

yse-stats-plot-des-actifs-muslim

April 21, 2025

```
[ ]: import yfinance as yf
import pandas as pd
import datetime
from pandas import Series, DataFrame
import cufflinks as cf
import chart_studio.plotly as py

cf.go_offline()
import plotly.express as px
import plotly.graph_objs as go
%matplotlib inline
import matplotlib.pyplot as plt
from matplotlib import style
```

```
[ ]:
```

```
[2]: stocks= yf.download("SPUS", period="2y")
stocks
```

[*****100%*****] 1 of 1 completed

```
[2]:
```

	Open	High	Low	Close	Adj Close	Volume
Date						
2022-09-07	26.590000	27.024000	26.530001	27.000000	26.491322	42300
2022-09-08	26.870001	27.190001	26.770000	27.115999	26.605139	23400
2022-09-09	27.270000	27.670000	27.270000	27.610001	27.089834	30300
2022-09-12	27.730000	27.965000	27.730000	27.909000	27.383198	29400
2022-09-13	27.500000	27.500000	26.590000	26.620001	26.118488	50500
...
2024-08-30	40.540001	40.750000	40.209999	40.740002	40.740002	112300
2024-09-03	40.450001	40.450001	39.400002	39.619999	39.619999	276200
2024-09-04	39.360001	39.709999	39.270000	39.450001	39.450001	215300
2024-09-05	39.410000	39.799999	39.279999	39.470001	39.470001	207200
2024-09-06	39.490002	39.533001	38.560001	38.639999	38.639999	172500

[503 rows x 6 columns]

```
[3]: stocks["SMA20"]=stocks["Adj Close"].rolling(20).mean()
stocks
```

```
[3]:
```

	Open	High	Low	Close	Adj Close	Volume	\
Date							
2022-09-07	26.590000	27.024000	26.530001	27.000000	26.491322	42300	
2022-09-08	26.870001	27.190001	26.770000	27.115999	26.605139	23400	
2022-09-09	27.270000	27.670000	27.270000	27.610001	27.089834	30300	
2022-09-12	27.730000	27.965000	27.730000	27.909000	27.383198	29400	
2022-09-13	27.500000	27.500000	26.590000	26.620001	26.118488	50500	
...		
2024-08-30	40.540001	40.750000	40.209999	40.740002	40.740002	112300	
2024-09-03	40.450001	40.450001	39.400002	39.619999	39.619999	276200	
2024-09-04	39.360001	39.709999	39.270000	39.450001	39.450001	215300	
2024-09-05	39.410000	39.799999	39.279999	39.470001	39.470001	207200	
2024-09-06	39.490002	39.533001	38.560001	38.639999	38.639999	172500	

	SMA20
Date	
2022-09-07	NaN
2022-09-08	NaN
2022-09-09	NaN
2022-09-12	NaN
2022-09-13	NaN
...	...
2024-08-30	39.764818
2024-09-03	39.874511
2024-09-04	39.963212
2024-09-05	40.071902
2024-09-06	40.083126

[503 rows x 7 columns]

```
[4]: stocks=stocks.reset_index()
stocks
```

```
[4]:
```

