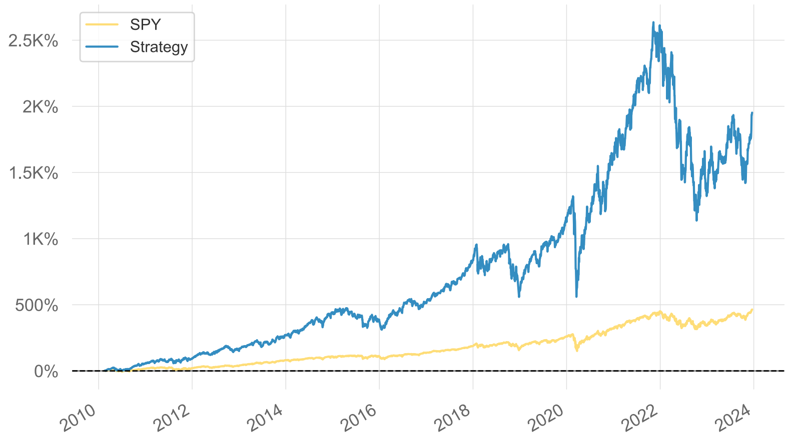
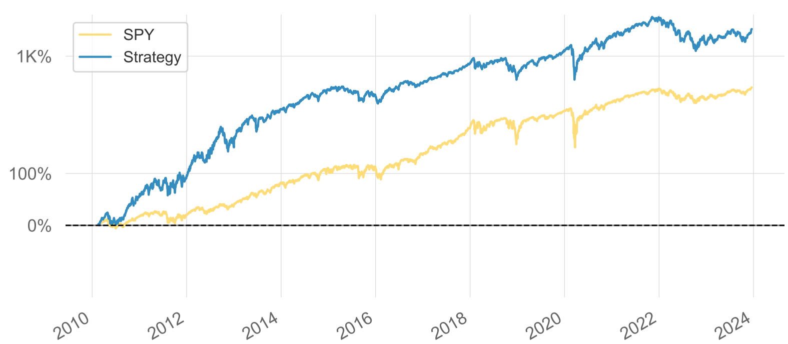
DiversifiedLeverageWithThreshold Compared to SPY 17 Feb, 2010 - 19 Dec, 2023

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

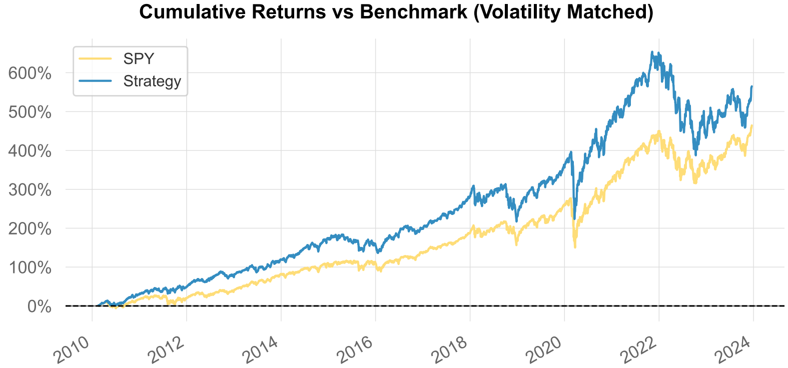
Cumulative Returns vs Benchmark



Cumulative Returns vs Benchmark (Log Scaled)



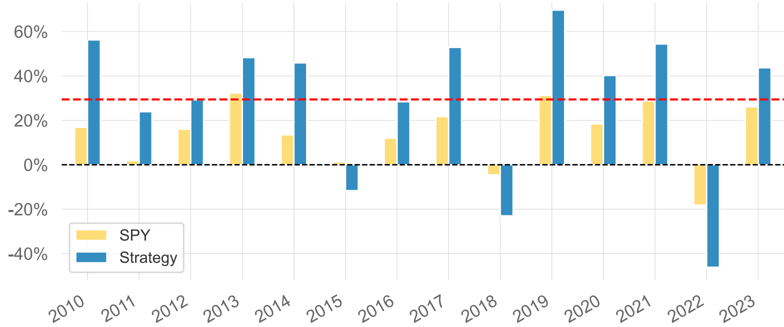
Cumulative Returns vs Benchmark (Volatility Matched)



