or at least bubbles – share some common steps
  1. Fundamental improvements
  2. Leverage
  3. Reflexivity and extrapolation
     - A loop that builds upon itself because people become greedy and herd
     - Extrapolate past good trends as they are slow to adjust to negative signs
  4. Doubt but escalation
  5. Burst




Source: Kindleberger, Charles, and Robert Aliber. Manias, Panics, and Crashes.5th Ed. "Chapter 1: Financial Crisis: A Hardy Perennial." New Jersey: John Wiley & Sons, Inc., 2005, and Montier, James. "Anatomy of a Bubble." Dresdner, Kleinwort, Wasserstein Research, July 18, 2002.

# The economic cycle is old, but the body is still healthy

- Median length of last seven expansions was 73 months, we are now at 96
- Recovery has been slow → many indicators (besides debt) only moderately strong

| Cycle | Months | Beginning | End | Real GDP | GDP | S&P 500 - Price | Personal Cons Expend | Fixed Investment | Residential Investment | Nonresid Investment | CPI | CPI Ex F/E | GDP Price Index | Housing Units Started | Nonfarm Payrolls | Unemployment Rate | Prime Rate | Fed Funds Rate | Business Debt / GDP | Consumer Debt / GDP | Corporate Profits / GDP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Expansion | 36 | 12/70 | 11/73 | 16.0% | 35.5% | 10.0% | 33.6% | 49.9% | 60.4% | 45.8% | 2.7% | -1.9% | 1.7% | 4.7% | 10.7% | -1.1% | 2.8% | 4.8% | 33.6% | 13.0% | 5.7% |
| Expansion | 58 | 04/75 | 01/80 | 23.3% | 72.7% | 38.1% | 71.4% | 114.2% | 129.1% | 109.5% | 3.4% | 0.6% | -2.0% | 35.0% | 18.5% | -2.3% | 7.8% | 8.0% | 31.2% | 12.8% | 5.0% |
| Expansion | 12 | 08/80 | 07/81 | 4.4% | 14.0% | 7.6% | 11.1% | 15.0% | 2.4% | 18.8% | -2.4% | -1.2% | 0.4% | -18.0% | 2.0% | -0.6% | 9.5% | 7.5% | 31.1% | 11.5% | 5.3% |
| Expansion | 92 | 12/82 | 07/90 | 38.4% | 76.9% | 157.1% | 78.1% | 66.2% | 99.6% | 57.9% | 0.3% | -0.1% | -1.5% | -14.7% | 23.7% | -5.3% | -1.5% | -0.9% | 42.6% | 13.7% | 4.3% |
| Expansion | 120 | 04/91 | 03/01 | 42.6% | 73.5% | 209.2% | 78.7% | 112.6% | 136.2% | 105.7% | -1.8% | -2.6% | -1.3% | 72.6% | 22.3% | -2.5% | -1.0% | -1.2% | 44.5% | 17.0% | 4.9% |
| Expansion | 73 | 12/01 | 12/07 | 18.0% | 37.2% | 28.9% | 38.0% | 34.6% | 18.1% | 40.7% | 2.2% | -0.3% | 0.5% | -35.3% | 5.5% | -0.5% | 2.3% | 2.0% | 43.1% | 17.8% | 7.2% |
| Expansion | 96 | 07/09 | 06/17 | 17.5% | 32.7% | 163.6% | 34.2% | 55.9% | 99.4% | 45.9% | 2.9% | 0.0% | 1.0% | 86.7% | 11.7% | -5.1% | 1.0% | 0.8% | 45.3% | 20.0% | 8.2% |
| Average | 70 | | | 22.9% | 48.9% | 87.8% | 49.3% | 64.0% | 77.9% | 60.6% | 1.0% | -0.8% | -0.2% | 18.7% | 13.5% | -2.5% | 3.0% | 3.0% | 38.8% | 15.1% | 5.8% |
| Median | 73 | | | 18.0% | 37.2% | 38.1% | 38.0% | 55.9% | 99.4% | 45.9% | 2.2% | -0.3% | 0.4% | 4.7% | 11.7% | -2.3% | 2.3% | 2.0% | 42.6% | 13.7% | 5.3% |
| Contraction | 11 | 01/70 | 11/70 | -0.2% | 4.9% | -5.3% | 5.4% | 3.0% | 11.1% | 0.2% | -0.3% | 0.7% | -0.1% | 24.1% | -1.2% | 2.4% | -1.5% | 0.5% | 33.3% | 12.2% | 4.5% |
| Contraction | 16 | 12/73 | 03/75 | -3.1% | 9.5% | -13.1% | 13.0% | -0.6% | -19.2% | 7.2% | 2.2% | 6.6% | 4.2% | -42.4% | -1.6% | 3.8% | -2.3% | -5.0% | 34.5% | 12.5% | 4.6% |
| Contraction | 6 | 02/80 | 07/80 | -2.2% | 2.3% | 5.7% | 2.9% | -2.9% | -12.1% | 0.3% | -0.7% | 0.4% | -0.1% | -5.4% | -1.1% | 1.5% | -4.3% | -3.5% | 31.2% | 12.4% | 4.6% |
| Contraction | 16 | 08/81 | 11/82 | -2.5% | 4.5% | 5.8% | 10.7% | -3.2% | -6.9% | -2.2% | -6.3% | -5.9% | -4.0% | 31.8% | -3.1% | 3.6% | -9.0% | -8.5% | 33.2% | 11.6% | 4.8% |
| Contraction | 8 | 08/90 | 03/91 | -1.3% | 0.4% | 5.4% | 2.4% | -4.0% | -10.3% | -1.9% | 0.0% | 2.6% | -1.3% | -21.3% | -1.1% | 0.2% | -0.1% | -0.2% | 42.4% | 13.6% | 5.2% |
| Contraction | 8 | 04/01 | 11/01 | 0.5% | 1.8% | -1.8% | 2.7% | -3.7% | 5.1% | -6.7% | -1.1% | 0.1% | -0.4% | 0.8% | -1.2% | 1.2% | -3.0% | -3.3% | 44.8% | 17.7% | 5.4% |
| Contraction | 18 | 01/08 | 06/09 | -4.2% | -2.3% | -37.4% | -1.4% | -22.2% | -39.0% | -17.0% | -5.3% | -0.7% | -1.6% | -43.6% | -5.3% | 4.5% | -4.0% | -3.8% | 45.1% | 18.1% | 7.4% |
| Average | 12 | | | -1.9% | 3.0% | -5.8% | 5.1% | -4.8% | -10.2% | -2.9% | -1.6% | 0.5% | -0.5% | -8.0% | -2.1% | 2.5% | -3.4% | -3.4% | 37.8% | 14.0% | 5.2% |
| Median | 11 | | | -2.2% | 2.3% | -1.8% | 2.9% | -3.2% | -10.3% | -1.9% | -0.7% | 0.4% | -0.4% | -5.4% | -1.2% | 2.4% | -3.0% | -3.5% | 34.5% | 12.5% | 4.8% |

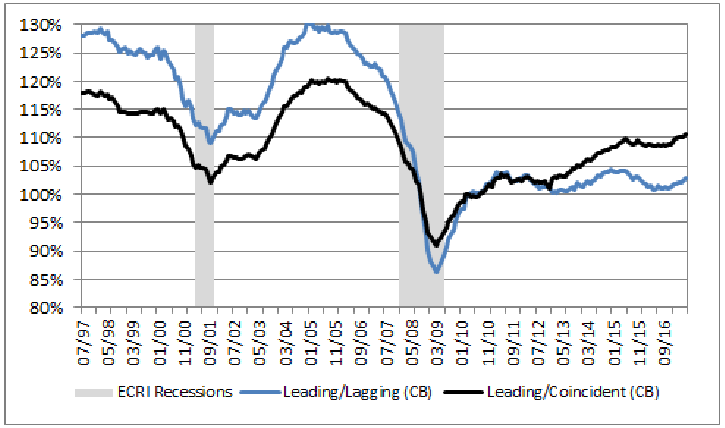
* Based on Economic Cycle Research Institute dating.

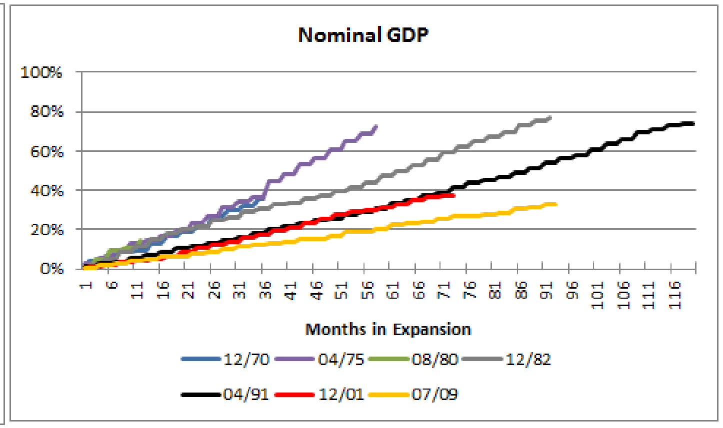
** The NBER does not define a recession in terms of two consecutive quarters of decline in real GDP. Rather, a recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.

