Fractal Volatility Index for BRZE : 0.419. 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: Braze Inc BRZE FVI 0.419

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): -1.384
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

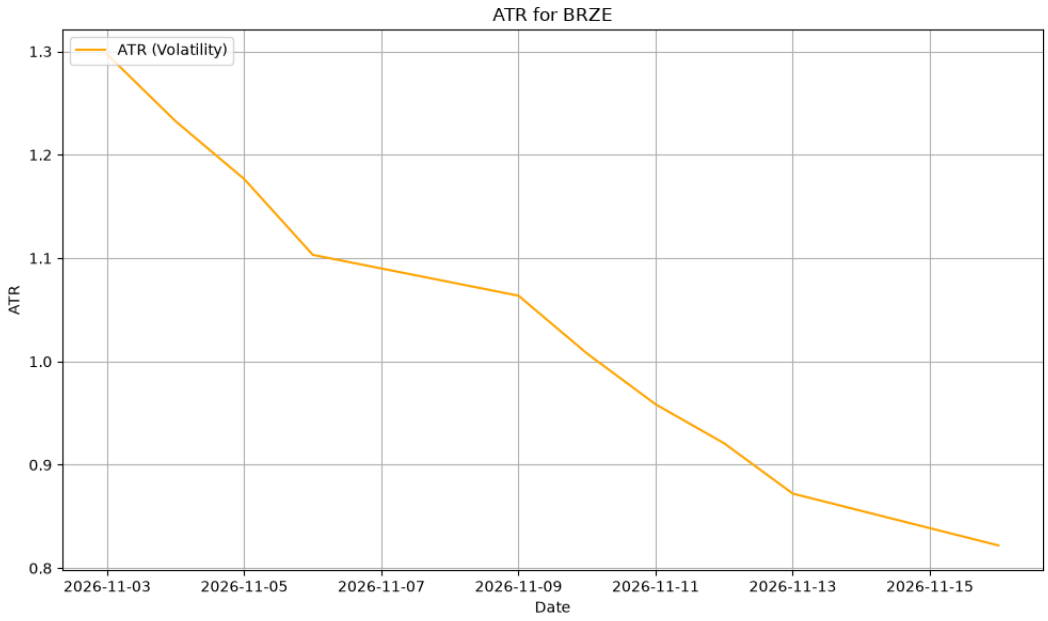
Fractal & Statistical Analysis

FVI Score: 0.419 (Fractal Volatility Index FVI)
DFA Result: 0.4974 (Detrended Fluctuation Analysis)
Lyapunov Exponent: 0.0148 (Measures chaos and predictability)
Hurst Exponent: 0.4947 (Indicates trending or mean-reverting behavior)

Breakout & Recent Price Change Analysis

Breakout Statement: No strong breakout signal detected: The latest closing price of 46.57 is within the Bollinger Bands range (45.32 - 46.65).
Latest ATR: 0.8220

Average True Range (ATR)

