How did Covid-19 affect the stock price of Pfizer Inc.?

https://github.com/grayusan/data_analysis_econ_project

Hypothesis

The new demand for Pfizer vaccines dramatically increased as there was need for them, which led to increase the price of Pfizer’s stock price.

There must be a trend of increase in the stock price.

Methods

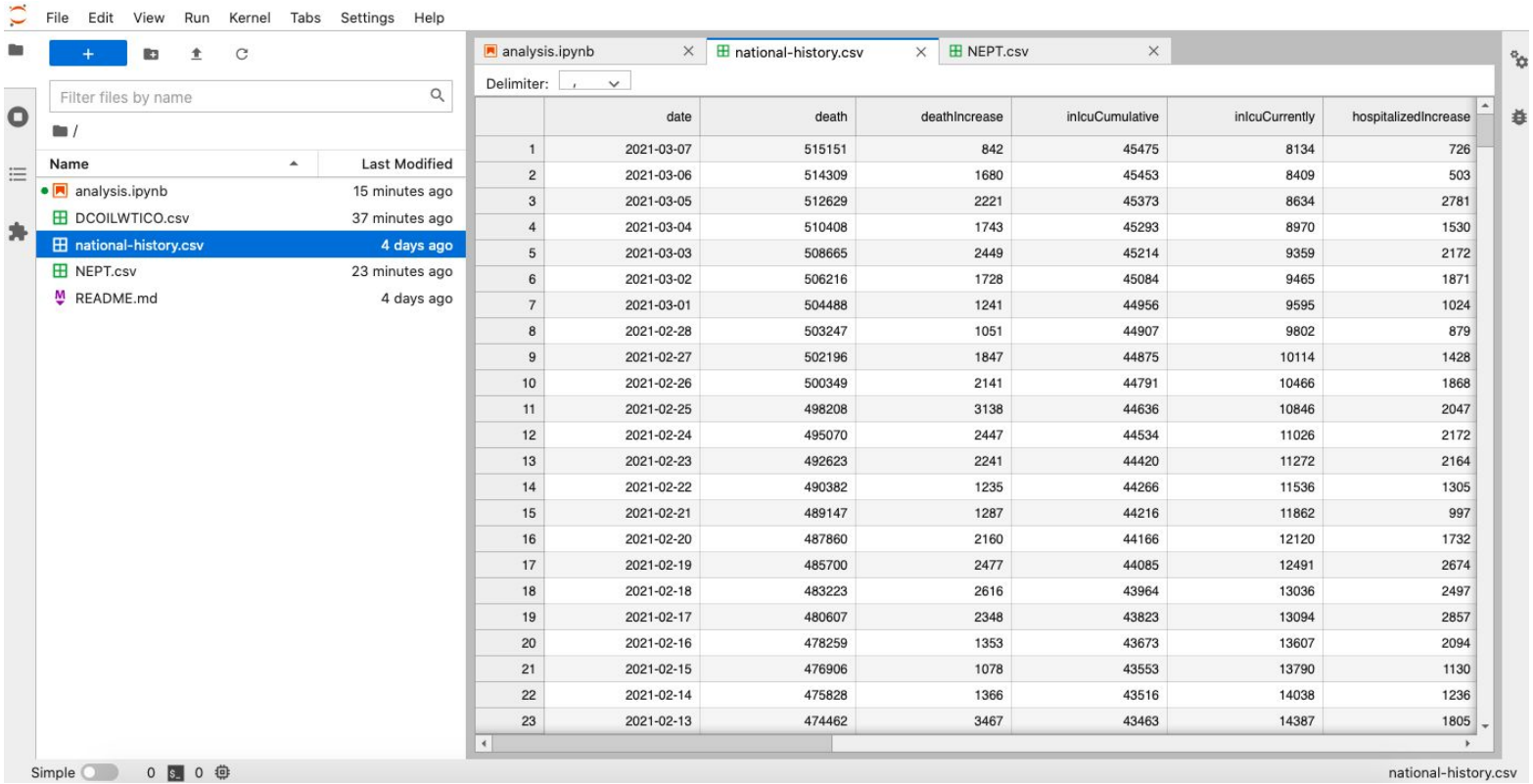
We used Pandas - a common data analysis tool

Datasets: stock prices of Pfizer over time & COVID-19 data of the US

(https://finance.yahoo.com/quote/PFE/history?p=PFE)

(https://covidtracking.com/data/download)

