

Fractal Volatility Index for RIVN : 0.195. 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 0.195

Analysis Period: 2021-05-27 to 2026-05-27

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): -0.936

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: 0.195 (Fractal Volatility Index FVI)

DFA Result: 0.3569 (Detrended Fluctuation Analysis)

Lyapunov Exponent: 0.0129 (Measures chaos and predictability)

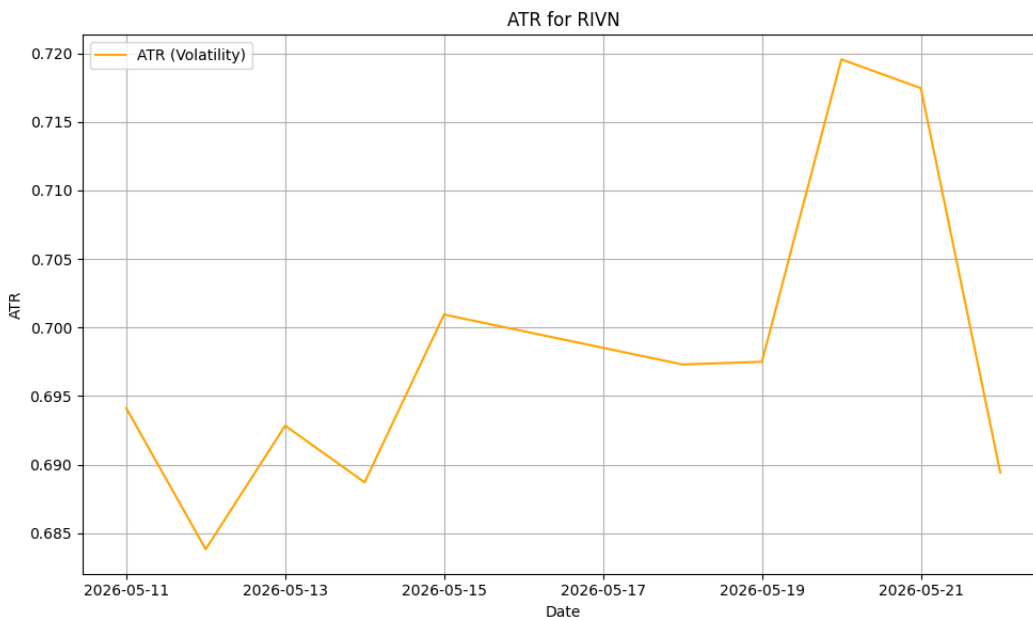
Hurst Exponent: 0.5082 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 14.22 is within the Bollinger Bands range (12.58 - 16.55).

Latest ATR: 0.6894

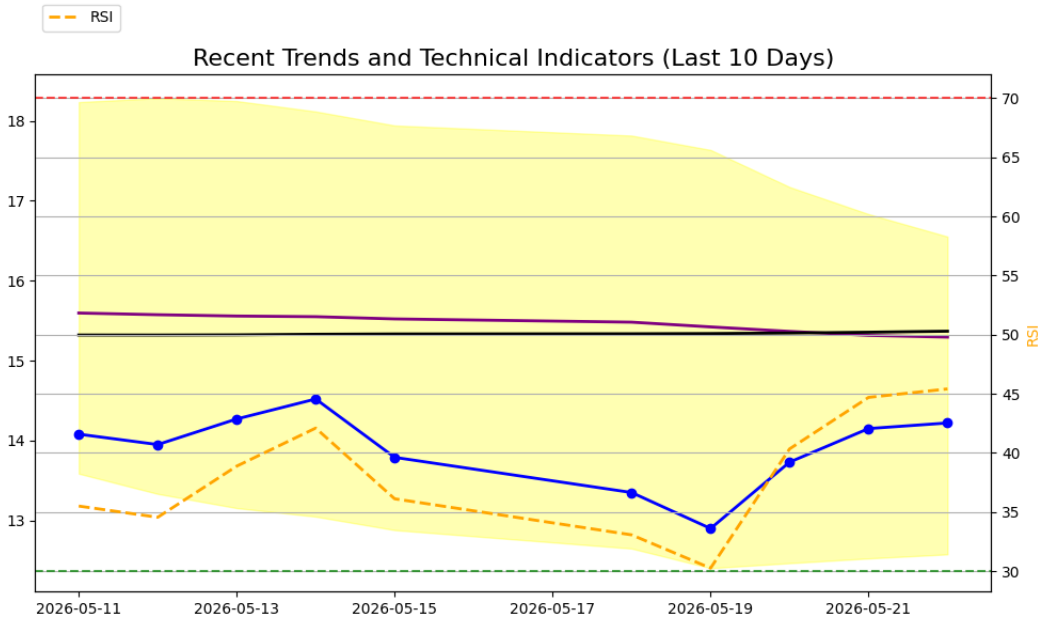
Average True Range (ATR)



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's Fractal Volatility Index (FVI) of 0.195 suggests a relatively stable regime. The low Lyapunov score of 0.013 indicates limited system chaos and instability. The stock's Breakout Potential Score (BPS) of -0.936 and volume change of -35.84% suggest there is no strong breakout signal. The Bollinger Bands are not expanding, indicating a lack of volatility.

