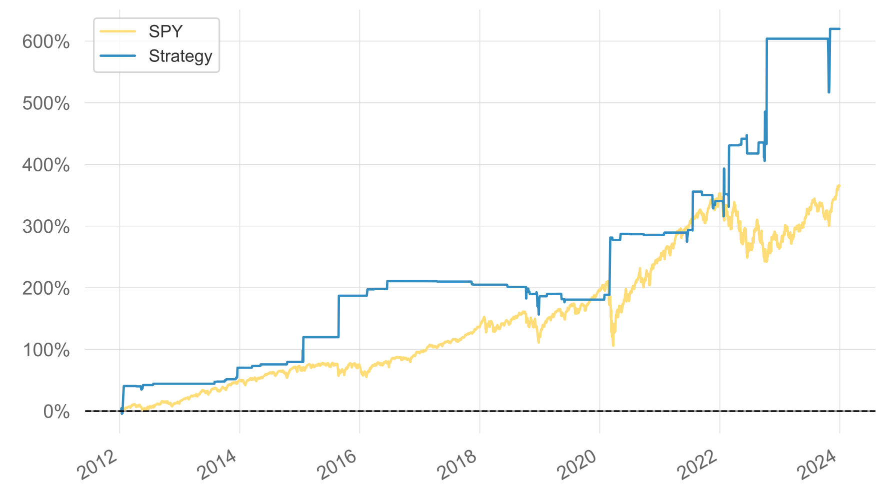
MultiAssetStrategy Compared to SPY

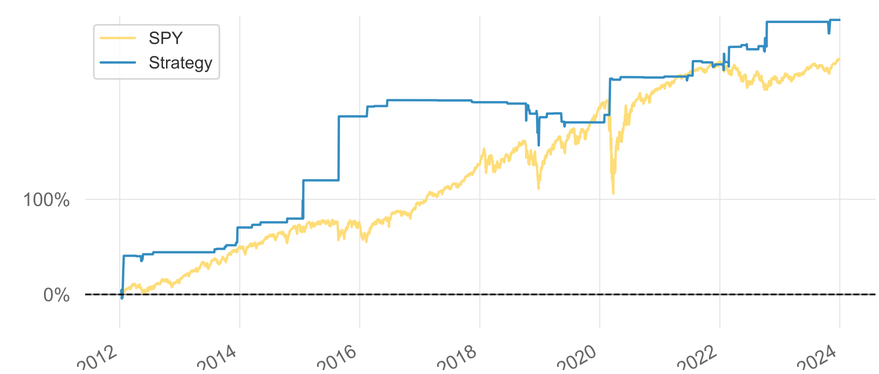
10 Jan, 2012 - 30 Dec, 2023

Benchmark is SPY | Generated by QuantStats (v. 0.0.62)

