Apple RSI at the next close (2020-2022)

Strategy evaluated · **Nivel de evidencia** Histórico · Development · Sample 2020-01-03 21:00:00+00:00 to 2022-12-30 21:00:00+00:00

N/A marks an undefined or missing value. Return and risk fractions are shown as percentages. The JSON evidence preserves the original precision of the results.

Assessment limits

Survivorship bias. Not assessed. Historical universe membership is missing (SURVIVORSHIP_BIAS_NOT_CONTROLLED).

Look-ahead bias. Not assessed. The report does not verify when signals became available.

Multiple testing. DSR and PBO cannot be assessed from the evidence supplied.

Costs and execution. Gross and net returns were reconciled with recorded costs. Cost sensitivity and actual execution were not assessed.

Use of AI. The evidence does not say whether Strateva used AI in the review.

Advice. This report does not constitute investment advice.

Performance and risk

Absolute performance · Strategy and benchmark

Metric	Strategy	Benchmark
Observations `n_obs`	755	755
Periods per year `annualization`	252	252
Annual risk-free rate `risk_free_annual`	0%	0%
Cumulative return `total_return`	-0.360383%	76.6276%
Annualized compound return (CAGR) `cagr`	-0.120432%	20.9099%
Annualized arithmetic return `annual_return_arithmetic`	4.20988%	25.8011%
Annualized volatility `annual_volatility`	29.4673%	36.9334%
Sharpe `sharpe`	0.1428662	0.6985842
Sortino `sortino`	0.2081382	1.026906
Maximum drawdown `max_drawdown`	-29.191%	-31.4273%
Periods to the maximum drawdown trough `max_drawdown_underwater_periods`	164	27
Periods from the previous peak to recovery `max_drawdown_recovery_periods`	N/A	79
Calmar `calmar`	-0.004125639	0.6653436
Share of positive periods `positive_period_rate`	22.2517%	51.3907%
Alias for the share of positive periods `hit_rate`	22.2517%	51.3907%

Absolute performance · Strategy and benchmark		
Metric	**Strategy**	**Benchmark**
Skewness `skewness`	0.277516	0.09503888
Excess kurtosis `excess_kurtosis`	11.0858	4.040119

Active performance · Strategy versus benchmark	
Field	**Value**
Observations `n_obs`	755
Periods per year `annualization`	252
Annual risk-free rate `risk_free_annual`	0%
Annualized active return `active_return_annual`	-21.5912%
Annualized tracking error `tracking_error_annual`	22.2817%
Information ratio `information_ratio`	-0.9690097
Correlation with the benchmark `correlation`	0.7975185
Beta `beta`	0.6363004
Annualized regression alpha `regression_alpha_annual`	-12.2073%
Annualized Jensen alpha `jensen_alpha_annual`	-12.2073%
Strategy Sharpe ratio `strategy_sharpe`	0.1428662
Benchmark Sharpe ratio `benchmark_sharpe`	0.6985842

Statistical uncertainty

Strategy · Mean excess return · HAC	
Field	**Value**
Status `status`	evaluated
Observations `n_obs`	755
Lags `lags`	6
Weighting kernel `kernel`	bartlett
Estimate per period `estimate`	0.0167059%
Annualized estimate `annualized_estimate`	4.20988%
Standard error `standard_error`	0.0519927%
Annualized standard error `annualized_standard_error`	13.1022%

Strategy · Mean excess return · HAC	
Field	**Value**
t-statistic `t_stat`	0.3213118
Two-sided p-value (normal) `p_value_two_sided_normal`	0.7479741

Strategy · Sharpe ratio interval · block bootstrap	
Field	**Value**
Observations `n_obs`	755
Block length `block_length`	9
Replications `repetitions`	1000
Seed `seed`	20261117
Confidence level `confidence`	95%
Lower-tail probability `lower_probability`	2.5%
Upper-tail probability `upper_probability`	97.5%
Replications attempted `attempted_repetitions`	1000
Valid replications `valid_repetitions`	1000
Replications with no defined estimate `undefined_repetitions`	0
Status `status`	evaluated
Point estimate `point_estimate`	0.1428662
Standard error `standard_error`	0.4323813
Lower interval bound `ci_lower`	-0.6785916
Upper interval bound `ci_upper`	1.047425

Benchmark · No uncertainty estimate supplied.

Active performance · Mean active return · HAC	
Field	**Value**
Status `status`	evaluated
Observations `n_obs`	755
Lags `lags`	6
Weighting kernel `kernel`	bartlett
Estimate per period `estimate`	-0.0856793%

Active performance · Mean active return · HAC	
Field	**Value**
Annualized estimate `annualized_estimate`	-21.5912%
Standard error `standard_error`	0.0522682%
Annualized standard error `annualized_standard_error`	13.1716%
t-statistic `t_stat`	-1.639225
Two-sided p-value (normal) `p_value_two_sided_normal`	0.1011664

Active performance · Information ratio interval · block bootstrap	
Field	**Value**
Observations `n_obs`	755
Block length `block_length`	9
Replications `repetitions`	1000
Seed `seed`	20261117
Confidence level `confidence`	95%
Lower-tail probability `lower_probability`	2.5%
Upper-tail probability `upper_probability`	97.5%
Replications attempted `attempted_repetitions`	1000
Valid replications `valid_repetitions`	1000
Replications with no defined estimate `undefined_repetitions`	0
Status `status`	evaluated
Point estimate `point_estimate`	-0.9690097
Standard error `standard_error`	0.5912909
Lower interval bound `ci_lower`	-2.105557
Upper interval bound `ci_upper`	0.1592402

Subperiods and robustness

Additional metrics · No evidence supplied.

Verification and configuration

Engine checks	
Field	**Value**
Schemas valid `schema_valid`	Yes
Evidence hash valid `hash_valid`	Yes
Signature verified `signature_verified`	No
Confirmatory provenance verified `confirmatory_provenance_verified`	No
`reconciliation.tolerance`	1e-09
Status `reconciliation.status`	reconciled
Metric paths checked `reconciliation.checkedPathCount`	96
Hash bindings valid `hash_bindings_valid`	Yes
Metrics reconciled `metrics_reconciled`	Yes
Simulations reproduced `simulations_reproduced`	Yes
`kernelVersion`	1.1.0

Decision thresholds · No evidence supplied.

Engine configuration	
Field	**Value**
Periods per year `annualization`	252
Annualization method `annualizationMethod`	declared by StrategyTrace.frequency.periodsPerYear
Annual risk-free rate `riskFreeAnnual`	0%
`allowPositional`	No
`timezone`	UTC
`calendar`	NASDAQ
Confidence level `uncertainty.confidence`	95%
`uncertainty.hacLagPolicy.kind`	sample-size-bartlett-v1
`uncertainty.timeBasis.kind`	session-grid
Expected calendar hash `uncertainty.timeBasis.expectedEndsHash`	`87450f3215dcee9bac55fef2ab5d3253b3246adcf0ad82f2a056fa41431ac115`
Block length `uncertainty.blockLength`	9
Replications `uncertainty.repetitions`	1000
Seed `uncertainty.seed`	20261117

Monte Carlo

Observed path

Field	Value
Terminal wealth (multiple) `terminalWealth`	0.9963962
Cumulative return `totalReturn`	-0.360383%
Maximum drawdown magnitude `maximumDrawdown`	29.191%
Longest stretch below the peak (periods) `longestUnderwaterStreakPeriods`	167
Share of periods below the peak `timeUnderWaterFraction`	89.6689%
Longest losing streak (periods) `longestLosingStreak`	5
Ruin threshold reached `ruined`	No

Circular block bootstrap

Metric	Minimum	Mean	Maximum	Quantiles
Terminal wealth (multiple) `terminalWealth`	0.2763285	1.109725	4.344614	5% = 0.5378536 · 50% = 1.020698 · 95% = 1.974423
Cumulative return `totalReturn`	-72.3671%	10.9725%	334.461%	5% = -46.2146% · 50% = 2.06985% · 95% = 97.4423%
Maximum drawdown magnitude `maximumDrawdown`	12.6251%	36.7398%	75.3337%	5% = 19.871% · 50% = 35.5311% · 95% = 59.4094%
Longest stretch below the peak (periods) `longestUnderwaterStreakPeriods`	73	452.977	755	5% = 158.9 · 50% = 447 · 95% = 741.05
Share of periods below the peak `timeUnderWaterFraction`	62.9139%	92.1926%	100%	5% = 80.2517% · 50% = 93.6424% · 95% = 99.3377%
Longest losing streak (periods) `longestLosingStreak`	4	5.695	10	5% = 5 · 50% = 5 · 95% = 8
Probability of reaching the ruin threshold `ruinProbability`		7%		

Return-order permutation

Metric	Minimum	Mean	Maximum	Quantiles
Maximum drawdown magnitude `maximumDrawdown`	21.5482%	41.5852%	66.2959%	5% = 29.7075% · 50% = 40.7909% · 95% = 55.1086%
Longest stretch below the peak (periods) `longestUnderwaterStreakPeriods`	155	477.228	755	5% = 229.95 · 50% = 465 · 95% = 727.05
Share of periods below the peak `timeUnderWaterFraction`	85.1656%	95.2159%	100%	5% = 90.457% · 50% = 95.4967% · 95% = 98.9404%
Longest losing streak (periods) `longestLosingStreak`	2	4.218	8	5% = 3 · 50% = 4 · 95% = 6
Probability of reaching the ruin threshold `ruinProbability`		2.7%		

