



INDUSTRIALS

Student Investment Management: Summer 2016

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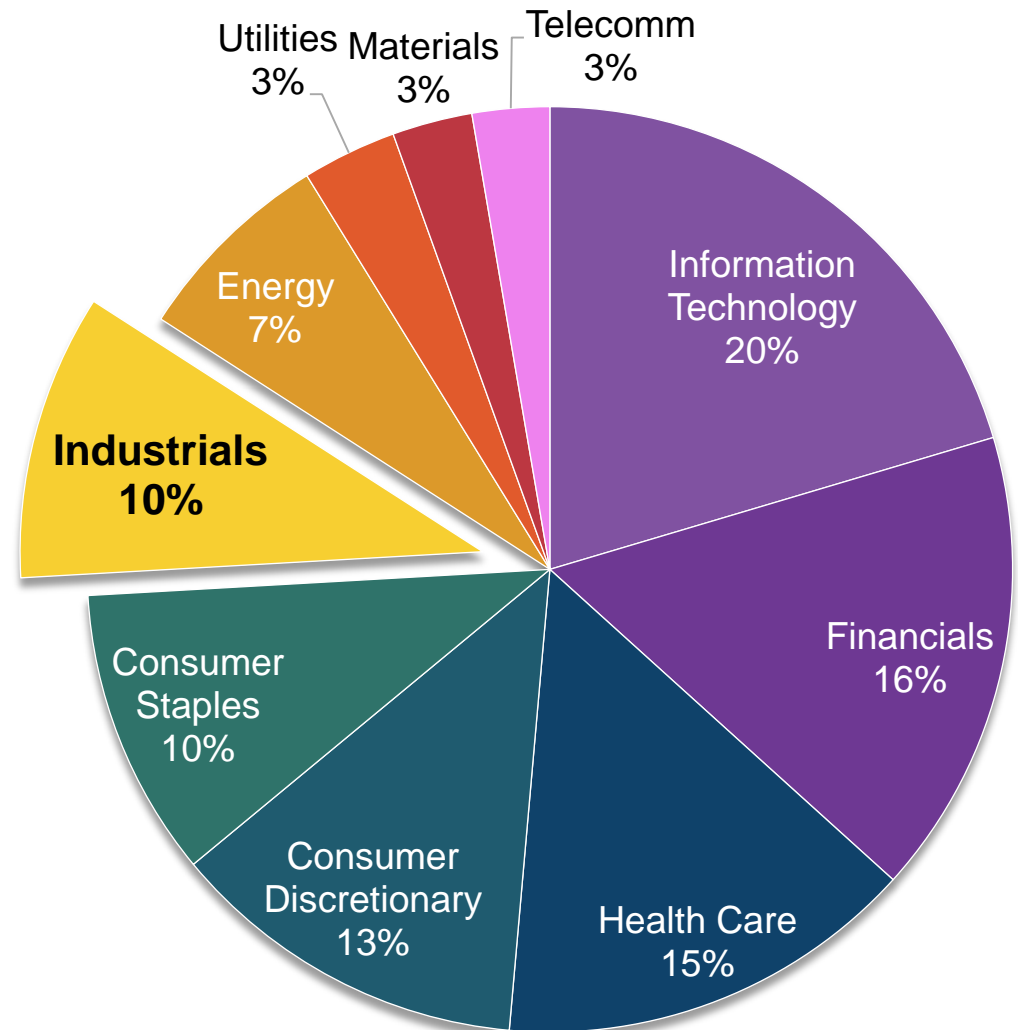
Agenda



- Overview
- Business Analysis
- Economic Analysis
- Financial Analysis
- Valuation
- Recommendation

S&P 500 Sectors

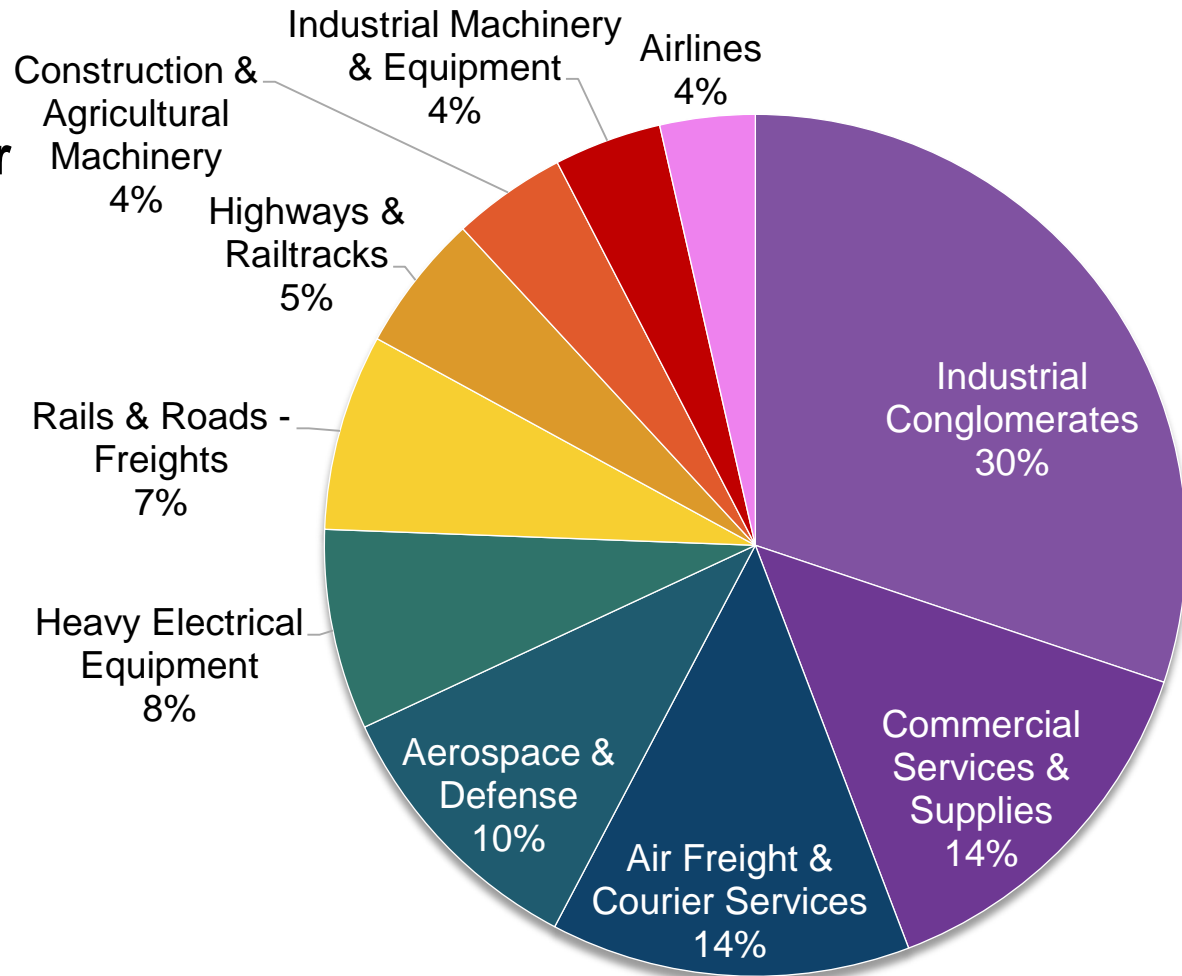
- Industrials 10.0% of S&P 500
- Industrials 10.5% of SIM



