**QUANTCONNECT**

Strategy Description

This algorithm combines a dynamic strategy for SPY with a drawdown-based buy-and-hold strategy for TQQQ. For SPY, the algorithm uses monthly moving averages to generate buy and sell signals, adjusting thresholds based on volatility (ATR) and momentum (RSI). It also incorporates stop-loss and trailing stop-loss mechanisms to protect against significant losses, with adjustments made if the portfolio experiences a significant drawdown. The TQQQ strategy primarily holds the asset unless a significant drawdown occurs, at which point it exits the position and waits for a long-term uptrend signal (fast MA crossing above slow MA) to reenter. At the end of the backtest, the algorithm reports the total profit generated by SPY and TQQQ to assess their individual contributions to the overall portfolio performance.

Key Statistics

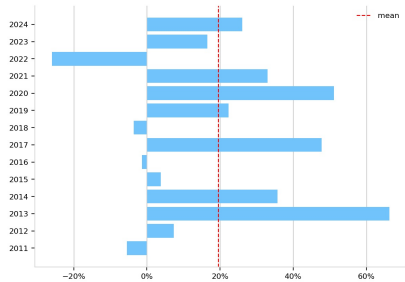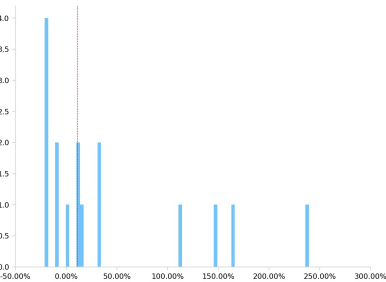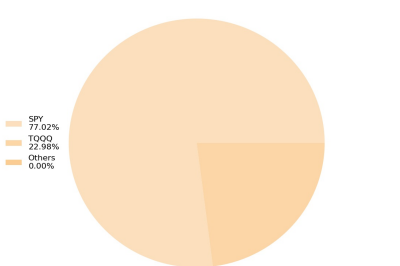|			
Runtime Days	4927	Drawdown	30.1%
Turnover	0%	Probabilistic SR	8%
CAGR	17.6%	Sharpe Ratio	0.6
Capacity (USD)	450M	Sortino Ratio	0.6
Trades per Day	0.0	Information Ratio	0.3

Monthly Returns
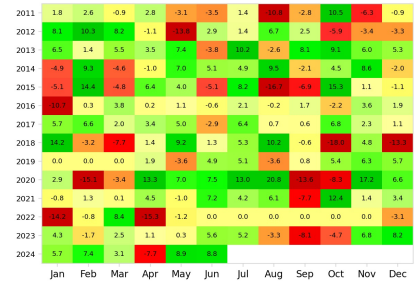
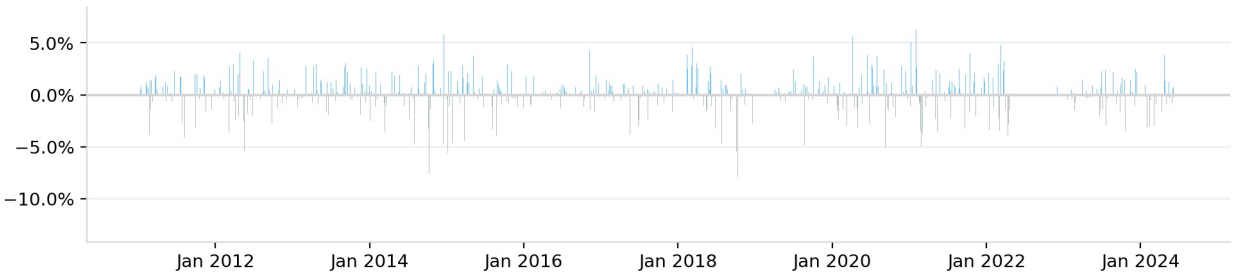## Cumulative Returns