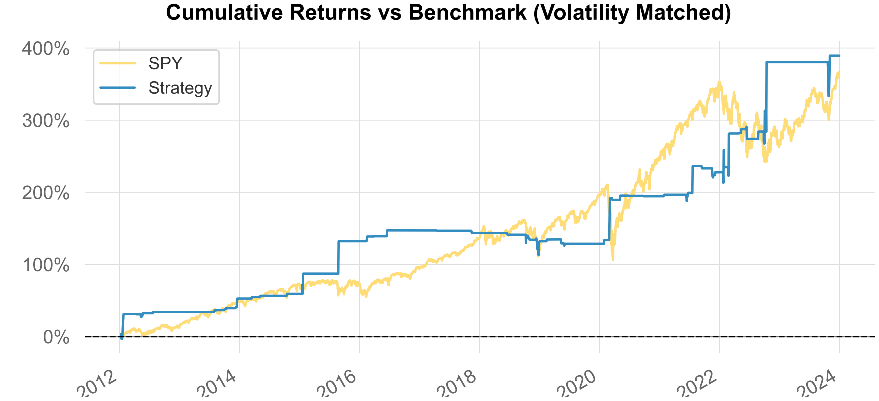
Cumulative Returns vs Benchmark



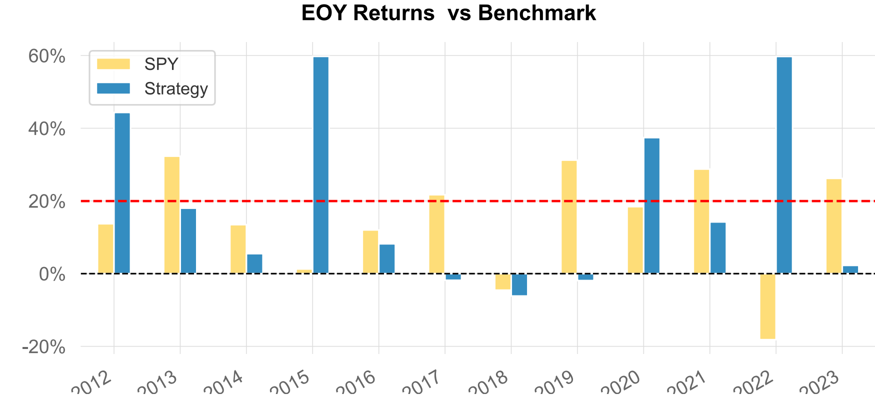
Cumulative Returns vs Benchmark (Log Scaled)



Cumulative Returns vs Benchmark (Volatility Matched)



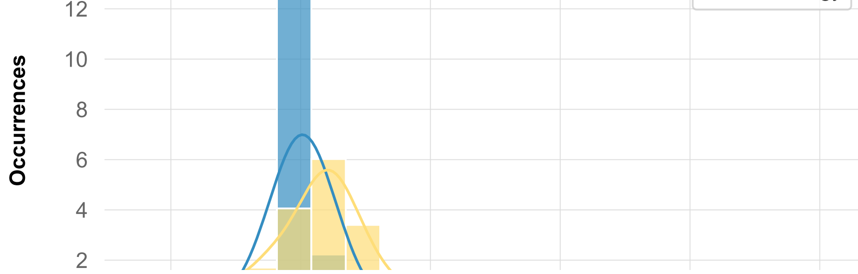
EOY Returns vs Benchmark



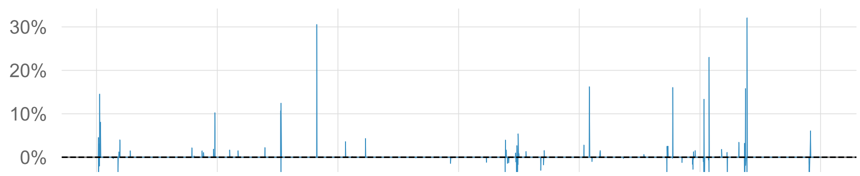
Distribution of Monthly Returns

Key Performance Metrics

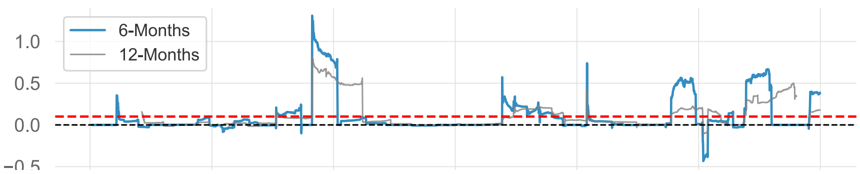
Metric	SPY	Strategy
Risk-Free Rate	5.19%	5.19%
Time in Market	82.0%	3.0%
Cumulative Return	365.23%	619.85%
CAGR ﹪	9.27%	12.05%
Sharpe	0.44	0.53
Prob. Sharpe Ratio	42.42%	42.4%
Smart Sharpe	0.43	0.51
Sortino	0.61	1.53
Smart Sortino	0.59	1.49
Sortino/√2	0.43	1.08
Smart Sortino/√2	0.42	1.06
Omega	1.76	1.76
Max Drawdown	-33.68%	-17.46%
Longest DD Days	708	1230
Volatility (ann.)	15.17%	19.32%
R^2	0.01	0.01
Information Ratio	0.01	0.01
Calmar	0.28	0.69
Skew	-0.57	14.62
Kurtosis	16.78	320.68
Expected Daily	0.04%	0.05%
Expected Monthly	1.07%	1.38%
Expected Yearly	13.67%	17.88%
Kelly Criterion	4.07%	39.61%
Risk of Ruin	0.0%	0.0%
Daily Value-at-Risk	-1.53%	-1.94%
Expected Shortfall (cVaR)	-1.53%	-1.94%
Max Consecutive Wins	5	4
Max Consecutive Losses	5	4
Gain/Pain Ratio	0.18	1.8
Gain/Pain (1M)	1.08	6.65