Overview

Industries within the Sector

- Total Market Cap: \$3.2T
- 66 Companies
- Mean Market Cap: 28.6B



Top 10 Constituents by Weight

- General Electric
- 3M
- Honeywell
- Boeing
- United Technologies Corp
- Union Pacific Corp
- United Parcel Service
- Lockheed Martin
- Danaher Corp
- FedEx Corp



3M

Honeywell



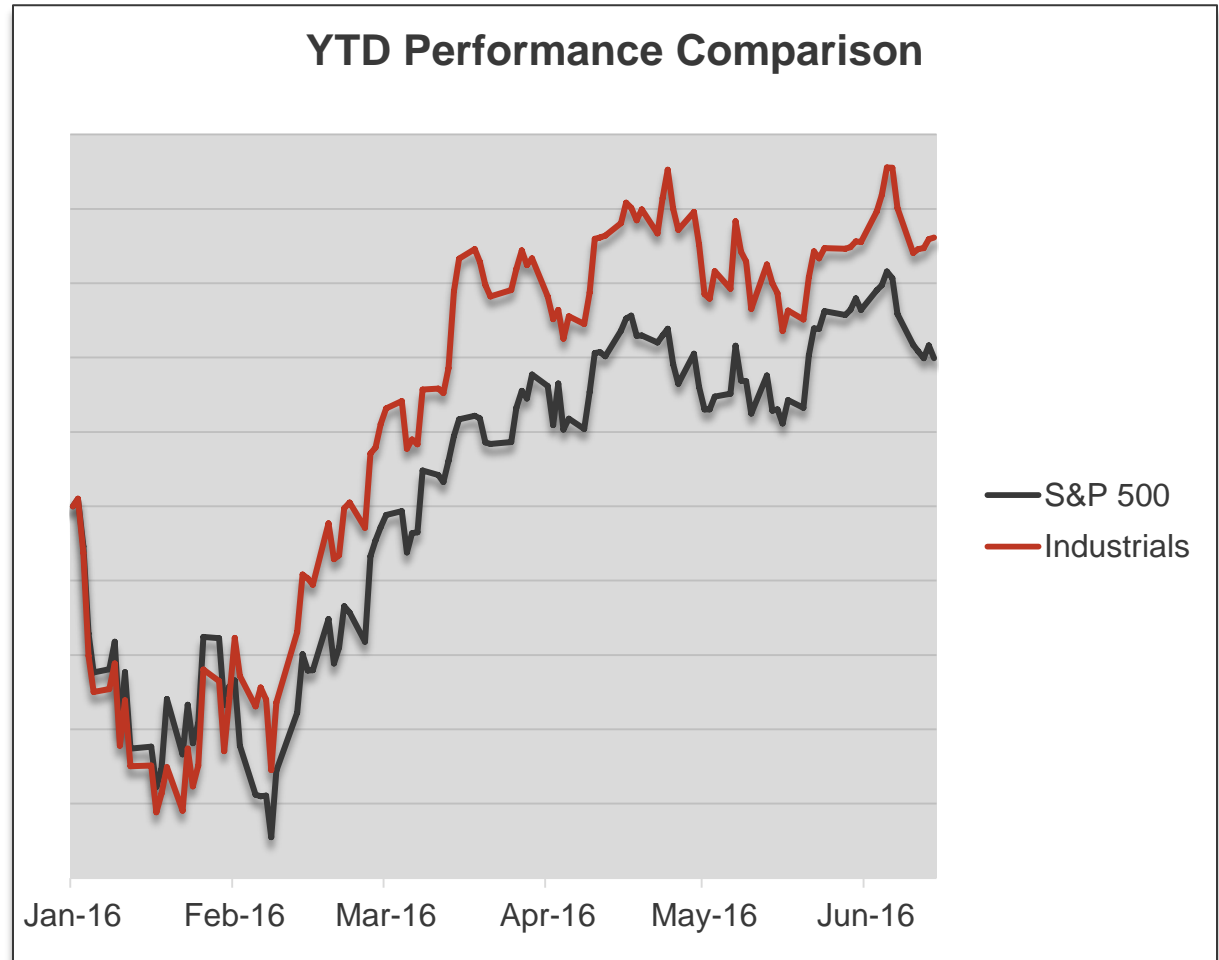
BOEING



**United
Technologies**

Overview

| Index | QTD | YTD |
|--------------------|-------|--------------|
| S&P 500 | 1.06% | 2.42% |
| Industrials | 0.69% | 5.71% |