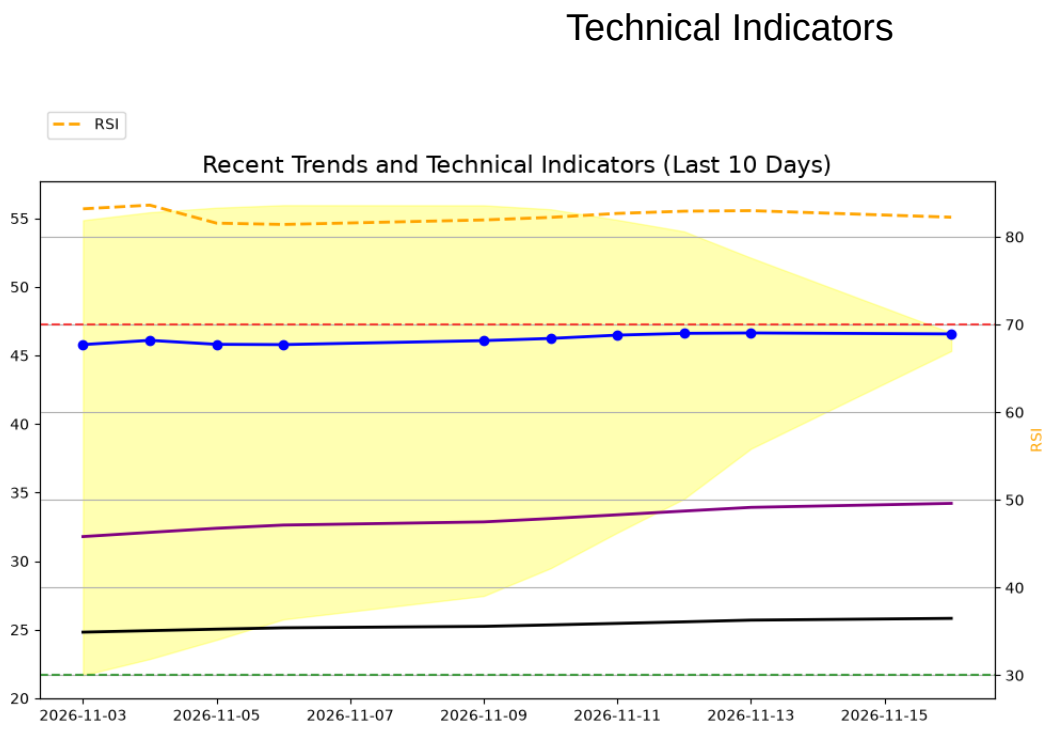


The ATR measures the recent price volatility of a stock, calculating the average range between its high and low prices over a given period (usually 14 days). A higher ATR indicates greater market volatility, and a lower ATR indicates less volatility.

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
- Observation: Stock FVI is 0.419 versus a market-wide FVI of 0.478. Hurst Exponent is 0.4947 (near 0.5). DFA is 0.4974 (near 0.5). Lyapunov Exponent is 0.0148. Beta is 0.772.
- Interpretation: The stock's FVI below the market-wide FVI indicates relatively lower structural instability than the broader market over the measured period. Hurst and DFA values close to 0.5 provide only weak evidence for either persistence or anti-persistence and are consistent with a near memoryless, scale-neutral correlation structure; they do not imply direction. The Lyapunov value indicates sensitivity/divergence is present within the system, but without thresholds or history its magnitude cannot be characterized; taken together, the readings align with a comparatively orderly volatility structure rather than elevated instability.
- Unknown: The absolute position of FVI, Lyapunov, or ATR on a high/low scale is not established without historical or threshold references.

2. Breakout Evidence
- Observation: Breakout Probability Score (BPS) is -1.3840. Breakout observation states no strong breakout signal; the latest close (46.57) sits within Bollinger Bands (45.32–46.65).
- Interpretation: Current evidence supports weak breakout conditions. Breakout direction is not determined by the supplied data, and BPS measures strength, not direction.
- Unknown: Without prior BPS levels or Bollinger bandwidth changes, potential compression or emerging momentum cannot be assessed.

3. Participation and Technical Context
- Observation: Volume change is -55.216%. Latest ATR is 0.822 (price units). Beta is 0.772.
- Interpretation: The reported volume decline indicates reduced recent participation versus the comparison window, but no motive or directional inference is supported. ATR provides an absolute volatility magnitude; without normalization (e.g., ATR/price) or history, its relative level cannot be classified. Beta below 1 suggests lower historical co-movement with the market, but no risk level can be assigned without context.
- Missing comparison: Historical ATR range or ATR/price ratio, multi-period volume baselines, and the measurement horizon for beta would allow stronger conclusions.

4. Macro and Sector Context
- Observation: Macro FVIs: Gold 0.5936, FX 0.4343, TWI 0.4694; market-wide FVI is 0.478. GHG sector variability for Technology is low (0.048); company GHG sector sensitivity is 0.04825.
- Interpretation: Among macro proxies, structural instability is highest in Gold and lower in FX, with TWI near the market-wide FVI; these are cross-asset structural readings, not directional signals. The Technology sector's low GHG-related variability—and BRZE's similar sensitivity—indicates limited emissions-linked variability in this dimension alone; it is not a comprehensive exposure measure.
- Unknown: No time series is provided to determine whether these macro instabilities are increasing or decreasing, nor to link them to specific causes.

5. Risk Interpretation
- Most supported view: Relative to the market, BRZE’s volatility structure points to structural stability to moderate uncertainty, with muted breakout evidence at present.
- There is no established breakout direction, and no single indicator suggests elevated instability; macro proxies show higher instability in Gold that does not directly translate to the stock without further evidence.

