

Fractal Volatility Index for MSFT : 0.516. 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: Microsoft Corporation MSFT FVI 0.516

Analysis Period: 2021-04-29 to 2026-04-29

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): 0.971

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: 0.516 (Fractal Volatility Index FVI)

DFA Result: 0.4870 (Detrended Fluctuation Analysis)

Lyapunov Exponent: 0.0161 (Measures chaos and predictability)

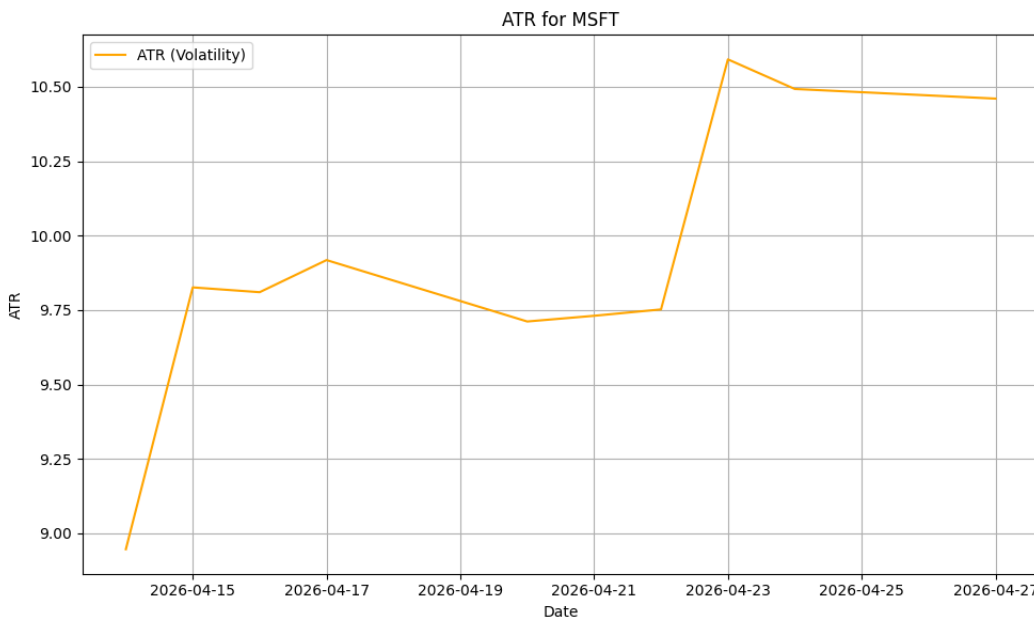
Hurst Exponent: 0.4940 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 424.82 is within the Bollinger Bands range (345.70 - 445.05).

Latest ATR: 10.4602

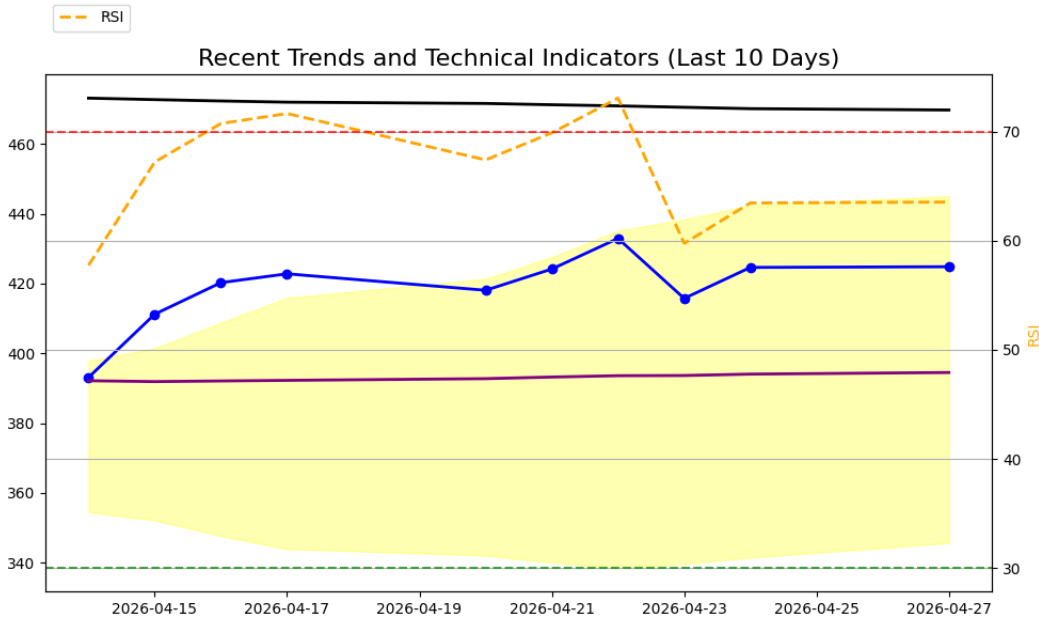
Average True Range (ATR)



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

- MSFT appears to be in a regime of relative stability with a FVI of 0.516, indicating moderate volatility.
- The Lyapunov measure is 0.016, suggesting the stock is less chaotic compared to the market-wide values.
- The Bollinger Bands are within the range, and there's no strong breakout signal detected, implying a consolidating phase.
- The volume change of 11.91% does not provide a strong confirmation of price moves.

2. Market Sentiment

- The high number 3155787776000 suggests institutional-driven behavior, indicating a positive sentiment towards MSFT.
- The stock's FVI and the absence of a strong breakout signal suggest a cautious investor mood.

