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Industrials Introduction

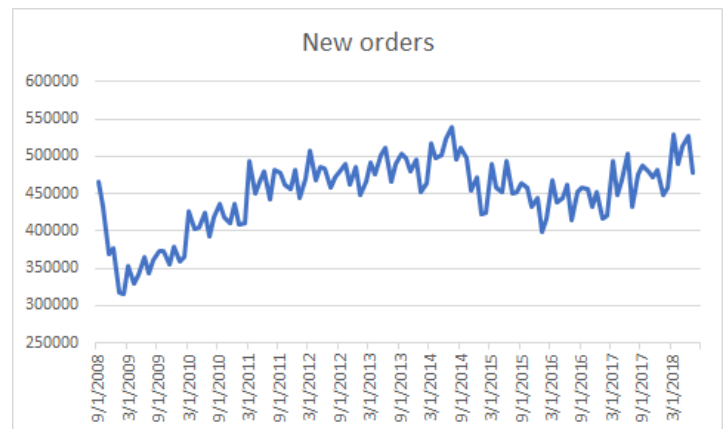
The industrials sector is the backbone of the economy. Many important goods for infrastructure and transportation development are created in the industrials sector; without it, the economy would be stationary. The largest industries in the industrials sector are Aerospace & Defense, Industrial Conglomerates, Machinery, and Road and Rail industries. Together, these industries make up roughly 62 percent of the entire industrials sector, giving them a large influence on the performance of the sector. To make this analysis worthwhile, it would be insufficient to blanket generalizations over the entire sector at once; however, high level analysis will be provided for the entire sector, with a specific focus on the Aerospace and Defense industry.

Key Drivers

- *Military and Defense Spending*
 - Due to the pro defense mentality of the Trump Administration, spending on military and defense has seen a significant increase. A \$700 billion defense spending bill was passed earlier this year by Congress for the 2018 budget, which was an increase from the \$606 billion in spending for 2017. Looking forward, with plans voiced for military expansion, this level of spending is expected to continue to increase, which will greatly benefit the military and defense sector.
- *New Orders*
 - New orders made by manufactures indicate the level of demand they expect in the future. Orders are generally made far in advance, so a higher level of new orders means a larger amount of new product will be made. This will require more inputs for those products and the result will pump money back into the economy. The money will help fuel future new order demand.
- *Consumer Confidence*
 - When consumer confidence is high, consumers are more willing to take vacation via transportation methods like flying. Also, they are more willing to make larger investments like houses, which require construction equipment and materials. When consumer confidence is up, they are more willing to spend money on more goods and services.

Current Position

Using the S&P 500 Industrials Sector GICS Level 1 Index as a benchmark, the current position of the industrials sector overall looks positive. Year over year new orders have been on an increasing trend in 2018 with the most recent being 9% year over year growth in July. Based on the trends in the new orders from September 2008 to September 2018, new orders are on an upward trend. The graph shows an increase in orders between the March and September reports which makes sense because of



the summer months. Based off the current trend, the new orders are expected to show continued increase from March 2019 to September 2019. The Purchasing Manager's Index (PMI) is a measure for the health of manufacturing industries. Any time the index is above 50, it indicates an expansion and future growth outlook for the economy. It has been on an upward trend through the first quarter of 2018 from end of second quarter 2017. Because of the new order trend, PMI will be expected to increase again in 2018, but it could be showing slight signs of slowing. The Consumer Confidence Index (CCI) shows how consumers feel about the current economic conditions in the country. The higher the index is, the more optimistic consumers are, in general. Since the end of 2016 to present day 2018, the index has been increasing, which indicates a higher level of consumer confidence. When consumers are more confident, they are more willing to make bigger purchases and purchase items for enjoyment. This effects the industrials sector when people buy flights for vacation, build new homes, and purchase construction/landscaping equipment.

Financial Analysis

The financial analysis was derived from the S&P 500 Industrials Sector GICS Level 1 Index.

