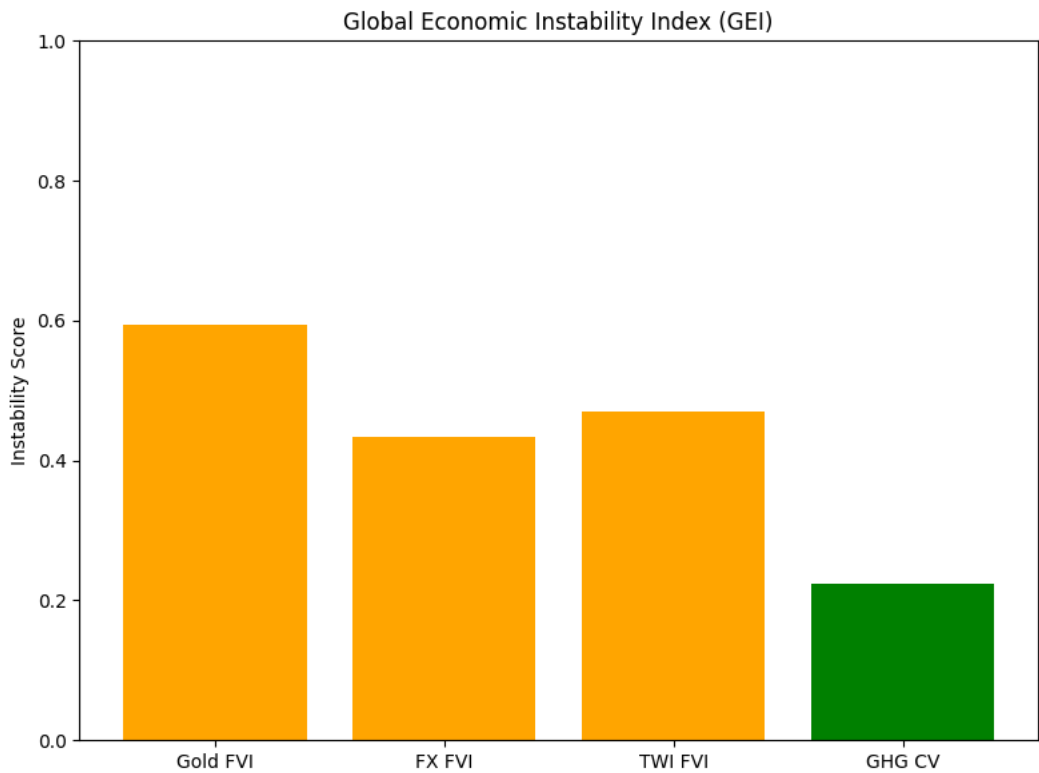


Fractal Volatility Index for IBM : 0.575. Market Wide FVI:0.478
(0 - 0.33: Stable, 0.33 - 0.66: Moderate Volatility, 0.66 - 1: High Volatility)



