

Optimal Leverage Ratio for S&P 500 ETF Returns

Annualized Expected Return (μ): 13.65%

Annualized Variance (σ^2): 0.0311

Kelly Criterion Optimal Leverage Ratio: 3.43

Simulation Results

Risk-free rate (in %)

3.00

0.00

5.00

User Inputs

Max Leverage Ratio

5

1

10

Number of Simulations

1000

100

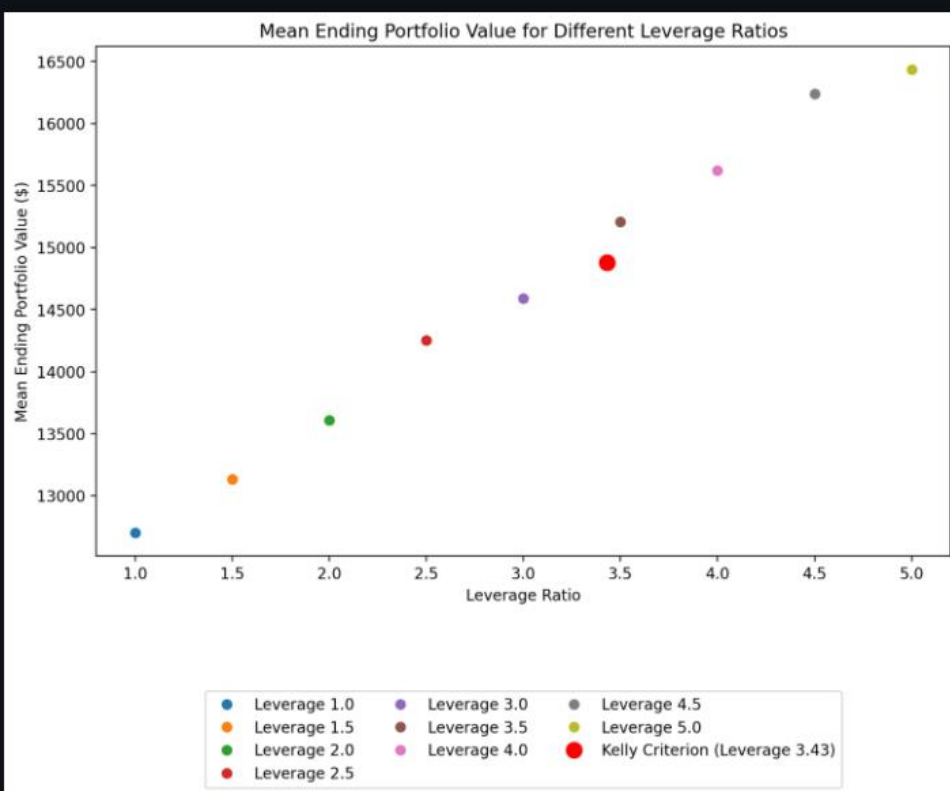
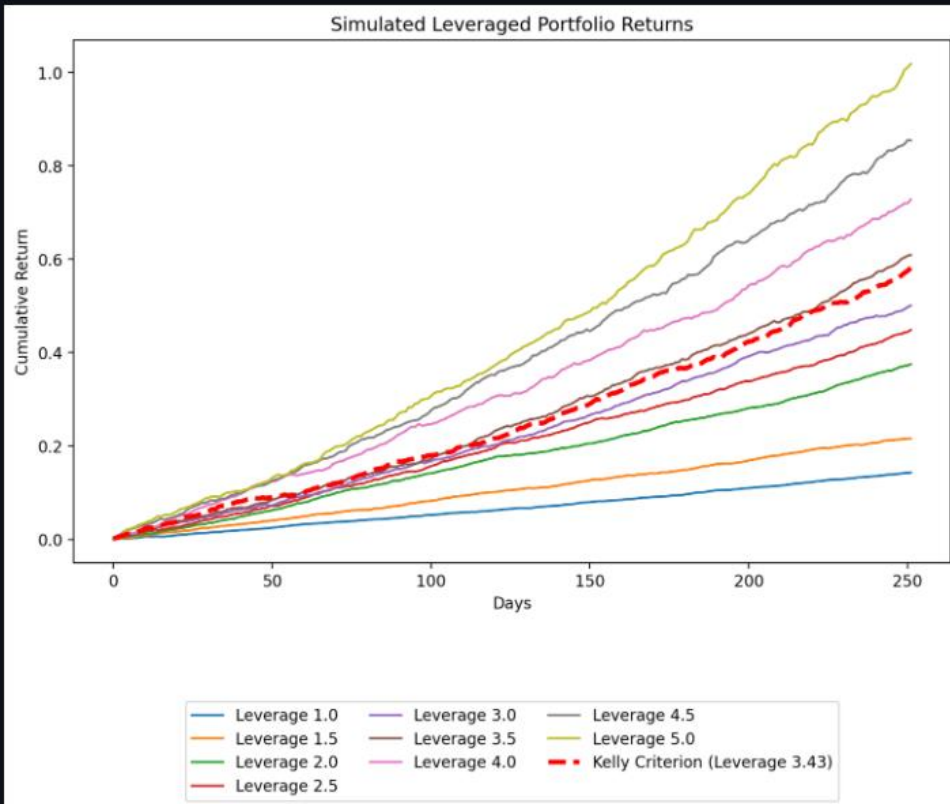
5000

