PORTFOLIO SELECTION

Portfolio Selection & Monitoring

A scraping project.

Scraping yahoo finance for evaluating and monitoring porfolios.

Portfolio Selection & Monitoring

Minimum Variance

Max Sharpe Ratio

Minimum variance (volatility) is obtained by **diversifying the portfolio.** Some risky assets with high return can be selected, in some cases, if they are 'paired' with the right assets.

This portfolio results in the lowest risk possible for the expected rate of return

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Portfolio Selection & Monitoring

Minimum Variance

Max Sharpe Ratio

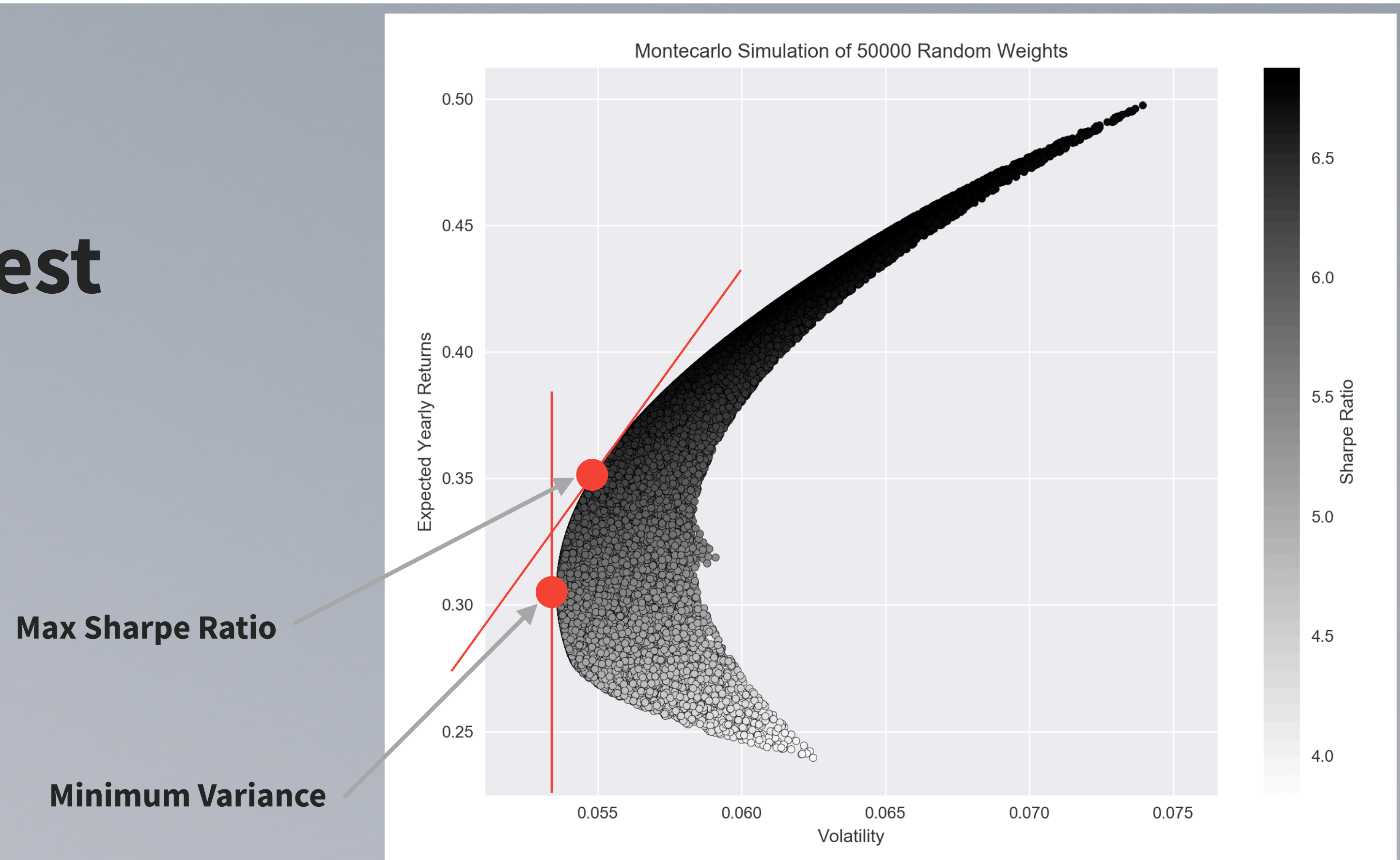
Sharpe Ratio normalizes the difference between past returns and risk free rate (ex. 10 year treasury bonds)