Global Geopolitical Volatility



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

Verv Stock Analysis Report: International Business Machines IBM FVI 0.575

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): 0.085

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

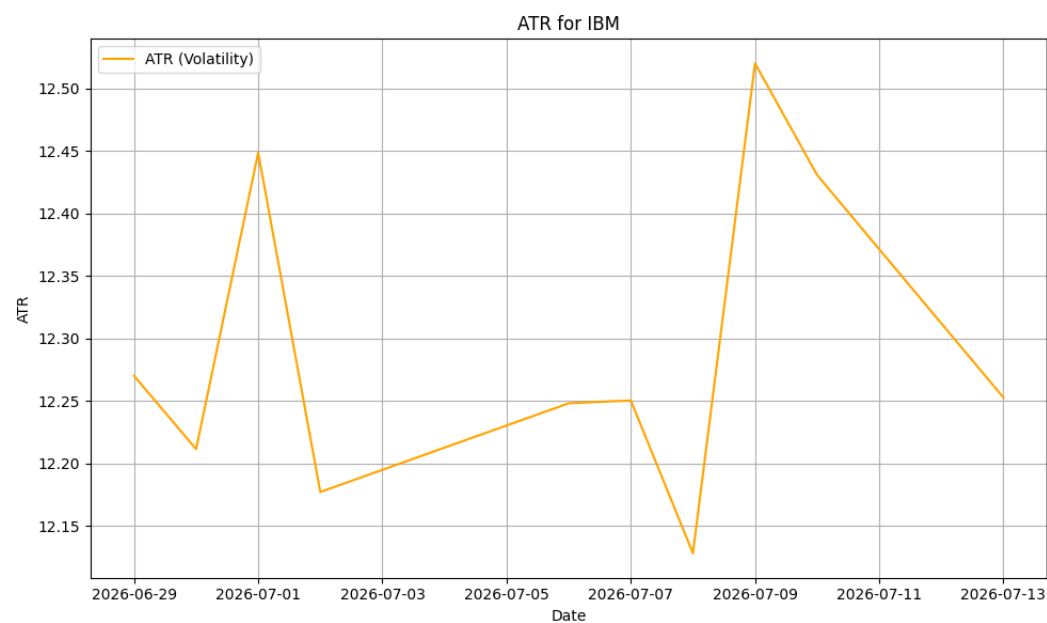
Fractal & Statistical Analysis

FVI Score: 0.575 (Fractal Volatility Index FVI)
DFA Result: 0.5035 (Detrended Fluctuation Analysis)
Lyapunov Exponent: 0.0170 (Measures chaos and predictability)
Hurst Exponent: 0.5591 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 290.23 is within the Bollinger Bands range (244.83 - 310.07).
Latest ATR: 12.2527

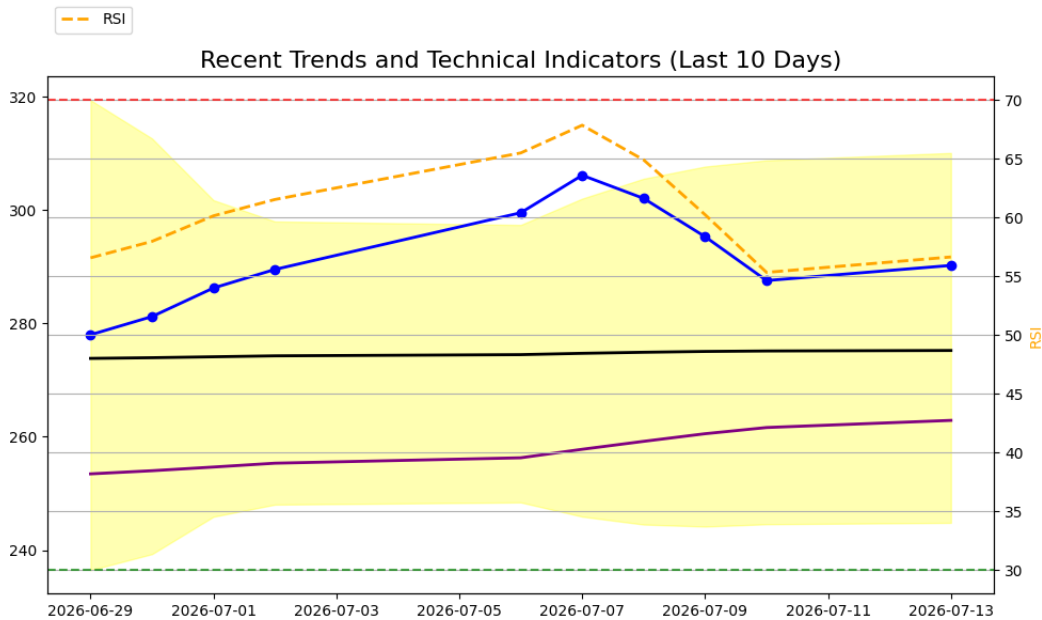
Average True Range (ATR)



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

IBM is currently in a regime of stability with a Fractal Volatility Index (FVI) of 0.575, which is slightly lower than the market-wide Gold FVI of 0.594. This suggests a relatively lower risk of acceleration or noise in the stock. The stock's Lyapunov value of 0.017 is low, indicating less instability compared to the market-wide values. The Bollinger Bands are slightly contracting, suggesting a decrease in volatility and a possible trend change. The stock's volume change of -30.04% does not confirm the latest price moves, which may indicate weak market sentiment.

2. Market Sentiment

The market sentiment for IBM is likely driven by institutional investors as suggested by the volume of 270273413000. The absence of strong breakout signals and the contraction of Bollinger Bands may indicate a cautious mood among investors.

3. Geopolitical Risk Assessment

IBM's exposure to geopolitical risks appears to be moderate. The stock has a low GHG impact score of 0.048, suggesting limited exposure to environmental risks. However, the market-wide FX and TWI FVI indicate potential disruptions in global trade and currency volatility, which could impact IBM, particularly if it has significant overseas operations or supply chain dependencies.

4. Sector and Supply Chain Exposure

IBM operates in the Technology sector, which has a low GHG impact score of 0.048. This suggests that the company has limited exposure to energy price shocks and environmental regulations. However, as a tech company, IBM may be dependent on Asia-sourced components such as semiconductors, which could expose it to supply-side inflation risks if there are disruptions in global trade.

