Fractal Volatility Index for GOOGL : 0.338. Market Wide FVI:0.478
(0 - 0.33: Stable, 0.33 - 0.66: Moderate Volatility, 0.66 - 1: High Volatility)

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

Verv Stock Analysis Report: Alphabet Inc Class A GOOGL FVI 0.338

Analysis Period: 2021-11-18 to 2026-11-18

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

Breakout Probability Score (BPS): -0.457
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

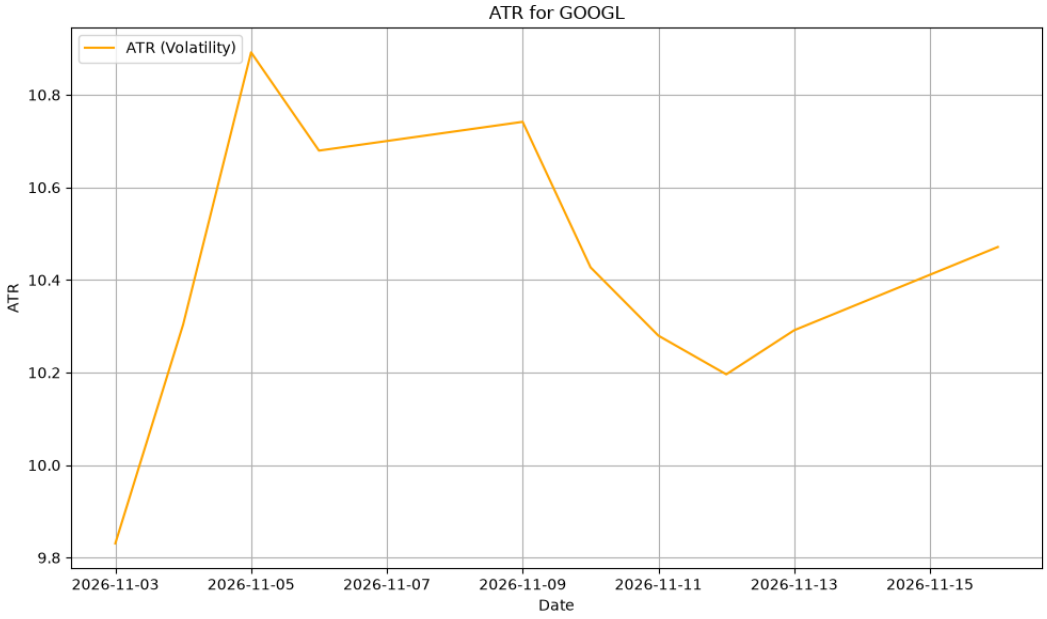
Fractal & Statistical Analysis

FVI Score: 0.338 (Fractal Volatility Index FVI)
DFA Result: 0.5084 (Detrended Fluctuation Analysis)
Lyapunov Exponent: 0.0136 (Measures chaos and predictability)
Hurst Exponent: 0.5114 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 283.72 is within the Bollinger Bands range (260.54 - 340.25).
Latest ATR: 10.4712

Average True Range (ATR)

