



Recommended Asset Allocation

ghoozie — 11/20/2020

FRONTIER CURVE OPTIMAL PORTFOLIO ANALYSIS

MONTE CARLO SIMULATION OF RETURNS

CORRELATION MATRIX

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1 Statistical Terminology & Asset Class Descriptions

Expected Return - Of an investing strategy is the amount of money you are expected to get back from your investment. For example, if 90 dollars is invested for 1 year with an expected return of 100 dollars, then in the average case the investment will yield back 100 dollars.

Risk - Or standard deviation of an investing strategy is a measure of how much the return of an investment strategy will vary from it's expected return. For example, an investment strategy with an expected return of 20% and a risk of 8% will yield 112% to 128% return with a probability of 68.2% , and 104% to 136% return with a probability of 94.4%

The 18 Asset Classes :

| Asset Class | Index | Description |
|--------------------|-----------|---------------------------------------------|
| Large Cap Growth | FSPGX | Fastly growing stocks from big companies. |
| Large Cap Value | SVX | Undervalued stocks from big companies. |
| Small Cap Growth | RUT | Fastly growing stocks from small companies. |
| Small Cap Value | RUJ | Undervalued stocks from small companies. |
| Mid Cap | SP400 | Stocks from mid sized companies. |
| International | VTIAX | Stocks not traded in U.S.A. exchanges. |
| Emerging Mkt. | VEMAX | Stocks from emerging Mkt. countries. |
| Real Estate | DJUSRE | Land and buildings. |
| Venture Capital | AMZX | New and innovative companies. |
| Inter. Govt. Bonds | GVI | Govt. bonds that mature in 5-10 years. |
| Long Govt. Bonds | ILTB | Govt. bonds mature in more than 10 years. |
| Corporate Bonds | SPDBDACPT | Bonds issued by a corporation. |
| High Yield Bond | HYG | Lower credit rating higher return bonds. |
| Municipal Bond | MUB | Bonds Issued by local government. |
| Foreign Bonds | BNDX | Bonds issued in other countries. |
| Emerging Mkt. Debt | JEDAX | Bonds issued by emerging countries. |
| Commodities | DJCI | Basic goods used in commerce. |
| Cash | BIL | Currencies, Foreign Currencies |

2 Investment Profile — Prescribed Allocation Changes

Investment Profile:

Name : ghoozie

Birthday : 11/20/1960

Time Frame : 9 Years

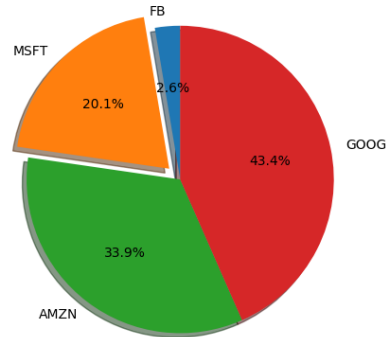
Available Funds : \$1,232,683.45

Preferred Risk : ($\pm 8\%$ Yearly)

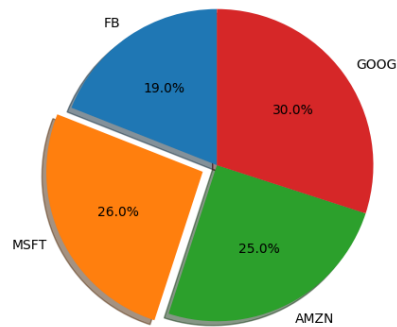
Preffered Asset Classes:

- Large Cap Growth Stocks
- Large Cap Value Stocks
- High Yield Bonds
- Emerging Mkt. Stocks
- Venture Capital
- Cash

