

Stock Market Analysis Dashboard – Report

1. Executive Summary

This report presents an analytical stock market dashboard created in **Tableau** to study the performance of four major technology companies: **Apple (AAPL)**, **Google (GOOG)**, **Microsoft (MSFT)**, and **Netflix (NFLX)**.

The dashboard consolidates **price movement**, **volatility**, **trading activity**, and **volume trends** into a single view to help **investors**, **analysts**, and **stakeholders** assess risk, detect momentum, and support investment decisions.

2. Objective

- Provide a **data-driven, interactive dashboard** for stock performance analysis.
 - Enable quick comparisons of **price**, **volume**, and **volatility** across companies.
 - Assist in detecting **market momentum** through moving averages and trends.
 - Deliver **business insights** to guide portfolio management.
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3. Dataset & Tools

- **Dataset**

The dataset includes historical stock price data with the following columns:

- Ticker (AAPL, MSFT, NFLX, GOOGL)
- Date
- Open, High, Low, Close, Adj Close
- Volume

Additional calculated columns include:

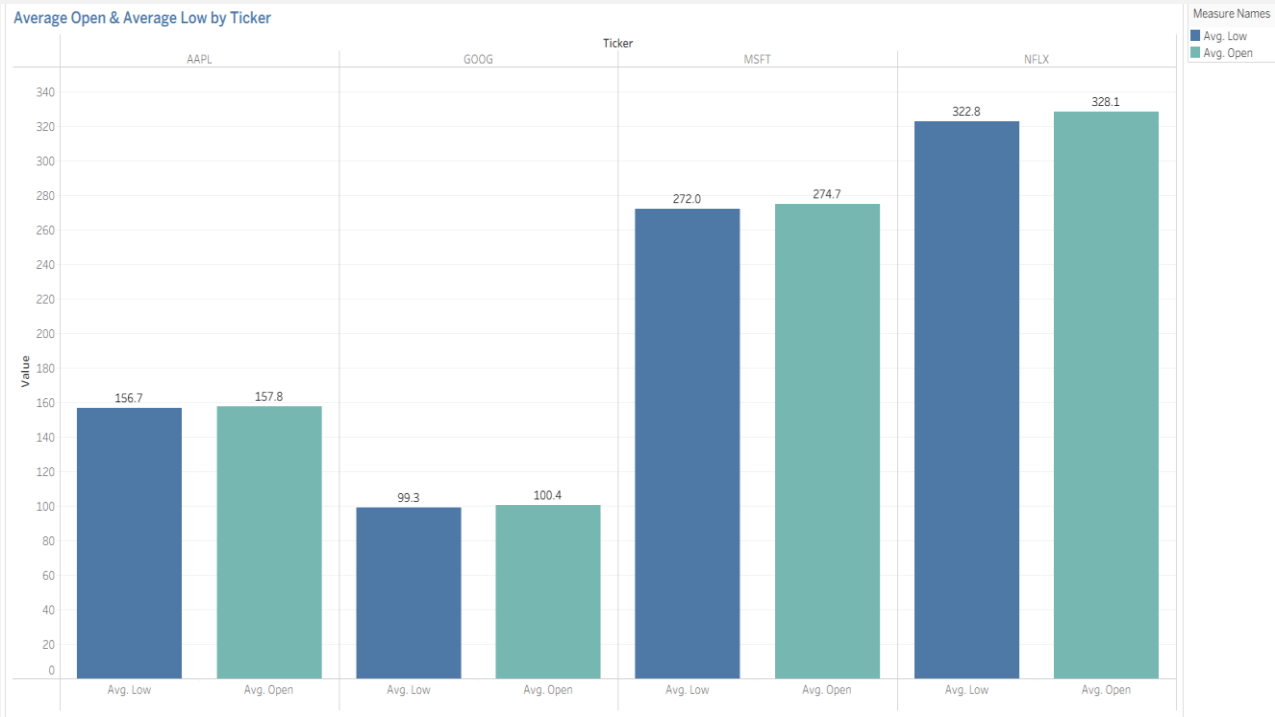
- Daily Return (%)
- 7-Day & 30-Day Moving Averages
- 7-Day Volatility
- Cumulative Return
- High-Low % (Intraday Volatility)

- **Tool:** Tableau Public for data visualization.
 - **Optional Tools:** Excel for preprocessing and statistical calculations.
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4. Dashboard Components

4.1 Average Open & Low by Ticker

- **Purpose:** Compare baseline price levels across stocks.
- **Insight:** MSFT and NFLX have higher average prices, while GOOG is lowest.



