

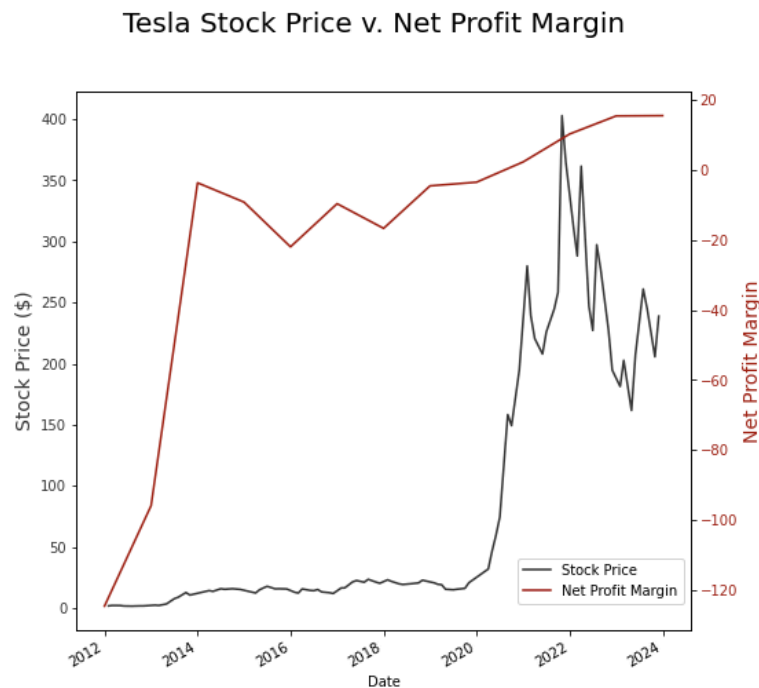
## **A Look On Tesla's Financial Performance**

### **Introduction**

For this project, we were assigned the task of exploring a company's financial health, and assessing its impact on the company's stock performance. In combination with the company's ethical practices we will evaluate whether the company is worth investing in, and identify potential opportunities when you should consider buying their stocks in the future. Similar to our data translation challenge we will utilize data from the SEC's EDGAR database, along with historical stock price data obtained through the Yahoo Finance API. With the consideration of the U.S government's push for electric vehicles recently, I chose to examine the world's leading electric company, Tesla, for this project

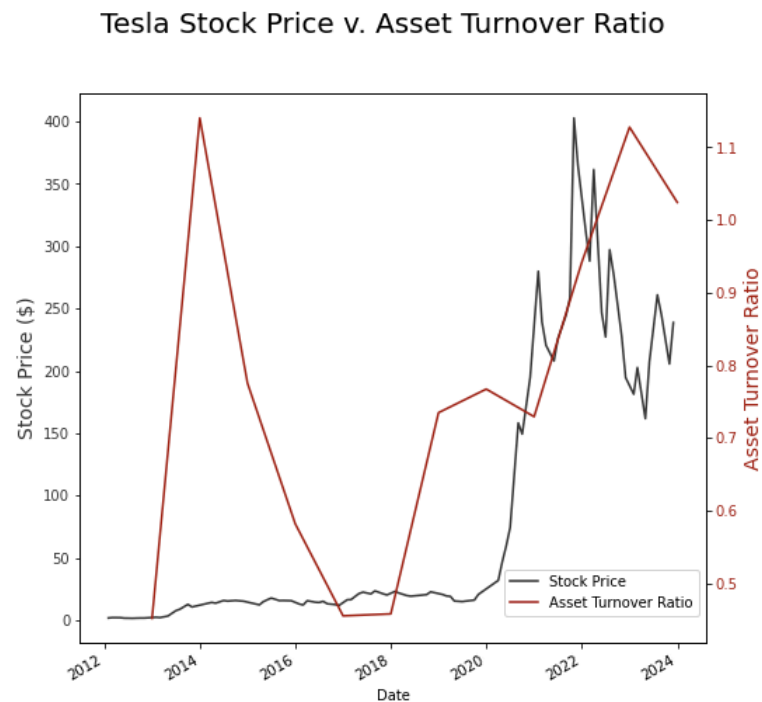
## Analysis On Financial Ratios and Stock Prices

### Net Profit Margin



The first financial ratio we will look at is Tesla's net profit margin. By examining the net profit margin, we are able to gain an understanding of how effectively a company converts its revenue into profit. As we can see through our graph, it's evident that Tesla initially faced challenges in generating profit. However, by the onset of 2014, Tesla's net profit saw a notable increase, albeit remaining in the negative range. In our graph we also observe that as soon as Tesla's net profit margin reached zero or higher in 2020, their stock price rose exponentially. This suggests a strong correlation between Tesla's net profit margin and stock price..

