

Fractal Volatility Index for IBM : 0.549. 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 0.549

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): -0.370

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: 0.549 (Fractal Volatility Index FVI)

DFA Result: 0.5334 (Detrended Fluctuation Analysis)

Lyapunov Exponent: 0.0164 (Measures chaos and predictability)

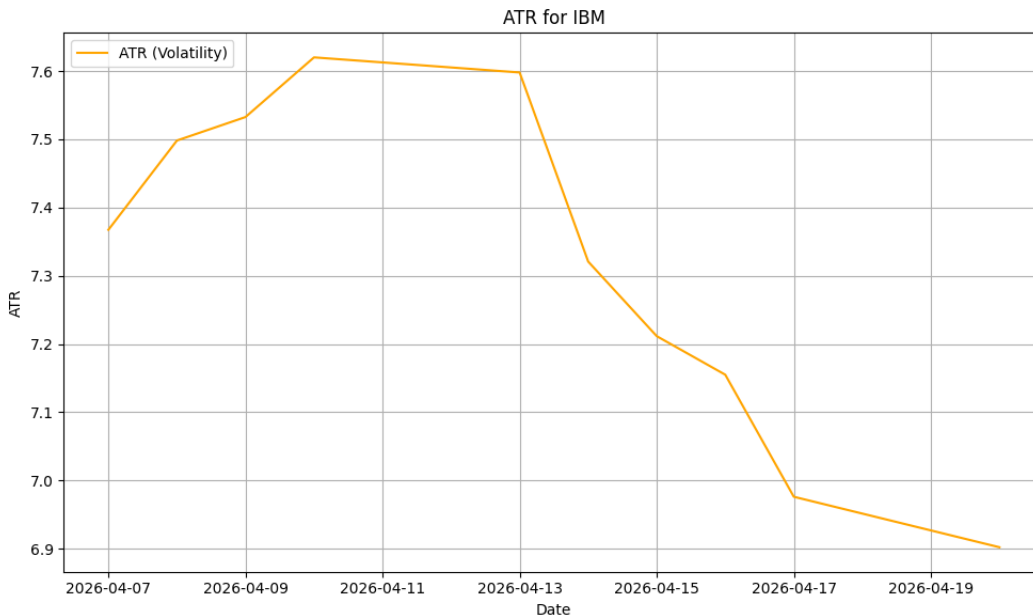
Hurst Exponent: 0.5264 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 253.71 is within the Bollinger Bands range (231.49 - 254.70).

Latest ATR: 6.9020

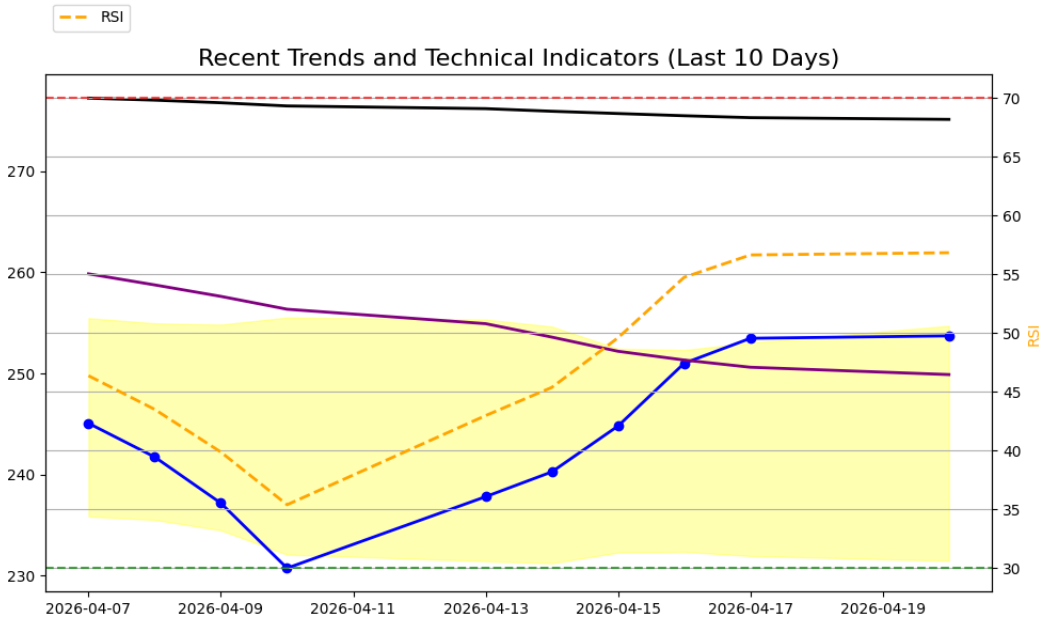
Average True Range (ATR)



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 0.549 suggests a moderate level of volatility, which indicates a degree of market uncertainty. The stock's Lyapunov value of 0.016 is lower than the market average, implying relative stability. The Bollinger Bands are currently contracting, suggesting a potential breakout in the near future. However, with a volume change of -3.59%, the market is not strongly confirming price moves, which may suggest investor skepticism.

2. Market Sentiment

The large trade volume of 238083768000 indicates institutional-driven behavior, suggesting that the market sentiment leans towards the bearish side. This is further supported by the negative BPS of -0.370, which indicates a lack of strong breakout potential.