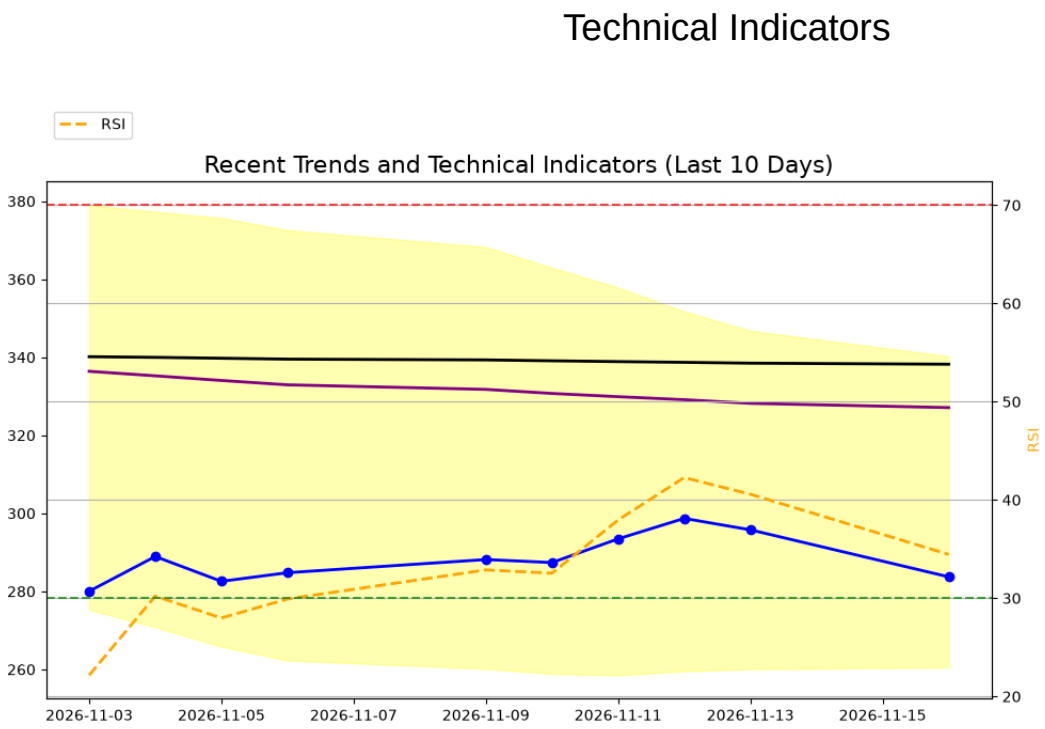


The ATR measures the recent price volatility of a stock, calculating the average range between its high and low prices over a given period (usually 14 days). A higher ATR indicates greater market volatility, and a lower ATR indicates less volatility.

Low ATR (below 2): Stable stock, Moderate ATR (2-5): Mild volatility, High ATR (above 5): Highly volatile stock

Technical Indicators

Technical indicators are based on historical price and volume data used in technical analysis to forecast financial market direction. They help identify trends, momentum, volatility, and potential entry and exit points in the market.



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 Executive Assessment

1. Volatility Structure
- Observations:
  - Fractal Volatility Index (FVI) for GOOGL: 0.338; market-wide FVI: 0.478.
  - Hurst exponent: 0.511.
  - Detrended Fluctuation Analysis (DFA): 0.508.
  - Lyapunov exponent: 0.0136.
- Interpretation:
  - GOOGL's FVI is lower than the market-wide FVI, indicating comparatively lower structural instability versus the broader market over the measured window.
  - The Hurst value is only marginally above 0.5, providing weak evidence of persistence.
  - DFA around 0.51 suggests mild scale-dependent correlation; by itself it does not imply a breakout or directional edge.
  - A positive Lyapunov exponent indicates sensitivity/divergence exists within the system; without benchmarks, its magnitude cannot be classified.
- Unknown:
  - No prior FVI series or thresholds are provided to assess change or acceleration in instability.
  - The strength or materiality of the Lyapunov and DFA readings cannot be judged without historical or cross-sectional context.

2. Breakout Evidence
- Observations:
  - Breakout Probability Score (BPS): -0.457.
  - Explicit observation: No strong breakout signal; latest close 283.72 sits within Bollinger Bands (260.54–340.25).
- Interpretation:
  - The in-band price together with the BPS reading indicates limited current evidence of a breakout.
  - Breakout direction is not established by the supplied data.
- Unknown:
  - No BPS scale or history is provided, so the absolute strength or trend of breakout probability cannot be gauged.
  - No information on Bollinger bandwidth dynamics, so compression/expansion cannot be assessed.

