Fractal Volatility Index for TSLA : 0.452. Market Wide FVI:0.478
(0 - 0.33: Stable, 0.33 - 0.66: Moderate Volatility, 0.66 - 1: High Volatility)

Red: High Risk FVI zone,Orange: Medium Risk FVI zone, Green: Low Risk FVI zone

Verv Stock Analysis Report: Tesla Inc TSLA FVI 0.452

Analysis Period: 2021-08-13 to 2026-08-13

The Fractal Volatility Index (FVI) is scaled between 0 and 1 reflecting the stock's overall volatility. A higher score indicates greater unpredictability and market instability.

Unlike traditional volatility indicators like VIX or Beta, FVI does not track short-term fluctuations—it detects hidden instability before it manifests in price swings.
FVI is a composite score that incorporates Lyapunov Exponent, Hurst Exponent, and Detrended Fluctuation Analysis (DFA).

Breakout Probability

Breakout Probability Score (BPS): -1.269
Breakout Probability Score (BPS) quantifies price momentum likelihood: BPS > 1.5 suggests high breakout potential, while BPS < 0.5 indicates consolidation.
(BPS > 1.5 High breakout potential - Strong momentum, watch for confirmation.)
(BPS 0.5 - 1.5 Moderate breakout likelihood - Possible move, monitor closely.)
(BPS < 0.5 Low breakout probability - Likely consolidation or range-bound.)
Request ID: FVI
Account ID: WeeklyReport

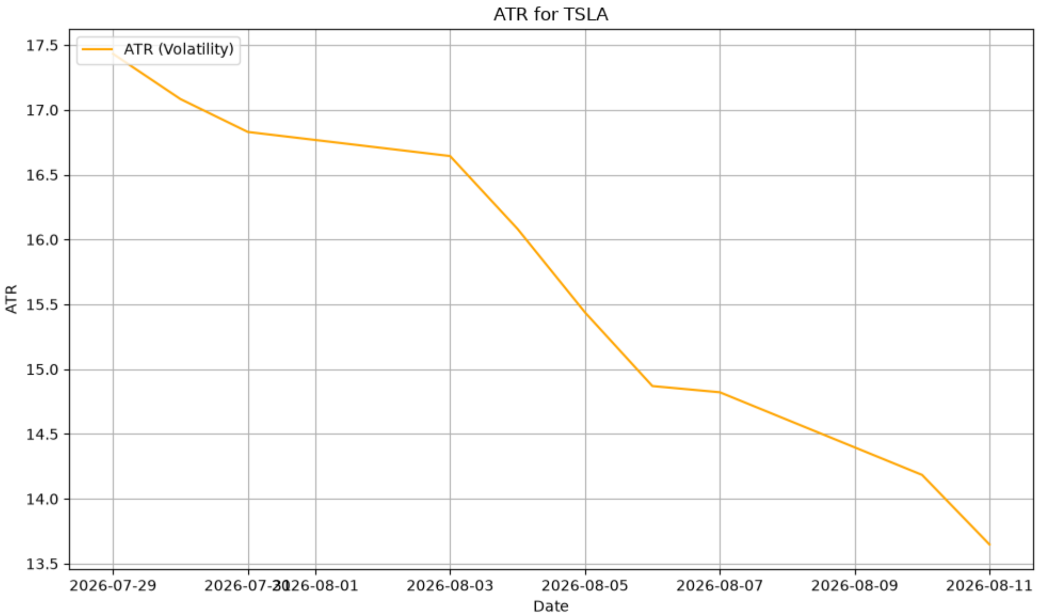
Fractal & Statistical Analysis

FVI Score: 0.452 (Fractal Volatility Index FVI)
DFA Result: 0.5263 (Detrended Fluctuation Analysis)
Lyapunov Exponent: 0.0150 (Measures chaos and predictability)
Hurst Exponent: 0.5448 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 332.81 is within the Bollinger Bands range (275.66 - 398.28).
Latest ATR: 13.6478

Average True Range (ATR)