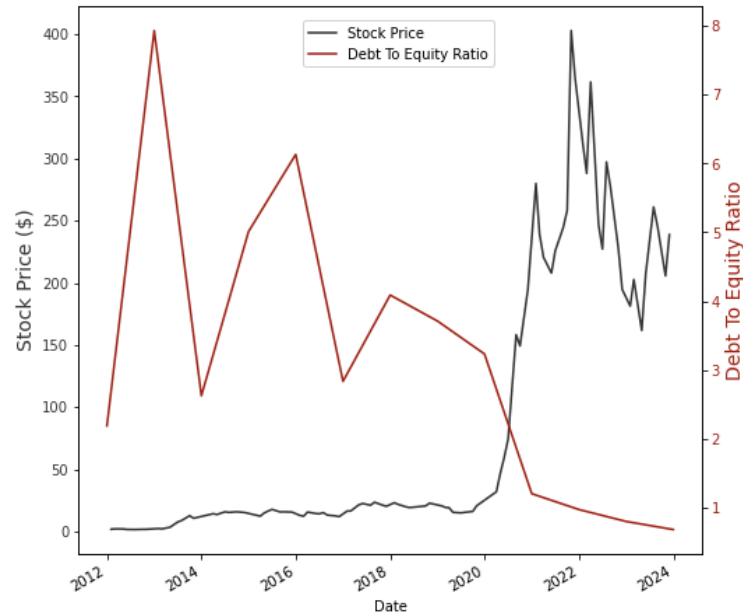
## Asset Turnover Ratio



Given that Tesla is primarily an automobile manufacturing and sales company, I thought it would be crucial to analyze their asset turnover ratio. This metric provides us with valuable insights on the company's operating efficiency, and how much revenue is returned for every dollar of assets invested. Based on my observations from our stock price versus asset turnover ratio graph, Tesla's asset turnover ratio displays erratic behavior. It goes through dramatic fluctuations, with the only stable period of growth being between 2021 and 2023. Comparing it to Tesla's stock price over time reveals a potential correlation between the asset turnover ratios to stock prices, although there are exceptions. In 2014, Tesla's asset turnover reached its peak, however, their stock price showed no reaction. Further research and analysis are necessary to determine investors' sensitivity to a company's asset turnover ratio.

