

Trump_Stock_Portfolio

September 29, 2021

1 Donald Trump Stock Portfolio

During Trump Presidential, he did not support climate change. Stocks relate to climate change it did not go up much or it went down. Presidential can affect the stock market or particular stocks.

https://en.wikipedia.org/wiki/Political_positions_of_Donald_Trump

```
[1]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import math

import warnings
warnings.filterwarnings("ignore")

# fix_yahoo_finance is used to fetch data
import fix_yahoo_finance as yf
yf.pdr_override()
```

```
[2]: # input
symbols = ['GE', 'JCI', 'ALSMY', 'VWDY', 'OC']
start = '2017-01-01'
end = '2019-01-01'

# Read data
df = yf.download(symbols, start, end)['Adj Close']

# View Columns
df.head()
```

[*****100%*****] 5 of 5 downloaded

```
[2]:
```

	ALSMY	GE	JCI	OC	VWDY
Date					
2017-01-03	2.326459	28.130621	39.377151	50.005348	20.905153
2017-01-04	2.317937	28.139500	39.432838	49.899479	20.772120
2017-01-05	2.326459	27.979715	38.922409	50.525032	21.085697

2017-01-06	2.326459	28.059608	39.711254	50.178577	21.161716
2017-01-09	2.326459	27.926458	39.534920	49.957233	21.209229

```
[3]: df.tail()
```

```
[3]:
```

	ALSMY	GE	JCI	OC	VWDRY
Date					
2018-12-24	3.468085	6.633243	27.953753	40.499290	24.626158
2018-12-26	3.476755	7.083766	29.159754	42.258850	24.902634
2018-12-27	3.442075	6.968739	29.130339	42.946941	24.971754
2018-12-28	3.433404	7.198793	29.032291	42.937115	24.695276
2018-12-31	3.494096	7.256308	29.071510	43.232006	24.863138

```
[4]: from datetime import datetime
from dateutil import relativedelta

d1 = datetime.strptime(start, "%Y-%m-%d")
d2 = datetime.strptime(end, "%Y-%m-%d")
delta = relativedelta.relativedelta(d2,d1)
print('How many years of investing?')
print('%s years' % delta.years)
```

How many years of investing?
2 years

```
[5]: from datetime import datetime

def calculate_years(start, end):
    date_format = "%Y-%m-%d"
    a = datetime.strptime(start, date_format).year
    b = datetime.strptime(end, date_format).year
    years = b - a

    return years
```

```
[6]: print(calculate_years(start, end), 'years')
```

2 years

```
[7]: Cash = 100000
print('Percentage of invest:')
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x in zip(df.columns, percent_invest):
    cost = x * Cash
    print('{}: {}'.format(i, cost))
```

Percentage of invest:
ALSMY: 20000.0

GE: 20000.0
JCI: 20000.0
OC: 20000.0
VWDRY: 20000.0

```
[8]: print('Number of Shares:')
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x, y in zip(df.columns, percent_invest, df.iloc[0]):
    cost = x * Cash
    shares = int(cost/y)
    print('{}: {}'.format(i, shares))
```

Number of Shares:
ALSMY: 8596
GE: 710
JCI: 507
OC: 399
VWDRY: 956

```
[9]: print('Beginning Value:')
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x, y in zip(df.columns, percent_invest, df.iloc[0]):
    cost = x * Cash
    shares = int(cost/y)
    Begin_Value = round(shares * y, 2)
    print('{}: ${}'.format(i, Begin_Value))
```

Beginning Value:
ALSMY: \$19998.24
GE: \$19972.74
JCI: \$19964.22
OC: \$19952.13
VWDRY: \$19985.33

```
[30]: print('Current Value:')
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x, y, z in zip(df.columns, percent_invest, df.iloc[0], df.iloc[-1]):
    cost = x * Cash
    shares = int(cost/y)
    Current_Value = round(shares * z, 2)
    print('{}: ${}'.format(i, Current_Value))
```