(a) Current Portfolio



(b) New Portfolio



Prescribed Allocation Changes

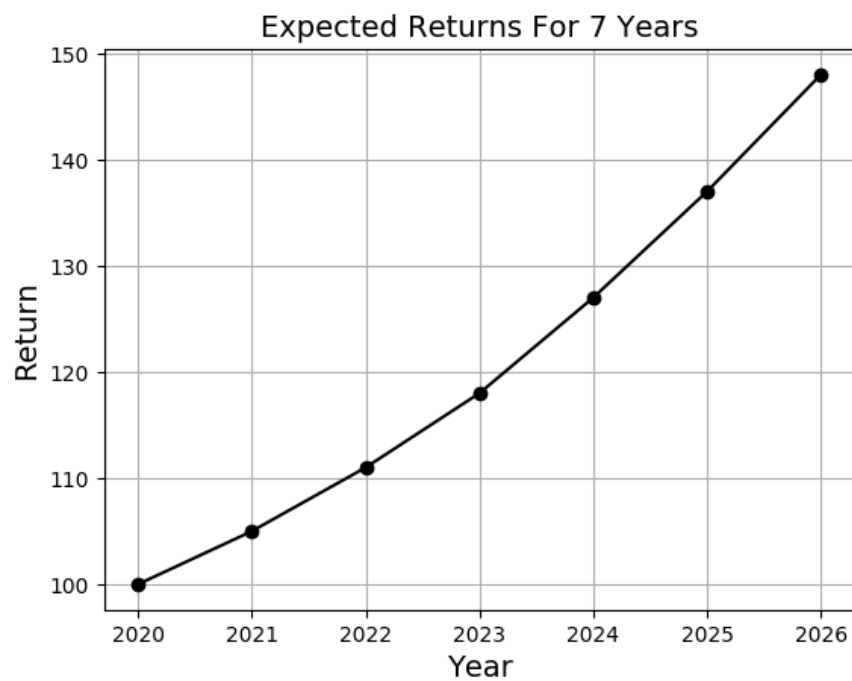
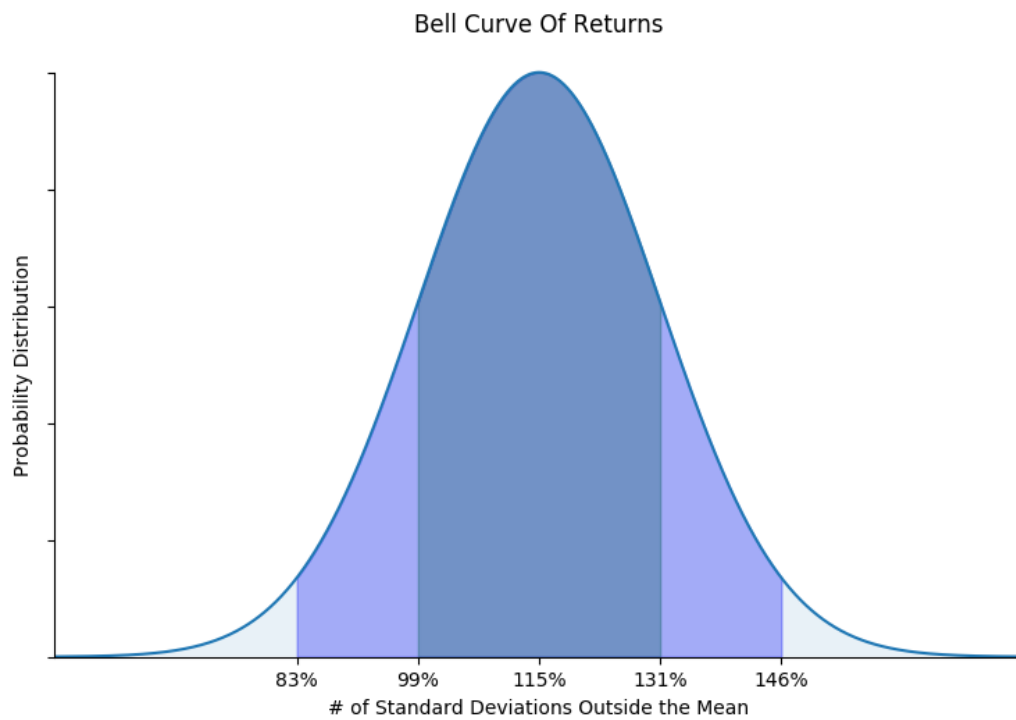
| Asset Class | Current | Suggested | Change |
|---------------------|-------------|-------------|--------------|
| Large Cap Growth | \$54,441.73 | \$43,210.22 | +\$34,321.34 |
| Large Cap Value | \$54,441.73 | \$43,210.22 | +\$34,321.34 |
| Small Cap Growth | \$54,441.73 | \$43,210.22 | +\$34,321.34 |
| Small Cap Value | \$54,441.73 | \$43,210.22 | +\$34,321.34 |
| Mid Cap | \$54,441.73 | \$43,210.22 | +\$34,321.34 |
| International Stock | \$54,441.73 | \$43,210.22 | +\$34,321.34 |
| Emerging Mkt Stock | \$54,441.73 | \$43,210.22 | +\$34,321.34 |
| Real Estate | \$54,441.73 | \$43,210.22 | +\$34,321.34 |
| Venture Capital | \$54,441.73 | \$43,210.22 | +\$34,321.34 |

