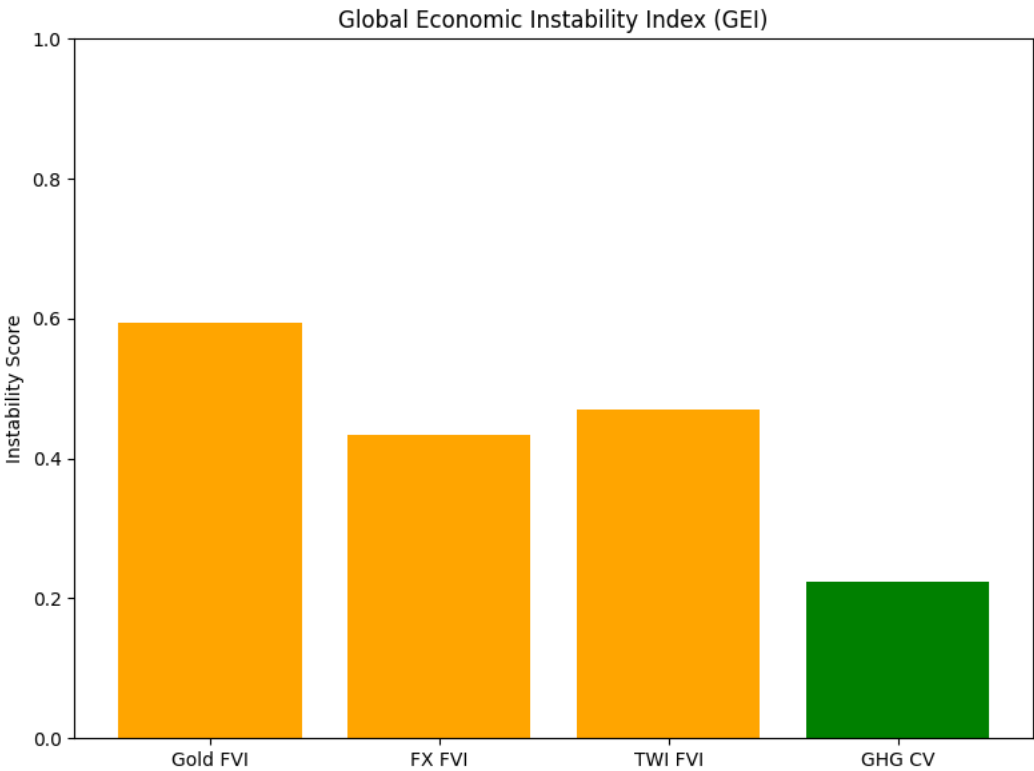


Fractal Volatility Index for RIVN : 0.214. Market Wide FVI:0.478
(0 - 0.33: Stable, 0.33 - 0.66: Moderate Volatility, 0.66 - 1: High Volatility)