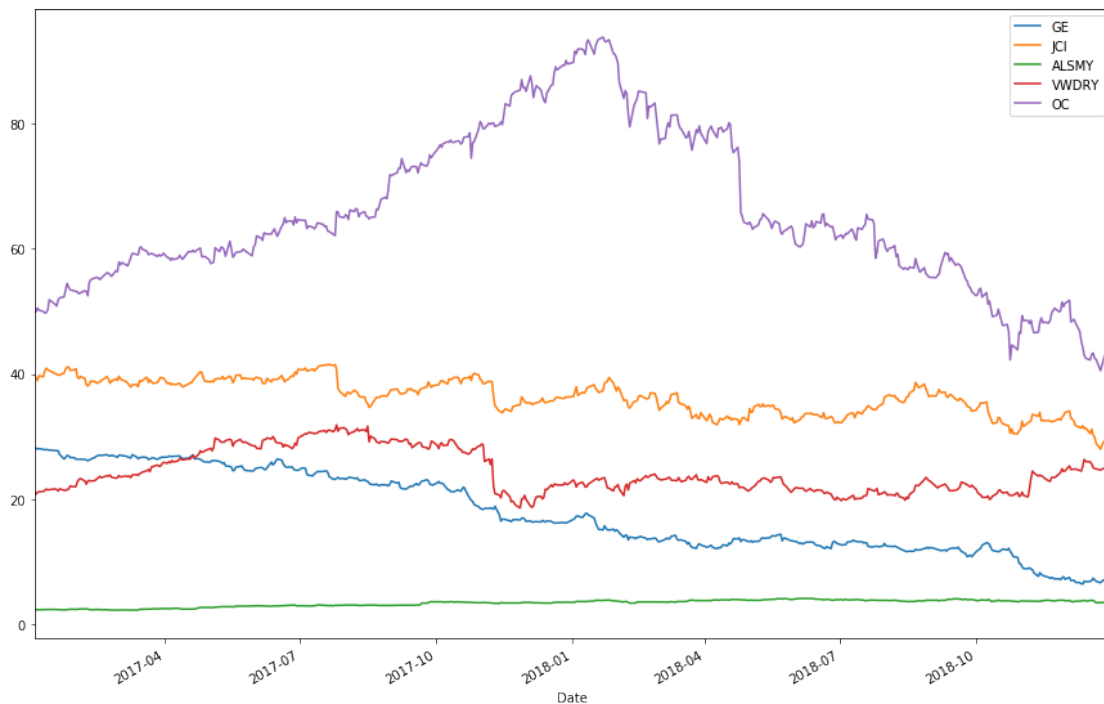
Current Value:
ALSMY: \$30035.25
GE: \$5151.98
JCI: \$14739.26
OC: \$17249.57
VWDRY: \$23769.16

```
[31]: result = []
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x, y, z in zip(df.columns, percent_invest, df.iloc[0], df.iloc[-1]):
    cost = x * Cash
    shares = int(cost/y)
    Current_Value = round(shares * z, 2)
    result.append(Current_Value)
print('Total Value: $%s' % round(sum(result),2))
```

Total Value: \$90945.22

```
[12]: for s in symbols:
        df[s].plot(label = s, figsize = (15,10))
plt.legend()
```

[12]: <matplotlib.legend.Legend at 0x19e21192780>



```
[13]: df.min()
```

```
[13]: ALSMY    2.258285
      GE       6.423105
      JCI     27.953753
      OC     40.499290
      VWDRY   18.562418
```

dtype: float64

```
[14]: for s in symbols:
      print(s + ":", df[s].max())
```

