Sector Overview: Industrial

Cougar Investment Fund
Finance 438.01

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1.0 Sector Description

The Industrial sector is a very important sector in the S&P 500. There are 64 companies within Industrial sector, accounting for a totally weight of 10.83% of the S&P 500. Companies in Industrial sector do three kinds of business: manufacture and distribute capital goods, provide commercial services and supplies, and provide transportation services.

1.1 Capital Goods

The Capital Goods group is the largest group – 74.8% of the total market capitalization of the Industrial sector. In the Capital Goods group, companies produce durable goods that are used in the production of other goods and services. There are seven industries within this group.

Aerospace & Defense is the biggest industry, accounting for 25.8% of Industrial sector. The companies are manufacturers of civil and military aerospace and defense equipment, as well as electronic systems. Examples are Boeing and United Technologies Corp., which focus on civil airplanes and military defense equipment. This industry has a relative lower beta of 1.0 – which is lower then the sector overall – because many companies’ business depends on large government contracts.

Industrial Conglomerates are companies doing a wide variety of business – such as 3M Co., Danaher Corporation, and General Electric Co. They hold the second largest market capitalization of the sector at 18.8%. This industry has a higher beta because they face the risk from various markets. Because of their large market capital, their performances have considerable influences on the overall sector.

In the Machinery industry, companies produce heavy-duty trucks, rolling machinery, heavy farm machinery and other construction equipment. The industry totals 18.08% of the sector’s market capitalization. Famous companies are Dover Corporation, Illinois Tool Works Inc., and Parker Hannifin Corporation.

The Electrical Equipment industry, totaling 7.69% of the Industrial sector’s market capitalization, produces electric cables and wires, electrical components and power-generating equipment that are classified as heavy electrical equipment. Sample companies include Eaton Corporation and Emerson Electric Co.

Other smaller industries are the Building Products industry, Construction & Engineering industry and Trading Companies industry. The Building Products industry includes manufacturers of building components and home improvement products and equipment. Two sample companies are Allegion and Masco Corporation. The Construction & Engineering industry performs nonresidential construction. Sample companies include Fluor Corporation and Jacobs Engineering Group. Trading Companies are distributors of industrial goods. Two sample firms are Fastenal Company and W.W. Grainger, Inc.
1.2 Commercial & Professional Services

Companies in the Commercial & Professional group provide business support services. These services are classified into two categories: Commercial Services & Supplies and Professional Services. This sector contains companies that tend to have a low beta, because demand for their services tend to remain very stable – waste management and office supplies are constantly needed for daily operations.

Commercial Services total 4.45% of the industrial sector’s market capitalization. These companies provide printing services for the media industry, data processing services, waste management and pollution control management – an example being Sericycle Inc. Cintas is classified as a diversified support service company – providing labor-oriented services, such as cleaning, repairing, warehousing, etc. Companies like Tyco provide security and fire-detection services.

Professional services include Human Resource & Employment Services (such as employee training and benefit support), Research & Consulting Services (such as scientific research and market testing). This industry accounts for 1.92% of the sector’s market capitalization. Equifax is a company in this industry that provides marketing information and employee management services.

1.3 Transportation

The transportation group provides companies with passenger and goods transportation services and related management and maintenance services. The group has five industries. In the Airfreight & Logistics industry, there are the famous companies FedEx and UPS for package and mail delivery and logistics services. This industry totals 7.48% of the industrial sector’s market capitalization. Two companies are classified in airlines industry, Delta and Southwest. They total 2.0% of Transportation group’s market capitalization. They provide passenger transportation services. Road & Rail provides land and rail transportation services for passengers and goods. They comprise a total of 9.26% of the Transportation group’s market capitalization. CSX corporation is a great example. Transportation Infrastructure focuses on maintenance and operation businesses at airports, highways and seaports. The Marine industry provides maritime transportation. No company in S&P 500 focuses their business only on maritime transportation.

