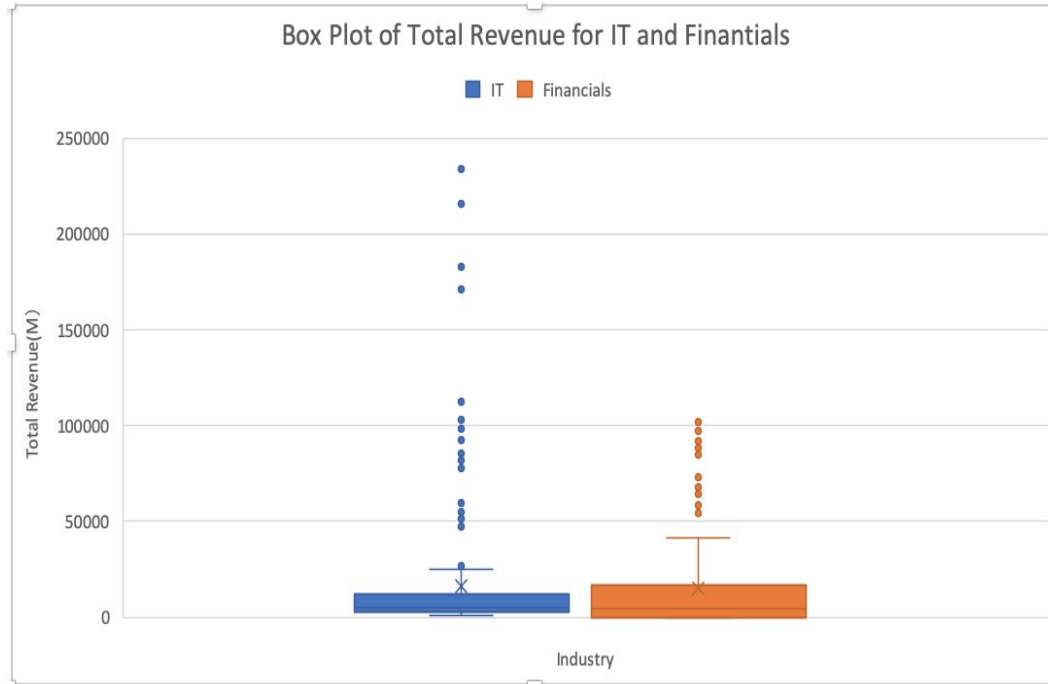


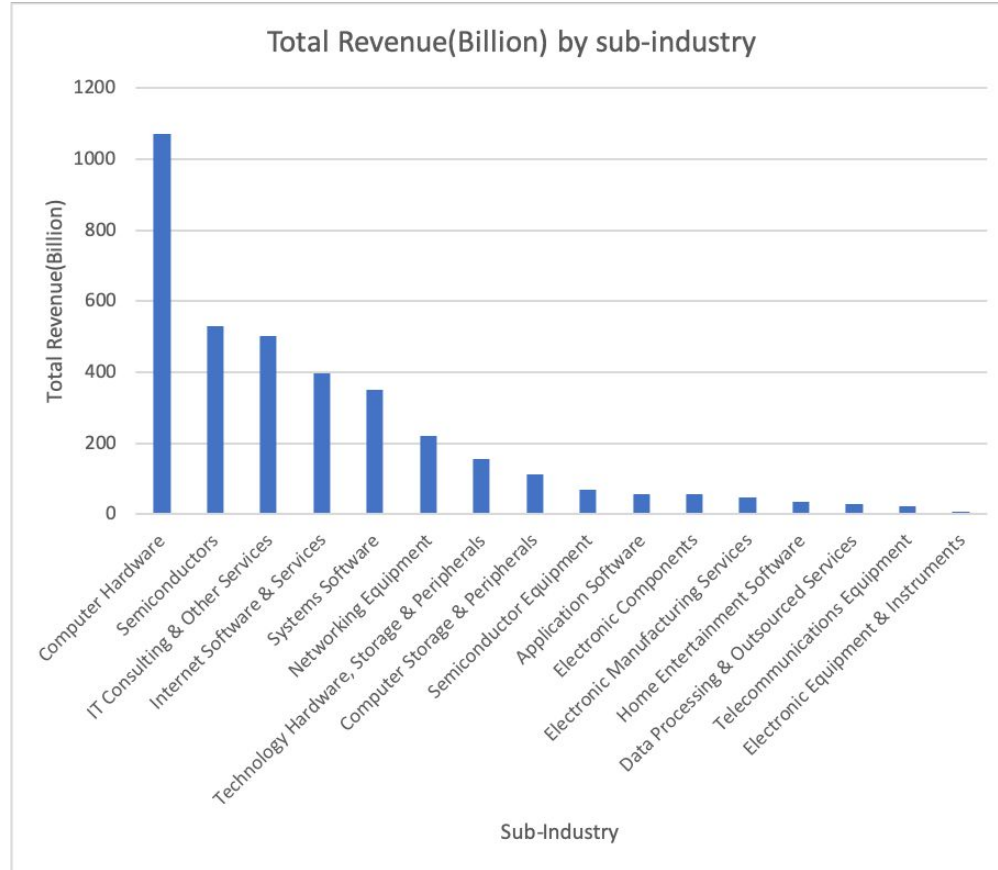
NYSE S&P500 Analysis

Which industry has more risks and uncertainty, IT or Financials?



Although the IQR of Financials is larger than IT. The standard deviation and range is less. Financials has a standard deviation of about 24 billion and a range of about 102 Billion. IT has a standard deviation of about 32 Billion and a range of 233 Billion. There