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Backtest Survival Checklist

A 7-step audit for any technical trading rule before real capital touches it.

Why this checklist exists.

Bajgrowicz & Scaillet (2012) tested 7,846 trading rules across 114 years of Dow Jones daily data. In the late-2000s subperiod, **zero rules** survived False Discovery Rate adjustment with realistic transaction costs.

A 2.0% advertised backtest alpha typically becomes a –**0.1% net edge** once the friction stack lands — a **$620,704** wealth gap on a $120K + $500/mo, 25-year portfolio.

HOW TO USE

Run each step on your candidate rule before allocating capital. A rule that fails any single step fails the survival test entirely — no partial credit.

TIME REQUIRED	WHO IT'S FOR	SOURCES
15–30 minutes per rule	Retail traders using daily-price technical rules on TradingView, Pine Script, or similar	B&S 2012 (JFE), STW 1999 (JoF), Rink 2023 (FMPM)

THE SEVEN FILTERS

Run each step. Reject on any failure.

1

STEP 1

Identify the selection universe

Action. Count how many candidate variants the source scanned to find this rule. Ask the publisher for the rule universe size N.

If this step fails. *If the source can't or won't disclose N, treat the rule as data-mined. Reject.*

2

STEP 2

Apply False Discovery Rate (FDR) correction

Action. Compute the Benjamini–Hochberg-adjusted p-value threshold for the disclosed N. Or run White's Reality Check bootstrap.

If this step fails. *If post-FDR p-value > 0.05, the apparent edge is statistical noise.*

3

STEP 3

Set commission to ≥ 0.05% per side

Action. Open the Strategy Tester Properties panel. Replace the default 0.0 with 0.05% (or your broker's actual effective cost).

If this step fails. *If the equity curve drops > 30% under realistic commission, costs alone disqualify the rule.*

4

STEP 4

Set slippage to ≥ 1 tick

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Action. On the same Properties panel, set slippage to 1 tick. The 0-default is unrealistic for any liquid US equity.

If this step fails. *If the rule trades > 50 times/year, slippage compounds; recheck after this layer.*

5

STEP 5

Apply ~0.5% annual tax drag

☐

Action. If turnover is rule-driven (not buy-and-hold), apply approximately 0.5% annual drag from short-term capital gains and IRA-ineligible accounts.

If this step fails. *If turnover > 100%, the drag scales linearly; double-check using your actual tax bracket.*

6

STEP 6

Reserve ≥ 5 years of out-of-sample data

☐

Action. Hold the most recent 5+ years of price data out during construction. Apply the rule cold to that holdout window.

If this step fails. *If holdout returns < 50% of in-sample, the rule failed to generalize.*

7

STEP 7

Run all three filters together; check the gap

☐

Action. Use the Backtest Survival Calculator to compute the 25-year terminal-wealth gap on $120K + $500/mo at your gross alpha. Apply all three filter layers in compound.

If this step fails. *If the gap stays > $0 after all three filters compound, the rule clears the survival bar.*

WORKED EXAMPLE

SPY MA(50,200) Crossover, 2014–2025

The same audit applied to a representative 50/200-day moving-average crossover on SPY. The 14.2% advertised return loses 14.3 percentage points across the friction stack and ends below zero.

Step	Value	Source
1. Advertised backtest return	+14.2% annualized	TradingView ST (commission=0, slip=0)
2. After 0.05% commission + 1 tick slippage	~7.0% annualized	TFS Python recompute
3. After 0.5% tax drag on turnover	~6.5% annualized	Short-term cap-gains × turnover
4. After OOS haircut (50% of gross)	~5.5% annualized	FDR-survivor adjustment, B&S 2012
5. Final net edge vs buy-and-hold	**−0.1% annualized**	Calculated

Δ 14.3 percentage points. 14.2% advertised becomes –0.1% realistic. On a $120K portfolio with $500 monthly contributions over 25 years, the wealth gap reaches **$620,704**.

SENSITIVITY QUICK-REFERENCE

Three priority rows from the full grid

Use these as priority checks for your own rule.

Scenario	Realistic FV	Naive FV	Gap
BASE — $120K + $500/mo, 25y	$1,068,867	$1,689,571	**$620,704**
Doubled turnover (cost stress)	$940,247	$1,689,571	**$749,324**
Aggressive 75% OOS haircut	$960,469	$1,689,571	**$729,102**

PRIMARY SOURCES

The four papers behind this checklist

Bajgrowicz, P. & Scaillet, O. (2012).
Technical trading revisited: False discoveries, persistence tests, and transaction costs.
Journal of Financial Economics, 106(3)
doi.org/10.1016/j.jfineco.2012.06.001

Sullivan, R., Timmermann, A. & White, H. (1999).
Data-Snooping, Technical Trading Rule Performance, and the Bootstrap.
Journal of Finance, 54(5)
doi.org/10.1111/0022-1082.00163

Rink, K. (2023).
The performance of trading rule combinations across stock markets.
Financial Markets and Portfolio Management
doi.org/10.1007/s11408-023-00433-2

Lo, A. W., Mamaysky, H. & Wang, J. (2000).
Foundations of Technical Analysis.
NBER Working Paper 7613
ideas.repec.org/p/nbr/nberwo/7613.html

RUN THE AUDIT LIVE

Open the Backtest Survival Calculator

thefinsense.io/blog/technical-analysis-backtest-data/

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