2.0 Sector Sensitivity

With beta of 1.2, the industrial sector is very sensitive to the overall economy. The stock’s price is very volatile when there is any news in market. The Industrial sector reflects health of the economy to a noteworthy extent. For example, reduction in durable goods contracts may indicate a decrease in
economic productivity. FedEx and UPS’s business presents inventory purchasing and sale levels of other sectors.

2.1 Big Expenditures

The Industrial sector has three types of large expenditures: capital, research and development, and legal expenditures. Of these three expenditures, capital expenditures are the industrial sector’s greatest. Specifically, the Industrial sector requires firms to acquire physical assets such as equipment, machinery or industrial buildings. These physical assets not only have a high purchasing cost, but they also typically require high carrying and maintenance costs as well. There are a few companies that are exceptions to having high capital expenditures, however, that is merely because those firms will rent equipment – this is usually seen in the Transportation industry group.

Research and development expenditures will be high in the industries that compete technologically. Generally, the highest research and development spenders are those in the Aerospace & Defense industry. These high R&D costs are due to the competition for government contracts, which requires this industry to compete on a technological level. It is important to note that the research and development spending for the Capital Goods group (as a whole) has historically spent more on research and development than the Commercial & Professional Services group or the Transportation group.

Legal expenditures are going to be high to extremely high for the industrial sector, but the type of legal expenditures firms have will vary from sub-industry to sub-industry. There are a few notable legal issues that this sector is facing: patents, product usage, and environmental. The legal fallout can occur with companies that are being sued by the government, private preservation corporations or individuals that have cases against companies that do not follow the most environmentally safe protocol.

Patents are a big issue because companies will spend massive amounts of money to keep their patented ideas, products, techniques, etc. in tact. Patents are allowed to be shared when dealing in government contracts; this can create issues in the Aerospace and Defense sector, particularly.

Product usage can also be a big legal expense. This is due to the content of this sector: heavy machinery, equipment, and manufacturing can all be dangerous, and therefore, come with high legal expenses.

Environmental issues have recently become a bigger expenditure for corporations – not just for the legal spending, but also for the green label expense.
2.2 Macro Drivers

The two major macro drivers for our sector are government spending and corporate contracts. Government spending is extremely important because it is the spending that generates large amounts of revenue for any firm that deals in government contracts. Some of the industries that do deal in government contracts are in the Aerospace & Defense, Road & Rail, Transportation Infrastructure, as well as Construction & Engineering. Government budgets for infrastructure and defense are going to continue to be crucial to this sector.

Corporate contracts are an important aspect to this sector – nearly every firm deals in corporate contracts that have rollover from period to period. This is important when looking at cash flows from firms, because, as an example, a firm that has recently finished seven different contracts, but only gained four in the last period could potentially not be or appear as healthy.

3.0 Macro Environment & 2014 Outlook

The Industrial sector is extremely cyclical, and it follows the S&P 500 almost identically. Therefore, the indicators that are used to evaluate the potential growth for this sector are almost all macro-based indicators, with the exception of the Purchasing Managers Index (PMI). The three macro indicators we observed were the PMI, treasury rates, and the inflation rate.

The PMI is going to be the most important indicator since it is dealing mainly with the firms within our sector. The PMI is rated on a scale of 0-100 percent. A rating below 50 percent is considered to be a bearish outlook on the market, a rating about 50 percent is considered to be a bullish outlook, and a rating of exactly 50 percent is considered to be neutral. One year ago, the PMI was at 53.1 percent – indicating a bull market for our sector. Last month the PMI was at 56.5 percent, and has dropped to 51.3 percent. This indicates that while there is a bullish outlook on the market, there is a contraction (if only slightly) and it is a slightly bullish market. It is important to note that the unemployment rate did not improve much for the month of December, which could be a factor for the sudden drop seen on the PMI chart above.

The treasury rate is still at an all-time low and has even decreased from 3.9% in December to 3.65% in January. Inflation has dropped from an average 2.5% in 2012 to 1.5% in 2013. Both the inflationary rate and the treasury rate have dropped, and since the Fed has not started tapering its quantitative easing policy, we see a slightly bullish market.

4.0 Industrial Sector’s Internal Landscape

The economy is currently in a slow-growth stage and we are hopefully beginning to see the end of the latest recession. Many companies inside the Industrial sector have slimmed-down and streamline their businesses during the recessions to squeeze more profit from less. With these companies finding sustainable growth levels and the economy growing, we have seen a nice uptick in the Industrial sector, especially last year. The sector is still very cyclical (as mentioned above), which means that if our economy dips again, this sector would take another big hit and the cut in government defense
spending will hurt some of the large defense companies, who rely on government defense spending. However, as a whole, we will continue to see growth in the sector over the next year.

The Capital Goods group tends to have fairly large capital expenditures – as seen with large manufacturing companies, such as Boeing and GE. This industry group is fairly competitive, especially within the sub-industries such as Aerospace & Defense and Industrial Conglomerates. However this group has high barriers to entry imposed by the technical knowledge required to design and manufacture these sophisticated goods and aerospace equipment. The biggest risk for these companies is the growing technology sector and a movement of large tech firms to begin buying up their own manufacturing capabilities. Another trend we have been seeing for a while is for companies working on going green and trying to produce more energy efficient products.

The Commercial & Professional Services group is a small, rather-diverse group within the industrial sector including companies like ADT, Cintas, and Waste Management. As you can see, all of these companies fulfill a very different service need from the others. With the economy growing as we have predicted, this small group could see a rise over the next year due to companies doing better and deciding to outsource more of these different services rather than trying to do them in house.

The Transportation group is competitive within, but also very diversified between companies. This industry group tends to have high capital expense and very tough barriers to entry. There are not any noteworthy new threats within this industry, considering that most of the companies are well positioned.

Technology has helped this industry become more streamlined and work more efficiently – especially in the delivery services and logistics companies. Many of these companies had a hard time with all the online Christmas shopping, however, this shows the growing trend of people ordering online and how much these delivery services companies can capitalize on this in the future. We would say that there is a very positive outlook for this group.

### 5.0 Ratio Analysis

<table>
<thead>
<tr>
<th>Type/Name</th>
<th>P/E (TTM)</th>
<th>P/S (TTM)</th>
<th>P/B (MRQ)</th>
<th>P/TB (MRQ)</th>
<th>P/CF (TTM)</th>
<th>P/FCF (TTM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Sector</td>
<td>1065.88</td>
<td>1.85</td>
<td>1.97</td>
<td>1.81</td>
<td>8.20</td>
<td>13.53</td>
</tr>
<tr>
<td>Aerospace / Defense Industry</td>
<td>19.72</td>
<td>1.59</td>
<td>2.82</td>
<td>5.80</td>
<td>12.29</td>
<td>23.12</td>
</tr>
<tr>
<td>Northrop Grumman Corp. (NOC)</td>
<td>13.27</td>
<td>0.97</td>
<td>2.27</td>
<td>-</td>
<td>9.81</td>
<td>15.26</td>
</tr>
<tr>
<td>Machinery</td>
<td>14.73</td>
<td>1.36</td>
<td>2.13</td>
<td>2.16</td>
<td>7.69</td>
<td>13.26</td>
</tr>
<tr>
<td>Caterpillar Inc. (CAT)</td>
<td>16.08</td>
<td>1.06</td>
<td>2.83</td>
<td>5.74</td>
<td>8.54</td>
<td>12.70</td>
</tr>
<tr>
<td>Airlines Industry</td>
<td>26.47</td>
<td>0.28</td>
<td>0.86</td>
<td>0.88</td>
<td>4.96</td>
<td>0.19</td>
</tr>
<tr>
<td>Delta Air Lines Inc. (DAL)</td>
<td>2.44</td>
<td>0.68</td>
<td>-</td>
<td>-</td>
<td>2.10</td>
<td>-</td>
</tr>
<tr>
<td>Rails / Road</td>
<td>20.29</td>
<td>1.10</td>
<td>1.60</td>
<td>2.02</td>
<td>10.54</td>
<td>4.07</td>
</tr>
<tr>
<td>Union Pacific Corp. (UNP)</td>
<td>18.38</td>
<td>3.63</td>
<td>3.76</td>
<td>3.76</td>
<td>12.94</td>
<td>40.02</td>
</tr>
</tbody>
</table>

