

Economic Impacts on Developed Countries During the Pandemic

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Abstract: This essay aims to understand the economic impact of developed countries during the epidemic. Help people answer their curiosity about how the country has been affected by COVID-19. At the same time, Canada's labor market has also suffered unprecedented catastrophe during the pandemic. This article uses data provided by the government to study the impact on the labor market. During the initial pandemic outbreak, employment and unemployment experienced dramatic changes. Among them, this article uses data analysis and examples to increase credibility. During the outbreak of the pandemic, the decline in the CPI index also heralded a sharp decline in consumption by consumers and the country's citizens. At the same time, it also draws on previous experience and data. At the end of the paper, the study found that the pandemic has considerably impacted developed countries. This article uses Canada as an example. The national GDP, unemployment rate, and CPI index are particularly obvious among these.

Keywords: GDP, CPI rate, Unemployment rate, COVID-19

1. Introduction

1.1. Research Background and Motivation

Under the influence of the COVID-19 influenza, various countries have been affected to a greater or lesser extent. The most intuitive impacts closely related to citizens are the closure of government enterprises, community blockades, and corporate layoffs.

So, how has Canada been affected by the pandemic? Studying this topic aims to determine how much impact a sudden influenza outbreak will have on developed countries. Through the data provided by the Canadian government, it was discovered that developed countries have indeed suffered considerable losses due to the impact of influenza. At the same time, the obtained research data will also be presented in the form of images.

1.2. Literature Review

For the country's people, the most apparent anomaly during the pandemic is the price of groceries. For example, prices may experience an unusual surge. The CPI index will also slow down during this period. Generally speaking, it means it is different from the usual growth or decrease [1].

Of course, not only this, but the unemployment rate will also be one of the most straightforward changes to detect because people know whether they still have their previous jobs. According to data provided by the government, within two months of the outbreak of the pandemic in Canada, companies or government departments laid off nearly 20,000 people, which is not all; there may be more people who lost their jobs during this period [2].

1.3. Research Contents

The main research direction of this article is to observe and analyze the gap between Canada's GDP, CPI index, and unemployment rate before, during, and after the epidemic. At the same time, this article will analyze the reasons for these changes. For example, why did the unemployment rate increase during the pandemic? This could be because companies are cutting back on financial spending or for other reasons, but these will be explained below.

2. Economics Analysis

In the past few months, when people stopped working and society stopped functioning, everybody was extremely curious about how much impact this would have on the society's GDP and happiness (Reference comes from national GDP, CPI index, and unemployment rate).

These are also the research objectives that will be carried out below. This paper will focus on Canada. With the help of R studio, the author can make some apparent graphs.

Canada's economy is gradually recovering after enduring the most problematic years of the pandemic. It can be mainly reflected in the decline in the unemployment rate and the increase in GDP per capita.

At the same time, in the following years, this essay will focus on 2016-2018, 2019-2021, and 2022-2023. The purpose of this is to add a reference so that the author can more intuitively observe the state before the start of the pandemic and the impact after the start of the pandemic. This essay added 2022-2023 because this allows for a more comprehensive observation of whether the government's economy is recovering after the pandemic is under specific control. Likewise, what kind of recovery it is and what this essay forecasts for the future are what readers will see below.

2.1. Before the Pandemic

This article will analyze Canada's GDP, CPI index, and unemployment rate before the 2016-2018 pandemic. Firstly, this article will analyze the GDP trends in Canada from 2016 to 2018, as shown in Figure 1.

