Fractal Volatility Index for NVDA : 0.428. 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 0.428

Analysis Period: 2021-11-18 to 2026-11-18

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): 1.219
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

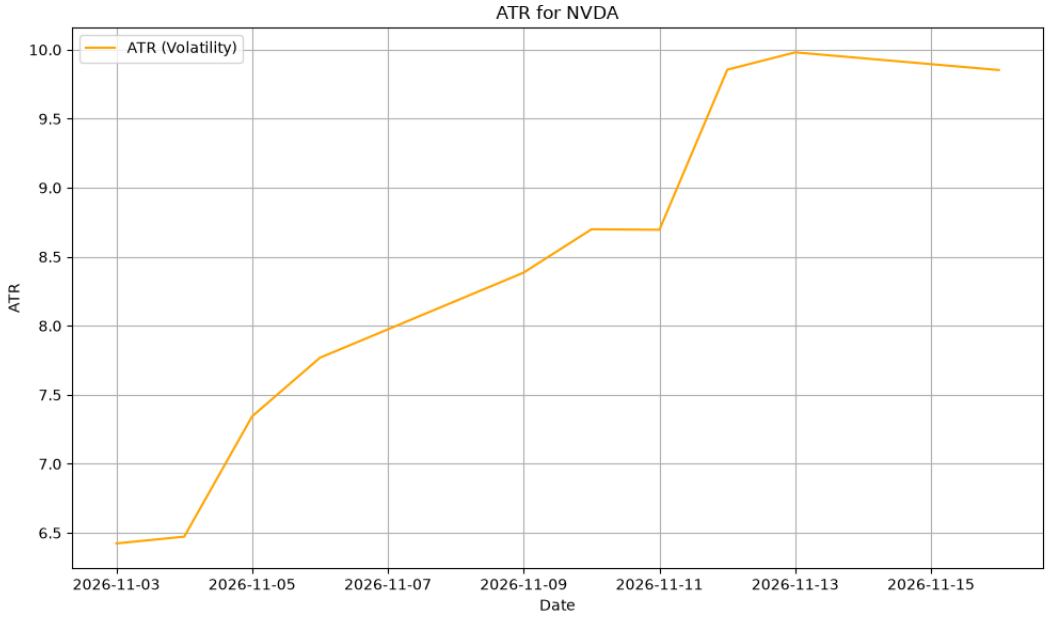
Fractal & Statistical Analysis

FVI Score: 0.428 (Fractal Volatility Index FVI)
DFA Result: 0.5549 (Detrended Fluctuation Analysis)
Lyapunov Exponent: 0.0142 (Measures chaos and predictability)
Hurst Exponent: 0.4518 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 156.14 is within the Bollinger Bands range (153.71 - 237.57). On a 10-day average basis, the mean closing price 178.15 is also below the mean Bollinger Lower Band 179.00, reinforcing the bearish trend.
Latest ATR: 9.8527

Average True Range (ATR)