4.2 Key Metrics (KPI Cards)

- **Avg Volatility (%):** Risk indicator.

Avg Volatility (%)			
AAPL	GOOG	MSFT	NFLX
0.013396	0.017825	0.017232	0.021040

- **Avg Close Price:** Benchmark stock value.

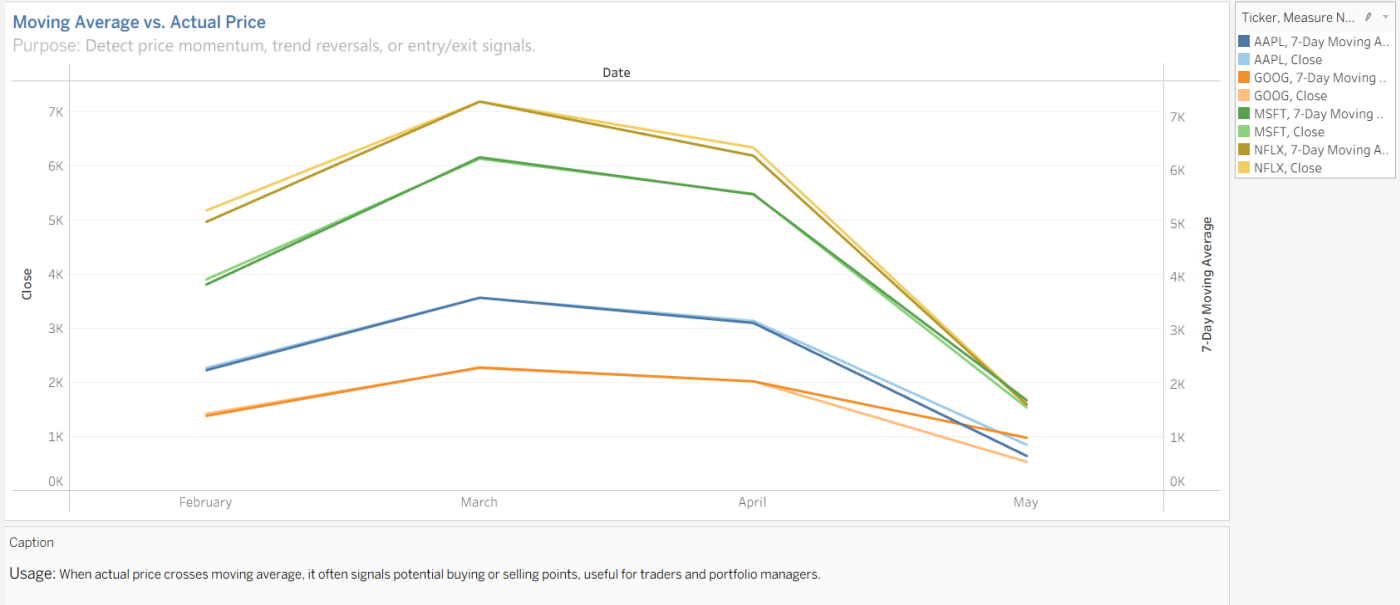
Avg Close Price			
AAPL	GOOG	MSFT	NFLX
158.2	100.6	275.0	327.6

- **Avg Daily Return (%):** Profitability measure.