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 0.214

Analysis Period: 2021-07-15 to 2026-07-15

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): 0.699

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

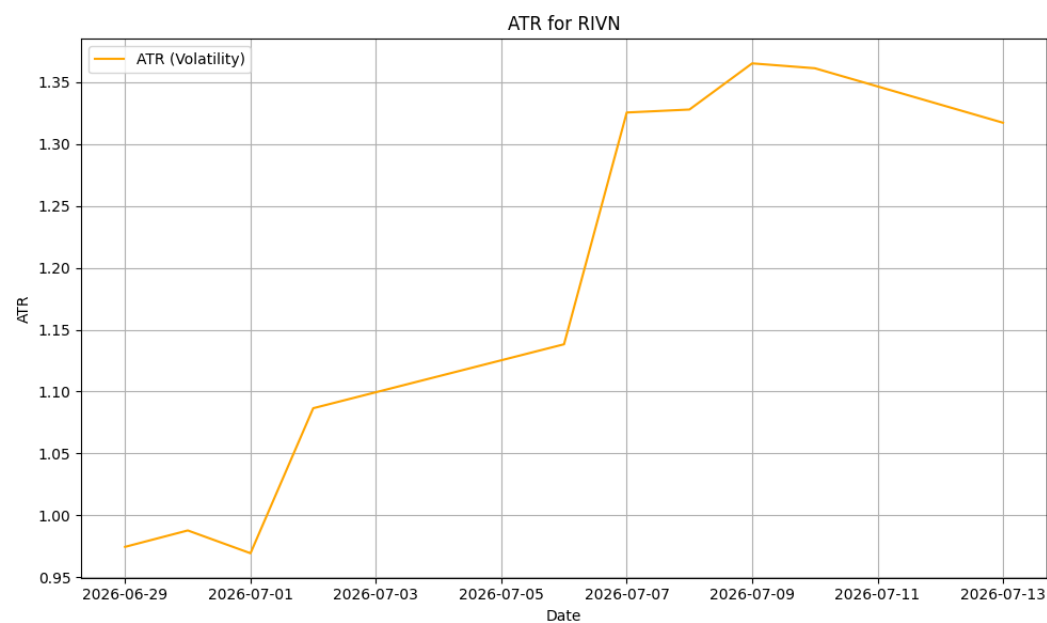
Fractal & Statistical Analysis

FVI Score: 0.214 (Fractal Volatility Index FVI)
DFA Result: 0.3556 (Detrended Fluctuation Analysis)
Lyapunov Exponent: 0.0132 (Measures chaos and predictability)
Hurst Exponent: 0.5261 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 17.31 is within the Bollinger Bands range (14.04 - 19.31).
Latest ATR: 1.3173

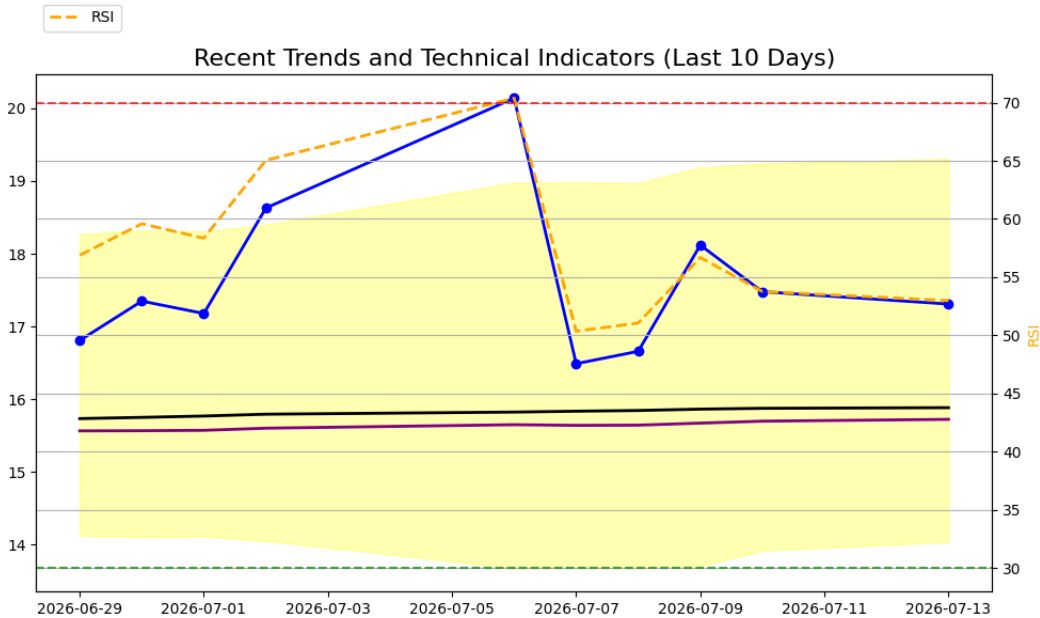
Average True Range (ATR)



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 FVI of 0.214 suggests a relatively stable regime, with no significant acceleration or noise.
- Lyapunov value of 0.013 is low, indicating less chaos and instability compared to market-wide values.
- The stock's Bollinger Bands are currently within range, suggesting no significant expansion or contraction.
- The stock's volume change of -42.93% does not confirm price moves, signaling potential uncertainty.

2. Market Sentiment

- The stock's behavior seems to be driven by institutional investors, which can lead to larger price swings and increased volatility.
- The lack of a strong breakout signal and decreasing volume may indicate bearish sentiment among investors.

3. Geopolitical Risk Assessment

- The elevated market-wide FVI indicators suggest potential global stress. The stock's low FVI and lack of a strong breakout signal may be indicative of resilience in the face of such stress.
- As a consumer cyclical sector company, RIVN may have exposure to tariff risks and supply chain dependencies, both of which need to be assessed further.

4. Sector and Supply Chain Exposure

- RIVN, being in the electric vehicle industry, may have significant dependencies on Asia-sourced components such as lithium and semiconductors. This could expose the company to supply-side inflation risks tied to trade instability.
- The company's sector also makes it susceptible to energy price shocks and geopolitical transport risk.

