Data Bootcamp Midterm Project Analyzing and Comparing Large Streaming Services

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Abstract - Goals and Idea Evolution

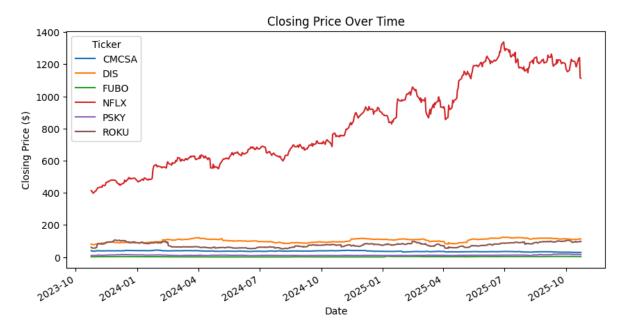
At the impetus of our project, we resolved to focus on information from small streaming services. We intended to use data from the likes of Sling, Tubi, Crunchyroll, and Curiosity Stream. While an interesting concept, this proved to be a dead-end as many of the small services we were interested in were privately owned and therefore lacking public financial data for us to work with. Searching for alternatives, we turned to the obvious successor of our idea: larger-scale streaming services. Household names like Netflix, Hulu, and Peacock are conveniently publicly traded and thus have abundant financial records available through yahoo finance. The only other factor to consider was that many of the services we frequently use are, in fact, owned by each other or under the same parent company as other services, such as Disney owning Disney+ and Hulu, or Comcast owning Peacock. Ultimately, Yahoo Finance was just one of the sources we used to collect a variety of data ranging from financial statements to reviews of the content on said platforms (courtesy of IMDB).

Our primary questions entering data collection and analysis consisted of: Which of the selected streaming services seem to be the most valuable currently (by whichever metrics we choose)? Which services have the best outlook in the coming years (in terms of growth, sustainability)?

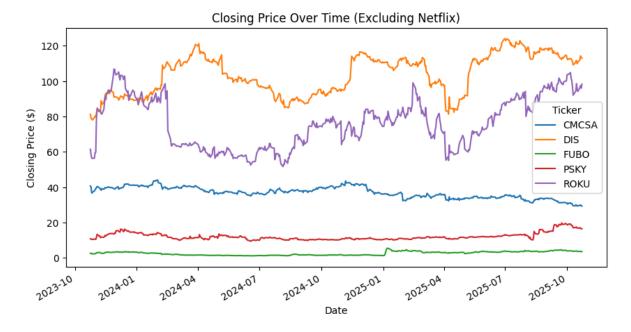
Yahoo Finance and Stock Price Analysis

We began by pulling ticker history from the last two years for Disney (DIS), Fubo, Netflix (NFLX), Roku, Peacock (under Comcast as CMCSA), and Paramount+ (under

Paramount Skydance as PSKY). Using MapPlotLib and Seaborn, we graphed the daily closing stock price for each company over time. Netflix is clearly the forerunner out of all these companies in terms of share price, though it is also by far the most popular service on this list. Where Netflix truly earns its value is in its impressive growth over the time period shown below.

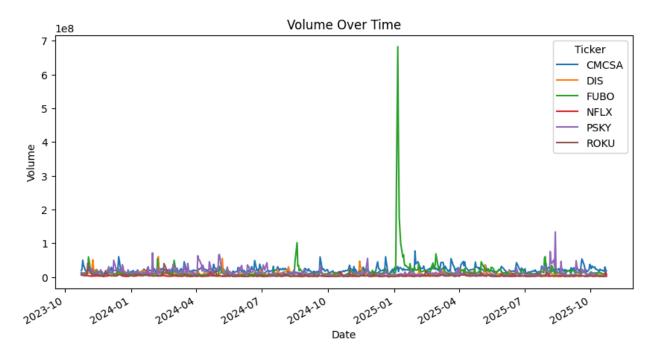


The company grew from a share price of \$400 at the end of 2023 to comfortably over \$1000 as of this month. Comparatively, the other companies saw little growth or even a decline over this time period (Comcast/Peacock for instance). We can get a much clearer view of the other companies by excluding Netflix from the dataset:

