

Fractal Volatility Index for RIVN : 0.196. Market Wide FVI:0.478
(0 - 0.33: Stable, 0.33 - 0.66: Moderate Volatility, 0.66 - 1: High Volatility)



Global Geopolitical Volatility



Red: High Risk FVI zone, Orange: Medium Risk FVI zone, Green: Low Risk FVI zone

Verv Stock Analysis Report: Rivian Automotive Inc RIVN FVI 0.196

Analysis Period: 2021-04-22 to 2026-04-22

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

FVI_GOLD: 0.593608 => Moderate gold volatility, likely reflecting investor caution

FVI_FX: 0.434301 => Low FX volatility; currency markets stable for now

FVI_TWI: 0.469352 => Moderate TWI volatility; minor export/import fluctuations

GHG CV: 0.223036 => Moderate emissions volatility; sector-level uncertainty exists

Primary Risk Driver: Gold volatility is a good proxy for global geopolitical risk. 0.593608.

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 Score (BPS): 0.182

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: 0.196 (Fractal Volatility Index FVI)

DFA Result: 0.3569 (Detrended Fluctuation Analysis)

Lyapunov Exponent: 0.0131 (Measures chaos and predictability)

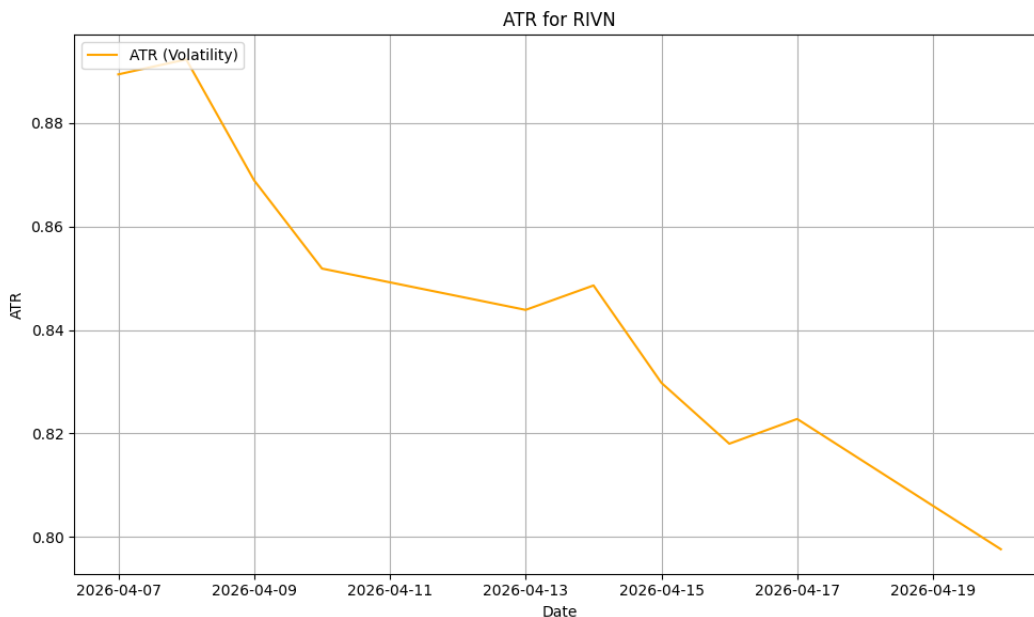
Hurst Exponent: 0.5284 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 16.92 is within the Bollinger Bands range (14.12 - 17.13).