Datasets



	date	death	deathIncrease	inIcuCumulative	inIcuCurrently	hospitalizedIncrease
1	2021-03-07	515151	842	45475	8134	726
2	2021-03-06	514309	1680	45453	8409	503
3	2021-03-05	512629	2221	45373	8634	2781
4	2021-03-04	510408	1743	45293	8970	1530
5	2021-03-03	508665	2449	45214	9359	2172
6	2021-03-02	506216	1728	45084	9465	1871
7	2021-03-01	504488	1241	44956	9595	1024
8	2021-02-28	503247	1051	44907	9802	879
9	2021-02-27	502196	1847	44875	10114	1428
10	2021-02-26	500349	2141	44791	10466	1868
11	2021-02-25	498208	3138	44636	10846	2047
12	2021-02-24	495070	2447	44534	11026	2172
13	2021-02-23	492623	2241	44420	11272	2164
14	2021-02-22	490382	1235	44266	11536	1305
15	2021-02-21	489147	1287	44216	11862	997
16	2021-02-20	487860	2160	44166	12120	1732
17	2021-02-19	485700	2477	44085	12491	2674
18	2021-02-18	483223	2616	43964	13036	2497
19	2021-02-17	480607	2348	43823	13094	2857
20	2021-02-16	478259	1353	43673	13607	2094
21	2021-02-15	476906	1078	43553	13790	1130
22	2021-02-14	475828	1366	43516	14038	1236
23	2021-02-13	474462	3467	43463	14387	1805

Creating datasets

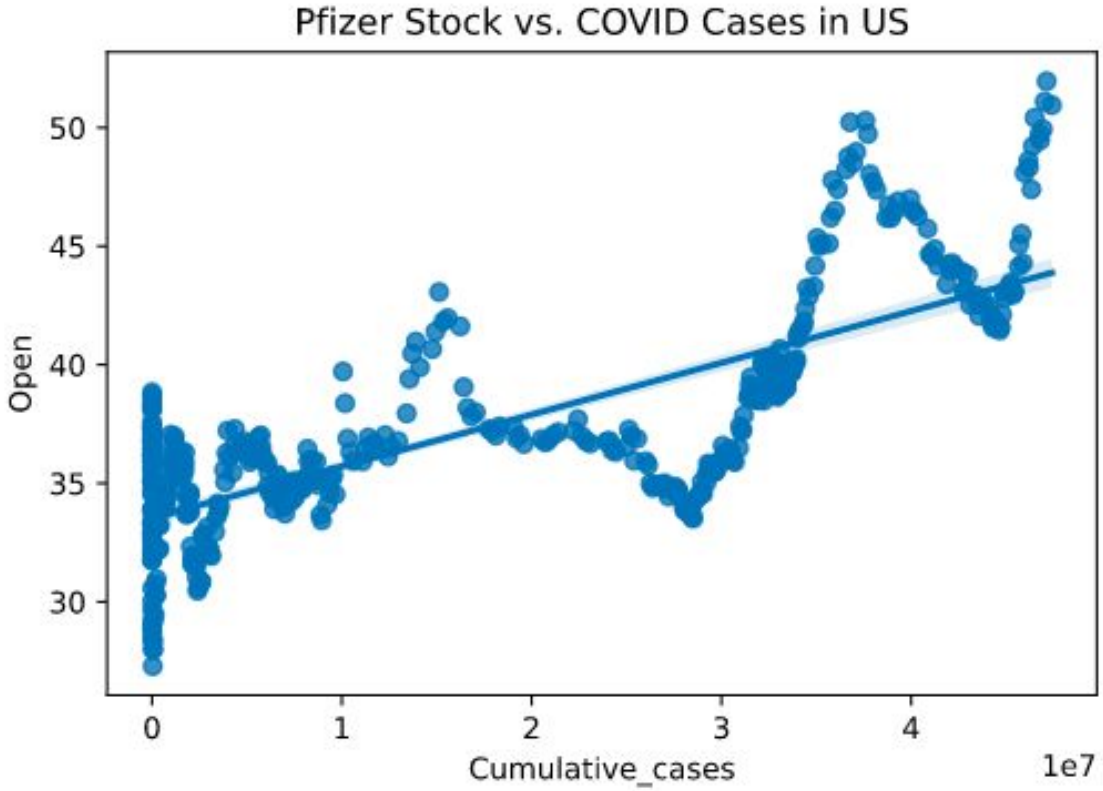
Importing datasets:

```
# oil_prices = pd.read_csv("DCOILWTICO.csv", sep=",")
oil_prices = pd.read_csv("NEPT.csv", sep=",", parse_dates=[0],index_col=0)
covid_data = pd.read_csv("national-history.csv", parse_dates=[0],index_col=0)
```

Merging datasets:

```
# Merge datasets
merged_data = pd.merge(pfe_prices, covid_data, how="inner", left_index=True, right_index=True)
merged_data = pd.merge(merged_data, oil_prices, how="inner", left_index=True, right_index=True)
```

Graphing


Pfizer Stock vs. COVID Cases in US
Open
50
45
40
35
30
0
1
2
3
4
Cumulative_cases
1e7

Analysis

X-axis : Cumulative cases of COVID-19

Y-axis: The stock price

The price increased as there were more cases!