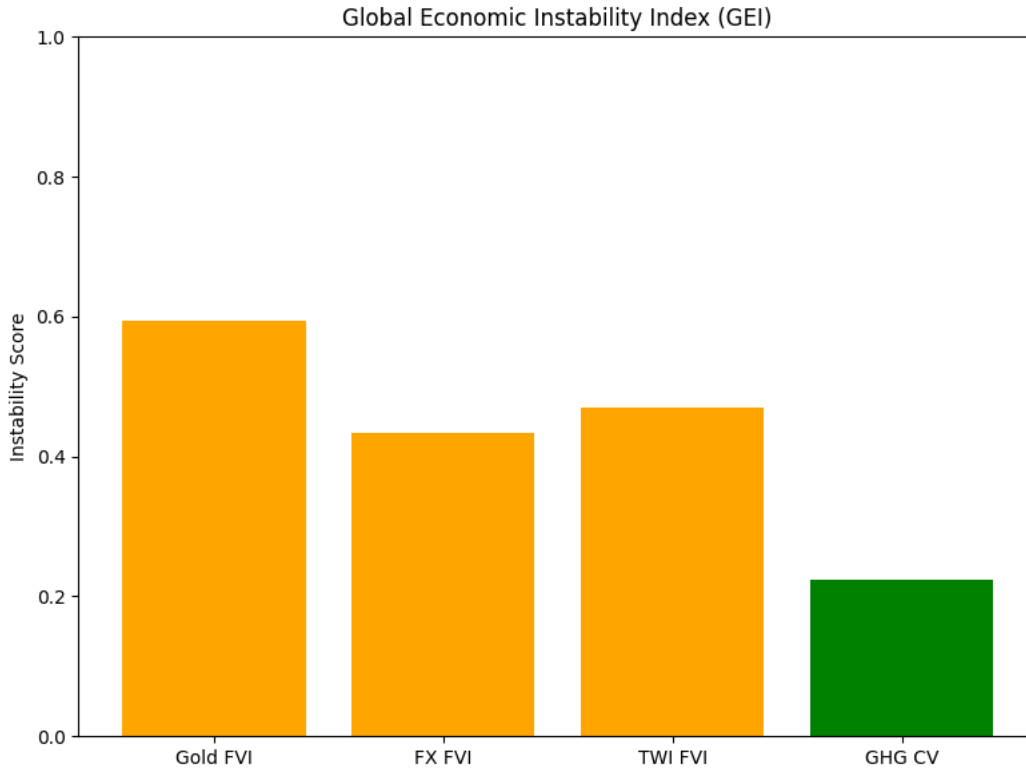


Fractal Volatility Index for RIVN : 0.182. Market Wide FVI:0.478
(0 - 0.33: Stable, 0.33 - 0.66: Moderate Volatility, 0.66 - 1: High Volatility)



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 0.182

Analysis Period: 2021-06-17 to 2026-06-17

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): 0.473

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: 0.182 (Fractal Volatility Index FVI)

DFA Result: 0.3571 (Detrended Fluctuation Analysis)

Lyapunov Exponent: 0.0129 (Measures chaos and predictability)

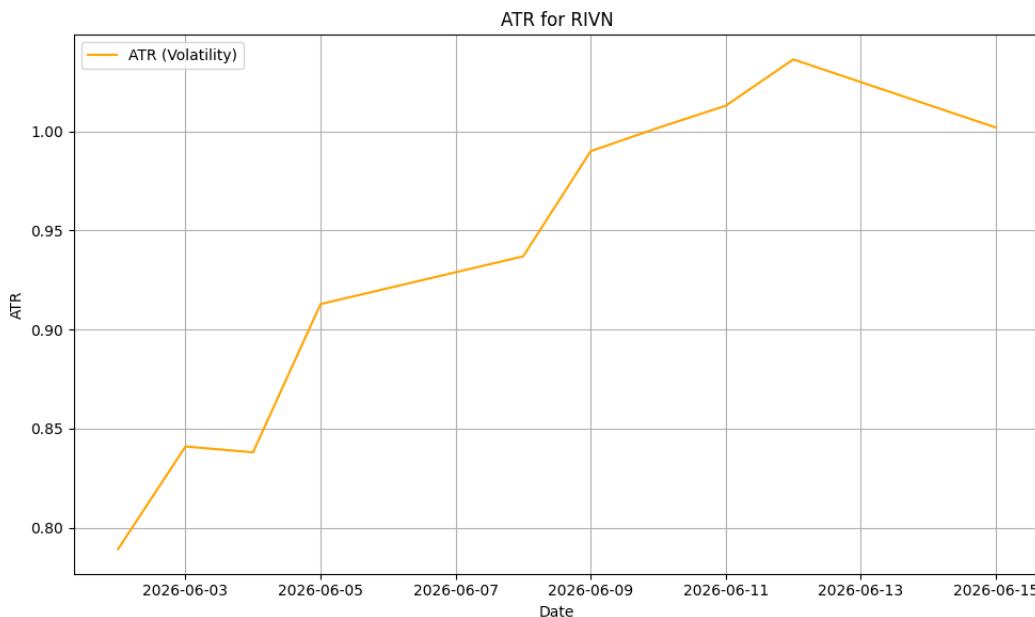
Hurst Exponent: 0.5208 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 16.68 is within the Bollinger Bands range (12.57 - 18.65).