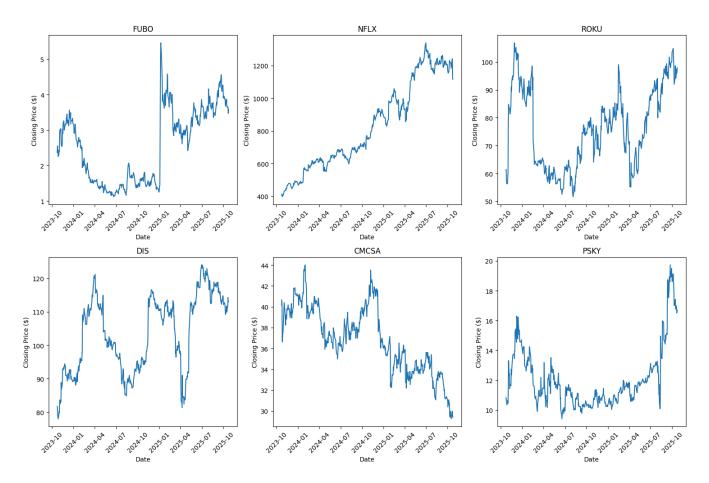


While there is a deal of volatility from Disney and Roku, none of these companies appear to see true changes in share price over the time period. If one were to simply go off of this data, Netflix emerges as the clear victor in current value as well as future prospects as it is the only company listed to see relatively consistent growth over the past two years.

Inspecting the graph of trade volume over time (below) for these companies yields similarly unimpressive results, not giving much information to go off of in terms of value when comparing each company against the others. The only notable aspect of the graph is the huge Fubo spike caused by the company's agreement to a merger with Disney's Hulu



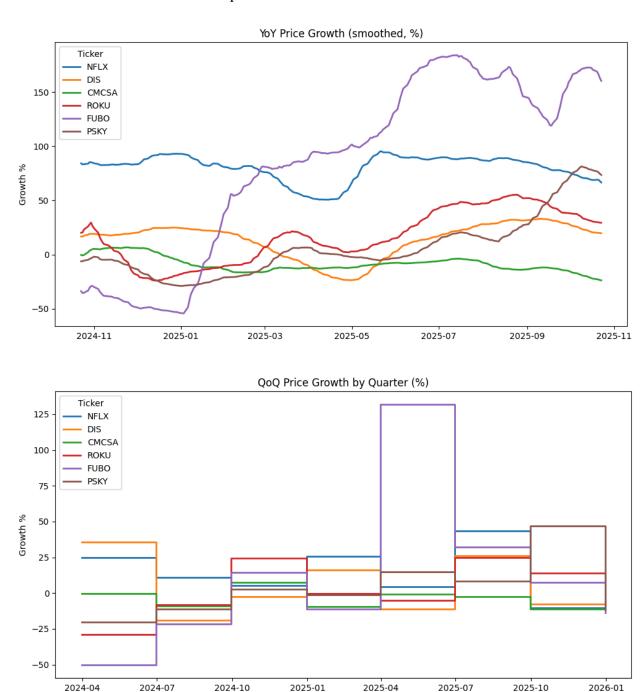
With trade volume seeming to be a dead end in terms of company comparison, we returned to the closing price trends to break them down individually to help truly determine which has the best outlook. This is where individual trends began to emerge far more evidently than in the shared graph. Looking below, one can see that while Netflix undoubtedly retains its title of top growth, Companies like Roku, Paramount Skydance, and Disney all saw growth over the entire time period.



Granted, each of said companies had significant periods of decline in their share prices. Thus, the most promising services consist of Netflix (\$400/share to ~\$1200), Roku (\$60 to \$95), Disney (\$80 to \$112), and Peacock (~\$11 to \$16). Fubo, while seeing small total growth over the past two years, has done quite well over Q2 and Q3 this year since announcing its merger with Disney.

Individual Streaming Service Value Analysis

Netflix shows unmatched consistency in both operational performance and market valuation over our chosen time period.

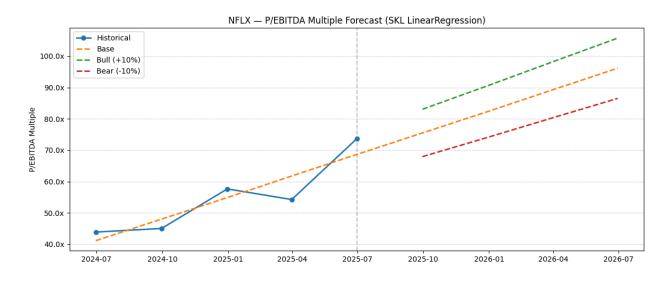


Its year-over-year growth has remained steady at 65-90%, with quarter-over-quarter gains typically 10-40%, showing strong momentum and resilience in a competitive sector. Netflix also leads the group with operating margins of 34.1% and EBITDA margins of 69.7 percent. This shows strong operational efficiency and profitability compared to their

