

IB + IVB Strategy

Retrospective simulation and holdout review

HYPOTHETICAL HISTORICAL SIMULATION. These results do not represent actual trading. They were produced with hindsight, modeled fills, incomplete costs, and a modified IVB exit. No account is represented as likely to achieve similar results. This review is not investment advice.

388 Held-out trades	\$3,272.50 Fixed-contract result	1.025 Profit factor	-0.0245R Mean return per trade
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Primary finding: small positive fixed-contract point estimate; robustness not established. The held-out drawdown was -\$11,707.50, the result averaged \$8.43 per trade, and 0.675 additional ES tick per trade would erase the reported gain.

What this review can support

The supplied strategy states can be replayed deterministically under this simulator's documented inputs and event ordering. That is a statement about implementation repeatability, not proof of a tradeable or durable edge.

What this review cannot support

The held-out dollar result is positive only under one fixed-contract weighting and is negative when each trade is normalized by its own initial risk. The confidence intervals include losing outcomes, and unresolved data, cost, execution, and selection issues remain material.

Document control	Value
Status	Preliminary research review; not independently audited
Report version	2.1
Organizational author	Mianomics Research
Study window	17 Apr 2017 to 22 May 2026
Holdout label	Retrospective post-selection audit
Accessible version	Semantic HTML at mianomics.com/research

Executive assessment

The held-out sample produced 242 wins and 146 losses, a 62.37% win rate, PF 1.025, and \$3,272.50. Mean normalized return was -0.0245R; the sum of normalized trade outcomes was -9.50R.

Evaluation results

Metric	Held out	Validation*	Training*	Full sample*
Trades	388	155	862	1,405
Win rate	62.37%	67.74%	66.36%	65.41%
Profit factor	1.025	1.191	1.181	1.123
Mean return	-0.0245R	+0.0168R	+0.0391R	+0.0191R
Mean dollars/trade	\$8.43	\$39.52	\$38.65	\$30.40
Net of stated costs	\$3,272.50	\$6,125.00	\$33,315.00	\$42,712.50
Closed-trade drawdown	-\$11,707.50	-\$7,907.50	-\$14,740.00	-\$14,740.00
Average win/loss	0.618:1	0.567:1	0.599:1	0.594:1

* Training, validation, and the selected full sample are development-influenced figures and are not independent estimates. Results are shown with cents to avoid the prior \$1 rounding discrepancy.

Uncertainty

Held-out statistic	Point estimate	95% month-cluster interval
Net P&L over 29 months	\$3,272.50	-\$36,005.00 to \$41,285.06
Mean dollars/trade	\$8.43	-\$92.44 to \$105.87
Profit factor	1.025	0.764 to 1.363
Mean normalized return	-0.0245R	-0.0949R to +0.0424R
Win rate	62.37%	57.97% to 66.40%

Intervals use 200,000 resamples of only 29 observed calendar-month clusters with seed 7301030. They preserve within-month clustering, do not preserve dependence across adjacent months, and do not correct for model selection, future regime change, or execution-model error.

At the observed 0.618:1 payoff ratio, breakeven requires approximately 61.79% wins. The observed 62.37% is only 0.58 percentage point higher.

Execution sensitivity and time behavior



Figure 1. Arithmetic per-trade cost overlay and selected annual simulated results. The sensitivity calculation subtracts incremental cost from the existing ledger; it is not a rerun of order fills. 2017 and 2026 are partial years.

Held-out cost sensitivity

Additional cost	Cost/trade	Held-out result	Profit factor
Baseline	\$0.00	\$3,272.50	1.025
+0.5 ES tick/trade	\$6.25	\$847.50	1.006
+1 ES tick/trade	\$12.50	-\$1,577.50	0.988
+2 ES tick/trade	\$25.00	-\$6,427.50	0.952
+4 ES tick/trade	\$50.00	-\$16,127.50	0.884

One additional ES tick per trade changes the held-out result to -\$1,577.50. The estimated break-even overlay is 0.675 tick per trade.

Drawdown and concentration

Maximum held-out closed-trade drawdown was -\$11,707.50, from the 2025-11-28 equity peak to the 2026-01-30 trough. It remained unrecovered through the final held-out trade on 2026-05-20; the raw-data endpoint was 2026-05-22 and the ending drawdown was -\$8,015.00. The largest held-out win was \$4,032.50 and the largest loss was -\$4,380.00. Removing the single largest win changes held-out net P&L to -\$760.00.