3 Performance Improvements Of Prescribed Portfolio

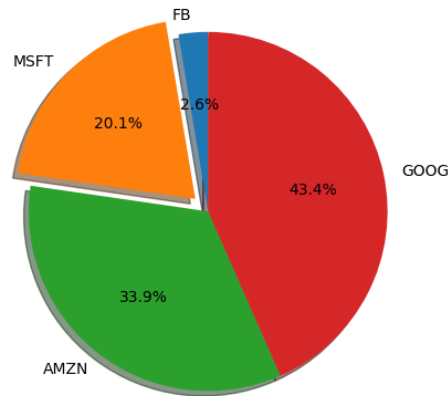
Below are 7 year simulation results of your current investing strategy versus the investment strategy prescribed in this report.

Change In Expected Return : \$124,432.23

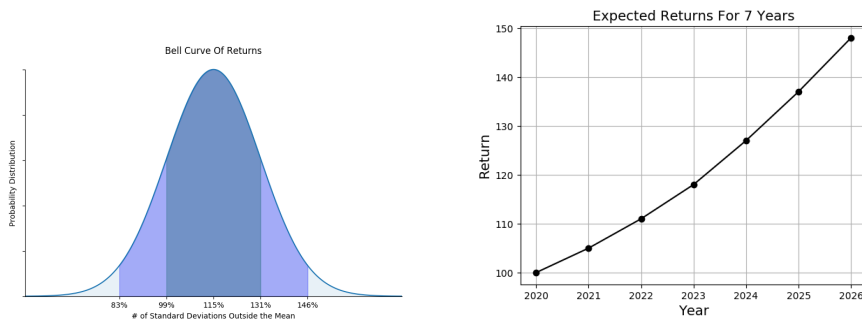
Change in Risk : (-3%)



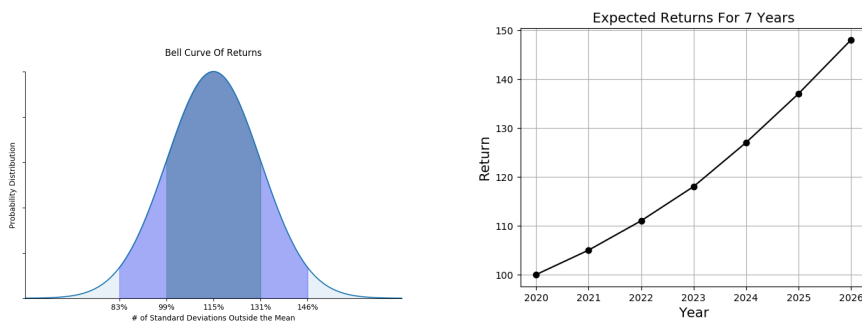
4 Current Portfolio Overview - Statistical Analysis



Portfolio Breakdown



Current Portfolio 1 Year Projections



Current Portfolio 7 Year Projections

1 Year Expected Return (\$) : \$343,203.20 (33.3%)

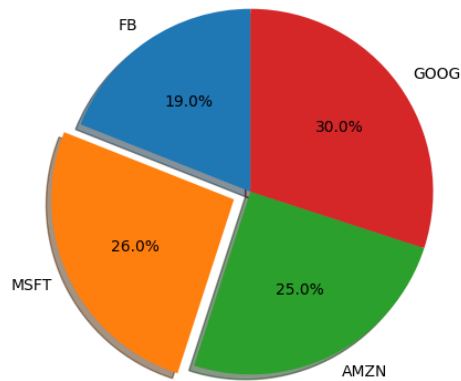
1 Year Risk (Standard Deviation %) : $\pm 3.54\%$