	Date	Open	High	Low	Close	Adj Close	Volume	\
0	2022-09-07	26.590000	27.024000	26.530001	27.000000	26.491322	42300	
1	2022-09-08	26.870001	27.190001	26.770000	27.115999	26.605139	23400	
2	2022-09-09	27.270000	27.670000	27.270000	27.610001	27.089834	30300	
3	2022-09-12	27.730000	27.965000	27.730000	27.909000	27.383198	29400	
4	2022-09-13	27.500000	27.500000	26.590000	26.620001	26.118488	50500	
..		
498	2024-08-30	40.540001	40.750000	40.209999	40.740002	40.740002	112300	
499	2024-09-03	40.450001	40.450001	39.400002	39.619999	39.619999	276200	
500	2024-09-04	39.360001	39.709999	39.270000	39.450001	39.450001	215300	
501	2024-09-05	39.410000	39.799999	39.279999	39.470001	39.470001	207200	

```
502 2024-09-06 39.490002 39.533001 38.560001 38.639999 38.639999 172500
```

```
      SMA20
0      NaN
1      NaN
2      NaN
3      NaN
4      NaN
..      ...
498 39.764818
499 39.874511
500 39.963212
501 40.071902
502 40.083126
```

```
[503 rows x 8 columns]
```

```
[5]: stocks[["Close","SMA20"]].iplot(theme="solar",
      width=1)
```

```
[6]: fig = px.line(stocks, x='Date', y=["Close","SMA20"], title="SPUS Close",
      ↪template="plotly_dark", height=600, width=1100,color="variable",
      labels={

          "value":"Price"

      })

fig.show()
```

```
[7]: fig = px.line(stocks, x='Date', y=stocks["Close"], title="SPUS Close",
      ↪template="plotly_dark", height=600, width=1100,
      labels={

          "value":"Price"

      })

fig.show()
```

```
[8]: fig = px.line(stocks, x='Date', y=stocks["Close"], title="SPUS Close",
      ↪template="plotly_dark", height=600, width=1100,
      labels={
```

```

        "value": "Price"
    }
)

fig.add_traces(px.line(stocks, x="Date", y=stocks["SMA20"],).data
)

fig.show()

```

```

[9]: fig = px.line(stocks, x='Date', y=["Close", "SMA20"], title="SPUS Close",
    ↪template="plotly_dark", height=600, width=1100, color="variable",
        labels={
            "variable": "QuantTaher",
            "value": "Price"
        })

fig.show()

```

```

[10]: stocks["SMA60"] = stocks["Adj Close"].rolling(60).mean()
stocks

```

```

[10]:
      Date      Open      High      Low      Close  Adj Close  Volume \
0  2022-09-07  26.590000  27.024000  26.530001  27.000000  26.491322   42300
1  2022-09-08  26.870001  27.190001  26.770000  27.115999  26.605139   23400
2  2022-09-09  27.270000  27.670000  27.270000  27.610001  27.089834   30300
3  2022-09-12  27.730000  27.965000  27.730000  27.909000  27.383198   29400
4  2022-09-13  27.500000  27.500000  26.590000  26.620001  26.118488   50500
..      ...      ...      ...      ...      ...      ...
498 2024-08-30  40.540001  40.750000  40.209999  40.740002  40.740002  112300
499 2024-09-03  40.450001  40.450001  39.400002  39.619999  39.619999  276200
500 2024-09-04  39.360001  39.709999  39.270000  39.450001  39.450001  215300
501 2024-09-05  39.410000  39.799999  39.279999  39.470001  39.470001  207200
502 2024-09-06  39.490002  39.533001  38.560001  38.639999  38.639999  172500

```

```

      SMA20      SMA60
0         NaN         NaN
1         NaN         NaN
2         NaN         NaN
3         NaN         NaN
4         NaN         NaN
..      ...      ...
498  39.764818  40.220040
499  39.874511  40.228141
500  39.963212  40.233741

```

```
501 40.071902 40.236348
502 40.083126 40.220298
```

```
[503 rows x 9 columns]
```

```
[11]: fig = px.line(stocks, x='Date', y=["Close","SMA20","SMA60"], title="SPUS_
      ↪Close", template="plotly_dark", height=700, width=1100,color="variable",
      labels={
          "variable": "QuanTaher",
          "value": "Price"
      })

fig.show()
```

```
[12]: from ta import add_all_ta_features
```

```
[13]: from ta.utils import dropna
```

```
[14]: ta_data = add_all_ta_features(
      stocks,
      open="Open",
      high="High",
      low="Low",
      close = "Close",
      volume = "Volume"
    )
```

```
[15]: ta_data
```

```
[15]:
```