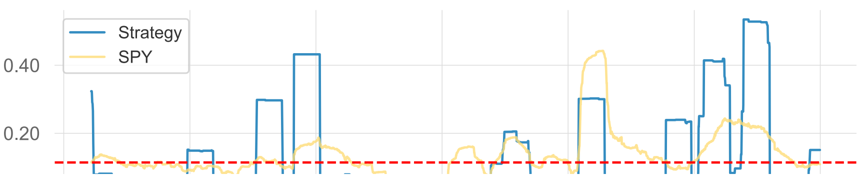
Daily Active Returns



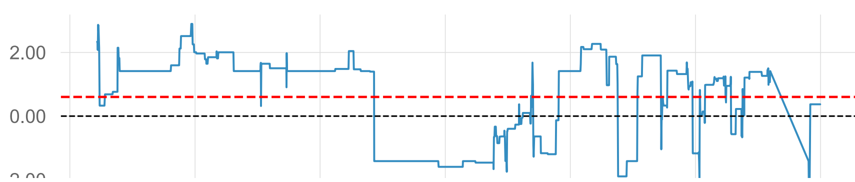
Rolling Beta to Benchmark



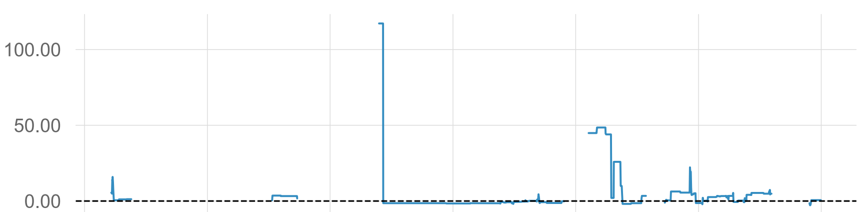
Rolling Volatility (6-Months)



Rolling Sharpe (6-Months)

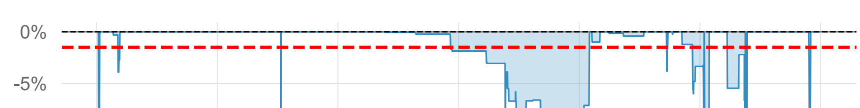


Rolling Sortino (6-Months)

