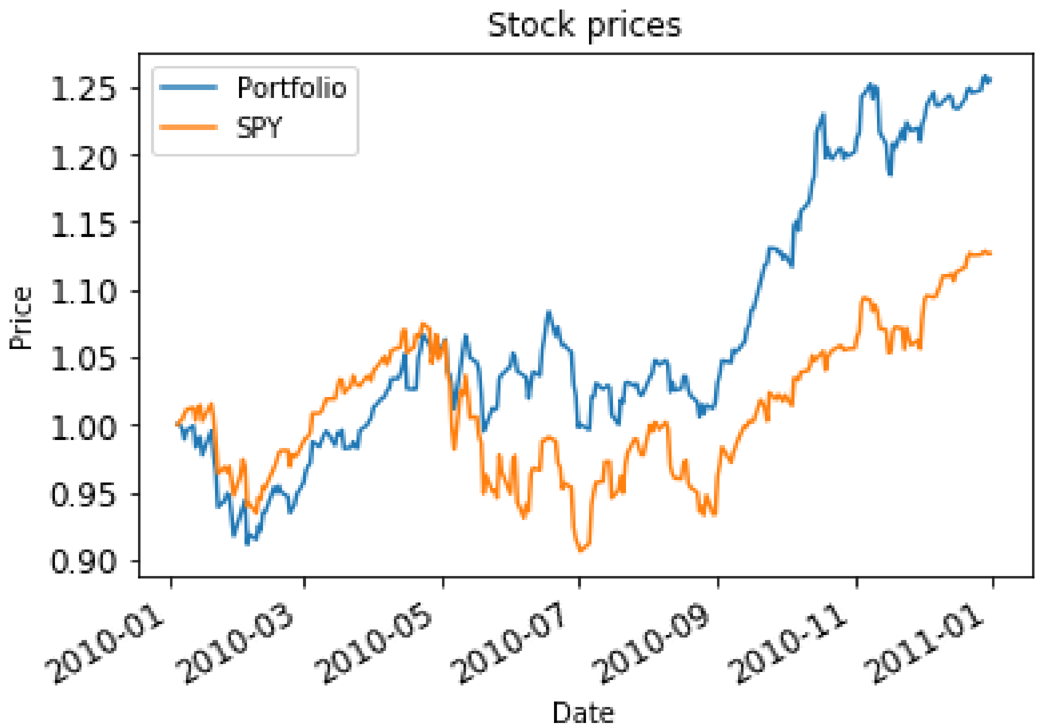
Project 1 Assess Portfolio

```python
def test_code():
    # This code WILL NOT be tested by the auto grader
    # It is only here to help you set up and test your code

    # Define input parameters
    # Note that ALL of these values will be set to different values by
    # the autograder!
    start_date = dt.datetime(2010,1,1)
    end_date = dt.datetime(2010,12,31)
    symbols = ['GOOG', 'AAPL', 'GLD', 'XOM']
    allocations = [0.2, 0.3, 0.4, 0.1]
    start_val = 1000000
    risk_free_rate = 0.0
    sample_freq = 252

    # Assess the portfolio
    cr, adr, sddr, sr, ev = assess_portfolio(sd = start_date, ed = end_date,\
        syms = symbols, \
        allocs = allocations,\
        sv = start_val, \
        gen_plot = True)

    # Print statistics
    print("Start Date:", start_date)
    print("End Date:", end_date)
    print("Symbols:", symbols)
    print("Allocations:", allocations)
    print("Sharpe Ratio:", sr)
    print("Volatility (stdev of daily returns):", sddr)
    print("Average Daily Return:", adr)
    print("Cumulative Return:", cr)

if __name__ == "__main__":
    test_code()
```

Example 1



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

End Date: 2010-12-31 00:00:00

Symbols: ['GOOG', 'AAPL', 'GLD', 'XOM']

Allocations: [0.2, 0.3, 0.4, 0.1]