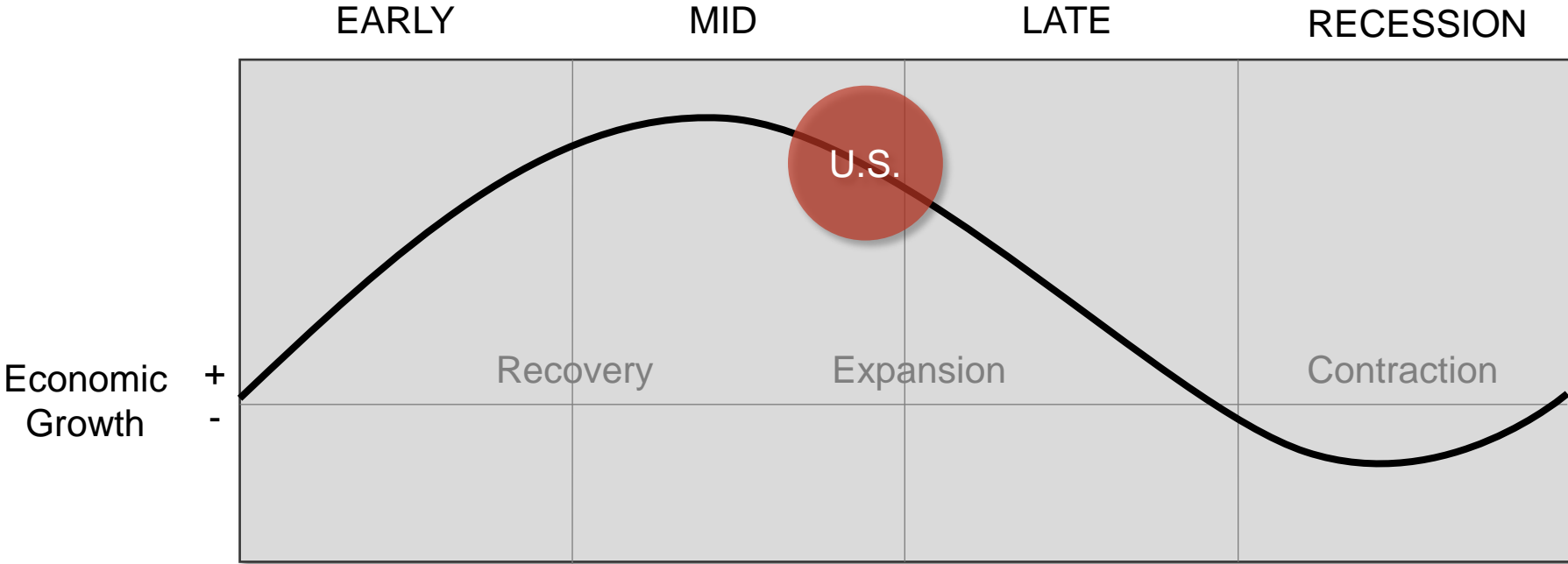


Business Analysis

| | | | |
|------------------------------|----------|---|--|
| Barriers to Entry | High | High capital expenditure required to develop economies of scale | Established market share along with established brands |
| Buyer Power | Moderate | Demand dependent on the economy | Low switching costs |
| Supplier Power | Low | Low switching costs | Providing commodity products |
| Threat of Substitutes | Moderate | New technology allows for substitute products | Services vs DIY |
| Rivalry | High | Industries dominated by several large players | Competition for customers and raw materials |

Business Analysis

| | Early | Mid | Late | Recession |
|-------------|-------|-----|------|-----------|
| Industrials | ++ | + | | -- |