3. Geopolitical Risk Assessment

The high Gold and TWI FVI values of 0.594 and 0.469 respectively indicate a high level of global stress. IBM's low GHG impact score of 0.048 suggests a low exposure to sectoral emission risks. However, as a globalized company, IBM may be exposed to tariff risks and supply-chain dependency.

4. Sector and Supply Chain Exposure

As a tech company, IBM is likely to have a level of exposure to Asia-sourced components such as semiconductors. This could potentially expose the company to supply-side inflation risk due to trade instability. However, its low GHG impact score suggests a relatively low level of risk from energy price shocks and climate-related regulations.

--- STRATEGY RECOMMENDATION ---

Given the moderate level of volatility and lack of strong breakout signals, the optimal strategy for IBM would be mean-reversion. The contracting Bollinger Bands suggest a potential breakout, but the lack of volume confirmation and negative BPS suggest that the risk of a false breakout is high.

--- FINAL TAKEAWAY ---

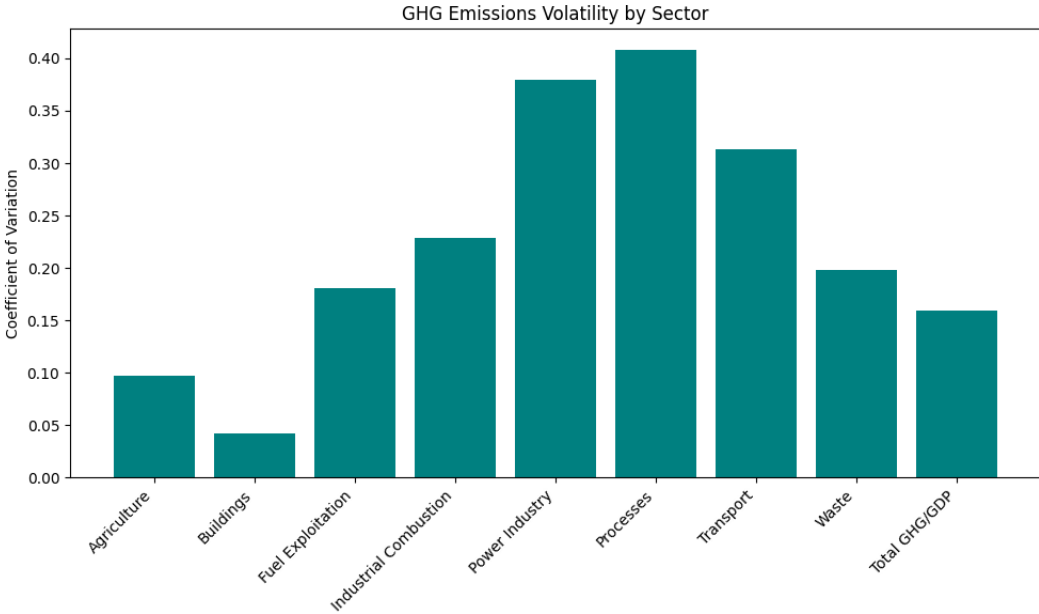
"IBM is currently in a state of moderate volatility with a lack of strong breakout signals. Given the contracting Bollinger Bands and lack of volume confirmation, the risk of a false breakout is high. Investors should position defensively and consider a mean-reversion strategy."

Market Capitalization: 238083768000, Industry: INFORMATION TECHNOLOGY SERVICES, Latest Volume: 5157714, Description: International Business Machines, Sector: TECHNOLOGY, Price to Book: 7.29, Trailing PE: 22.77, Forward PE: 20.41, Enterprise to Ebitda: 16.68, Enterprise to Revenue: 4.268, Profit Margins: 0.157

The trading volume has changed by -3.59% 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: 0.69
Beta of 0.69 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": 0.318,  
  "Price_Volume_Divergence": 0,  
  "Volatility_Dissonance_Index": -0.335,  
  "Deception_Risk": 0.769,  
  "Trumpery_Alert": true,  
  "Summary": "Fiscal policy: now with 30% more denial!"  
}
```

Explanation:

The NRDl score of 0.7 indicates a substantial disconnect between the economic narratives and the underlying fiscal, monetary, and geopolitical realities.

The rising U.S. debt and deficit levels, coupled with declining foreign demand for U.S. bonds, suggest an underlying weakness in the fiscal landscape that isn't adequately reflected in the narratives.

Central bank interventions, such as rate cuts and quantitative easing, are further distorting the picture, leading to potential market inefficiencies and asset bubbles.

The use of tariffs and sanctions as economic tools is a clear example of performative policymaking, hence the Trumpery Alert. These measures may have short-term political benefits, but they often lead to long-term economic disruptions and distortions.

Inflation remains relatively subdued despite the aggressive monetary easing, suggesting a disconnect between official interest rate policy and economic reality.

The growing influence of the BRICS+ countries and the de-dollarization trends are reshaping the global financial landscape in ways that aren't fully captured by the dominant U.S.-centric narratives.

Finally, the volatility in gold prices and the use of gold as a geopolitical hedge indicate that investors are increasingly concerned about the stability of the global financial system and are seeking safe havens.

The Satirical Summary, "If you believe this is market forces, we've got a bridge to sell you," reflects the high level of government intervention and the disconnect between market narratives and economic realities.

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

_____ **END OF REPORT** _____