

Fractal Volatility Index for AAPL : 0.572. 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: Apple Inc. AAPL FVI 0.572

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): -0.211

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: 0.572 (Fractal Volatility Index FVI)

DFA Result: 0.5037 (Detrended Fluctuation Analysis)

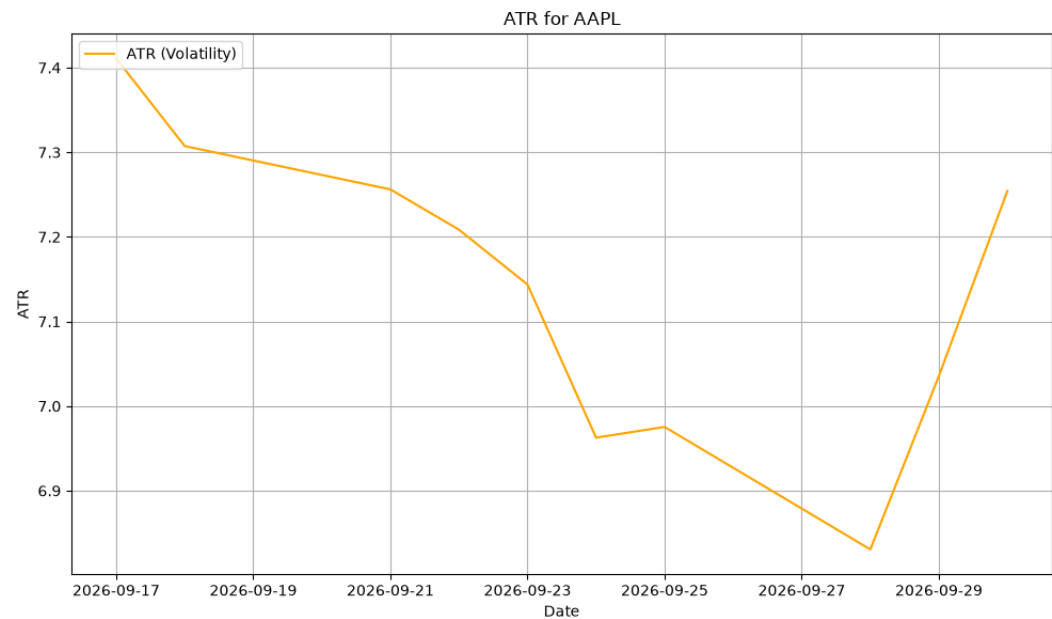
Lyapunov Exponent: 0.0165 (Measures chaos and predictability)

Hurst Exponent: 0.5186 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 333.02 is within the Bollinger Bands range (316.65 - 346.05).
Latest ATR: 7.2544

Average True Range (ATR)



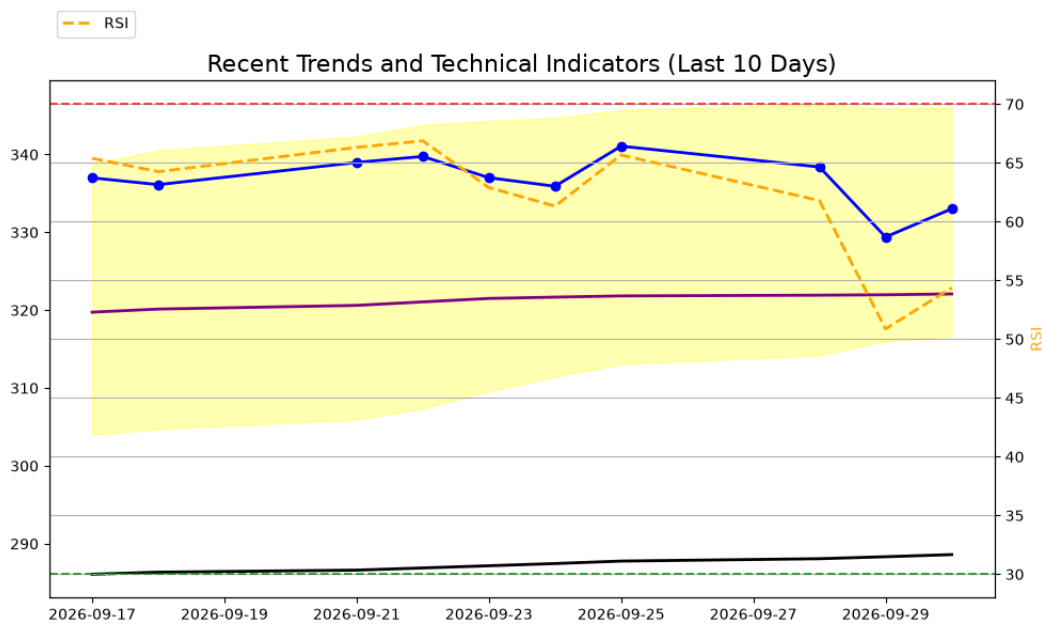
The ATR measures the recent price volatility of a stock, calculating the average range between its high and low prices over a given period (usually 14 days). A higher ATR indicates greater market volatility, and a lower ATR indicates less volatility.

