

Intro to Data - Final Project

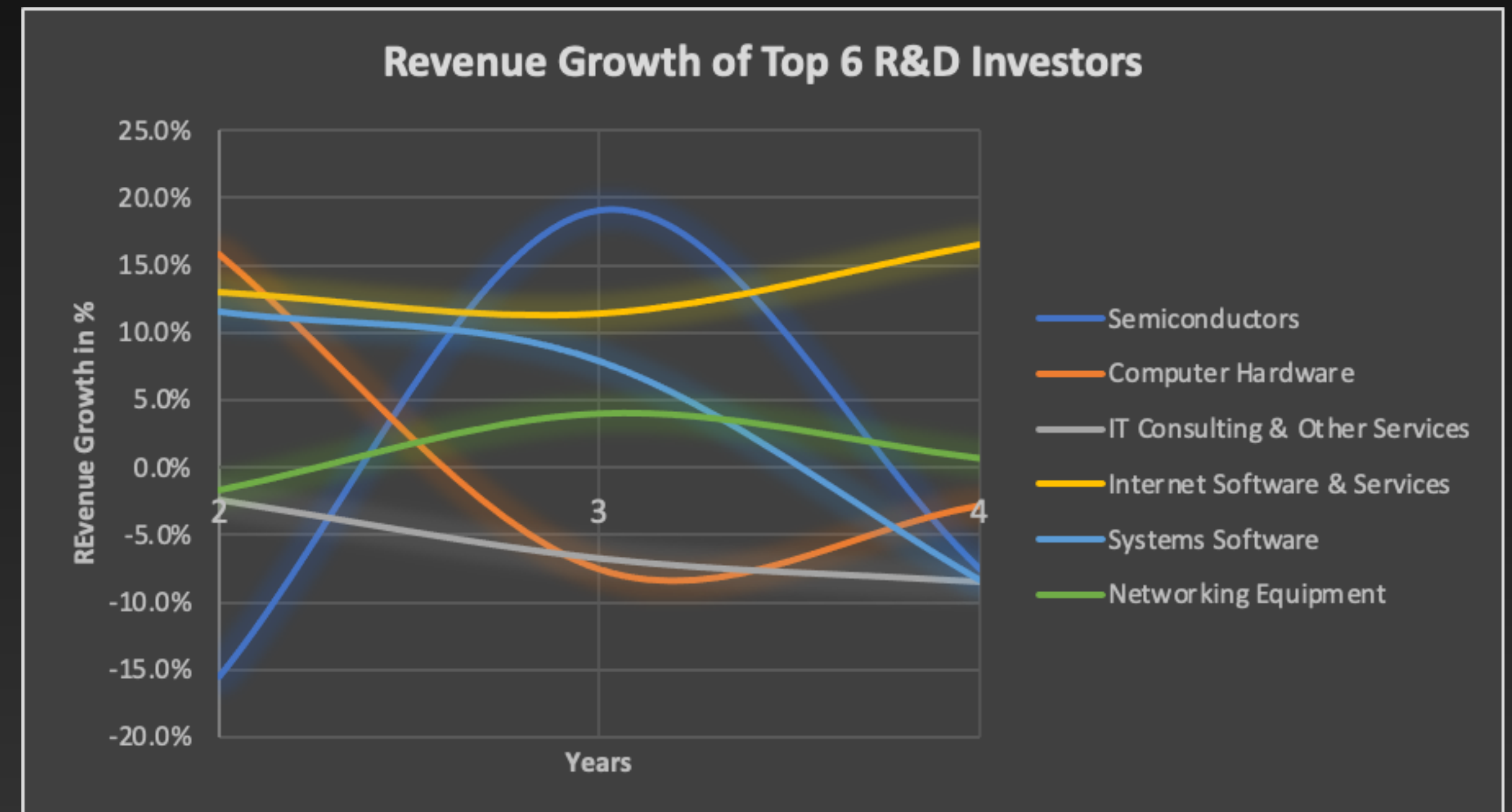
Analyze NYSE Data

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GLCS Sector: Information and Technology

Is there a relation between Revenue Growth and investing in Research & Development?

- This is a Scatter Plot with Smooth Lines of the Revenue Growth of the Top 6 R&D Investors
- We can observe that none of the top 6 investors in R&D have steady revenue growth, only Internet Software & Services has an upward growth tendency
- Although the Semiconductors Industry invests almost the same amount in R&D every year, they had a Revenue Growth of 19% by year 3, even though year 2 and 4 had a decrease of 15.5% and 7.5% respectively
- Calculating the Standard Deviation for each top investor's Revenue Growth, we can see that Internet Software & Services, Network Equipment, and IT Consulting & Other Services represent the least investment risk with a standard deviation of 2.1%, 2.3%, and 2.6% respectively; while Semiconductors and Computer Hardware have a higher risk with a standard deviation of 14.8% and 10.1% respectively
- Semiconductors, the sub industry with the highest yearly Revenue Growth, has a range (34.6) six times larger than Internet Software & Services (5.1), which has the second highest Revenue Growth. This means it has a very volatile Revenue Growth, which is why it is a risky subindustry



- Semiconductors Industry invests in R&D on average 2.1 times more than the next top investor, and 4 times more than the sixth top investor, with an average of \$24 billion per year
- We cannot identify a relation between R&D investment and Revenue Growth since the top investor, Semiconductors, has a negative average revenue growth after investing almost \$98 billion, while Internet Software & Services has an average Revenue Growth per year of 13% after only investing \$37 billion

