

Data Handling & Visualization

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A report on Netflix Stock Analysis

By
Awais Mumtaz ul Haq
ID: 23096809

Introduction

This report provides a comprehensive analysis of Netflix stock data from January 2010 to November 2024. The dataset includes vital metrics like Adjusted Closing Price, Trading Volume, High, Low, and Opening Prices. The analysis is supported by statistical summaries, visualizations, and insights aimed at understanding stock trends and investor behaviors. The report is structured to include key plots, detailed explanations, and actionable insights for investors.

Dataset Overview

The dataset comprises 3,735 records of Netflix stock data. After cleaning, all missing values were addressed, making the dataset complete and ready for analysis. Key metrics such as Adjusted Closing Price, Volume, and year-wise summaries provide the basis for this analysis.

Statistical Summary

Metric	Adj_Close	Close	High	Low	Open	Volume
Count	3735	3735	3735	3735	3735	3.735
Mean	227.18	227.18	230.51	223.69	227.14	1.67
Std	202.47	202.47	205.11	199.77	202.50	1.97
Min	7.02	7.02	7.18	6.93	6.96	1.14
Max	772.07	772.07	773.00	761.11	765.76	3.15

Visualizations and Explanations

1. Netflix Adjusted Closing Price Over Time

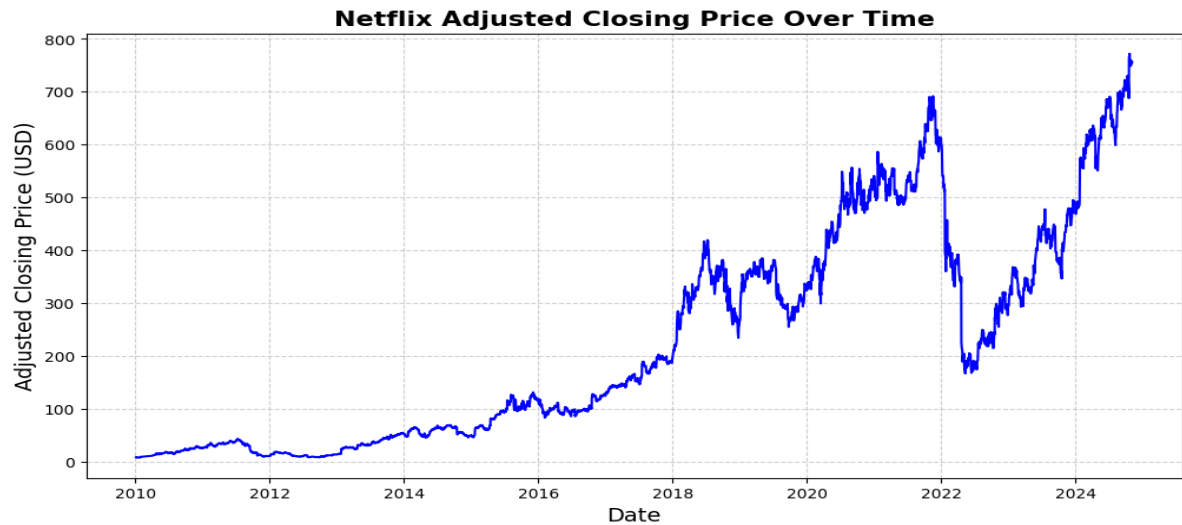


Figure 1 This line plot shows the adjusted closing price of Netflix stock over time from 2010 to 2024.

Explanation: The line plot highlights Netflix's overall growth trajectory in the stock market. From 2010 onwards, Netflix's stock price shows a sharp upward trend, especially after 2015, reflecting the company's growth in the streaming market. There are minor dips, such as the noticeable decline in 2022, likely due to market corrections or external factors. This plot underscores the steady long-term growth of Netflix's stock value, which makes it an appealing option for long-term investors.