GE: 28.1395
JCI: 41.504387
ALSMY: 4.158313
VWDRY: 31.836481
OC: 93.779671

```
[15]: # Creating a Return Data Frame for all individual banks stocks:
      returns = pd.DataFrame()
      for s in symbols:
          returns[s + " Return"] = df[s].pct_change().dropna()

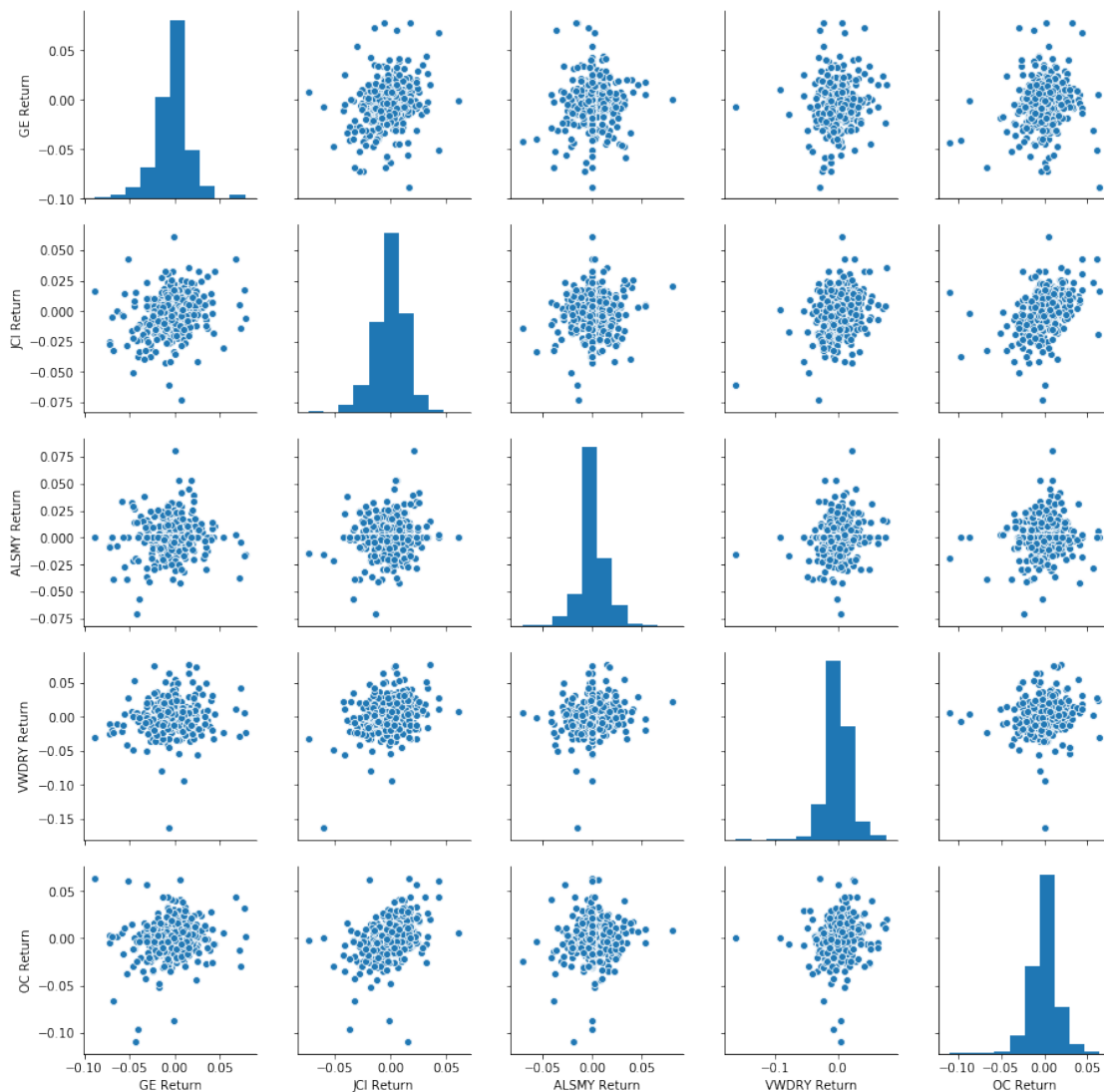
      returns.head(4)
```

```
[15]:
```

	GE Return	JCI Return	ALSMY Return	VWDRY Return	OC Return
Date					
2017-01-04	0.000316	0.001414	-0.003663	-0.006364	-0.002117
2017-01-05	-0.005678	-0.012944	0.003677	0.015096	0.012536
2017-01-06	0.002855	0.020267	0.000000	0.003605	-0.006857
2017-01-09	-0.004745	-0.004440	0.000000	0.002245	-0.004411

```
[16]: sns.pairplot(returns[1:] )
```

```
[16]: <seaborn.axisgrid.PairGrid at 0x19e214fd550>
```



```
[17]: # dates each bank stock had the best and worst single day returns.
print(returns.idxmax())
```

```
GE Return      2018-06-26
JCI Return     2018-05-01
ALSMY Return   2017-04-24
VWDRY Return   2017-11-28
OC Return      2018-10-30
dtype: datetime64[ns]
```

```
[18]: # dates each bank stock had the best and worst single day returns.
print(returns.idxmin())
```

```
GE Return      2018-10-30
```

```
JCI Return      2017-07-27
ALSMY Return    2018-10-11
VWDY Return     2017-11-09
OC Return       2018-04-25
dtype: datetime64[ns]
```

```
[19]: returns.corr()
```