Profitability

The overall profit margin has been shrinking year over year since 2014. It was slightly up in 2017 from 2016 and is trending to increase again. Return on capital has been decreasing year over year since 2014, with certain industries underperforming on invested funds. Return on assets has been decreasing year over year since 2014. It is up slightly in 2017 and YTD 2018; however, it is projected to decrease in 2019.

Leverage

The current ratio has been relatively constant since 2014 with little variance, suggesting little change in the amount of short-term assets to short term liabilities. Total debt to total assets has been slowly increasing since 2014 YoY, suggesting that companies are borrowing more to finance operations.

Financials

Sales have been increasing year over year since 2011 and are up YTD in 2018. Earnings have been increasing since 2011 as well. Cash has been increasing since 2015, along with current assets. Total debt has been increasing since 2014. Free cash flow is set to increase for the second consecutive year along with cash flow from operations. The dividend yield has been decreasing since 2015.

Porter's Five Forces

Rivalry among Competing Sellers - Strong

Competition in each industry is relatively high. Within the current economic environment, businesses are doing whatever they can to maintain a competitive edge on competitors, while taking advantage of the current state of the economy.

Suppliers - Moderate

Suppliers to certain industries such as aerospace/defense and machinery have smaller influential power. The businesses have higher bargaining power because there are many suppliers to choose from when purchasing raw materials and low switching costs. The supplier landscape could possibly shift if the proposed tariffs take place.

Buyers – Moderate

Buyers have some choice when determining who they choose to buy from with low switching costs for the most part. Switching costs can be a lot higher when changing contracts for receiving items like cleaning supplies, however.

Substitutes – Moderate

Generally, substitutes in the industrials sector are present, but there is a lot of brand loyalty within. Customers are loyal to certain companies like Delta and John Deere, even though they may be able to get a similar product from a competitor.

New Entrants – Weak

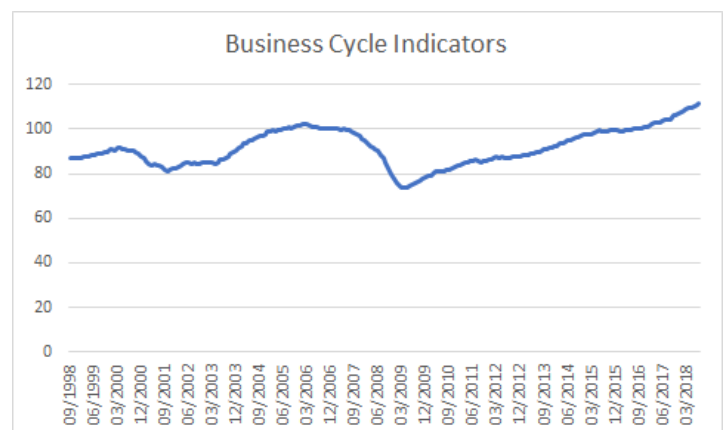
To enter the industrials sector, a high level of capital investment is necessary. The barriers to entry are very high, and due to the competitive nature of each industry, it's challenging to enter the industry and compete successfully.

Macroeconomic Factors

One of the biggest factors looming in the macroeconomic lens right now is the potential tariff effects. For example, most companies use imported steel and aluminum in their day to day business efforts, and an increase in trade tax on those materials would result in higher costs. If costs rise, the higher costs could be easily offset by higher sales, or the businesses would pass the higher costs through to their customers. In general, businesses within the sector aren't making a big deal about the possible tariffs as they do not believe the effect will be too adverse on their business. Even though the United States imports about one-third of the steel it uses each year, along with about 90 percent of the aluminum, businesses will most likely absorb the small cost change or pass it through to their customers.

Outlook

Based on the graph below, the current business cycle indicators show a continuously increasing level of productivity. The index does not appear to be leveling off or rounding off, indicating outlook for the near future is going to stay positive. Some economists and analysts are worried about a nearing recession due to the flattening yield curve, but based on the business cycle indicators, the next recession may not be as near as they may think.



