

MSFT - Financial Analysis Report.

Cumm Returns & Drawdown Analysis for Microsoft Corporation

Date Period: From 08-12-2021 to 08-11-2025.

Industry: Software - Infrastructure.

MarketCap: 3933.93 Bn.

Executive Summary:

This report presents a detailed analysis of a financial asset's performance using Python and data science libraries such as Pandas and Matplotlib. Cumulative return was calculated to visualize the investment's historical growth, as well as the maximum cumulative return achieved over the period. Additionally, the asset's downside risk was analyzed using maximum drawdown, a critical metric that measures the largest percentage loss from a peak. The results provide a clear assessment of investment profitability and risk, demonstrating my ability to use quantitative analysis tools and communicate complex findings concisely..

Tools: Python Libraries: Pandas, Matplotlib, Seaborn, FPDF, Yfinance, Datetime.

Report Date: 08-12-2025.

Accumulated Return & Drawdown Analysis

Accumulated Return - Interpretation

Cumulative return is a key metric that represents the total performance of a financial asset over a period of time. It is calculated by multiplying daily (or periodic) returns sequentially.

The cumulative return value tells you how much an initial investment, say \$1, would have grown (or decreased) over a given period. This is the value that truly matters to an investor.

$$\text{Accumulated Return}(1\$) = 1.83$$

Drawdown - Interpretation

Drawdown is a measure of the risk of loss that a financial asset or investment portfolio has experienced since its peak. It represents the decline in the value of an investment from its highest point to its lowest point before it recovers to reach a new high.

Drawdown - Key Points

Loss since peak: This is the percentage loss you would suffer if you bought the asset at its peak. A 20% drawdown means your investment has lost 20% of its value since its last peak.

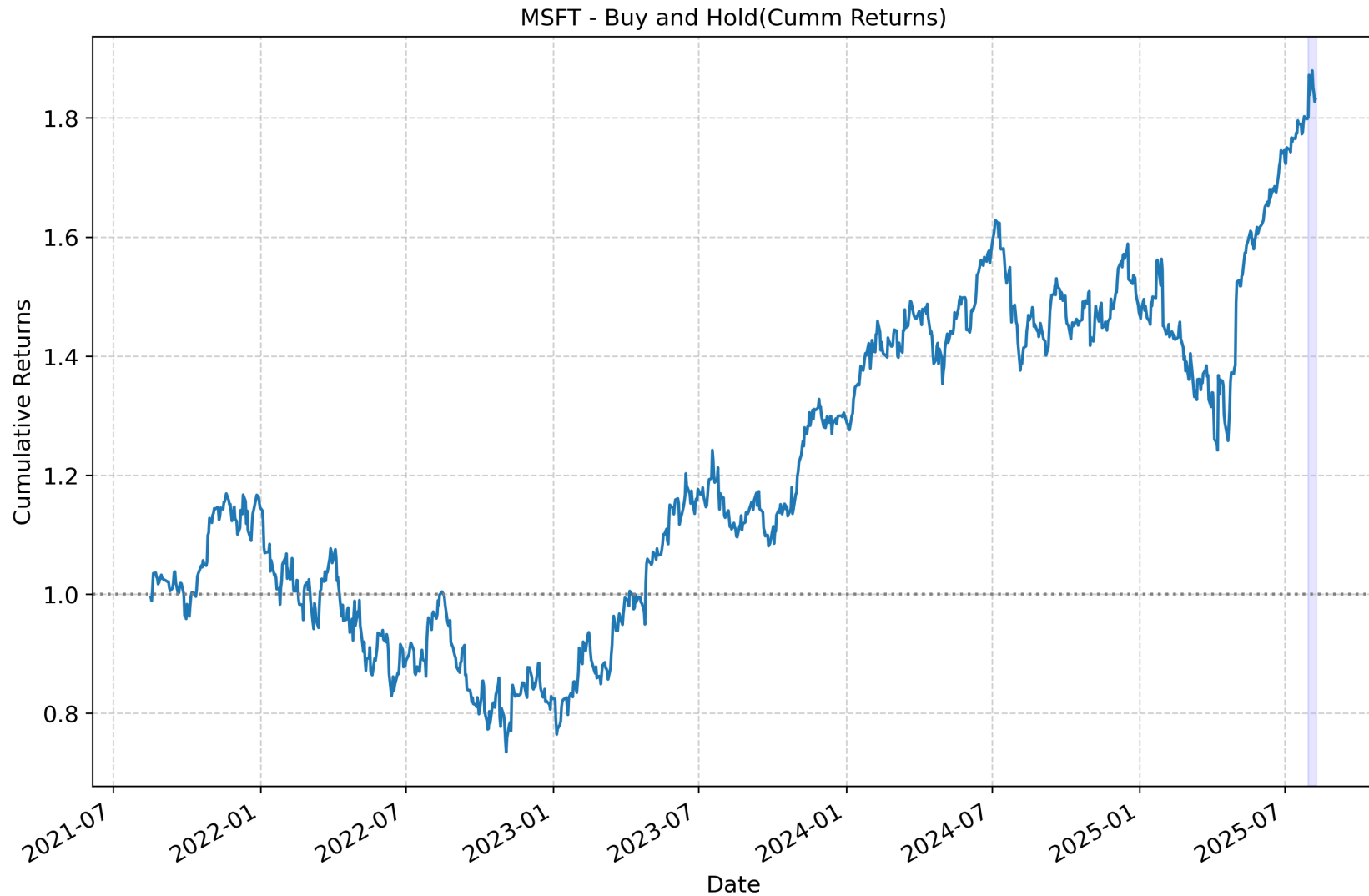
Maximum drawdown: This is the most important metric and represents the largest percentage loss an investment has experienced over a specific period. For example, if a stock's maximum drawdown was 50% in a year, it means that at some point, the asset lost half of its value before recovering.

