

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:

```
[[ 1.18939978e+02 9.49217950e+00 -1.33535090e+01 -1.77224919e+00]
 [ 9.49217950e+00 7.57537318e-01 -1.06569638e+00 -1.41436948e-01]
 [-1.33535090e+01 -1.06569638e+00 1.49921166e+00 1.98972170e-01]
 [-1.77224919e+00 -1.41436948e-01 1.98972170e-01 2.64071615e-02]]
```

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): \$ 6453.46

The 0.10 quantile of Portfolio value (1-week outlook): \$ 1623537.78

1-week 90% USD VaR of Portfolio: \$ 8273.34