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 Apple Inc. (AAPL) is 0.5715670749667227, which is higher than the market-wide FVI of 0.478, indicating a greater structural instability for AAPL compared to the overall market. The Lyapunov Exponent of 0.016537303551801982 and Hurst Exponent of 0.5185814795396163 suggest a slight sensitivity and divergence within the system, and a weak evidence of persistence respectively. The DFA score of 0.5037229298562086 suggests a scale-dependent correlation structure, but does not independently predict a breakout, volatility surge or price direction.

2. Breakout Evidence

The Breakout Probability Score (BPS) for AAPL is -0.21068906140196686, indicating weak evidence of a current breakout. The latest closing price of AAPL is within the Bollinger Bands range (316.65 - 346.05), providing no strong breakout signal.

3. Participation and Technical Context

The volume change for AAPL is 57.897714643402885%. The Average True Range (ATR) is 7.254390875083017, but without historical or price-normalised comparison, it cannot be classified as high or low.

4. Macro and Sector Context

The FVI for Gold, FX and TWI are 0.593608, 0.434301 and 0.469352 respectively, indicating different levels of structural instability in their respective series. The GHG sector variability score is low (0.048) for the Technology sector, and the company's GHG sector sensitivity score is 0.04825, suggesting a low emissions-related variability.

5. Risk Interpretation

The evidence most strongly supports a state of elevated instability for AAPL, given its higher FVI compared to the market-wide FVI. However, there is no clear breakout potential due to a weak BPS and no strong breakout signal from the Bollinger Bands.

6. Monitoring Implications

The indicators that merit continued observation include the FVI, BPS, and the Lyapunov and Hurst Exponents due to their relevance in assessing volatility structure and breakout evidence.

FINAL TAKEAWAY

The analysis suggests an elevated structural instability for Apple Inc. (AAPL) compared to the overall market, with no clear evidence of a breakout. The most important uncertainty to monitor is the company's FVI, which indicates a higher level of structural instability, and its relation to the market-wide FVI.

Stock Information

Market Capitalization: 4860153954000, Industry: CONSUMER ELECTRONICS, Latest Volume: 49988558, Description: Apple Inc., Sector: TECHNOLOGY, Price to Book: 45.74, Trailing PE: 37.71, Forward PE: 35.21, Enterprise to Ebitda: 29.41, Enterprise to Revenue: 10.58, Profit Margins: 0.276

The trading volume has changed by 57.90% 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: 1.08

Beta of 1.08 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: 60%

Momentum: 15%

Structural Stress: 40%

Narrative Dependence: 30%

Confidence: 63%

Calculated Metrics:

- Price-Volume Divergence: 0.000

- Volatility Dissonance Index: -0.182

Evidence:

- Company FVI is in the moderate volatility range and above the market-wide FVI.

Indicators: Fractal Volatility Index=0.572, Market-wide FVI=0.478

Supports: Structural Stress

- Negative breakout score and price remains within Bollinger Bands, indicating no strong breakout signal.

Indicators: Breakout Probability Score=-0.21068906140196686, Bollinger Bands Range=316.65-346.05, Latest Close=333.02

Supports: Momentum

- Beta is above 1 and ATR exceeds the high-volatility threshold, indicating elevated recent trading-range movement and market-relative sensitivity.

Indicators: Beta=1.085, Latest ATR=7.254390875083017

Supports: Structural Stress

- Strong profitability is paired with demanding valuation multiples.

Indicators: Profit margin=0.276, Trailing P/E=37.71, Forward P/E=35.21, EV/EBITDA=29.41, EV/Revenue=10.58, Price-to-book=45.74

Supports: Resilience

Assessment:

Evidence shows no confirmed breakout momentum and a moderate structural volatility profile, with high recent trading-range volatility. Profitability is strong, while valuation multiples are demanding relative to typical ranges. Taken together, this aligns with a quality profile whose appeal is sensitive to valuation rather than momentum.

Limitations:

- EPS figures supplied as zero appear non-meaningful and limit the ability to reconcile valuation with per-share earnings.

- Absent detailed cash flow, balance sheet, and revenue trajectory data restricts assessment of longer-term operating resilience.

- Volume and volatility measures do not establish direction, causation, or persistence of recent price behavior.

Medium-Term Fit:

Suited to an independent thesis prioritizing durable consumer electronics franchises with strong margins and ecosystem defensibility, where the investor accepts premium valuation and intermittent volatility without relying on near-term breakout momentum.