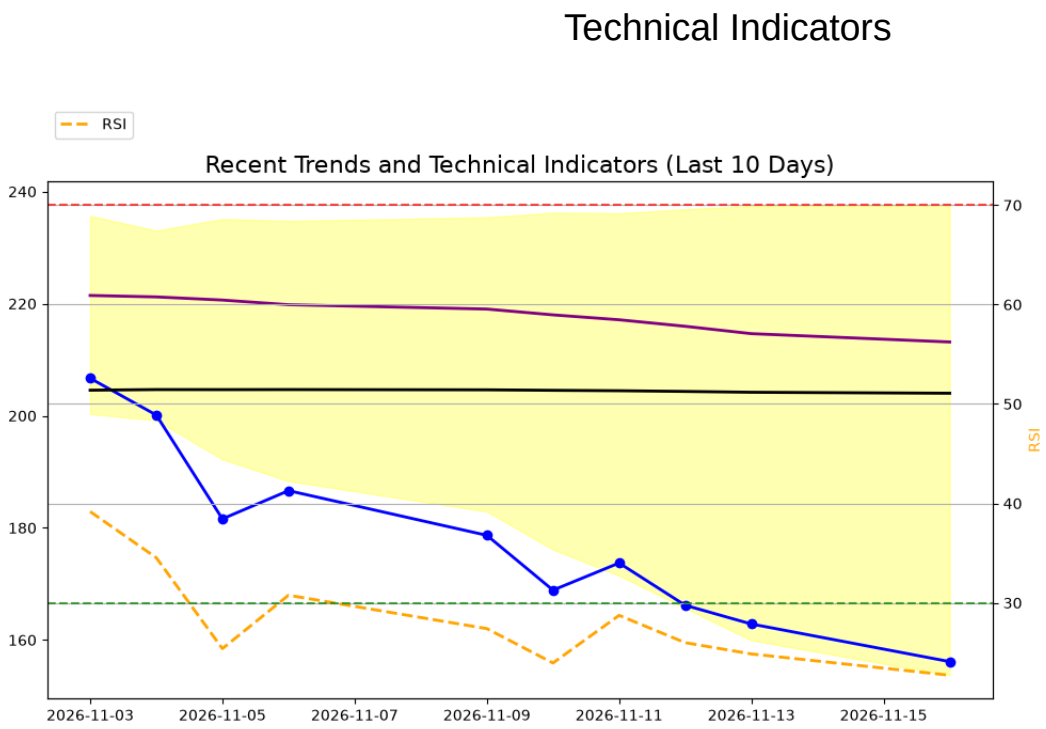


The ATR measures the recent price volatility of a stock, calculating the average range between its high and low prices over a given period (usually 14 days). A higher ATR indicates greater market volatility, and a lower ATR indicates less volatility.

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

1. Volatility Structure
NVDA's Fractal Volatility Index (0.4276) is below the market-wide FVI (0.478), indicating relatively lower structural instability than the broad market on this measure. The Hurst exponent (0.4518) is slightly below 0.5, which points to mild anti-persistence; evidence is limited given its proximity to 0.5. The DFA value (0.555) signals a non-trivial scale-dependent correlation structure without independently implying breakout or direction. The Lyapunov exponent (0.01423) indicates sensitive dependence within the series, but no magnitude judgment is made without a benchmark.

2. Breakout Evidence
The Breakout Probability Score is 1.2185; without a threshold, its absolute strength cannot be classified. The supplied breakout observation reports no strong breakout signal: the latest close sits within the Bollinger Bands, and the 10 day mean closing price is below the mean lower band, which reflects a bearish tilt but not a confirmed breakout. Breakout direction is not determined by the BPS; the observation indicates short-term bearish pressure but no breakout establishment.

3. Participation and Technical Context
Volume change is -27.86%, and the latest ATR is 9.85 (price units). Beta is 2.247, indicating higher sensitivity to market moves than a broad index. A stronger conclusion would require historical or price-normalized ATR, multi-period and relative volume baselines, and context on typical beta variability for NVDA.

4. Macro and Sector Context
Across macro proxies, structural instability is highest in Gold FVI (0.5936), while FX FVI (0.4343) and TWI FVI (0.4694) are closer to NVDA's FVI and below the market-wide FVI (0.478) in the case of FX. This frames NVDA's instability as lower than the broad equity baseline and well below the elevated Gold proxy. The Technology sector GHG variability score is low (0.048), and the company's sensitivity (0.04825) aligns with sector levels; this is an emissions-related variability signal only.

5. Risk Interpretation
Taken together, the evidence supports moderate uncertainty with no strong breakout potential: NVDA's FVI is below the market-wide level and macro Gold instability, while Hurst leans mildly anti-persistent and the explicit observation shows bearish pressure without a breakout. Beta above 2 suggests amplified market responsiveness, but this is distinct from structural instability, and the drop in volume and unnormalized ATR lack the historical context needed for stronger inference.

6. Monitoring Implications
- NVDA FVI versus market-wide FVI and shifts in Gold/FX/TWI FVI for changes in structural instability.
- Breakout Probability Score and the price's relationship to Bollinger Bands for evolving breakout evidence.
- Hurst, DFA, and Lyapunov trends for changes in correlation structure and sensitivity.
- ATR normalized by price and multi-period volume baselines to refine the participation/volatility context.

- Beta drift relative to market conditions to track sensitivity.

