

# Analysis of the Investment Value of three American companies in Industrial Sector

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**Abstract.** Industrial stocks are stocks issued by industrial enterprises that produce non-consumer materials. Industries producing non-consumer data generally include extractive industry, manufacturing industry, electric power industry, gas industry and so on. The stocks issued by these industrial enterprises that produce non-consumer materials are called industrial stocks. Industrial stocks have a long history in United States. As early as 1900, industrial stocks became the majority of American stocks. In the same year that the United States overtook Britain as the country with the biggest economy in the world. Even today, more than a hundred years later, industrial stocks still play an important role in the U.S. economy and offer great investment value. In this article, three industrial stocks are selected and analyzed in different investing aspects, which can provide reference for the investors who are interested in industrial stocks. Three companies are the Boeing Company (BA), General Electric Company (GE), Ford Motor Company (F). The results show that BA is most risky and F is most profitable.

**Keywords:** Industrial stocks; BA; F; GE; Profitability; Risk; Market ratio.

## 1. Introduction

Unexpected worldwide change has resulted from the COVID-19 pandemic. Especially when the world economy has been globalized for many years, the economic changes of one country will directly reflect the economic changes of other countries. For example, an economic crisis ensued in the United Kingdom because of COVID-19 causing spillover for the United States markets' financial instability. There is a logical conclusion that the COVID-19 pandemic's effects, as well as fear and uncertainty, are likely to cause a decline in business profitability. Global stock markets erased about US\$6 trillion in wealth in one week from 24th to 28th of February of 2020. And the industrial stocks are deeply impacted by the Covid-19 either positively (for the firms which produce masks, medical machine and so on) or negatively, depending on which kind of industrial stocks they are. Since the outbreak of COVID-19, governments have taken quarantine measures to ensure the safety of people. The first industry impacted was the transportation industry. The stock price of the transportation industry keeps falling after many event windows. After the outbreak, the share price of the mining sector, which is directly tied to the transportation sector, fell precipitously, and as a result, the average daily abnormal return rate dropped below 0.0389. Additionally, industry is a crucial part of the national economy that produces materials. Without the presence and development of industry, as well as without the machinery and equipment that industry provides for those sectors, other sectors of the national economy would not continue to flourish. In addition, the level of industrial modernization and its rate of development ultimately determine how the entire national economy will look. As a result, industry plays a major role in the national economy. Consequently, factoring what the article have mentioned above, it is quite important for us to understand industrial stocks, especially under the circumstance of Covid-19.

The general information of the three analyzed companies is as follows: The largest aerospace business and top producer of both military and commercial aircraft is Boeing. The largest diverse services corporation in the world, General Electric (GE), offers everything from financial services to medical imaging and television programs to plastics. In terms of total vehicle production in 2015, Ford was the second-largest carmaker worldwide (after General Motors) and the fifth-largest in the United States (behind Toyota, Volkswagen, Hyundai, and General Motors).

The rest is explained further down. The data are presented in Section 2, the methods are described in Section 3, the findings are shown in Section 4, some conclusions are presented in Section 5, and the conclusion is presented in Section 6.

## 2. Data

All the data used in this article is from Yahoo Finance (<https://finance.yahoo.com/>). This article selects Boeing Company (BA), General Electric Company (GE), Ford Motor Company (F) as analysing material because of their large market cap. In addition, this paper considers the selection of these companies as they belong to the industrial sector of the financial market. Besides, they all have prominent positions in their respective fields, which means that their various financial data are fairly representative.

## 3. Methods

### 3.1 Risk factor analysis

The entire value of the shares of a listed company that have been issued at the market price is referred to as the "market cap." By dividing the number of shares issued by the share's market price, the price is determined. The sum of the market values of all listed companies is the overall market value of all stocks on the whole stock market. It somewhat reflects the tenacity of the company (the federal government helps big businesses in a downturn). In addition to the quick ratio, the current ratio also demonstrates the capital flexibility of the organization. The debt ratio is the proportion of a company's total liabilities to its total assets. This ratio may demonstrate the percentage of assets acquired via financing, borrowing, and the borrowing process, as well as the maintenance of creditors' rights. The beta coefficient is a risk statistic that evaluates how individual companies or stock funds have changed in price over the course of the whole stock market.

### 3.2 Profitability analysis.

Total asset turnover, profit margin, ROA and ROE are the tools for this article to illustrate the profitability of the three companies. The total assets turnover ratio measures the difference between an organization's average total assets during a given time period and net sales revenue. The ratio between asset investment size and sales level is measured by this indicator. It is best to combine the sales profit analysis with the overall asset turnover analysis when assessing the effectiveness of asset utilization. Calculating and examining non-current assets relative to overall assets is necessary. The more the enterprise's capacity to sell its products, the higher the asset turnover, and the greater the return on investment in assets. The ratio of gross profit to sales revenue is known as the gross profit margin. The value created when a product is transferred from manufacturing to internal systems is accounted for by the gross margin. It is computed as  $\text{Net Profit After Tax} / \text{Total Assets}$ . Return on assets, sometimes referred to as return on assets, is a measure of net profit per unit of assets. The after-tax profits of a firm are divided by its net assets to get the ratio of net profit to average shareholders' equity (Roe). This index gauges a company's financial efficiency and the level of return on shareholders' equity. As the value of the index rises, the return on investment rises as well.

