

Fractal Volatility Index for AMD : 0.498. 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: Advanced Micro Devices Inc AMD FVI 0.498

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): 0.036

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: 0.498 (Fractal Volatility Index FVI)

DFA Result: 0.4620 (Detrended Fluctuation Analysis)

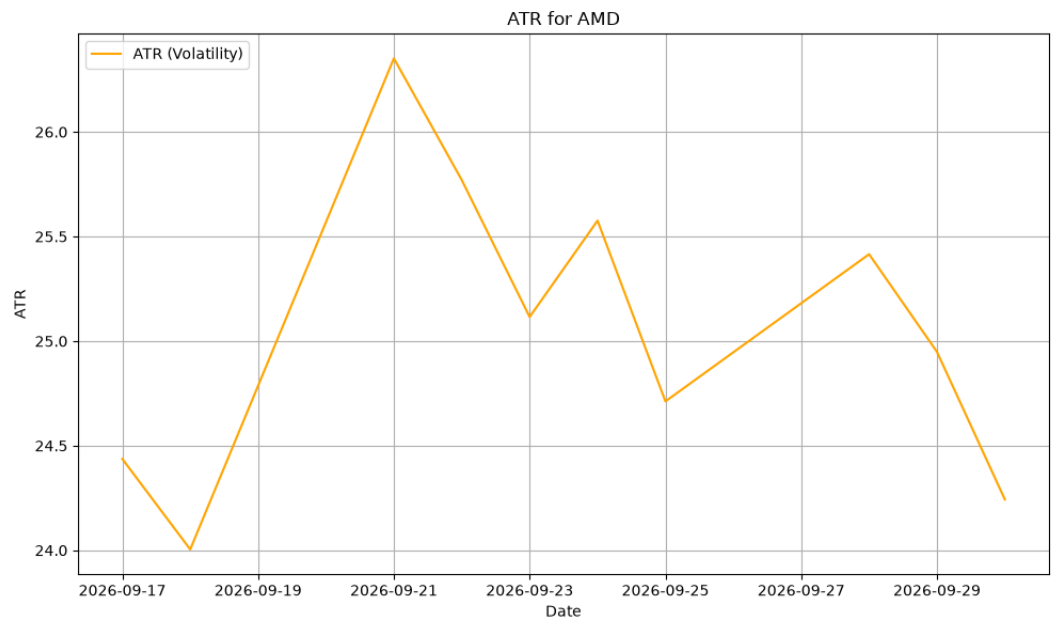
Lyapunov Exponent: 0.0162 (Measures chaos and predictability)

Hurst Exponent: 0.5174 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 611.76 is within the Bollinger Bands range (429.02 - 670.32).
Latest ATR: 24.2430

Average True Range (ATR)



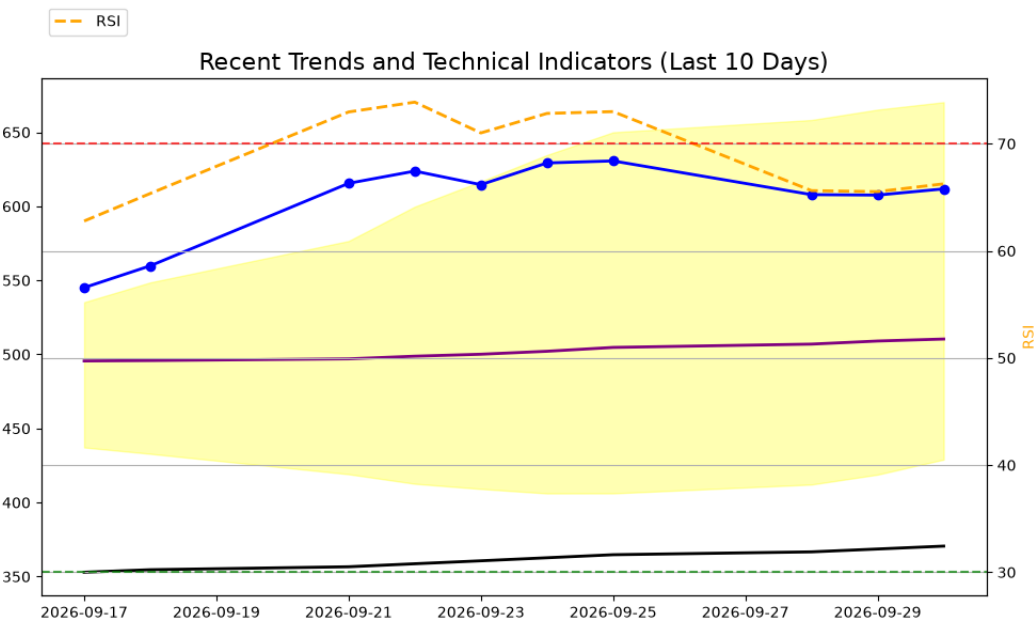
The ATR measures the recent price volatility of a stock, calculating the average range between its high and low prices over a given period (usually 14 days). A higher ATR indicates greater market volatility, and a lower ATR indicates less volatility.