Avg Daily Return (%)			
AAPL	GOOG	MSFT	NFLX
0.001991	-0.000067	0.002606	-0.001676

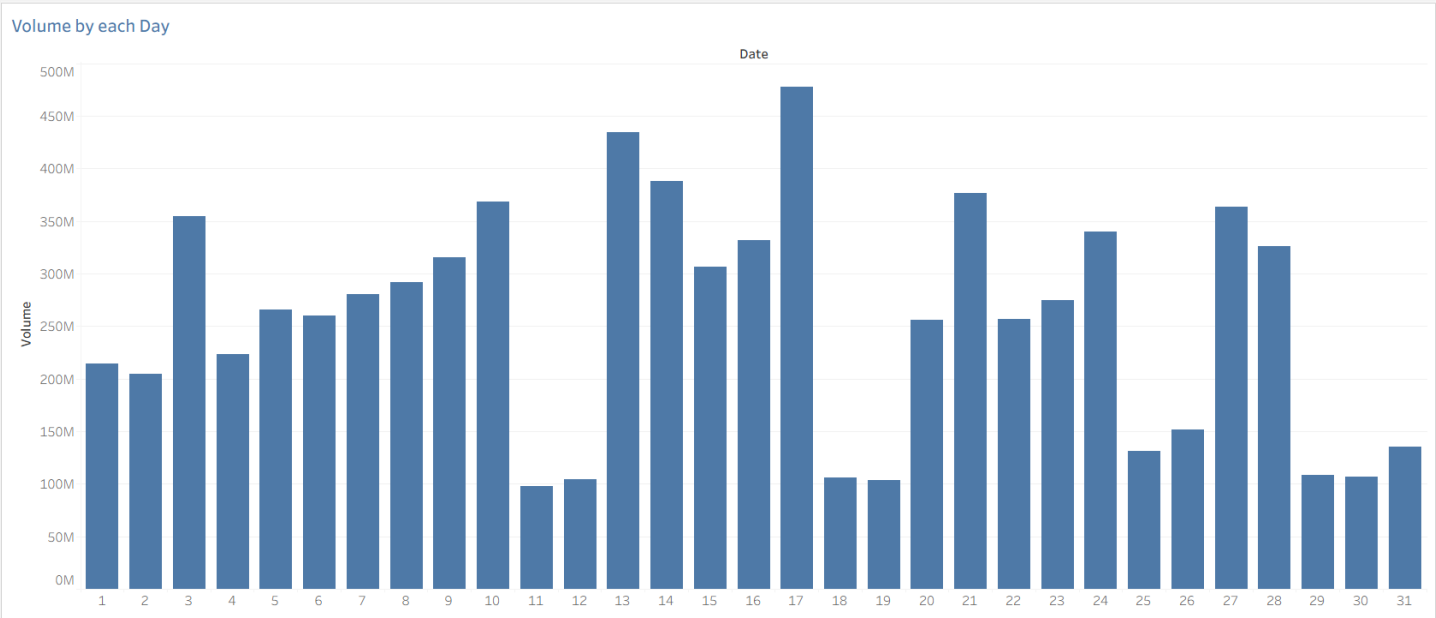
4.3 Moving Average vs. Actual Price

- **Purpose:** Detect momentum, reversals, and entry/exit signals.
- **Insight:** Price trends align with moving averages, showing trend stability.



