

Background or Abstract

Since the Covid-19 has appeared in early 2020 all over the world, governments around the world commanded individuals, businesses, and nationwide to shut down and limited the people's movement. In such a process, individuals and business lose their work which worsened the global economy. By looking economic situation in the individual sector of the US, we will examine how the economy has worsened.



Figure1. US economy

Research Questions

- 1) Within the past two years (2020 to 2022), how the US economy has been depressed?
- 2) How the US economy would be transformed in the future?

Related Research

There are three research papers related to the US economy compared with the other countries. Focusing and accessing both in micro and macro economic perspective, how the US economy gets affected by COVID-19.

Data

To have data for this research, I will be looking for data at Kaggle or information from the US government site which has been presented in report form. The key usage of these data is to reveal how micro, and macroeconomics interact and how it worsened the US economy.

| iso_code | location | date | total_cases | total_deaths | stringency_index | population | gdp_per_capita |
|----------|-----------------|------------|-------------|--------------|------------------|------------|----------------|
| 0 | AFG Afghanistan | 2019-12-31 | 0.0 | 0.0 | 0.00 | 38928341 | 1803.987 |
| 1 | AFG Afghanistan | 2020-01-01 | 0.0 | 0.0 | 0.00 | 38928341 | 1803.987 |
| 2 | AFG Afghanistan | 2020-01-02 | 0.0 | 0.0 | 0.00 | 38928341 | 1803.987 |
| 3 | AFG Afghanistan | 2020-01-03 | 0.0 | 0.0 | 0.00 | 38928341 | 1803.987 |
| 4 | AFG Afghanistan | 2020-01-04 | 0.0 | 0.0 | 0.00 | 38928341 | 1803.987 |
| ... | ... | ... | ... | ... | ... | ... | ... |
| 50413 | ZWE Zimbabwe | 2020-10-15 | 8055.0 | 231.0 | 76.85 | 14862927 | 1899.775 |
| 50414 | ZWE Zimbabwe | 2020-10-16 | 8075.0 | 231.0 | 76.85 | 14862927 | 1899.775 |
| 50415 | ZWE Zimbabwe | 2020-10-17 | 8099.0 | 231.0 | 76.85 | 14862927 | 1899.775 |
| 50416 | ZWE Zimbabwe | 2020-10-18 | 8110.0 | 231.0 | 76.85 | 14862927 | 1899.775 |
| 50417 | ZWE Zimbabwe | 2020-10-19 | 8147.0 | 231.0 | 76.85 | 14862927 | 1899.775 |

Table1: This is the partial all over the world and NLP comparison of GDP before and after COVID-19.

Preprocessing

- ✓ These are the key steps taken to process the data for analysis and visualization.
1. Turn data into a CSV file.
 2. Clean the data which is in the CSV file.
 3. Based on the purpose of the data, visualize them in a map or graph.