Strategy Recommendation

- Given the stock's current consolidation phase and the lack of a strong breakout signal, a trend-following strategy may not be optimal at this time.
- The stock's low FVI and BPS suggest that a breakout is not imminent.

--- FINAL TAKEAWAY ---

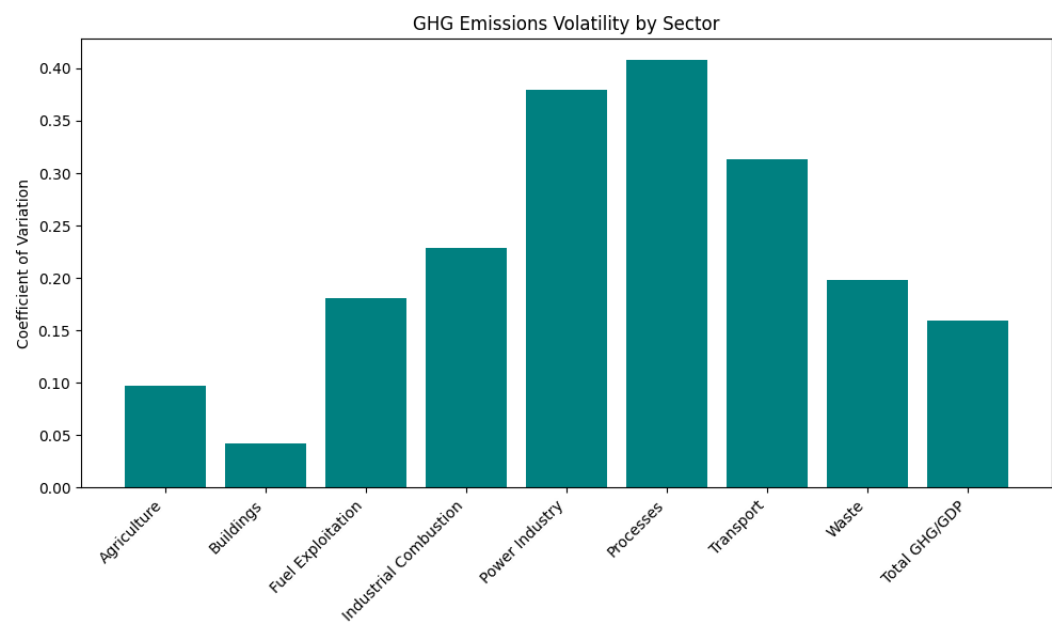
Given the current market-wide volatility and RIVN's specific metrics, a cautious approach is recommended. While the stock shows resilience in the face of global stress, its sector and supply chain exposure, along with bearish market sentiment, suggest potential risks. Therefore, investors should position defensively until more bullish signals emerge.

Market Capitalization: 25300003000, Industry: AUTO MANUFACTURERS, Latest Volume: 24217324, Description: Rivian Automotive Inc, Sector: CONSUMER CYCLICAL, Price to Book: 5.75, Enterprise to Ebitda: -1.955, Enterprise to Revenue: 4.893, Profit Margins: -0.636

The trading volume has changed by -42.93% 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: 1.60
Beta of 1.60 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": 0.556,  
  "Price_Volume_Divergence": 0,  
  "Volatility_Dissonance_Index": 0.856,  
  "Deception_Risk": 0.769,  
  "Trumpery_Alert": true,  
  "Summary": "Fiscal policy: now with 30% more denial!"  
}
```

Reasoning:

The rising U.S. debt and deficit levels, coupled with the changes in U.S. Treasury bond yields and issuance, indicate a significant disconnect between the economic narrative and the underlying fiscal realities. The declining foreign demand for U.S. bonds further exacerbates this disconnect.

Central bank interventions, such as rate cuts and quantitative easing, have been used to mitigate these issues. However, these measures can often distort the market and create a false sense of economic stability.

The use of tariffs and sanctions as economic tools has created a complex geopolitical landscape that is difficult to navigate. This has led to increased volatility in the gold market, as investors seek to hedge against geopolitical risks.

Inflation has remained relatively low, despite loose monetary policy. This suggests that the official interest rate policy may not be accurately reflecting the underlying economic conditions.

Finally, the influence of BRICS+ and de-dollarization trends suggest a shifting global economic order. This could further exacerbate the disconnect between the economic narrative and the underlying realities.

The Trumpery Alert is triggered due to manipulative or performative policymaking evident in the use of tariffs and sanctions, as well as central bank interventions. The satirical summary encapsulates the disconnect between the economic narrative 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 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** _____