S&P 500 Analysis

Analysis Summary

We analyzed the S&P 500 Annual Performance from 1990 to 2021 by plotting data points obtained from Yahoo finance. We noticed that there were two major drops in the S&P 500 that were at the same time as the Dot.com bubble and financial crisis. We found a roughly 10% average return per year from 1990 to 2021.

Using yahoo finance, we were also able to get the CBOE volatility index data from 1990 to 2021 that we plotted alongside the S&P 500. The volatility index did not closely follow the S&P 500. This could be because insecurity within the entire market, predicted by the VIX, is not completely reflected by the companies of the S&P500.

Yahoo finance also gave us information on the 10 Year Treasury rate from 1990 to 2021 that we also plotted alongside the S&P 500 for comparison. This shows the annual % change of the S&P 500 followed closely with the 10-year treasury rate. This is because the treasury rate is reactive to how well the economy is doing.

The last indicator that we compared to the S&P 500 was the value of gold, also obtained from yahoo finance. The average rate of return for the value of gold from 1990 to 2021 was 6.2%, while the rate of return for the S&P 500 was 9.38% for that period. While both indicators had a positive increase, the plotted line graphs show an inverse relationship between the two indicators. This shows that people invest in gold during periods of economic downturn.

We analyzed the S&P 500 by sector from 1999 to 2020. For this reason, we only pulled data from 9 of the 11 sectors. In our analysis we saw that the average yearly increase was the highest for tech and consumer discretionary, each over 10%. This was well over average S&P 500 yearly increase of approximately 6.71%.

We further divided the S&P 500 sectors by their largest companies and looked at their year over year percent increase from 1999- 2020. We determined these companies by looking at the largest company in ETFs for each sector. We noticed that the percentage increase for most of these companies reflected the percent increase for their sector. However, two of the companies, Apple and Amazon drastically outperformed their respective sectors. This shows individual companies within each sector can carry their sector’s performance.