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) for AMD is 0.49768707553040364, which is slightly higher than the market-wide FVI of 0.478. This indicates a marginally elevated structural instability for AMD relative to the broader market. The Lyapunov Exponent at 0.016217335692698648 suggests some sensitivity within the system, though without a supplied threshold or historical comparison, it's unclear whether this is significant. The Hurst Exponent is 0.5173760045678669, slightly above 0.5, suggesting a weak persistence in the price series. The DFA value of 0.4619539182545959 indicates a scale-dependent correlation structure but does not independently predict volatility or price direction.

2. Breakout Evidence

The Breakout Probability Score (BPS) for AMD is 0.0362606064090476, suggesting there is weak evidence of a current breakout. The latest closing price of 611.76 is within the Bollinger Bands range (429.02 - 670.32), further supporting the absence of a strong breakout signal. The direction of any potential breakout is not determined by the supplied evidence.

3. Participation and Technical Context

The volume change for AMD is 2.515235813112256%, and the latest ATR is 24.242990373269887. These figures provide factual context but do not suggest specific investor motives or predict future price movements.

4. Macro and Sector Context

Comparing the FVIs for Gold (0.593608), FX (0.434301), and TWI (0.469352), we see a range of structural instability in these macro risk proxies. However, without specific evidence, we cannot attribute these to geopolitical or policy causes. The GHG sector variability score indicates a low GHG impact (0.048) for the Technology sector, with a company sensitivity score of 0.04825, suggesting limited emissions-related variability.

5. Risk Interpretation

The evidence supports a condition of moderate uncertainty for AMD. The slightly elevated FVI compared to the market, alongside the weak breakout evidence, suggests a state of mild structural instability. However, this does not translate into a prediction for price direction.

6. Monitoring Implications

Given the slightly elevated FVI and the weak breakout evidence, these indicators should be monitored for potential future changes. Additionally, the Lyapunov Exponent and Hurst Exponent may provide further insight into the system's sensitivity and persistence, respectively, if more data becomes available.

FINAL TAKEAWAY

The strongest supported conclusion is that AMD is currently experiencing moderate uncertainty, with a

slightly elevated structural instability compared to the market, but without strong evidence of a breakout. The most important uncertainty lies in the system's sensitivity and persistence, as indicated by the Lyapunov and Hurst Exponents; these will be crucial to monitor for any significant changes.

Stock Information

Market Capitalization: 998682919000, Industry: SEMICONDUCTORS, Latest Volume: 16749093, Description: Advanced Micro Devices Inc, Sector: TECHNOLOGY, Price to Book: 14.93, Trailing PE: 153.71, Forward PE: 39.53, Enterprise to Ebitda: 92.79, Enterprise to Revenue: 24.08, Profit Margins: 0.156

The trading volume has changed by 2.52% 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: 2.48

Beta of 2.48 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: 35%

Momentum: 15%

Structural Stress: 40%

Narrative Dependence: 80%

Confidence: 63%

Calculated Metrics:

- Price-Volume Divergence: 0.000

- Volatility Dissonance Index: -0.999

Evidence:

- Structural volatility is in the moderate range and broadly similar to the overall market's level.

Indicators: Fractal Volatility Index=0.498, Market-wide FVI=0.478

Supports: Structural Stress

- No strong breakout evidence is currently detected, indicating a lack of confirmed momentum.

Indicators: Breakout Probability Score=0.0362606064090476, Breakout statement=No strong breakout signal detected: price within Bollinger Bands (429.02 - 670.32)

Supports: Momentum

- The stock is more sensitive than the market and shows high recent trading-range volatility based on the provided ATR thresholds.

Indicators: Beta=2.476, Latest ATR=24.242990373269887

Supports: Structural Stress

- Valuation multiples are demanding while only limited operating detail is supplied; profitability is positive but earnings figures are non-meaningful as provided.

Indicators: Price-to-book=14.93, Trailing P/E=153.71, Forward P/E=39.53, EV/EBITDA=92.79, EV/Revenue=24.08, Profit margin=0.156, Trailing EPS=0, Forward EPS=0

Supports: Narrative Dependence

Assessment:

AMD currently shows no confirmed breakout momentum while exhibiting high market sensitivity and high recent trading-range volatility. Structural instability is moderate by FVI, but pricing appears demanding relative to the limited operating evidence supplied. This mix suggests the stock's profile leans on expectations beyond what is directly supported here, consistent with narrative dependence rather than confirmed momentum or steady-operator characteristics.

Limitations:

- Supplied EPS figures are non-meaningful, limiting assessment of earnings support for valuation.

- No historical context beyond thresholds is provided for ATR or trend measures, constraining interpretation of persistence.

- Data does not establish price direction, causation, or future performance.

Medium-Term Fit:

Fits an independent thesis that tolerates premium valuations and higher market sensitivity in semiconductor names while awaiting clearer operating evidence or catalysts, without requiring near-term breakout confirmation.

