A Research Report on the Comparison of Macroeconomic Regulation and Control between the United States, Europe and China under the Global COVID-19

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Abstract
In early 2020, the outbreak of Coronavirus not only brought losses to China's economic development, but also caused economic slump worldwide, and governments around the world adopted various macroeconomic policies to revive the economy. This paper analyzes the economic situation of China and the United States and Europe during the epidemic period, and the macroeconomic control policies adopted by the government, and anti globalization in the US and Europe. Finally, some suggestions are put forward for China.

Keywords
Novel coronavirus; America; Europe; China; Macroeconomic regulation and control.

1. INTRODUCTION
Beginning at the Spring Festival of 2020, China's novel coronavirus pneumonia epidemic [1] [2] has spread in Wuhan, and then spread rapidly to the whole country. Up to now, the epidemic has been erupting worldwide. The outbreak of Novel coronavirus pneumonia damaged the economic development of many countries, so taking measures for us and Europe to regulate and control macroeconomic policies are more important.

2. OVERVIEW OF MACROECONOMIC POLICIES
2.1. Definition of Macroeconomic Policy
Macroeconomic policy [3] [4] means that the state or government consciously and systematically use certain policy tools to adjust and control the operation of macro-economy in order to achieve certain policy objectives. Macroeconomic policy is divided into fiscal policy and monetary policy.

2.2. Macroeconomic Policy Objectives
In the open economy, the government's macroeconomic policy objectives are mainly four parts: economic growth, price stability, full employment and balance of payments. Macroeconomic policy should not only achieve internal equilibrium, that is, to stabilize currency. It is also necessary to achieve external equilibrium, namely, to maintain balance of payments in order to achieve economic growth and full employment.
3. GLOBAL ECONOMIC SITUATION

The World Bank forecast GDP in every countries in 2020 and 2021. The world's GDP will be -5.2 in 2020. American GDP will be -6.1 in 2020. Europe GDP will be -9.1 in 2020. GDP will be 1 in 2020 in China. It is obvious that the outbreak of the new crown pneumonia has brought great impact on the global economy, and the predicted value of GDP has decreased significantly compared with the previous year, and the global economy has entered the bottom of the business cycle.

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019e</th>
<th>2020f</th>
<th>2021f</th>
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<tbody>
<tr>
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<td>2.4</td>
<td>-5.2</td>
<td>4.2</td>
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<tr>
<td>United States</td>
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<td>-6.1</td>
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<tr>
<td>Euro Area</td>
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<td>1.2</td>
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<tr>
<td>China</td>
<td>6.8</td>
<td>6.6</td>
<td>6.1</td>
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<td>6.9</td>
</tr>
</tbody>
</table>

4. COVID-19'S ECONOMIC SITUATION IN CHINA

Source: national database

**Figure 1.** CPI data in 2020

Source: statistical database of China economic network

**Figure 2.** Unemployment rate of urban survey (%)

121
Table 2. China’s import and export trade volume in 2020
Source: statistical database of China economic network

<table>
<thead>
<tr>
<th>Index</th>
<th>Export amount (USD)_Current period</th>
<th>Import amount (USD)_Current period</th>
<th>Total import and export (USD)_Current period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>China</td>
<td>China</td>
<td>China</td>
</tr>
<tr>
<td>Frequency</td>
<td>month</td>
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<tr>
<td>Unit</td>
<td>USD100mn</td>
<td>USD100mn</td>
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</tr>
<tr>
<td>2019-11</td>
<td>2214.46</td>
<td>1842.63</td>
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</tr>
<tr>
<td>2019-12</td>
<td>2386.4</td>
<td>1913.32</td>
<td>4299.72</td>
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<tr>
<td>2020-03</td>
<td>1851.79</td>
<td>1652.99</td>
<td>3504.78</td>
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<tr>
<td>2020-04</td>
<td>2002.34</td>
<td>1549.01</td>
<td>3551.34</td>
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<tr>
<td>2020-05</td>
<td>2068.13</td>
<td>1438.87</td>
<td>3507</td>
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As can be seen from Figure 1, in the early January of the outbreak of the epidemic, there was slight inflation in China. The consumer price index in January was 105.4% compared with the same period last year. Then the consumer price index in February, March, April and May decreased gradually, and it dropped to 102.4% in May. However, from the perspective of unemployment rate, the average urban unemployment rate in 2019 is 5.15%, and the average urban unemployment rate in 2020 is 6%. By contrast, the urban unemployment rate in 2020 is nearly 1% higher than that in 2019. It shows that the rise of unemployment rate and economic recession. At the same time, China is still a country with trade surplus. Generally speaking, China’s situation is economic recession and trade surplus.