Latest ATR: 0.7976

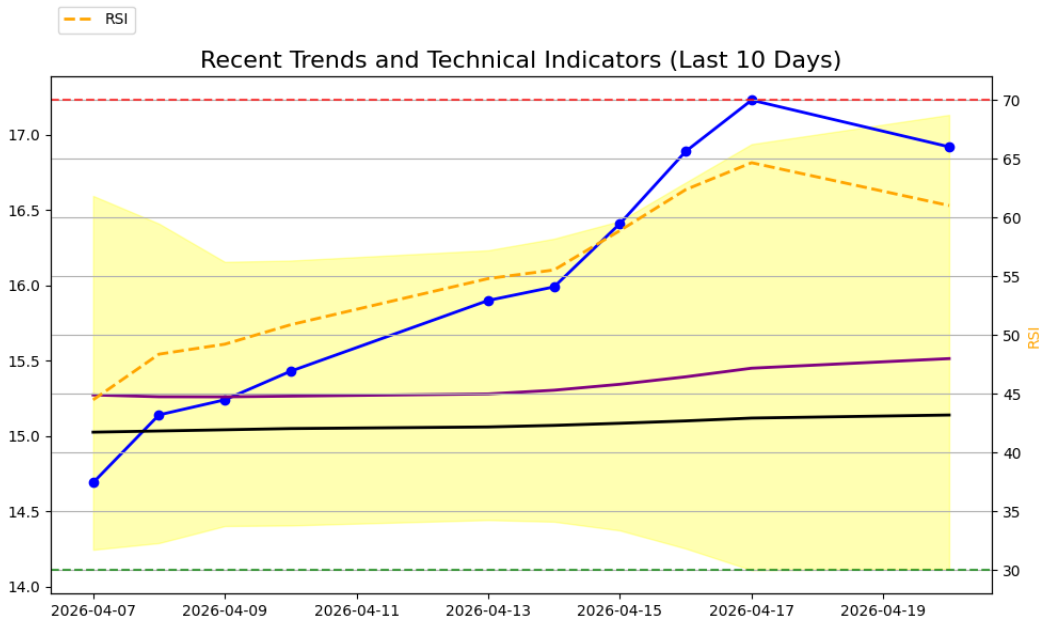
Average True Range (ATR)



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



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-Generated Market Insights

Investment Report:

--- INVESTMENT REPORT ---

1. Volatility & Breakout Potential

RIVN exhibits a moderate level of volatility as indicated by its FVI of 0.196, suggesting an acceleration in price movement. The stock's Lyapunov exponent of 0.013 is relatively low compared to the market-wide values, indicating relative stability. The Bollinger Bands are not expanding, suggesting no significant price volatility. The stock's volume change of -12.47% does not confirm the price moves, indicating a potential lack of investor confidence.

2. Market Sentiment

The stock's transaction volume of 20997548000 suggests institutional-driven behavior. The absence of a strong breakout signal and the moderate FVI indicate a mixed market sentiment.

3. Geopolitical Risk Assessment

The high market-wide Gold FVI of 0.594 suggests an elevated level of geopolitical tension. RIVN, as part of the consumer cyclical sector, may be vulnerable to these global stress indicators. The absence of a sector sensitivity score for RIVN makes it difficult to assess its exposure to energy, transport, and emissions volatility.

4. Sector and Supply Chain Exposure

RIVN, as an electric vehicle manufacturer, is likely to depend on Asia-sourced components like lithium and semiconductors. This dependency could expose the company to risks associated with trade disruptions and supply chain volatility.

--- STRATEGY RECOMMENDATION ---

Given the current market conditions and RIVN's stock metrics, the optimal strategy appears to be a cautious one. The absence of a strong breakout signal, coupled with a moderate FVI and a decrease in volume, suggest that the stock may be entering a consolidation phase. Investors should be wary of potential false breakouts.

--- FINAL TAKEAWAY ---

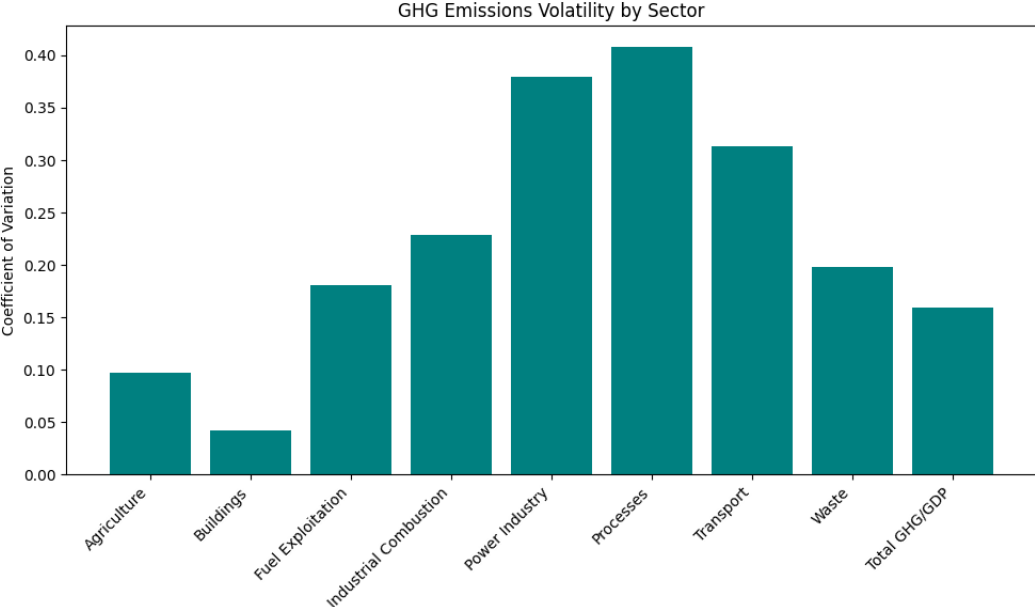
In the context of elevated market-wide volatility and geopolitical tension, RIVN's moderate volatility, lack of a strong breakout signal, and potential supply chain risks suggest a cautious investment approach. The phrase "Instability without volume—risk of fakeout high" seems fitting for the current situation.