The max Sharpe Ratio **portfolio maximizes return vs risk.**

PORTFOLIO SELECTION

Which is the Best Portfolio?

AMZN, MSFT and AAPL from 2015-2019



The Returns / Volatility graph give all the insight.

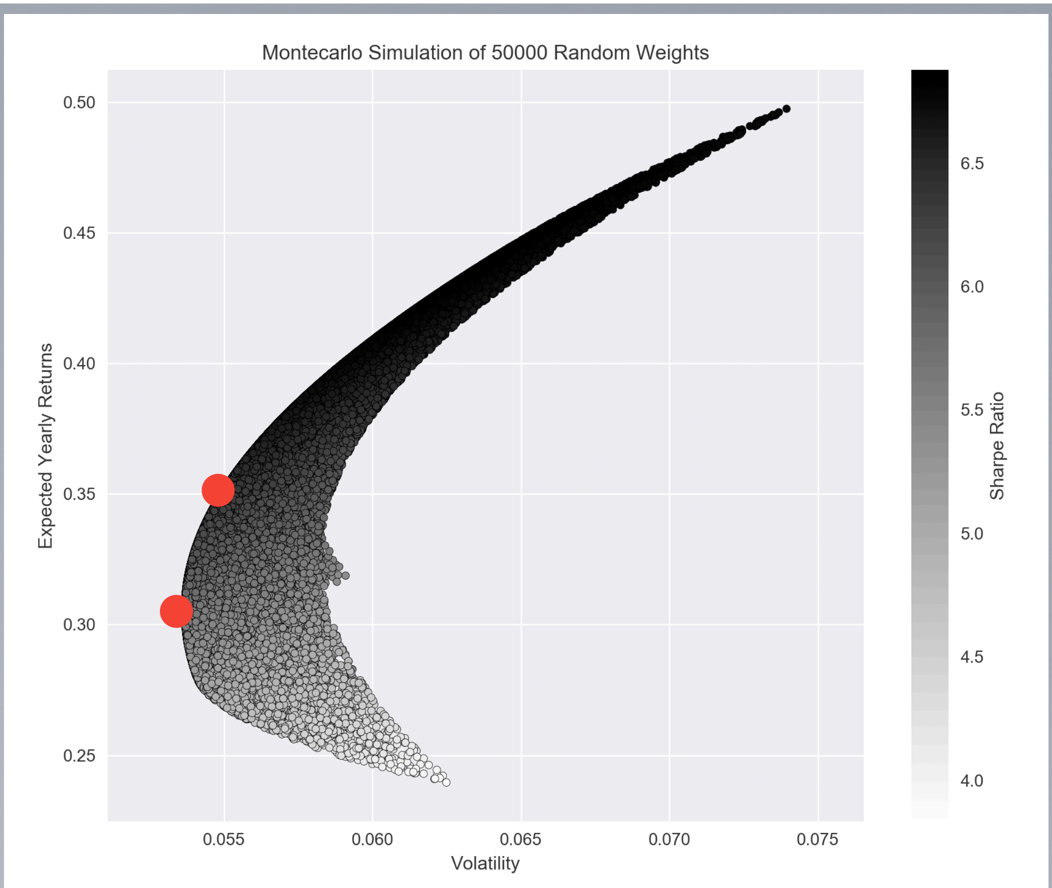
Minimum variance and Best Sharpe Ratio points can be identified through a Montecarlo simulation.

PORTFOLIO SELECTION

Which is the Best Portfolio?