Simulation Horizon (days)

252

30

1260



[Deploy](#)

Risk-free rate (in %)

3.00

0.00

5.00

User Inputs

Max Leverage Ratio

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1

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Number of Simulations

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5000

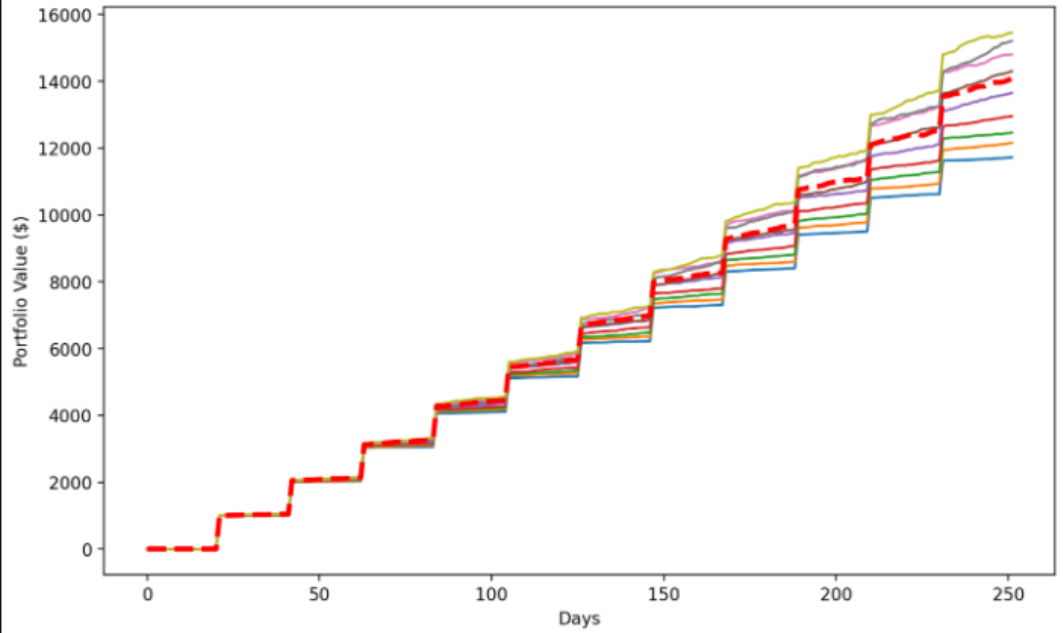
Simulation Horizon (days)

