

1. I chose the below 4 stocks in my main industry of Capital Goods in US as they were traded with no gaps in 2018, the formation period.

Honeywell International Inc. (HON)

Lockheed Martin Corp (LMK)

General Electric Comp (GE)

Eaton Corporation PLC (ETN)

To calculate the distance between the pair of stocks, I used Gatev Distance Formula, $ESD = \sum (SA(t) - SB(t))^2$, where $SA(t)$ is the cumulative return of stock A at time t and $SB(t)$ is the cumulative return of stock B at time t.

I got cumulative return using Adjusted Closing Prices each month for each of the above stocks using the historical data from <https://finance.yahoo.com/>. The distance for each pair is as follows:

Pairs	Distance
HON - LMK	0.0722
HON - GE	0.7079
HON - ETN	0.0120
LMK - GE	0.3888
LMK - ETN	0.0403
GE - ETN	0.6088

The pair of Honeywell International and Eaton Corporation has the lowest distance so that is my selected pair for Capital Goods Industry.

2. I chose the below 4 stocks in my related industry of Electric Power (Utility) in US as they were traded with no gaps in 2018, the formation period.

WEC Energy Group (WEC)
Entergy Corporation (ETR)
NextEra Energy, Inc. (NEE)
Eversource Energy (ES)

To calculate the distance between the pair of stocks, I used Gatev Distance Formula, $ESD = \sum (SA(t) - SB(t))^2$, where $SA(t)$ is the cumulative return of stock A at time t and $SB(t)$ is the cumulative return of stock B at time t .

I got cumulative return using Adjusted Closing Prices each month for each of the above 16 pair of stocks using the historical data from <https://finance.yahoo.com/>. The distance for each pair is as follows:

Pairs	Distance
HON - WEC	0.1423
HON - ETR	0.1891
HON - NEE	0.2044
HON - ES	0.0668
LMK - WEC	0.3785
LMK - ETR	0.4391
LMK - NEE	0.4626
LMK - ES	0.2212
GE - WEC	1.3794
GE - ETR	1.4745
GE - NEE	1.5262
GE - ES	1.0431
ETN - WEC	0.2045
ETN - ETR	0.2535
ETN - NEE	0.2690
ETN - ES	0.1124

The pair of Honeywell International and EverSource Energy has the lowest distance so that is my selected pair for my related Electrical Power (Utilities) Industry.