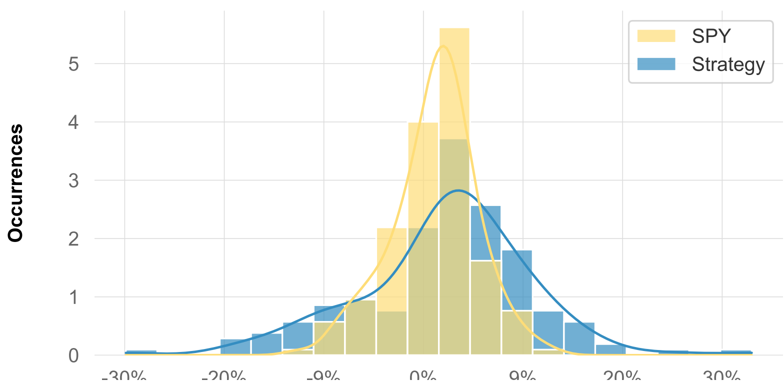
EOY Returns vs Benchmark

Key Performance Metrics

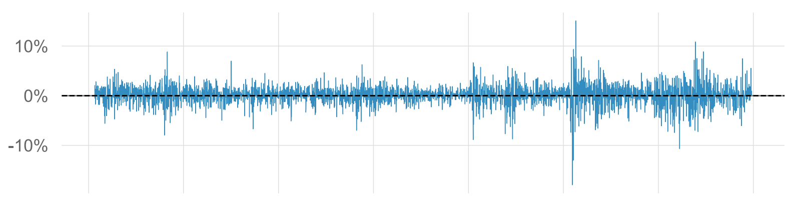
Metric	SPY	Strategy
Risk-Free Rate	5.23%	5.23%
Time in Market	82.0%	72.0%
Cumulative Return	464.47%	1,952.48%
CAGR﹪	9.01%	16.26%
Sharpe	0.41	0.61
Prob. Sharpe Ratio	34.84%	44.45%
Smart Sharpe	0.41	0.61
Sortino	0.57	0.85
Smart Sortino	0.57	0.85
Sortino/√2	0.4	0.6
Smart Sortino/√2	0.4	0.6
Omega	1.13	1.13
Max Drawdown	-33.68%	-54.82%
Longest DD Days	708	770
Volatility (ann.)	15.72%	27.3%
R^2	0.21	0.21
Information Ratio	0.03	0.03
Calmar	0.27	0.3
Skew	-0.53	-0.46
Kurtosis	13.81	9.2
Expected Daily	0.04%	0.07%
Expected Monthly	1.04%	1.83%
Expected Yearly	13.16%	24.09%
Kelly Criterion	2.42%	6.02%
Risk of Ruin	0.0%	0.0%
Daily Value-at-Risk	-1.58%	-2.74%
Expected Shortfall (cVaR)	-1.58%	-2.74%



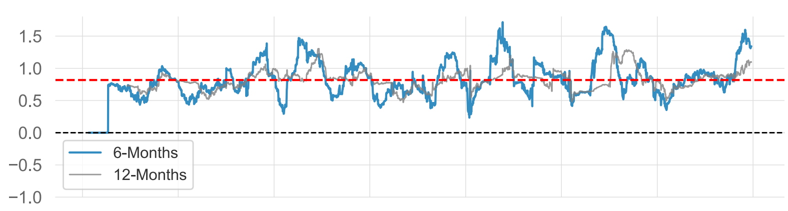
Distribution of Monthly Returns



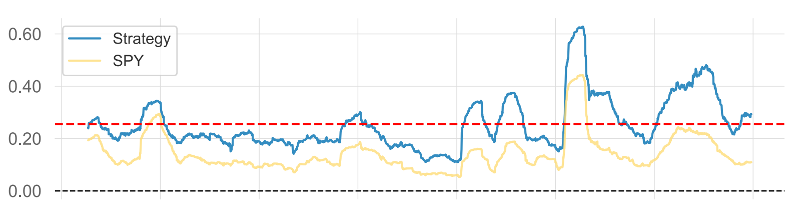
Daily Active Returns



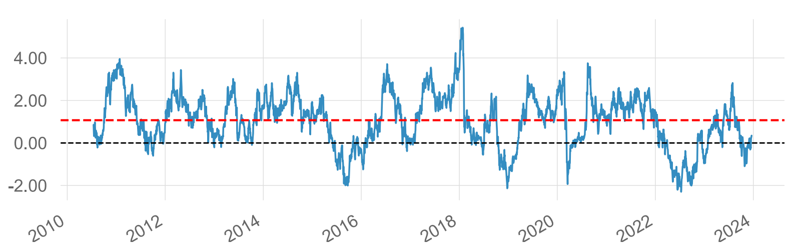
Rolling Beta to Benchmark



Rolling Volatility (6-Months)