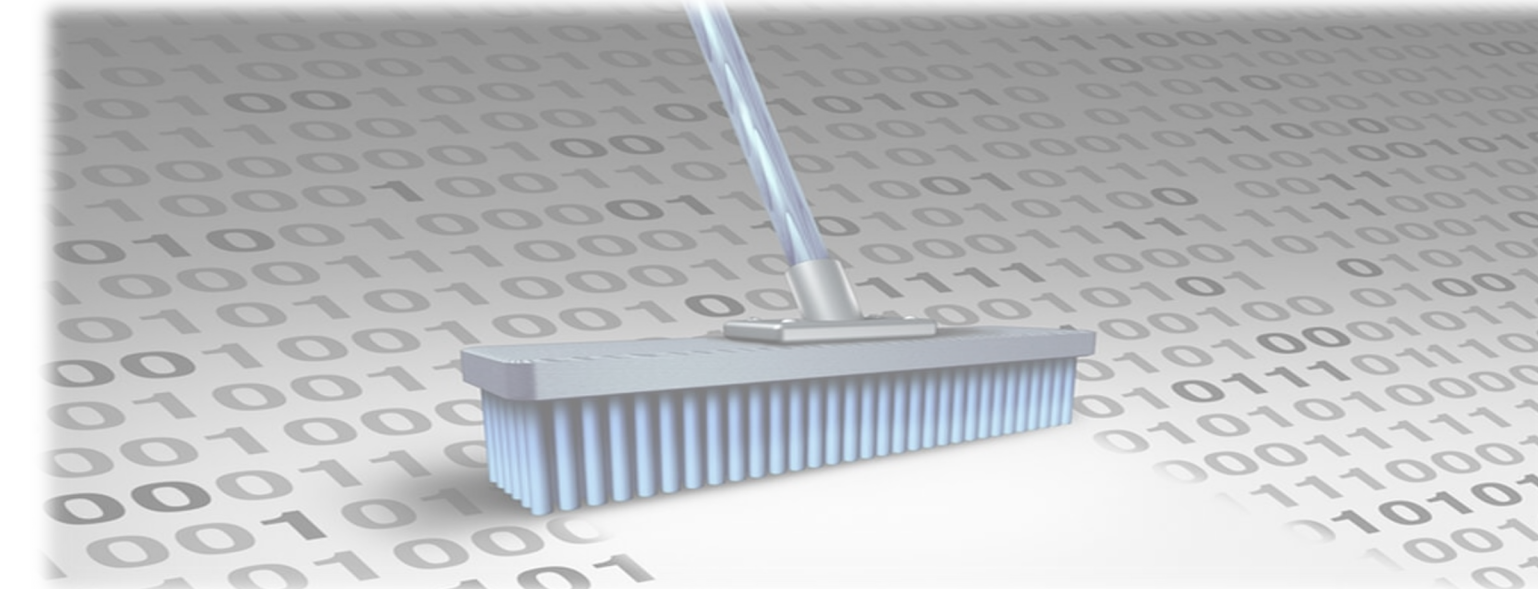


Figure 2. Picture which symbolizes the data cleaning

Methods or Analysis

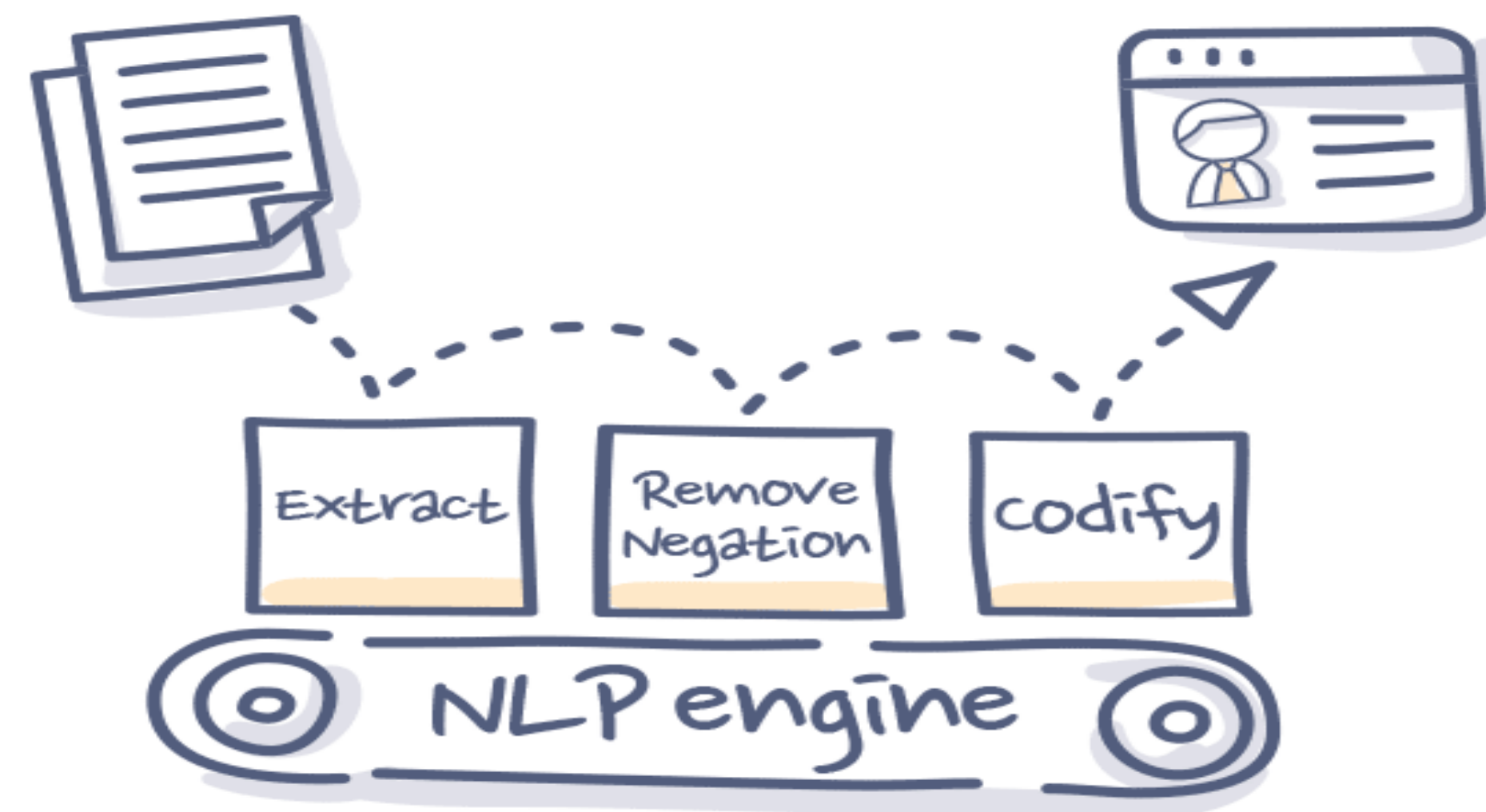


Figure 3. NLP model

Our approach used the following methods to explore and analyze the dataset: Natural Language Processing, Coloring map, and bar graph or line graph to predict the future economy of the US. Also, analyze current and past economic transformation. By doing so, it would enable to predict and advice which improvements are required.

Results

The key charts demonstrating the results are shown below.