FINAL TAKEAWAY

NVDA’s volatility structure appears relatively contained versus the market (FVI 0.428 vs 0.478) with no strong breakout signal, while short-term technicals in the supplied observation lean bearish rather than breakout-driven. The most important uncertainty to monitor is any change in breakout evidence (BPS and Bollinger-band relationship) alongside shifts in NVDA’s FVI relative to the market and macro FVIs, supported by price-normalized ATR and volume baselines.

Stock Information

Market Capitalization: 3770312557000, Industry: SEMICONDUCTORS, Latest Volume: 333822062, Description: NVIDIA Corporation, Sector: TECHNOLOGY, Price to Book: 17.17, Trailing PE: 19.74, Forward PE: 10.31, Enterprise to Ebitda: 16.71, Enterprise to Revenue: 12.9, Profit Margins: 0.637

The trading volume has changed by -27.86% 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: 2.25
Beta of 2.25 suggests high volatility compared to the market.

Stock Investment Character Report

Analysis based on supplied stock characteristics and market context.

Investment Character: Valuation-Sensitive Quality
Resilience: 68%
Momentum: 22%
Structural Stress: 32%
Narrative Dependence: 35%
Confidence: 63%

Calculated Metrics:
- Price-Volume Divergence: 0.000
- Volatility Dissonance Index: -0.979

Evidence:
- Structural volatility is moderate and broadly in line with the market-wide level.
  Indicators: FVI=0.428, Market-wide FVI=0.478
  Supports: Structural Stress
- No confirmed breakout is detected despite a nonzero breakout probability reading, with recent signals reinforcing a bearish tilt.
  Indicators: Breakout Probability Score=1.2185, Breakout statement=No strong breakout; price within Bollinger Bands and 10-day mean below lower band mean
  Supports: Momentum
- Market-relative volatility is higher than the market and recent trading-range volatility is high by the provided ATR thresholds.
  Indicators: Beta=2.247, Latest ATR=9.85270900953147
  Supports: Structural Stress
- Very strong operating profitability coexists with demanding valuation on P/B and EV/Revenue, while the forward P/E is lower than the trailing P/E.
  Indicators: Profit margin=0.637, P/B=17.17, EV/Revenue=12.9, EV/EBITDA=16.71, Trailing P/E=19.74, Forward P/E=10.31
  Supports: Resilience

Assessment:
The stock combines strong operating profitability with demanding valuation metrics, fitting a quality profile where valuation matters. Structural instability is moderate by FVI, but market-relative and recent trading-range volatility are elevated. Momentum is not confirmed, with the latest signals indicating price remains within bands and a bearish tilt.

Limitations:
- Trailing and forward EPS values are zero or non-meaningful, limiting earnings-based cross-checks.
- No data on revenue growth, cash flow, balance sheet or order trends is provided, constraining assessment of durability beyond margins.
- ATR is an absolute measure without price normalization context across time for this stock.
- Breakout Probability Score lacks a defined threshold scale, limiting its interpretability.

Medium-Term Fit:
May suit an independent thesis favoring high-margin semiconductor leaders where investors accept higher price