7 Year Expected Return (\$) : \$343,203.20 (33.3%)

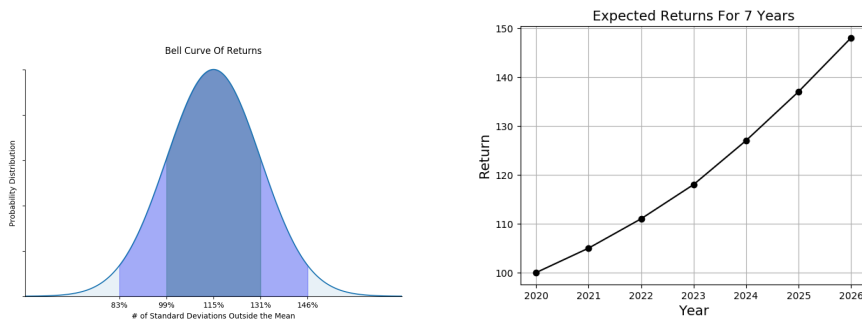
7 Year Risk (Standard Deviation %) : $\pm 3.54\%$

Sharpe Ratio : .37

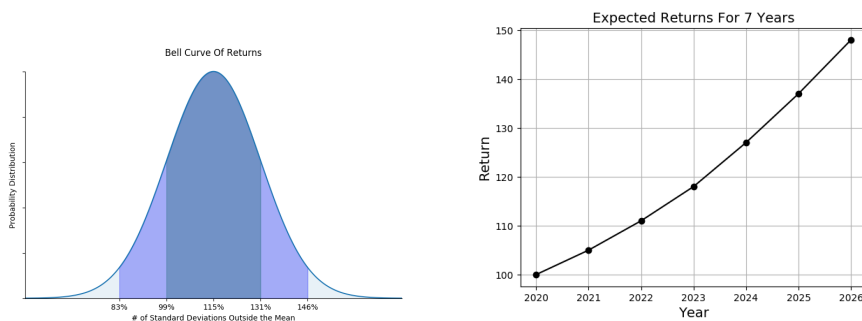
5 Prescribed Portfolio Overview - Statistical Analysis