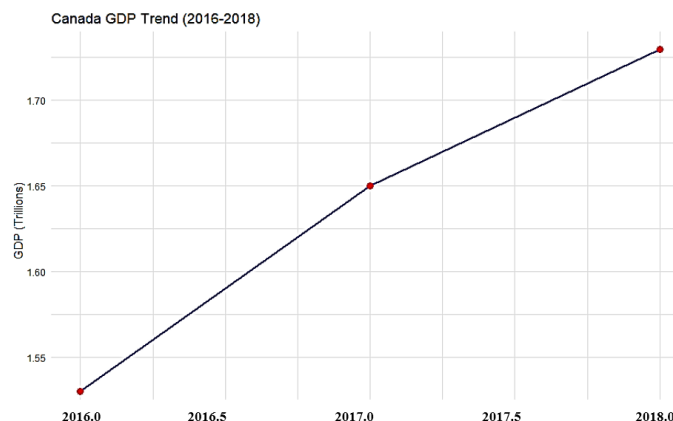


Figure 1: Canada GDP Trend 2016-2018 [3]
Source: World Bank.org

From Figure 1, it is easy to see that before Canada's GDP was affected by the pandemic, its GDP showed a slow but steady growth trend. With some simple calculations, it is easy to determine the growth rate trend from year to year. The annual growth rate of Canada's GDP from 2016 to 2017 was approximately 7.84%, and from 2017 to 2018, it was approximately 4.85%. The average growth rate from 2016 to 2018 was about 6.35%.

Canada's GDP had been on a steady growth trend before the pandemic. Businesses can make more free decisions. Although the elderly population is also gradually growing at this time due to the increasing young immigrant population, the problem of aging is gradually being solved [4].

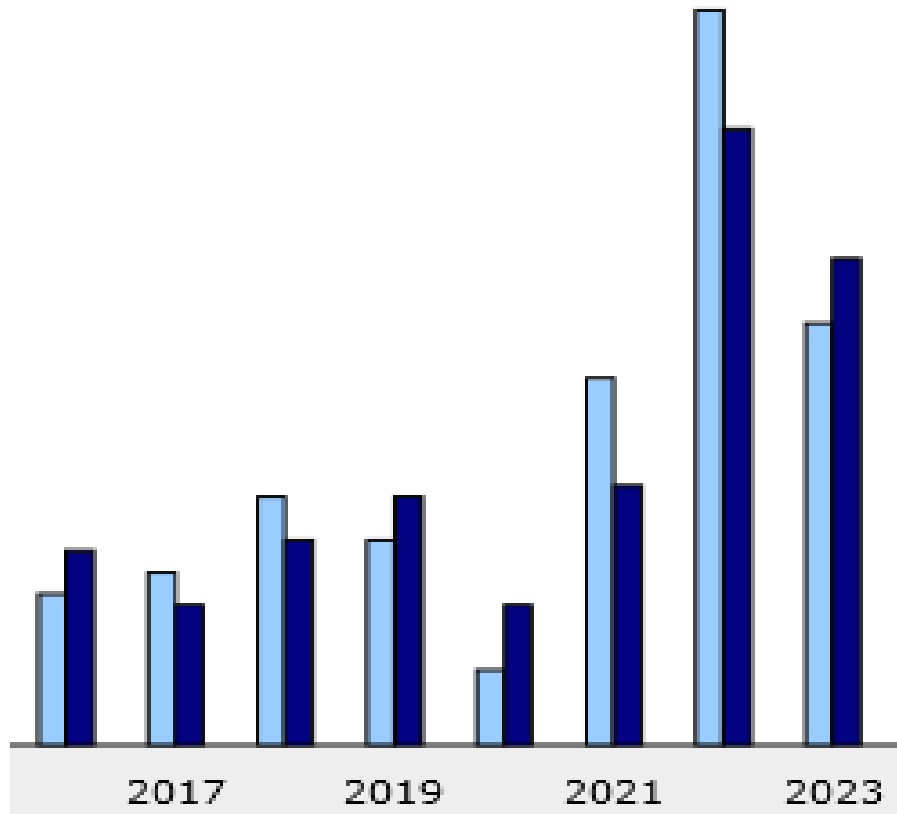


Figure 2: CPI index of Canada from 2016 -2022 [4]

Source: Statistics Canada Table 18-10-0005-01.

Judging from Figure 2, released by the Canadian government, the CPI index has fallen and risen. This is a normal fluctuation. If readers intuitively observe the data from January 2016 and December 2018. The total CPI index in January 2016 was 1.4, while the total CPI index in December 2018 was 2.3. In a relatively healthy economic system, ups and downs are normal.

Next, look at Canada's unemployment rate between 2016 and 2024, before the pandemic hit full force.

