# The Impact of the Epidemic on the Economy

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Abstract: In early 2020, COVID-19 swept the world, and the impact of the epidemic was very large all over the world. Through qualitative and quantitative investigation, this paper conducted an in-depth investigation on the impact of the epidemic on people. Through the comparison of GDP and Engel coefficient before and after the epidemic, it is found that the economy was in a declining stage after the outbreak of the epidemic, and people's living standards also declined with the spread of the epidemic, reversing the trend of continuous improvement in previous years. The questionnaire and interview summarized the views of different Chinese people on the epidemic and expressed their practical views. The impact of the pandemic on people's lives is mainly through both indirect effects on the economy and direct effects on people's lives. There is no denying that the epidemic has had a huge negative impact on people's lives. Only by controlling the development of the epidemic can the impact on people's lives be minimized in a real sense. Although the development trend of the epidemic is still not clear, it has been controlled in general, and the future economic development and people's living standards will also turn the decline into a rise.

*Keywords:* COVID-19, economy, people's livelihood, GDP, Engel coefficient

#### 1. Introduction

In 2019, COVID-19 swept across the world, halting the pace of rapid global development. Due to the epidemic, many people had to stay at home and avoid going out. At the worst, even in bustling cities, there were few pedestrians and passing cars on the road, which turned into an "empty city". As a result, some brick-and-mortar stores, such as stores, enterprises, and units, are facing bankruptcy and closure due to the greatly reduced number of consumers and the inability of their facade to work properly during the pandemic. Without consumption, domestic demand cannot be boosted, and economic development will be affected to a large extent. In addition to the impact on the economy, in terms of politics, with the attack of the epidemic, countries have also introduced many corresponding policies, and the control of the epidemic has cost a lot of manpower, material resources, and financial resources. Some even changed the political policy altogether. In addition, in terms of culture, due to the outbreak of the epidemic, many concerts and other activities that many people like to attend have been canceled, because the concentration of people will accelerate the spread of the epidemic, which greatly reduces the development and construction of culture! Whether in the economy, politics, or culture has caused a great impact on people's lives, in addition to this, all over the world, all walks of life are hugely impacted by the outbreak, under the outbreak, all industries are facing the risk of 5-10 years development, backward era, but the outbreak of these countries and

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industries must be under hit refreshed again, combined with the developments and social situation, Make up for the negative impact of the epidemic and move forward again. The epidemic has greatly affected people from all walks of life and all aspects.

This paper mainly studies the impact of the epidemic on the economy.

### 2. Literature Review

Since 2019, countless sociologists have conducted exhaustive research and investigations on the impact of the pandemic on people across the globe, continents, countries, and even regions. Sociologists believe that the impact of the epidemic on people is mostly negative, which brings a lot of inconvenience to people's lives and slows down the degree of social development.

First up is Xiao, a scientist from China, who has analyzed the impact of the pandemic on education in China, where students cannot go back to work or school during the pandemic. Some university dormitories have been temporarily requisitioned as wards for COVID-19 patients. Offline courses are not feasible for a variety of reasons, bringing unexpected changes to education. Through the analysis of the latest policy news and relevant data, Xiao reviewed the development of education under the epidemic situation in the past and predicted the development trend of education in China under the normalization of the epidemic situation in the future. He believed that openness would be the trend and education would be less and less affected by the epidemic situation [1]. In addition to the analysis of a certain field, there is also a lack of analysis of the impact of individual cities on people under the epidemic. In 2022, Wang used crawler technology to obtain the Weibo data related to the Shanghai epidemic released by users, preprocessed the captured Weibo, and selected the BosonNLP sentiment dictionary for attitude classification. Chinese vocabulary ontology was used to classify 21 emotions. The results show that the general attitude of the Shanghai public is positive. The fluctuation is large in the early stage and gradually increases in the later stage [2]. Combined with several studies on China under the epidemic situation, the public's confidence in the national governance of the epidemic is mostly positive, and most people yearn for openness.