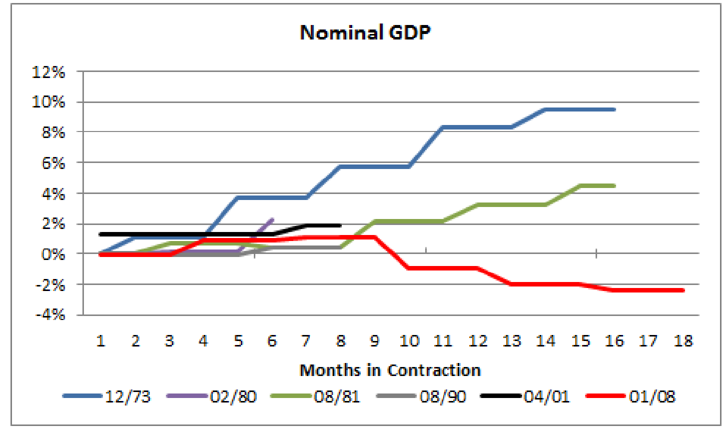
Source: Spellman, FactSet, BEA, Federal Reserve System, S&P, US Census Bureau, US Department of Labor

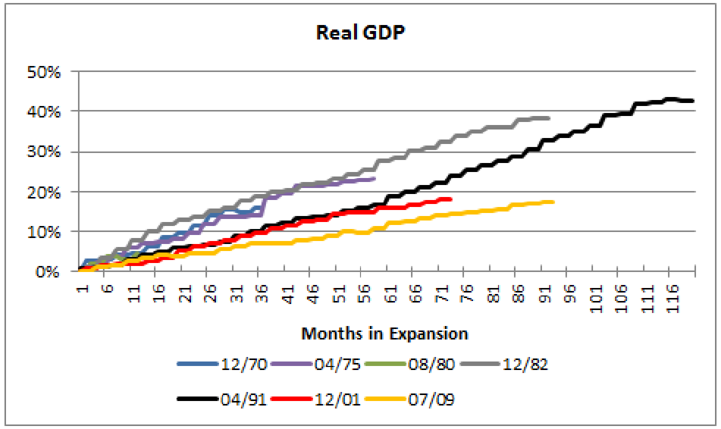
# GDP appears to have room to run

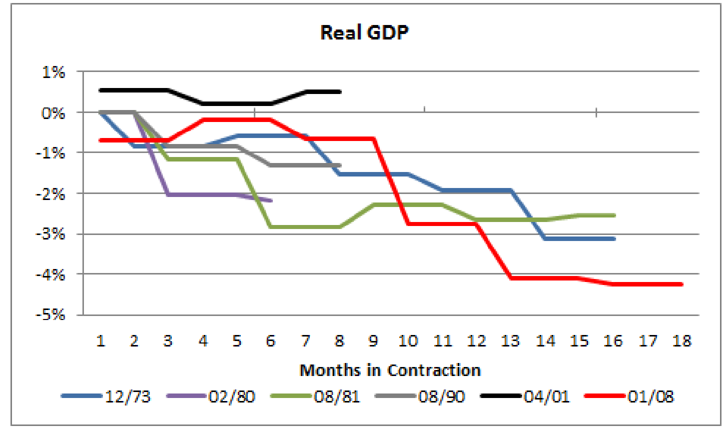
- The recovery is weaker than normal, and the recession was deeper



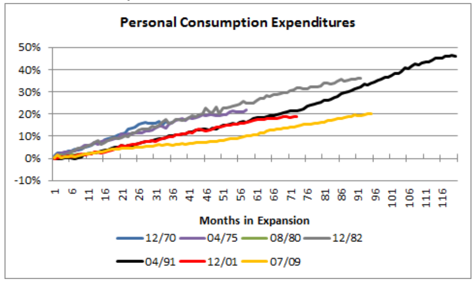



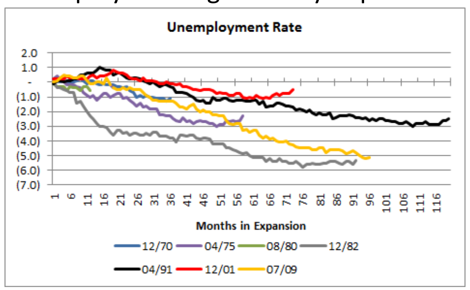

Source: Spellman, FactSet, BEA, Conference Board.

# Consumers as whole are better off, but middle and low income classes are lagging

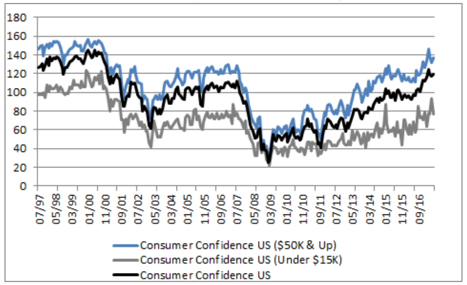
Consumption advance below normal



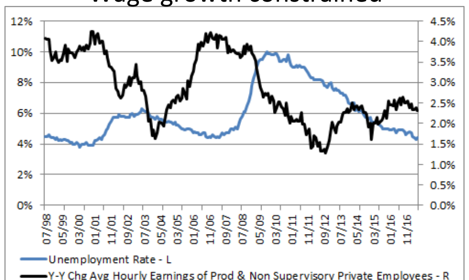

Unemployment significantly improved

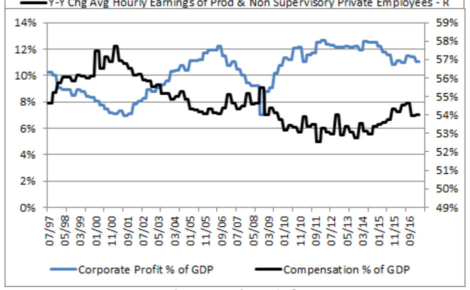



Confidence up, but not high for all

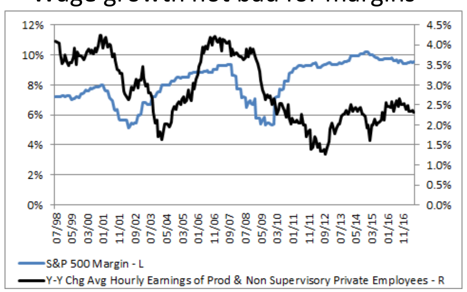



Wage growth constrained

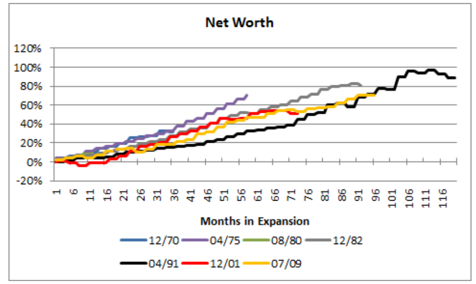


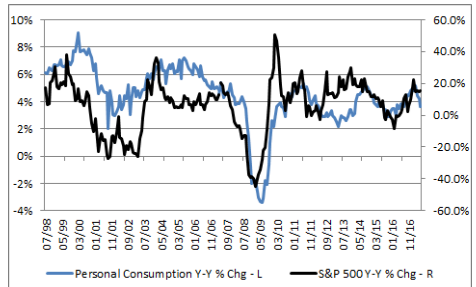



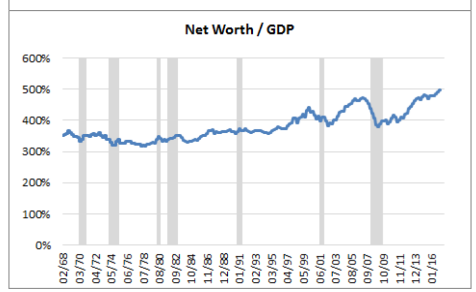

Wage growth not bad for margins



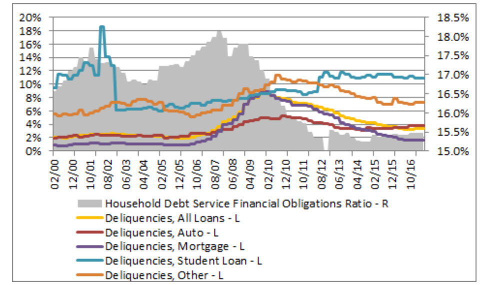

Net worth helps spending

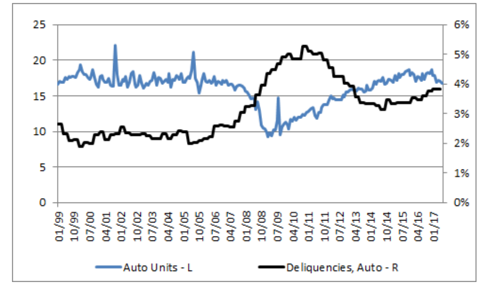



OK credit, weakness in student loans and autos



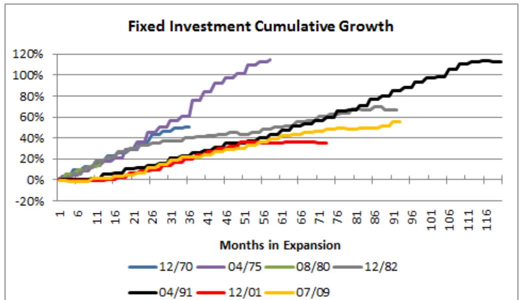

Source: Spellman, FactSet, BEA, Conference Board, Federal Reserve Bank of New York, Federal Reserve System, S&P, US Department of Labor.