Annual Returns

Returns Per Trade

Asset Allocation
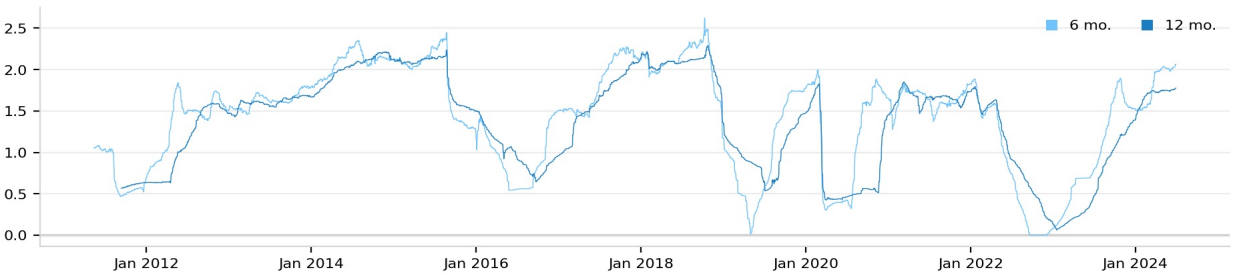

SPY 77.02%
TQQQ 22.98%
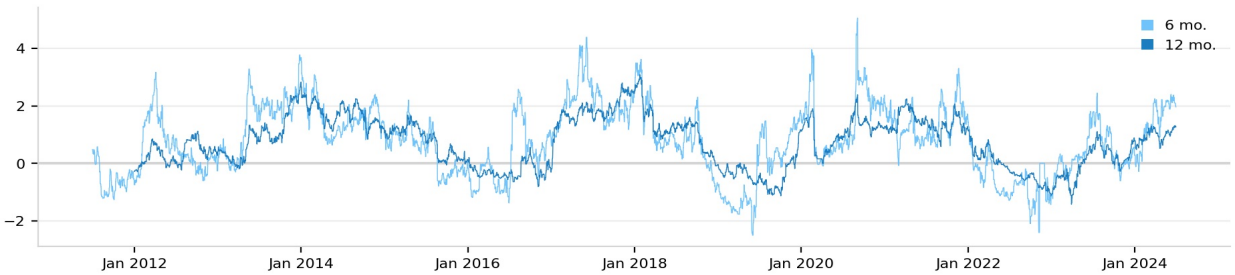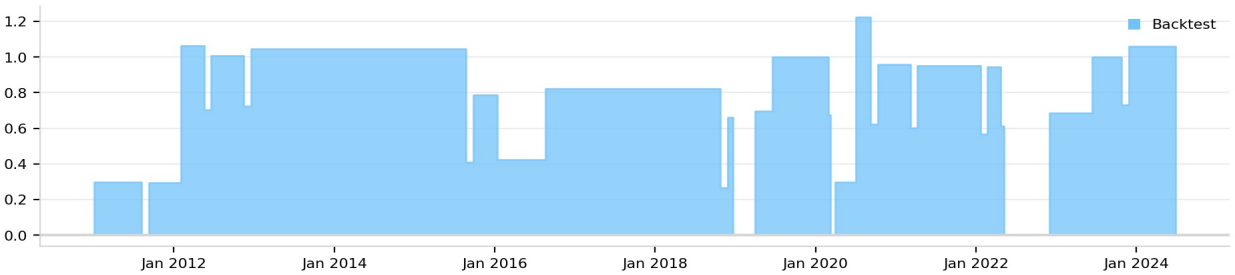Others 0.00%

Drawdown
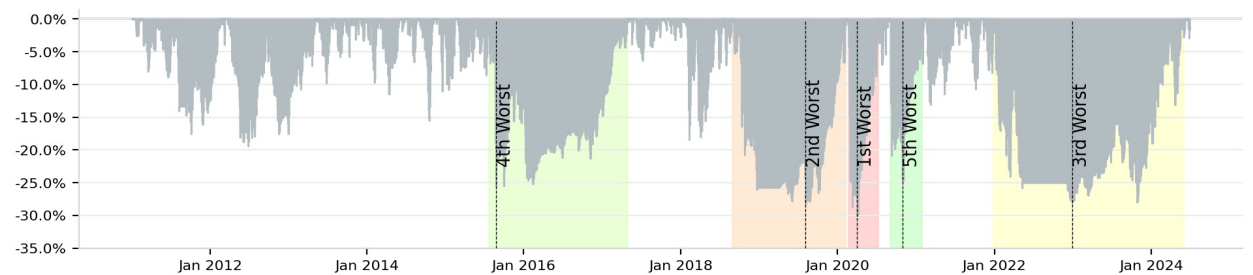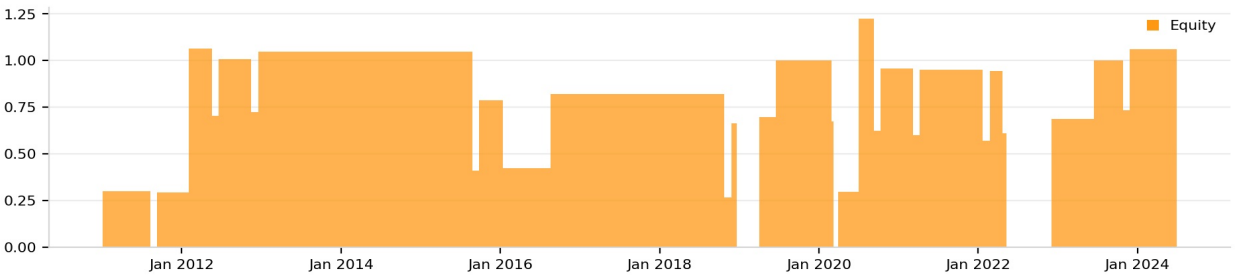
Daily Returns