In the world, there are a lot of social scientists have conducted in-depth research on this. They conducted a wide survey of how different professions have been affected by the outbreak. Different professions have been affected by the pandemic. For example, in Nakisa's 2021 study of the impact of the pandemic on athletes, regular and professional training for soccer players was canceled under the circumstances. Changes in training frequency, volume, intensity, and other characteristics may lead to fitness detraining, which will have adverse effects on their career, including changes in physiological characteristics and performance [3]. At the same time, the COVID-19 pandemic is a great threat to people's life, health, and safety. A correct understanding of the basic situation of the COVID-19 epidemic is the premise for scientific treatment and effective prevention. The impact of COVID-19 on sports is as follows: (1) From the perspective of physical education, the epidemic prevents people from improving their physical fitness, sports skills, morals, and willpower; (2) At the level of competitive sports: the postponement or cancellation of the events caused by the epidemic broke the inherent training plan of athletes and posed challenges to competitive athletes, especially older athletes, in terms of physical maintenance, technical and tactical development, and mental state; (3) Mass sports: When people engage in mass sports during the epidemic, the experience of entertainment, physical and mental effects and feelings of skill improvement are expected to be decreased. The impact of COVID-19 on health is as follows: (1) Physical health: the spread of COVID-19 in various ways makes healthy people infected with the virus, and causes them to develop uncomfortable symptoms such as fever, dry cough, fatigue, and even dyspnea in severe cases; (2) Mental health: the negative impact of the epidemic on people's mental health is mainly reflected in negative emotions such as stress, anxiety and worry; (3) Social adaptation: the epidemic makes it difficult for people to adapt to their environment and deal with daily affairs; (4) Moral health: during the epidemic, people can abide by relevant regulations, regulate their own behaviors, and reduce the chance of infection with each other while protecting themselves, so people's moral health is increased due to the outbreak. However, for those who work in health-related fields, Given the very limited evidence regarding the impact of interventions to tackle mental health problems in HCWs, the risk factors identified represent important targets for future interventions [4].

In addition, some studies have investigated the impact of enterprises in different industries on the degree of distress in the pandemic. Taking Indonesia as an example, this paper provides a comprehensive analysis of the impact of the COVID-19 pandemic on business strategy, information technology, and supply chain agility of the medical device industry in Indonesia. The analysis was performed using structural equation modeling (SEM) with the AMOS program. The study had 171 respondents. The study found that business strategy, information technology, and supply chain agility had a positive and significant impact on business performance during the COVID-19 pandemic. The practical implications are that business strategy and information technology can save companies and society by involving supply chain flexibility to secure medical equipment supply in Indonesia. It is recommended that further research not only focus on medical devices but also consider larger or different areas to elicit different responses. The results provide guidance for enterprises to adopt business strategies, information technology, and supply chain agility to improve enterprise performance [5].

In addition to the direct impact of the epidemic on people's lives, the epidemic has also had an indirect impact on people through its impact on the economy. There have been numerous reports investigating the economic impact of the pandemic, including, and not limited to its impact on the stock market. This report from Feyisa's 2020 investigation of the pandemic shows that the general objective of this contemporary review is to prepare the bases for a future solution by collecting and analyzing the results of previous articles and contextualization their needs. The result of the review depicts the significant actual and projected impacts of COVID-19 on major macro-economic variables like economic growth, unemployment, and poverty level. Besides, the review also reflects the sectoral impacts of COVID-19 on the manufacturing, service, trade, tourism & aviation, and education sectors of the world economy [6].

## 3. Research Methods

As for research methods, this paper will mainly use quantitative research and qualitative data collection methods to conduct an in-depth investigation of the research object of this paper: the impact of the epidemic on people. In terms of quantitative research, GDP of China, various regions in China, and countries around the world will be selected as the primary data for quantitative analysis, to assess the impact of the epidemic on the economy and people's livelihood under the epidemic [7]. In addition, use the Engel coefficient of people in various countries and regions before and after the epidemic for comparative analysis. The Engel coefficient is an important indicator reflecting people's quality of life. Such comparative analysis can provide a clearer and intuitive understanding of the changes in people's living standards before and after the epidemic. As for the research methods of qualitative data collection, the paper will mainly study the methods of survey and interview [7]. Distributing questionnaires with open-ended questions is more conducive to a wider understanding of real public opinion. Moreover, based on the survey results of the questionnaire, targeted groups will be selected for further interviews. In this way, it can be concluded that that population sampling has the particularity and representativeness of the population and have a deeper understanding of different people's views on the epidemic and their life changes before and after the epidemic [10-12]. These two research methods can analyze the questions from both quantitative and qualitative perspectives, to have a more comprehensive and authentic understanding of the real impact of the epidemic on people.

#### 4. Results

Analysis starts by comparing Gross Domestic Product (GDP) data before and after the pandemic. The GDP of China, the United States, and Europe are mainly compared. GDP growth from 2019 to 2021 cannot simply be used as a basis for comparison to illustrate the impact of the pandemic on the two economies. This is not reasonable. China's economic growth rate should be much higher than that of the United States and Europe. So here the study use the gap between actual and potential growth to estimate the actual impact of the pandemic on three economies: China, the US, and Europe.

First, estimate what normal GDP growth would have been without the pandemic.

After the financial crisis, from 2010 to 2019, the annual GDP growth rate of the United States basically fluctuated around a horizontal line, with a high of 3%, a low of less than 2%, and an average of 2.3%. It can be assumed that there is a potential GDP growth rate of 2.3% in 2020-22 without the pandemic.