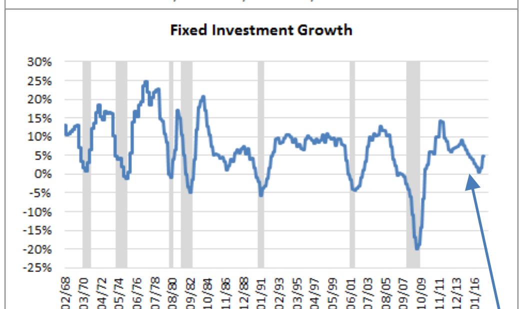
# Corporations are much better off – late cycle margins

S&P 500 financial sector debt ratios much improved and business could improve as rates rise, if regulation is lessened, and tax rates decline

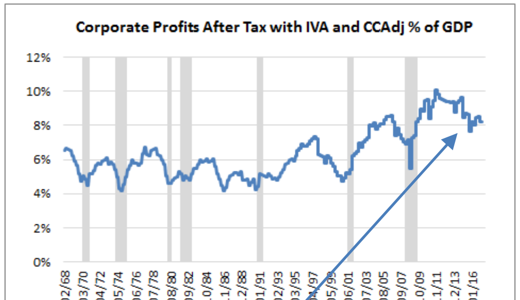
| Year | Dec '16 | Dec '15 | Dec '14 | Dec '13 | Dec '12 | Dec '11 | Dec '10 | Dec '09 | Dec '08 | Dec '07 | Dec '06 | Dec '05 | Dec '04 | Dec '03 | Dec '02 | Dec '01 | Dec '00 | Dec '99 | Dec '98 | Dec '97 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Net Margin | 14.2% | 15.2% | 15.0% | 13.0% | 13.8% | 11.7% | 9.2% | -2.0% | 0.4% | 12.5% | 13.5% | 14.2% | 14.9% | 13.5% | 12.0% | 10.3% | 11.7% | 11.9% | 10.7% | 10.2% |
| ROA | 1.0% | 1.1% | 1.1% | 1.0% | 1.0% | 0.9% | 0.7% | -0.1% | 0.0% | 1.1% | 1.2% | 1.2% | 1.2% | 1.1% | 1.1% | 1.0% | 1.2% | 1.3% | 1.0% | 1.1% |
| ROE | 8.1% | 8.9% | 9.0% | 8.6% | 8.8% | 8.0% | 6.6% | -1.5% | 0.4% | 14.5% | 14.7% | 14.9% | 14.9% | 15.3% | 13.9% | 13.7% | 16.7% | 17.0% | 13.9% | 14.6% |
| A/E | 8.06 | 7.81 | 8.08 | 8.51 | 8.56 | 9.12 | 9.43 | 10.03 | 13.03 | 13.15 | 12.53 | 12.56 | 12.83 | 13.42 | 13.01 | 13.13 | 13.41 | 13.27 | 13.81 | 13.12 |
| Total Debt / Total Assets | 20.3% | 33.4% | 31.7% | 32.0% | 29.9% | 30.4% | 31.1% | 52.8% | 55.5% | 58.8% | 53.5% | 51.9% | 53.7% | 52.7% | 50.5% | 39.8% | 34.9% | 14.5% | 13.7% | 5.8% |

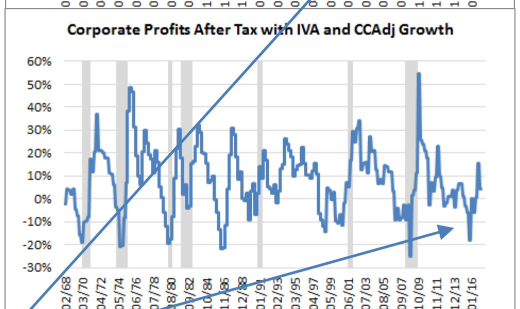
Fixed investment growth getting close to average and normally wanes before recessions



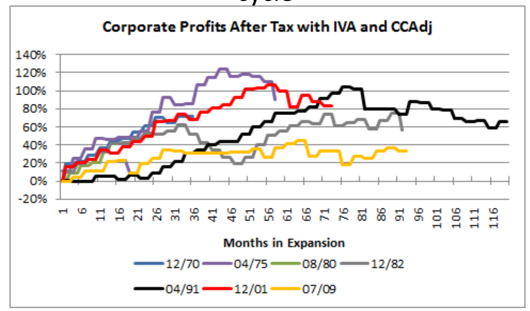




Margins high and normally fall before recessions

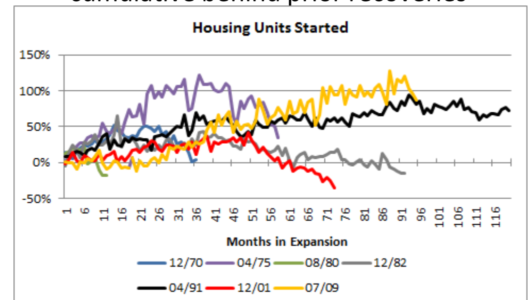


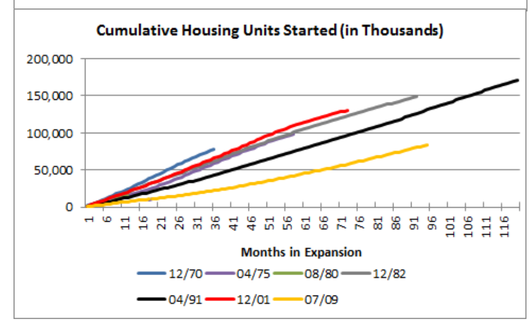




Overall profits up less than normal over a cycle




Housing starts up much (BUT recently growth stalling), but from low level so cumulative behind prior recoveries



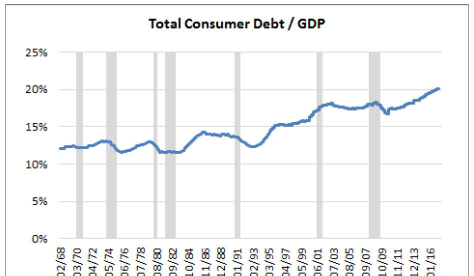

Slowdown in 2016 had the makings of a recession

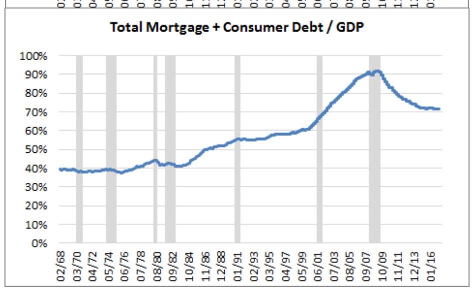
Source: Spellman, FactSet, BEA, US Census Bureau.

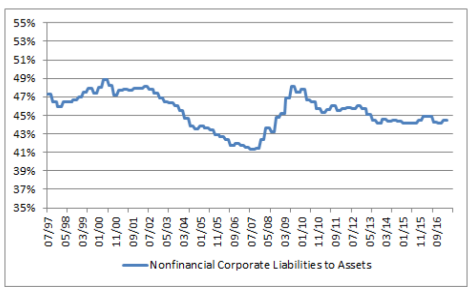
# Leverage – yes! A potential huge problem

- Isn't it concerning that the financial crisis was "solved" by allowing people to borrow every increasing amounts at lower rates?
  - Will the next recession be worse if we cannot raise debt to jump start the economy?
  - Current excess borrowing "borrows" from future consumption

CD/GDP high and peaks before recessions, but so does CD+Mortg/GDP which looks better off of highs

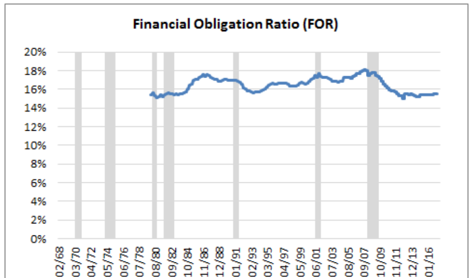


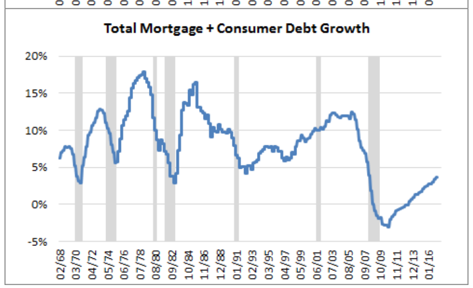



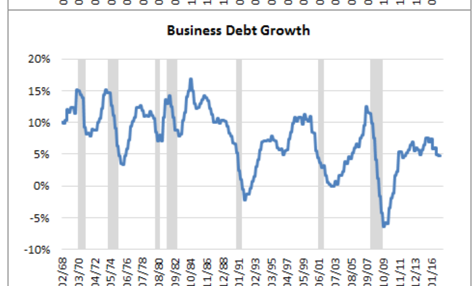

Corporate debt does not look as bad versus assets

FOR down, but what would it be if rates were 2% higher?

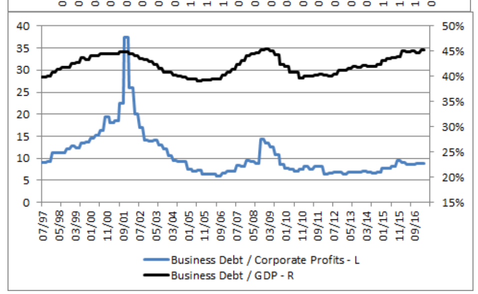


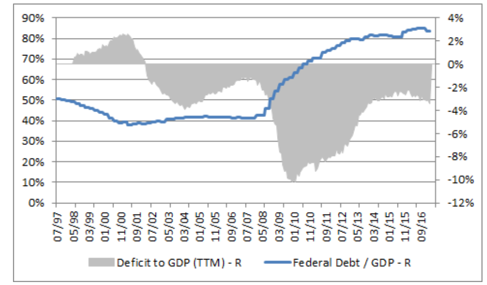

Business debt / GDP peaks before recessions and is at a high

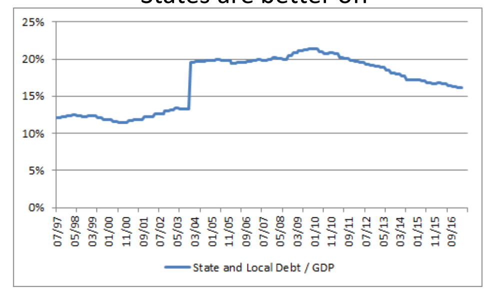

Looks better versus profits, but profits are high



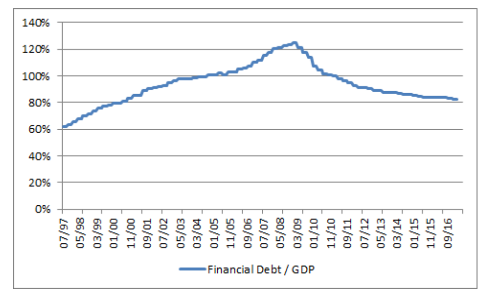

The Federal Government is stretched




States are better off




The only big positive is the financial sector which is much improved




Source: Spellman, FactSet, BEA, Federal Reserve System, US Department of Treasury.

# Doubt and escalation – oh yes

- Expectations are high
- Earnings growth delivering for now
  - Through at least 2017
  - Estimates for double digit growth in 2018, but comps get much more difficult
    - Maybe tax and other policies can bail us out, but looking less likely
    - World growth looks like on up, but central banks beginning tightening and uncertain outcome as Fed reduces balance sheet

| | LTM EPS Growth (Sum 4Q) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sector | 2016/4C | 2017/1C | 2017/2C | 2017/3C | 2017/4C | 2018/1C | 2018/2C | 2018/3C | 2018/4C |
| Russell 3000 | -0.1% | 4.8% | 7.0% | 8.3% | 10.5% | 10.1% | 12.1% | 13.4% | 13.2% |
| S&P 500 | 0.2% | 5.0% | 7.2% | 8.1% | 9.9% | 9.0% | 10.5% | 11.7% | 11.5% |
| Russell Mid Cap | 0.4% | 4.7% | 6.6% | 8.0% | 11.8% | 13.0% | 14.9% | 15.5% | 14.5% |
| Russell 2000 | -3.1% | 2.7% | 2.3% | 11.0% | 16.6% | 22.9% | 32.7% | 32.3% | 31.9% |

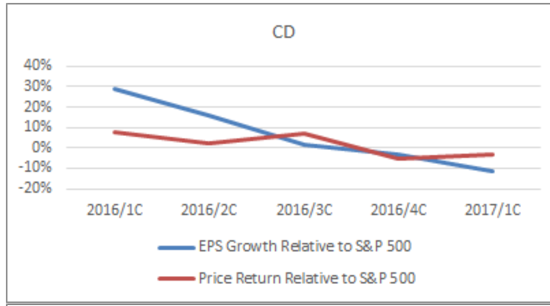
- But assets have rallied already
  - Stock markets up
  - Bond markets up
- Reminder: stock market discounts EPS growth about 6 months ahead

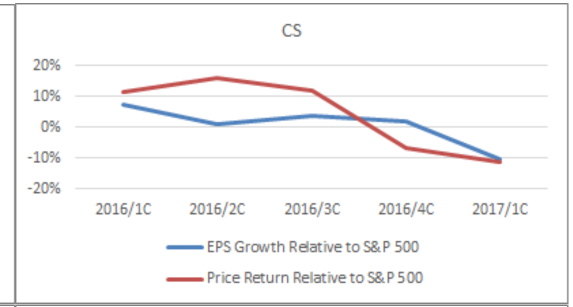
# The Hurray and Worry List

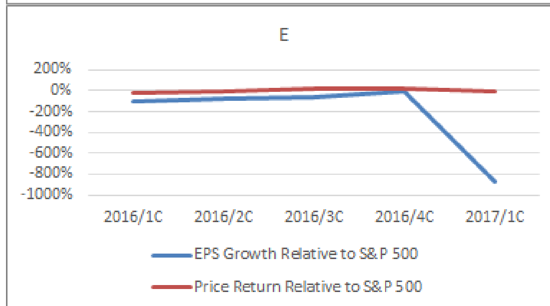
- ## What can go right?
  - Earnings growth remains strong and possibly buoyed by
    - Tax policy
    - Reduced regulations
    - Infrastructure
  - Europe, China, and emerging markets continue rebound
    - Europe earnings still below pre-recession highs
    - China navigating transition
    - Emerging markets weathering higher US rates and benefiting from higher commodity prices (since early 2016) and recent dollar weakness
  - Unemployment keeps getting better and results in higher wages and spending
  - Confidence measures remain high and result in investment and growth
  - Inflation remains in check and current weakness is temporary
  - Fed rate hikes provide ammunition to combat next recession
  - Revolutionary new developments in biotechnology, AI, autonomous cars, etc. lead to significant investment and productivity boost
- ## What can go wrong?
  - Too much debt leads to growth stall
  - Asset prices decline
  - Lending growth continues to stall
  - Auto sales decline accelerates
  - Trump policy uncertainties
  - Inflation gets out of hand – high or low
  - Rates increase too fast and cause consumer spending growth and corporate investment to stall
  - Fed balance sheet reduction mismanaged; policy normalization outside US begins in late 2017-18?
  - China debt issue becomes crisis
  - Recent weakness in energy and commodity prices accelerate
  - Lack of productivity growth leads to lack of investment
  - Margin growth stalls
  - North Korea, Brexit, and other geopolitical problems
  - Uncertainties due to populism and isolationism movements

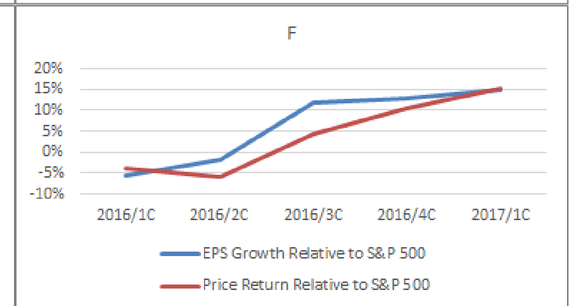
# Sector quarterly EPS growth

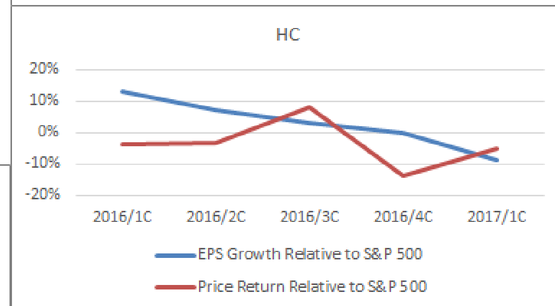
| Name | 2016/4C | 2017/1C | 2017/2C | 2017/3C | 2017/4C | 2018/1C | 2018/2C | 2018/3C | 2018/4C |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Quarterly EPS Growth | | | | | |
| CD | 2.0% | 2.6% | -3.4% | 2.4% | 10.5% | 7.4% | 14.3% | 15.6% | 13.0% |
| CS | 7.1% | 3.3% | 4.6% | 5.9% | 8.9% | 8.3% | 8.2% | 7.8% | 7.5% |
| E | -5.5% | -851.9% | 319.2% | 113.6% | 80.6% | 40.4% | 61.9% | 38.7% | 31.6% |
| F | 18.2% | 28.8% | 19.2% | 6.7% | 17.7% | 10.0% | 11.2% | 13.2% | 13.5% |
| HC | 5.3% | 5.0% | 0.5% | 3.2% | 6.7% | 5.0% | 9.7% | 10.9% | 10.9% |
| I | -3.2% | 2.7% | 3.1% | 7.6% | 14.9% | 14.9% | 13.4% | 7.5% | 9.5% |
| IT | 11.0% | 17.8% | 10.6% | 7.6% | 9.6% | 11.6% | 13.6% | 12.2% | 10.1% |
| M | 4.2% | 13.2% | -4.4% | 5.6% | 19.6% | 13.3% | 16.8% | 11.2% | 7.5% |
| RE | | | | 3.8% | 0.7% | 6.4% | 7.6% | 7.8% | 7.4% |
| TS | -24.9% | -4.5% | 1.8% | -0.3% | 1.5% | 1.5% | 2.0% | 1.6% | 6.9% |
| U | 4.7% | 2.0% | -2.7% | -1.3% | 7.0% | 3.1% | 8.6% | 4.5% | 9.9% |
| EPS Growth Relative to S&P 500 | | | | | | | | | |
| CD | -3.3% | -11.2% | -10.3% | -4.6% | -1.7% | -2.6% | 1.3% | 3.8% | 1.6% |
| CS | 1.8% | -10.4% | -2.3% | -1.1% | -3.3% | -1.6% | -4.8% | -4.0% | -3.9% |
| E | -10.8% | -865.7% | 312.3% | 106.6% | 68.4% | 30.5% | 48.9% | 26.9% | 20.1% |
| F | 13.0% | 15.0% | 12.3% | -0.4% | 5.6% | 0.1% | -1.8% | 1.4% | 2.1% |
| HC | 0.1% | -8.8% | -6.4% | -3.8% | -5.5% | -4.9% | -3.2% | -0.9% | -0.5% |
| I | -8.4% | -11.1% | -3.8% | 0.6% | 2.8% | 4.9% | 0.4% | -4.2% | -1.9% |
| IT | 5.7% | 4.0% | 3.7% | 0.6% | -2.6% | 1.7% | 0.7% | 0.4% | -1.3% |
| M | -1.1% | -0.6% | -11.3% | -1.5% | 7.4% | 3.4% | 3.8% | -0.6% | -3.9% |
| RE | | | | -3.3% | -11.5% | -3.5% | -5.4% | -4.0% | -4.1% |
| TS | -30.2% | -18.2% | -5.1% | -7.3% | -10.7% | -8.4% | -10.9% | -10.2% | -4.5% |
| U | -0.5% | -11.8% | -9.6% | -8.3% | -5.2% | -6.9% | -4.4% | -7.3% | -1.5% |

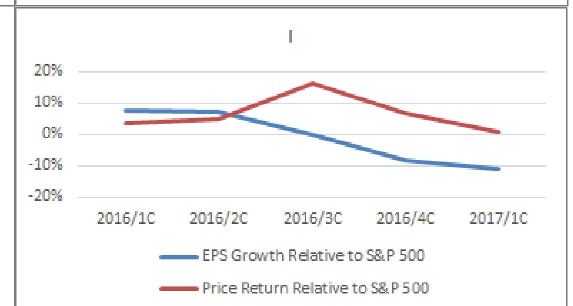


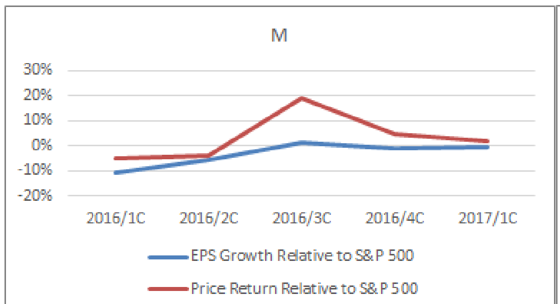



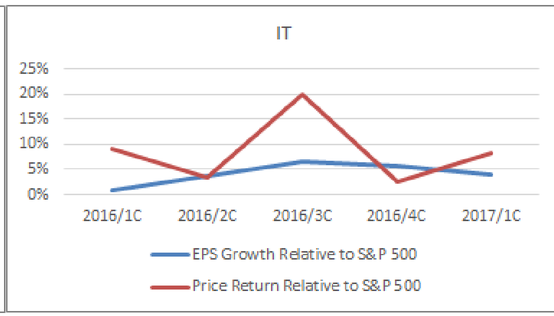



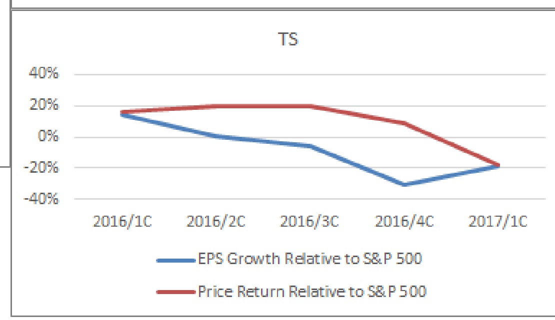



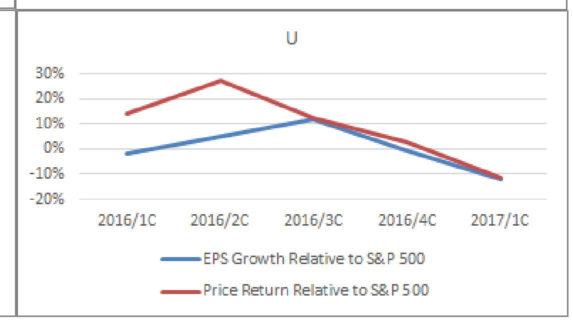



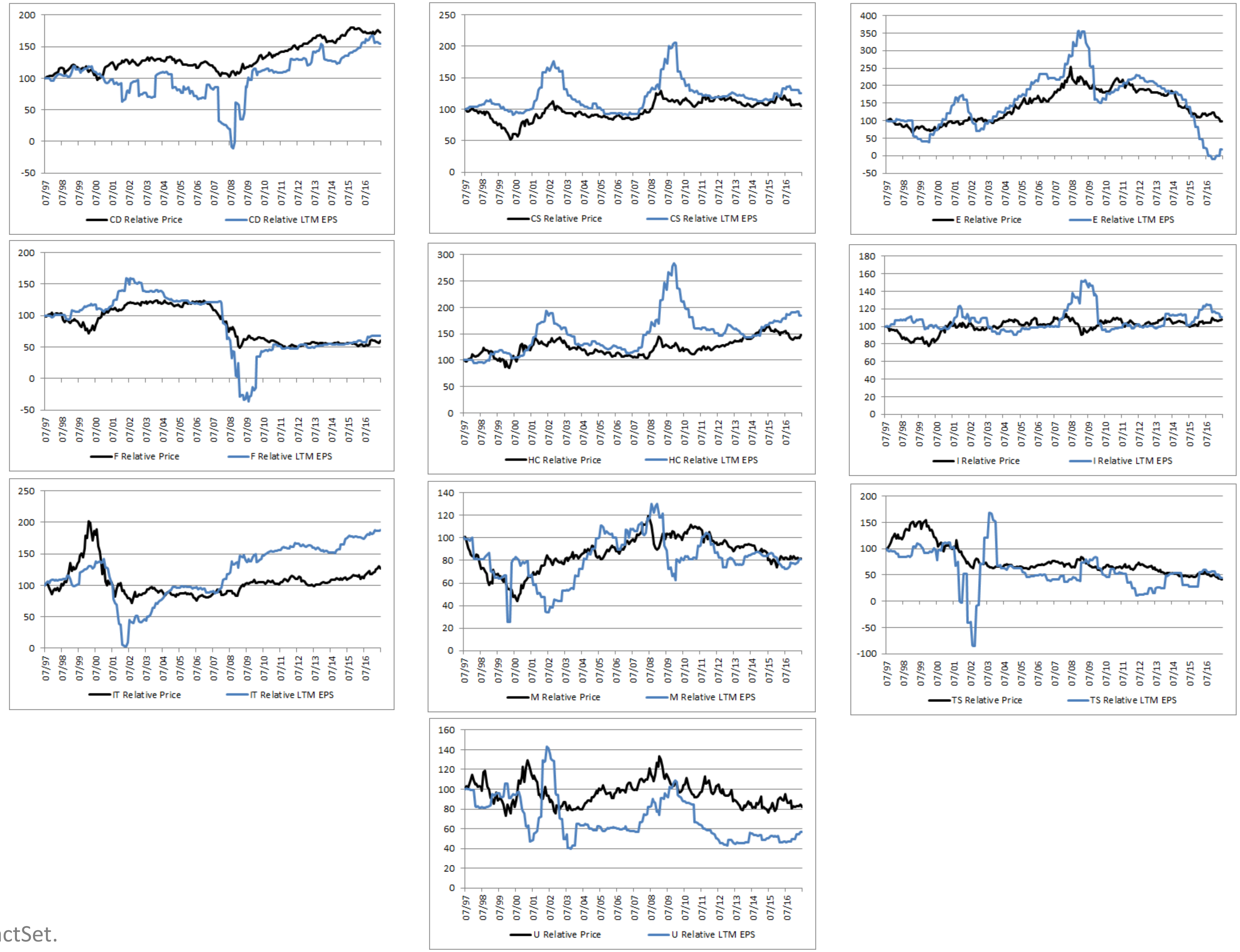

Source: Spellman, FactSet.

# Sector LTM EPS growth

| | LTM EPS Growth (Sum 4Q) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name | 2016/4C | 2017/1C | 2017/2C | 2017/3C | 2017/4C | 2018/1C | 2018/2C | 2018/3C | 2018/4C |
| CD | 10.1% | 5.9% | 1.5% | 0.8% | 3.0% | 4.1% | 8.6% | 12.0% | 12.7% |
| CS | 3.6% | 4.1% | 5.5% | 5.3% | 5.8% | 6.9% | 7.8% | 8.3% | 7.9% |
| E | -75.4% | -33.8% | 33.9% | 178.9% | 227.6% | 94.8% | 68.3% | 52.4% | 42.3% |
| F | 4.0% | 14.1% | 20.3% | 17.5% | 17.4% | 13.1% | 11.3% | 12.9% | 12.0% |
| HC | 5.9% | 5.5% | 4.3% | 3.5% | 3.8% | 3.8% | 6.2% | 8.1% | 9.1% |
| I | 1.7% | 2.0% | 1.5% | 2.6% | 7.2% | 9.8% | 12.5% | 12.4% | 11.1% |
| IT | 4.7% | 10.2% | 12.3% | 11.5% | 11.1% | 9.8% | 10.6% | 11.6% | 11.7% |
| M | -5.6% | 2.7% | 4.0% | 4.2% | 7.4% | 7.6% | 13.8% | 15.1% | 12.4% |
| RE | | | | | | | 4.6% | 5.6% | 7.3% |
| TS | -6.1% | -8.8% | -8.2% | -7.8% | -0.5% | 1.1% | 1.2% | 1.6% | 2.9% |
| U | 4.1% | 7.1% | 5.7% | 0.3% | 0.8% | 1.1% | 3.5% | 5.5% | 6.1% |
| EPS Growth Relative to S&P 500 | | | | | | | | | |
| CD | 9.9% | 0.9% | -5.7% | -7.3% | -6.9% | -4.9% | -1.9% | 0.3% | 1.1% |
| CS | 3.4% | -0.8% | -1.7% | -2.8% | -4.1% | -2.1% | -2.7% | -3.4% | -3.6% |
| E | -75.6% | -38.8% | 26.6% | 170.8% | 217.7% | 85.7% | 57.8% | 40.7% | 30.8% |
| F | 3.8% | 9.2% | 13.1% | 9.4% | 7.6% | 4.1% | 0.7% | 1.2% | 0.5% |
| HC | 5.8% | 0.6% | -2.9% | -4.6% | -6.1% | -5.2% | -4.4% | -3.6% | -2.4% |
| I | 1.6% | -2.9% | -5.7% | -5.5% | -2.7% | 0.8% | 2.0% | 0.7% | -0.5% |
| IT | 4.5% | 5.2% | 5.0% | 3.4% | 1.2% | 0.8% | 0.0% | -0.1% | 0.2% |
| M | -5.7% | -2.2% | -3.3% | -3.9% | -2.5% | -1.4% | 3.3% | 3.3% | 0.9% |
| RE | | | | | | | -6.0% | -6.2% | -4.2% |
| TS | -6.3% | -13.8% | -15.4% | -15.9% | -10.4% | -7.9% | -9.4% | -10.1% | -8.6% |
| U | 3.9% | 2.1% | -1.5% | -7.8% | -9.1% | -8.0% | -7.1% | -6.3% | -5.5% |

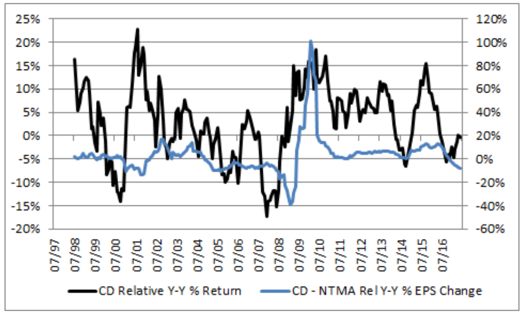
Source: Spellman, FactSet.

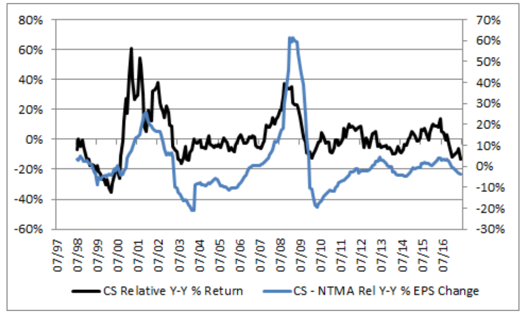
# Sector *relative* price and earnings trends

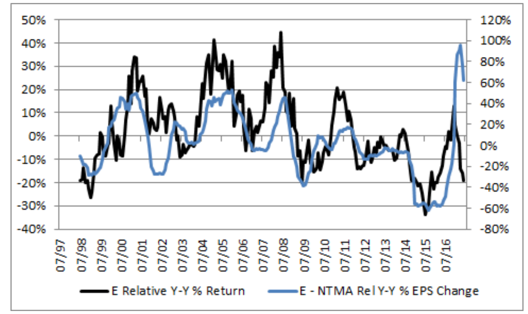


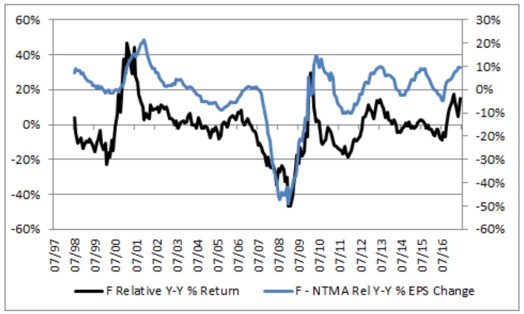

Source: Spellman, FactSet.

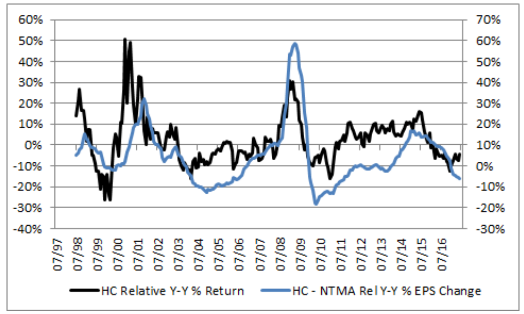
# Sector *relative* return and NTMA EPS growth trends

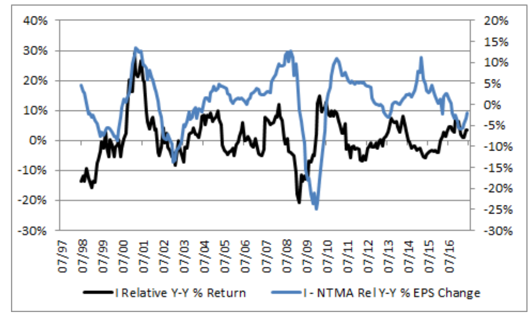


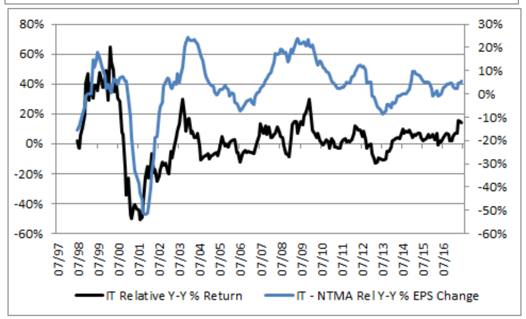



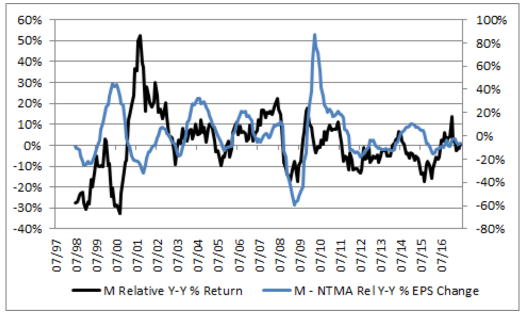



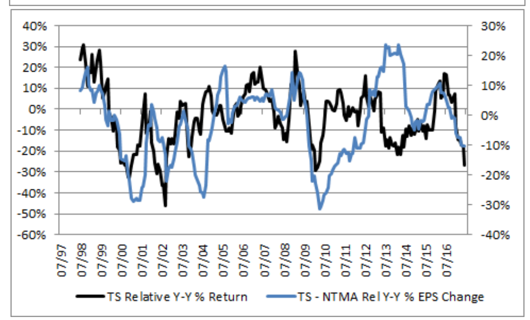



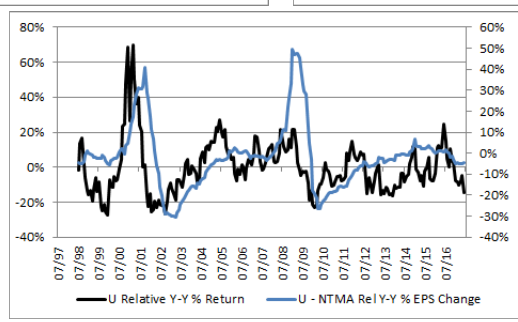



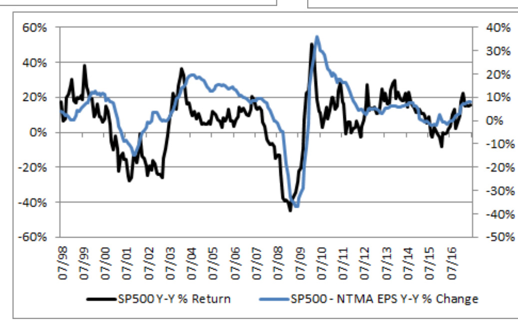



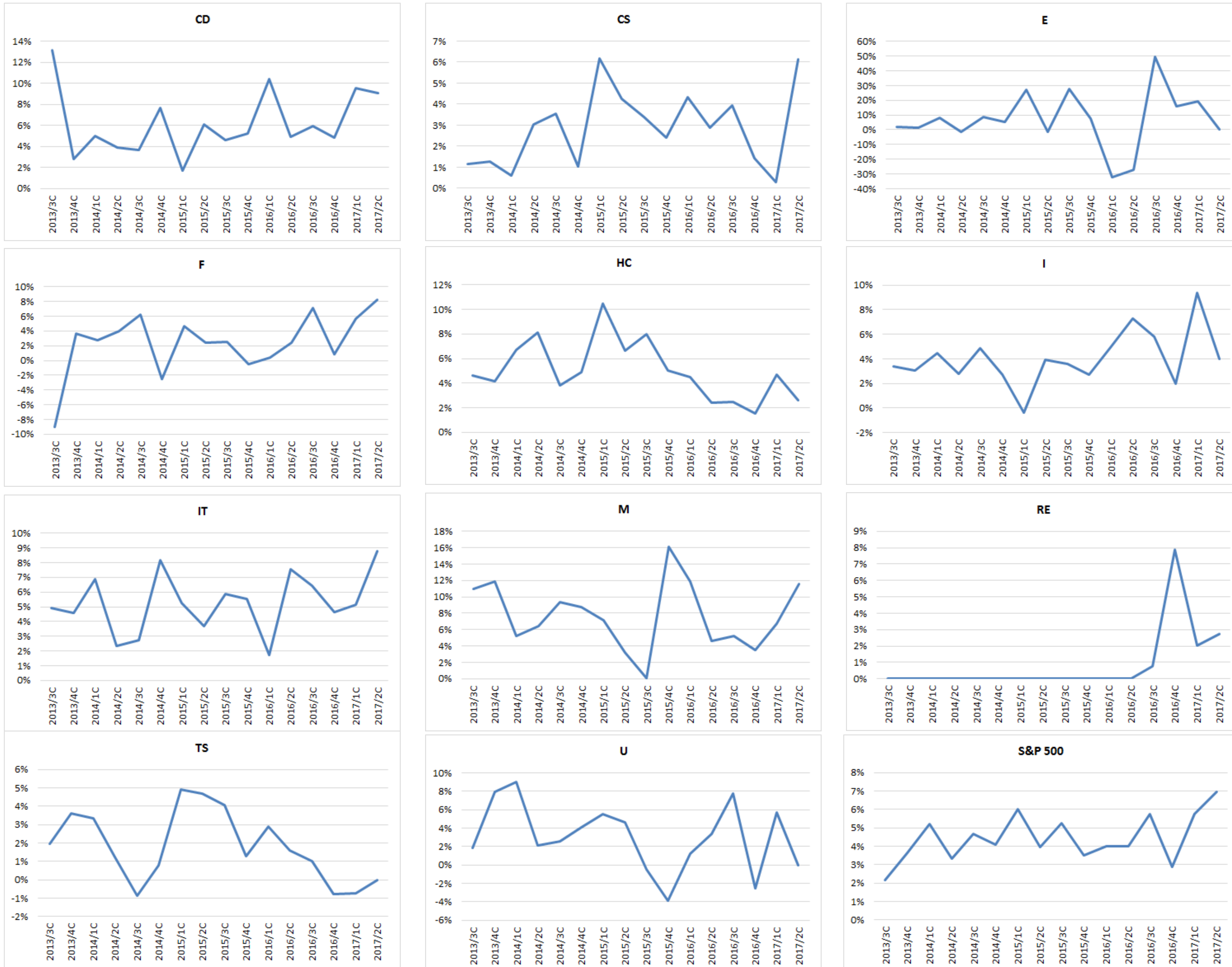



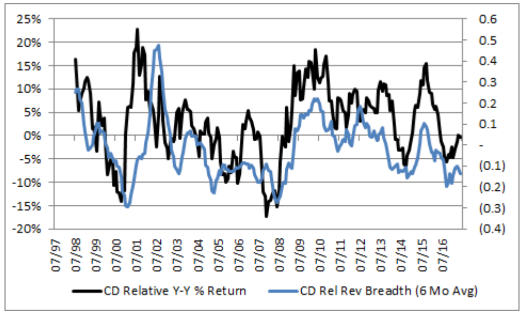

Source: Spellman, FactSet.

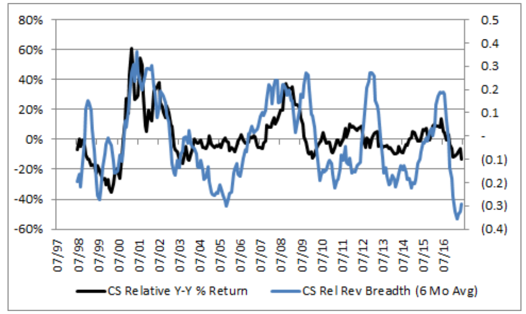
# Sector surprise trends

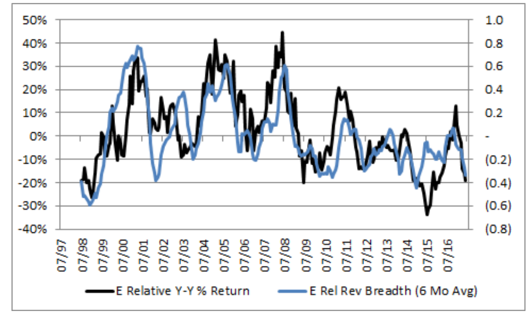


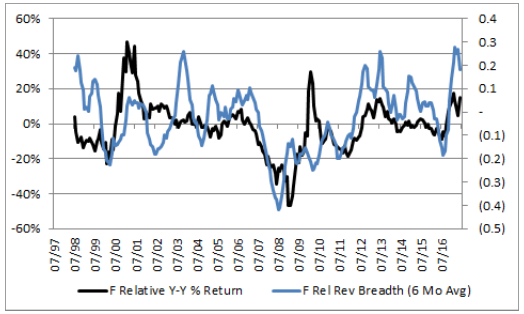

Source: Spellman, FactSet.

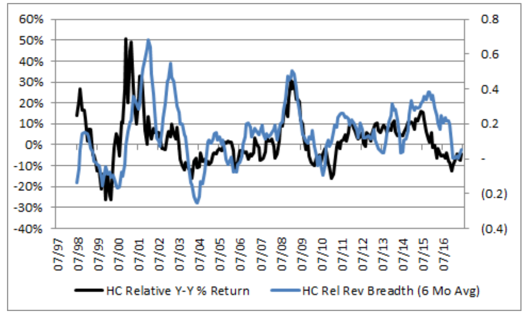
# Sector *relative* revision breadth

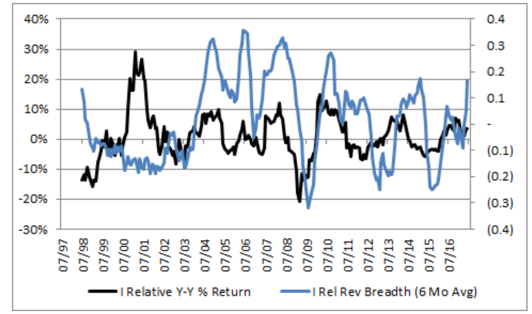


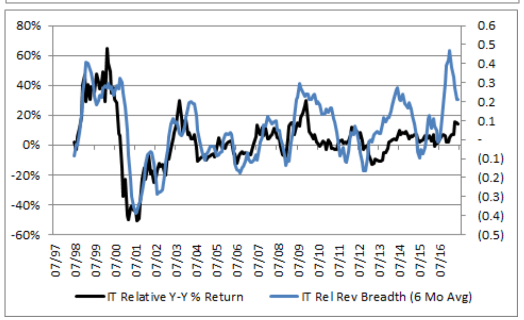



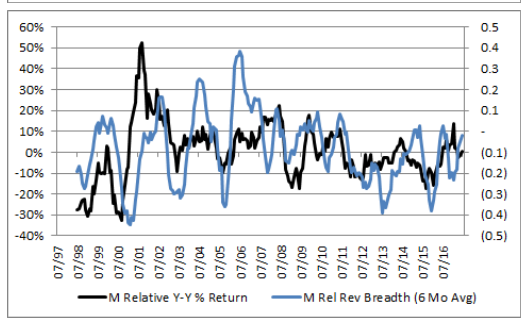



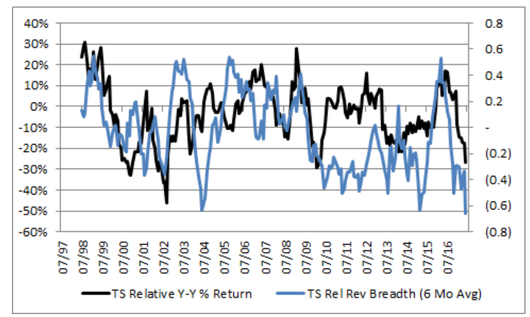



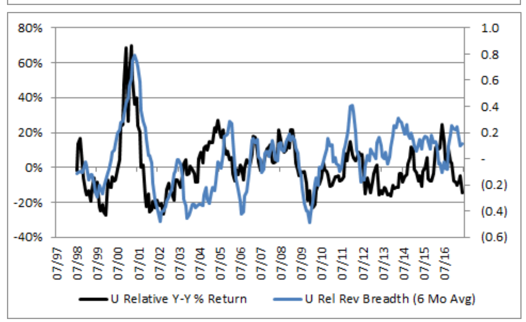



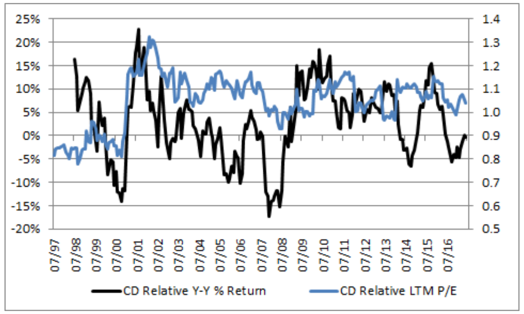



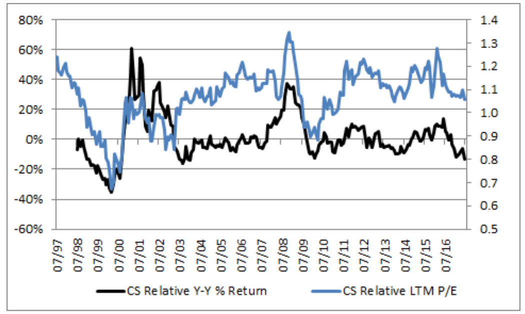



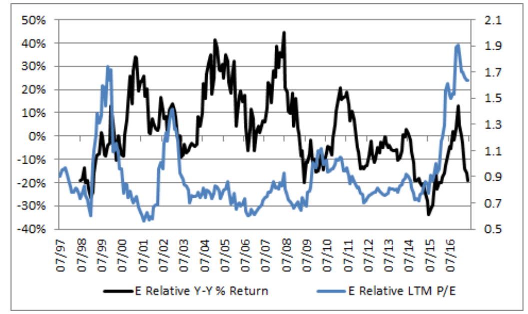



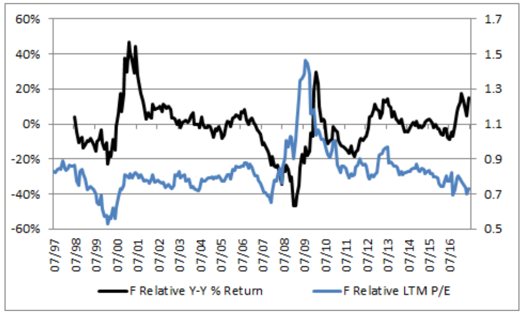

Source: Spellman, FactSet.

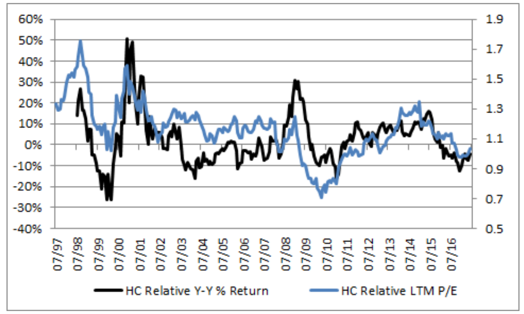
# Sector *relative* LTM P/E trends

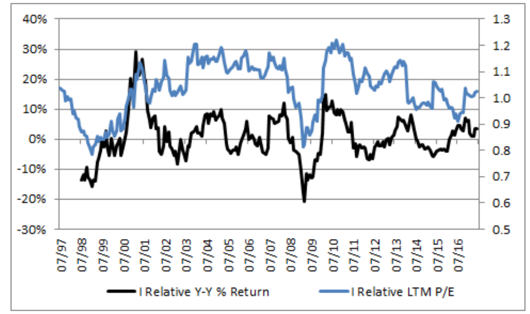


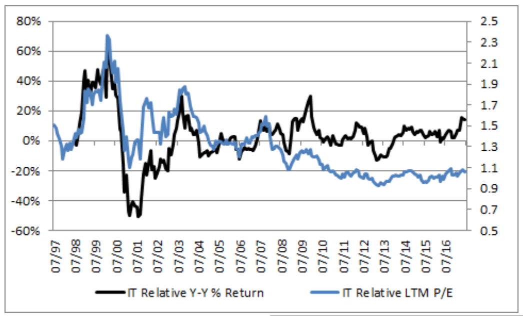



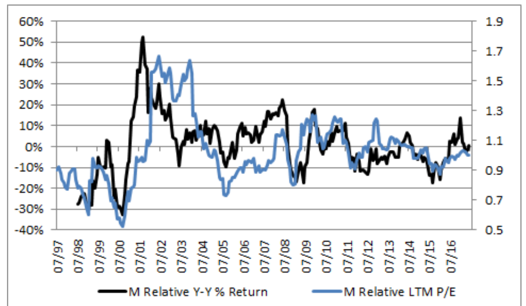



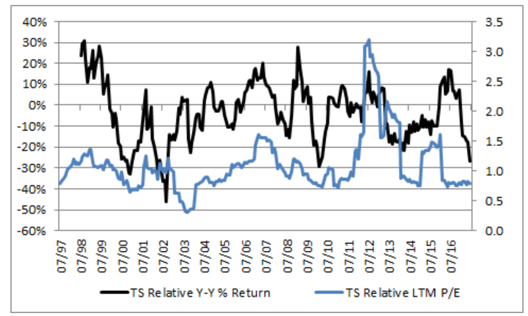



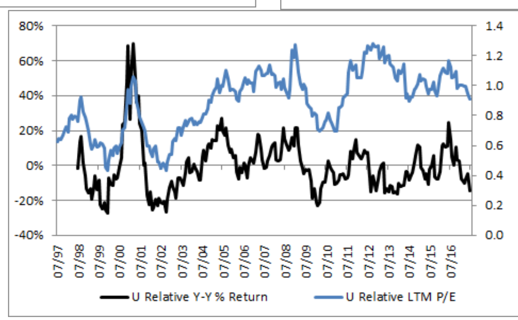



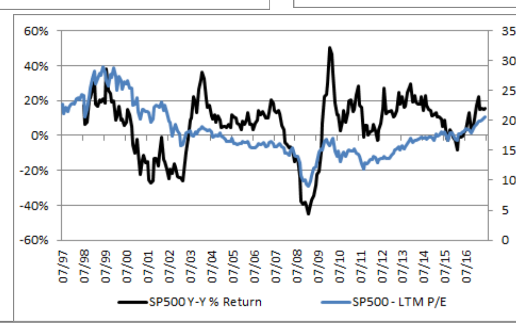



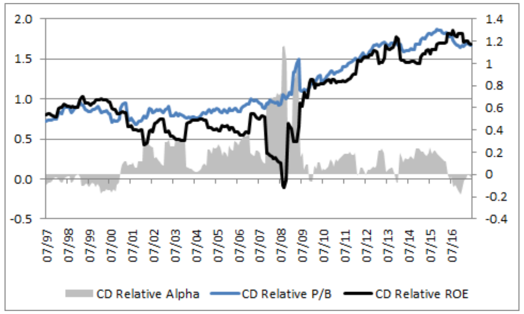



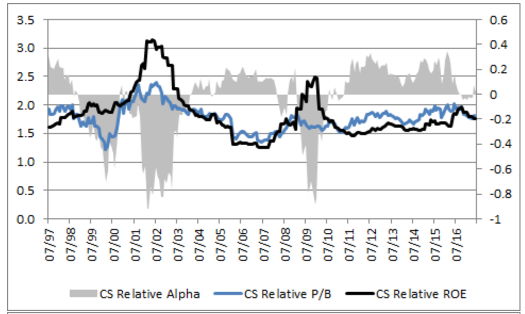



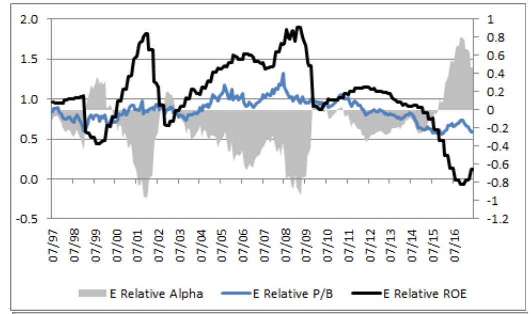



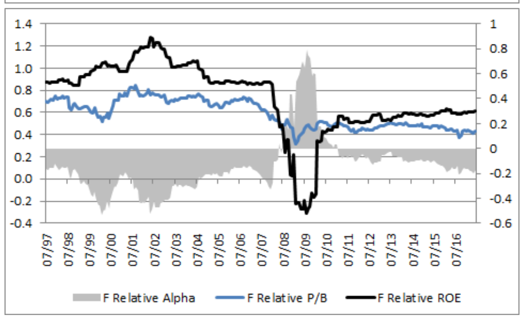

Source: Spellman, FactSet.

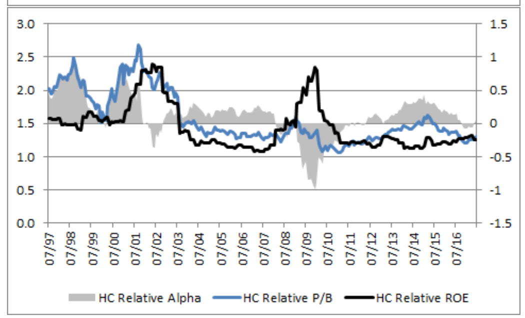
# Sector *relative* P/B and ROE trends

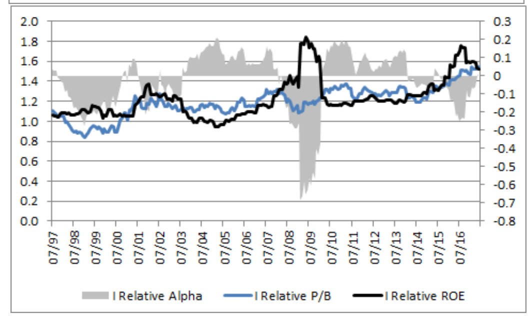


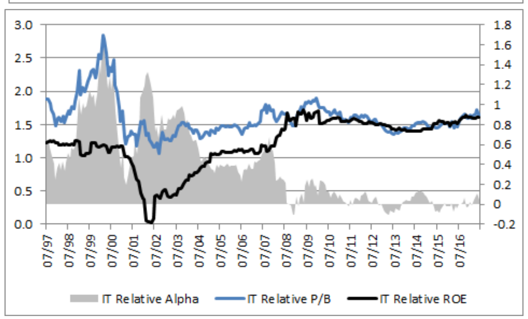



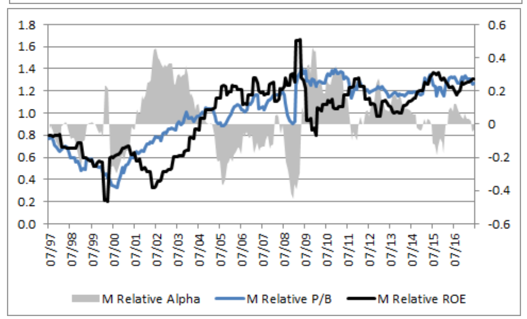



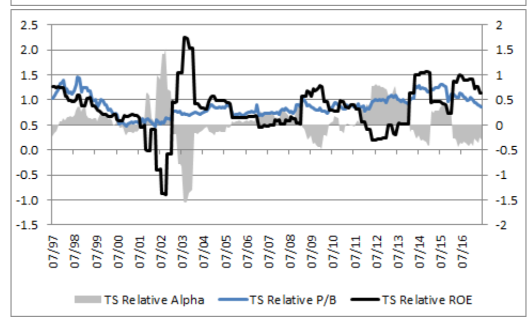



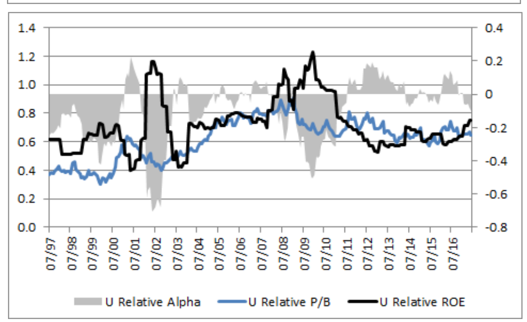




Source: Spellman, FactSet.