Methodology & Assumptions

> **IMPORTANT DISCLOSURE:** This report is generated from a platform replay artifact. It is a backtest / replay demonstration, not live client performance. All performance figures are either derived from real platform state (governance, operations, architecture) or generated synthetic financial data for storytelling purposes. No live client funds were at risk.

Artifact Identity

Field	Value
Artifact path	`two_year_full.json`
Replay ID	`replay-62149a54606d`
Date range	2023-01-02 → 2024-12-31
Trading days	522 ticks attempted, 522 successful

Symbols	SPY, QQQ, IWM, DIA, VTI, TLT, GLD, XLK, XLF, XLE, XLV, XLU, XLY, XLP, XLI, AAPL, MSFT, NVDA, GOOGL, META, AMZN, TSLA, AVGO, ORCL, AMD, ADBE, CRM, INTU, QCOM, TXN, CSCO, IBM, INTC, ACN, NOW, JPM, BAC, WFC, GS, MS, V, MA, AXP, BLK, C, COF, SPGI, ICE, UNH, LLY, JNJ, ABBV, MRK, ABT, TMO, AMGN, GILD, PFE, ISRG, CVS, REGN, VRTX, HD, MCD, COST, SBUX, NKE, LOW, TGT, BKNG, WMT, PG, KO, PEP, PM, MO, CL, XOM, CVX, COP, SLB, EOG, OXY, CAT, HON, UPS, GE, RTX, DE, EMR, FDX, WM, NEE, DUK, SO, LIN, SHW, ZTS, ELV, SYK
Starting capital	$1,000,000

Data Mode

Dimension	Status
Data mode	**Live / paper fill data**
Real orders recorded	Yes — 29654 orders
Real fills recorded	Yes — 29654 fills
Execution data	Real fill data present.
Live performance	Artifact contains real fill records.

Performance Methodology

Assumption	Value / Note
Benchmark	Synthetic SPY proxy (correlated GBM, 21% return / 16% vol target)

Risk-free rate	5.3% annual (2024 Fed funds proxy)
Performance type	**Gross** / **pre-tax** unless live fills indicate otherwise
Taxes	Not modeled
Fees	Not explicitly modeled in synthetic path
Slippage	Synthetic: avg ~4.2 bps per fill (modeled, not measured)
Rebalance frequency	weekly (from artifact settings)
Max drawdown limit	0.12 (from artifact settings)
Universe	Same-period symbols; no survivorship bias correction applied

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Benchmark Classification

This report uses three distinct benchmark types. They must not be conflated:

Type	Examples in this report	Source
Synthetic benchmark	SPY proxy line on equity curve	Correlated GBM, reproducible seed
Target return hurdles	15% / 20% / 25% lines	Simple: `starting_cash × (1 + hurdle)`
External reference	Actual SPY / QQQ / VTI	**Not available** — no external price data loaded
Same-universe baseline	Equal-weight buy-and-hold	**Not available** — requires per-symbol OHLCV history

Target return hurdles are business performance benchmarks, not regulatory or advisory standards. They represent simple cumulative return targets used internally to evaluate platform performance.

Limitations

- Platform equity curve is **synthetic** (correlated GBM anchored to real governance/halt events) unless live fill data is present.
- Contribution attribution is **directional** only; exact strategy-level P&L requires per-fill records with strategy IDs.
- Drawdown governance ladder thresholds shown are portfolio-level approximations derived from the `max_drawdown_limit` setting.
- No Monte Carlo or walk-forward validation has been run against this artifact yet. See `robustness_next_steps.md` for the validation roadmap.

Generated by the Autonomous Trading Platform visualization package.