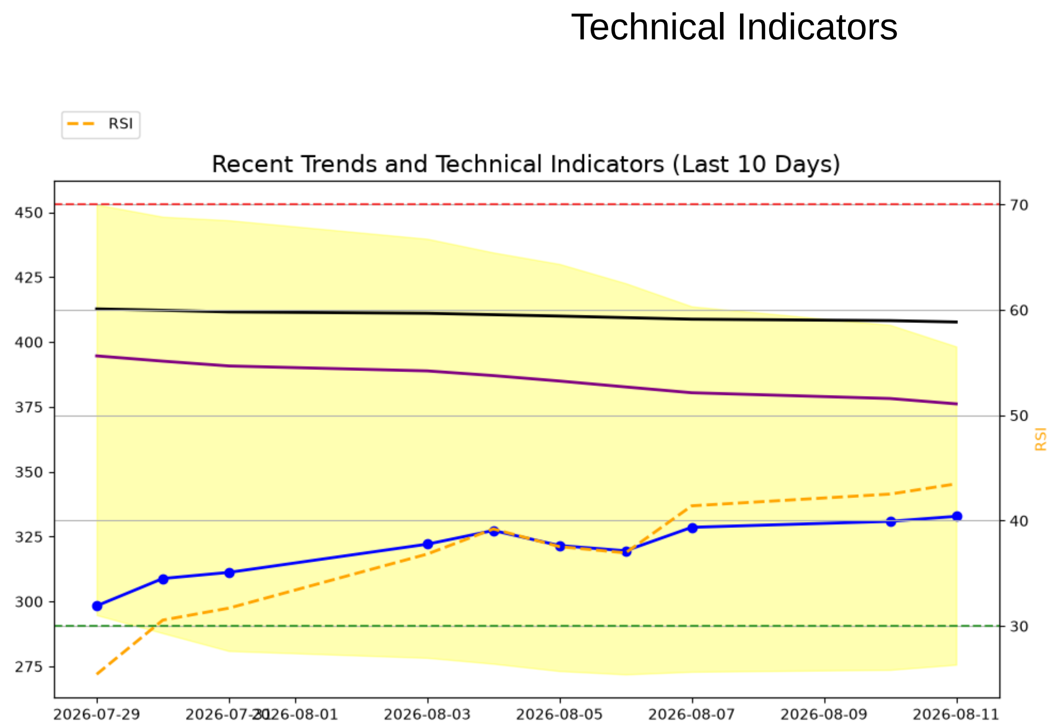


The ATR measures the recent price volatility of a stock, calculating the average range between its high and low prices over a given period (usually 14 days). A higher ATR indicates greater market volatility, and a lower ATR indicates less volatility.

Low ATR (below 2): Stable stock, Moderate ATR (2-5): Mild volatility, High ATR (above 5): Highly volatile stock

Technical Indicators

Technical indicators are based on historical price and volume data used in technical analysis to forecast financial market direction. They help identify trends, momentum, volatility, and potential entry and exit points in the market.



Left y axis - Stock Price. Right y axis - RSI range values (30 - 70)

Close Price(blue line with circles) - Key indicator of the stock's price action and is often used to identify trends or patterns. A rising close price generally indicates an upward trend, while a falling close price shows a downward trend.

SMA_50 and SMA_200 - (purple line SMA_50, black line SMA_200) Simple Moving Averages (SMA) calculated over 50 and 200 periods. Helps identify the direction of stock price trend.

Bollinger Bands - (shaded in yellow): Bollinger Bands consists of upper, middle and lower prices. The middle line is the moving average. Price reaching the upper band can indicate an overbought condition, suggesting the stock might be due for a pullback. Price touching the lower band could indicate an oversold condition, suggesting a potential buying opportunity. When the price moves outside the bands, it may indicate extreme conditions.

Relative Strength Index RSI - (orange dotted line): The RSI is a momentum oscillator that measures the speed and change of price movements. An RSI above 70 suggests the stock is overbought and might be due for a pullback. An RSI below 30 suggests the stock is oversold and might be due for a rebound.An RSI in between indicates a more neutral market condition.

AI Executive Assessment

Investment Report:

--- INVESTMENT REPORT ---

1. Volatility & Breakout Potential
TSLA shows a moderate level of volatility with an FVI of 0.452, indicating some level of instability. However, the Lyapunov score of 0.015 is relatively low, suggesting less chaos compared to other stocks. The Bollinger Bands are currently within a normal range, and the volume change of -29.93% does not confirm a significant price move.

2. Market Sentiment
The large volume of 1314448867000 implies a significant amount of institutional trading. This, combined with the lack of a strong breakout signal, suggests a cautious investor mood.

3. Geopolitical Risk Assessment
TSLA, as a major player in the EV industry, is likely to be impacted by global stress indicators such as Gold, FX, and TWI FVI. It's also exposed to supply chain disruptions due to its reliance on components sourced from Asia.

4. Sector and Supply Chain Exposure
TSLA operates in a sector that is highly dependent on global inputs, particularly from Asia. It's also part of the energy sector, which is prone to fuel cost surges and geopolitical transport risk.