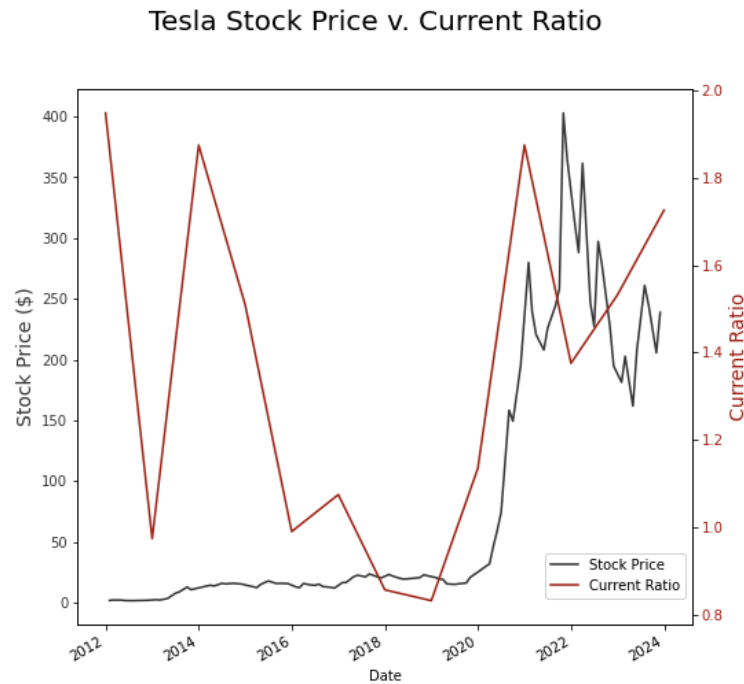
## Debt to Equity Ratio

Tesla Stock Price v. Debt To Equity Ratio



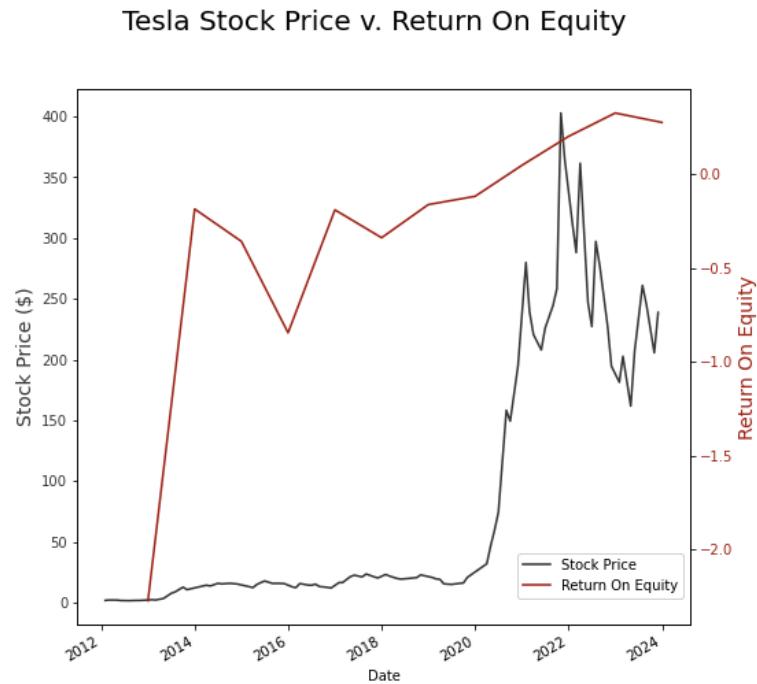
Moving on from asset turnover ratios, we will explore Tesla's debt to equity ratio. The debt to equity ratio is a solvency ratio, and can be used to examine how a company uses its debt and equity to finance themselves. As observed in the graph, as Tesla's debt to equity ratio steadily declined, their stock price grew. This trend suggests Tesla's gradual shift from relying on debt to finance the company, towards using equity. Additionally, a low debt to equity ratio typically signifies financial stability and reduced risk, which is consistent with the increase in Tesla's stock price.

## Current Ratio



Continuing our analysis from the debt to equity ratio, we'll now delve into Tesla's current ratio. Through the company's current ratio, we are able to measure a company's ability to pay off its short term liabilities with its short term assets. Similar to Tesla's asset turnover ratio, the company's current ratio demonstrates erratic behavior. Although, it's noteworthy that a majority of Tesla's current ratios over time remain above one. This implies that Tesla is capable of paying off their short term liabilities, and may have ample resources to further invest in the growth of the company. Their stock prices appear to be responsive to this pattern, increasing in value when the company's current ratios begin to fall within the 1.2 to 2 range.

## Return on Equity



Lastly, we will analyze Tesla's return on equity ratios over the years. Analysis on the company's return on equity ratios will give us insights on the company's profitability, and how well they use their equity to generate profit for its investors. As we can see through our graph, Tesla has consistently had return on equity ratios less than zero. This is contradictory to our high debt to equity ratios which we examined earlier. There appears to be a correlation between the behavior observed in these graphs, as discussed in the debt-to-equity analysis, where Tesla appeared to be shifting towards utilizing more equity. Aligning with this transition, their return on equity ratios experienced an increase.

## Event Analysis



Not only famous for their electric vehicles, Tesla is also known for their unconventional CEO, Elon Musk. Elon Musk maintains a significant presence on social media platforms, particularly Twitter (now referred to as X). Rumors of Musk's potential acquisition of the social media company began circulating in April 2022, culminating in its actualization in October of the same year. The graph below illustrates Tesla's stock price a year before and after the Twitter acquisition. Notably the stock price experienced a sharp decline in the three months before and after the buy-out. This decline in stock price indicates shareholders hold low confidence in the decision-making of Tesla's CEO, opting for other less risky investment opportunities. Approximately one year after the acquisition, Tesla's stock price regained some of its value, but never reached the level it was two years prior.

## **ESG Analysis**

Despite being an electric vehicle company, which theoretically should contribute to lowering the world's gas emissions, Tesla remains controversial. While electric vehicles offer a direct solution to gas emissions, the substantial amount of electricity and materials that is required for the production of electric vehicle batteries could pose a counterproductive challenge. To add weight to this argument, Tesla has recently been fined \$1.5 million for improper disposal of hazardous waste. Apart from environmental concerns, Tesla is also entangled in various ethical dilemmas related to poor working conditions within manufacturing plants, as well as the safety of drivers and passengers.

## **Conclusion**

Taking all factors into consideration, I have concluded that Tesla is a company worthy of investment. From a financial perspective, they have exhibited strong stability in recent years, alongside significant resources for further growth. Tesla may not be the perfect company, but they remain at the forefront of the transition towards an all-electric vehicle world. They take criticisms seriously, as demonstrated by their response to concerns raised in 2019 regarding their use of cobalt. The argument was that the company's utilization of cobalt in their vehicle batteries was contributing to the child labor industry in Congo, where cobalt is mined. In response to this issue, they announced plans to shift towards cobalt-free batteries, which was actualized by 2022.

Tesla's stock is by no means affordable, therefore it is crucial to monitor the stock closely to identify moments of opportunity. For example, as we have seen in our event analysis, Tesla's stock price plummeted when Elon made a rather spontaneous decision to acquire Twitter. This would have been a great opportunity to invest, as the growing demand for electric vehicles



eventually overshadowed concerns surrounding the CEO's actions. Therefore, monitoring Tesla's stock during a similar instance may prove to be beneficial for investors.

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