Aerospace and Defense

The Aerospace and Defense industry is the main focus of the sector analysis due to its favorable position and outlook. The key players within the industry are Boeing, Lockheed Martin, and General Dynamics. All three of these companies thrive on the demand from both the United States military and the airline industry.

Key Drivers

- *Air Traffic Growth*
 - Passenger air traffic is a useful indicator for how the demand for new airplanes is going to perform. Growth of passenger air traffic has been increasing significantly each year. From 2013 to 2017, air traffic demand has increased by an average of 6.92 percent, and each year the change is larger than the previous year. With this growing demand for air traffic, high demand for new planes is imminent.
- *Military and Defense Spending*
 - For the same reasons discussed at the beginning of the analysis, military and defense spending is key driver of the industry because it is a key driver of the aerospace and defense sector. With a large increase in the defense budget, businesses in this industry are seeing added successes
- *Demand in Emerging Markets*
 - Strong demand in Asia, the Middle East, Latin America, and Eastern Europe has driven a large amount of orders for aircraft. Airlines in these regions have seen a steady increase in profitability and rising demand for flights is driving demand for new aircraft. A forecast by Airbus predicts Asia-Pacific will account for 41% of commercial aircraft demand in the next 20 years.

Outlook

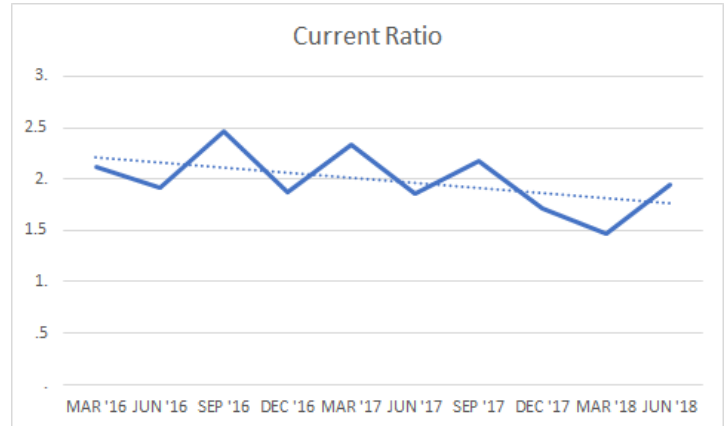
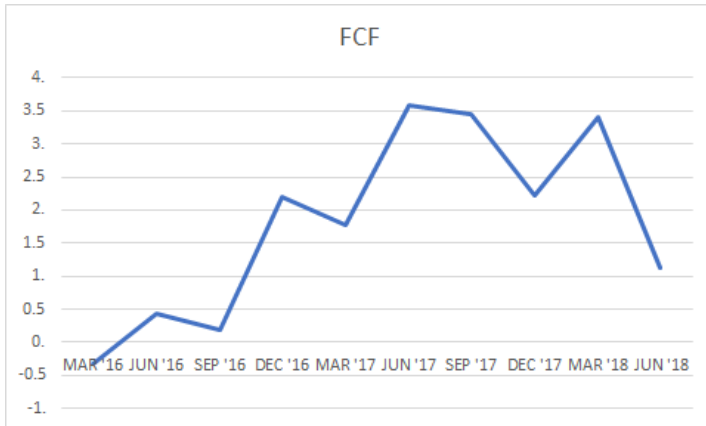
Based on predictions by Boeing, the total amount of aircraft delivered in the next 20 years is expected to be over 41,000 worldwide, with the current amount of aircraft in service totaling a little over 24,000 and approximately 2,500 more in storage. This will result in a significant increase in revenue for the company, which in turn will help drive the industry and sector in a positive direction. Being the largest business in the sector with over \$800 billion in market cap, positive moves for Boeing will result in positive moves for the sector. Also, defense spending is not anticipated to dry up in the near future, so new contracts will certainly be laid out by the US government. For the top 30 companies in the aerospace and defense industry, the government accounts for 37.525% of their revenues on average.