Observed holding time

Mean holding time was 111.2 minutes; median 80; 90th percentile 268; maximum 343. These are ledger durations, not market-impact or latency measurements.

Research design and selection audit

Corrected label: this is a retrospective post-selection holdout audit, not a pristine one-time holdout. The final combined configuration was selected using validation, but the generated evaluation file later calculated holdout metrics for all 15 combined and 20 IVB finalists.

Selection pipeline

Stage	Candidate set	Rule
IB training search	56 configurations	Rank by composite score; minimum 150 trades
IVB training search	1 baseline + 219 seeded samples	Unique random sample of a 13,500-combination grid; seed 7301030; minimum 100 trades
IVB-only validation	Top 20 IVB training finalists	Select highest validation score; minimum 20 trades
Combined training search	6 IB x 18 IVB = 108 pairs	Rank by the same score; minimum 250 trades
Validation	Top 15 combined pairs	Select highest validation score; minimum 30 trades
Retrospective audit	15 combined + 20 IVB finalists	Holdout metrics were calculated for all 35 finalists

Exact score

$$\min(\text{PF}, 4.0) + 1.25 \times \text{mean_R} - 0.01 \times \text{abs}(\text{max_drawdown_R})$$

Review edition 2.1 reran all 384 scored search rows with drawdown anchored to initial zero. The selected combined configuration was unchanged; exported search, finalist, summary, and annual metrics now use the corrected convention.

The code path selects the displayed combined configuration without using held-out metrics. However, there is no contemporaneous external timestamp proving first-look status, and publishing all finalist holdout results creates additional retrospective visibility that must be disclosed.

Supplied defaults versus selected configuration

Period	Selected PF	Selected result	Default PF	Default result
Held out	1.025	\$3,272.50	0.926	-\$14,308.75
Validation*	1.191	\$6,125.00	1.040	\$2,062.50
Training*	1.181	\$33,315.00	0.954	-\$13,662.50
Full sample*	1.123	\$42,712.50	0.952	-\$25,908.75

The default comparison is now segmented by evaluation period. It should not be interpreted as proof that the selected model will retain its historical advantage.

Strategy and implementation specification

Scope: the results describe the supplied simulator implementation. They do not establish exact parity with TradingView, broker execution, or the source indicator's intended 22:55 IVB tracking cutoff.

Known effective rules

Component	Effective simulated rule
Instrument	ES is traded; required NQ filtering affects signal eligibility
Contract economics	ES \$50/point; 0.25-point tick = \$12.50; one fixed contract
Opening range	09:30 to 10:30 ET on supplied one-minute files
IB signal window	11:30 to 11:59 ET; five-minute close logic and imported qualification gates
IB stop	Imported model stop, rounded to the ES tick
IB target	Opening-range boundary +/- 0.5 x opening-range width; fall back to imported model target unless the ORB target lies beyond entry
IVB anchor	10:30 ET open
IVB trigger	Long only; 5-minute confirmation beyond anchor + 0.20 x prior ATR14
IVB regime	$ATR3 > 1.10 \times ATR20$
IVB risk	Stop distance $0.15 \times ATR14$; target $1.5 \times$ signal-reference risk
Session lock	Earliest accepted IB or IVB signal only
Rounding	Entry, stop, and target prices rounded to 0.25-point ES ticks as defined in code

The $1.5 \times$ IVB target is based on signal-reference risk. Because the actual fill is the next-minute open plus slippage, fill-level planned reward-to-risk varies and is not uniformly 1.5R.

Material implementation mismatch

Source indicator cutoff: 22:55 ET. Simulator cutoff: last available 16:59 bar. The IVB component is therefore a modified strategy variant. A faithful reproduction requires compatible extended-hours data and a complete rerun of selection and evaluation.

Not independently specified in this publication

The imported IB qualification/rank tree, VWAP-band details, NQ alignment behavior, and Pine-to-Python parity are not fully reproduced in this document. The public artifacts identify the code and ledger hashes, but the proprietary Pine source and imported simulator dependencies are not distributed.

