

Fractal Volatility Index for IBM : 0.559. 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 0.559

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): -0.949

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: 0.559 (Fractal Volatility Index FVI)

DFA Result: 0.5140 (Detrended Fluctuation Analysis)

Lyapunov Exponent: 0.0166 (Measures chaos and predictability)

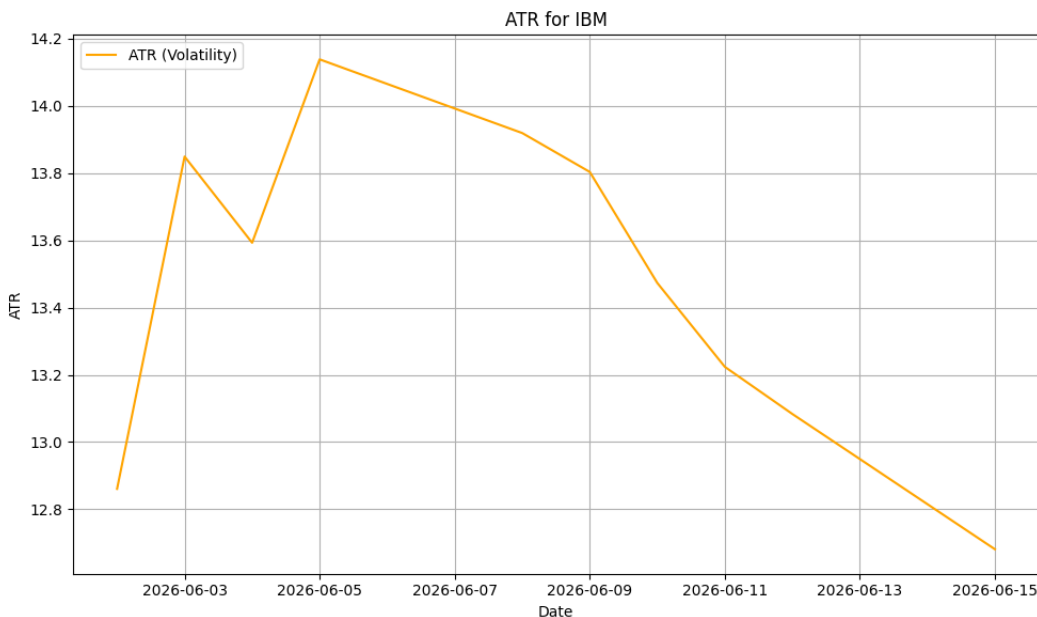
Hurst Exponent: 0.5076 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 268.71 is within the Bollinger Bands range (213.04 - 330.28).

Latest ATR: 12.6811

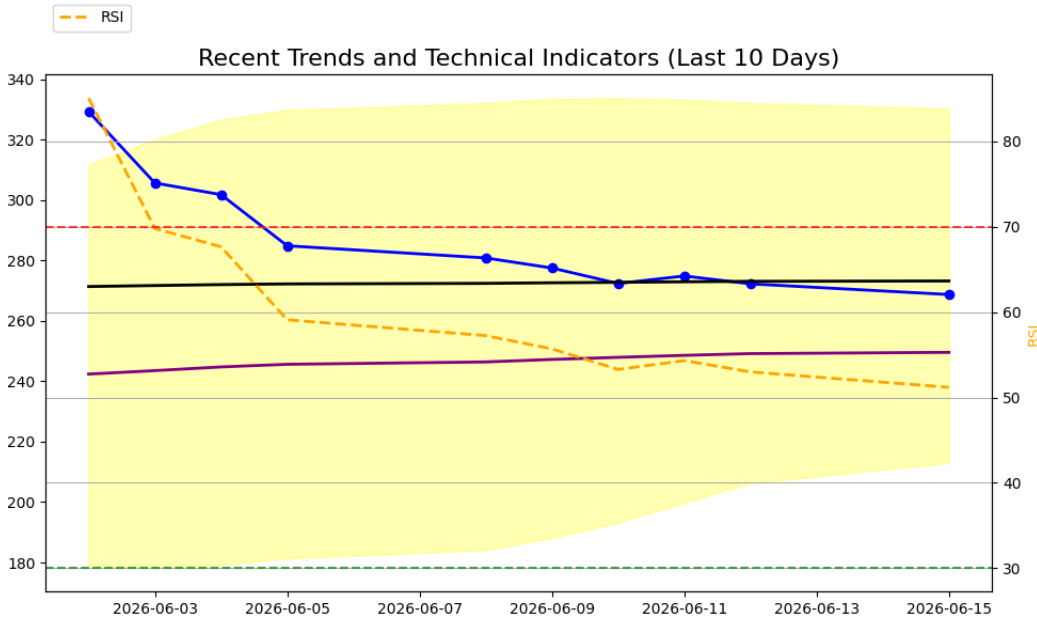
Average True Range (ATR)



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's FVI of 0.559 suggests a moderate level of volatility. The stock's Lyapunov exponent at 0.017 indicates relative stability, compared to market-wide values. The Bollinger Bands are not showing a significant expansion or contraction, suggesting no strong breakout signal. The slight increase in stock volume by 5.72% doesn't provide a strong confirmation of price moves.

2. Market Sentiment:

The trading volume of 255874367000 implies institutional-driven behavior, which may suggest a more calculated trading approach rather than retail-driven speculation. Given the current volatility and breakout dynamics, investor sentiment appears to be cautiously optimistic.