3. Participation and Technical Context
- Observations:
  - Volume change: -4.80%.
  - Latest ATR: 10.47 (price units).
  - Beta: 1.226.
- Interpretation:
  - The reported volume decline indicates less trading activity versus the prior comparison period; significance requires a baseline.
  - ATR provides an absolute volatility estimate in dollars; without historical context or price-

normalization, its level cannot be classified.
  - Beta above 1 indicates higher systematic sensitivity to market movements than a broad market basket; this is distinct from the fractal instability reading.
- Unknown:
  - No multi-period average volume, volume volatility, or ATR-as-a-percent-of-price is provided to contextualize these figures.

4. Macro and Sector Context
- Observations:
  - Gold FVI: 0.594; FX FVI: 0.434; TWI FVI: 0.469.
  - GHG sector variability score: not available for Communication Services; company sensitivity: not available.
  - GOOGL FVI: 0.338.
- Interpretation:
  - Among macro proxies, structural instability is highest in Gold, then TWI, then FX.
  - GOOGL's FVI is below all three proxies and below the market-wide FVI, indicating comparatively lower structural instability than these cross-asset benchmarks at present.
  - With no GHG variability data for the sector or company, no emissions-related variability conclusion can be drawn.
- Unknown:
  - No causes for the macro FVI differences are supplied; attribution is not supported by the data.

5. Risk Interpretation
- Observations:
  - FVI for GOOGL is below the market-wide and macro-proxy FVIs; Hurst "H 0.51; DFA "H 0.51; Lyapunov positive; BPS indicates no strong breakout alongside an in-band price; Beta = 1.226.
- Interpretation:
  - The balance of evidence supports a structurally stable-to-moderate-uncertainty state relative to the market, with limited current breakout evidence.
  - While systematic sensitivity (beta) is above market, the stock's current fractal instability is comparatively lower, implying a nuanced risk profile that depends on broader market conditions rather than imminent stock-specific structural stress.
- Unknown:
  - Timing and direction of any regime shift or breakout cannot be inferred from the supplied indicators.

6. Monitoring Implications
- Indicators to watch:
  - GOOGL FVI versus market-wide FVI for signs of structural regime change.
  - BPS and the explicit Bollinger-band observation for any emergence of breakout conditions (direction remains unspecified).
  - Hurst and DFA for movement away from ~0.5 that would indicate strengthening persistence or anti-persistence and changing scale correlations.
  - Lyapunov exponent for changes in sensitivity/divergence.

- ATR normalized by price and volume relative to multi-period averages to contextualize any volatility or participation shifts.
- Macro FVI proxies (Gold, FX, TWI) for potential spillover in structural instability.

FINAL TAKEAWAY

GOOGL currently shows comparatively lower structural instability than the market and macro proxies, weak persistence signals, and no strong breakout evidence. The key uncertainties are potential regime shifts in FVI and any change in BPS or band-based observations; monitor these alongside movements in Hurst/DFA away from 0.5 for confirmation.

Stock Information

Market Capitalization: 3488053461000, Industry: INTERNET CONTENT & INFORMATION, Latest Volume: 34747238, Description: Alphabet Inc Class A, Sector: COMMUNICATION SERVICES, Price to Book: 5.51, Trailing PE: 14.82, Forward PE: 19.84, Enterprise to Ebitda: 11.02, Enterprise to Revenue: 7.46, Profit Margins: 0.5

The trading volume has changed by -4.80% 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: 1.23
Beta of 1.23 suggests high volatility compared to the market.

Stock Investment Character Report

Analysis based on supplied stock characteristics and market context.