	Date	Open	High	Low	Close	Adj Close	Volume \
0	2022-09-07	26.590000	27.024000	26.530001	27.000000	26.491322	42300
1	2022-09-08	26.870001	27.190001	26.770000	27.115999	26.605139	23400
2	2022-09-09	27.270000	27.670000	27.270000	27.610001	27.089834	30300
3	2022-09-12	27.730000	27.965000	27.730000	27.909000	27.383198	29400
4	2022-09-13	27.500000	27.500000	26.590000	26.620001	26.118488	50500
..
498	2024-08-30	40.540001	40.750000	40.209999	40.740002	40.740002	112300
499	2024-09-03	40.450001	40.450001	39.400002	39.619999	39.619999	276200
500	2024-09-04	39.360001	39.709999	39.270000	39.450001	39.450001	215300
501	2024-09-05	39.410000	39.799999	39.279999	39.470001	39.470001	207200
502	2024-09-06	39.490002	39.533001	38.560001	38.639999	38.639999	172500

	SMA20	SMA60	volume_adi	...	momentum_ppo	\
0	NaN	NaN	3.818985e+04	...	NaN	
1	NaN	NaN	5.334399e+04	...	NaN	

2	NaN	NaN	7.455406e+04	...	NaN
3	NaN	NaN	8.994224e+04	...	NaN
4	NaN	NaN	4.277199e+04	...	NaN
..
498	39.764818	40.220040	6.723391e+06	...	0.644041
499	39.874511	40.228141	6.562931e+06	...	0.433986
500	39.963212	40.233741	6.523786e+06	...	0.230453
501	40.071902	40.236348	6.468004e+06	...	0.071992
502	40.083126	40.220298	6.323869e+06	...	-0.219104

	momentum_ppo_signal	momentum_ppo_hist	momentum_pvo	\
0	NaN	NaN	NaN	
1	NaN	NaN	NaN	
2	NaN	NaN	NaN	
3	NaN	NaN	NaN	
4	NaN	NaN	NaN	
..	
498	0.434390	0.209651	-6.721554	
499	0.434309	-0.000323	0.247273	
500	0.393538	-0.163085	2.466051	
501	0.329229	-0.257237	3.741903	
502	0.219562	-0.438666	3.132460	

	momentum_pvo_signal	momentum_pvo_hist	momentum_kama	others_dr	\
0	NaN	NaN	NaN	NaN	
1	NaN	NaN	NaN	0.429627	
2	NaN	NaN	NaN	1.821808	
3	NaN	NaN	NaN	1.082940	
4	NaN	NaN	NaN	-4.618580	
..	
498	-3.877653	-2.843901	40.647250	1.016613	
499	-3.052668	3.299941	40.558161	-2.749148	
500	-1.948924	4.414975	40.454359	-0.429072	
501	-0.810758	4.552662	40.336520	0.050698	
502	-0.022115	3.154575	40.101576	-2.102868	

