

Fractal Volatility Index for JNJ : 0.510. 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: Johnson & Johnson JNJ FVI 0.510

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): -0.299

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: 0.510 (Fractal Volatility Index FVI)

DFA Result: 0.5081 (Detrended Fluctuation Analysis)

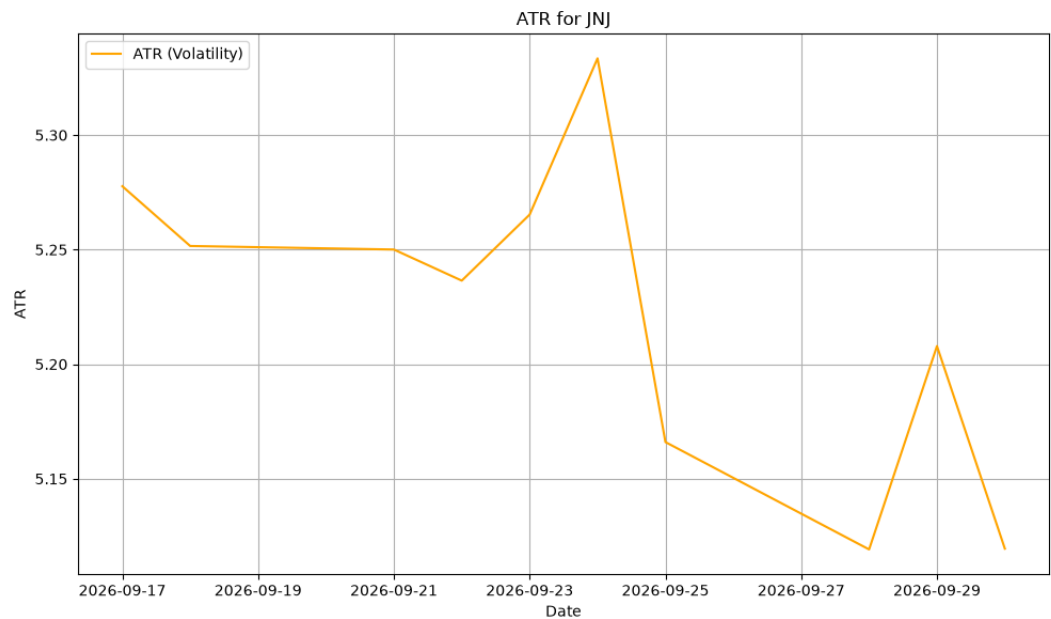
Lyapunov Exponent: 0.0160 (Measures chaos and predictability)

Hurst Exponent: 0.4956 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 264.74 is within the Bollinger Bands range (262.75 - 276.45).
Latest ATR: 5.1195

Average True Range (ATR)



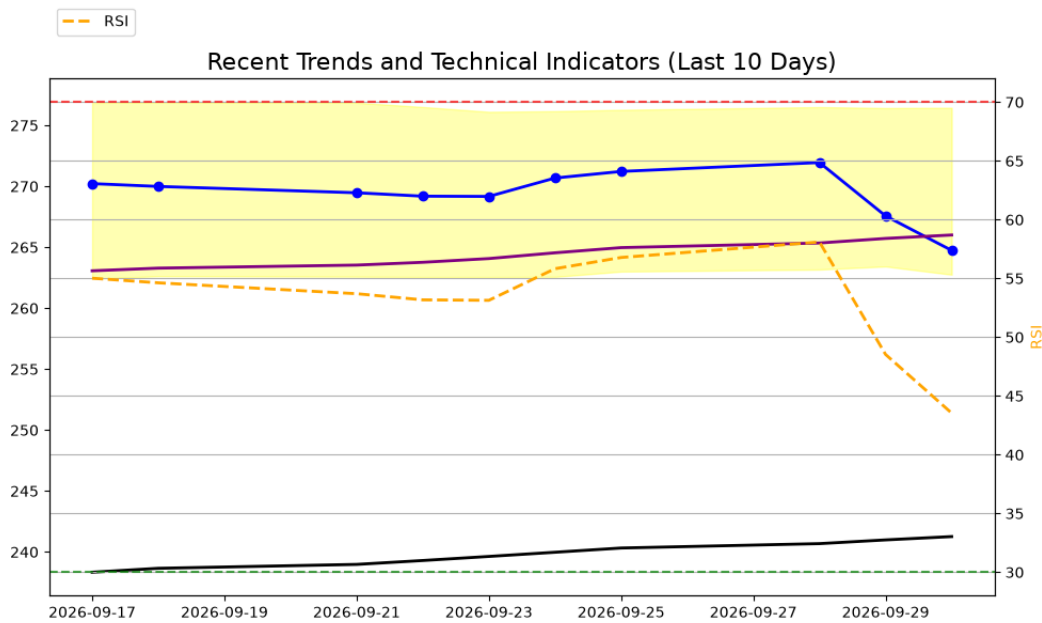
The ATR measures the recent price volatility of a stock, calculating the average range between its high and low prices over a given period (usually 14 days). A higher ATR indicates greater market volatility, and a lower ATR indicates less volatility.