Data and simulation method

Data manifest

Item	Recorded value	Status
ES file	1,026,759 rows; 2,359 sessions	Hash recorded
NQ file	991,592 rows; 2,356 sessions	Hash recorded
Window	17 Apr 2017 to 22 May 2026; America/New_York	Recorded
NQ alignment	3 ES dates absent from NQ; 159 common dates have different row counts	Requires deeper audit
Vendor and license	Not recorded in supplied CSV files	Unresolved
Contract roll/adjustment	Not documented; EPM26/ENQM26 filenames are ambiguous	Unresolved
Session definition	Supplied files labeled RTH; exact exchange-session construction unavailable	Unresolved

File verification

ES SHA-256: 9696cb7eecd622807858b9068a2bbbfaaaa92b0c2e0cb751574a12016d9ceaf

NQ SHA-256: f6da06d05d4a5b6460b7f7d6b70c6596e5de82a110c90b48c3d865adb69a650d

Execution assumptions

Item	Simulator treatment	Likely concern
Entry	Next one-minute open + one adverse ES tick	Latency and spread are fixed
Exit activation	One minute after entry	Entry-minute stop/target touches are ignored
Stops/time exits	One adverse tick	Gap-through and variable slippage not modeled
Targets	Limit fill when touched	Queue position and trade-through not modeled
Same-minute collision	Stop first	Conservative ordering within one-minute OHLC
Commission	\$5.00 round trip	Exchange, clearing, NFA, platform, and subscription costs omitted
Drawdown	Closed-trade equity only	Open-equity and intraday risk unavailable

The term net of stated modeled costs is used throughout. It must not be read as net of every real-world trading expense.

Performance over time and engine decomposition

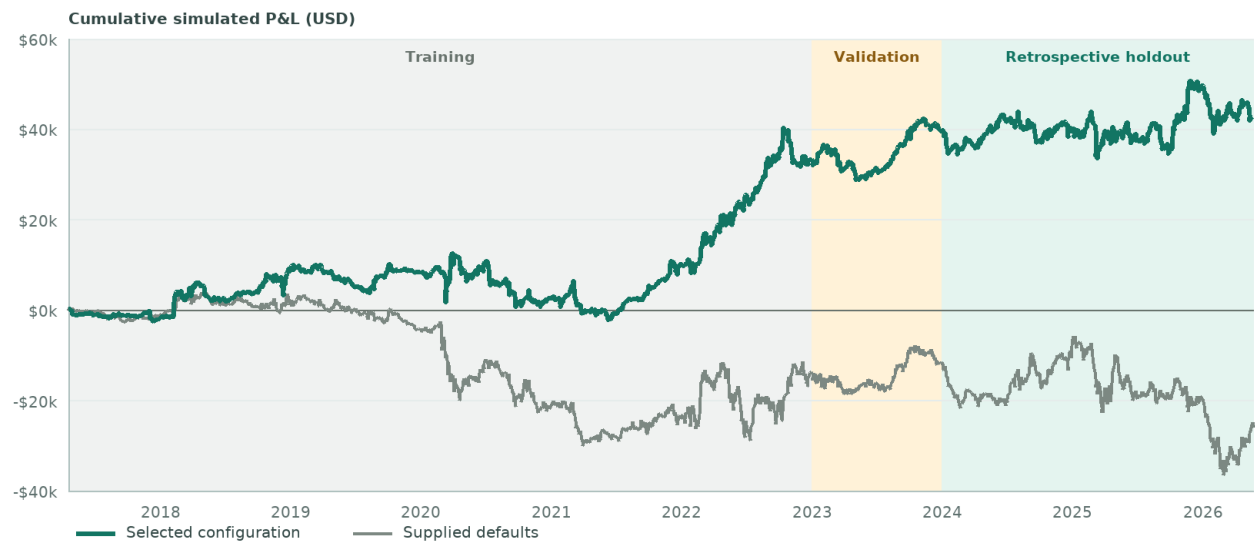


Figure 2. Selected and supplied-default cumulative simulated P&L with development and retrospective segments visibly separated. Dollar results use one fixed contract and no capital denominator.

Held-out engine decomposition

Engine	Trades	W / L	Profit factor	Mean R	Net of stated costs
IB	317	216 / 101	1.092	+0.0049R	\$9,752.50
IVB	71	26 / 45	0.746	-0.1558R	-\$6,480.00

The selected combined IVB component detracted in the holdout. This is now shown directly rather than asserted without supporting segment data.