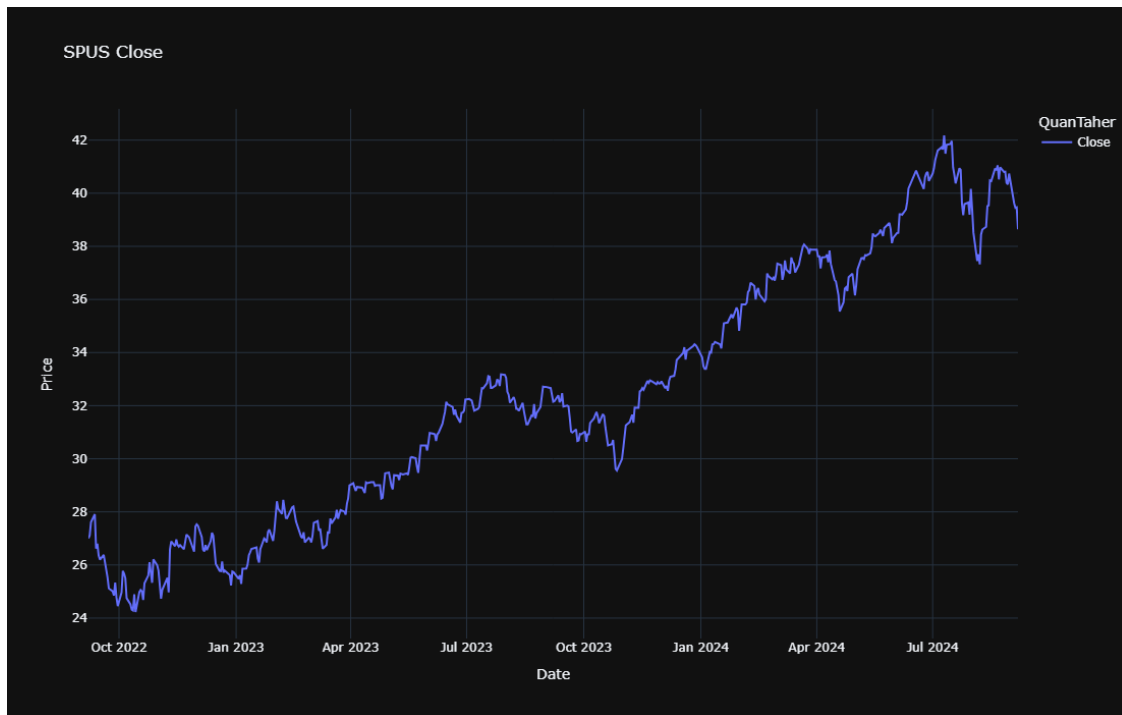
	others_dlr	others_cr
0	NaN	0.000000
1	0.428706	0.429627
2	1.805412	2.259262
3	1.077118	3.366668
4	-4.728639	-1.407404
..
498	1.011480	50.888895
499	-2.787644	46.740737
500	-0.429995	46.111114
501	0.050685	46.185190

502 -2.125293 43.111109

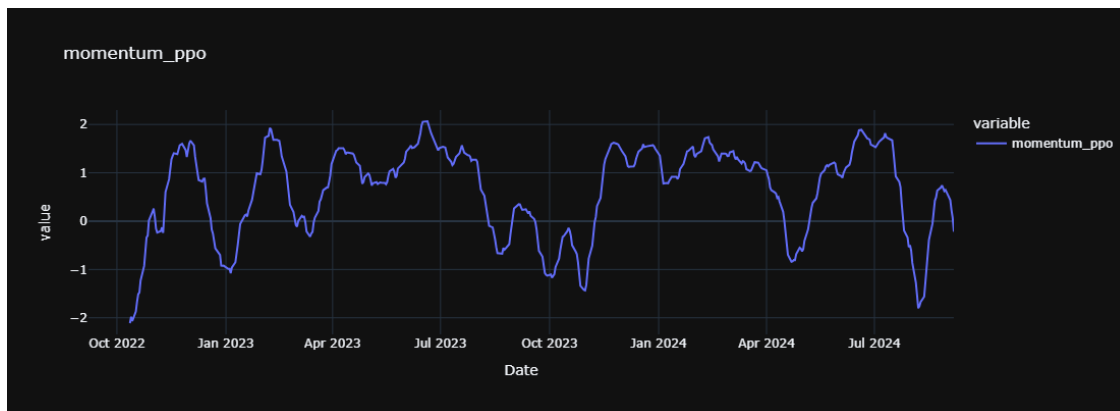
[503 rows x 95 columns]

```
[16]: fig = px.line(ta_data, x='Date', y=["Close"], title="SPUS Close",  
    ↪template="plotly_dark", height=700, width=1100,color="variable",  
        labels={  
            "variable": "QuanTaher",  
            "value": "Price"  
        })
```

```
fig.show()
```



```
[17]: fig = px.line(ta_data, x='Date', y=["momentum_ppo"], title="momentum_ppo",  
    ↪template="plotly_dark", height=400, width=1100)  
fig.show()
```



```
[18]: from plotly.subplots import make_subplots
```