Latest ATR: 1.0019

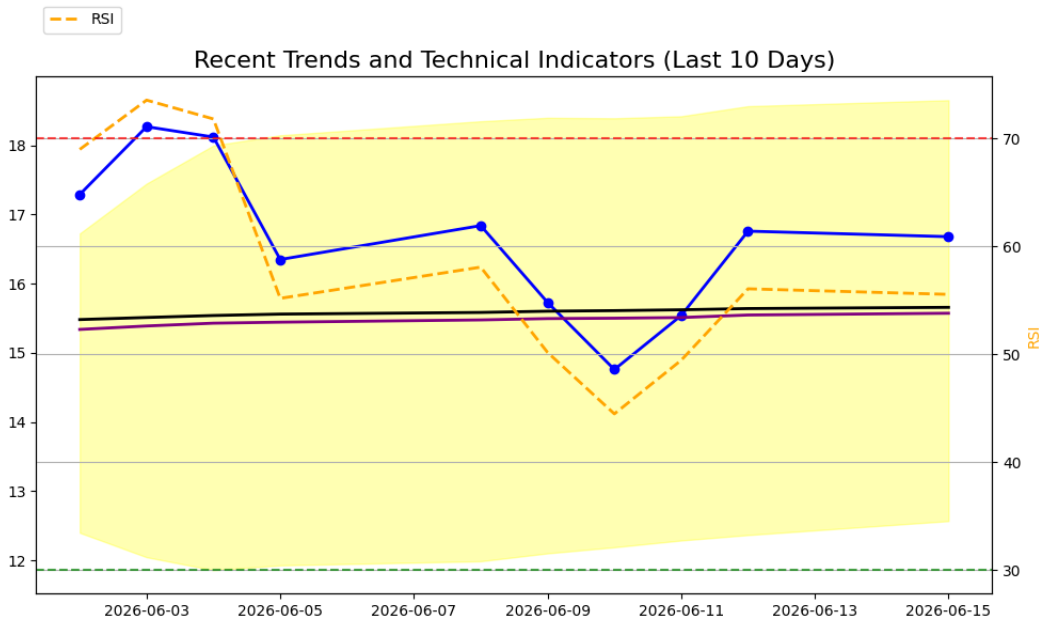
Average True Range (ATR)



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 0.182 is relatively low, suggesting the stock is in a stable regime. However, its Lyapunov score of 0.013 indicates potential for chaos and instability, though this is still lower than the market-wide average. The Bollinger Bands are currently within range, and with a recent volume change of -10.79%, there's no strong confirmation of price moves.

2. Market Sentiment

The large institutional-driven behavior suggests a cautious market sentiment towards RIVN. While the stock's Breakout Potential Score (BPS) of 0.473 indicates some potential for future growth, the lack of strong breakout signals and the negative volume change suggest investors are currently wary.

3. Geopolitical Risk Assessment

RIVN's exposure to geopolitical risks is relatively high. The elevated market-wide FVI indicators, including Gold FVI and TWI FVI, point to a bearish regime influenced by macroeconomic instability and trade war signals. Given RIVN's sector, it's likely that the company faces some level of exposure to energy price shocks and supply-side inflation risk.

4. Sector and Supply Chain Exposure

RIVN, as a part of the consumer cyclical sector, may be subject to risks associated with global inputs such as lithium and semiconductors. The company's dependence on these components, which are often sourced from Asia, could expose it to volatility in these markets. The lack of a GHG score doesn't provide a clear picture of its emissions risk exposure.

Strategy Recommendation

Given the stock's low FVI and BPS, it's likely best to adopt a cautious approach. The stock is not in a breakout or correction phase, suggesting a consolidation strategy might be optimal. However, the geopolitical risk and potential for chaos, as indicated by the Lyapunov score, suggest a hedge strategy could be beneficial.