2. Average Adjusted Closing Price by Year

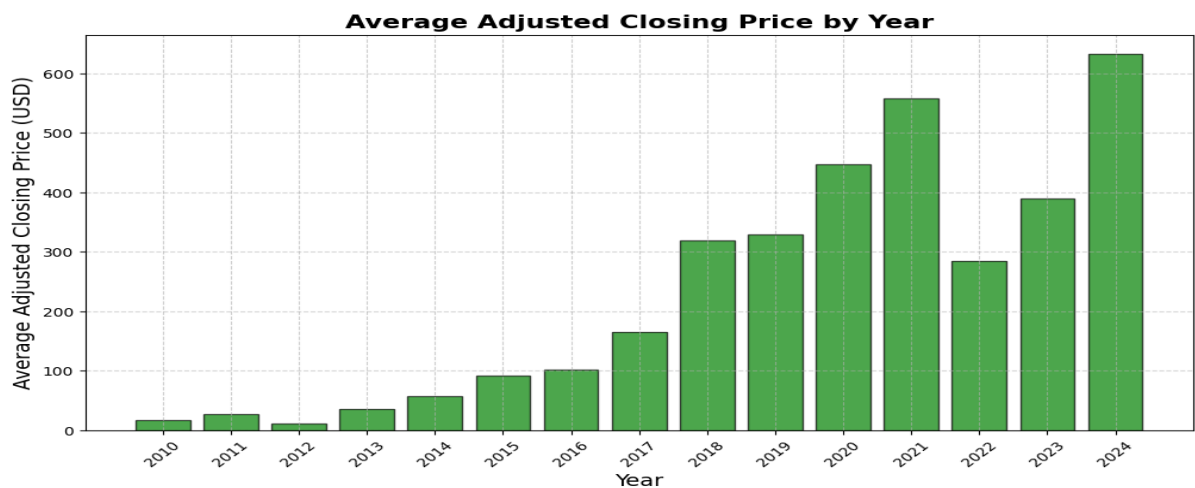


Figure 2 A bar chart presenting the yearly average adjusted closing price of Netflix stock from 2010 to 2024.

Explanation: This bar chart visually conveys the consistent growth of Netflix's yearly average adjusted closing prices. Starting with relatively modest prices in the early 2010s, the average prices surge significantly in the subsequent years, with a peak in 2024. This highlights Netflix's increasing market value and investors' confidence in its long-term growth strategy. The stock has become more valuable as Netflix established itself as a leader in the streaming industry.

3. Distribution of Adjusted Closing Prices

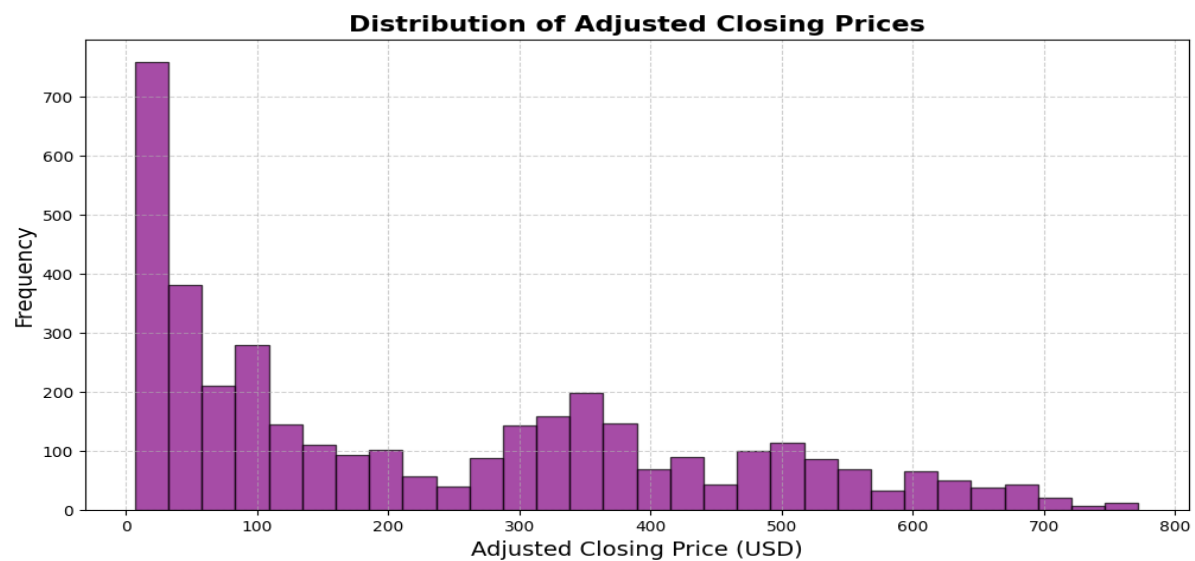


Figure 3 A histogram showing the distribution of adjusted closing prices for Netflix stock.