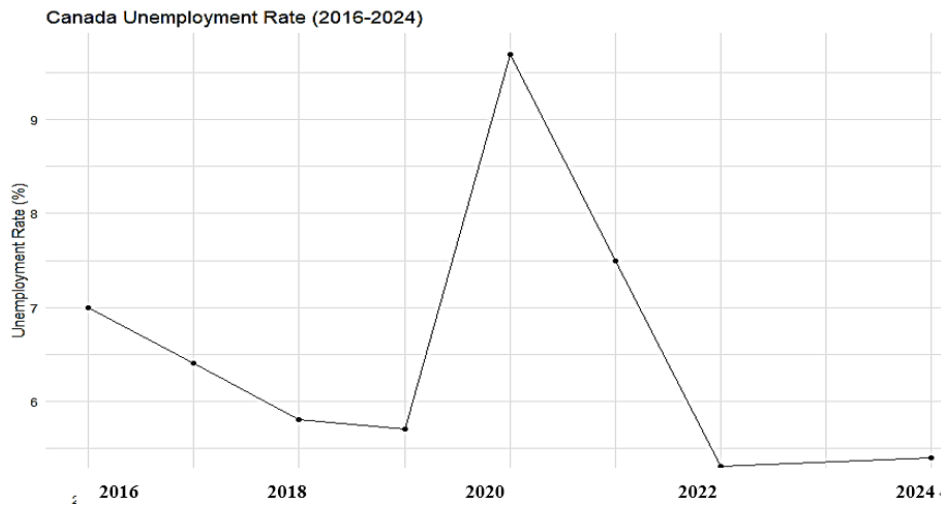


Figure 3: Canada Unemployment Rate From 2016-2024 [5]
Source: Statistics Canada, Labour Force Survey, Table 14-10-0327-01

The data comes from Stats Canada, which is reliable information released by the Canadian government. From Figure 3, readers can see that although the people's unemployment rate decreased slightly from 2018 to 2019, it is within an acceptable range for now. At the same time, a slight increase or decrease is average. It is easy to find that although the unemployment rate and CPI have increased, they are all within the scope of normal fluctuations. Like the stock market, the author cannot accurately predict what will happen in the future, leading to fluctuations. Therefore, slight up-and-down fluctuations are within an expected and acceptable category.

2.2. During the Pandemic

Next, this article will focus on a detailed analysis of Canada's GDP, CPI index, and unemployment rate during the 2019-2021 pandemic. Next, this article will focus on a detailed analysis of Canada's GDP, CPI index, and unemployment rate during the 2019-2021 pandemic. This essay will officially enter 2019-2021, which is the period when the pandemic breaks out. Similarly, this essay will start to analyze the impact of the pandemic from three aspects: GDP, CPI index, and unemployment rate.

First, take a look at the unemployment rate between 2019 and 2021. The author starts with the unemployment rate because it is the most representative of all.

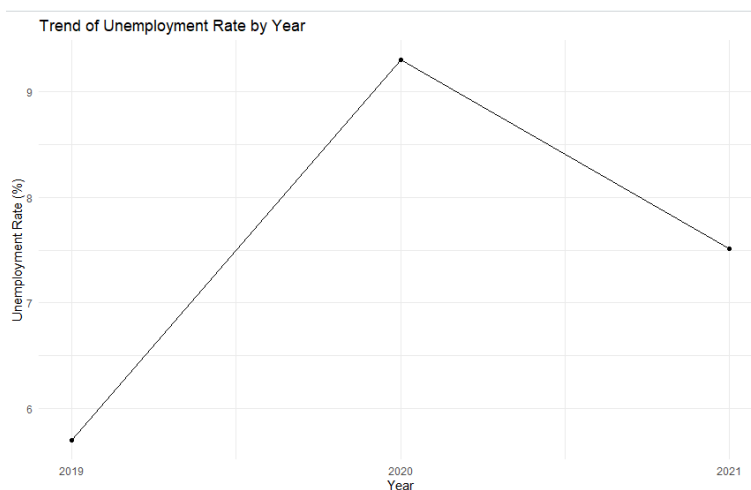


Figure 4: Canada's Unemployment Rate

Figure 4 shows that the unemployment rate increased dramatically during the pandemic, which exceeded people's expectations. This is no longer an average unemployment rate. The last time this happened was during the global financial crisis in 2008.

From a data analysis point of view, Canada's participation rate dropped by approximately 20.2% from peak to trough. This is a vast reduction in the participation rate, and it also means that the unemployment rate of citizens has increased significantly [6].

