

Fractal Volatility Index for TSLA : 0.337. 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 0.337

Analysis Period: 2021-10-02 to 2026-10-02

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): 0.073

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: 0.337 (Fractal Volatility Index FVI)

DFA Result: 0.5632 (Detrended Fluctuation Analysis)

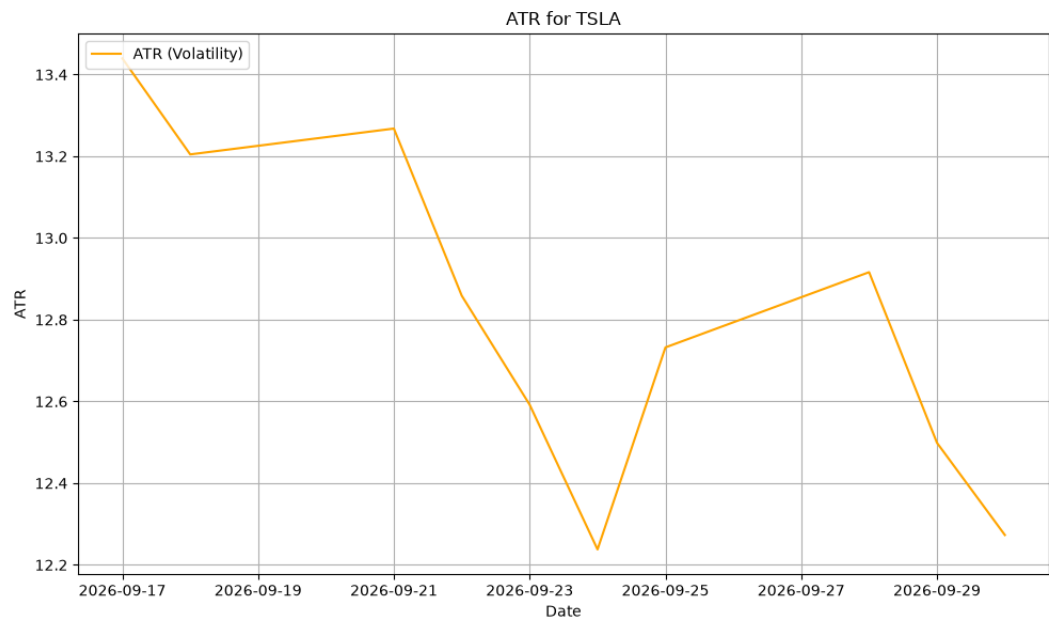
Lyapunov Exponent: 0.0132 (Measures chaos and predictability)

Hurst Exponent: 0.5582 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 354.81 is within the Bollinger Bands range (347.74 - 382.86).
Latest ATR: 12.2731

Average True Range (ATR)



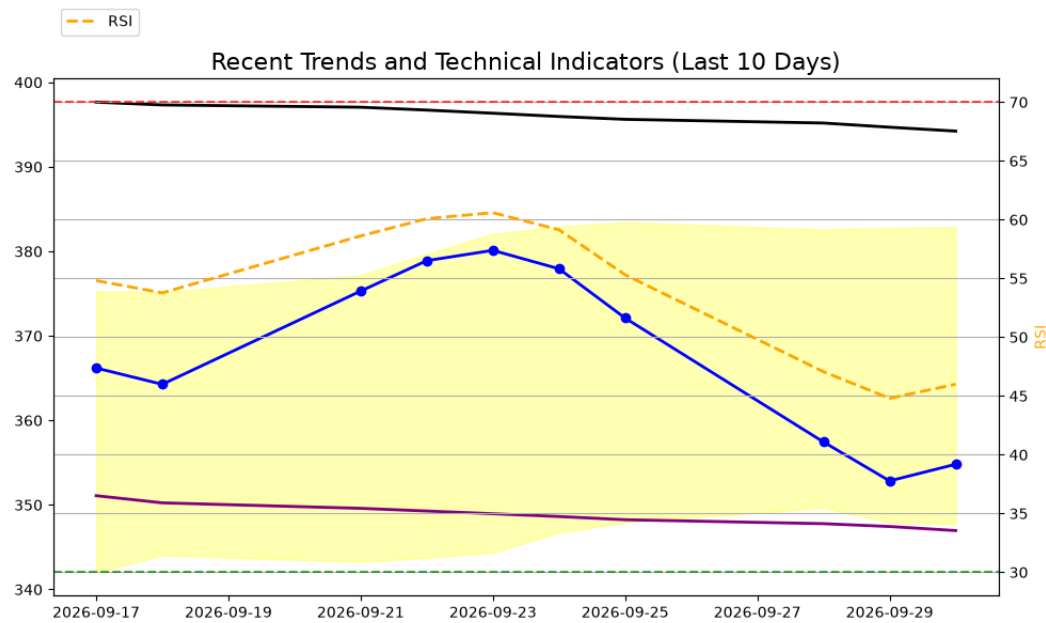
The ATR measures the recent price volatility of a stock, calculating the average range between its high and low prices over a given period (usually 14 days). A higher ATR indicates greater market volatility, and a lower ATR indicates less volatility.

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.

Technical Indicators



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

1. Volatility Structure

The Fractal Volatility Index (FVI) of Tesla Inc. (TSLA) is 0.3365, which is below the market-wide FVI of 0.478. This suggests that TSLA has less structural instability than the market average. The Hurst exponent of 0.5582, being slightly above 0.5, may indicate a persistence in the price series. The Lyapunov exponent is 0.013197307356253084, and the DFA is 0.5631982242976182. These values alone do not provide a complete picture of the stock's volatility structure without further historical or market-wide comparison.

2. Breakout Evidence

The Breakout Probability Score (BPS) for TSLA is 0.07297869458005132, which does not provide strong evidence of a current breakout. The latest closing price of 354.81 is within the Bollinger Bands range (347.74 - 382.86), further supporting the absence of a strong breakout signal.

3. Participation and Technical Context

The volume change for TSLA is observed to be 17.043321242346778%. The latest Average True Range (ATR) is 12.273058573521851. Without historical or price-normalised comparison, it's not possible to draw stronger conclusions based on these values.

4. Macro and Sector Context

In terms of structural instability, the Gold FVI is 0.593608, the FX FVI is 0.434301, and the TWI FVI is 0.469352. These values indicate varying degrees of structural instability in their respective series. No GHG score is available for the Consumer cyclical sector, and the company-specific GHG score is not available.

5. Risk Interpretation

Based on the supplied evidence, TSLA appears to exhibit moderate structural instability compared to the market average. However, there is no strong evidence of a breakout potential at this time. It's important to note that these indicators do not predict the direction of the price movement.

6. Monitoring Implications

Given the current state of TSLA, it would be worthwhile to continue monitoring the FVI, BPS, and volume change. These indicators could provide valuable insights into the future structural stability of the stock.

FINAL TAKEAWAY

Based on the provided data, Tesla Inc. (TSLA) exhibits less structural instability compared to the market average, and there is currently no strong evidence of a breakout. It is crucial to continue monitoring the FVI, BPS, and volume change to understand the stock's future structural stability.

Stock Information

Market Capitalization: 1401338986000, Industry: AUTO MANUFACTURERS, Latest Volume: 39235838, Description: Tesla Inc, Sector: CONSUMER CYCLICAL, Price to Book: 17.28, Trailing PE: 325.51, Forward PE: 158.73, Enterprise to Ebitda: 122.54, Enterprise to Revenue: 14.22, Profit Margins: 0.0367

The trading volume has changed by 17.04% 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: 1.84

Beta of 1.84 suggests high volatility compared to the market.

Stock Investment Character Report

Analysis based on supplied stock characteristics and market context.

Investment Character: Narrative-Dependent

Resilience: 38%

Momentum: 12%

Structural Stress: 34%

Narrative Dependence: 82%

Confidence: 58%

Calculated Metrics:

- Price-Volume Divergence: 0.000

- Volatility Dissonance Index: -1.000

Evidence:

- FVI indicates moderate structural volatility per the supplied thresholds, while the market-wide FVI is also in the moderate range.

Indicators: Fractal Volatility Index=0.337, Market-wide FVI=0.478

Supports: Structural Stress

- Beta above 1 implies higher sensitivity than the market; ATR exceeds the 'Above 5: High' threshold provided.

Indicators: Beta=1.845, Latest ATR=12.273058573521851

Supports: Structural Stress

- Breakout probability is low and there is no detected band breakout.

Indicators: Breakout Probability Score=0.07297869458005132, Breakout statement=No strong breakout signal detected; price within Bollinger Bands (347.74 - 382.86)

Supports: Momentum

- Valuation multiples are numerically large alongside a profit margin of 3.67%.

Indicators: Price-to-book=17.28, Trailing P/E=325.51, Forward P/E=158.73, EV/EBITDA=122.54, EV/Revenue=14.22, Profit margin=0.0367

Supports: Narrative Dependence

Assessment:

Volatility signals show moderate structural instability by FVI but heightened recent and market-relative volatility via ATR and Beta. Momentum evidence is weak, with a low breakout probability and no Bollinger Band breakout indicated. Very demanding valuation multiples alongside a modest profit margin suggest the stock's pricing leans on expectations beyond the operating figures provided. Overall, this points to a narrative-dependent profile rather than confirmed momentum or clear operational resilience.

Limitations:

- Operating detail is limited to profit margin, with no growth, cash flow, or balance sheet trend data supplied.

- EPS fields are zero despite P/E figures, creating uncertainty about earnings granularity.

- No historical or peer context is provided for valuation and volatility beyond the stated thresholds, limiting comparative interpretation.

- No macroeconomic data is supplied to contextualize sector demand or rates sensitivity.

Medium-Term Fit:

Potential fit for an independent thesis that prioritizes exposure to high-multiple innovators in consumer cyclicals, accepts elevated volatility, and anticipates future operating leverage or platform optionality to validate current

multiples.

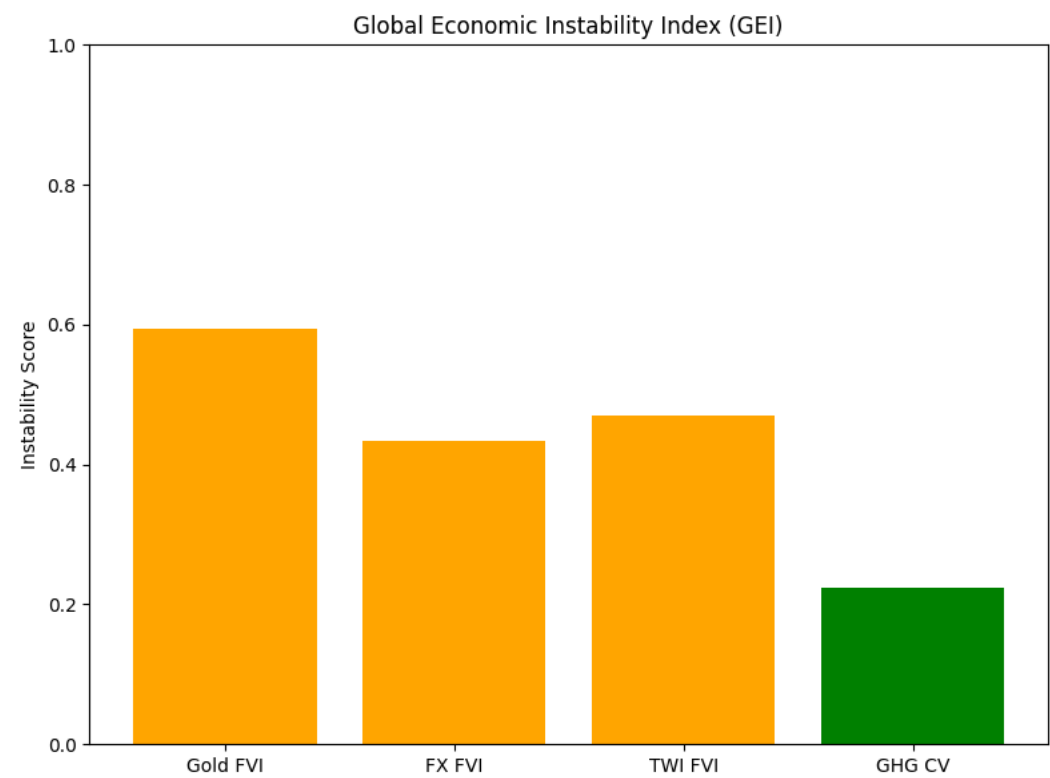
Fractal Volatility Indices

Global Geopolitical Fractal Volatility (Gold, Forex, TWI (Tariffs) and GHG Emissions)

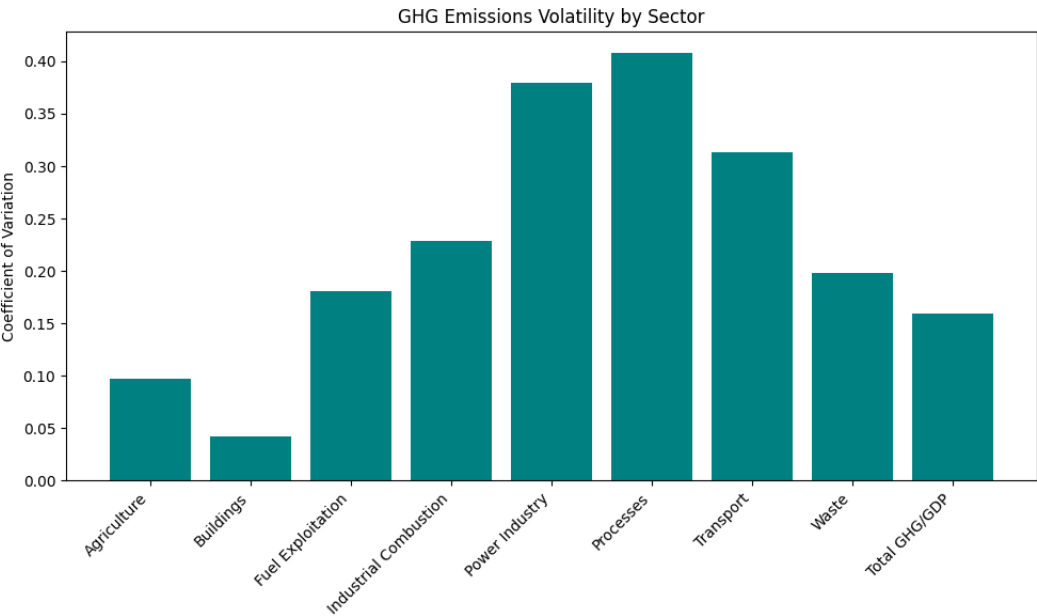
FVI_GOLD: 0.593608 => Moderate gold volatility indicates increased investor caution
FVI_FX: 0.434301 => Moderate FX volatility indicates ongoing currency-market adjustment
FVI_TWI: 0.469352 => Moderate trade-weighted volatility indicates some external-sector adjustment
GHG_CV: 0.223036 => Moderate GHG 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_____