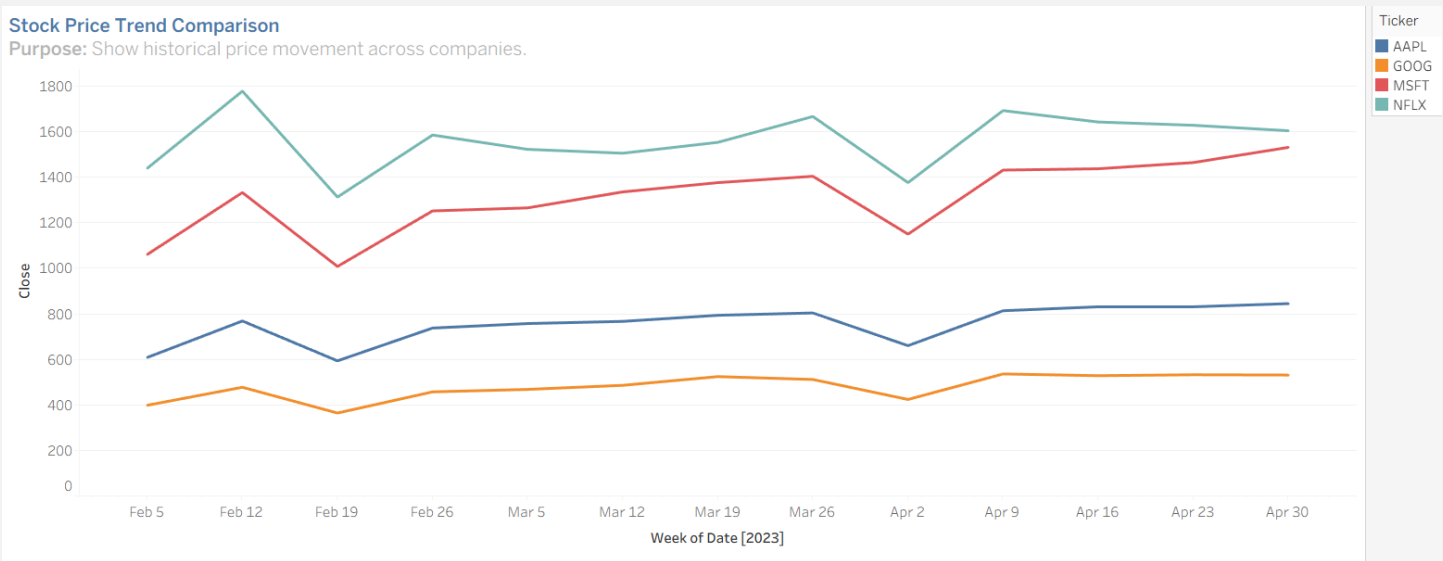
4.4 Volume by Each Day

- **Purpose:** Measure market participation.
- **Insight:** Spikes in trading volume align with price volatility, showing investor reactions.



4.5 Stock Price Trend Comparison

- **Purpose:** Historical movement comparison across companies.
- **Insight:** NFLX shows highest fluctuations, MSFT appears stable.

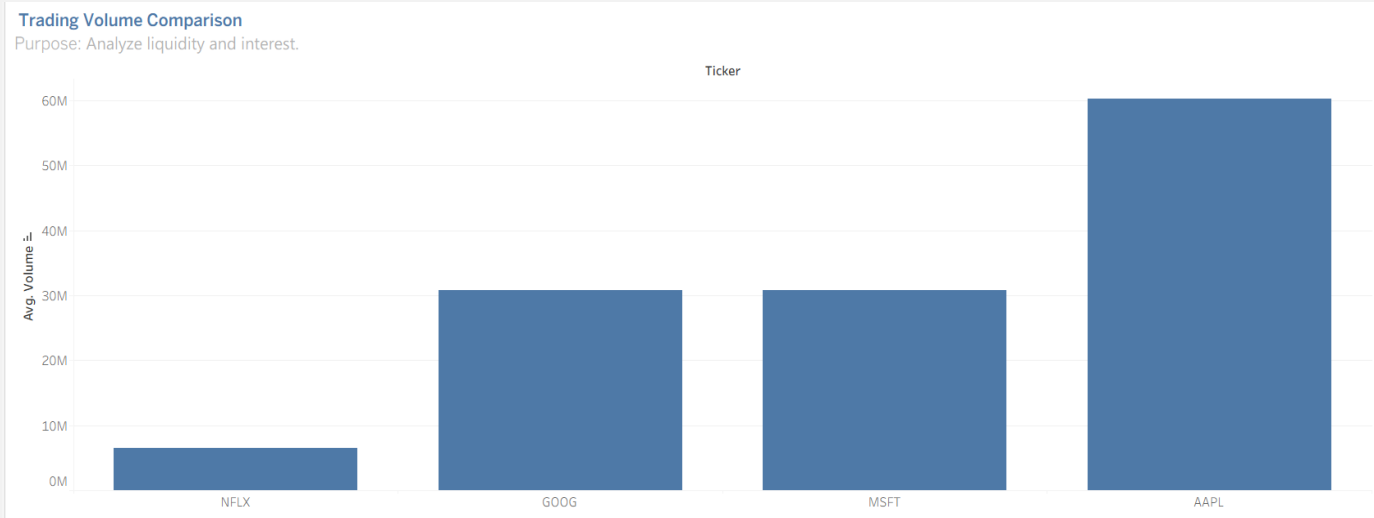


Caption

Usage: Identify which stocks are trending upwards/downwards over time, spot cycles, and plan investment timing.