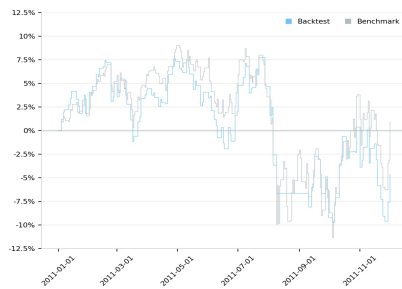## Rolling Portfolio Beta

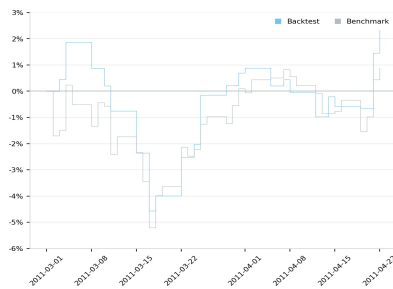## Rolling Sharpe Ratio

Leverage

Long-Short Exposure

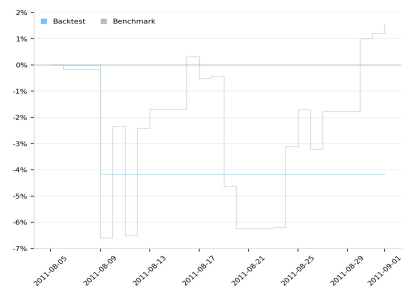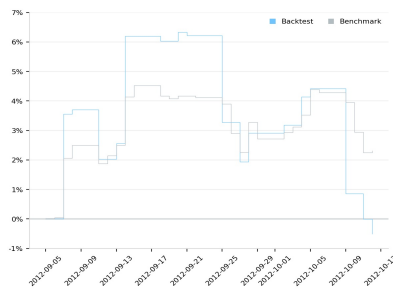## Global Financial Crisis 2007
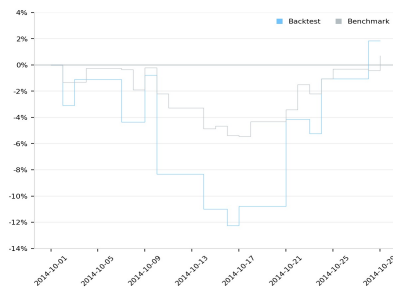

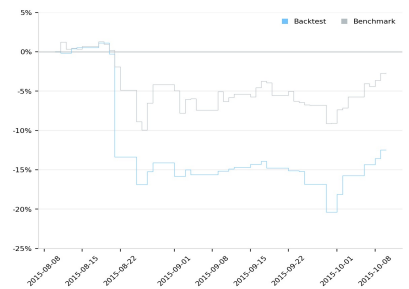## Fukushima Meltdown 2011

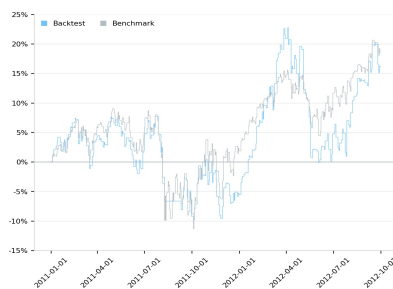
U.S. Credit Downgrade 2011

ECB IR Event 2012

European Debt Crisis 2014
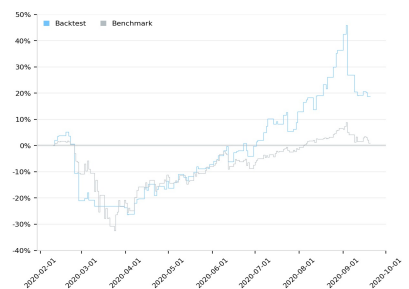

Market Sell-Off 2015
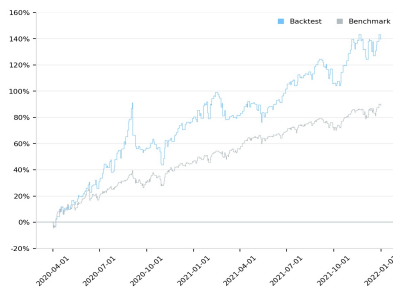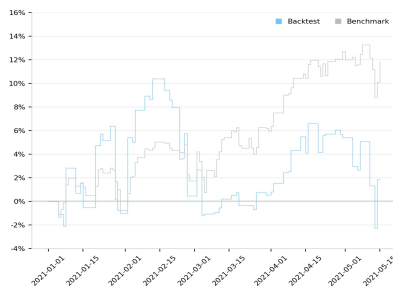

Recovery 2010-2012
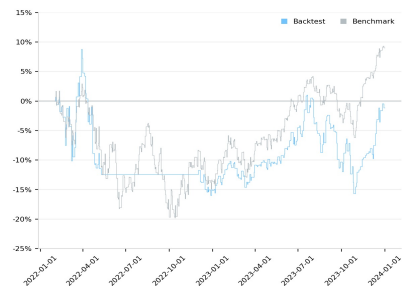

New Normal 2014-2019

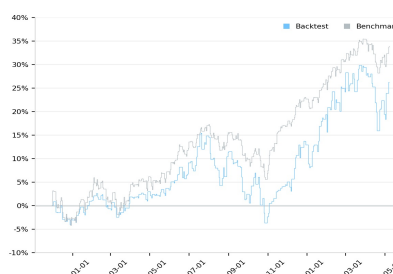## COVID-19 Pandemic 2020

Post-COVID Run-up 2020-2021

Meme Season 2021

Russia Invades Ukraine 2022-2023

AI Boom 2022-Present

Parameters

allocation_spy	0.7	tqqq_drawdown_threshold	0.3