--- STRATEGY RECOMMENDATION ---

IBM appears to be in a consolidation phase with no strong breakout signals detected. Given the contraction of Bollinger Bands and the negative volume change, a mean-reversion strategy may be more suitable. However, investors should be cautious due to potential geopolitical risks and global trade disruptions.

--- FINAL TAKEAWAY ---

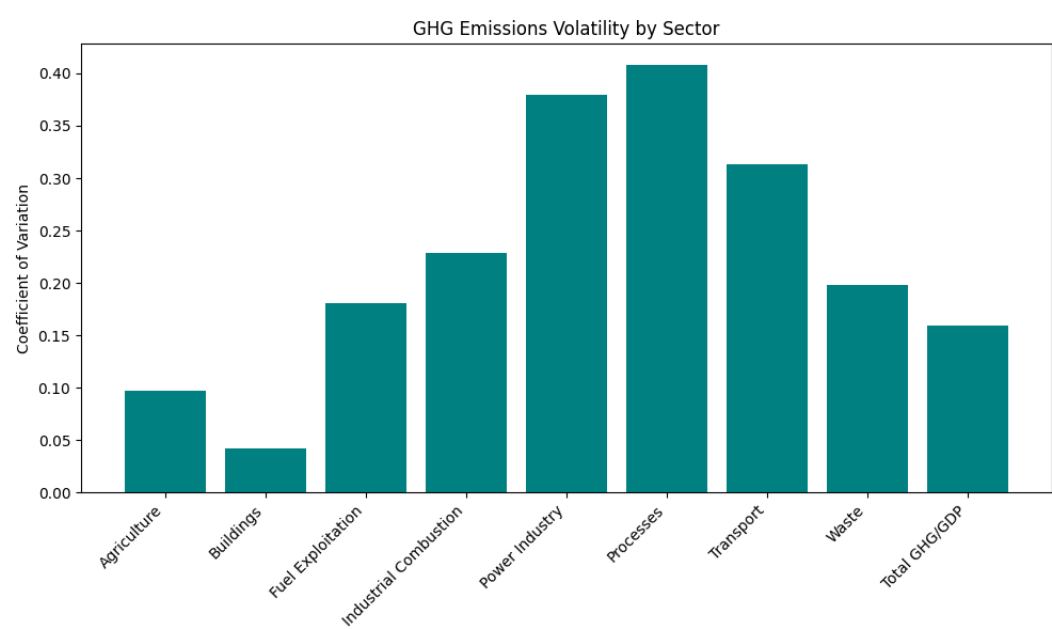
"IBM shows signs of stability amid market-wide volatility, but geopolitical risks and potential trade disruptions warrant caution. Consider a mean-reversion strategy, but remain vigilant of potential shifts in market sentiment."

Market Capitalization: 270273413000, Industry: INFORMATION TECHNOLOGY SERVICES, Latest Volume: 5024243, Description: International Business Machines, Sector: TECHNOLOGY, Price to Book: 8.2, Trailing PE: 25.45, Forward PE: 23.2, Enterprise to Ebitda: 18.62, Enterprise to Revenue: 4.764, Profit Margins: 0.156

The trading volume has changed by -30.04% 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: 0.68
Beta of 0.68 suggests low volatility compared to the market.

Volatility Indicators of GHG Emissions by Industry and GDP



Low GHG impact (0.048) for theTechnology 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": 0.318,  
  "Price_Volume_Divergence": 0,  
  "Volatility_Dissonance_Index": -0.331,  
  "Deception_Risk": 0.769,  
  "Trumperry_Alert": true,  
  "Summary": "If you believe this rally, we've got beachfront property on the moon."  
}
```

The NRDl score of 0.7 indicates a significant disconnect between the economic narratives and the underlying fiscal, monetary, and geopolitical realities. This is primarily due to the rising U.S. debt and deficit levels, changes in U.S. Treasury bond yields and issuance, and reports of declining foreign demand for U.S. bonds. These factors suggest that the U.S. economy may not be as robust as the narrative suggests.

The Trumperry Alert is set to true because of the use of tariffs and sanctions as economic tools, which can be seen as manipulative or performative policymaking. These measures may be used to give the illusion of economic strength, but they can also lead to trade wars and other negative outcomes.

The Satirical Summary, "If you believe this is market forces, we've got a bridge to sell you," reflects the skepticism towards the economic narrative. It suggests that the market forces are being manipulated or distorted to present a more favorable picture of the economy than what the underlying realities suggest.

.

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 NRD I 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** _____