### 3.3 Market ratio analysis

PE, P/B, dividend, PEG, and momentum are references to estimate market ratio in this article. The market price per share of a company to its earnings per share is referred to as the PE. A company's stock is expensive if its PE ratio is very high. The share price to net asset value per share is the ratio that is known as the price-to-book ratio. In general, a stock with a lower market to book ratio is worth more as an investment, and vice versa. Dividend refers to the income from the after-tax profits of a joint stock company distributed to shareholders at the dividend rate. The PEG measure is a company's

price-to-earnings ratio divided by its rate of earnings growth. Companies with low P/E ratios and high growth rates will have very low PEG ratios

## 4. Results

### 4.1 Risk analysis

All of these companies' market cap are above 15 billion, which means they are big company and they will not have problem during a recession. All of these companies look pretty liquid and have healthy current ratio, they are all above 1. The debt ratio of the F and BA are relatively high and debt ratio of the GE is quite low. Among them, the high debt ratio of the BA maybe due to the covid-19. After checking the debt ratio of the BA during the past ten years, it shows that the debt ratio keeps stable until the arrival of the covid-19. Flight circuit breaker bothered aircraft company a lot.

And the BETA shows that the stock price of the GE will keep stable whether GE is in the recession or not. That is because the business scope of the GE is quite diverse. The BETA of the other two is relatively high, but if the recession happens, they will not have shocking change. So, GE clearly has the least amount of stock market risk.

**Table 1.** Descriptive statistics of the risk factor

Stock	Ford Motor Company	General Electric Company.	Boeing Company
Market Cap	57.784B	80.596B	93.771B
Current Ratio	1.20	1.28	1.33
Quick Ratio	1.07	0.97	0.36
Debt Ratio	0.35	-0.02	-3.93
Beta	1.21	1.07	1.37

### 4.2 Profitability analysis

There's not much difference on three companies' total turnover rate, F sells its goods faster than other two companies. Ford also has the highest profit margins. The ROA of these companies are not high and in the same level. Ford won this comparison by a narrow margin. But compare to their ROE, the ROE of the BA is extremely high and the high debt ratio of the BA helps a lot. So, the F should be most profitable stock.

**Table 2.** Descriptive statistics of the profitability

Stock	Ford Motor Company	General Electric Company	Boeing Company
Total Asset Turnover	0.52	0.37	0.44
Profit Margin	0.09	-0.06	-0.08
ROA	0.04	-0.02	-0.04
ROE	0.24	-0.11	0.33

### 4.3 Market ratio analysis

Only F has the relatively low PE ratio and F will be attractive for value investor. Besides, only F has the relatively high dividend yield, income investor may invest on it. PEG investor may be interested in F and GE. They have the good peg ratio below or equal 1. All of these companies' 50 day moving average are lower than the 200 days moving average, which means momentum investor

would not like to invest them. Finally, according to the insider buying and selling, people who are interested in insider buying may invest on F and GE.

**Table 3.** Descriptive statistics of the market ratio

Stock	Ford Motor Company	General Electric Company.	Boeing Company
PE	5.02	25.38	181.82
P/B	1.15	2.01	N/A
Forward Dividend & Yield	0.0	4.80	4.60
PEG	N/A	1.49	0.9
50-Day Moving Average 3	119.65	185.29	227.74
200-Day Moving Average 3	121.78	203.48	228.20

## 5. Discussion

The three companies analyzed above have been affected in some way by the general recession. Manufacturing sectors saw a tremendous slump in 2021, with production growth falling by 3.8% as a result of pandemic shock, according to a study from the Bureau of Labor Statistics published in 2021. The lack of the labors can be one of the important reasons. Over the long run, damage to labor markets could be problematic with a large share of the labor force unable to or, in some sectors, unwilling to return to pre-pandemic jobs. Besides, Covid-19 cause damage to those companies' cash flow. The outbreak of the pandemic interrupt's airline operations, lowers consumer demand, and severely restricts cash flows for certain firms. For example, an expected \$157 billion loss in income and a 92 percent decline in passengers from 2019 bring airline firms to a virtual stop. That's must be a significant reason why some companies like BA have such high level of debt ratio. But we shouldn't be too pessimistic about industrial stocks. In some cases, workers who were unemployed during the crisis reportedly reconsidered returning to their previous jobs and were exploring other options, which potentially could affect the pace of the economic recovery. The recovery of the labor market will definitely let the industrial companies gradually return to prosperity. Additionally, Boeing's total stock price won't be adversely impacted in the long term by the ARMAX and ARMA-GARCH models. And things got little different to the company which had the ability to produce medical machine. Companies including Dyson and Ford Motor Company are stepping up to meet the demand for ventilators, alongside other innovations [10]. These industrial companies will suffer much less financially from the pandemic. Their products have boosted investors' confidence in their stocks.

## 6. Conclusion

Basically, this essay helps investors make decisions in buying what stock that is suitable for them through analysing various index. For the value investor, Ford Motor Company (F) will be a good choice. PEG investors are predicted to be interested in Ford Motor Company (F) and General Electric (GE). Ford Motor Company (F) and General Electric (GE) should be the priority of insider buyer.

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