Investment Character: Operationally Resilient
Resilience: 70%
Momentum: 20%
Structural Stress: 30%
Narrative Dependence: 20%
Confidence: 64%

Calculated Metrics:
- Price-Volume Divergence: 0.000
- Volatility Dissonance Index: -0.999

Evidence:
- High reported profit margin with valuation multiples that are not extreme relative to high-growth profiles.
  Indicators: Profit margin=0.5, Trailing P/E=14.82, Forward P/E=19.84, Price-to-book ratio=5.51, EV/EBITDA=11.02, EV/Revenue=7.46
  Supports: Resilience
- Company FVI is at the low end of the moderate range and below the market-wide FVI, indicating only moderate structural instability relative to the market backdrop.
  Indicators: Fractal Volatility Index=0.338, Market-wide FVI=0.478
  Supports: Resilience
- Breakout probability is negative and price remains within Bollinger Bands, indicating no confirmed breakout momentum.
  Indicators: Breakout Probability Score=-0.45685643189408187, Breakout statement=No strong breakout signal detected: price 283.72 within Bollinger Bands (260.54 - 340.25)
  Supports: Momentum
- Beta is above 1 and ATR exceeds the high threshold, suggesting market-relative and recent range volatility, while Hurst/DFA are near 0.5 indicating near-random walk behavior.
  Indicators: Beta=1.226, Latest ATR=10.471248929953475, Hurst Exponent=0.5114098068070071, DFA Result=0.5083707413383876
  Supports: Structural Stress

Assessment:
Alphabet shows strong operating evidence via a high profit margin alongside reasonable valuation metrics, supporting an operationally resilient profile. Structural instability is only moderate by FVI and below the market's FVI, though Beta and a high ATR indicate choppier trading conditions. Momentum signals are subdued with a negative breakout score and no band breakout, so near-term momentum does not dominate.

Limitations:
- Trailing and forward EPS values are non-meaningful (reported as 0), limiting precision on earnings-based interpretations.
- No historical or comparative context for several indicators beyond provided thresholds, constraining assessments of trend or change.
- Supplied data does not establish price direction, causation, or future performance.

Medium-Term Fit:

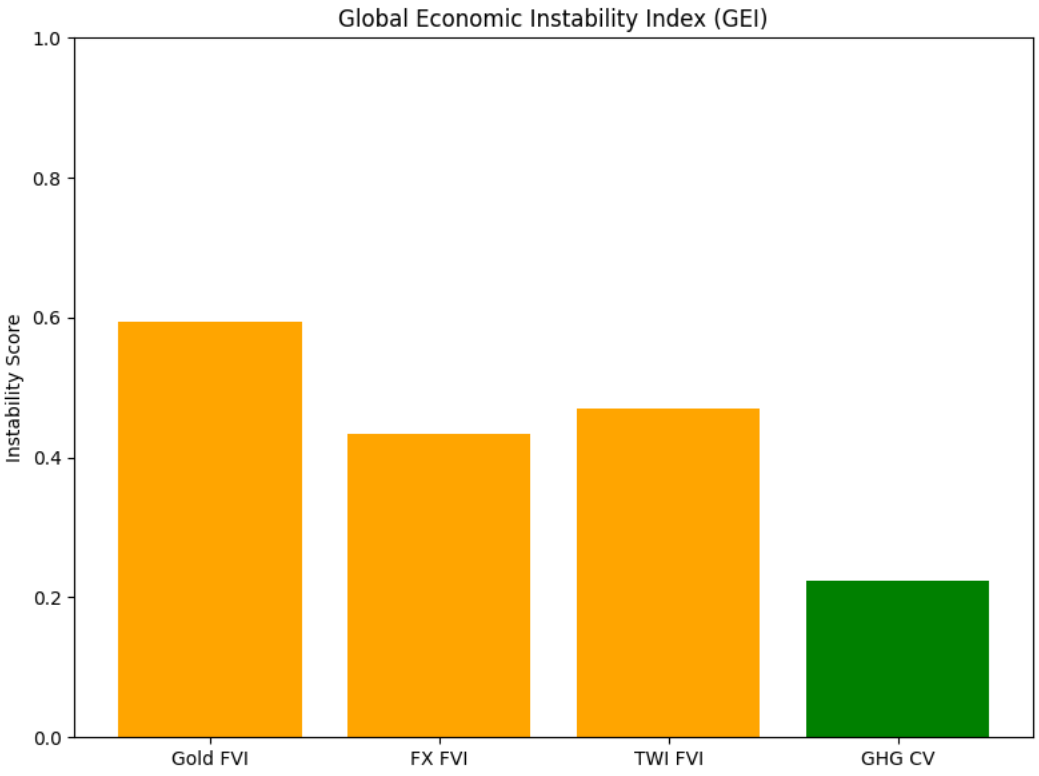
May fit an independent thesis prioritizing large-cap platforms with high operating margins and substantial scale, where investors can tolerate market-relative volatility and lack of confirmed breakout momentum while focusing on durable cash-generation characteristics.