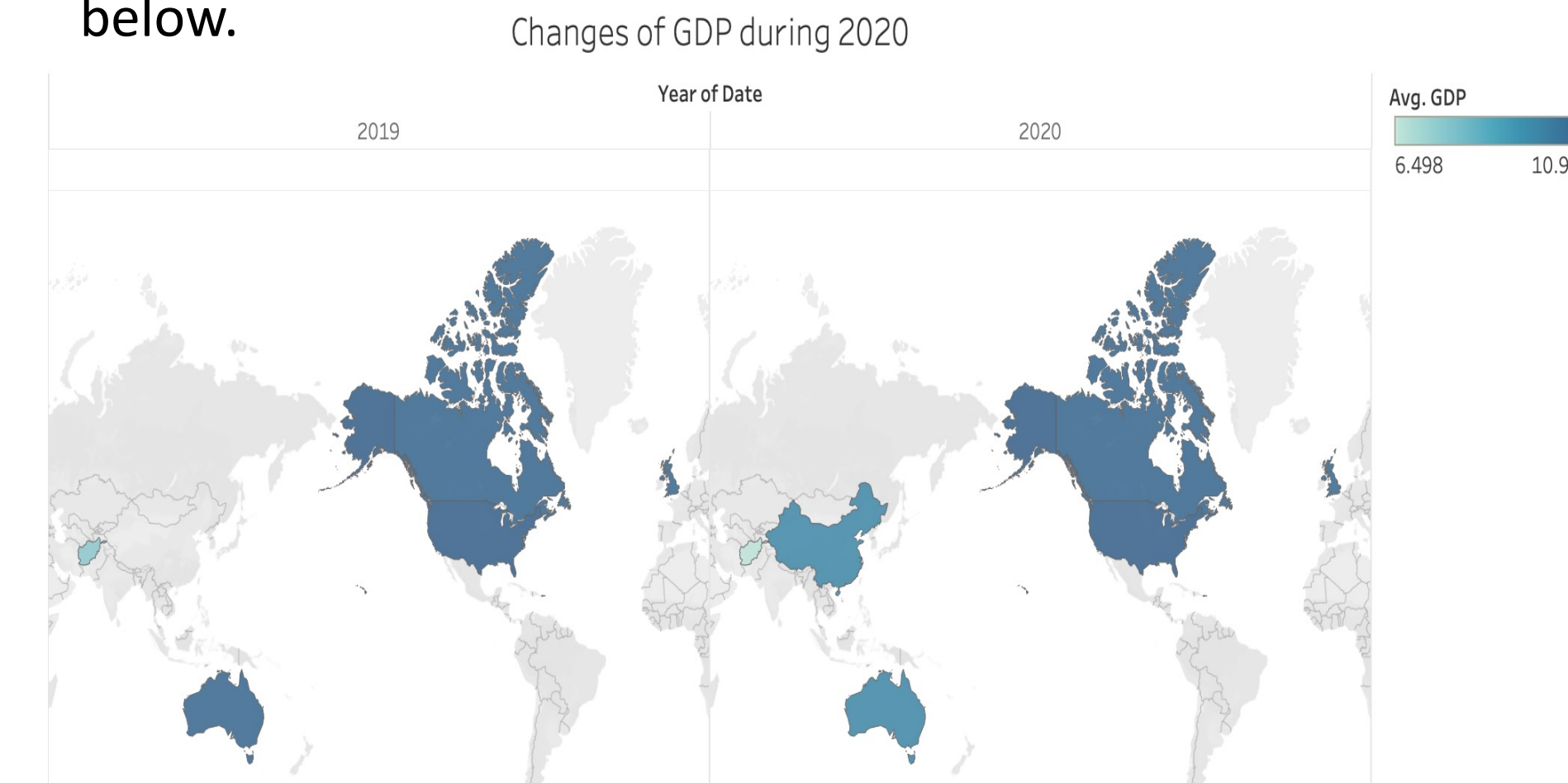


Figure 4. The Economy Index per countries

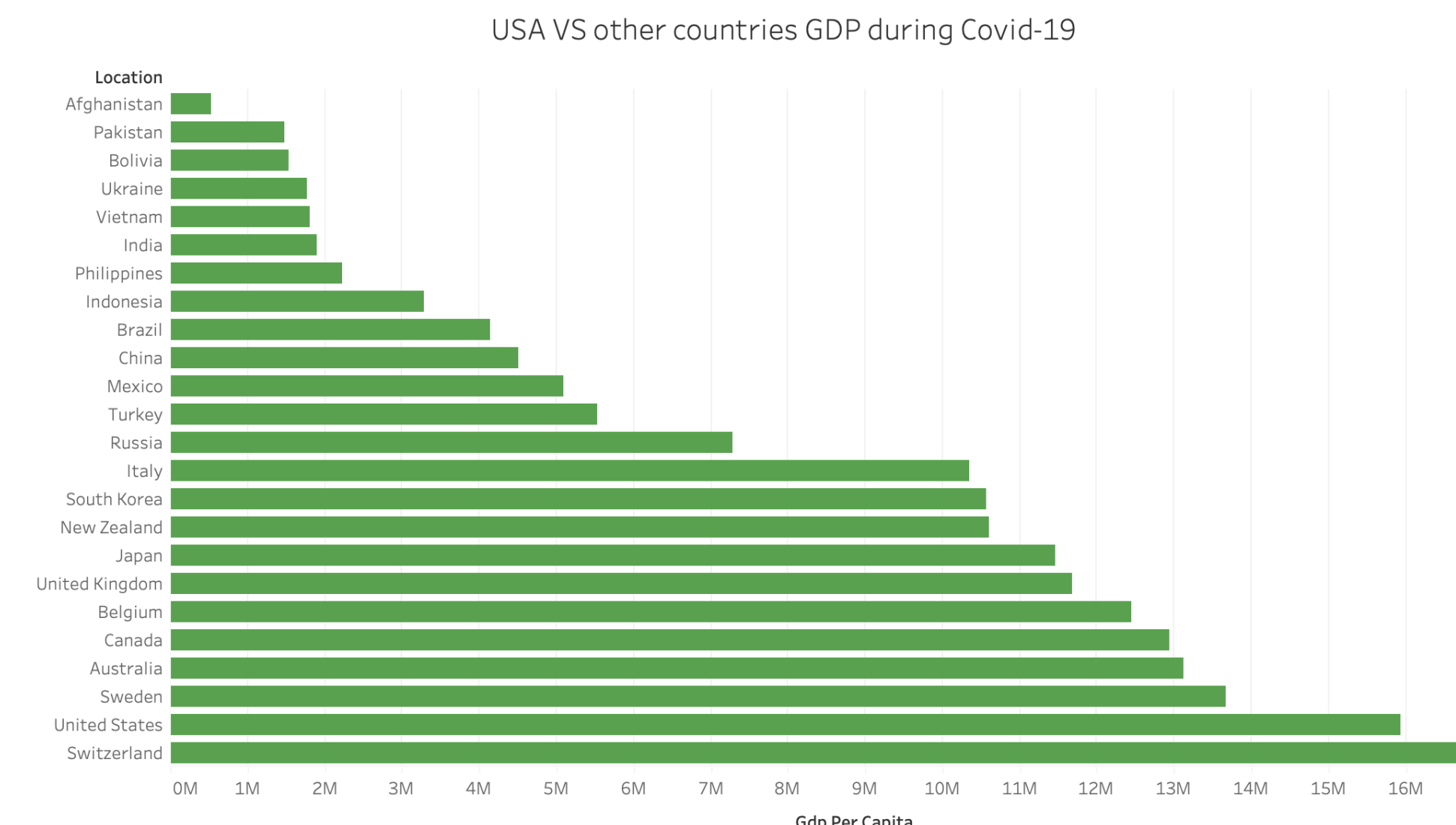


Figure 5. Economic Figure with bar graph

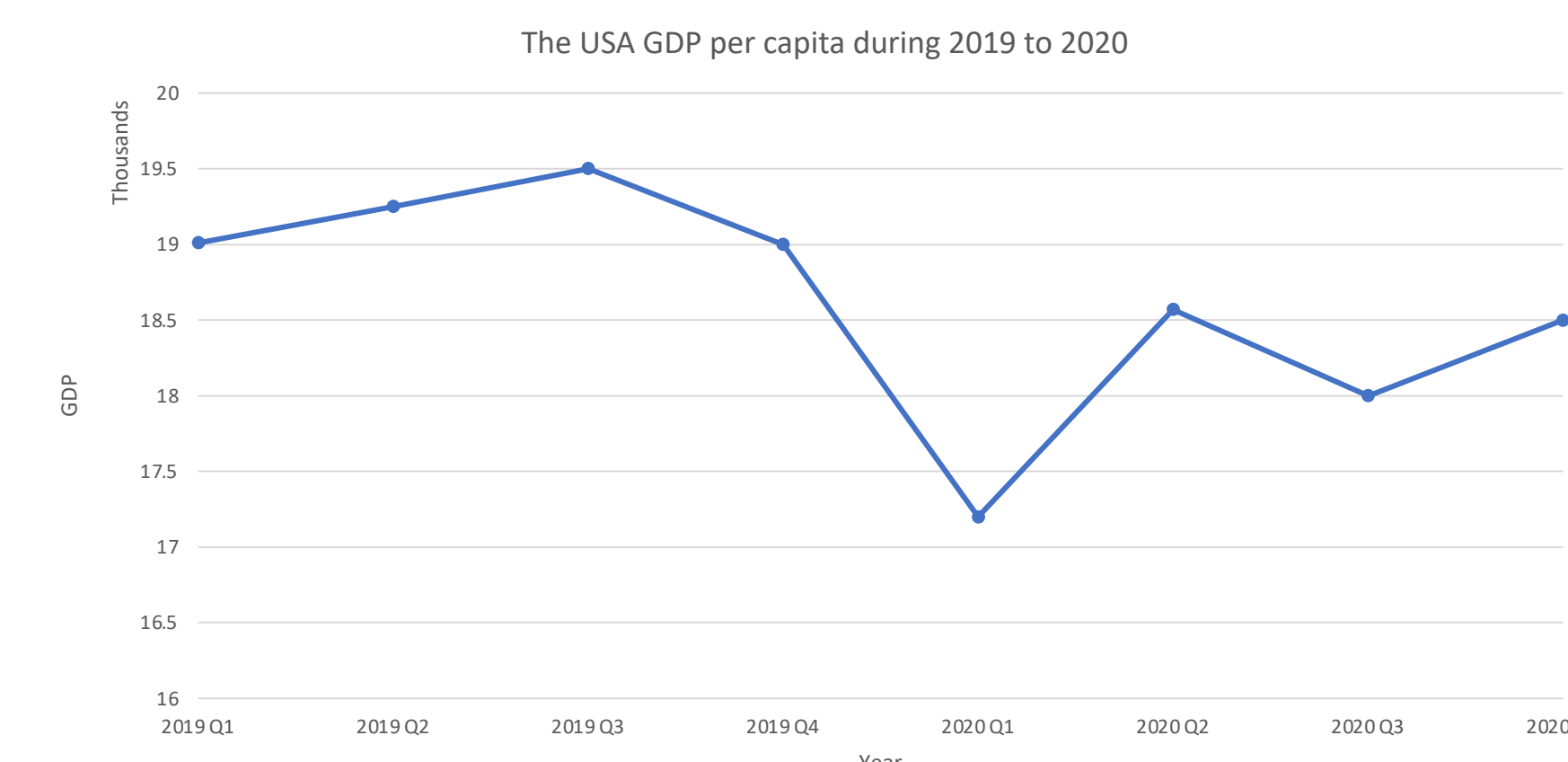


Figure 6. The United States of America GDP during 19-20

Discussion

During the two years after COVID-19 aroused, the overall GDP in the US and other countries was severely affected. The macro and micro economic faces severe crisis, and due to the lockdown, overall productivity and consumer movements have decreased. For that reason, small businesses and careers have disappeared, because of a lack of economic activity. The emergence of government aid did not bring a big effect to boost the American economic situation.

Conclusion

Based on the analysis of the paper and the figures presented in the poster, more active government action is required. Macro and microeconomic are connected, and for that reason, unless people's life is not getting better way, the American economy would not get improved. COVID-19 not only affects the USA but also all around the world. Therefore, actions for cooperation among countries are required to retrieve the economic situation.

Future Work

- I. Analyze government Action
- II. Analyze how this action would affect future economy
- III. Make linear model about the prediction of the USA economy.

References

1. Maital, S., & Barzani, E. (2020). *The global economic impact of COVID-19: A summary of research*. Samuel Neaman Institute for National Policy Research
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5. *World Development Report 2022*. (2022, October 8). Kaggle