

Fractal Volatility Index for MSFT : 0.500. 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 0.500

Analysis Period: 2021-04-22 to 2026-04-22

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): 1.214

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: 0.500 (Fractal Volatility Index FVI)

DFA Result: 0.4733 (Detrended Fluctuation Analysis)

Lyapunov Exponent: 0.0160 (Measures chaos and predictability)

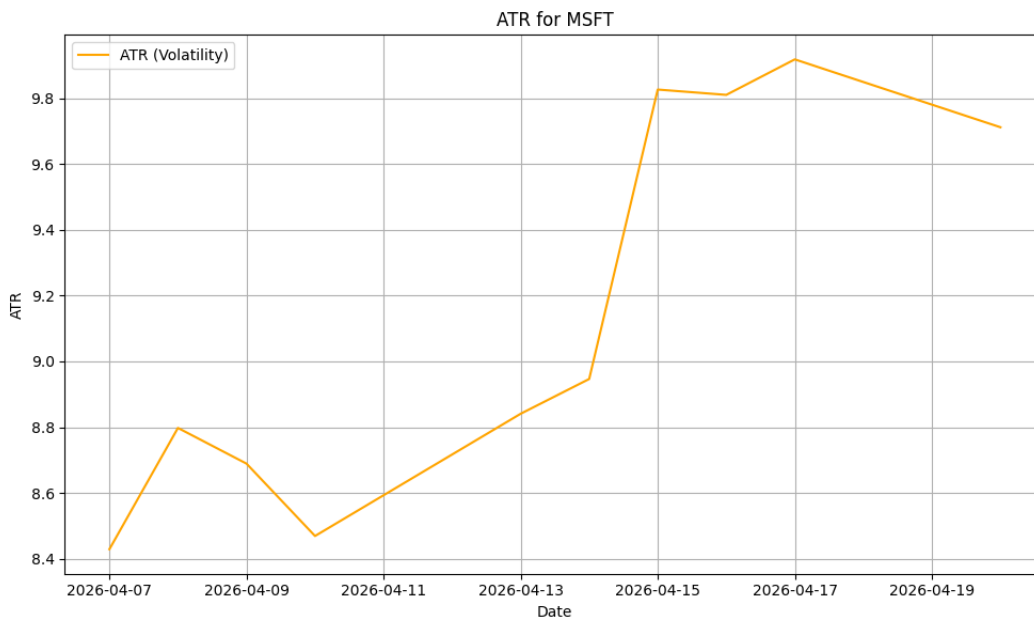
Hurst Exponent: 0.4855 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 418.07 is within the Bollinger Bands range (342.10 - 421.37).

Latest ATR: 9.7115

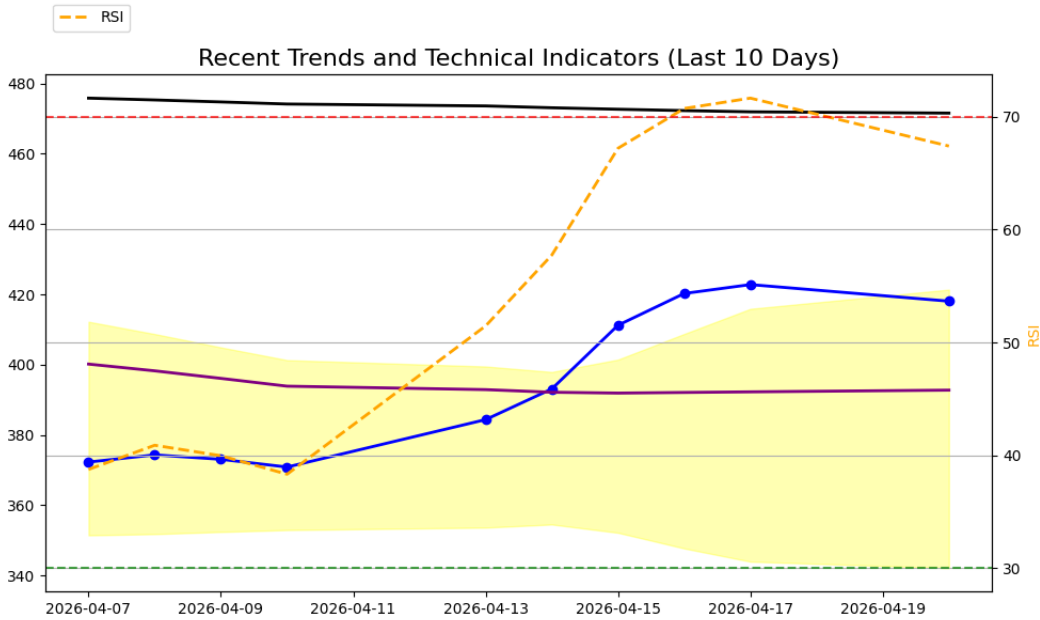
Average True Range (ATR)



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

- The stock is currently in a state of relative stability, with a Fractal Volatility Index (FVI) of 0.500, which is in line with a stable market regime. However, the Lyapunov score of 0.016 indicates a potential for instability.
- The Bollinger Bands are currently within a narrow range, suggesting a contraction and no strong breakout signal.
- The volume has declined by 22.84%, which does not confirm the price moves, indicating a potential for false breakout.

2. Market Sentiment

- The market sentiment appears to be driven by institutional behavior, as suggested by a large trading volume of 3107254174000.
- The combined volatility and breakout dynamics suggest a cautious investor mood.