From the predecessors' research, it is easy to find that they came to the same conclusion as ours. During the pandemic, the economy declined significantly, and this did not only exist in Canada but also worldwide.

In the GDP trend figure (figure 1), readers can see the increase in GDP intuitively, and this paper found that the increase from 2019-2020 and 2020-2021 is wildly exaggerated. The reason is that the last time there was such a sharp decline was during The Great Depression in 2008.

The massive increase in 2020-2021 shows that Canada's economic system is in a state of gradual recovery after the baptism of the pandemic, which is why there has been such a considerable rebound.

Canada's per capita average has decreased by 1.3% per year during the pandemic, while during the pandemic, Canada's per capita trend has been to increase by 1.2% per year. The annual per capita gap of 2.5% has considerably impacted the country. This is true for developed countries and even for developing and poor countries [7].

Table 1: CPI index from 2019-2021

Year	CPI index (%)
2019	1.9
2020	0.7
2021	3.4

Source: Statistics Canada, Table 18-10-0005-01.

This CPI picture shows the severe decline in CPI visible in 2020, the worst pandemic year. This is abnormal. This essay focuses on the nightmare from 2019 to 2020 when the CPI index sharply declined. It fell from the highest point of 1.9 to the lowest point of 0.7. Similarly, there is one essential thing that readers need to know. During the Great Depression in 2008, the lowest point of CPI was only -0.9. In other words, under the influence of the pandemic, the CPI index almost caught up with The Great Depression (see Table 1).

Cars are often a necessity in developed countries. Similarly, the number of gasoline bombs purchased can also reflect changes in people's purchasing power. As the outbreak began, the number of consumers at gas stations plummeted by 40% from February 2020 to April of the same year. In other words, people use cars less or do not go out. However, this can also reflect that people need to go out more to achieve the purpose of controlling the pandemic. However, again, the sharp reduction in demand caused prices to plummet. In April 2020, gas prices fell to 77.8 cents, the lowest since The Great Depression 2008. As people's incomes decrease, they must reduce their purchasing needs to relieve spending pressure [7].

2.3. After the Pandemic

Finally, this article will analyze Canada's GDP, CPI rate, and unemployment rate after the pandemic from 2021 to 2023. Finally, this essay will start to observe and analyze Canada's economic situation after the pandemic is under control.

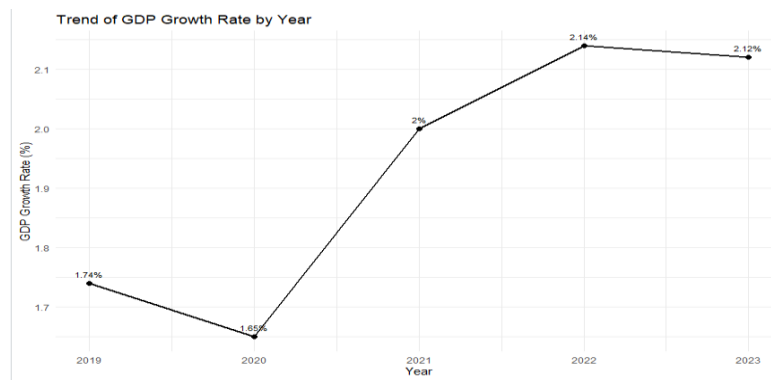


Figure 5: Trend of GDP Growth Rate during 2019-2023

It can be seen that after the pandemic was brought under control, Canada's GDP improved effectively. At the same time, although there are still some slight increases or decreases, they are all under normal conditions (see Figure 5).

The trend of per capita GDP declined by 1.3% yearly during the epidemic, and it only improved once the epidemic was finally controlled [7].