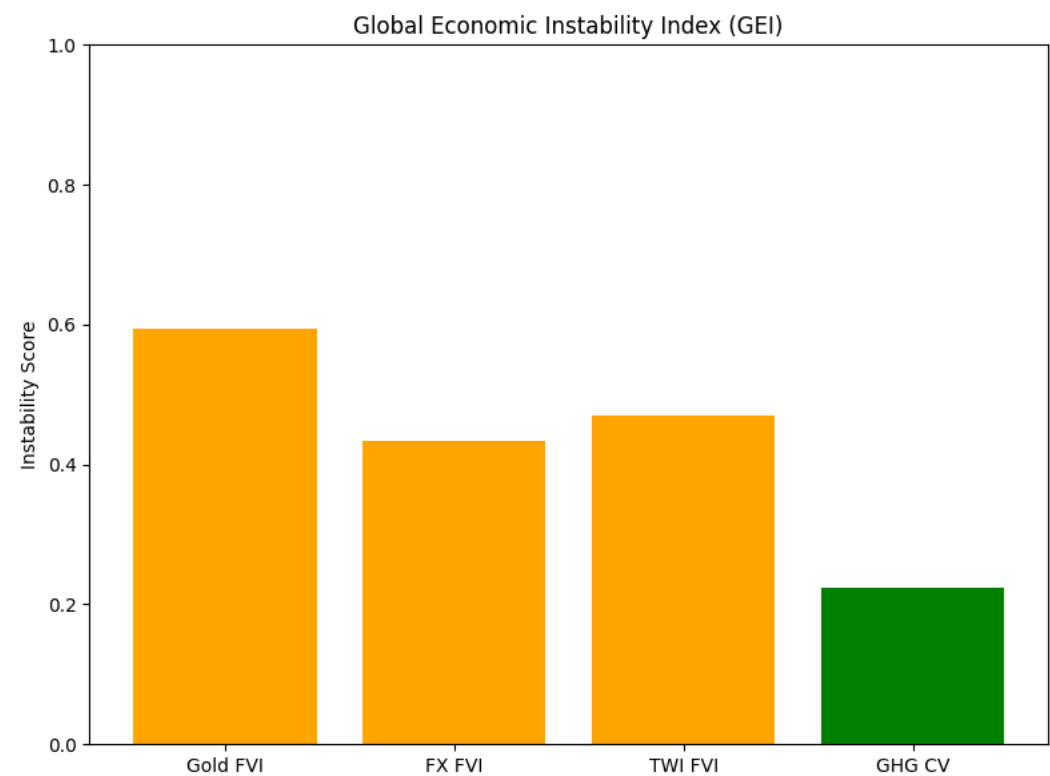
Fractal Volatility Indices

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

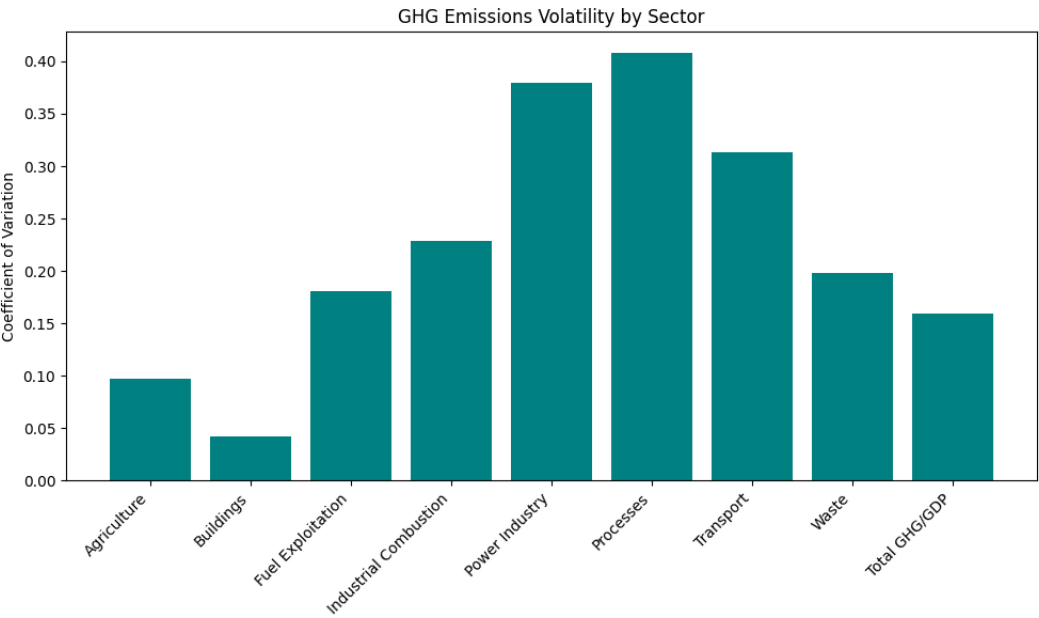
FVI_GOLD: 0.593608 => Moderate gold volatility indicates increased investor caution
FVI_FX: 0.434301 => Moderate FX volatility indicates ongoing currency-market adjustment
FVI_TWI: 0.469352 => Moderate trade-weighted volatility indicates some external-sector adjustment
GHG_CV: 0.223036 => Moderate GHG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