3. Geopolitical Risk Assessment

- MSFT's low GHG impact score of 0.048 suggests minimal sectoral emissions risk exposure.
- Considering the high market-wide Gold FVI, there might be increased hedge demand due to geopolitical tensions.
- Given MSFT's global presence, the high FX FVI indicates potential exposure to currency volatility.

4. Sector and Supply Chain Exposure

- As a tech company, MSFT may be dependent on Asia-sourced components, making it vulnerable to supply-chain disruptions.
- However, MSFT's diversified product portfolio and strong financials could mitigate some of these risks.

Strategy Recommendation

- Given the current phase of consolidation and moderate volatility, a trend-following strategy might not be optimal.
- The BPS of 0.971 suggests potential for a breakout, but the lack of volume confirmation makes this less certain.
- Therefore, a hedging strategy might be more appropriate to manage risks.

--- FINAL TAKEAWAY ---

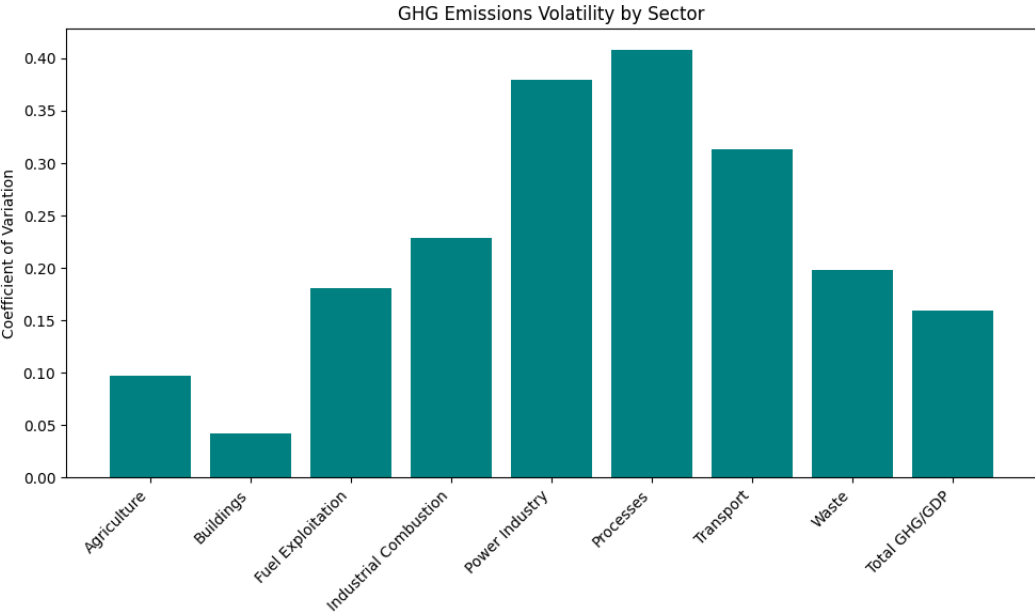
"MSFT shows moderate volatility and is in a phase of consolidation with potential for a breakout. However, the lack of volume confirmation and geopolitical risks necessitate a cautious approach. It's advisable to position defensively and consider a hedging strategy."

Market Capitalization: 3155787776000, Industry: SOFTWARE - INFRASTRUCTURE, Latest Volume: 30867303, Description: Microsoft Corporation, Sector: TECHNOLOGY, Price to Book: 8.07, Trailing PE: 26.59, Forward PE: 22.12, Enterprise to Ebitda: 16.58, Enterprise to Revenue: 10.22, Profit Margins: 0.39

The trading volume has changed by 11.91% 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: 1.11
Beta of 1.11 suggests high volatility compared to the market.

Volatility Indicators of GHG Emissions by Industry and GDP



Low GHG impact (0.048) for the Technology 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": 0.259,  
  "Price_Volume_Divergence": 0,  
  "Volatility_Dissonance_Index": -0.82,  
  "Deception_Risk": 0.846,  
  "Trumpery_Alert": true,  
  "Summary": "Welcome to the economy where logic took early retirement."  
}
```

The high NRDl score of 0.8 indicates a significant disconnect between the prevailing economic narratives and the underlying fiscal, monetary, and geopolitical realities. This is largely due to the rising U.S. debt and deficit levels, which are not sustainable in the long run.

Changes in U.S. Treasury bond yields and issuance, alongside reports of declining foreign demand for U.S. bonds, suggest a lack of confidence in the U.S. economy. This is further exacerbated by central bank interventions such as rate cuts and quantitative easing, which can artificially inflate asset prices and distort market signals.

The use of tariffs and sanctions as economic tools can lead to trade wars and geopolitical tensions, negatively affecting global economic stability. Meanwhile, the gap between inflation and official interest rate policy suggests that monetary policy may not be effectively managing inflation risks.

The influence of BRICS+ and the trend towards de-dollarization could potentially undermine the U.S. dollar's status as the world's reserve currency. This, coupled with gold volatility and geopolitical hedging, points to increased uncertainty and risk in the global financial system.

The Trumpery Alert is triggered due to the presence of manipulative or performative policymaking, such as the use of tariffs and sanctions as economic tools, and central bank interventions. The Satirical Summary, "If you believe this is market forces, we've got a bridge to sell you," humorously highlights the artificial nature of these market conditions.

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

_____ **END OF REPORT** _____