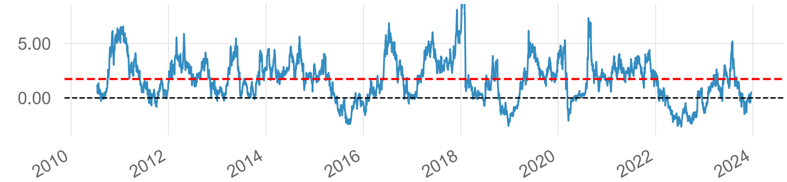


Rolling Sharpe (6-Months)

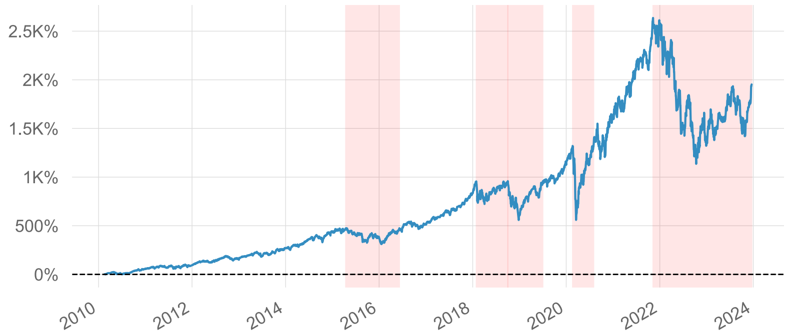


Rolling Sortino (6-Months)

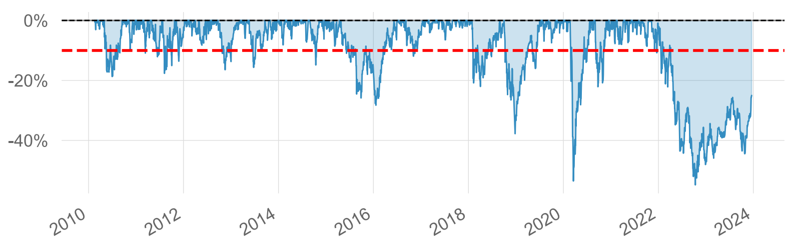
Metric	SPY	Strategy
Max Consecutive Wins	5	5
Max Consecutive Losses	5	6
Gain/Pain Ratio	0.17	0.18
Gain/Pain (1M)	1.02	0.94
Payoff Ratio	0.85	0.9
Profit Factor	1.17	1.18
Common Sense Ratio	1.13	1.19
CPC Index	0.55	0.59
Tail Ratio	0.97	1.01
Outlier Win Ratio	7.04	4.34
Outlier Loss Ratio	5.41	2.7
MTD	4.47%	10.99%
3M	7.47%	11.06%
6M	8.89%	5.24%
YTD	26.09%	43.66%
1Y	25.81%	31.71%
3Y (ann.)	6.84%	3.16%
5Y (ann.)	9.72%	14.03%
10Y (ann.)	8.25%	12.97%
All-time (ann.)	9.01%	16.26%
Best Day	9.06%	15.08%
Worst Day	-10.94%	-17.97%
Best Month	12.7%	32.96%
Worst Month	-12.44%	-29.88%
Best Year	32.32%	69.66%
Worst Year	-18.16%	-46.15%
Avg. Drawdown	-1.66%	-3.76%
Avg. Drawdown Days	18	22
Recovery Factor	5.76	6.66
Ulcer Index	0.07	0.16
Serenity Index	2.17	1.27
Avg. Up Month	3.59%	6.88%
Avg. Down Month	-4.5%	-9.38%
Win Days	55.2%	55.42%