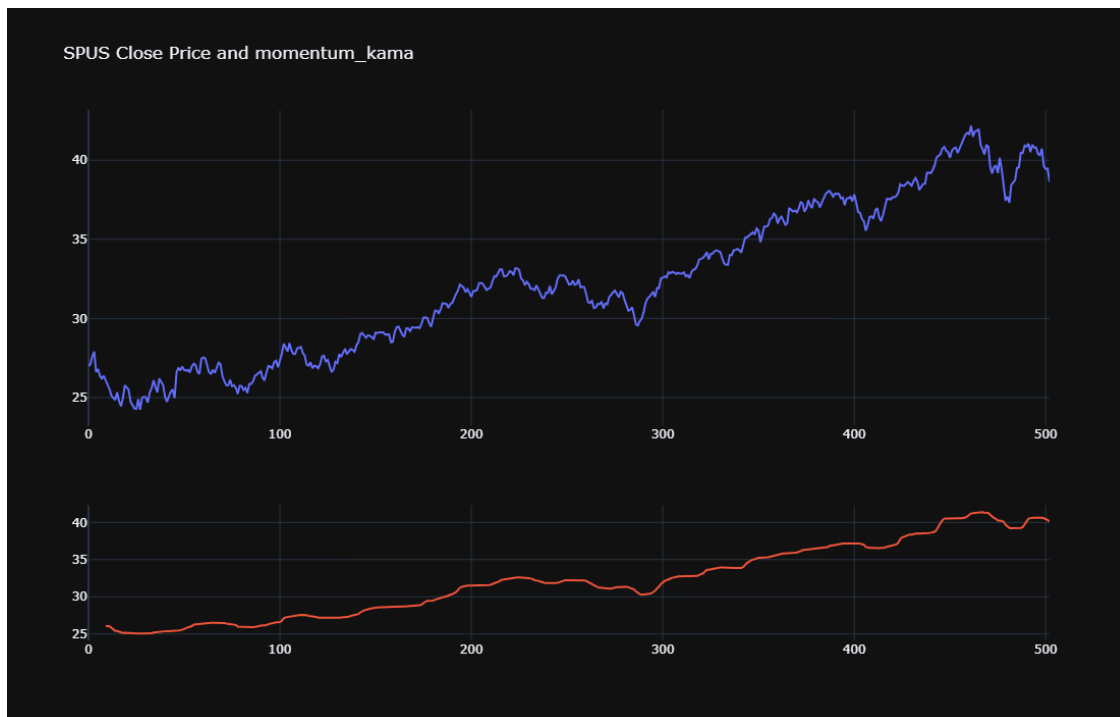
```
[19]: fig = make_subplots(rows=2, cols=1, row_heights=[0.7, 0.3])

fig.add_trace(go.Scatter(x=ta_data.index, y=ta_data['Close'], name='Close'),
               row=1, col=1)

fig.add_trace(go.Scatter(x=ta_data.index, y=ta_data['momentum_kama'],
                           name='momentum_kama'),
               row=2, col=1)

# update layout
fig.update_layout( template="plotly_dark",height=700, width=1100,title="SPUS_
                  Close Price and momentum_kama", showlegend=False,)

# show plot
fig.show()
```