Stock Analysis

Mastech Digital (MHH) | Recommendation: **Sell Principle, Hold Gain**

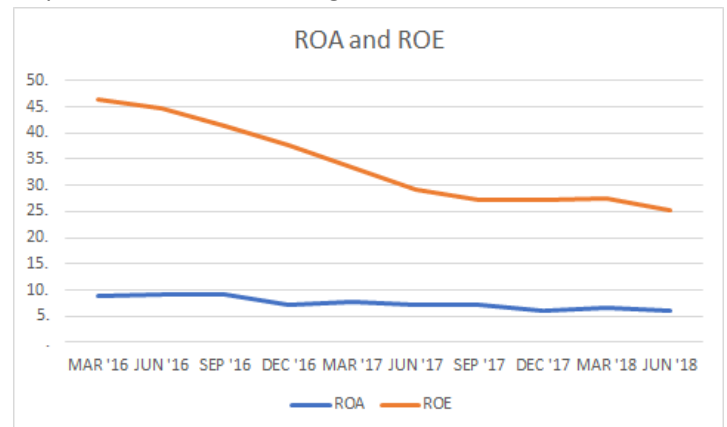
- Stock has vastly outperformed the S&P 500 this year with a 90.26% change YTD
- Ratio analysis shows some negative signs: ROE, return on invested capital, and ROA decreased tremendously from 2013 to 2017
- Net margin has decreased from 2013 to 2017; Free cash flow has decreased from a year ago

- The current ratio has been on a downward trend since first quarter 2016
- The stock has shown tremendous gain this year almost doubling in value; it has had a volatile past, however. Selling principle value would secure zero downside risk, and the held value would still be able to perform with the stock



Delta Airlines (DAL) | Recommendation: **HOLD**

- Stock has had a great 52 week change of 19.71 percent and a YTD change of 3.27%
- ROE has been decreasing since first quarter 2016, but ROA has remained relatively constant
- Long term debt has been decreasing since 2008, lowering the leveraged position of the firm; slight increase from Q1 2016 to present, but nothing concerning
- Air traffic demand is expected to continue increasing
- Free cash flow has increased in 2018 from 2017



Materials Sector Introduction:

The materials sector is comprised of companies that develop, produce, and unearth raw materials. These companies include a wide array of specialties including chemicals, forestry, metals and mining, construction materials, and packaging. The materials sector is expected to grow positively in the next few years due to its largest sub-sector – chemicals. The chemicals sub-sector is comprised of five different sub-industries which, as mentioned, are expected to increase its EPS growth as well as see more savings due to mergers and acquisitions. The chemical sub-sector is broadly defined, however within the sub-sector two sub-industries are largely attributable to the growth and stabilization of the materials sector and chemicals sub-sector – Diversified Chemicals and Specialty Chemicals.

The large success of this sector and sub-sector has been attributable to the recent improvement in the United States economy as well as the increase in oil production. These two components are certainly key drivers in the current and future success of the materials sector and chemical sub-sector. Since the chemical sub-sector is the largest portion of the materials sector, based on market capitalization, and based on the positive outlook for the sub-sector, the focus of the materials sector will be the chemicals sub-sector.

Major Events/Key Drivers

- *Mergers and Acquisitions*
 - Mergers and acquisitions are a portion of profit margins for the Chemicals industry. In 2017, the \$130 billion merger between Dow Chemicals and Du Pont was the most significant and recent event in the sector. Post-merger, DowDuPont now holds a 27% market share of the chemicals sub-sector with \$148.39B in current market capitalization. In addition, this event is an example of the constant mergers and acquisitions in the sector and industries of which are expected to increase.
- *Technology Developments*
 - The increased development of the world's technology will determine how well the Chemicals industry does in the future. Advancements of technology is currently very positive and is expected to increase in size and scope in the coming years. Based on this, and since companies in the Chemicals sector rely heavily on the technology they use, these increased developments in the technology-sphere is another key driver.
- *United States Economy/Consumer Confidence*
 - The geographical make-up of the Chemicals industry is largely reliant on the United States economy since the exposure to the industry is over 40% just within the United States. The products from which the industry produces, are components of a large portion of consumer products (i.e. plastics, construction). Therefore, if the consumer confidence is positive, the position of the industry will be positive as well. It is also worth noting that since the Presidential election in 2016, the earnings have increased by more than 60% from 2016 to 2017.

Financial Analysis

The financial analysis was derived from the S&P 500 Materials Sector GICS Level 1 Index.

Profitability

The sector experiences cyclical margins based on the diverse businesses these companies supply – from agricultural demand to construction and home building demands. Thus, since 2015, the sector has experienced large growth in EBITDA, operating, and profit margins, whereas total gross margins have remained unsensitive – and in recent cases increased – over the past seven years. The most notable event in 2015 for the industry was the large dividend payout ratio of 82.38% in 2015 compared to 46.44% in 2014.

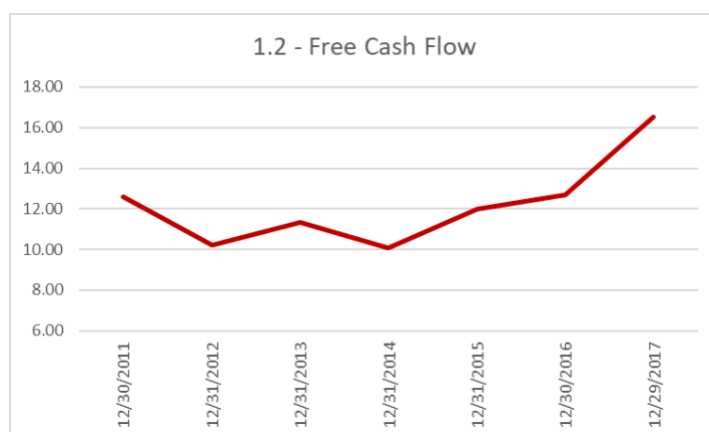
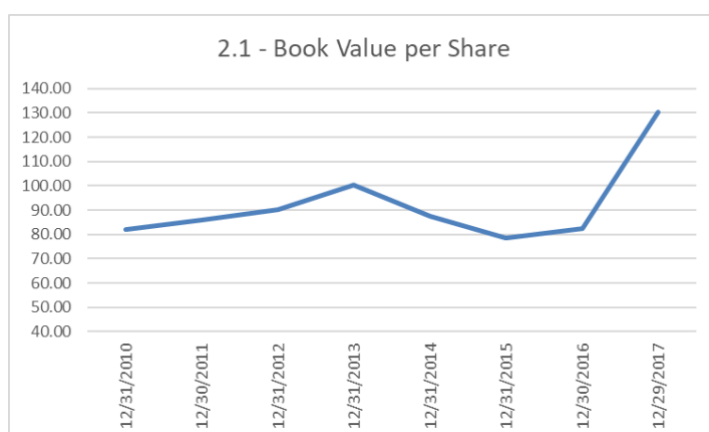
Leverage & Liquidity

The current ratio of the Materials sector has remained stable over the past five years. The total debt to equity of the sector is large compared to the total debt to assets. The large debt to equity position shows

However, there was a large increase in debt to equity in 2016 and then a large decline in 2017 due to increased confidence in 2016.

Financials

The sector has seen an increase in sales from 2016 to 2017 as well as in the current year. The EBIT and EBITDA of the sector has continued to growth year over year with expected growth in the future. Overall, the earnings of the sector have been positive every year since 2015. The total book value (2.1 below) and equity per share (2.2 below) has increased significantly from 2016 to 2017. Both factors have increased by almost 50% from 2016 to 2017. The free cash flow of the sector has continuously increased year over year with a large increase in 2017. Moreover, the cash flow from operations (1.1 below) has also increase year over year and it expected to increase even more in the future.