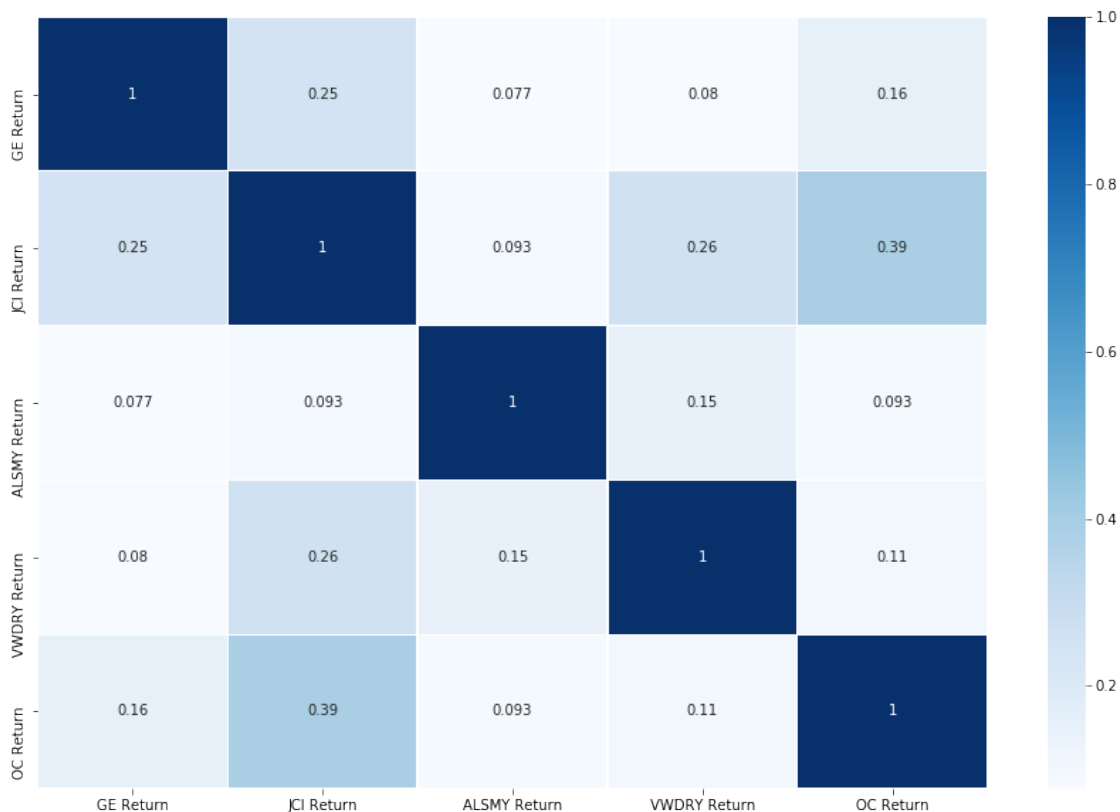
```
[19]:
```

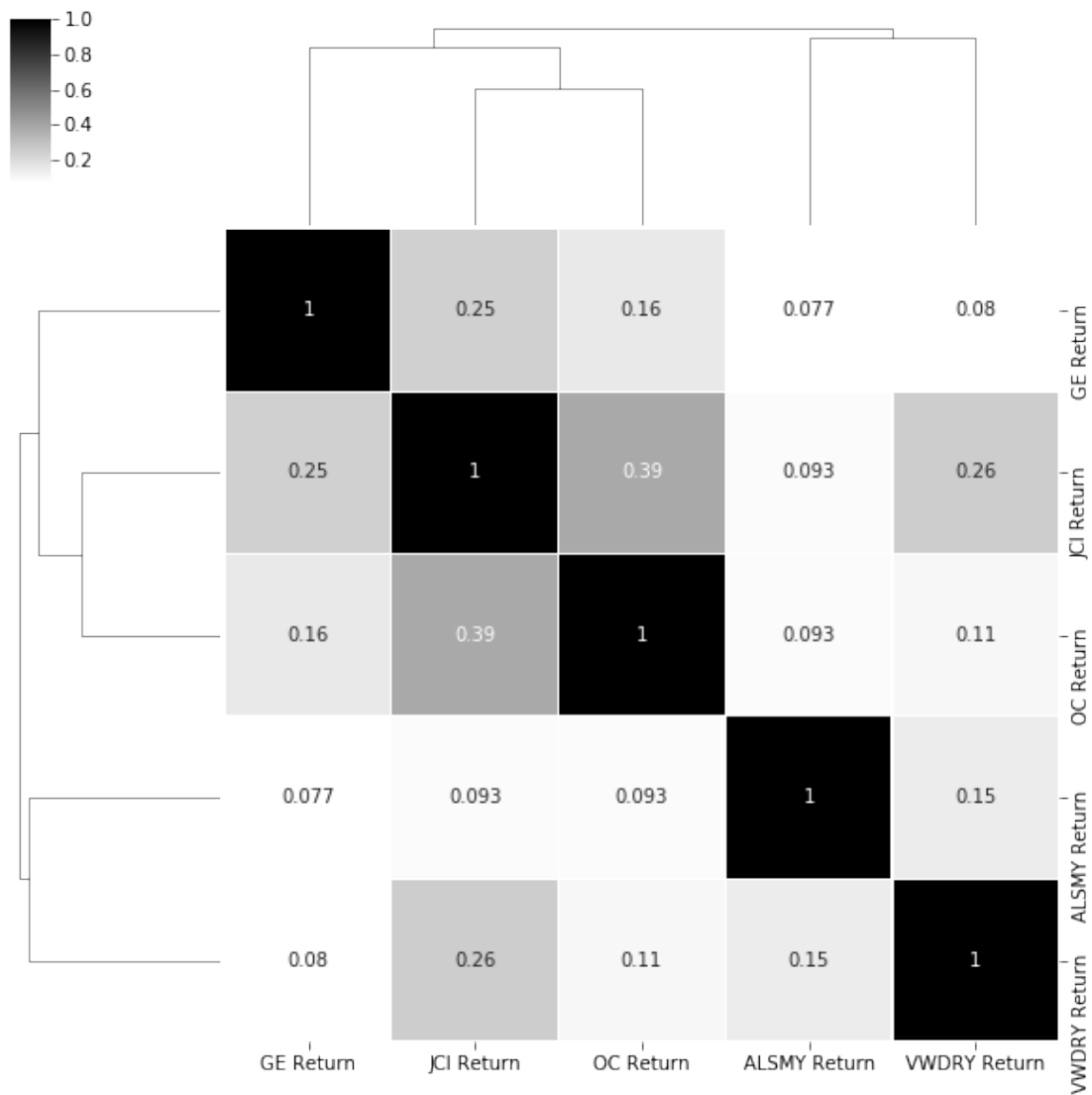
	GE Return	JCI Return	ALSMY Return	VWDY Return	OC Return
GE Return	1.000000	0.248699	0.076865	0.080060	0.156558
JCI Return	0.248699	1.000000	0.093351	0.260718	0.388753
ALSMY Return	0.076865	0.093351	1.000000	0.148658	0.093428
VWDY Return	0.080060	0.260718	0.148658	1.000000	0.108735
OC Return	0.156558	0.388753	0.093428	0.108735	1.000000

```
[20]: # Heatmap for return of all the stocks
plt.figure(figsize=(15,10))
sns.heatmap(returns.corr(), cmap="Blues",linewidths=.1, annot= True)

sns.clustermap(returns.corr(), cmap="binary",linewidths=.1, annot= True)
```

```
[20]: <seaborn.matrix.ClusterGrid at 0x19e21cd9080>
```





```
[21]: # heatmap for Adj. Close prices for all the stock
plt.figure(figsize = (17,8))
sns.heatmap(df.corr(), cmap="autumn",linewidths=.1, annot= True)

sns.clustermap(df.corr(), cmap="winter",linewidths=.1, annot= True)
```

```
[21]: <seaborn.matrix.ClusterGrid at 0x19e214fd3c8>
```