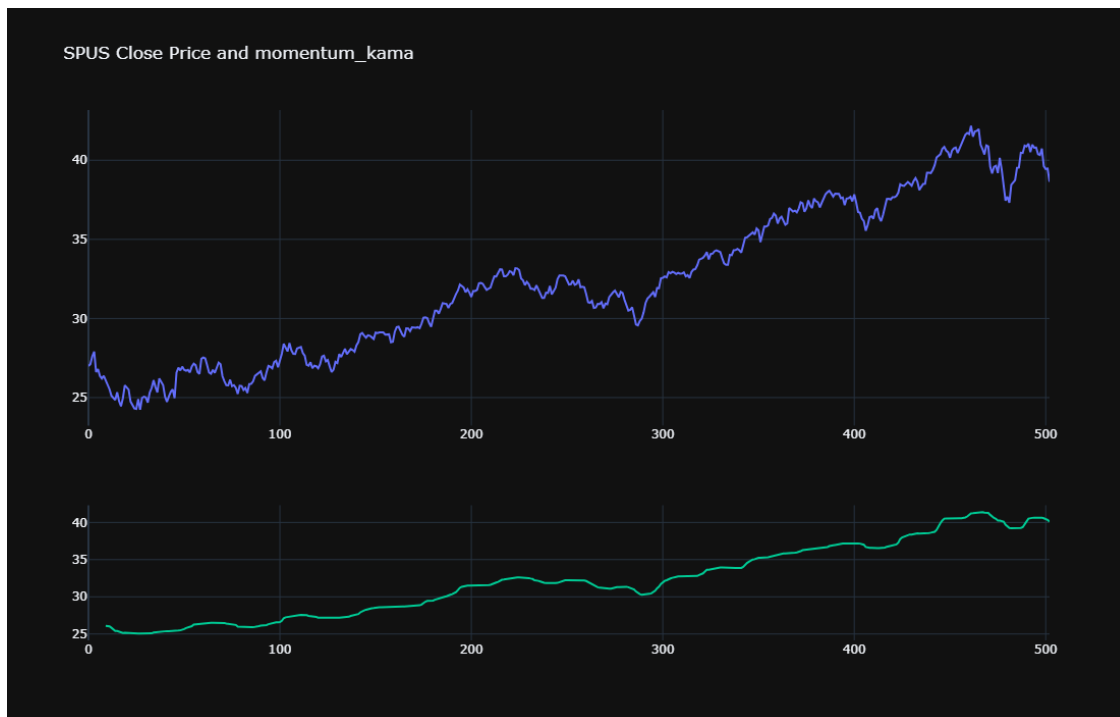
```
[20]: fig = make_subplots(rows=2, cols=1, row_heights=[0.7, 0.3])

fig.add_trace(go.Scatter(x=ta_data.index, y=ta_data['Close'], name='Close'),
                row=1, col=1)
fig.add_traces(px.line(ta_data, x="Date", y=ta_data["SMA20"],).data
)

fig.add_trace(go.Scatter(x=ta_data.index, y=ta_data['momentum_kama'],
↪name='momentum_kama'),
                row=2, col=1)

# update layout
fig.update_layout( template="plotly_dark",height=700, width=1100,title="SPUS_
↪Close Price and momentum_kama", showlegend=False,)

# show plot
fig.show()
```



```
[21]: import ta
```

```
[23]: RSI=ta.momentum.RSIIndicator(ta_data["Close"],window=14)
```

```
[24]: ta_data["RSI"]=RSI.rsi().shift(1)
```

```
[26]: fig = make_subplots(rows=2, cols=1, row_heights=[0.7, 0.3])

fig.add_trace(go.Scatter(x=ta_data["Date"], y=ta_data['Close'], name='Close'),
                row=1, col=1)

fig.add_trace(go.Scatter(x=ta_data["Date"], y=ta_data['RSI'], name='RSI'),
                row=2, col=1)

# update layout
fig.update_layout( template="plotly_dark",height=700, width=1100,title="SPUS_
    ↪Close Price and momentum_kama", showlegend=False,)

# show plot
fig.show()
```



```
[34]: fig = make_subplots(rows=2, cols=1, row_heights=[0.7, 0.3])

fig.add_trace(go.Scatter(x=ta_data["Date"], y=ta_data['Close'], name='Close'),
               row=1, col=1)

fig.add_trace(go.Scatter(x=ta_data["Date"], y=ta_data['RSI'], name='RSI'),
               row=2, col=1)

# update layout
fig.update_layout( template="plotly_dark",height=700, width=1100,title="SPUS_
↪Close Price and momentum_kama", showlegend=False,)

# show plot
fig.show()
```



[44]:

```

-----
TypeError                                Traceback (most recent call last)
Cell In[44], line 3
      1 fig = make_subplots(rows=2, cols=1, row_heights=[0.7, 0.3])
----> 3 fig.add_trace(
      4
      ↳ data = [go.Scatter(x=ta_data["Date"], y=ta_data['Close'], name='Close'),
      5
      ↳ go.Scatter(x=ta_data["Date"], y=ta_data['SMA20'], name='SMA20')]
      6
      8 fig.show()

TypeError: Figure.add_trace() got an unexpected keyword argument 'data'

```

[]: