

Fractal Volatility Index for NVDA : 0.397. 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: NVIDIA Corporation NVDA FVI 0.397

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): -0.533

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: 0.397 (Fractal Volatility Index FVI)

DFA Result: 0.4830 (Detrended Fluctuation Analysis)

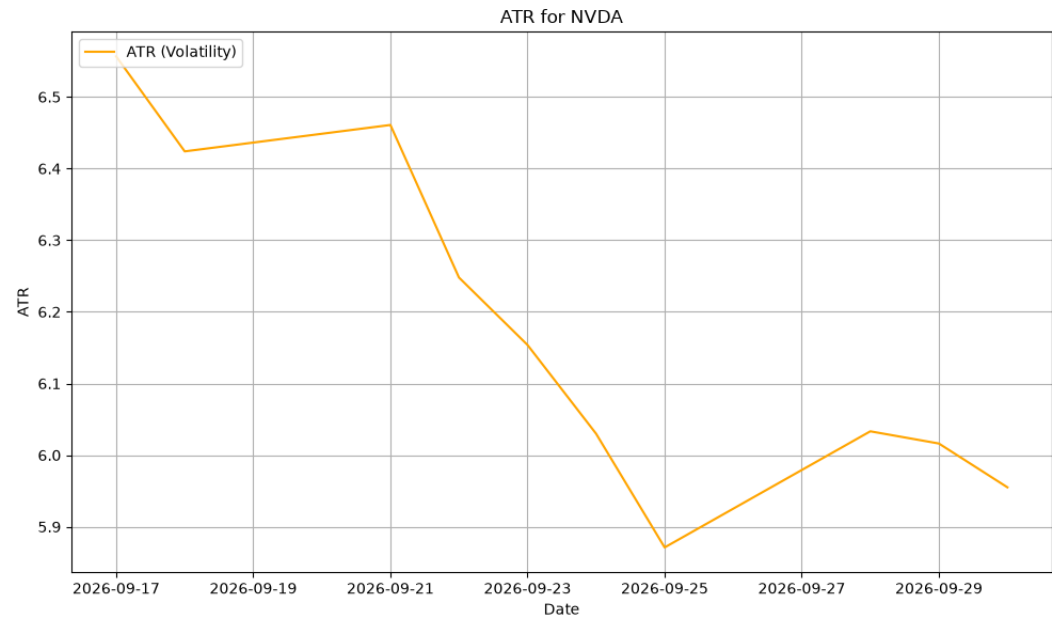
Lyapunov Exponent: 0.0145 (Measures chaos and predictability)

Hurst Exponent: 0.4459 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 228.38 is within the Bollinger Bands range (211.84 - 234.53).
Latest ATR: 5.9550

Average True Range (ATR)



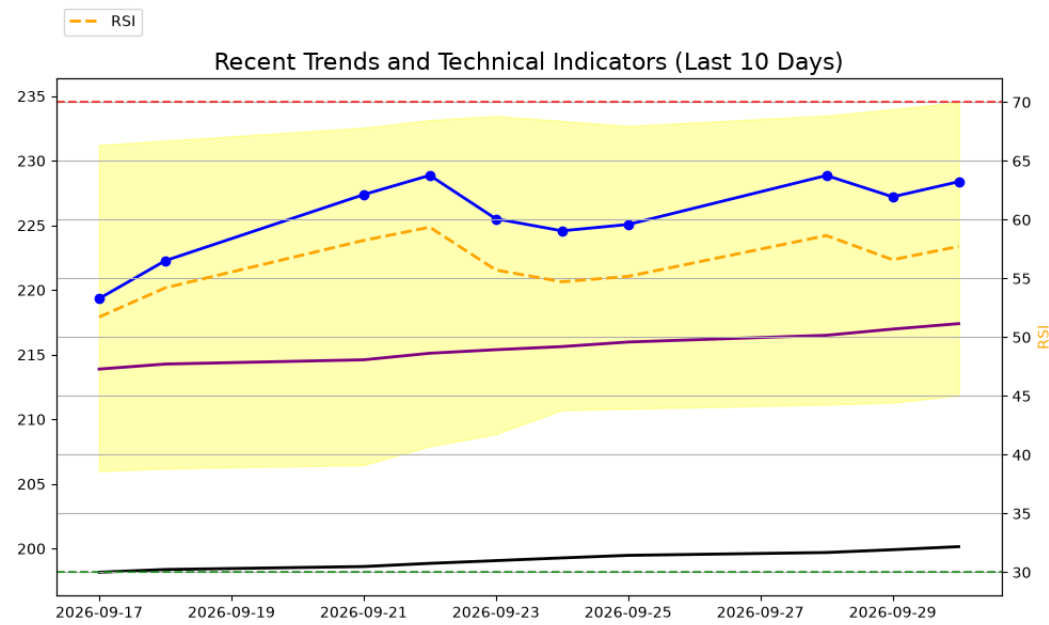
The ATR measures the recent price volatility of a stock, calculating the average range between its high and low prices over a given period (usually 14 days). A higher ATR indicates greater market volatility, and a lower ATR indicates less volatility.

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 NVIDIA Corporation (NVDA) is currently 0.397, which is lower than the market-wide FVI of 0.478, indicating that NVDA's price movements have been relatively less volatile compared to the overall market. The Lyapunov Exponent, a measure of sensitivity and divergence within the system, stands at 0.0145. The Hurst Exponent, at 0.4459, suggests a degree of anti-persistence in the price series of NVDA, while the DFA (Detrended Fluctuation Analysis) measure of 0.483 does not independently predict a breakout, volatility surge or price direction.

2. Breakout Evidence

The Breakout Probability Score (BPS) for NVDA is -0.533, and the latest closing price is within the Bollinger Bands range, suggesting no strong breakout signal at the moment. It is important to note that the BPS does not determine the direction of the potential breakout.

3. Participation and Technical Context

NVDA has experienced a volume change of 35.94%. The latest Average True Range (ATR), a measure of market volatility, stands at 5.955. Without a comparison to historical data, it is difficult to interpret whether this is significant.

4. Macro and Sector Context

In terms of structural instability, the Gold FVI stands at 0.5936, the FX FVI at 0.4343, and the TWI FVI at 0.4694. These figures suggest varying levels of instability in their respective series. NVDA's GHG sector sensitivity score is 0.04825, indicating a low emissions-related variability in the Technology sector.

5. Risk Interpretation

The evidence suggests a state of moderate uncertainty for NVDA. The lower FVI compared to the market, combined with the lack of a strong breakout signal and the Hurst Exponent indicating anti-persistence, points towards a degree of structural stability. However, the positive volume change and the Lyapunov Exponent, which measures sensitivity, add elements of uncertainty.

6. Monitoring Implications

Given the current state of moderate uncertainty, it would be prudent to continue monitoring the FVI, Lyapunov Exponent, and Hurst Exponent. The volume change and ATR should also be observed for any significant shifts.

FINAL TAKEAWAY

The analysis suggests a state of moderate uncertainty for NVDA, with a degree of structural stability indicated by the lower FVI compared to the market and no strong breakout signal currently present. The most important aspect to monitor going forward would be the FVI, Lyapunov Exponent, and Hurst Exponent, along with volume change and ATR, to detect any significant shifts in volatility or market

participation.

Stock Information

Market Capitalization: 5514691871000, Industry: SEMICONDUCTORS, Latest Volume: 121732188, Description: NVIDIA Corporation, Sector: TECHNOLOGY, Price to Book: 23.78, Trailing PE: 29.06, Forward PE: 24.88, Enterprise to Ebitda: 23.18, Enterprise to Revenue: 17.89, Profit Margins: 0.637

The trading volume has changed by 35.94% 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: 2.22

Beta of 2.22 suggests high volatility compared to the market.

Stock Investment Character Report

Analysis based on supplied stock characteristics and market context.

Investment Character: Operationally Resilient

Resilience: 62%

Momentum: 18%

Structural Stress: 30%

Narrative Dependence: 25%

Confidence: 63%

Calculated Metrics:

- Price-Volume Divergence: 0.000

- Volatility Dissonance Index: -0.822

Evidence:

- Company FVI is in the Moderate volatility band and below the market-wide FVI.

Indicators: Fractal Volatility Index=0.397, Market-wide FVI=0.478

Supports: Resilience

- Beta indicates higher market-relative sensitivity and ATR is above the 5 threshold for high recent trading-range volatility.

Indicators: Beta=2.217, Latest ATR=5.95504912498267

Supports: Uncertainty

- Negative breakout score and a close within the Bollinger Bands indicate no confirmed breakout momentum.

Indicators: Breakout Probability Score=-0.5333050298442472, Bollinger Bands Range=211.84-234.53, Latest Close=228.38

Supports: Momentum

- A profit margin of 0.637 is reported.

Indicators: Profit margin=0.637

Supports: Resilience

Assessment:

Operational signals appear resilient given the reported profit margin, while the structural instability gauge (FVI) is only moderate and below the market-wide level. Momentum is not confirmed by the negative breakout score and the price closing within Bollinger Bands. Market-relative and recent range volatility are elevated by Beta and ATR, so resilience outweighs but does not eliminate volatility-related uncertainty.

Limitations:

- No historical or peer context is provided for valuation and volatility measures, limiting comparative judgments.

- EPS fields are zero and other operating details (revenue growth, cash flow, backlog) are not supplied, constraining operating-strength assessment.

- Breakout and volatility indicators do not establish future price direction or duration of current conditions.

Medium-Term Fit:

An independent thesis prioritizing high-margin semiconductor platforms with scale and tolerance for higher market beta and trading-range volatility, without requiring near-term breakout confirmation.

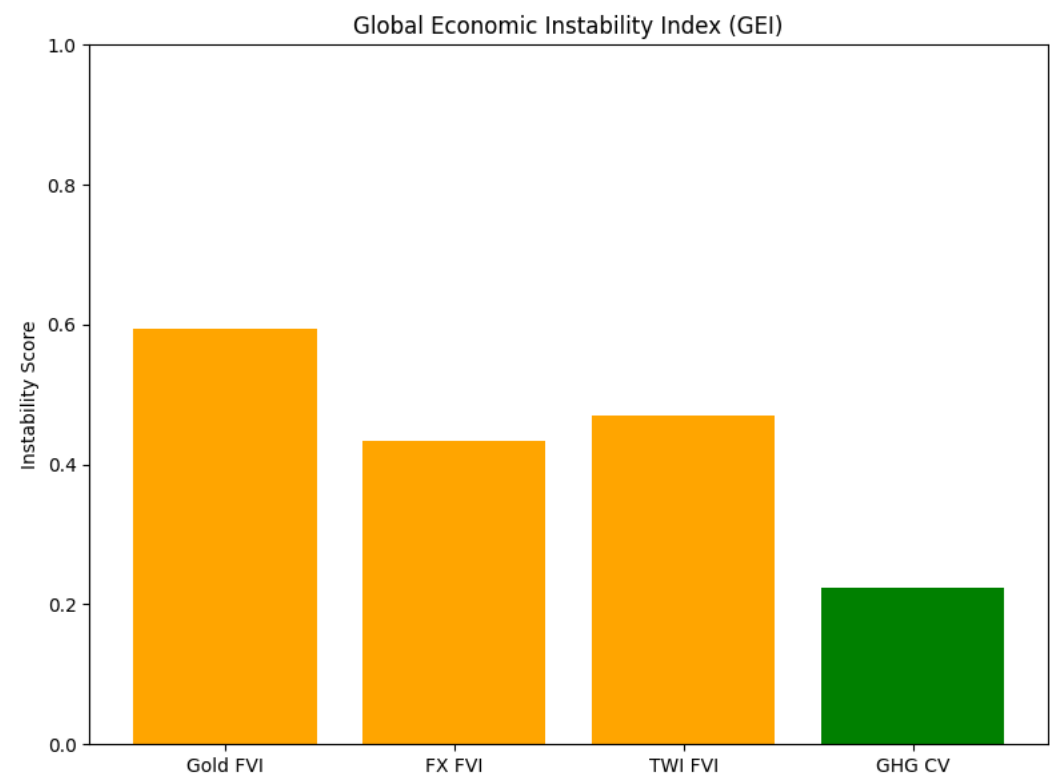
Fractal Volatility Indices

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

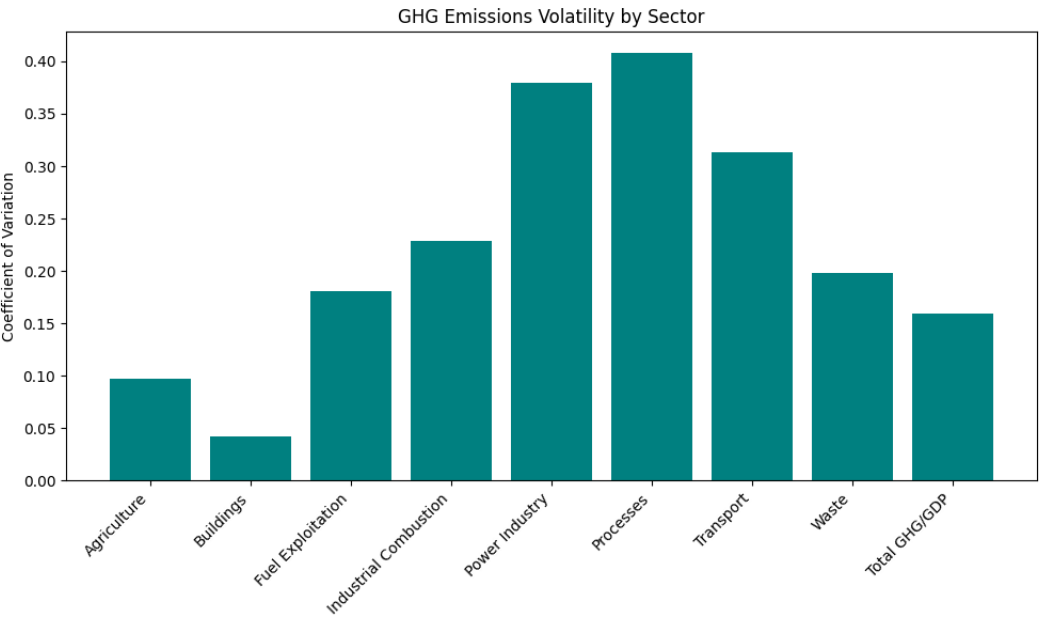
FVI_GOLD: 0.593608 => Moderate gold volatility indicates increased investor caution
FVI_FX: 0.434301 => Moderate FX volatility indicates ongoing currency-market adjustment
FVI_TWI: 0.469352 => Moderate trade-weighted volatility indicates some external-sector adjustment
GHG_CV: 0.223036 => Moderate GHG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



Low GHG impact (0.048) for the Technology 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_____