252

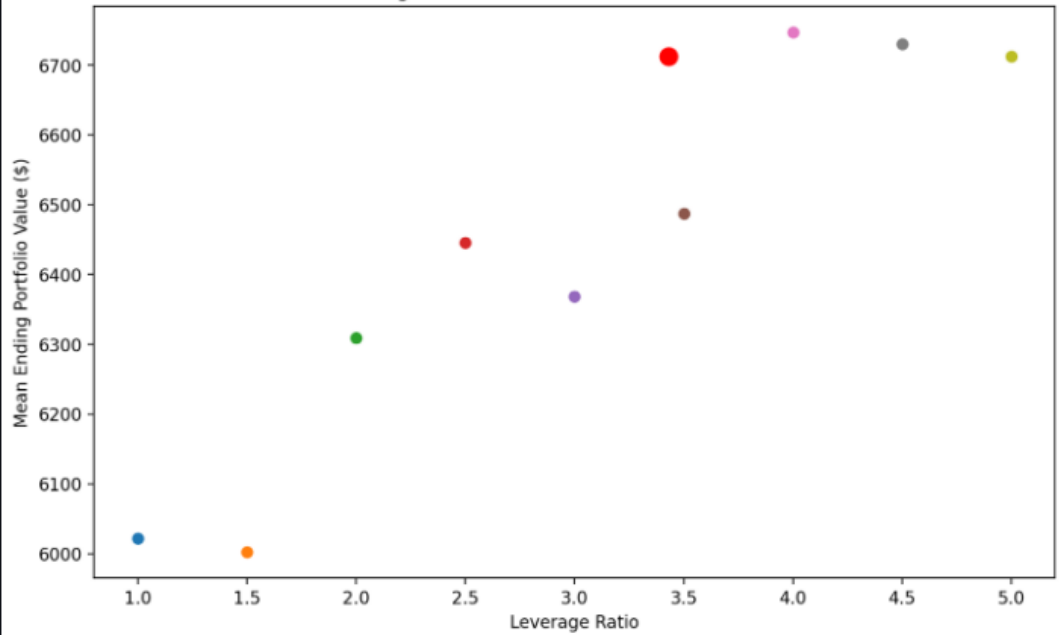
30

1260

Monte Carlo Simulations of Portfolio Value Over Time



Mean Ending Portfolio Value Under Market Crash Scenario



[Deploy](#)

Risk-free rate (in %)

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0.00

5.00

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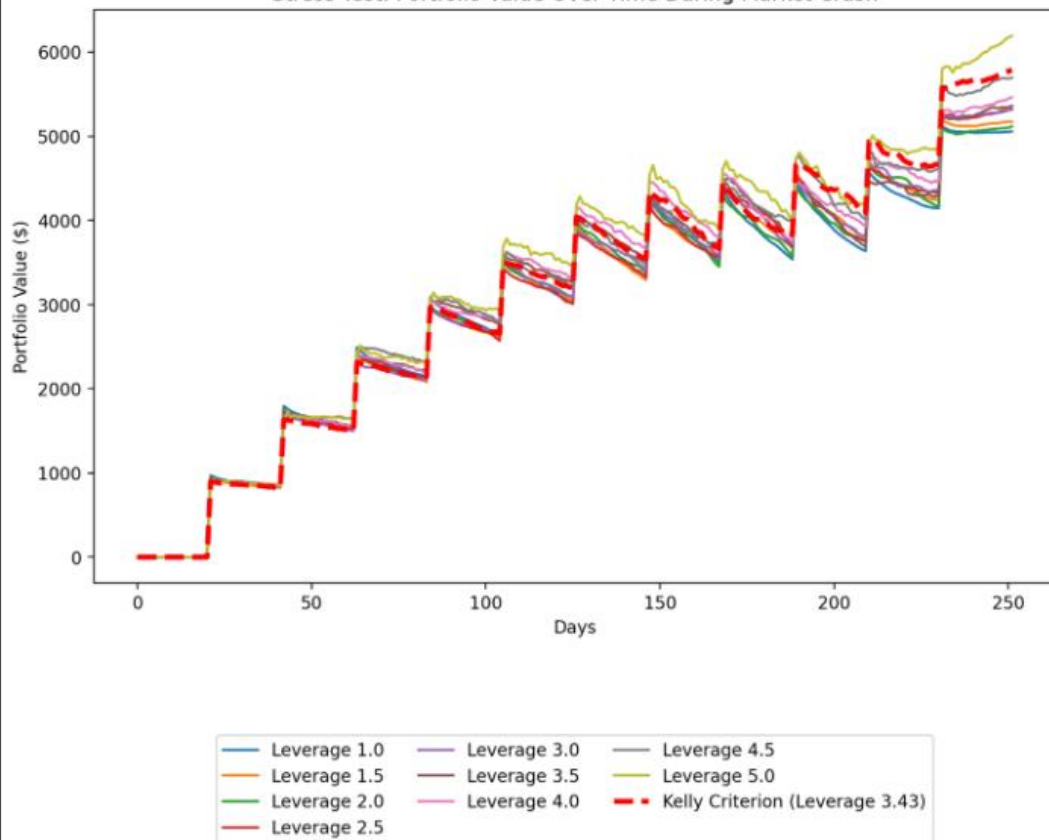
Simulation Horizon (days)

252

30

1260

Stress Test: Portfolio Value Over Time During Market Crash



Backtest of Portfolio Value Over Time with Monthly Investments