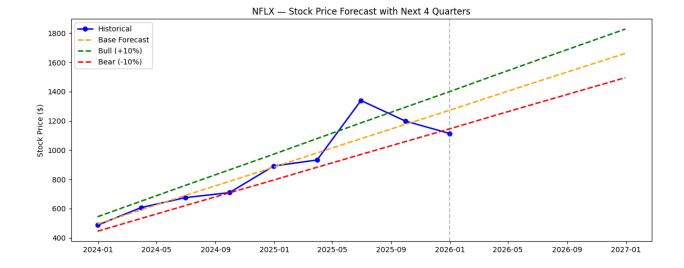
competitors.

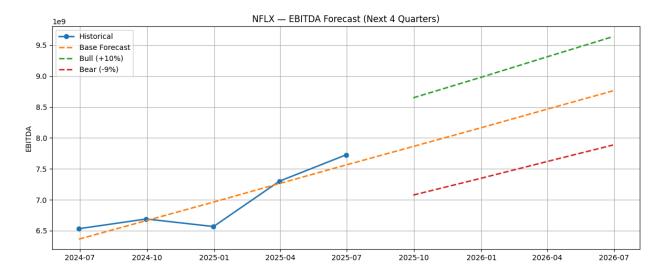
	Revenue (latest)	Gross Margin %	Operating Margin %	Net Margin %	EBITDA Margin %	R&D / Revenue %
NFLX	11,079,166,000	51.930000	34.070000	28.210000	69.740000	7.440000
DIS	23,650,000,000	38.550000	15.410000	22.250000	21.060000	nan
CMCSA	30,313,000,000	75.010000	19.770000	36.690000	65.670000	nan
ROKU	1,111,038,000	44.790000	-2.100000	0.950000	7.850000	16.020000
FUBO	379,968,000	20.450000	-1.580000	-2.110000	2.090000	5.070000
PSKY	6,849,000,000	32.490000	10.760000	0.830000	6.990000	nan

Investors have rewarded this strength with premium valuation multiples, as its P/EBITDA ratio expands from roughly $40 \times$ in 2024 to $75 \times$ in 2025, with the forecast below suggesting it could climb beyond $100 \times$ in bull scenarios.

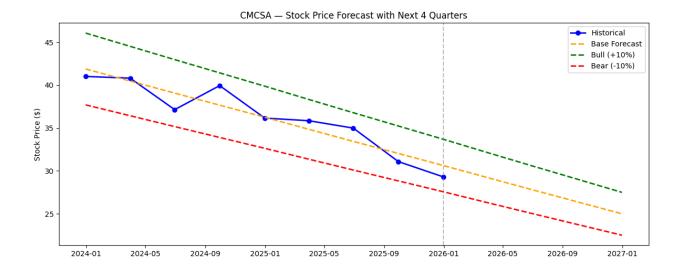


These fundamentals are further reinforced by projections showing its stock price rising from \$450 to approximately \$1,600 by 2027, driven by EBITDA growth from \$6.3 billion to \$8.8 billion. (See Below)

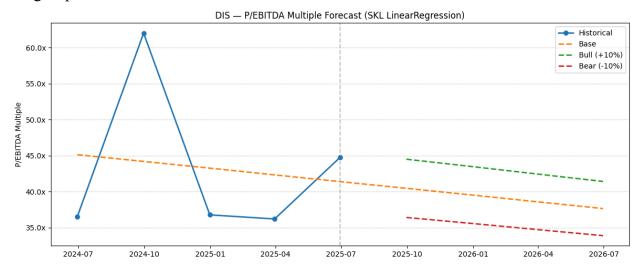




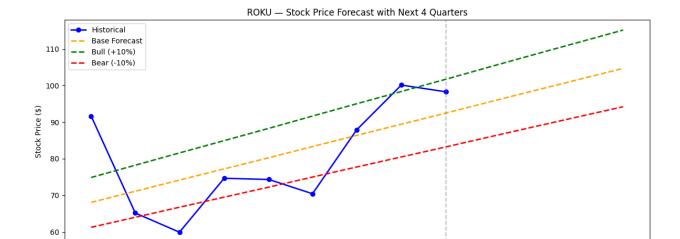
In contrast, Comcast, though not a growth leader, demonstrates substantial current value. With a 75% gross margin and a 36.7% net margin, Comcast shows impressive pricing power and operational efficiency. However, its stock performance is flat to declining. This is likely due to market skepticism and a disconnect between profitability and investor sentiment.