6. Monitoring Implications
- Indicators to watch: BRZE FVI versus market-wide FVI; BPS and the explicit breakout observation; Hurst and DFA for regime-shift signals; Lyapunov for changes in system sensitivity; volume trends and ATR for participation–volatility context; macro FVIs (Gold, FX, TWI) for cross-asset structural shifts.

FINAL TAKEAWAY

BRZE currently shows relatively lower structural instability than the broader market and limited breakout evidence. The most important confirmations to monitor are the BPS and the stock’s FVI relative to the market-wide FVI, alongside Hurst/DFA and changes in ATR and volume.

Stock Information

Market Capitalization: 5298038000, Industry: SOFTWARE - APPLICATION, Latest Volume: 2099177, Description: Braze Inc, Sector: TECHNOLOGY, Price to Book: 8.83, Forward PE: 49.02, Enterprise to Ebitda: -18.23, Enterprise to Revenue: 5.98, Profit Margins: -0.136

The trading volume has changed by -55.22% 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: 0.77
Beta of 0.77 suggests low volatility compared to the market.

Stock Investment Character Report

Analysis based on supplied stock characteristics and market context.

Investment Character: Narrative-Dependent
Resilience: 45%
Momentum: 15%
Structural Stress: 45%
Narrative Dependence: 70%
Confidence: 58%

Calculated Metrics:
- Price-Volume Divergence: 0.000
- Volatility Dissonance Index: 0.641

Evidence:
- Structural instability is moderate relative to the supplied scale, market sensitivity is below 1, and recent trading-range volatility is low per the ATR threshold.
  Indicators: FVI=0.419, Market-wide FVI=0.478, Beta=0.772, Latest ATR=0.8219952519430282
  Supports: Resilience
- No strong breakout is detected and recent volume is lower; supplied signals do not confirm momentum.
  Indicators: Breakout Probability Score=-1.384044589463906, Breakout statement=No strong breakout signal detected: The latest closing price of 46.57 is within the Bollinger Bands range (45.32 - 46.65)., Recent volume change percentage=-55.21607647826221
  Supports: Momentum
- Negative profit margin and negative EV/EBITDA indicate current unprofitability and weak operating earnings.
  Indicators: Profit margin=-0.136, EV/EBITDA=-18.23
  Supports: Structural Stress
- Valuation multiples are demanding while trailing earnings are absent, indicating valuation not clearly supported by current operating profitability.
  Indicators: Price-to-book ratio=8.83, Forward P/E=49.02, EV/revenue=5.98, Trailing P/E=0, Trailing EPS=0
  Supports: Narrative Dependence

Assessment:
Trading characteristics appear comparatively steady (low ATR and sub-1 beta) with only moderate structural instability by FVI. Momentum signals are not confirmed, with a negative breakout score and price remaining within Bollinger Bands. Operating metrics are weak (negative margin and EV/EBITDA), while valuation multiples are demanding, pointing to reliance on forward narratives rather than present profitability. Overall, the profile aligns best with a narrative-dependent stock rather than momentum-driven or structurally stressed.

Limitations:
- No data on revenue growth, cash flow, or balance-sheet strength to corroborate operating resilience or sustainability.
- Forward EPS is listed as 0, providing limited clarity on forward earnings support for valuation.
- Price trend history, band width, and relative valuation peers are not supplied, constraining momentum and valuation context.
- Supplied data cannot establish future performance, direction, or catalysts.

Medium-Term Fit:

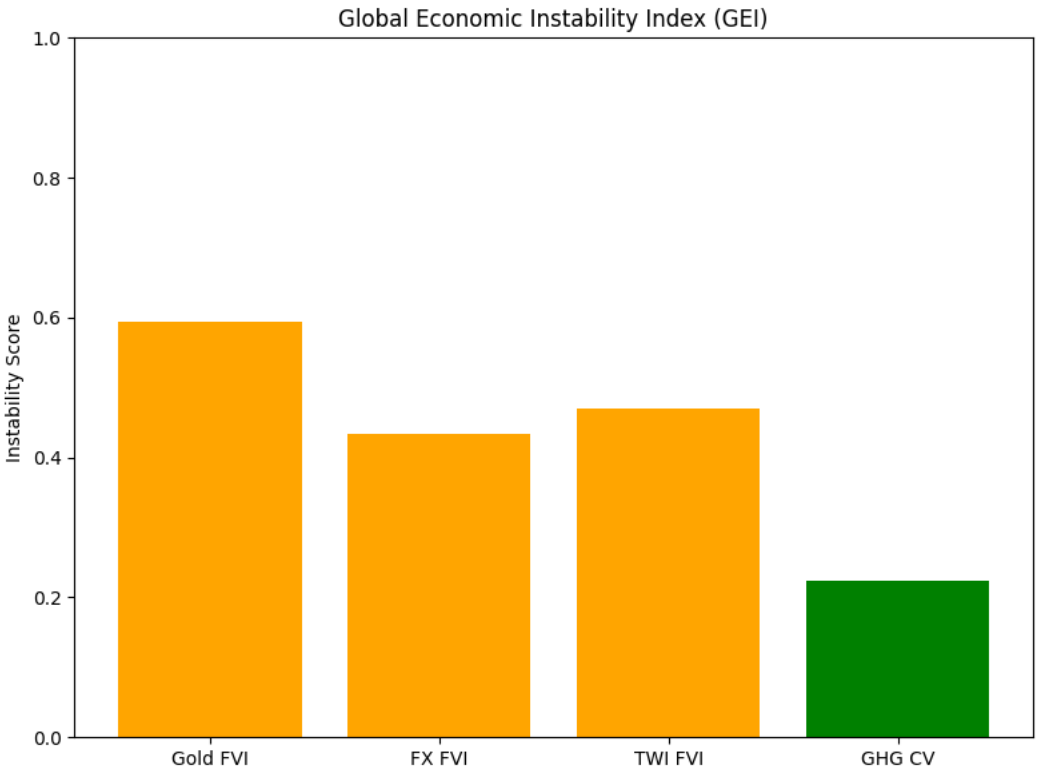
Potential fit for an independent thesis focused on application software firms expected to improve profitability and unit economics over time, where an investor anticipates operating leverage or product adoption to validate current valuation.

Fractal Volatility Indices

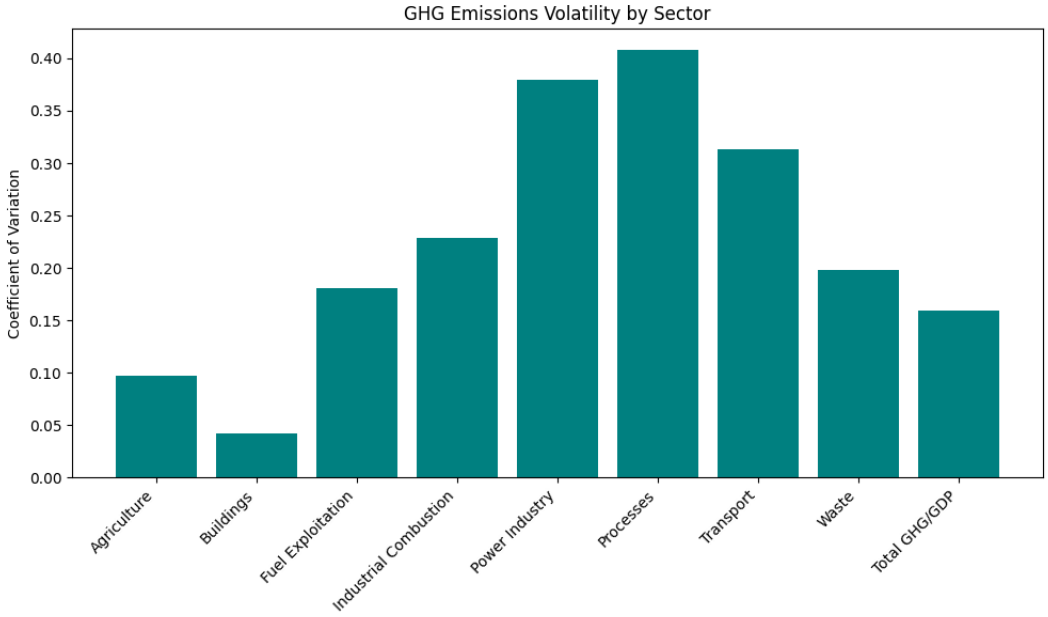
Global Geopolitical Fractal Volatility (Gold, Forex, TWI (Tariffs) and GHG Emissions)
FVI_GOLD: 0.593608 => Moderate gold volatility indicates increased investor caution
FVI_FX: 0.434301 => Moderate FX volatility indicates ongoing currency-market adjustment
FVI_TWI: 0.469352 => Moderate trade-weighted 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



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.

_____END OF REPORT_____