Market Capitalization: 20997548000, Industry: AUTO MANUFACTURERS, Latest Volume: 19620264, Description: Rivian Automotive Inc, Sector: CONSUMER CYCLICAL, Price to Book: 4.599, Enterprise to Ebitda: -1.955, Enterprise to Revenue: 4.003, Profit Margins: -0.677

The trading volume has changed by -12.47% 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: 1.69
Beta of 1.69 suggests high volatility compared to the market.

Volatility Indicators of GHG Emissions by Industry and GDP



No GHG score available for Consumer cyclical 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.

Stock Market Price Credibility Report

Analysis based on current global macroeconomic and geopolitical information.

Market_Price_Credibility_Analysis:

```
{  
  "Final_Score": 0.573,  
  "Price_Volume_Divergence": 0,  
  "Volatility_Dissonance_Index": 0.942,  
  "Deception_Risk": 0.769,  
  "Trumpery_Alert": true,  
  "Summary": "Truth is on vacation. Please hold for alternate facts."  
}
```

Based on the current global and U.S. financial landscape and the given indicators, here's the assessment:

1. Rising U.S. debt and deficit levels: The U.S. debt and deficit levels continue to rise, a trend that appears to be at odds with the narrative of strong economic growth. This could lead to long-term fiscal instability.
2. Changes in U.S. Treasury bond yields and issuance: Lower bond yields and increased issuance could suggest that investors are becoming more risk-averse, signaling potential economic downturn.
3. Reports of declining foreign demand for U.S. bonds: If true, this could suggest a loss of confidence in the U.S. economy or a shift towards other investment opportunities.
4. Central bank interventions: The use of rate cuts and QE are typically responses to economic weakness, which contradicts a narrative of economic strength.
5. Use of tariffs and sanctions as economic tools: These can distort market realities, creating a disconnect between the narrative and the underlying fiscal, monetary, and geopolitical realities.
6. Inflation vs. official interest rate policy: If inflation is rising while interest rates remain low, this could suggest a disconnect between the narrative of economic stability and the reality of rising living costs.
7. BRICS+ influence and de-dollarization trends: If these trends continue, they could undermine the U.S. dollar's status as the global reserve currency, which would be a significant shift from the current narrative.
8. Gold volatility and geopolitical hedging: Increased gold volatility and geopolitical hedging can indicate uncertainty and risk aversion, contradicting a narrative of stability and growth.

Based on these indicators, the following JSON response is provided:

```
{  
  "NRDI": 0.7,  
  "Trumpery_Alert": true,  
  "Satirical_Summary": "If you believe this is market forces, we've got a bridge to sell you."  
}
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Deception Risk:

Between 0 and .2, markets appear fundamentally sound, no price distortion.

Between .2 and .4 there may be some irrationality or manipulation. Caution is advised.

Between .4 and .6 there are signals of disconnect between narratives and reality.

Between .6 and .8 distortions mean possible financial gaslighting.

Between .8 and 1 signals a confidence scam - you are being sold a bridge.

What Price Credibility Sell You a Bridge Index captures:

Price to Volume Divergence PVD.' When price rises while volume drops is suspicious behavior.

A Narrative Reality Dislocation Index NRDIndex is an AI score for disconnect between corporate statements and underlying fundamentals.

A Volatility Persistence Score VPI. When volatility indicators stay low despite geopolitical/economic chaos.

The Macro Score includes Tariff Impact Denial. High tariffs plus high exposure plus rising stock. This may be a trumpery illusion alert.

Treasury Detector TFD Liquidity Masking Metric. Fed/Treasury injections may be affecting retail activity or debt spreads.

The Media Sentiment Mismatch is included. This is where news tone is contrary to actual market data (e.g. bullish despite bond collapse).

Note: Trumpery derives from a French word meaning to deceive, in many dictionaries showy but worthless.

_____ **END OF REPORT** _____