In the middle of our rank, Disney shows a moderate, stable growth with a gross margin of 38.6 percent and an operating margin of 15.4 percent. While its valuation multiple has compressed slightly, it remains reliable overall, making it a steady but slower grower in the group.



In contrast, Roku and Fubo represent more speculative, high-beta opportunities in this group. Roku is emerging from a drawdown phase, with its base case forecasting a rebound to around \$110 per share.



This rebound is backed by steady revenue expansion and a focus on innovation, as evidenced by its sector-leading R&D-to-revenue ratio of 16 percent.

2025-05

2025-09

2026-05

2026-01

2026-09

2027-01

Similarly, Fubo also experienced a sharp collapse in 2024, but the data suggest strong growth this year. Its YoY growth surged to 170% in 2025. This is likely driven by strategic catalysts such as new marketing partnerships with MLB teams, exclusive streaming rights for European League of Football, and Premier League rights in Canada. Its quarter-over-quarter spike of +130% in Q2 2025 signals renewed investor confidence. Still, the company is highly dependent on future successful execution to sustain this momentum.

Paramount Skydance shows similar behavior, rallying in late 2025 with an 80% YoY surge and moderate multiple expansion. However, akin to Fubo, it still operates in a lower-margin, growth-heavy phase.

IMDb Ratings by Streaming Service

2024-05

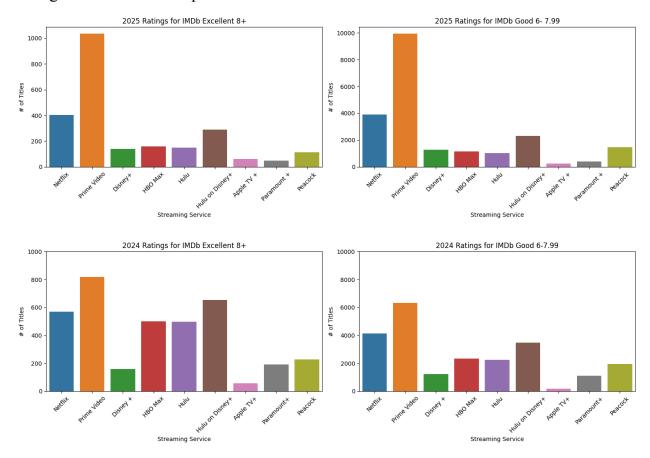
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2024-09

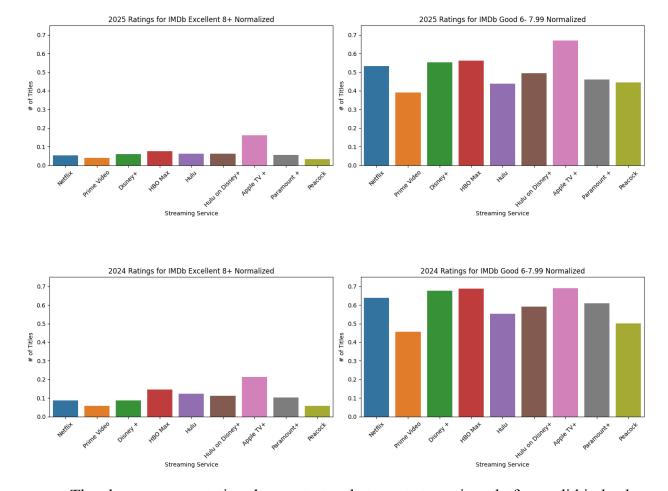
2025-01

A metric we suspected might be overlooked is the actual content of the streaming service platforms and we asked whether or not there was a difference between streaming services in terms of the quality and quantity of content to be found on their platforms. Despite the difference in content of this data compared to the Yahoo Finance data above, we still see an overlap with Netflix, Disney, and Paramount. We can use this overlap to compare with other major streaming platforms. The selection of shows and movies of each streaming service can be split by their IMDb rating ranging from 'poor' (less than 4), 'ok' (4-5.99), 'good' (6-7.99), and 'excellent' (more than 8); for our purposes we will