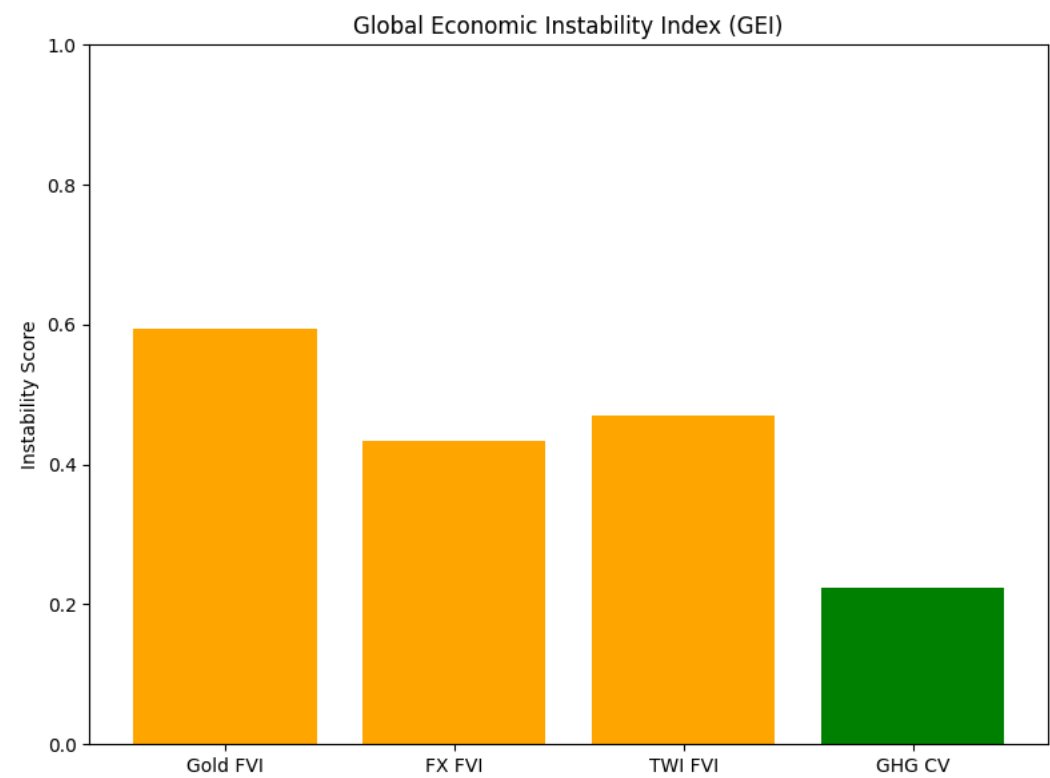
Fractal Volatility Indices

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

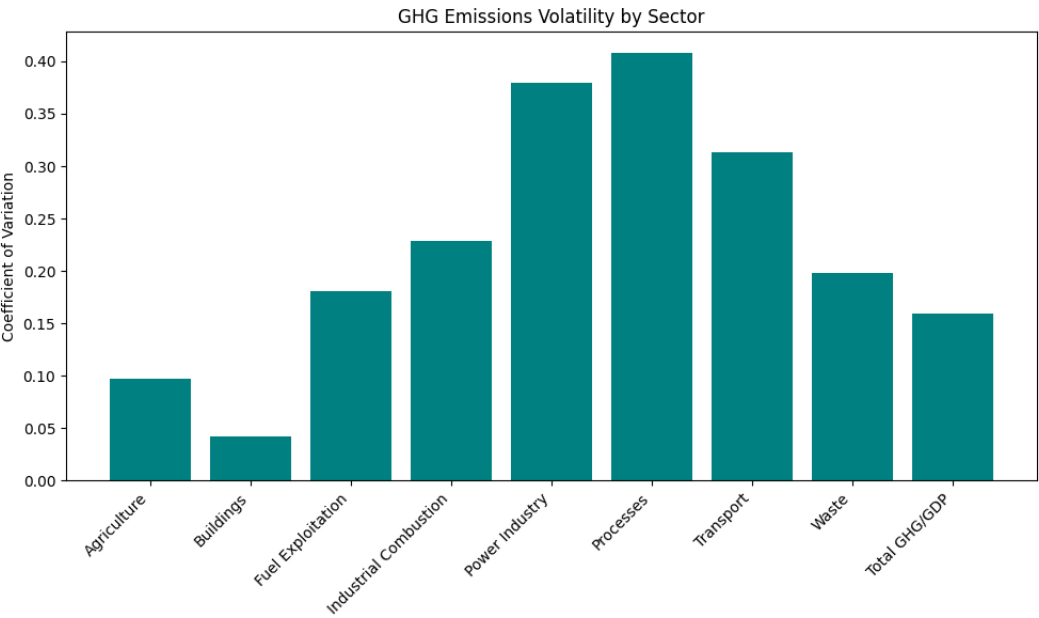
FVI_GOLD: 0.593608 => Moderate gold volatility indicates increased investor caution
FVI_FX: 0.434301 => Moderate FX volatility indicates ongoing currency-market adjustment
FVI_TWI: 0.469352 => Moderate trade-weighted volatility indicates some external-sector adjustment
GHG_CV: 0.223036 => Moderate GHG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