AIR

ADVANCED INVESTMENT ROBOT

QUANTITATIVE VALIDATION REPORT

BOEING (NYSE: BA)

Simulation period: 11 Jul 2019 - 28 Jun 2021

PURE STATISTICS

BA validation snapshot

AIR transformed an initial capital of EUR 1.000 into EUR 7.293,79 across 64 historical executions. The system achieved a total compounded return of +629.4% with a maximum drawdown of -31.9%. This page summarises the core performance and risk profile extracted directly from BA.xlsx.

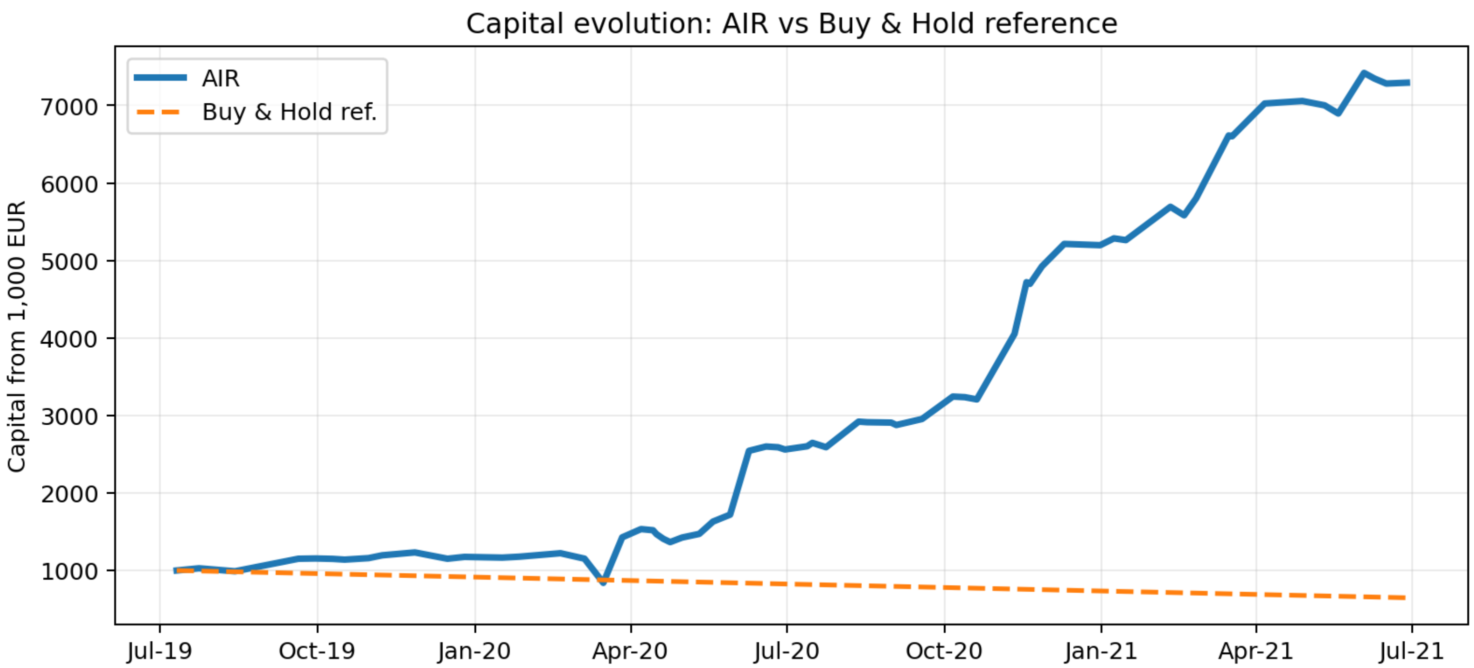
INITIAL CAPITAL	FINAL CAPITAL	TOTAL RETURN	CAGR	TRADES
EUR 1.000	**EUR 7.294**	**+629.4%**	**+174.8%**	**64**
Base case	Compounded	AIR capital curve	Annualised	Historical executions

WIN RATE	PROFIT FACTOR	EXPECTANCY	MAX DD	AVG HOLD
+54.7%	**4,28**	**+3.71%**	**-31.9%**	**6.5 d**
Winning trades	Gross profit / loss	Avg per trade	Equity drawdown	Days in market

Executive assessment

The validation run shows a moderate win rate (+54.7%) but a strong payoff structure: average winning trades (+8.85%) are significantly larger than average losing trades (-2.50%). This reward-to-risk asymmetry drives a profit factor of 4,28 and supports the compounding profile observed in the AIR equity curve.

Capital growth from EUR 1,000



AIR FINAL CAPITAL

EUR 7.294

BUY & HOLD REF.

