

Validraft

INDEPENDENT VALIDATION REPORT

false_breakout_20d_reversal

Instrument US_EQUITIES_MULTI · In-sample 2024-01-02 to 2024-12-31

UNDER REVIEW

Generated 2026-05-29T14:03:53Z · git 6741fb1 · generator e4_5_v2

1. Executive summary

Outcome: UNDER REVIEW

SHARPE (IS)	TOTAL RETURN (IS)	MAX DRAWDOWN (IS)	TRADES (IS)
0.5837	15.26%	15.72%	1521

Over the in-sample window 2024-01-02 to 2024-12-31, false_breakout_20d_reversal on US_EQUITIES_MULTI produced a Sharpe ratio of 0.5837 and a total return of 15.26%, with a maximum drawdown of 15.72% across 1521 trades. The run completed the validation suite.

Key findings

- Returns are notably non-normal (negative skew and/or fat tails); tail-risk metrics deserve close attention.

This report is descriptive analysis of historical data: it documents what the strategy produced under the validation gates in place at generation time. It is not investment advice and not a recommendation to trade.

2. Methodology & data lineage

Strategy	false_breakout_20d_reversal
Instrument / universe	US_EQUITIES_MULTI
Engine	equity_swing
Timeframe	1d
Session	all
Dataset / provider	massive
In-sample period	2024-01-02 to 2024-12-31
Cost model	N/A
Edge type	Not specified.
Hypothesis	Not specified.
Run id	false_breakout_20d_reversal_20260527_155529
Git commit	6741fb1

Returns are computed on a point-in-time basis: every signal uses only information available at decision time, and execution is modelled on the following bar to avoid look-ahead bias. Transaction costs, spread, and market-impact assumptions (above) are applied to gross returns. Where an out-of-sample window is shown, it was held out from any parameter selection.

3. Performance results

3.1 Returns & risk-adjusted

Metric	Value
Total return	15.26%
CAGR	15.26%
Sharpe ratio	0.5837
Sortino ratio	1.9197
Calmar ratio	0.9705
Omega ratio ($\theta=0$)	1.2121

3.2 Drawdown & pain

Metric	Value
Maximum drawdown	15.72%
Max DD duration (days)	235.0000
Time to recovery (bars)	N/A
Ulcer index	0.0736
Martin ratio	2.0731
Burke ratio	0.1306
Pain index	0.0643
Conditional drawdown at risk (95%)	14.77%

3.3 Return distribution & tail risk

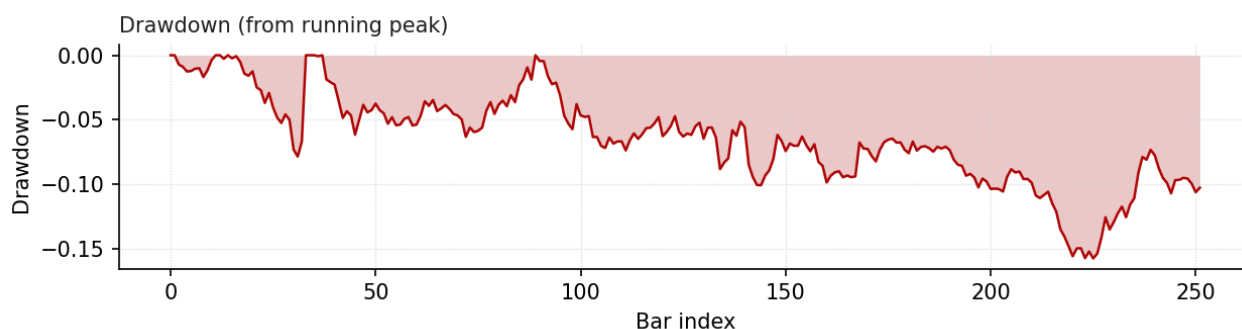
Metric	Value
Conditional VaR (95%)	-1.86%
Skewness	11.6976
Excess kurtosis	167.2542
Gain-to-pain ratio	0.2121
Equity-curve R ²	0.0393

3.4 Trade statistics

Metric	Value
Win rate	44.71%
Profit factor	1.0760
Number of trades	1521
Expected value per trade	9.9407
Annualised turnover	302.2249
MAR ratio	0.9705

3.5 Equity & drawdown





5. Robustness & validation

No validation checklist was attached to this run. Validation gates run as part of the IS/OOS lifecycle; a standalone backtest may not carry one.

