1.Compute the candidate days

For year 1, (candidate\_day, SSE) from Jan to Dec

[(1, 3774), (5, 2129), (12, 1934), (18, 1725), (3, 4355), (15, 706), (17, 2039), (1, 4032), (6, 1302), (18, 2076), (9, 1414), (5, 824)]

Text

Description automatically generatedAnd this is the P-value for each month, we can tell that all of 12 months have significant change trend.

For year2, (candidate\_day, SSE) from Jan to Dec

[(14, 1901), (10, 5309), (9, 22954), (2, 13913), 'NA', (15, 8329), (14, 5446), (16, 4019), (15, 16401), (5, 16639), (8, 15210), (15, 3927)]

In year2, May is ‘NA” because in that month, the trends is upward thoroughly.

Chart, line chart

Description automatically generated

A screenshot of a computer

Description automatically generated with low confidence Only May has no trend change.

2.How many months exhibits price changes for my stock ticker

For year1, all of 12 months have significant price change.

And for year 2, only May has no significant price change.

Personally, I think this outcome is due to my algorithms. Below is my basic idea about my algorithm.

* Cut the month price into two slices
* Find the regression weight for both these slices
* If the slope1 \* slope2 < 0, it is defined as a trend change.

We can tell that a lot of candidate\_data is index1, which means the slope of P0-P1 has opposite sign from P2-Pn

For example, Year 1 January

Chart, line chart

Description automatically generated

3. Are there more changes in year1 or in year2

Yes, there are one more change in year1 than year2.