-35.2%

EUR 648

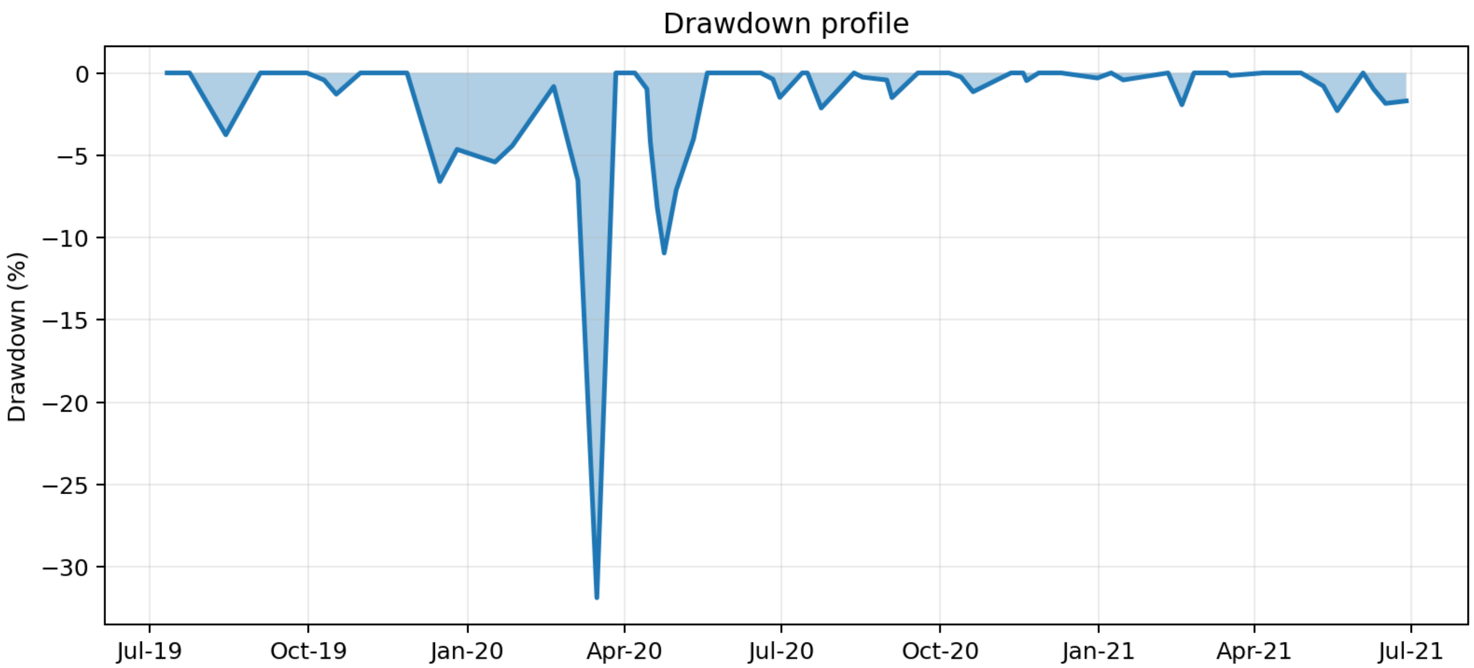
AIR OUTPERFORMANCE

+664.6%

vs workbook reference

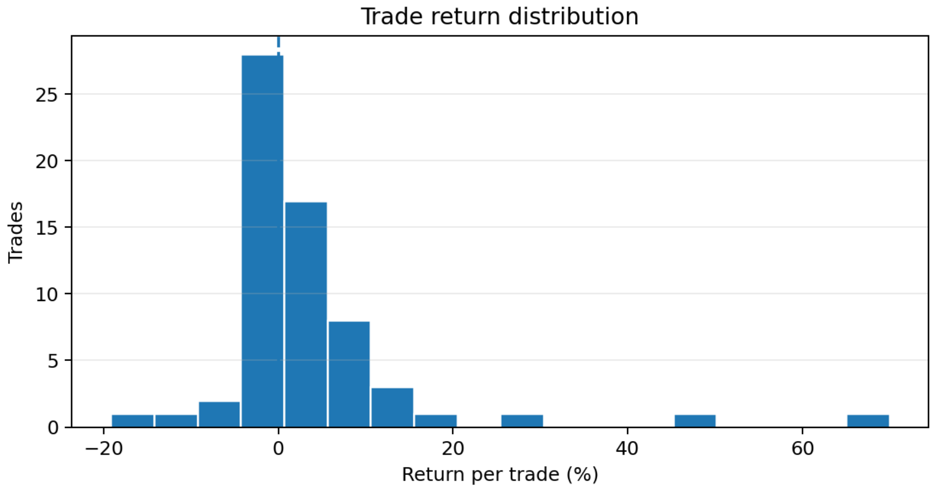
The Buy & Hold reference is computed from the auxiliary first-open / last-close fields available in the workbook when present.