is a higher variability in total revenue of IT. Therefore, IT has more risks and uncertainty.

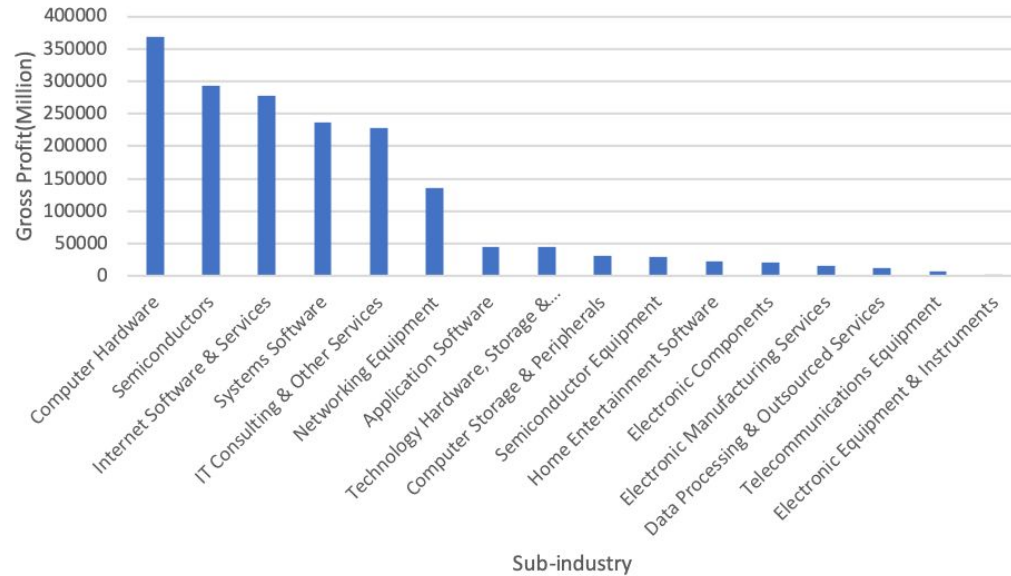
Which IT sub industry generates the most total revenue?



From the bar chart in the left we can see that Computer Hardware generates the most total revenue among all the sub industries in IT, which is more than 1,000 Billion US dollars. This is about 2 times of the second one: Semiconductors.