Simulation settings and bindings

Field	Value
`simulationSchemaVersion`	strateva-simulation-evidence/v2

Simulation settings and bindings	
Field	**Value**
`engineVersion`	0.9.0
`kernelVersion`	1.1.0
`observationCount`	755
`strategyTraceHash`	`0e2e4dfbd1589523472844da8f60bc457f9ec422fb4abb1f659490eb4e72d96b`
`contentHash`	`d605f33f76b2343cdb5bddcc5fc4d359bb1d9625ef5ec6a1e85f9fe4246c8767`
Replications `configuration.repetitions`	1000
Seed `configuration.seed`	20261117
Block length `configuration.blockLength`	9
Initial wealth `configuration.initialWealth`	1
Ruin threshold (share of initial wealth) `configuration.ruinWealthFraction`	50%
`configuration.quantiles`	5% · 50% · 95%
`classic.method`	CIRCULAR_MOVING_BLOCK_BOOTSTRAP
`classic.sampling`	WITH_REPLACEMENT
`permuted.method`	FISHER_YATES_RETURN_ORDER_PERMUTATION
`permuted.sampling`	WITHOUT_REPLACEMENT
Terminal wealth invariant `permuted.terminalWealthInvariant`	Yes
Terminal wealth (multiple) `permuted.terminalWealth`	0.9963962

Provenance and traceability

Evidence and input hashes	
Field	**Value**
`bundleSchemaVersion`	strateva-evidence-bundle/v3
`artifactId`	`urn:strateva:strategy-trace:0e2e4dfbd1589523472844da8f60bc457f9ec422fb4abb1f659490eb4e72d96b`
`engineVersion`	0.9.0
`kernelVersion`	1.1.0
`generatedAt`	2026-11-17T16:50:45Z
`contentHash`	`6ed358cb0aaf4dcae97b47608012a8eb60b7ba0df996536ddaf00405a09fefa7`
Strategy return series hash `inputHashes.strategyReturns`	a295505ec7d0065b1000788f3308ee497a3a46f99bf4ef8ada0361155c092690
Benchmark return series hash `inputHashes.benchmarkReturns`	4680693d9645ec35c4d241b7cf6f9be1af247b6ccb0c1813b55c6f8597bc3daf

Evidence and input hashes	
Field	**Value**
`lineage`	strategyTrace:0e2e4dfbd1589523472844da8f60bc457f9ec422fb4abb1f659490eb4e72d96b · scope:4d498c2eafaabbcb015a0e9287dac97bee51dc24c94e819e8234e1d2d4b399df · artifact:8989d69052696feff4b8d8a4b9f64ec0e0ae91d469966934b0ac9b01539bee9e · data:fafeef766a0cfa4912e34290821ee01d03cfabc63815f43c14695d7acacb1f6a

Provenance statement	
Field	**Value**
`claim`	development
`runId`	N/A
`freezeHash`	N/A
`engineCommit`	N/A
`containerImageDigest`	N/A

Evidence signature · No evidence supplied.

StrategyTrace · Identity, frequency, conventions and benchmark	
Field	**Value**
`traceSchemaVersion`	strateva-strategy-trace/v1
`engagementId`	eng-9644fd37
`runId`	rsi-mean-reversion-evidence
`generatedAt`	2026-11-17T16:50:45Z
`scopeContentHash`	`4d498c2eafaabbcb015a0e9287dac97bee51dc24c94e819e8234e1d2d4b399df`
`artifactContentHash`	`8989d69052696feff4b8d8a4b9f64ec0e0ae91d469966934b0ac9b01539bee9e`
`dataContentHash`	`fafeef766a0cfa4912e34290821ee01d03cfabc63815f43c14695d7acacb1f6a`
`frequency.barInterval`	1d
Periods per year `frequency.periodsPerYear`	252
`frequency.calendar`	NASDAQ
`frequency.sourceTimezone`	America/New_York
`conventions.returnType`	SIMPLE
`conventions.returnUnit`	FRACTION
`conventions.timestampMeaning`	UTC_PERIOD_END
`conventions.turnover`	SUM_ABSOLUTE_POSITION_CHANGES
`conventions.exposure`	FRACTION_OF_EQUITY
`conventions.costs`	RETURN_FRACTION
`benchmark.kind`	SERIES
`benchmark.symbol`	AAPL
`contentHash`	`0e2e4dfbd1589523472844da8f60bc457f9ec422fb4abb1f659490eb4e72d96b`

Notes included in the evidence	
Field	**Value**
`disclosures`	The engine recomputed the metrics from verified StrategyTrace net returns. · Monte Carlo has its own hash. It affects criteria only if preregistered for that purpose.