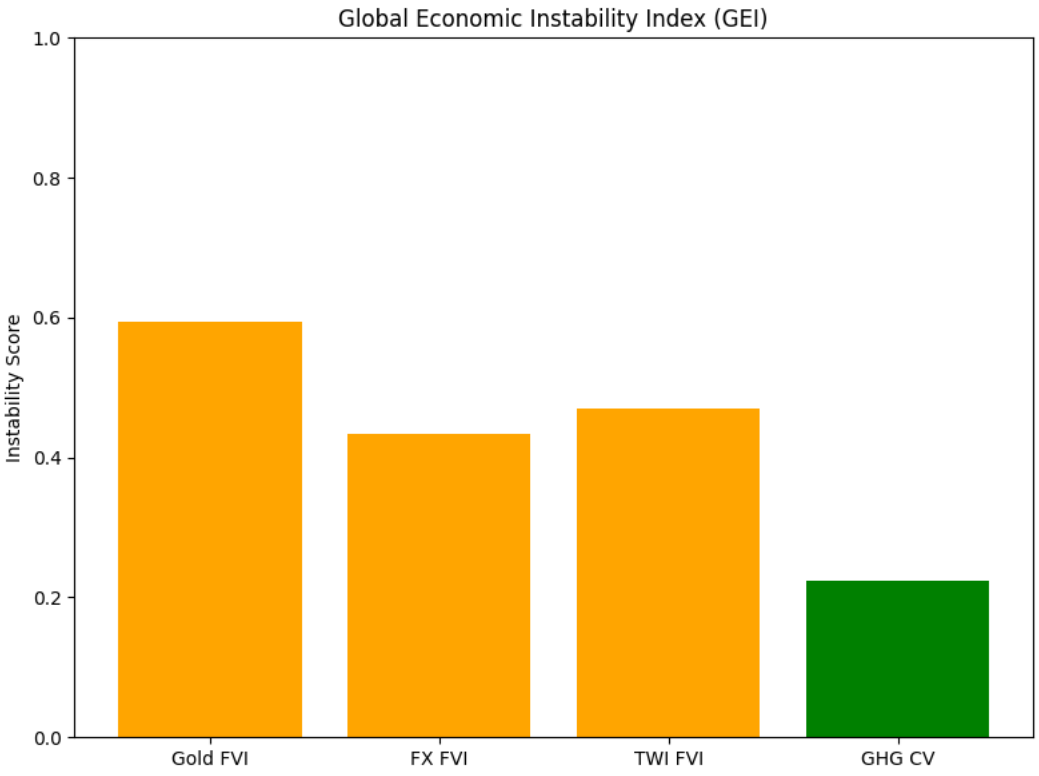
volatility but demand disciplined valuation support and durable profitability.

Fractal Volatility Indices

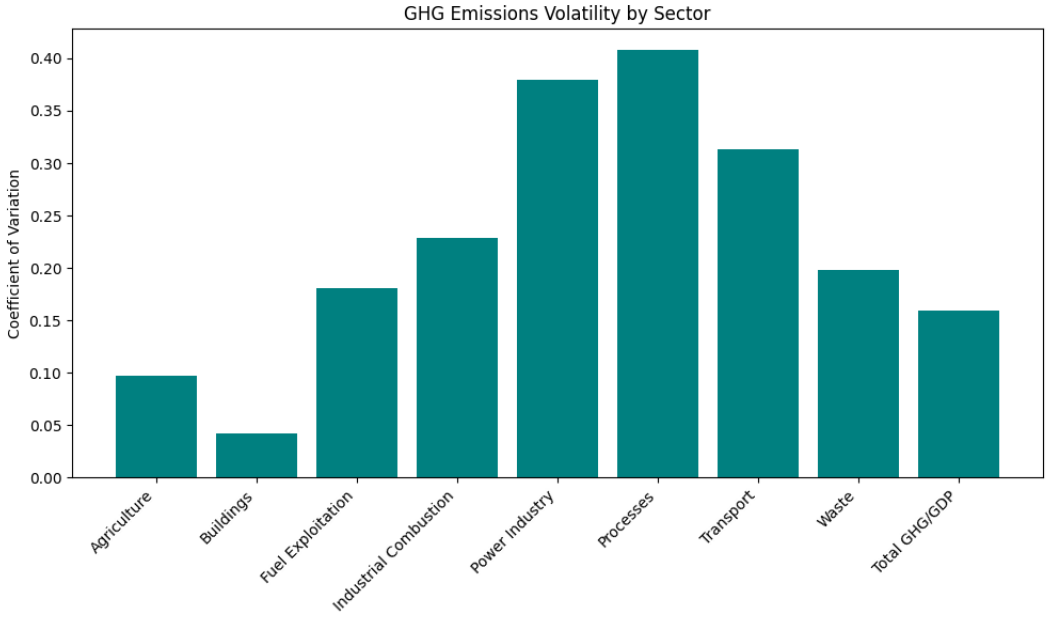
Global Geopolitical Fractal Volatility (Gold, Forex, TWI (Tariffs) and GHG Emissions)
FVI_GOLD: 0.593608 => Moderate gold volatility indicates increased investor caution
FVI_FX: 0.434301 => Moderate FX volatility indicates ongoing currency-market adjustment
FVI_TWI: 0.469352 => Moderate trade-weighted 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.

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