*Note: All information from Reuters. Accessed via: http://www.reuters.com/assets/siteindex - 2/6/2014*

A great deal of insight can be obtained from an analysis of fundamental ratios. Before we proceed, we must point out that the Industrial sector P/E (TTM) is clearly faulted from Reuters and should be neglected.
Our ratios analysis of the Industrial sector revealed confirmatory information. Primarily, we found information confirming the variability of the Airlines industry and the high capital expenditures of the Rail & Road industry. The vast performance fluctuations between different airline companies can be seen by the deviation of Delta Air Lines Inc. from the vastly-different, substantially-higher P/E (TTM) ratio of the industry on average. Furthermore, we found evidence confirmed our statements regarding high capital expenditures for companies in the Rail & Road industry. Between the Road & Rail industry average and Union Pacific Corp., we see a large variability between P/CF (TTM) and P/FCF (TTM). This results from the huge capital expenditures that companies in this industry must undertake.

6.0 Industrial Sector vs. S&P 500

6.1 3-Month

Here you can see the uncertainty the market had in early December as good economic numbers from November lead many to believe that the Fed would start tapering its Quantitative Easing program. In reality, Ben Bernanke did announce that they were going to start tapering QE, however, the tapering was much less than thought and they promised to keep interest rates at rock-bottom levels. This information, coupled with positive economic numbers, lead to the end-of-the-year rally and record highs in January that later went through a market correction in January and left some of the uncertainty looming in the market.
6.2 6-Month

Here you can better see how well the Industrial sector mirrored the movement of the S&P 500 and the general growth of the economy over the last six months. This gives hope that this recession might finally be coming to an end.

6.3 1-Year

Here in the one-year graph, you can really see the beginning of the positive economy outlook starting in April after a slow start for 2013. The economy added 165,000 jobs in April, according to the Labor Department. That was more than the 140,000 jobs economists expected and it marked an improvement over March. Revisions to earlier numbers for the two prior months added an additional 114,000 jobs. Then, on June 20th, the S&P 500 dropped 2.5%, which is the largest drop in one day since November 2011. This was coming off the news of Bernanke’s announcement that they could start tapering later in 2013.
6.4 5-Year

The first thing we would like to point out here is how similar the Industrial sector moves with the S&P500. Here you can see the recovery taking place, and then this large dip in mid-2011 comes from the debt-ceiling debate within Congress. Since then, we have seen relatively steady growth.

7.0 News, Headlines & Relevant Issues

News relevant to the Industrial sector has been mostly general to the economy as a whole. As mentioned previously, we have continued to see weak job growth. Additionally, Janet Yellen announced that the Fed would continue Quantitative Easing. These two pieces of information contribute to the fact that we are seeing a slow, steady growth in the economy as a whole. Morningstar analysts confirm this sentiment. “Overall, Morningstar’s equity analysts expect U.S. industrial production to continue to grow at a relatively sluggish pace – likely in the low single digits – driven by conglomerates, housing, and auto production.”

Specific to the Industrial sector, GE will spin-off its financial division. This move will make GE – a major Industrial sector company – more cyclical, but will also focus the business on its core practices and shift their earnings to their industrial arm, which is where they hold their greatest competitive advantage.

8.0 References

Reuters

GICS – Downloaded from Angel
ISM – Purchasing Manger’s Index
http://www.ism.ws/ismreport/mfgrob.cfm

SPDR
http://www.sectorspdr.com/sectorspdr/sector/xli

CNN