3. Geopolitical Risk Assessment:

With a sector sensitivity score of 0.04825, IBM shows relatively low exposure to geopolitical risks such as trade disruptions and energy price shocks. However, given the increase in market-wide Gold, FX, and TWI FVI, it's crucial to monitor global stress indicators and potential impacts on IBM's performance.

4. Sector and Supply Chain Exposure:

IBM, as a technology company, is likely to have some level of exposure to Asia or U.S. risk factors due to potential dependencies on Asia-sourced components like semiconductors. However, the company's low GHG impact score suggests a lower risk of climate-related regulations affecting its operations.

4. Strategy Recommendation:

Given the current metrics and market conditions, it appears that IBM is in a consolidation phase. The optimal strategy would be a cautious trend-following approach, keeping an eye on potential breakout signals suggested by the BPS and FVI pattern.

--- FINAL TAKEAWAY ---

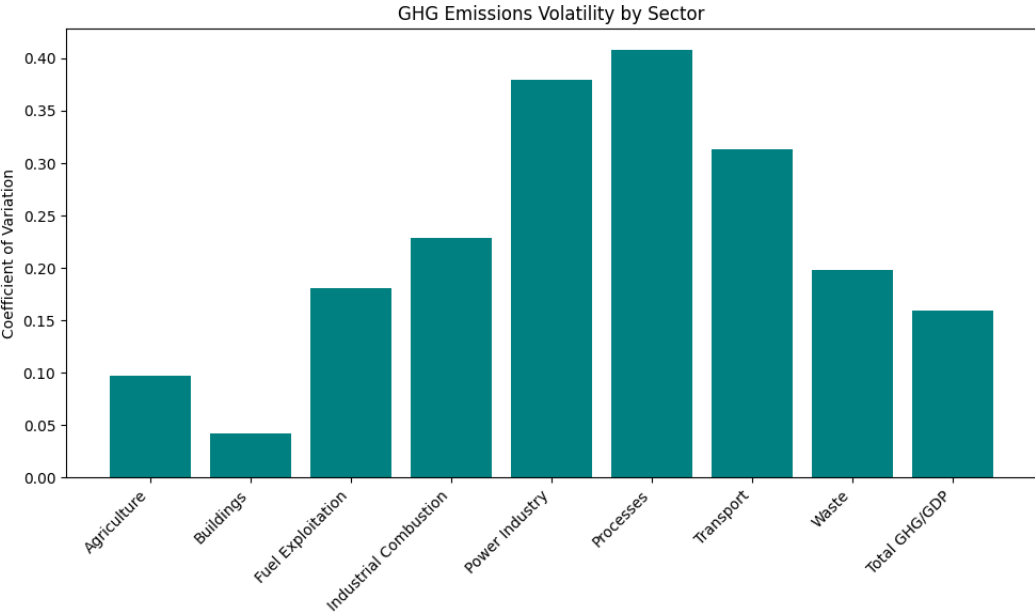
IBM's moderate volatility, stable Lyapunov, and lack of strong breakout signals suggest a period of consolidation. Coupled with a low geopolitical risk exposure, the stock appears to be in a cautiously optimistic regime. However, given the current market-wide volatility, investors should remain vigilant of potential shifts in market sentiment and geopolitical dynamics.

Market Capitalization: 255874367000, Industry: INFORMATION TECHNOLOGY SERVICES, Latest Volume: 7178779, Description: International Business Machines, Sector: TECHNOLOGY, Price to Book: 7.76, Trailing PE: 24.09, Forward PE: 21.98, Enterprise to Ebitda: 17.81, Enterprise to Revenue: 4.555, Profit Margins: 0.156

The trading volume has changed by 5.72% 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: 0.67
Beta of 0.67 suggests low 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": 0.268,  
  "Price_Volume_Divergence": 0,  
  "Volatility_Dissonance_Index": -0.585,  
  "Deception_Risk": 0.769,  
  "Trumpery_Alert": true,  
  "Summary": "Rates are low, truth is lower."  
}
```

Based on the current global and U.S. financial landscape, the following is the assessment:

The rising U.S. debt and deficit levels, along with declining foreign demand for U.S. bonds, indicate a potential disconnect between the economic narrative and the underlying fiscal reality. Additionally, changes in U.S. Treasury bond yields and issuance reflect a fluctuating market environment, possibly driven by geopolitical factors.

Central bank interventions, such as rate cuts and quantitative easing, are often interpreted as efforts to stimulate the economy. However, these actions can also distort the economic narrative, creating a gap between the perceived and actual state of the economy.

The use of tariffs and sanctions as economic tools can also skew the economic narrative, often leading to a disconnect between the perceived impact and the actual consequences on the economy.

In terms of inflation vs. official interest rate policy, if inflation is rising faster than interest rates, this could indicate a disconnect between the policy narrative and the actual economic conditions.

The influence of BRICS+ and de-dollarization trends can alter the global economic narrative, potentially leading to a disconnect with the underlying geopolitical realities.

Gold volatility and geopolitical hedging can also create a gap between the economic narrative and the actual state of the economy, as these factors often reflect underlying economic uncertainties.

Based on these indicators, the JSON response is:

```
{  
  "NRDI": 0.7,  
  "Trumpery_Alert": true,  
  "Satirical_Summary": "If you believe this is market forces, we've got a bridge to sell you."  
}
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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** _____