Outlook

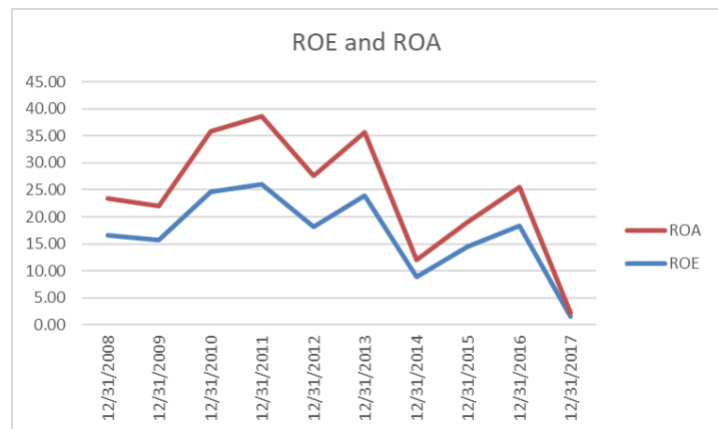
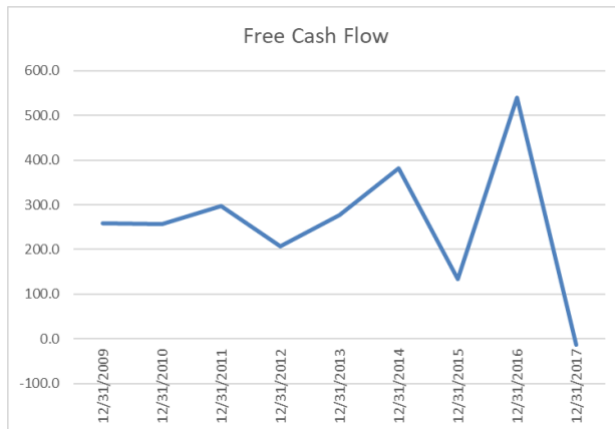
Overall, the Materials sector, including the Chemicals sub-sector, has a very positive future. With many large companies in the industry acquiring emerging companies, the savings of these mergers and acquisitions will increase the profitability of the sector. Moreover, the sales and growth of the sector continues to increase year over year. With the demand for oil and gas as well as the demand for homes increasing, the materials sector will be in a great position for growth and earnings.

Stock Analysis

Albemarle Corporation (ALB) | Recommendation: **SELL**

- Over the past five years, Albemarle Corp. has underperformed compared to the S&P 500 except in 2017 when it was consistently overperforming.
- ROE and ROA dropped significantly from 2016 to 2017. 2016 ROE was 12.53 compared to 1.47 in 2017, additionally, 2016 ROA was 4.97 compared to 0.69 in 2017.
- The cash flow of the corporation is the most significant aspect when it comes to this sell recommendation. Net operating cash flow decline by over 58% in 2017 and the free cash flow declined 102% in 2017.
- EPS declined 84% in 2017 and, again, free cash flow per share decreased by 102%.
- The P/E in 2017 grew substantially due to a large dividend payout by the company of 258.83 million, compared to 2016 when their payout ratio was only 31.05 million.

- Net income margin has also decreased significantly over the past two years. From 24.04% in 2016 to 1.79% in 2017.



Berry Global Group, Inc. (BERY) | Recommendation: **HOLD**

- Earnings per Share has consistently grown year over year with an expected growth of EPS in the future.
- BERY has consistently outperformed the S&P 500 Index every year since 2013.
- Net income margin has increased year over year in addition to EBITDA (less the small decline in 2014). This shows that BERY has a strong presence in the market and overall.
- ROA has increased year over year from \$3.78 in 2016 to \$4.22 in 2017. BERY began racking ROE in 2017 and had a positive return of \$55.28 per share.
- While the company has not issued any dividends, the promising outlook and growth of the company suggests they may issue a dividend payout soon.