Figure 1: GDP in United States.

After the financial crisis, the euro area suffered a financial crisis again in 2012, but it was basically a relatively stable horizontal line. From 2010 to 2019, the average GDP growth rate of the euro area was 1.4%. It can be assumed that there is a potential GDP growth rate of 1.4 percent in 2020-22 without the pandemic.



Figure 2: GDP in Europe Area.

However, the situation in China is different. Since 2010, China's annual GDP growth rate has been on a downward trend. As an economy's GDP per capita increases, its GDP growth rate will gradually decline, eventually reaching the 2% level in line with developed countries. So, it makes perfect sense for China's GDP growth rate to go down. If use the growth rate data from 2012 to 2018 as the forecast fit, it can be probably deduced that China's potential GDP growth rate in 2020-2022 without the pandemic is 5.80%, 5.65%, and 5.51%, respectively. The figure is also in line with the country's target of 5.5% GDP growth in 2022.

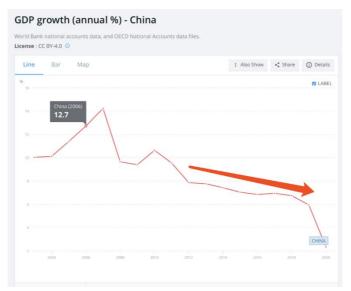


Figure 3: GDP in China.

By comparing the real GDP development of the three major economies in 2020-2022 under the pandemic, it can be easily concluded that the global economy is in a downturn under the impact of the pandemic. The GDP growth rate of China, the US, and Europe under the actual pandemic is 2.5%, 2.4%, and 3.0% lower than the predicted value respectively. The US and European economies are all experiencing unprecedented negative growth, except for China, which is one of the few large economies in the world that has managed to maintain growth despite the pandemic.

The impact of the epidemic on the global economy is very significant, but the impact can be relatively reduced in a country with good epidemic control, such as China. The epidemic situation was basically positively correlated with international economic development from 2020 to 2022.

Due to the overall economic downturn, the change of Engel's coefficient of residents in the three economies are also investigated. China's Engel's coefficient increased from 28.2 percent in 2019 to 30.2 percent in 2020 and then dropped to 29.8 percent in 2021. This indicates that the impact of the epidemic in 2020 had a greater impact on the lives of Chinese people, and when the epidemic became normal, life gradually got back on the right track and stepped back into the development channel of decreasing Engel's coefficient.

Then, a questionnaire about Chinese people's perception of outbreaks is designed and handed out, a total of 64 valid questionnaires, through the analysis of the respondents to answer, it found that most Chinese people all think that outbreaks the normalized in the process of development, but the normalized management also give their life brings a lot of conveniences, all the respondents are asked to score the impact of the epidemic on their lives (the higher the score, the more severely affected by the epidemic). After analysis, the overall score was 2.7 (out of 5). Some special interviewees are interviewed for the second time, including a student studying in China and a white-collar worker working in China. They think that the epidemic has increased their burden. They need to worry about

the control of the epidemic while completing their studies and jobs, and often worry that they will be isolated and controlled because of the epidemic. At the same time, online courses and online conferences will also bring them a lot of trouble, depriving them of a lot of their own free time. They think the epidemic has brought a lot of impact on their lives, but the negative impact is more.

### 5. Discussion

Through comparative analysis of GDP and Engel's coefficient of various countries before and after the epidemic, as well as issuing and collecting questionnaires and conducting interviews, quantitative research and qualitative data collection methods were used to study the following subjects: The impact of the epidemic on people has been deeply investigated, and it is found that the impact of the epidemic on people is relatively serious in general [13-15].

Economically, most economies have been hit by the pandemic, and the GDP growth rate is much lower than expected or even negative. At the same time, different stages of the epidemic have also caused different impacts on the economy. This shows that the impact of the epidemic on the global economy is uncertain. Different epidemic prevention and control policies in different countries will affect the impact of the epidemic on the economy. In general, the impact of the epidemic on the economy is positively correlated with the local epidemic control. The Engel coefficient, an important index of people's happiness, also showed a positive correlation with GDP, indicating that the economy is the basis of people's quality of life, and the impact of the epidemic reduced people's quality of life to a certain extent.

Secondly, the questionnaire and interview to be able to show at the grassroots people's lives are affected by the outbreak, in China, people think the outbreak had a moderate effect on life, and major is given priority to with negative impact, affecting all aspects such as study, work, also bring to life a lot of conveniences.

#### 6. Conclusion

The impact of the pandemic on people's lives is mainly through both indirect effects on the economy and direct effects on people's lives. There is no denying that the epidemic has had a huge negative impact on people's lives. Only by controlling the development of the epidemic can the impact on people's lives be minimized in a real sense.

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