3. Geopolitical Risk Assessment

- The stock's exposure to geopolitical risks is relatively low, as indicated by a low Gold, FX, and TWI FVI scores. However, the low GHG score for the Technology sector suggests a potential for sectoral emissions risk exposure.
- The company might face fuel cost exposure, export fragility, or supply-side inflation risk due to its potential vulnerability to energy price shocks and trade instability.

4. Sector and Supply Chain Exposure

- As a technology company, MSFT may face risks related to Asia-sourced components like semiconductors and rare earths, which could be impacted by geopolitical and trade disruptions.
- The stock's volatility pattern and sector classification suggest potential hidden global input risks.

--- STRATEGY RECOMMENDATION ---

- Given the current market conditions and the stock's metrics, it appears to be in a consolidation phase.
- A mean-reversion strategy might be optimal, considering the stock's Hurst score of 0.486, which is less than 0.5.
- The current BPS and FVI pattern does not suggest a strong breakout is imminent.

--- FINAL TAKEAWAY ---

"Despite the stock's relative stability, the declining volume and potential for hidden global input risks suggest a cautious approach. Position defensively until clearer signals emerge."

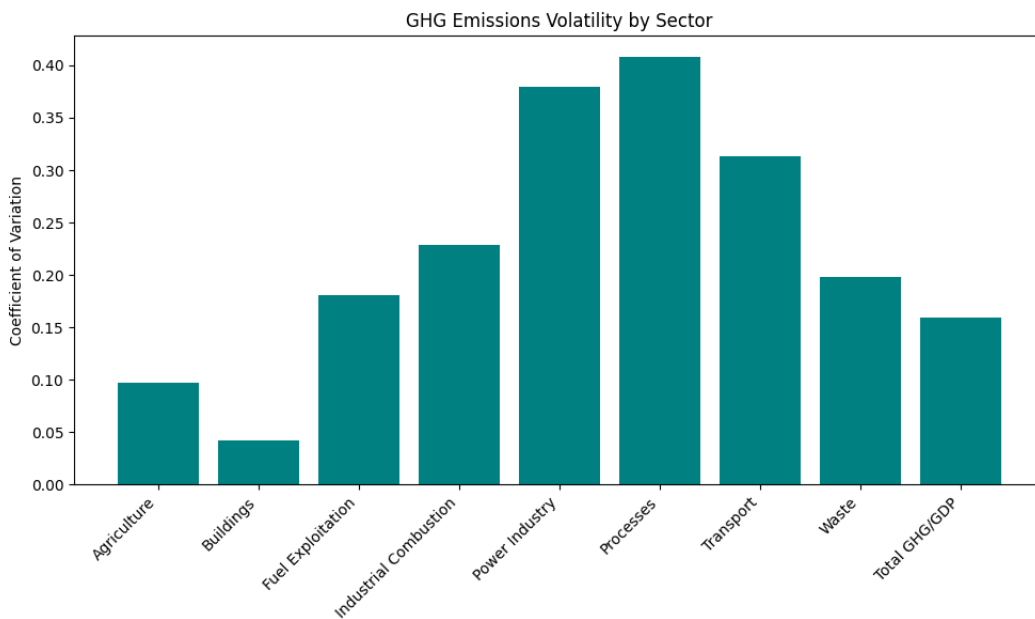
Market Capitalization: 3107254174000, Industry: SOFTWARE - INFRASTRUCTURE, Latest Volume: 27582237, Description: Microsoft Corporation, Sector: TECHNOLOGY, Price to Book: 7.94, Trailing PE: 26.18, Forward PE: 21.79, Enterprise to Ebitda: 16.32, Enterprise to Revenue: 10.06, Profit Margins: 0.39

The trading volume has changed by -22.84% 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: 1.11

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": 0.234,  
  "Price_Volume_Divergence": 0,  
  "Volatility_Dissonance_Index": -0.85,  
  "Deception_Risk": 0.808,  
  "Trumpery_Alert": true,  
  "Summary": "Tariffs are up, rates are down, and gravity no longer applies."  
}
```

The above assessment is based on the following reasoning:

The rising U.S. debt and deficit levels indicate a disconnect between the economic narrative of fiscal responsibility and the underlying reality of increased spending and borrowing. This is further exacerbated by changes in U.S. Treasury bond yields and issuance, with declining foreign demand for U.S. bonds suggesting that investors are losing confidence in the U.S. government's ability to manage its finances.

Central bank interventions such as rate cuts and quantitative easing (QE) have distorted the market, creating an artificial environment that may not reflect the true state of the economy. The use of tariffs and sanctions as economic tools also contributes to this disconnect, as these policies often have unintended consequences that can exacerbate economic problems.

Inflation and official interest rate policy are another area where the narrative and reality may not align. While the Federal Reserve has maintained low interest rates in an attempt to stimulate the economy, this has not resulted in significant inflation, suggesting that other factors are at play.

The influence of BRICS+ and de-dollarization trends indicate a shift away from the U.S. dollar as the world's reserve currency, which could have significant implications for the U.S. economy and its global standing. This is a reality that is often downplayed in economic narratives.

Finally, gold volatility and geopolitical hedging indicate that investors are increasingly concerned about the stability of the global economy and are seeking safe havens for their investments. This is another sign of a disconnect between the economic narrative and the underlying reality.

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** _____