Risk profile and adverse excursions



MAX DRAWDOWN	**-31.9%** Peak-to-trough
RECOVERY FACTOR	**19,74** Net profit / MDD
MAR RATIO	**5,48** CAGR / Max DD
ULCER INDEX	**5,17** Drawdown depth

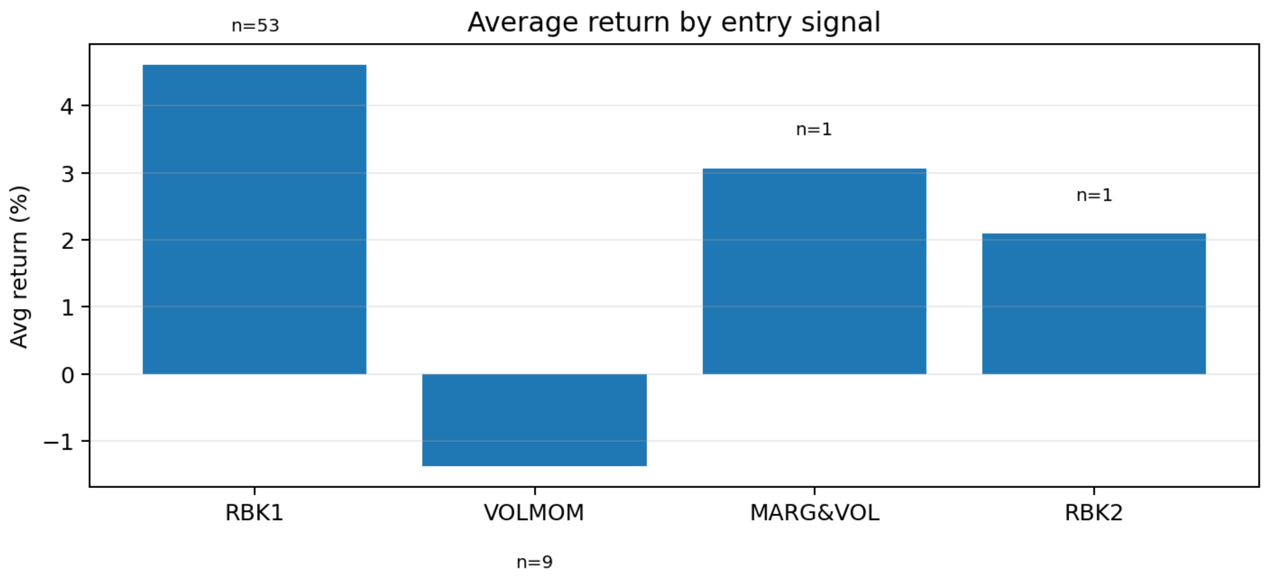
Execution statistics



Key trade metrics

Trades	64
Winning trades	35
Losing trades	29
Win rate	+54.7%
Best trade	+70.0%
Worst trade	-19.2%
Avg winner	+8.85%
Avg loser	-2.50%
Max consecutive wins	6
Max consecutive losses	4
Market exposure	+57.5%

Entry signal contribution



Entry signals

RBK1	n=53	**+4.61%**
VOLMOM	n=9	**-1.38%**
MARG&VOL	n=1	**+3.07%**
RBK2	n=1	**+2.09%**

Signal tables measure realised return after complete entry-exit execution. They are not predictions; they are historical behaviour diagnostics.

The snowball effect

INITIAL CAPITAL

EUR 1.000

Starting point

FINAL CAPITAL

EUR 7.294

After 64 executions

CAGR

+174.8%

Annualised

EXPECTANCY

+3.71%

Per trade

AVG HOLDING

6.5 days

Capital rotation

The compounded capital column in BA.xlsx is treated as the authoritative AIR equity curve. Each completed execution updates the capital base for the next decision.

Risk-adjusted indicators

SHARPE RATIO

1,77

Approx. annualised from trade returns

SORTINO RATIO

6,84

Downside-risk adjusted

VOLATILITY / TRADE

+11.96%

Std. dev. of trade returns

DOWNSIDE DEVIATION

+3.09%

Negative-return deviation

MAX DRAWDOWN

-31.9%

Worst equity decline

EXPOSURE

+57.5%

Days invested / period days

Note: Sharpe and Sortino are approximations derived from the sequence of completed trade returns. They should be used as comparative diagnostics, not audited fund statistics.

Decision engine assessment

PROFITABILITY

Strong capital appreciation driven by high average winner size and positive expectancy.

RISK CONTROL

Drawdown exists and is material, but remains controlled relative to total compounded return.

BEHAVIOUR

The model does not require a very high win rate; profitability comes from asymmetric payoff.

SCALABILITY

The workbook structure is suitable for automated report generation across additional assets.

Statistics Decide. AIR Executes.

AIR engine data sheet

Asset	**Boeing**
Ticker	**BA**
Period	**11 Jul 2019 - 28 Jun 2021**
Executions	**64**
Data source	**BA.xlsx / Hoja1**
Initial capital	**EUR 1.000,00**
Final capital	**EUR 7.293,79**

Total return	**+629.38%**
CAGR	**+174.78%**
Profit factor	**4,278**
Expectancy	**+3.707%**
Max drawdown	**-31.88%**
Avg holding	**6.45 days**
Exposure	**+57.52%**