--- STRATEGY RECOMMENDATION ---
Given the current market conditions and TSLA's volatility, a cautious approach is recommended. The stock is in a consolidation phase, and the optimal strategy would be mean-reversion. The BPS and FVI patterns do not suggest an imminent breakout.

--- FINAL TAKEAWAY ---
TSLA presents a mixed picture with moderate volatility and a cautious market sentiment. Given the stock's exposure to geopolitical risks and supply chain disruptions, a defensive position is recommended. Investors should closely monitor market trends and geopolitical developments for potential impacts on TSLA.

Stock Information

Market Capitalization: 1314448867000, Industry: AUTO MANUFACTURERS, Latest Volume: 23345233, Description: Tesla Inc, Sector: CONSUMER CYCLICAL, Price to Book: 15.05, Trailing PE: 305.33, Forward PE: 169.49, Enterprise to Ebitda: 106.37, Enterprise to Revenue: 12.35, Profit Margins: 0.0367

The trading volume has changed by -29.93% over the past week, indicating potential shifts in market sentiment. Please factor this into the volatility and risk analysis.

Beta measures stock volatility relative to the overall market: 1.83
Beta of 1.83 suggests high volatility compared to the market.

Stock Investment Character Report

Analysis in view of stock characteristics and current global macroeconomic information.

Investment Character: Narrative-Driven

Resilience: 45%
Momentum: 20%
Structural Stress: 35%
Narrative Dependence: 78%
Confidence: 56%

Calculated Metrics:
- Price-Volume Divergence: 0.000
- Volatility Dissonance Index: -0.995

Evidence:
- Valuation multiples are elevated: P/B 15.05, Trailing P/E 305.33, Forward P/E 169.49, EV/EBITDA 106.37, EV/Revenue 12.35, while profit margin is 0.0367.
- No strong breakout signal: Breakout Probability Score -1.269; price 332.81 within Bollinger Bands (275.66 - 398.28); recent volume down -29.93%.
- Mixed volatility/persistence profile: Beta 1.827 and ATR 13.65 indicate higher risk, while FVI 0.452 ~ market FVI 0.478 and persistence metrics (Hurst 0.545, DFA 0.526, Lyapunov 0.01499) suggest moderate trend continuity.

Assessment:
TSLA currently appears narrative-driven: pricing implies substantial expectations relative to modest profitability, while technicals indicate consolidation rather than a momentum breakout. Volatility is above market, but fractal and persistence measures point to orderly, persistent trading rather than disorder. The setup leans on belief in future operational expansion more than on present operating leverage.

Medium-Term Fit:
May align with an independent thesis that prioritizes long-duration growth exposure during liquidity-supportive

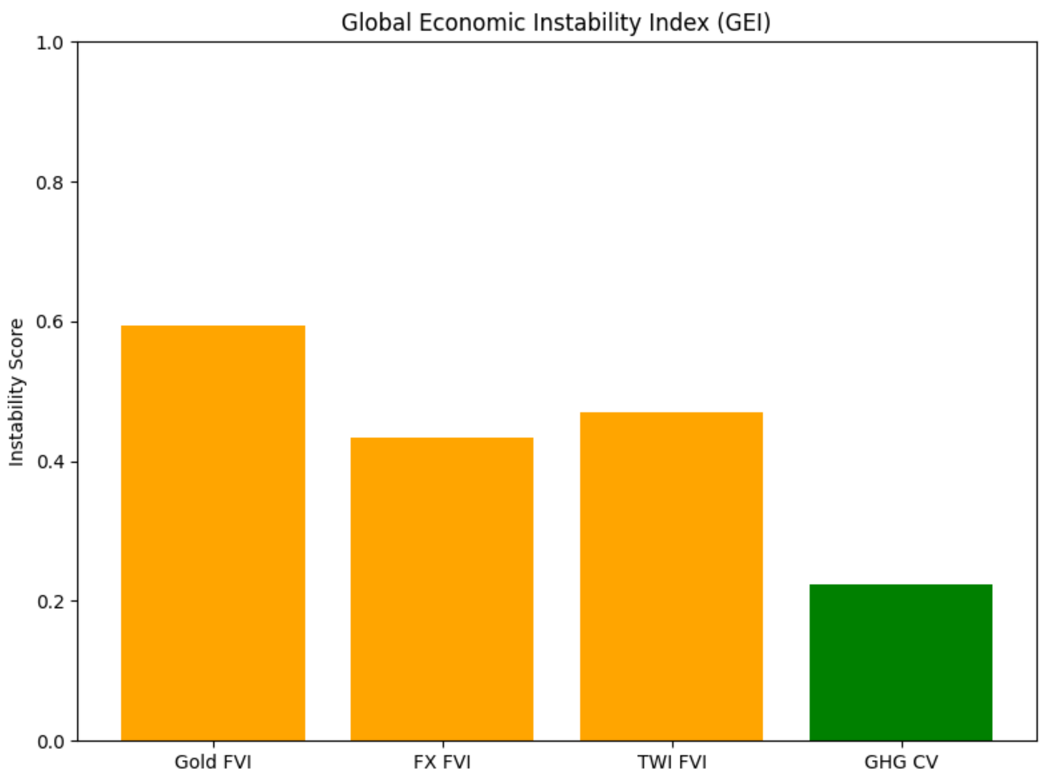
central bank stances, or a conviction in EV/auto-tech adoption resilience despite policy tools (tariffs/sanctions) and rate/inflation uncertainty—accepting valuation sensitivity and episodic volatility..