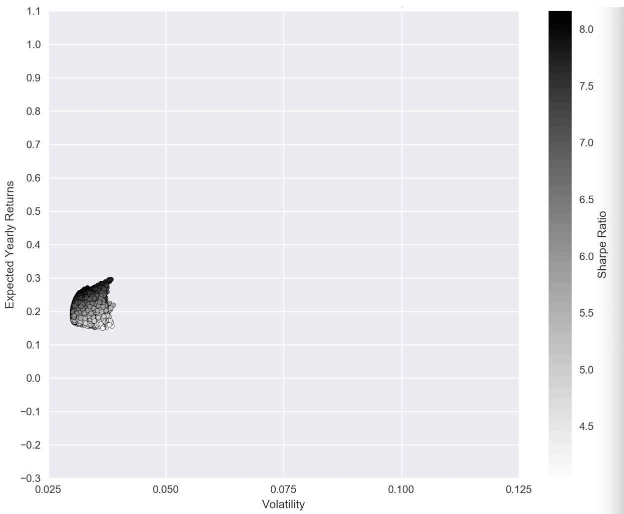
AMZN, MSFT and AAPL from 2015-2019

	Best Sharpe	Min Variance
Yearly Returns	44.5%	30.5%
Volatility	6.5%	5.4%
Sharpe Ratio	6.88	5.69
AMZN	70.2%	11.0%
MSFT	29.7%	49.0%
AAPL	0.1%	40.1%

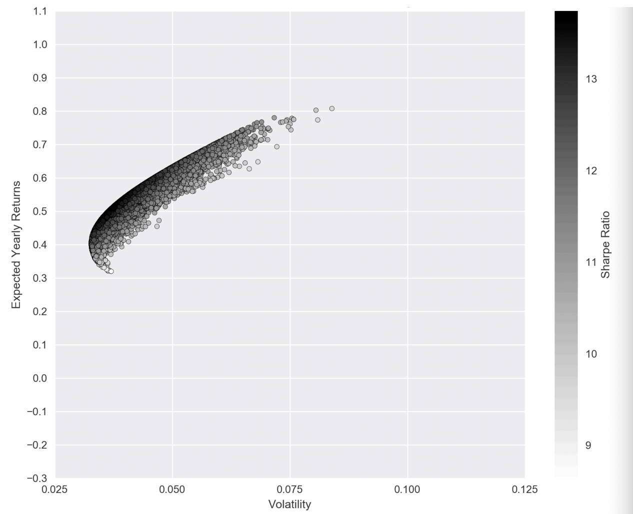


Which is the Best Portfolio?

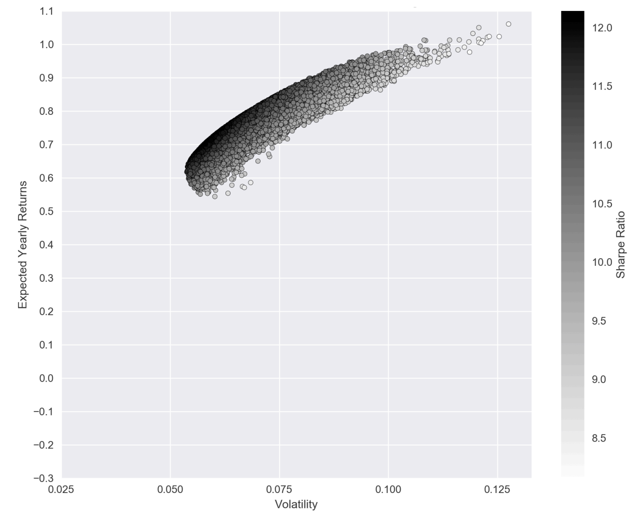
Best Volatility



Best Sharpe



Best Returns/Year



RSG, DUK, NEE, AEP, DTE

NEE, BLL, CMG, KEYS, ETR

AMD, CMG, KEYS, EW, TDG

THE BEST PORTFOLIO DEPENDS ON YOUR SPECIFIC NEEDS AND RISK AVERSION.