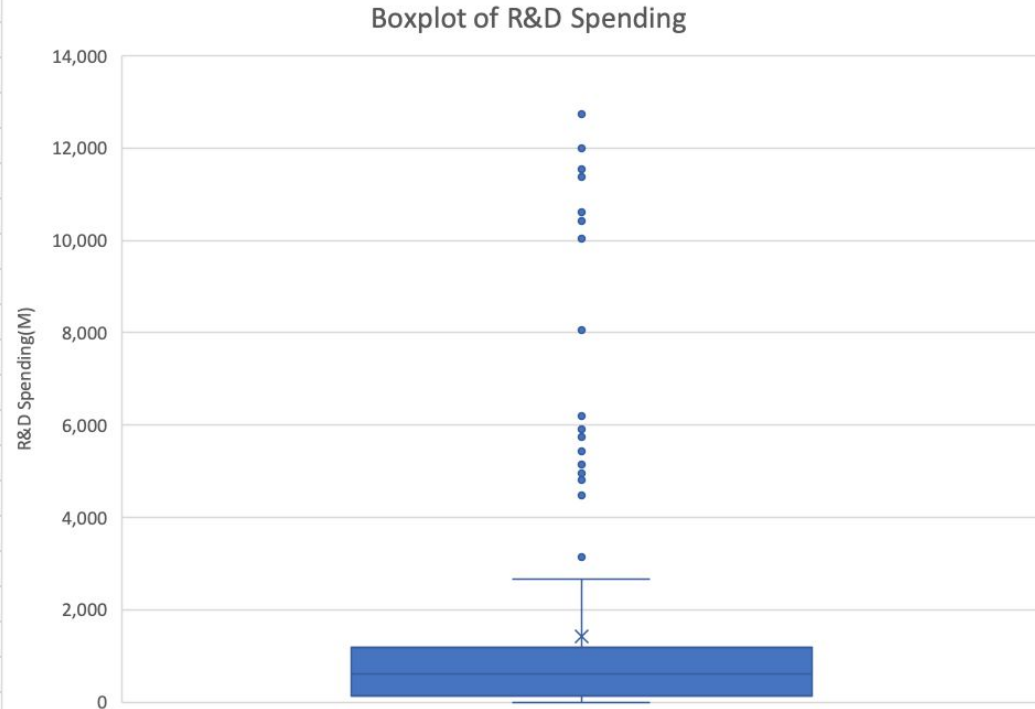
Which IT sub industry generates the most gross profit?

Gross Profit(M) by sub-industry



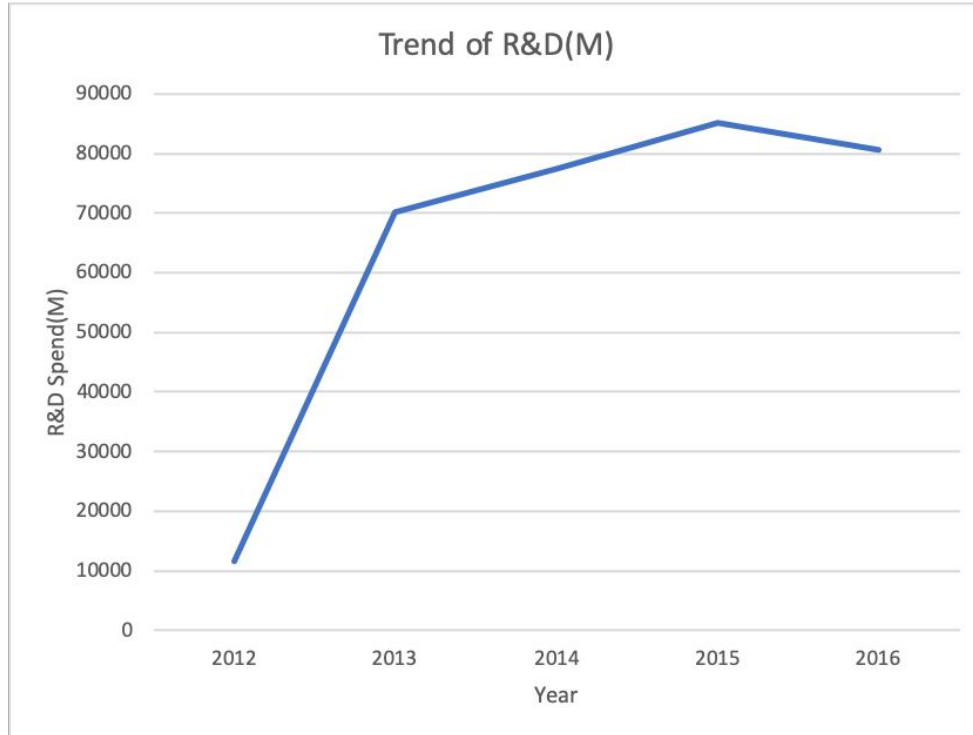
From the bar chart in the left we can see that Computer Hardware also generates the most gross profit, about 370 Billion. The second is still Semiconductor. However, the gross profit of computer hardware is only about 25% more than semiconductor.

What is the distribution of R&D spending?



From the boxplot of R&D spend we can see that, most companies spent less than 2 Billion on R&D. However, there are also some companies spent more than 12 Billion per year on R&D. These companies are the outliers which make the average R&D spending (about 1.4 Billion) much higher than the median (about 0.6 Billion).

What is the trend of R&D spending?



The R&D spending increased steeply from year 2012 to year 2013. After a stable increase in year 2014, it reaches the peak in year 2015 and then started to drop down in year 2016.