Explanation: The histogram demonstrates that a majority of Netflix's adjusted closing prices fall within the lower range (under \$200), with a noticeable frequency of prices around \$50–\$100. The long tail of the histogram reflects some higher price values, reaching up to \$772. This distribution suggests that while Netflix's stock price has historically been affordable, its rise over time has created significant value for investors who held it long-term.

4. Volume vs. Closing Price

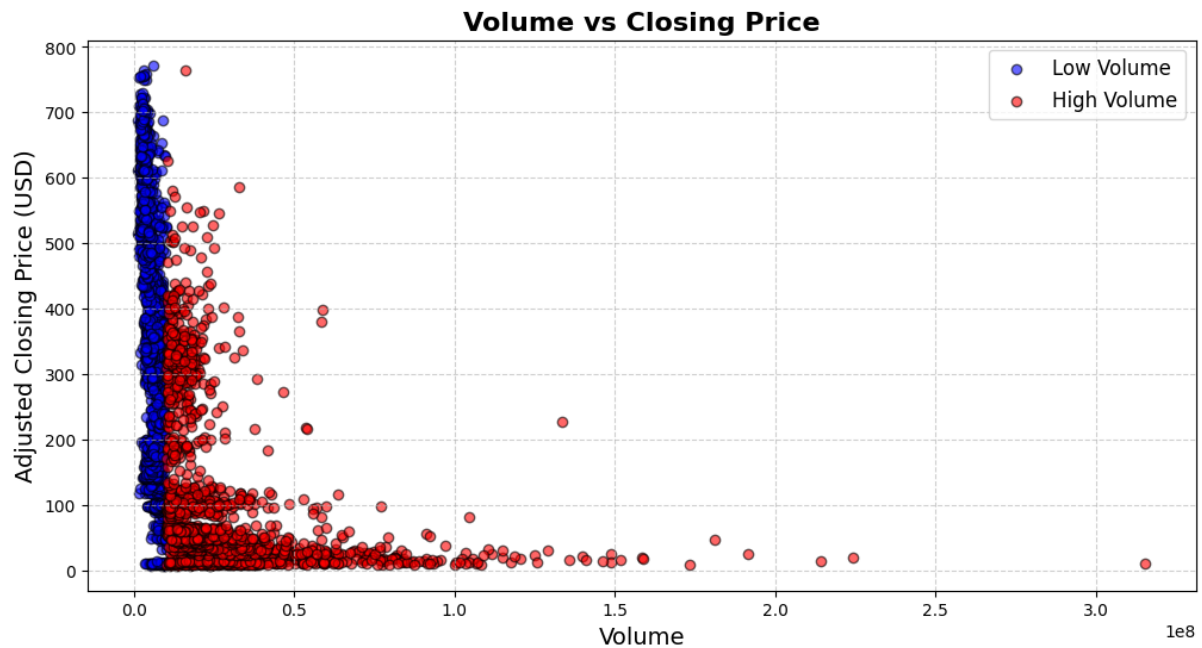


Figure 4 Scatter plot showing the relationship between trading volume and adjusted closing price.

Explanation: This scatter plot explores the relationship between trading volume and the adjusted closing price of Netflix stock. Two colors differentiate low-volume (blue) and high-volume (red) trades. The plot reveals a clustering of trades at lower volumes and prices, with a few higher prices associated with moderate volumes. This pattern suggests that while most trading activity occurs at lower price points, significant price changes are not always linked to large trading volumes.

Insights

1. **Upward Growth:** Netflix's adjusted closing price has steadily increased over the years, reflecting investor confidence and the company's strong performance.
2. **Yearly Performance:** The bar chart emphasizes Netflix's consistent growth, especially from 2015 onwards, marking its dominance in the streaming sector.
3. **Price Distribution:** The histogram highlights the stock's accessibility in its earlier years and its subsequent growth into a high-value stock.
4. **Volume-Price Relationship:** The scatter plot suggests that while price increases are not always volume-driven, most trades occur at lower price and volume levels.

Conclusion

This analysis provides a comprehensive overview of Netflix's stock behavior over the years. The upward trend in prices, coupled with increased yearly averages, suggests strong investor confidence. Distribution and volume-price analyses provide insights into trading patterns, making this report a valuable resource for both current and prospective investors.