Strategy - Worst 5 Drawdown Periods



Underwater Plot



Strategy - Monthly Active Returns (%)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2010	0.00	2.23	4.79	7.38	-4.96	-0.17	-1.19	9.11	8.47	1.84	0.85	3.33
2011	-0.03	7.09	1.19	3.13	0.03	-3.91	4.02	5.27	1.09	-0.29	0.73	1.78
2012	5.97	5.52	-1.45	0.96	0.32	2.15	6.47	1.34	2.48	-5.78	0.54	-6.07
2013	7.10	1.25	1.13	2.77	-1.18	-9.87	7.78	-1.70	2.88	4.51	-1.05	0.25
2014	0.41	6.61	-1.07	1.90	4.35	3.90	-0.94	7.81	-4.29	1.53	4.71	2.07
2015	5.27	-2.84	-1.47	-1.56	-1.20	-6.45	1.95	-10.03	2.79	8.16	-1.79	-3.86
2016	-4.41	9.17	3.84	2.02	0.39	6.35	2.28	0.39	1.25	-4.54	-2.49	0.93
2017	0.93	4.96	-0.47	2.67	2.54	-1.63	3.33	3.05	-1.79	4.75	0.23	5.24
2018	4.16	-4.94	-7.03	1.93	6.14	-0.30	-0.40	4.13	-1.81	-10.95	-3.05	-5.48
2019	6.98	3.48	4.35	2.83	-5.23	8.33	1.30	6.05	-3.93	1.99	1.71	0.63
2020	7.95	-6.45	-17.44	20.26	6.07	5.69	6.67	5.93	-7.68	-4.65	14.38	0.63
2021	1.77	1.44	-1.66	3.09	2.68	5.69	-0.24	1.86	-3.55	7.20	3.41	-2.06
2022	-5.49	0.02	2.41	-6.83	-3.18	-11.51	4.97	-7.38	-9.19	5.75	-0.20	-4.19
2023	10.37	-6.10	6.57	0.83	1.68	1.60	2.11	-1.81	-6.53	-7.77	10.59	6.53

Strategy - Return Quantiles

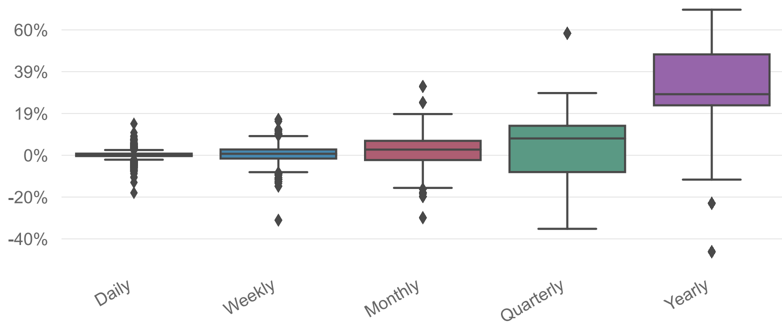
Metric	SPY	Strategy
Win Month	68.86%	70.06%
Win Quarter	78.57%	71.43%
Win Year	85.71%	78.57%
Beta	-	0.79
Alpha	-	0.13
Correlation	-	45.64%
Treynor Ratio	-	2456.8%

EOY Returns vs Benchmark

Year	SPY	Strategy	Multiplier	Won
2010	16.85%	56.23%	3.34	+
2011	1.89%	23.91%	12.64	+
2012	16.01%	29.22%	1.83	+
2013	32.32%	48.28%	1.49	+
2014	13.47%	45.89%	3.41	+
2015	1.28%	-11.65%	-9.09	-
2016	12.02%	28.38%	2.36	+
2017	21.71%	52.87%	2.44	+
2018	-4.54%	-23.00%	5.07	-
2019	31.23%	69.66%	2.23	+
2020	18.43%	40.21%	2.18	+
2021	28.77%	54.40%	1.89	+
2022	-18.16%	-46.15%	2.54	-
2023	26.09%	43.66%	1.67	+

Worst 10 Drawdowns

Started	Recovered	Drawdown	Days
2021-11-10	2023-12-19	-54.82%	770
2020-02-21	2020-08-01	-53.53%	163
2018-10-03	2019-07-01	-37.75%	272
2015-04-16	2016-06-06	-28.25%	418
2020-09-02	2020-11-24	-22.10%	84
2018-01-30	2018-10-01	-22.02%	245
2010-05-03	2010-09-15	-18.68%	136
2011-07-25	2011-10-24	-17.65%	92



Started	Recovered	Drawdown	Days
2012-09-24	2013-03-04	-16.42%	162
2013-05-22	2013-09-17	-15.66%	119