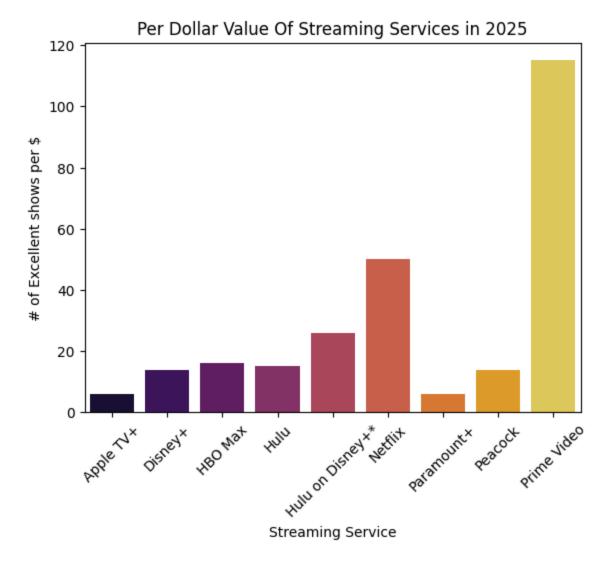
be considering the selection of 'good' and 'excellent' content available across the platforms. We believe it is important to note that all content in the data is available through their base subscriptions.



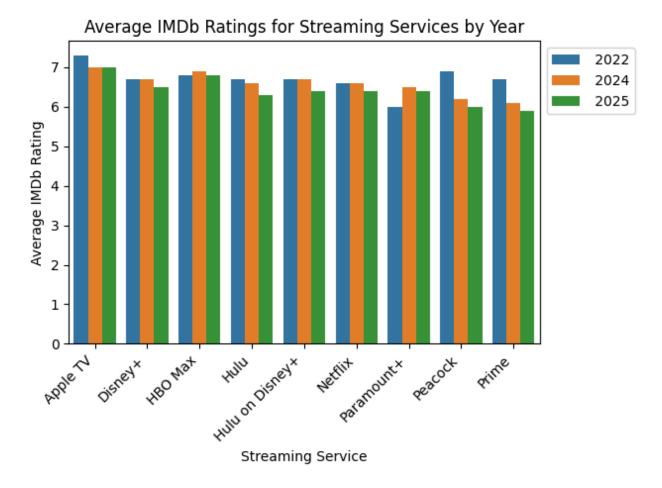
For our three primary platforms that we are analyzing through this website (Netflix, Disney, and Paramount) and almost all other streaming platforms shown, the selection of content rated 'excellent' and 'good' generally decreased from 2024 to 2025. However, Prime Video significantly increased their selection of content rated highly which could feasibly be a result of their acquisition of more content over the time period. Another lens through which to compare platforms is the proportion of content considered high-quality. For example, Netflix and Prime Video clearly have more titles of high quality, but perhaps this increased metric is accompanied by more filler/'junk' content that may detract from the value of the subscription to a consumer.



The above representation demonstrates that most streaming platforms did indeed dilute their content from 2024 to 2025 with a decreasing proportion of content being rated 'excellent' or 'good' over the two years. This is possibly a signal of these streaming platforms pivoting towards more low-quality content for their subscriptions in order to simply produce more tvs and movies. This is likely a result of cost-saving practices as higher-quality content is typically more expensive to add to a company's catalogue. However, a majority of their content is still rated at least 'good' so the trend of poor content selection is likely a non-issue. Based on the data above, our chosen streaming services have relatively similar distributions of quality, signifying that quantity of shows and movies is a significantly larger differentiator for these platforms.



This differentiator is exemplified by the per dollar value of each streaming service with Netflix having the highest number of shows per dollar spent on the subscription; this directly correlates to Netflix having the highest number of shows with 'excellent' ratings compared to Paramount+ or Disney+.



The above plot is another representation of how these streaming services are diluting the quality of their content as services (except Paramount+ and HBO max) see a decrease in quality over 2022 to 2025 (2023 data unavailable). Notably, this change does not seem to correlate with trends in these companies' stocks or financial data. We can conclude that changes in content quality are spread throughout the industry and thus, said changes likely have minimal impact on financial metrics or stock performance of any specific platform.

Conclusion

Through all of our analysis, Netflix reigns supreme in our determined valuation. The company has performed the best out of all those we observed and has the best future outlook with minimal decrease in content quality. One notable omission to note here is Prime Video. While standing on par with Netflix, we were unable to find financial data pertaining specifically to the streaming service as Amazon has it under its vast umbrella

of income sources. We believe that Netflix outperformed all other streaming services in growth over the last two years and has an unequaled outlook in the coming years.					
Data gathered from <u>Yahoo Finance</u> and <u>Self.inc</u>					