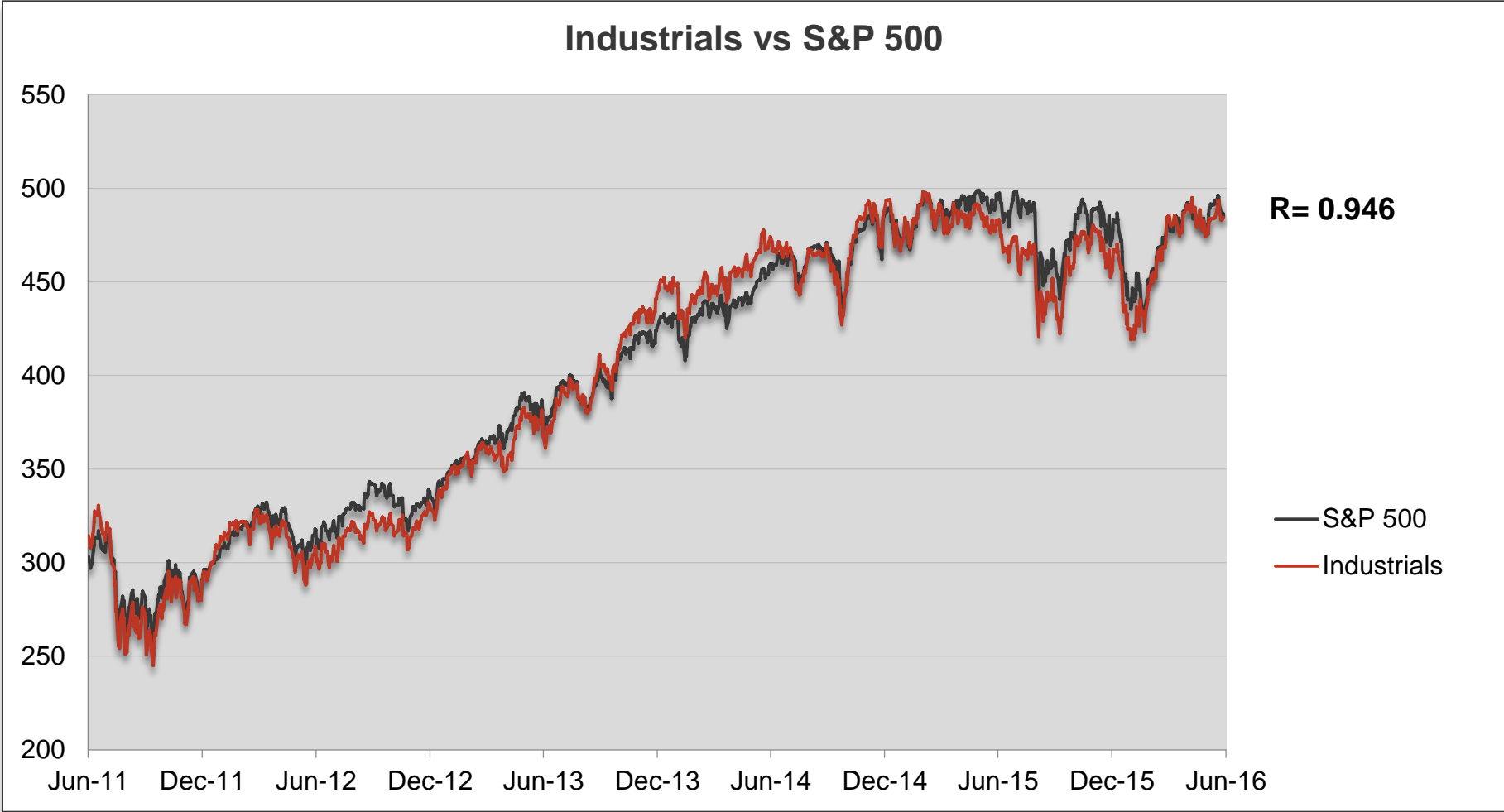


Economic Analysis

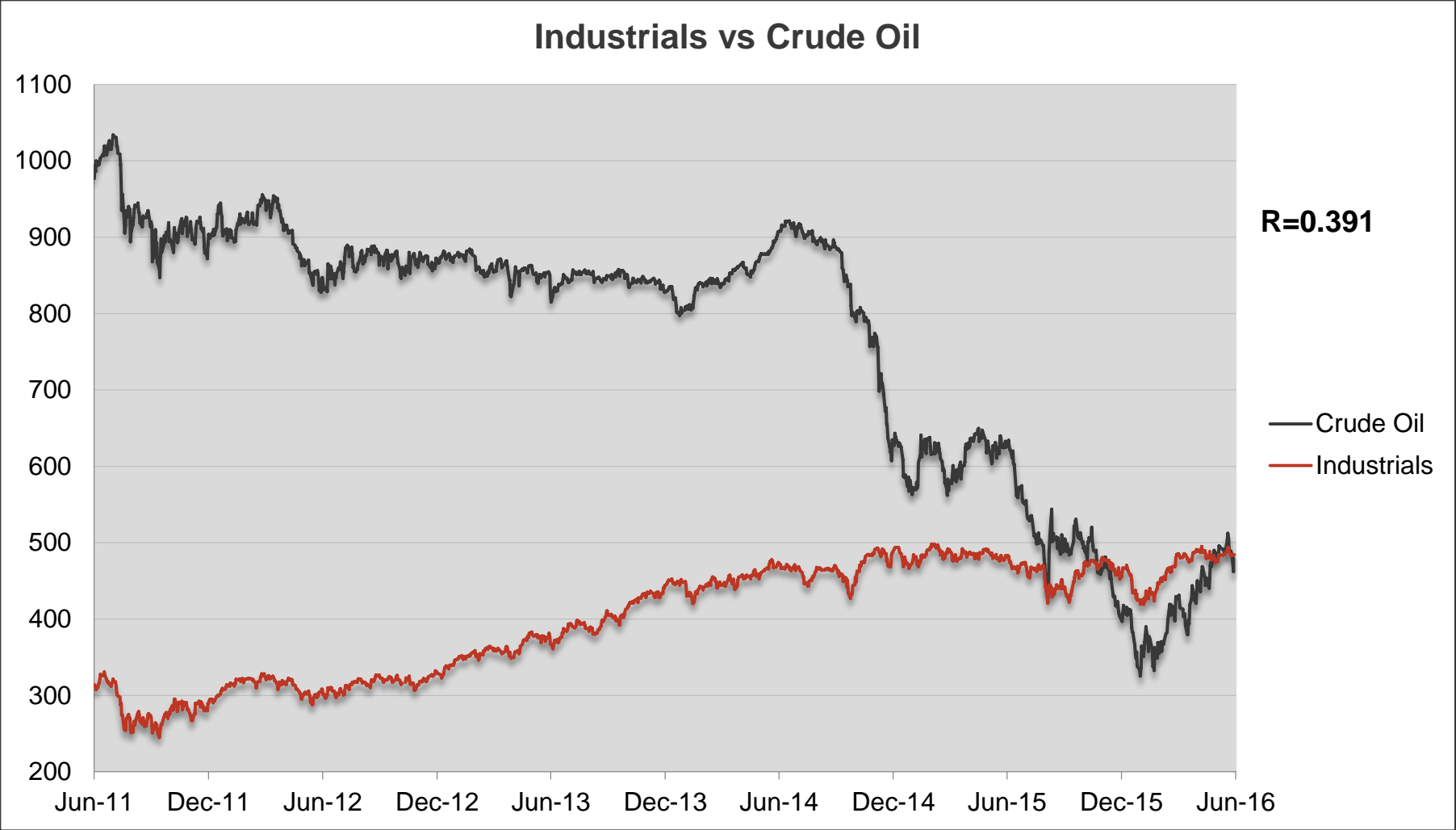
Sector Correlation

| | | | | | | | | | | |
|-------------|-------------|----------|--------------|-------------|-------------|-------------|----------|----------|-------------|-------------|
| COND | -0.01 | | | | | | | | | |
| CONS | -0.08 | 0.78 | | | | | | | | |
| ENRS | 0.83 | 0.02 | -0.05 | | | | | | | |
| FINL | 0.93 | -0.04 | -0.11 | 0.75 | | | | | | |
| HLTH | 0.87 | -0.01 | -0.07 | 0.65 | 0.77 | | | | | |
| INDU | 0.95 | 0 | -0.07 | 0.79 | 0.89 | 0.79 | 1 | 0 | 0.86 | 0.55 |
| MATR | -0.01 | 0.82 | 0.69 | 0.03 | -0.04 | -0.03 | 0 | | | |
| INFT | 0.93 | 0 | -0.07 | 0.72 | 0.81 | 0.77 | 0.86 | -0.01 | | |
| UTIL | 0.6 | -0.06 | -0.08 | 0.48 | 0.53 | 0.52 | 0.55 | -0.05 | 0.49 | |
| | S&P | COND | CONS | ENRS | FINL | HLTH | INDU | MATR | INFT | UTIL |