Separate rejected IVB-only candidate

Period	Trades	Profit factor	Mean R	Net
Training*	137	1.346	+0.1507R	\$10,152.50
Validation*	25	1.773	+0.4529R	\$5,825.00
Held out	44	0.807	-0.1075R	-\$3,732.50

This is a different IVB-only candidate, selected from the top 20 IVB training finalists. It is included as a rejected-candidate example and must not be confused with the selected IVB component above.

Limitations, appropriate use, and review gates

Issues ranked by likely impact

Priority	Issue	Required remedy before stronger claims
Critical	22:55 indicator exit replaced by 16:59 simulator exit	Obtain compatible data and rerun the complete pipeline
Critical	Held-out result erased by 0.675 added tick/trade	Stress realistic all-in costs and variable fills
Critical	All 35 finalists later received holdout metrics	Treat as retrospective; reserve new forward data
High	Entry-minute exits ignored; touched limits assumed filled	Use tick/second data and explicit queue/gap rules
High	Vendor, license, roll method, and session construction unknown	Publish a licensed data manifest and contract map
High	NQ/ES session mismatches	Document alignment, missing-data policy, and parity tests
High	Only closed-trade drawdown is available	Calculate open-equity, MAE, margin stress, and risk of ruin
High	No external freeze timestamp or independent audit	Timestamp versions and obtain independent reconciliation
Medium	No account capital or annualized return	Predeclare sizing, margin, and capital assumptions

Appropriate use

Use this report as a transparent baseline for locked-specification forward observation, data reconciliation, and simulator review. Do not use the selected full-sample curve or the small held-out dollar point estimate as a capital-allocation decision.

Forward protocol

Step	Required control
1	Timestamp the exact code, configuration, data manifest, and execution policy
2	Log every eligible theoretical signal and every actual order outcome separately
3	Prohibit retroactive exclusions and parameter changes until a declared review date
4	Report monthly results, all costs, missed fills, and version changes
5	Obtain independent statistical, execution, and futures-compliance review before promotional claims

This publication has not received legal or futures-compliance approval. If the report is used as promotional material by a regulated person or entity, counsel should determine and insert all prescribed CFTC/NFA disclosures and approvals before public use.

Artifact verification, definitions, and references

Public research artifacts

Artifact	Public location	Status
Review PDF	PDF download	Release artifact
Selected ledger	CSV download	Generated ledger
Supplied-default ledger	CSV download	Generated ledger
Parameter search	CSV download	384 scored training rows
Finalist evaluation	CSV download	35 validation/holdout rows
Annual results	CSV download	Selected configuration
Research manifest	JSON download	Hashes, environment, and unresolved fields
Pine source/raw market data	Not publicly distributed	License/proprietary review required

Verification identifiers

Pine source SHA-256: 8c5a0a7b3d9568fca595b90f8538aaa1015985785fd69a9650d0d899d49e451a

Backtest SHA-256: 21368ea433c98ff1fa0ef0bcde0b1c278d48190ed27908092b782d2795b2e82a

Optimized ledger SHA-256: 96ce146a8bdfb6430fd44bad87ed27c286c9084db4f5afa530a5a664ba7591fd

Runtime: Python 3.12.13; pandas 2.2.3; NumPy 2.3.5.

Selected configuration

IB: signal_start_minute=690; stop_mode=model; target_mode=orb; final_multiple=0.5

IVB: confirm_minutes=5; breakout_atr=0.2; stop_atr=0.15; target_r=1.5; regime_mode=high; regime_factor=1.1; direction=long

Definitions

Term	Definition
IB	Initial Balance engine used by the supplied strategy implementation
IVB	Intraday Volatility Breakout engine used by the supplied implementation
RTH	Regular trading hours as encoded in the supplied files; construction not independently documented
PF	Sum of positive after-modeled-cost trade P&L divided by absolute negative trade P&L
R	Each trade's after-modeled-cost P&L divided by its own initial dollar risk

References and review note

This PDF is a print companion and is not tagged PDF/UA. The canonical HTML page provides semantic headings, table captions, abbreviations, image alternatives, and keyboard-accessible data tables.

CFTC Regulation 4.41 guidance | NFA Compliance Rule 2-29 | WCAG 2.2

Conclusion: deterministic under the stated simulator assumptions; selected historical sample positive; retrospective held-out fixed-contract dollars slightly positive; risk-normalized expectancy negative; uncertainty wide; robustness and implementation parity not established.