Fractal Volatility Indices

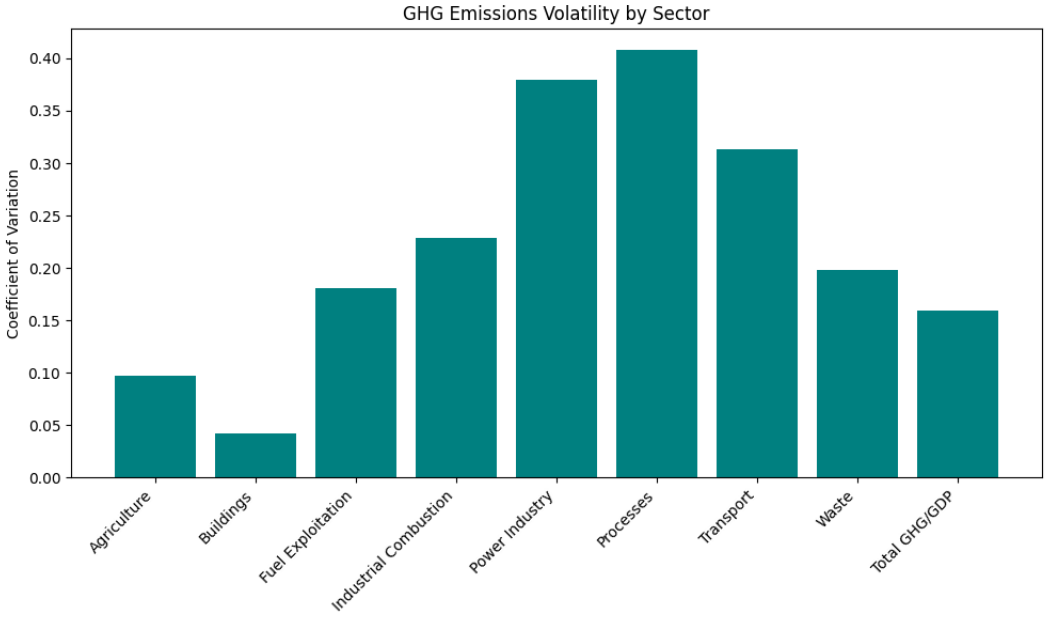
Global Geopolitical Fractal Volatility (Gold, Forex, TWI (Tariffs) and GHG Emissions)
FVI_GOLD: 0.593608 => Moderate gold volatility indicates increased investor caution
FVI_FX: 0.434301 => Moderate FX volatility indicates ongoing currency-market adjustment
FVI_TWI: 0.469352 => Moderate trade-weighted volatility indicates some external-sector adjustment
GHG_CV: 0.223036 => Moderate GHG sector variability indicates some sector-level carbon-risk dispersion

Primary Risk Driver: Gold volatility is a good proxy for global geopolitical risk. 0.593608.

Global Geopolitical Volatility



Volatility Indicators of GHG Emissions by Industry and GDP



No GHG score available for Communication services 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.

_____END OF REPORT_____