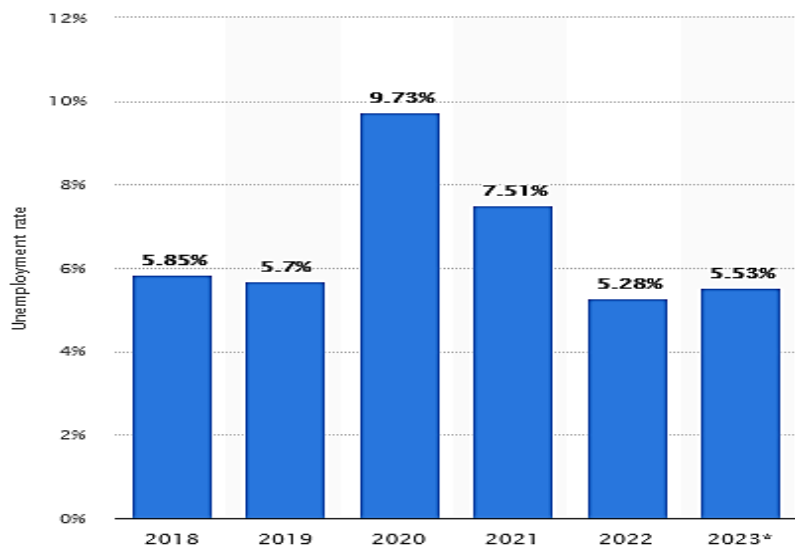


Figure 6: Unemployment Rate Graph

After the pandemic was controlled, people's employment rate also improved. It can be seen that it fell from 7.51% in 2021 to 5.28%, and although it rebounded slightly to 5.53 in 2023, this is all Within the acceptable range[8].

From Figure 6, readers can see that the pandemic is under specific control. Companies are recruiting workers again, and as a result, the unemployment rate has fallen. From 9.73% in 2020 to 7.51% in 2021, they reach 5.28% in 2022. The economic recovery speed of developed countries is beyond imagination [9].

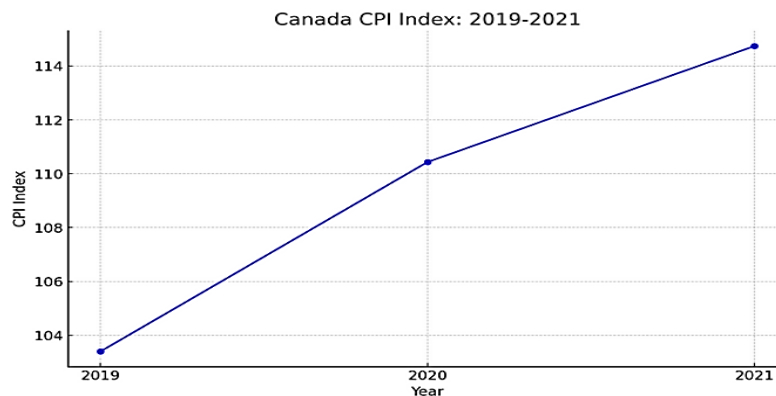


Figure 7: Canada CPI index during 2019-2021

After the post-pandemic CPI index is provided, it is not difficult to find that it is slowly rising. This indicates that people's consumption levels are slowly rising. This is because the CPI index symbolizes the total consumption of the country's people. The rising CPI index means that people's consumption habits have begun to recover, and economic income has increased (see Figure 7).

After the pandemic was controlled, this article found that Canada's exports increased by 13% compared to before. Secondly, item prices have also increased by 21% compared to before the pandemic. Of course, the price of imported goods in Canada also increased by 3%. These are all signs that Canada's economy is gradually improving or even better than before the pandemic [10].

3. Suggestion

Government departments should provide more training jobs if the government wants to control unemployment and increase per capita GDP growth. Improve employee skill levels so more employees can enter better positions and produce more high-quality content.

At the same time, the government can reduce the opportunity cost of employee learning. This aims to provide more employees with better learning opportunities to qualify. Not only that, but the government's financial department can also provide more loans, tax incentives, etc., to small and medium-sized enterprises.

The benefit of doing so is encouraging the free development of more small and medium-sized enterprises. These small and medium-sized enterprises are significant contributors to employment. An increase in the employment rate of the people will lead to better per capita GDP. It can even reduce crime rates.

4. Conclusion

The primary purpose of this paper is to study the impact and development process of developed countries before, during, and after the pandemic. This article takes Canada as an example and researches different aspects with per capita GDP, CPI index, and unemployment rate as targets.

However, this paper does not apply to non-developed countries and is based on the different conditions of different countries. Non-developed countries are likely to have more severe impacts under the pandemic. It is speculated that developing or poor countries may have more serious economic impacts, but this paper. There is no substantial evidence to support this speculation. This is also an obvious flaw of this paper. This paper sincerely hopes to be helpful to future articles with the same research direction. This help can be in the direction of research data or data analysis.

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