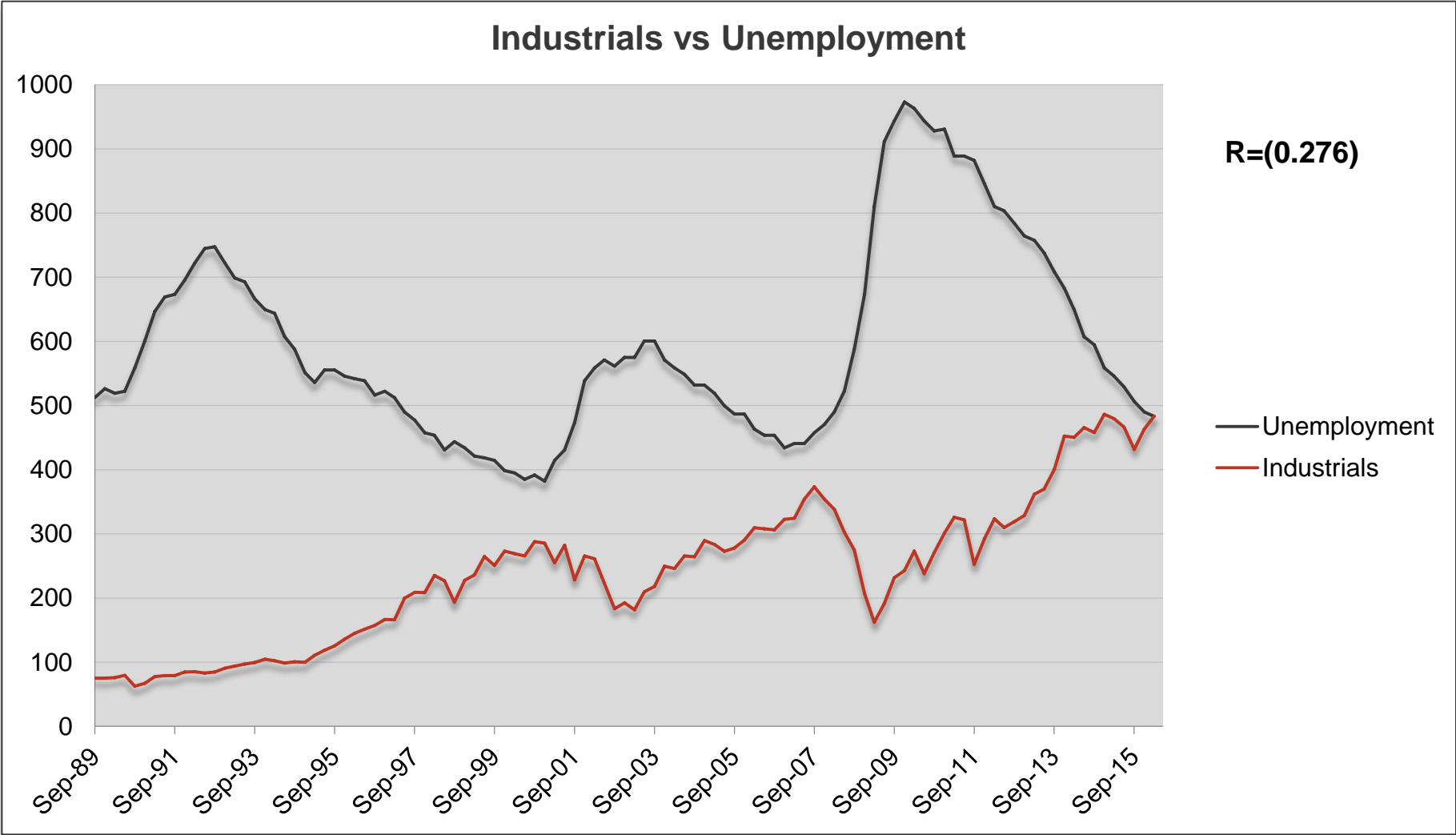
Economic Analysis



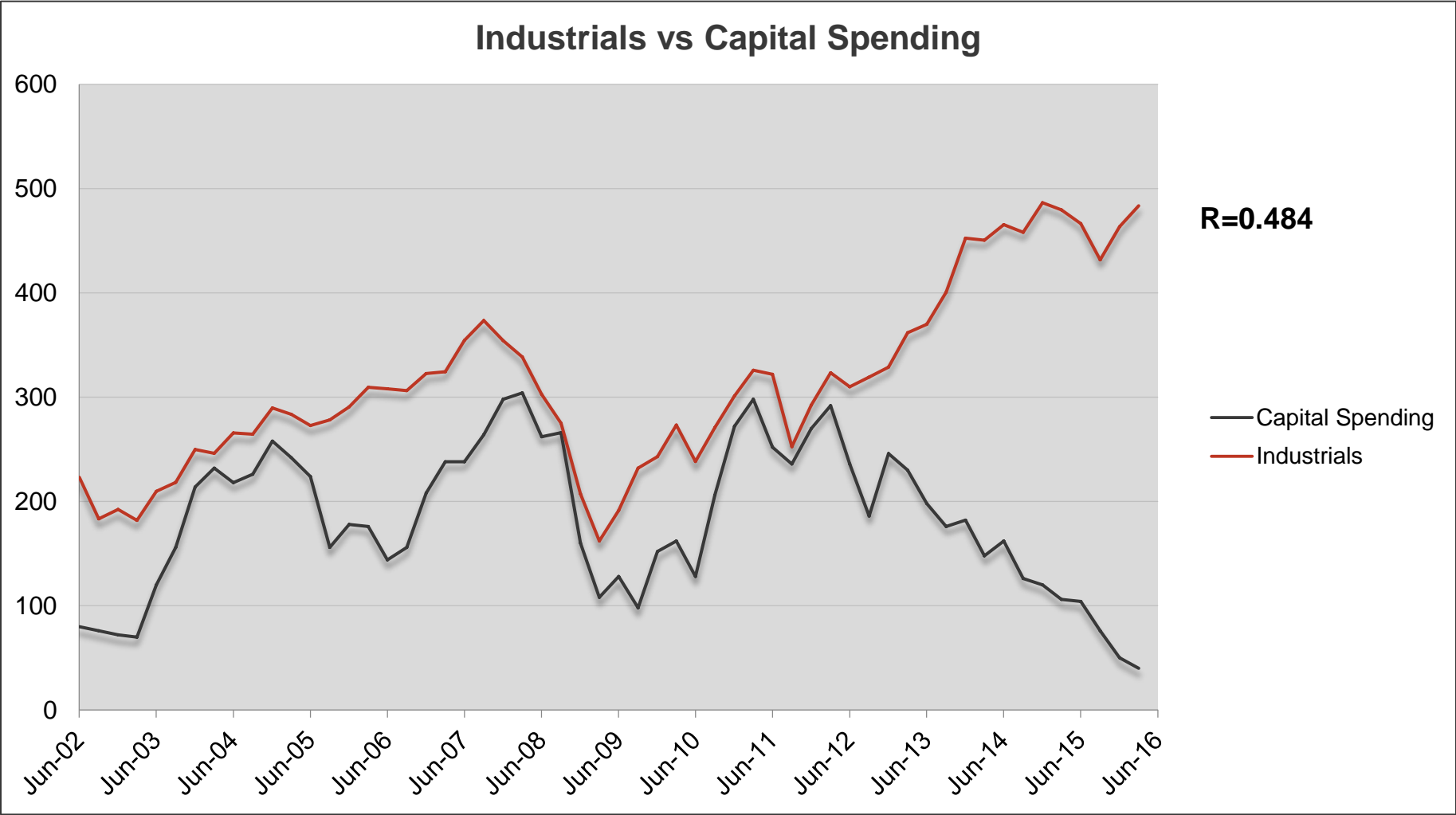
Economic Analysis



Economic Analysis

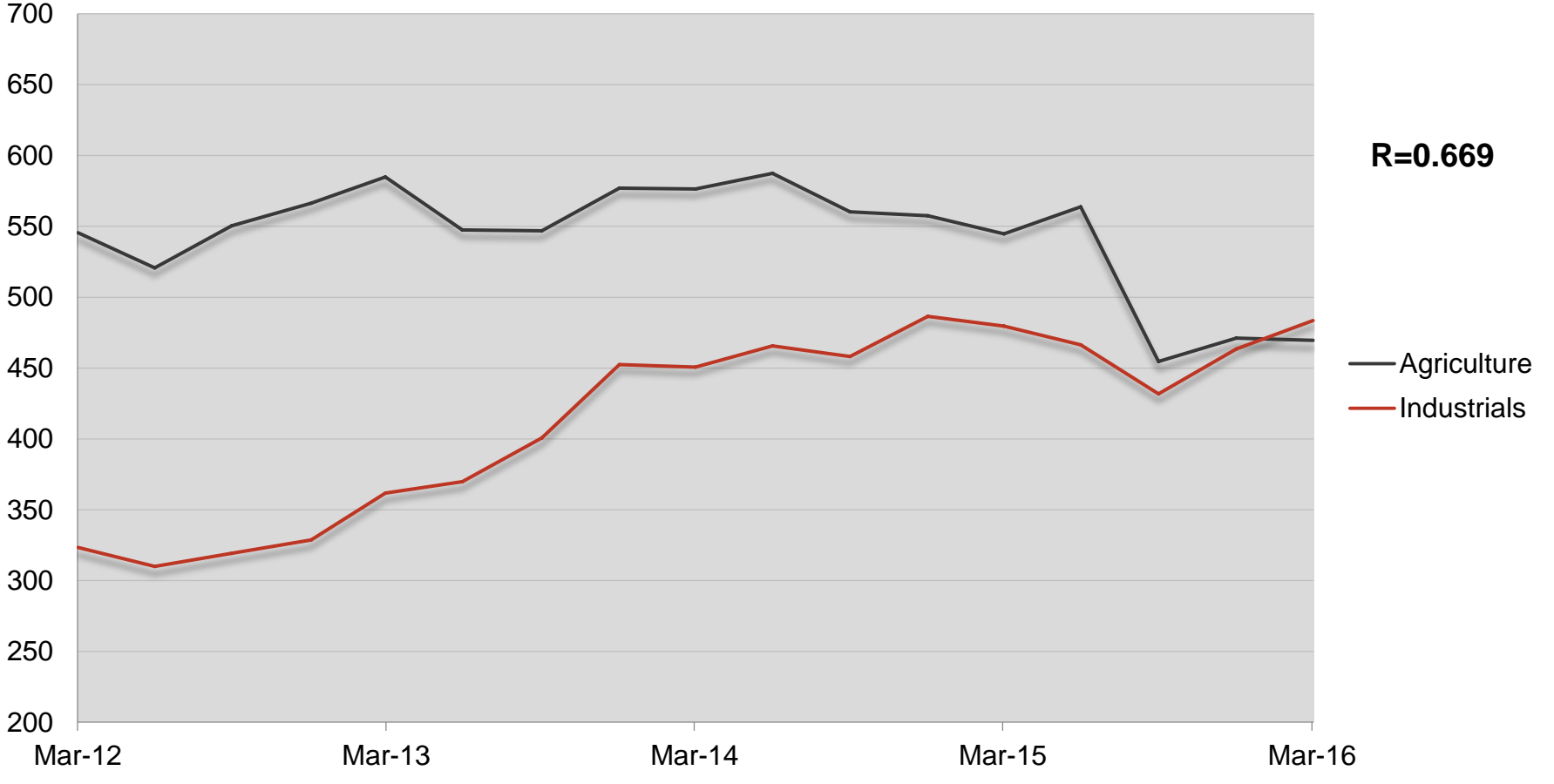


Economic Analysis



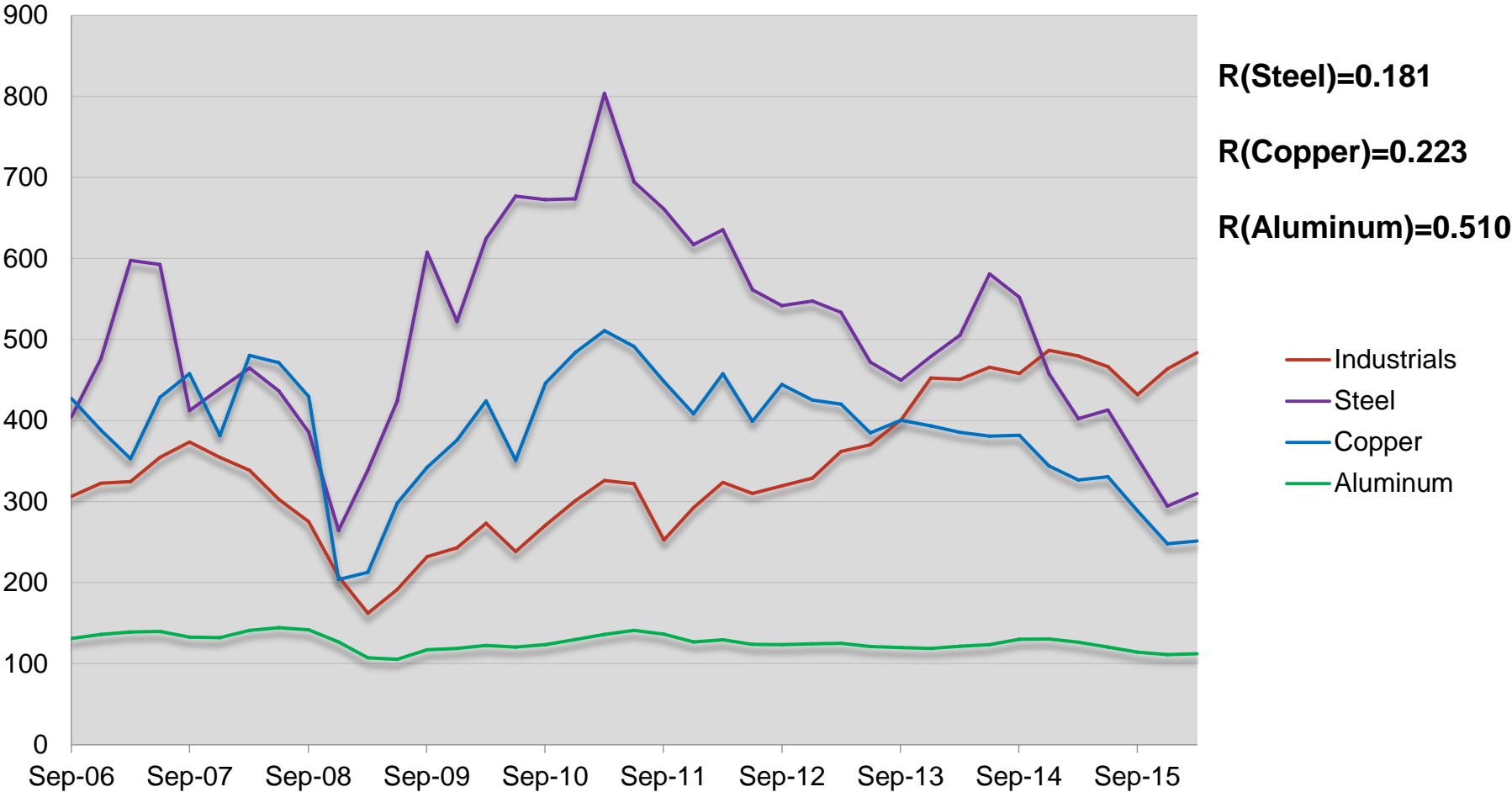
Economic Analysis

Industrials vs Agriculture



Economic Analysis

Industrials vs Raw Materials



Economic Analysis

| Index/Security/Indicator | Correlation |
|--------------------------|-------------|
| S&P 500 | 0.946 |
| Aluminum | 0.510 |
| Capital Spending | 0.484 |
| Crude Oil | 0.391 |
| Industrial Production | 0.346 |
| Home Sales | 0.342 |