$$\text{Maximum Drawdown \%} = 0.37 + = 37.0\%$$

Drawdown Duration: Measures how long it takes to recover losses and return to the previous peak. A drawdown can last days, months, or even years.

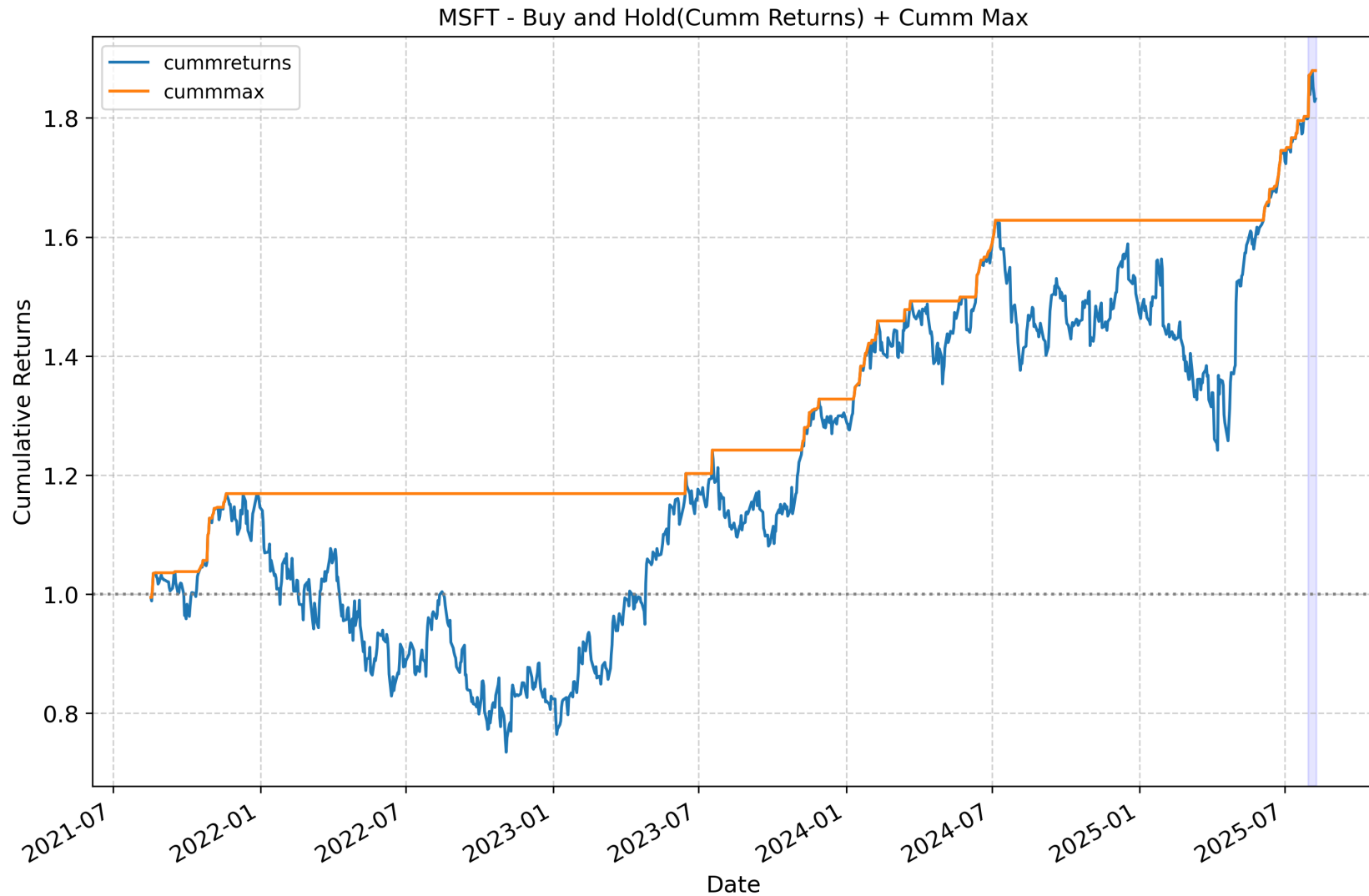
$$\text{Maximum Drawdown Duration} = 393 \text{ days.}$$