6. Risk & limitations

- Past simulated performance does not predict future returns; live trading introduces frictions not fully captured by a backtest.
- Results reflect the data-lake snapshot, cost model, and slippage assumptions configured at run time; changing any of these changes the numbers.
- The strategy experienced a maximum drawdown of 15.72% in sample; position sizing should account for drawdowns at least this deep.
- Tail risk: the conditional VaR at the 95% level is -1.86% per bar in the worst 5% of outcomes.
- Validation thresholds are intentionally institutional; a different gating policy may classify the same run differently.

7. Governance & reproducibility

Every run is content-addressable: identical inputs (data window, parameters, code revision) reproduce identical metrics. The provenance below pins the exact revision behind these numbers.

Generator	e4_5_v2
Random seed	0
Packages lock hash	ee5ee4a0abad2c73...
Git SHA	6741fb111464de27d6195468f81679017e277ef5

8. Appendix

Metric glossary

Metric	Definition
total_return	Cumulative return over the run (final equity / initial - 1).
cagr	Compound annual growth rate of the equity curve.
sharpe	Annualised mean / stddev of strategy returns (zero risk-free).
sortino	Annualised mean divided by downside deviation (negative-return RMS).
calmar	CAGR divided by max drawdown.
omega_0	Omega ratio with threshold 0 (gain mass divided by loss mass).
cvar_95	Conditional VaR at the 5th percentile of returns (Expected Shortfall).

Metric	Definition
cdar_95	Conditional Drawdown at Risk over the 5% worst drawdown observations.
ret_skewness	Sample skewness of returns. Negative values flag asymmetric tail risk. (Fisher-Pearson G1 (bias-corrected))
ret_kurtosis_excess	Sample excess kurtosis of returns. Positive values indicate fat tails. (Fisher G2 (bias-corrected))
max_drawdown	Largest peak-to-trough drawdown observed in the equity curve.
max_dd_duration_bars	Bars elapsed during the longest drawdown segment (any depth).
win_rate	Fraction of strategy bars/trades with positive return.
profit_factor	Gross profit divided by gross loss (≥ 1 means profitable).
num_trades	Number of position changes (vectorized) or executions (scanner).
ev_per_trade_empirical	Empirical expected value per trade (sum of returns / num_trades).
annualized_turnover	Sum of position changes (or trade notional) annualised.
max_dd_duration_days	Calendar-day length of the longest drawdown segment. Null when the equity curve has no usable timestamps.
time_to_recovery_bars	Bars between the deepest single trough and the bar that first recovers to the prior peak. Null when the worst drawdown has not recovered.
ulcer_index	Root-mean-square drawdown severity across the full equity path.
martin_ratio	CAGR divided by Ulcer Index (pain-adjusted return).
mar_ratio	CAGR divided by max drawdown (since-inception MAR proxy).
gain_to_pain_ratio	Net return divided by the absolute sum of negative returns.
burke_ratio	CAGR divided by the square root of summed squared drawdowns.
pain_index	Average drawdown over the full equity curve.
equity_curve_r_squared	R^2 of log-equity against a linear time trend (equity smoothness/stability).
model_r_squared	Single-factor model R^2 when a benchmark return series is available in the run artifact.
model_adj_r_squared	Adjusted single-factor model R^2 when a benchmark return series is available.

Disclaimer

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End of report · generator e4_5_v2