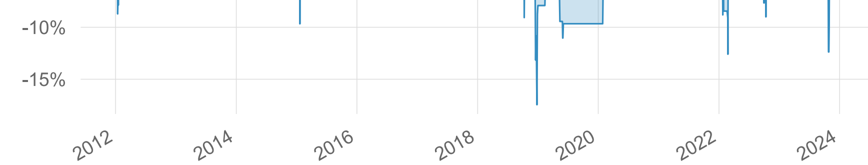


Strategy - Worst 5 Drawdown Periods

Underwater Plot

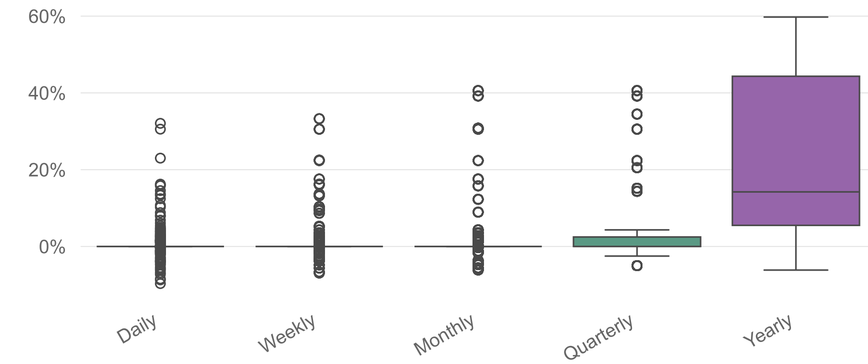


Metric	SPY	Strategy
Payoff Ratio	0.88	1.96
Profit Factor	1.18	2.8
Common Sense Ratio	1.18	-
CPC Index	0.57	3.29
Tail Ratio	1.01	-
Outlier Win Ratio	4.7	24.18
Outlier Loss Ratio	2.2	0.56
MTD	4.57%	0.0%
3M	11.64%	2.27%
6M	9.33%	2.27%
YTD	26.21%	2.27%
1Y	25.88%	2.27%
3Y (ann.)	7.25%	15.66%
5Y (ann.)	9.92%	13.82%
10Y (ann.)	8.13%	10.46%
All-time (ann.)	9.27%	12.05%
Best Day	9.06%	32.07%
Worst Day	-10.94%	-9.67%
Best Month	12.7%	40.61%
Worst Month	-12.44%	-6.13%
Best Year	32.32%	59.76%
Worst Year	-18.16%	-6.15%
Avg. Drawdown	-1.56%	-7.36%
Avg. Drawdown Days	16	141
Recovery Factor	5.06	12.71
Ulcer Index	0.07	0.03
Serenity Index	1.88	12.73
Avg. Up Month	3.62%	7.15%
Avg. Down Month	-4.85%	-2.86%
Win Days	55.06%	60.0%
Win Month	70.14%	68.09%
Win Quarter	79.17%	67.74%
Win Year	83.33%	75.0%
Beta	-	0.13
Alpha	-	0.14
Correlation	-	9.92%
Treynor Ratio	-	4865.68%



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2012	38.03	-4.34	-3.22	0.35	7.47	-4.05	0.31	-2.51	-2.54	1.82	-0.57	-0.91
2013	-5.12	-1.28	-3.80	-1.92	-2.36	1.34	-3.01	3.30	-3.17	-2.06	-2.96	9.69
2014	3.52	-4.55	0.83	-0.70	-0.82	-2.06	1.34	-3.95	1.38	-0.12	-2.75	0.26
2015	25.34	-5.62	1.58	-0.98	-1.29	2.02	-2.26	36.65	2.53	-8.51	-0.37	1.70
2016	4.98	3.68	-6.55	-0.39	-1.70	3.96	-3.65	-0.12	-0.01	1.68	-3.68	-2.03
2017	-1.79	-3.93	-0.13	-1.17	-1.41	-0.64	-2.06	-0.29	-2.02	-2.36	-4.69	-1.21
2018	-5.64	3.64	2.74	-0.52	-2.43	-1.80	-3.70	-3.19	-0.60	3.15	-1.85	7.50
2019	-8.01	-1.91	-1.72	-4.09	1.63	-5.41	-1.51	1.67	-1.95	-2.21	-3.62	-2.90
2020	2.85	7.92	43.25	-12.70	-2.16	-1.91	-5.89	-6.98	3.45	2.49	-10.88	-3.71
2021	1.97	-2.78	-4.54	-5.29	-0.66	-1.15	13.34	-2.98	3.43	-7.02	-2.83	-3.09
2022	7.78	20.52	-3.75	8.96	1.59	3.83	-9.21	7.53	3.66	31.07	-5.56	5.75
2023	-6.29	2.51	-3.72	-1.60	-0.46	-6.48	-3.27	1.63	4.73	-3.96	-0.19	-4.57

Strategy - Return Quantiles



EOY Returns vs Benchmark

Year	SPY	Strategy	Multiplier	Won
2012	13.72%	44.34%	3.23	+
2013	32.32%	18.01%	0.56	-
2014	13.47%	5.50%	0.41	-
2015	1.28%	59.76%	46.65	+
2016	12.02%	8.20%	0.68	-
2017	21.71%	-1.82%	-0.08	-
2018	-4.54%	-6.15%	1.36	-
2019	31.23%	-1.90%	-0.06	-
2020	18.43%	37.42%	2.03	+
2021	28.77%	14.21%	0.49	-
2022	-18.16%	59.74%	-3.29	+
2023	26.21%	2.27%	0.09	-

Worst 10 Drawdowns

Started	Recovered	Drawdown	Days
2016-10-18	2020-02-29	-17.46%	1230
2022-01-28	2022-02-24	-12.59%	28
2023-10-23	2023-11-01	-12.38%	10
2015-01-21	2015-01-21	-9.67%	1
2022-10-04	2022-10-12	-9.00%	9
2021-09-14	2022-01-24	-8.81%	133
2012-01-13	2012-01-19	-8.71%	7
2022-06-15	2022-10-01	-7.66%	109
2012-04-11	2012-05-19	-3.91%	39
2021-06-14	2021-06-19	-3.83%	6