Portfolio Breakdown



Prescribed Portfolio 1 Year Projections



Prescribed Portfolio 7 Year Projections

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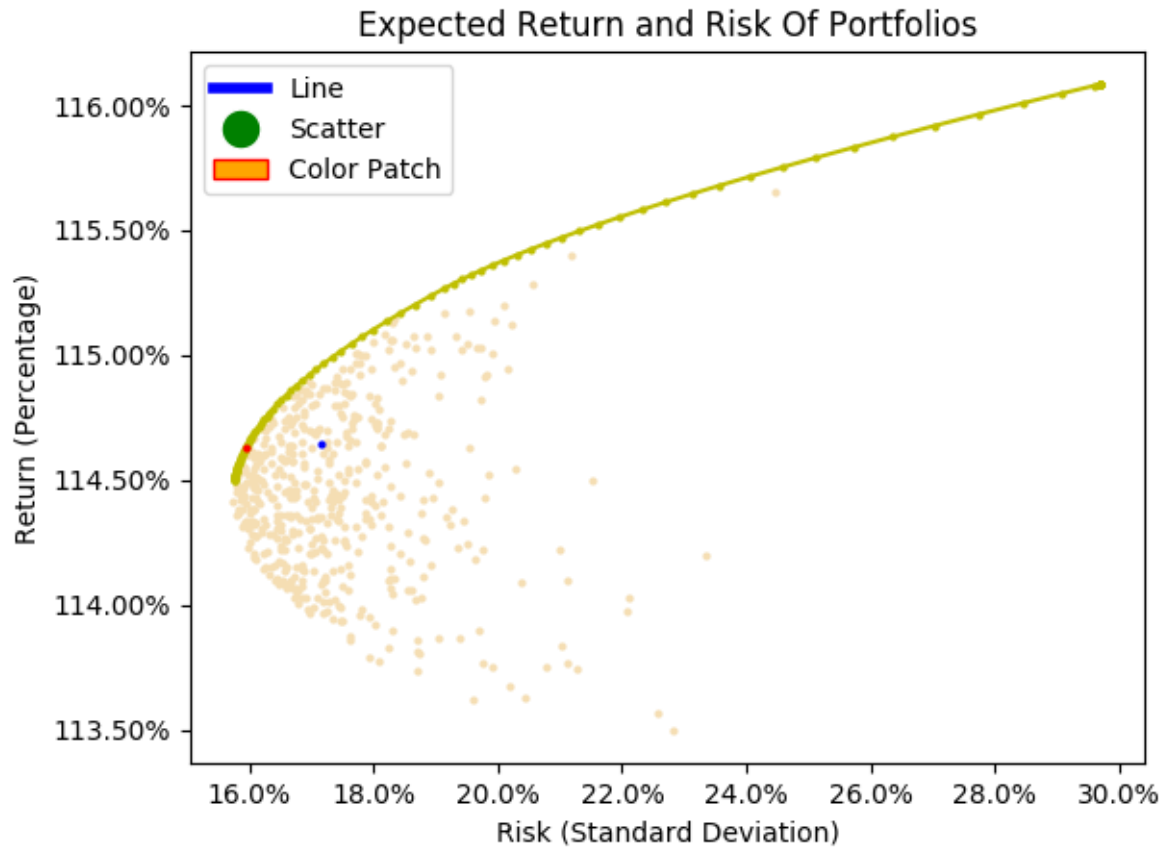
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6 Frontier Curve

In 1990, Harry Markowitz won a nobel prize for his contributions to portfolio balancing theory. Markowitz discovered that given assets to buy from and funds to buy with, all of the optimal portfolios formed on a curved line called the "Frontier Curve."



Risk (Std. Deviation) : ± 15.93

Expected Return (%): + 14.6 %

Improvement in risk : ± 15.76

Improvement in return (%): + 13.5 %

7 Correlation Matrices

| Corr. | MSFT | NTFX | HULU | RUS | BP | TR | SOCK |
|-------|--------|--------|--------|-------|-------|--------|--------|
| MSFT | 16.128 | +8.872 | 16.128 | 1.402 | 1.373 | -146.6 | -137.6 |
| NTFX | 3.442 | -2.509 | 3.442 | 0.299 | 0.343 | 133.2 | 152.4 |
| HULU | 1.826 | -0.363 | 1.826 | 0.159 | 0.119 | 168.5 | -161.1 |
| RUS | 0.993 | -0.429 | 0.993 | 0.086 | 0.08 | 25.6 | 90 |
| BP | 1.29 | +0.099 | 1.29 | 0.112 | 0.097 | -175.6 | -114.7 |
| TR | 0.483 | -0.183 | 0.483 | 0.042 | 0.063 | 22.3 | 122.5 |
| SOCK | 0.766 | -0.475 | 0.766 | 0.067 | 0.039 | 141.6 | -122 |

Above is the Semantic Correlation Matrix of the selected Asset Classes. It shows how each asset class is correlated to one another

| Return | MSFT | NTFX | HULU | RUS | BP | TR | SOCK |
|--------|--------|--------|--------|-------|-------|--------|--------|
| 1 | 16.128 | +8.872 | 16.128 | 1.402 | 1.373 | -146.6 | -137.6 |
| 2 | 3.442 | -2.509 | 3.442 | 0.299 | 0.343 | 133.2 | 152.4 |

Above is the ranking of the selected asset classes by risk

| Risk | MSFT | NTFX | HULU | RUS | BP | TR | SOCK |
|------|--------|--------|--------|-------|-------|--------|--------|
| 1 | 16.128 | +8.872 | 16.128 | 1.402 | 1.373 | -146.6 | -137.6 |
| 2 | 3.442 | -2.509 | 3.442 | 0.299 | 0.343 | 133.2 | 152.4 |

Above is the ranking of the selected asset classes by return