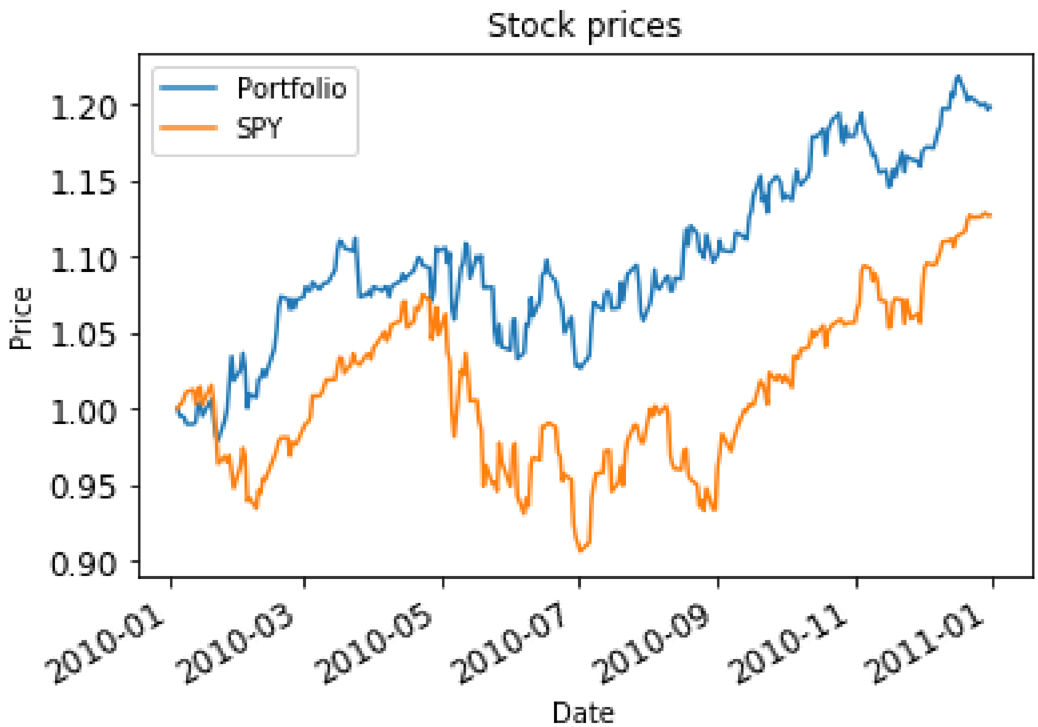
Sharpe Ratio: 1.518192436412635

Volatility (stdev of daily returns): 0.010010402800015368

Average Daily Return: 0.0009573662342381413

Cumulative Return: 0.25564678453350465

Example 2



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

End Date: 2010-12-31 00:00:00

Symbols: ['AXP', 'HPQ', 'IBM', 'HNZ']

Allocations: [0.0, 0.0, 0.0, 1]

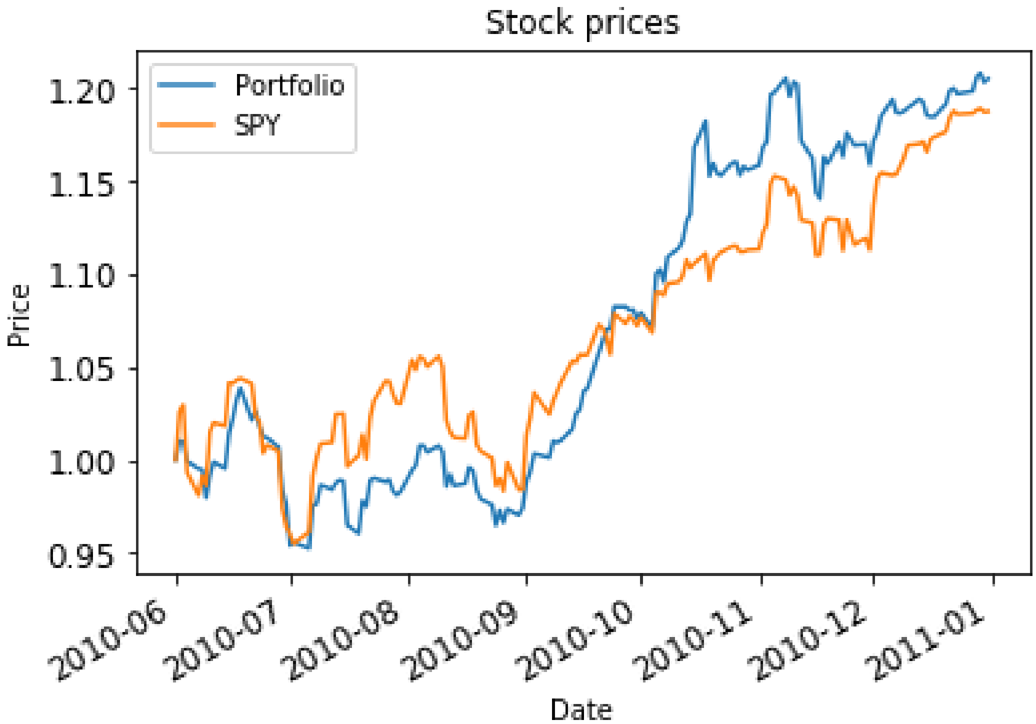
Sharpe Ratio: 1.3079839874416062

Volatility (stdev of daily returns): 0.00926153128768457

Average Daily Return: 0.0007631061526720289

Cumulative Return: 0.19810596365497823

Example 3



Start Date: 2010-06-01 00:00:00

End Date: 2010-12-31 00:00:00

Symbols: ['GOOG', 'AAPL', 'GLD', 'XOM']

Allocations: [0.2, 0.3, 0.4, 0.1]

Sharpe Ratio: 2.2125976667229317

Volatility (stdev of daily returns): 0.0092973461970739994

Average Daily Return: 0.0012958692436644658

Cumulative Return: 0.20511393879215278