| Capacity Utilization | 0.243 |
| PMI | 0.233 |
| Copper | 0.223 |
| Steel | 0.181 |
| Auto Sales | 0.151 |
| GDP | 0.129 |
| Unemployment | (0.276) |

Financial Analysis

| Sector | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Current | 2016 Est | 2017 Est |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|---------|----------|----------|
| Sales | 222.51 | 236.3 | 257.15 | 272.46 | 281.6 | 294.04 | 299.22 | 301.67 | 309.91 | 318.29 |
| Growth % | | 6% | 9% | 6% | 3% | 4% | 2% | 1% | 3% | 3% |
| EBITDA | 30.58 | 36.64 | 41 | 42.94 | 46.63 | 49.71 | 51.61 | 50.73 | 57.09 | 60.38 |
| Margin % | 14% | 16% | 16% | 16% | 17% | 17% | 17% | 17% | | |
| R&D Expense | 7.25 | 6.81 | 7.41 | 7.48 | 6.83 | 6.98 | 6.82 | 7.04 | | |
| Earnings | 13.46 | 17.71 | 20.83 | 22.68 | 23.97 | 26.68 | 26.74 | 27.84 | 29.18 | 31.84 |
| Growth % | | 32% | 18% | 9% | 6% | 11% | 0% | 4% | 5% | 9% |
| Total Assets | 404.99 | 412.74 | 426.72 | 460.78 | 470.4 | 486.39 | 471.04 | | | |
| Total Liabilities | 303.28 | 302.3 | 314.83 | 335.53 | 325.94 | 348.87 | 344.5 | | | |
| Total Equity | 101.72 | 110.43 | 111.9 | 125.25 | 144.15 | 137.53 | 126.54 | | | |
| ROCE | 13.69 | 16.38 | 18.22 | 17.53 | 19.76 | 18.42 | 19.43 | 22.15 | 16.39 | 19.23 |

Financial Analysis



| GE | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Current | 2016 Est | 2017 Est |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|
| Revenue | 154,272 | 148,442 | 142,224 | 144,121 | 142,937 | 116,406 | 115,158 | 124,078 | 124,257 | 124,550 |
| Growth % | | -4% | -4% | 1% | -1% | -19% | -1% | 8% | 0% | 0% |
| Operating Income | 10,398 | 14,834 | 16,680 | 16,405 | 14,659 | 12,671 | 10,177 | 11,404 | 17,582 | 19,111 |
| Net Income | 11,025 | 11,644 | 14,151 | 13,641 | 13,057 | 15,233 | (6,126) | 7,638 | 12,447 | 13,872 |
| Profit Margin | 6.92 | 8.82 | 10.09 | 10.50 | 9.97 | 9.23 | 7.34 | 8.21 | 11.03 | 11.76 |

Financial Analysis

3M

| 3M | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Current | 2016 Est | 2017 Est |
|------------------|-------|-------|-------|--------|--------|--------|--------|---------|----------|----------|
| Revenue | 6,106 | 7,424 | 8,258 | 11,914 | 14,051 | 15,741 | 17,084 | 18,403 | 20,749 | 20,749 |
| Growth % | | 22% | 11% | 44% | 18% | 12% | 9% | 8% | 13% | 0% |
| Operating Income | 988 | 858 | 965 | 1,390 | 959 | 793 | 746 | 1,539 | 2,930 | 2,930 |
| Net Income | 677 | 575 | 650 | 988 | 648 | 523 | 430 | 1,083 | 2,009 | 2,009 |
| Profit Margin | 11.09 | 7.74 | 7.87 | 8.29 | 4.61 | 3.32 | 2.52 | 5.89 | 9.68 | 9.68 |

Financial Analysis



| Boeing | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Current | 2016 Est | 2017 Est |
|------------------|--------|--------|--------|--------|--------|--------|--------|---------|----------|----------|
| Revenue | 68,281 | 64,306 | 68,735 | 81,698 | 86,623 | 90,762 | 96,114 | 96,597 | 93,825 | 95,973 |
| Growth % | | -6% | 7% | 19% | 6% | 5% | 6% | 1% | -3% | 2% |
| Operating Income | 5,606 | 5,046 | 5,820 | 6,407 | 6,948 | 7,712 | 9,331 | 9,426 | 8,422 | 8,800 |
| Net Income | 2,672 | 1,312 | 3,307 | 4,018 | 3,900 | 4,585 | 5,446 | 5,176 | 5,059 | 5,702 |
| Profit Margin | 4.39 | 5.58 | 4.65 | 5.24 | 4.87 | 5.58 | 6.17 | 6.65 | 6.71 | 5.93 |

Valuation Analysis

| Industrials | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 Est | 2017 Est |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|
| P/E | 10.05 | 18.05 | 17 | 14.04 | 14.49 | 18.87 | 18.23 | 17.34 | 17.55 | 15.34 |
| P/B | 2.27 | 2.46 | 2.78 | 2.65 | 2.69 | 3.19 | 3.62 | 3.7 | 3.99 | 3.66 |
| EV/SALES | 0.97 | 1.26 | 1.38 | 1.28 | 1.35 | 1.76 | 1.85 | 1.87 | 1.9 | 1.8 |
| EV/EBITDA | 6.26 | 9.15 | 8.92 | 8.05 | 8.57 | 10.63 | 10.91 | 10.84 | 11.32 | 9.51 |
| Gross Margin | 27.49 | 25.26 | 26.56 | 27.84 | 26.28 | 27.18 | 27.9 | 27.31 | 27.1 | |
| Operating Margin | 11.46 | 9.26 | 11.38 | 12.04 | 11.83 | 12.37 | 12.95 | 13.1 | 12.66 | |
| Profit Margin | 6.83 | 5.74 | 7.21 | 8.08 | 7.73 | 8.92 | 8.87 | 8.18 | 9.05 | |
| ROE | 16.79 | 13.69 | 16.38 | 18.22 | 17.53 | 19.73 | 18.42 | 19.43 | 22.15 | 19.23 |

Valuation Analysis

| Absolute Basis | High | Low | Median | Current |
|----------------|------|-----|--------|---------|
| P/E | 20 | 7.3 | 17.2 | 17.2 |
| P/B | 3.8 | 1.4 | 2.8 | 3.8 |
| P/S | 1.7 | 0.6 | 1.4 | 1.6 |
| P/EBITDA | 10.1 | 3.8 | 8.7 | 9.4 |

| Relative to SP&500 | High | Low | Median | Current |
|--------------------|------|------|--------|---------|
| P/E | 1.18 | 0.59 | 0.99 | 0.91 |
| P/B | 1.42 | 0.96 | 1.21 | 1.41 |
| P/S | 1.27 | 0.75 | 0.92 | 0.86 |
| P/EBITDA | 1.44 | 0.82 | 1.11 | 0.89 |

Valuation Analysis



| Sector Cash Flows | 2013 | 2014 | 2015 | Current |
|-----------------------------|-------------|--------------|--------------|----------------|
| Cash From Operations | 38.75 | 39.84 | 42.14 | 41.03 |
| Cash from Investing | -8.12 | -14.8 | -10.03 | -2.81 |
| Cash from Financing | -24.69 | -25.9 | -35.37 | -39.59 |
| TOTAL | 5.94 | -0.86 | -3.26 | -1.37 |
| | | | | |
| CapEx | -15.16 | -15.2 | -17.92 | -18.13 |



- SIM should consider **reducing** the weight of the Industrials sector.
- The current timing in the business cycle indicates that the Industrials sector will stagnate or decrease in the future. Oil price volatility remains a risk within the industry.
- Within Industrials, recommend increasing weight in heavy electrical equipment and industrial machinery and equipment. These industries will likely see growth along with the Energy and Materials sector late in the business cycle.