

1-Week 90% Value at Risk of a Stock Portfolio

Results:

Start Date: 2010-01-01 00:00:00

End Date: 2011-12-31 00:00:00

Stocks Examined: ['GOOG', 'AAPL', 'GLD', 'XOM']

Stock allocations, optimized for Sharpe Ratio:

[2.29718853e-16 4.87153592e-01 5.12846408e-01 0.00000000e+00]

Sharpe Ratio: 1.5216

Volatility (stdev of daily returns): 0.0107

Average daily Return: 0.0010

Cumulative Return: 0.6318

Starting Portfolio Value:1000000

Ending Portfolio Value: 1631811

The Covariance Matrix of Stock prices:

```
[[ 135.18391247  13.34344446  3.71133801  14.07097847]
 [ 13.34344446  2.49932471  0.99773783  1.74850604]
 [ 3.71133801  0.99773783  16.3757984  0.68060819]
 [ 14.07097847  1.74850604  0.68060819  3.74752262]]
```

Cash allocated to stocks:

[3.74857778e-10 7.94942645e+05 8.36868470e+05 0.00000000e+00]

Latest weekly-averaged stock price:

GOOG 320.711085

AAPL 52.448622

GLD 152.067501

XOM 72.506265

Name: 2012-01-01 00:00:00, dtype: float64

Then number of shares considered for portfolio:

GOOG 1.168833e-12

AAPL 1.515660e+04

GLD 5.503270e+03

XOM 0.000000e+00

Name: 2012-01-01 00:00:00, dtype: float64

Standrd Deviation of Portfolio value (1-week outlook): \$ 35164.65

The 0.10 quantile of Portfolio value (1-week outlook): \$ 1586730.04

1-week 90% USD VaR of Portfolio: \$ 45081.08