Graphic Analysis



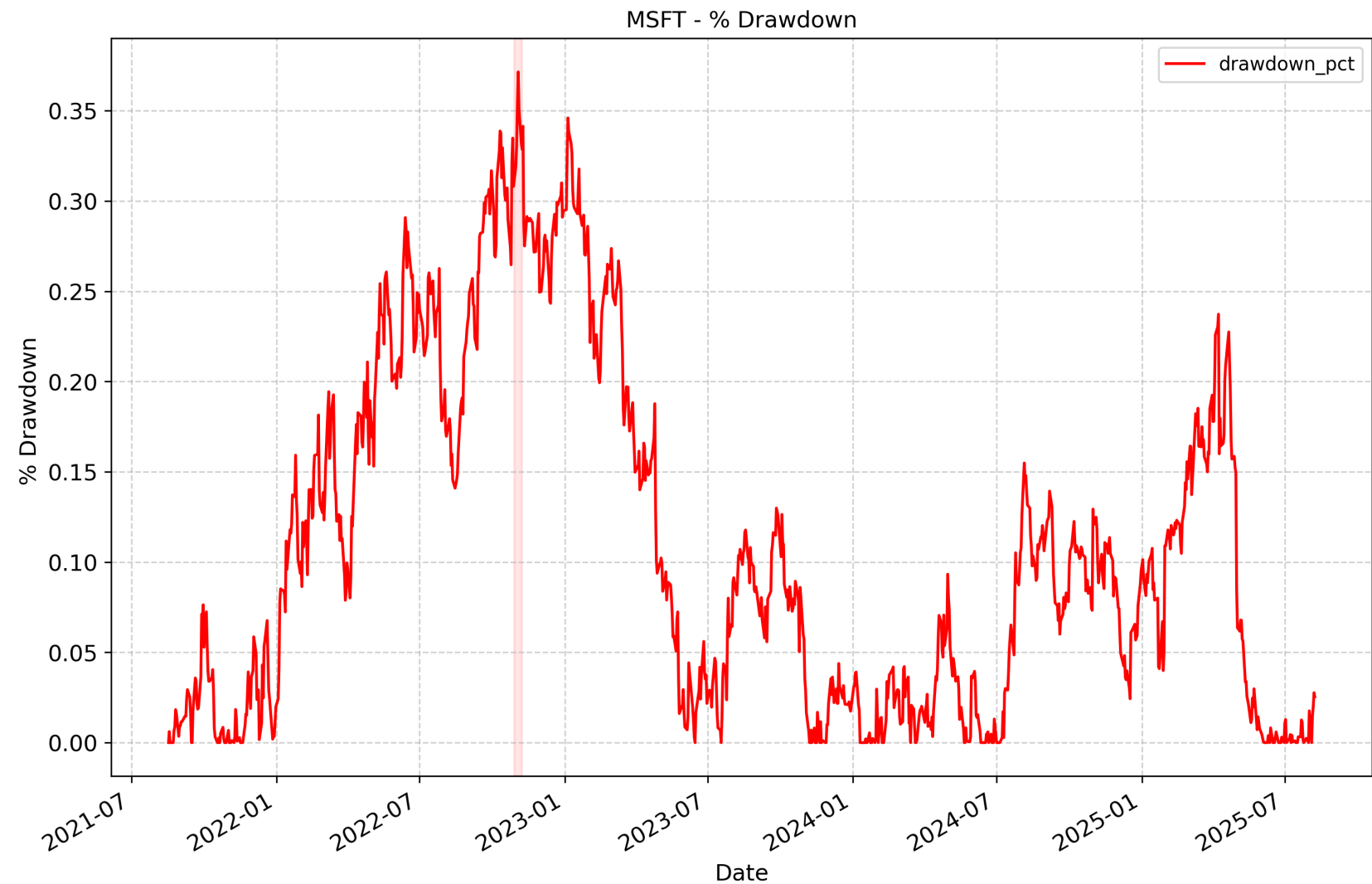
Graph Interpretation: Explain what the chart shows. It allows you to visualize the growth or loss of an initial capital (for example, \$100) and is one of the most intuitive tools to understand the performance of an asset..

Graphic Analysis



Graph Interpretation: Explain what the chart shows. A curve with sharp peaks and valleys indicates high volatility. Drawdowns (drops from a peak) are clearly visible as declines on the chart, allowing you to identify periods of greatest losses and how long it took the investment to recover..

Graphic Analysis



Graph Interpretation: Explain what the chart shows. A curve with sharp peaks and valleys indicates high volatility. Drawdowns (drops from a peak) are clearly visible as declines on the chart, allowing you to identify periods of greatest losses and how long it took the investment to recover..