--- FINAL TAKEAWAY ---

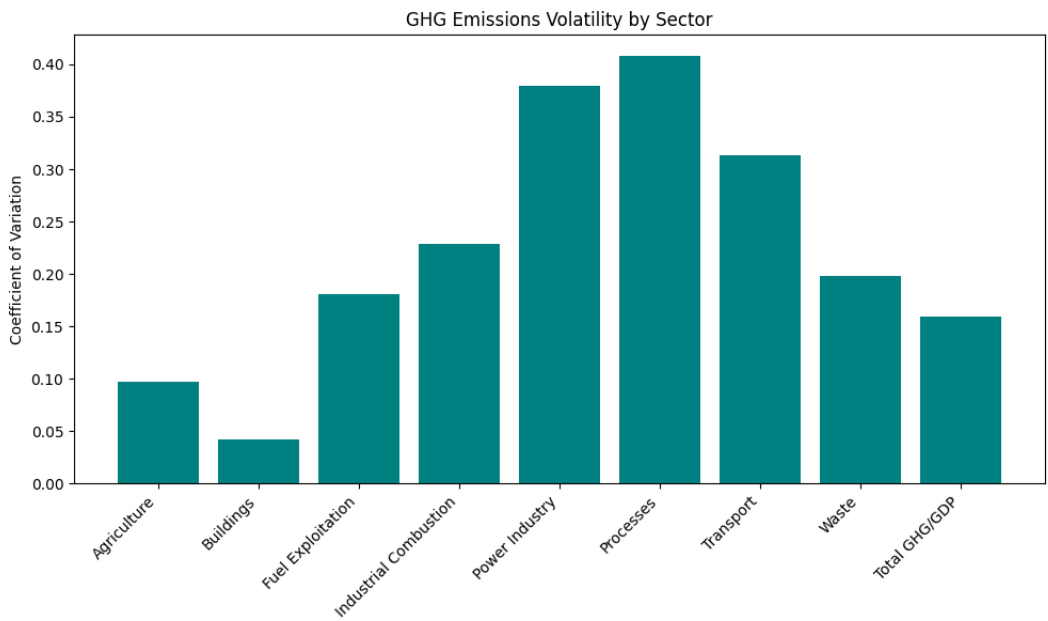
Despite RIVN's potential for future growth, the current market conditions and geopolitical risks suggest a cautious approach is warranted. The stock's low volatility and lack of strong breakout signals, coupled with potential exposure to energy price shocks, indicate potential instability. Therefore, investors should consider a defensive position or a hedge strategy to mitigate potential risks.

Market Capitalization: 22734729000, Industry: AUTO MANUFACTURERS, Latest Volume: 20193190, Description: Rivian Automotive Inc, Sector: CONSUMER CYCLICAL, Price to Book: 5.11, Enterprise to Ebitda: -1.955, Enterprise to Revenue: 4.387, Profit Margins: -0.636

The trading volume has changed by -10.79% 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: 1.62
Beta of 1.62 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": 0.57,  
  "Price_Volume_Divergence": 0,  
  "Volatility_Dissonance_Index": 0.928,  
  "Deception_Risk": 0.769,  
  "Trumpery_Alert": true,  
  "Summary": "Welcome to the economy where logic took early retirement."  
}
```

Justification:

The U.S. debt and deficit levels are rising, which is a concern. However, the narrative that this is sustainable due to the U.S.'s status as the world's largest economy is somewhat misleading. The reality is that this level of debt could have significant long-term consequences, including increased vulnerability to economic shocks.

Changes in U.S. Treasury bond yields and issuance, along with reports of declining foreign demand for U.S. bonds, suggest a potential shift away from the U.S. as a safe haven for investment. This is in contrast to the narrative that the U.S. remains the most attractive destination for global capital.

Central bank interventions, such as rate cuts and quantitative easing, are being used to stimulate the economy. However, these tools can distort market signals and create moral hazards. The narrative that these interventions are merely temporary measures to support the economy may not fully reflect the potential risks involved.

The use of tariffs and sanctions as economic tools has been presented as a means to protect U.S. industries and correct trade imbalances. However, the reality is that these measures can lead to trade wars and potentially harm the global economy.

Inflation vs. official interest rate policy shows a disconnect, with the former rising faster than the latter. This could lead to a mispricing of risk and distortions in the financial market.

BRICS+ influence and de-dollarization trends suggest a potential shift in the global economic order, which is not fully acknowledged in mainstream narratives.

Gold volatility and geopolitical hedging indicate that investors are seeking safe havens due to increased uncertainty, which contradicts the narrative of a stable and growing global economy.

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** _____