

Week 6 Comparative Analysis of Financial Ratios and Stock Prices Using Python

Analysis and Interpretation:

In this analysis, I chose to observe Microsoft Corporation and their Form 4 filings. Form 4 is the Statement of changes in beneficial ownership, which provides insights into insider buying and selling activities that can influence stock prices.

Figure 1 below illustrates a steady upward trend in Microsoft's stock prices over the two-year observation period (2015-2017). We can see fluctuations in stock prices around Form 4 filing dates. While post-filing stock prices (the red line) can be seen higher than pre-filing prices (the blue line) in multiple instances, the differences were not significantly. There were also instances where I observed the stock prices were lower than pre-filing. For example, during the periods of February and June 2016, the stock prices exhibited volatility, which appear to be aligning with three separate announcements of Microsoft's acquisitions of other companies (Wikipedia, 2023). The announcements of these acquisitions may have had an influence on the movement of stock prices during that period.

Overall, I did not observe any significant impact associated with the timing of Form 4 filings. However, further analysis during the year with notable events, such as 2018 when the pandemic hit or 2022-2023 during periods of inflation may provide clearer insights into any potential effects on stock prices.

Figure 1, Stock prices before and after the filing date for Microsoft Corporation between October 2015 to August 2017.