4.6 Trading Volume Comparison

- **Purpose:** Compare liquidity and investor interest.
- **Insight:** AAPL dominates in average trading volume.

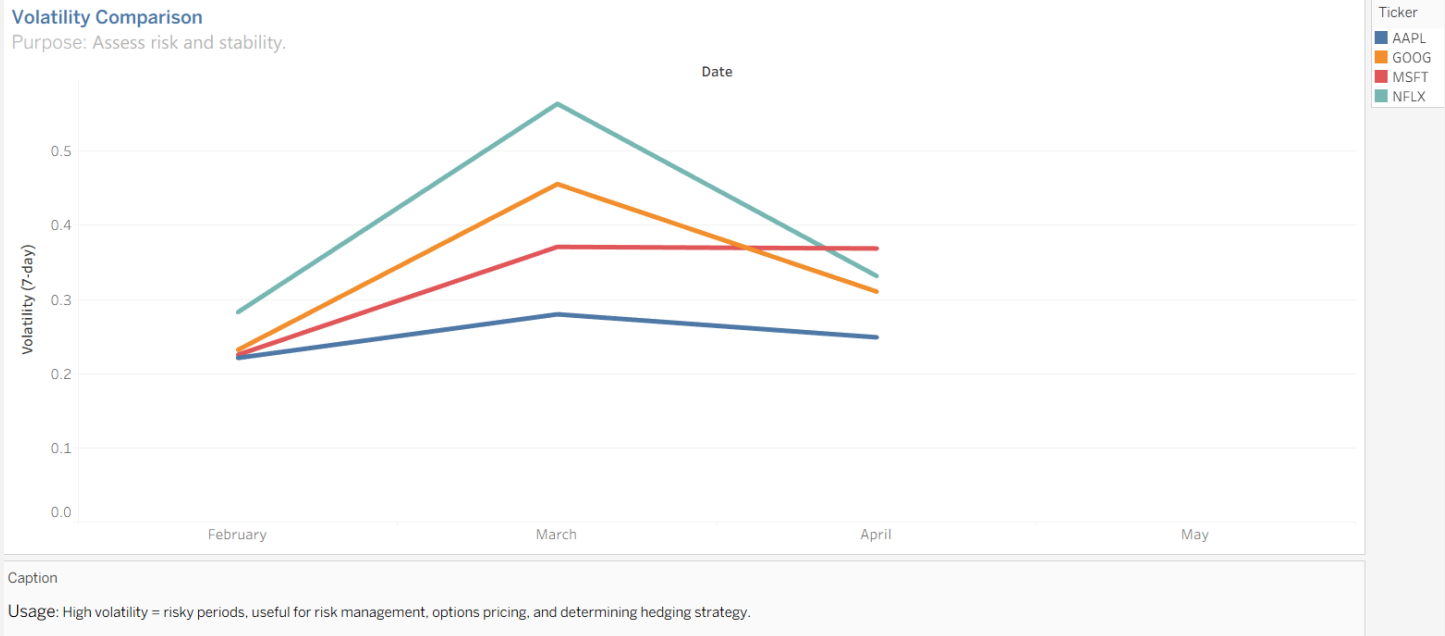


Caption

Usage: High volume often indicates investor activity around news, earnings, or major events, important for market strategy.

4.7 Volatility Comparison

- **Purpose:** Assess risk and stability.
- **Insight:** NFLX is most volatile, MSFT is least volatile.



5. Key Insights

- **Apple (AAPL):** High liquidity but high volatility → favored by traders.
- **Microsoft (MSFT):** Lower volatility, steady performance → attractive for long-term investors.
- **Google (GOOG):** Balanced risk-return profile.
- **Netflix (NFLX):** Highly volatile, short-term opportunities but riskier.

6. Business Value

This analysis helps:

- **Investors:** Understand risk-return tradeoffs before making decisions.
- **Financial Analysts:** Detect price momentum and volatility patterns.
- **Decision Makers:** Develop data-driven portfolio strategies.

7. Recommendations

- Diversify holdings across **stable (MSFT)** and **volatile (NFLX)** stocks.

- Monitor **trading volume spikes** as they often signal upcoming price changes.
- Use **moving averages** for entry/exit decisions in active trading.