Fractal Volatility Indices

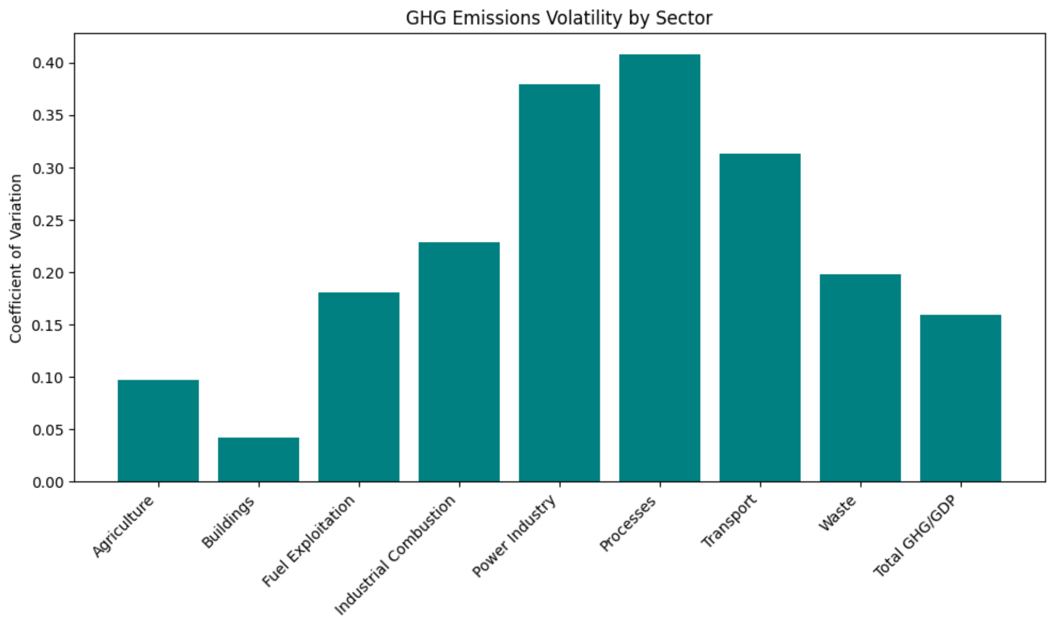
Global Geopolitical Fractal Volatility (Gold, Forex, TWI (Tariffs) and GHG Emissions)
FVI_GOLD: 0.593608 => Moderate gold volatility indicates increased investor caution
FVI_FX: 0.434301 => Low FX volatility indicates relatively stable currency markets
FVI_TWI: 0.469352 => Moderate trade-weighted volatility indicates some external-sector adjustment
GHG_CV: 0.223036 => Moderate GHG sector variability indicates some sector-level carbon-risk dispersion

Primary Risk Driver: Gold volatility is a good proxy for global geopolitical risk. 0.593608.

Global Geopolitical Volatility



Volatility Indicators of GHG Emissions by Industry and GDP



No GHG score available for Consumer cyclical sector.

Disclaimer: The Fractal Volatility Index (FVI) measures structural market instability, not short-term price direction. High FVI (red dot) does not necessarily indicate a price breakout—rather, it signals unpredictable price behavior and potential structural shifts. While market instability can precede significant moves in either direction, Verv Stock Reports do not predict price trends but offer insight into underlying volatility patterns. Investors should interpret FVI alongside fundamental and technical analysis before making decisions.

__________END OF REPORT__________