

**Title:** TSMC Stock Price Dataset

**Source:** Publicly available stock price data

**Time Period:** Q1 2025 (January 1 – April 15, 2025)

**Key Variables:**

- Date
- Open price
- Close price
- High price
- Low price
- Volume

## **Design Concepts**

This project aims to visualize the stock price trends of TSMC during the first quarter of 2025 (1/1–4/15) using Tableau, providing clear insights into market movements.

**Main visualization components:**

### **Candlestick Chart:**

Displays daily open, close, high, and low prices to capture price volatility and help identify bullish or bearish patterns.

Users can switch between different time frames (7, 30, 60, 90, 180, and 365 days).

### **Volume Bar Chart:**

Shows daily trading volume, helping to analyze market activity intensity.

Time frame adjustable from 1 to 365 days.

### **Line Charts (Close, High, and Low Prices):**

Track price trends for better understanding of short- and mid-term fluctuations.

Switchable views for 7, 30, and 90-day ranges.

All charts are synchronized through parameter and filter actions, providing a dynamic and interactive user experience.

### **Highlight Function:**

For example, hovering over the Volume chart highlights the same date in both the candlestick and line charts.

## **Insights**

In early April 2025, TSMC's stock experienced a notable decline, likely influenced by uncertainty around international trade or tariff policy.

During the drop, trading volume increased significantly, indicating potential sell-off pressure in the market.

From a longer-term (90-day) perspective, the stock price remained within a relatively stable range.

## **Conclusion**

This dashboard integrates multiple types of visualizations and interactive features, enabling users to quickly explore and understand TSMC stock trends across different timeframes.