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 Johnson & Johnson (JNJ) currently stands at 0.5096, which is slightly higher than the market-wide FVI of 0.478. This suggests that JNJ's price movements are experiencing a slightly greater degree of structural instability compared to the broader market. The Lyapunov Exponent, at 0.016, indicates a level of sensitivity and divergence within the calculated system, while the Hurst Exponent of 0.4956 suggests a weak tendency towards anti-persistent behavior over the measured series. The DFA value of 0.5081 further underscores the scale-dependent correlation structure in the stock's price movements.

2. Breakout Evidence

The Breakout Probability Score (BPS) for JNJ is -0.2993, implying weak evidence of a breakout. This is further supported by the observation that the latest closing price of 264.74 is within the Bollinger Bands range (262.75 - 276.45), indicating no strong breakout signal.

3. Participation and Technical Context

The volume change in JNJ stands at -4.42%, indicating a decrease in trading activity. The latest Average True Range (ATR) is 5.1195, which provides a measure of the stock's recent price volatility, although without historical or price-normalised comparison, it's difficult to ascertain its significance.

4. Macro and Sector Context

Comparing the FVI of Gold (0.5936), FX (0.4343), and TWI (0.4694), it appears that there is greater structural instability in Gold and less in FX, with TWI in the middle. This suggests varying degrees of instability across these different asset classes. The GHG sector variability score for JNJ is low (0.052), indicating relatively minimal emissions-related variability in the Healthcare sector.

5. Risk Interpretation

The evidence suggests moderate uncertainty for JNJ, given the slightly elevated FVI compared to the market-wide FVI, and the weak evidence of a breakout from the BPS and Bollinger Bands observation. The Lyapunov and Hurst exponents, along with the DFA value, further support this interpretation.

6. Monitoring Implications

Given the current evidence, it would be prudent to continue monitoring the FVI for any significant changes, as well as the BPS and Bollinger Bands for any emerging breakout signals. The ATR could also be useful to monitor for changes in price volatility.

FINAL TAKEAWAY

The strongest supported conclusion from the analysis is that JNJ is experiencing moderate uncertainty with slightly elevated structural instability compared to the broader market, and weak evidence of a breakout. The most important uncertainty to monitor would be the FVI for any significant changes, as well as the BPS and Bollinger Bands for potential breakout signals.

Stock Information

Market Capitalization: 637996499000, Industry: DRUG MANUFACTURERS - GENERAL, Latest Volume: 6343704, Description: Johnson & Johnson, Sector: HEALTHCARE, Price to Book: 7.63, Trailing PE: 31.07, Forward PE: 21.01, Enterprise to Ebitda: 19.94, Enterprise to Revenue: 6.91, Profit Margins: 0.215

The trading volume has changed by -4.42% 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: 0.23

Beta of 0.23 suggests low volatility compared to the market.

Stock Investment Character Report

Analysis based on supplied stock characteristics and market context.

Investment Character: Steady Operator

Resilience: 65%

Momentum: 15%

Structural Stress: 30%

Narrative Dependence: 10%

Confidence: 60%

Calculated Metrics:

- Price-Volume Divergence: 0.000

- Volatility Dissonance Index: -0.340

Evidence:

- Company FVI indicates moderate structural volatility, slightly above the market-wide FVI.

Indicators: FVI=0.510, Market-wide FVI=0.478

Supports: Structural Stress

- The stock's sensitivity to the market is below 1, indicating lower market-relative volatility.

Indicators: Beta=0.235

Supports: Resilience

- No strong breakout signal is detected and trend persistence metrics are near 0.5, indicating no confirmed directional momentum.

Indicators: Breakout Probability Score=-0.2993, Bollinger Bands status=within range, Hurst Exponent=0.4956, DFA=0.5081

Supports: Momentum

- Recent trading-range volatility is high by the provided ATR thresholds while the company is profitable.

Indicators: ATR=5.119, Profit margin=0.215

Supports: Uncertainty

Assessment:

Low market sensitivity and moderate structural volatility suggest a generally steady profile, while profitability supports operational soundness. The absence of a breakout signal and near-random trend metrics indicate limited momentum at present. High recent trading-range volatility coexists with low beta, pointing to episodic price swings rather than persistent instability.

Limitations:

- Valuation ratios are provided without comparative or historical context, so expensiveness or cheapness cannot be assessed.

- ATR is an absolute measure and lacks price-normalized or historical context beyond the supplied threshold.

- Missing detailed operating metrics (growth, cash flow, leverage) limit assessment of longer-term resilience.

- The supplied data cannot establish future price direction or causation.

Medium-Term Fit:

Potential fit for an independent thesis favoring large-cap healthcare exposure with lower market sensitivity and consistent profitability, accepting periods of higher short-term trading-range volatility and the absence of confirmed breakout momentum.