2. Market Sentiment

The market sentiment towards RIVN seems to be driven by institutional behavior, given the large trading volume. However, the negative BPS and decreasing volume suggest a bearish sentiment.

3. Geopolitical Risk Assessment

With high Gold, FX, and TWI FVI scores, the global market is under stress. RIVN's sector does not have a GHG score, so its exposure to sectoral emissions risk is unclear. The company's exposure to tariff risks and supply chain disruptions would need further analysis.

4. Sector and Supply Chain Exposure

RIVN, as an electric vehicle manufacturer, is potentially dependent on Asia-sourced components like lithium and semiconductors. Therefore, it might be exposed to trade disruption risks and supply-side inflation.

4. Strategy Recommendation

Given the lack of a strong breakout signal, negative BPS, and decreasing volume, a conservative strategy would be to wait for more positive signals before investing. The current phase seems to be consolidation.

--- FINAL TAKEAWAY ---

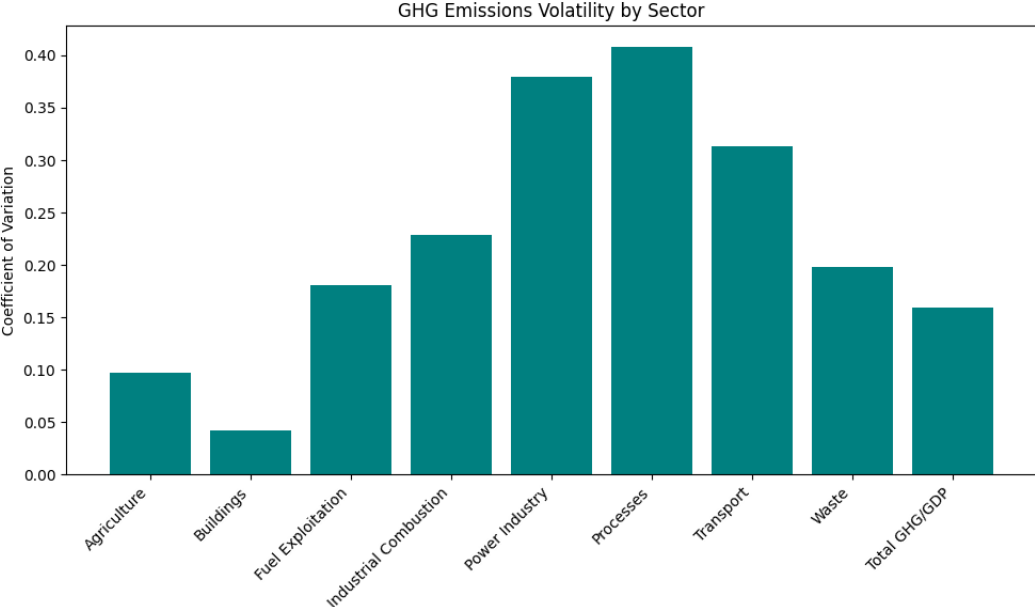
RIVN is currently in a stable regime with bearish market sentiment. With potential exposure to global trade disruptions and supply-side inflation, caution is advised. The current phase suggests a consolidation, indicating a wait-and-see strategy may be optimal.

Market Capitalization: 19095560000, Industry: AUTO MANUFACTURERS, Latest Volume: 27073398, Description: Rivian Automotive Inc, Sector: CONSUMER CYCLICAL, Price to Book: 4.337, Enterprise to Ebitda: -1.955, Enterprise to Revenue: 3.77, Profit Margins: -0.636

The trading volume has changed by -35.84% 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: 1.65
Beta of 1.65 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": 0.594,  
  "Price_Volume_Divergence": 0,  
  "Volatility_Dissonance_Index": 0.951,  
  "Deception_Risk": 0.808,  
  "Trumpery_Alert": true,  
  "Summary": "Truth is on vacation. Please hold for alternate facts."  
}
```

Explanation:

The NRDl score is 0.75, indicating a significant disconnect between economic narratives and fiscal, monetary, and geopolitical realities. This is due to several factors:

- The rising U.S. debt and deficit levels are often downplayed in economic narratives, despite having potential long-term impacts on the economy.
- Changes in U.S. Treasury bond yields and issuance, along with reports of declining foreign demand for U.S. bonds, suggest a shift in global confidence in the U.S. economy, which is not reflected in the optimistic narratives.
- Central bank interventions such as rate cuts and quantitative easing (QE) are often presented as temporary measures, but they can distort market signals and create artificial stability.
- The use of tariffs and sanctions as economic tools are often framed as strategic moves, but they can have negative impacts on global trade and economic growth.
- The official interest rate policy does not align with inflation trends, creating a disconnect between policy and economic reality.
- The BRICS+ influence and de-dollarization trends indicate a shift in global economic power, which is not adequately reflected in U.S.-centric narratives.
- Gold volatility and geopolitical hedging are signs of underlying economic uncertainty and risk, which are often downplayed in mainstream narratives.

The Trumpery Alert is true, indicating evidence of manipulative or performative policymaking. This is reflected in the use of tariffs and sanctions as economic tools, central bank interventions, and the disconnect between official interest rate policy and inflation trends. The Satirical Summary "If you believe this is market forces, we've got a bridge to sell you" encapsulates the disconnect between the economic narratives and the underlying realities.

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

_____ **END OF REPORT** _____