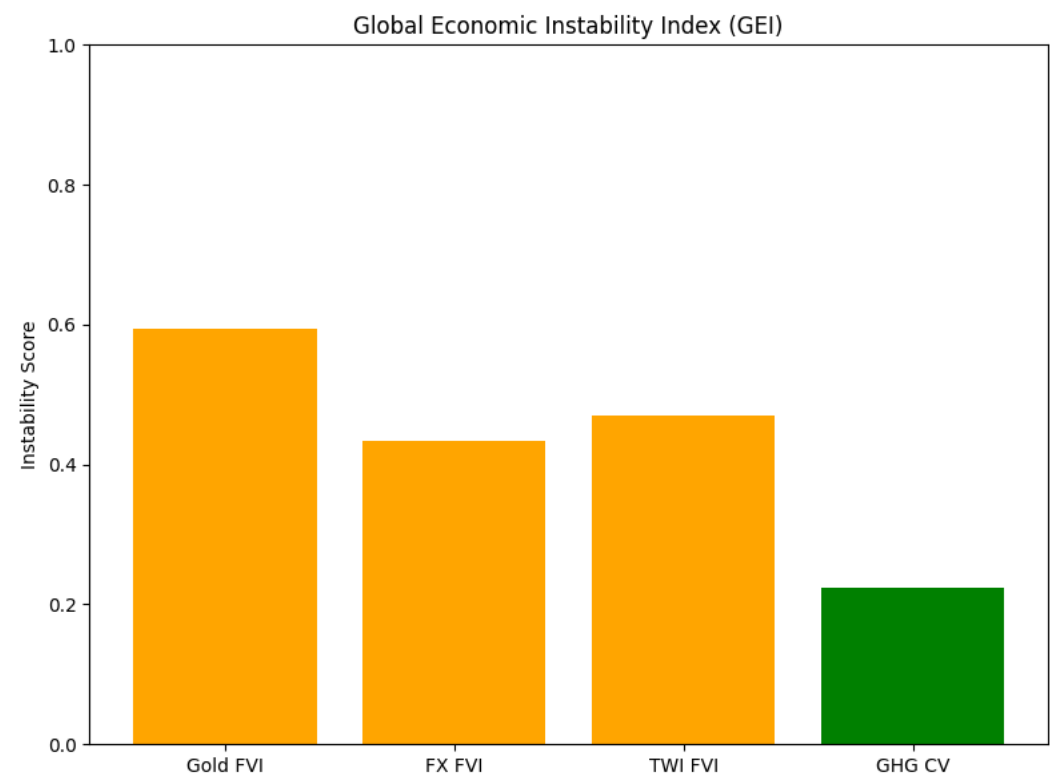
Fractal Volatility Indices

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

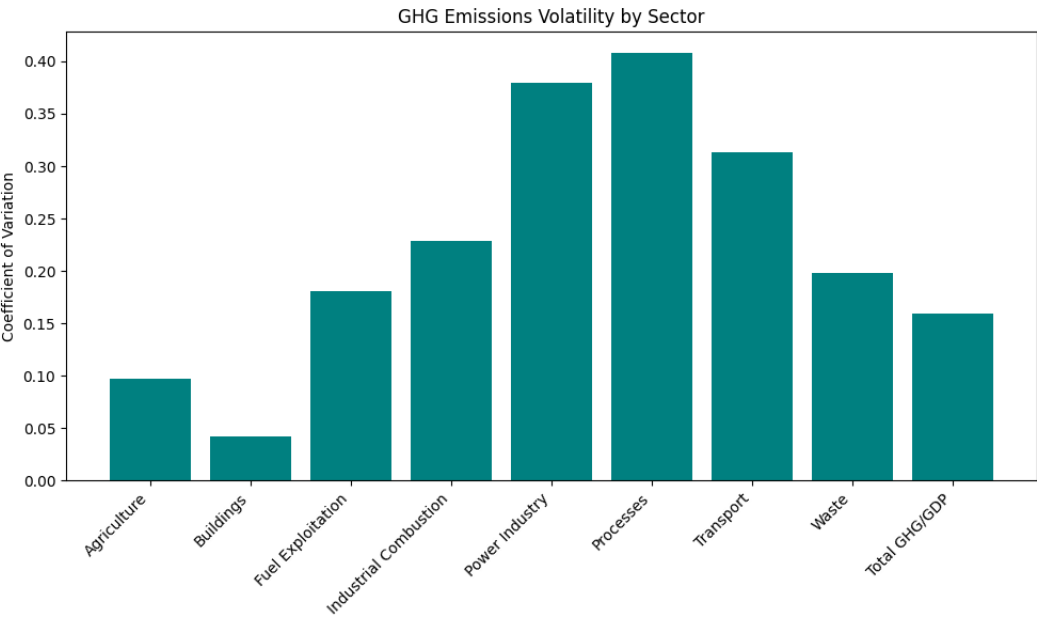
FVI_GOLD: 0.593608 => Moderate gold volatility indicates increased investor caution
FVI_FX: 0.434301 => Moderate FX volatility indicates ongoing currency-market adjustment
FVI_TWI: 0.469352 => Moderate trade-weighted volatility indicates some external-sector adjustment
GHG_CV: 0.223036 => Moderate GHG 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 (0.052) for the Healthcare 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_____