5. CHINA’S MACROECONOMIC POLICY

First, from a global perspective, the global economic growth rate has dropped sharply or even negative growth due to the outbreak of COVID-19 in 2020. The global economy is at the bottom of the economic cycle and has entered the economic recovery stage. China should also adjust its economic cycle, vigorously support economic development, adopt expansionary fiscal policy [5] and expansionary monetary policy [6].

From our own point of view, according to the coexistence of economic recession and trade surplus [7] during the epidemic period in China, theoretically speaking, to the economic recession, we should adopt expansionary monetary policy, for example, reducing interest rate which can stimulate economic growth, demand and employment. Reducing interest rate also leads to capital outflow, so trade surplus may also turn into balance which is conducive to external equilibrium. We should also adopt expansionary fiscal policy, support weak industries with funds, expand the budget and so on, which can also improve the national economy. The following are the specific practices of expansionary fiscal policy and expansionary monetary policy implemented during the epidemic period in China.

5.1. Expansionary Monetary Policy

Interest rate reduction: the people's Bank of China authorized the national interbank lending center to announce that the loan market quotation rate (LPR) on March 20, 2020 is: 1-year LPR is 4.05%, and LPR over 5 years is 4.75%. After April 20, 2020, the quoted interest rate (LPR) of loan market decreased to 3.85% in one-year period and 4.65% for LPR over 5 years.

Reverse repo operation: in order to maintain the reasonable and sufficient liquidity of the banking system, the most recent reverse repo operation was 100 billion yuan which carried out by the people's Bank of China on June 12, 2020 in the form of interest rate bidding.

Decreasing the reserve ratio of deposits: from the beginning of 2020 to May, the capital released will increase to 1.75 trillion yuan. Through decreasing the reserve ratio of deposits, it
meets the liquidity demand of the special time point of the banking system, increases the support for small and medium-sized and micro enterprises, and reduces the social financing cost.

Loan extension and supporting credit loan: According to the government work report, the policy of deferring the repayment of principal and interest of loans to small and medium-sized micro enterprises will be extended to March 31, 2021, in which the loans to inclusive small and micro enterprises should be extended as long as possible, and the loans to other enterprises in difficulties should be extended through negotiation. At the same time, the people’s Bank of China has created a credit loan support plan for inclusive small and micro enterprises, providing 400 billion yuan of refinancing funds. It can effectively alleviate the difficulty that high cost of financing for small, medium and micro enterprises.

China has adopted a series of expansionary monetary policies to promote economic recovery.

5.2. Expansionary Fiscal Policy

The effect of fiscal policy on internal equilibrium is greater than that on external equilibrium. The goal of achieving internal equilibrium and external equilibrium is allocated to fiscal policy and monetary policy respectively.

Growth of budget expenditure: this year, China’s general public budget expenditure reached 24785 billion yuan, an increase of 3.8%, focusing on ensuring the three major battles, expanding domestic demand, increasing investment in the field of basic people’s livelihood, and enhancing the ability of grass-roots financial support.

Tax and fee reduction: this year, we will increase tax reduction and fee reduction efforts on small and medium-sized enterprises, individual businesses and enterprises in difficult industries; reduce the comprehensive financing guarantee rate of enterprises, and extend the policy of reducing the electricity price of industry and Commerce by 5% to the end of the year. It is estimated that more than 2.5 trillion yuan’s fee or tax will be decreased to the market for the whole year.

Ensuring people’s Livelihood: this year, the basic pension of retirees will be increased by 5%, the financial subsidy standard for per capita medical insurance of residents will be increased by 30 yuan, and the central government will allocate 148.4 billion yuan for the needy.

Issuance of special bonds: since 2020, the Ministry of finance has issued in advance a quota of 1.29 trillion yuan for some new special bonds in 2020. As of March 31, all localities have issued 1.08 trillion yuan of new special bonds, accounting for 84% of the new quota, with a year-on-year growth of 63% [8].

6. EPIDEMIC SITUATION AND ECONOMIC SITUATION IN THE UNITED STATES AND EUROPE

6.1. Epidemic Situation

The number of people infected by novel coronavirus pneumonia is more than 2 million 120 thousand in the United States till now. And the number of deaths is 116 thousand. The number of people infected by novel coronavirus pneumonia is more than 2 million 280 thousand in Europe till now. And the number of deaths is over 184 thousand.

6.2. Unemployment

as of May 30, the number of Initial jobless claims [9] in the United States has reached 1.877 million. In March 2020, the unemployment rate in the euro area will rise to 7.4%, and the number of unemployed will increase to 12.156 million.
6.3. Overall Situation

The serious epidemic situation in the United States and Europe has brought a serious blow to the economy. The United States and European countries rely on the development of the service industry. The service industry in the United States accounts for about 80% of the total economy, while the service industry in France, Germany and the United Kingdom accounts for about 70% of GDP. The service industry in the United States and Europe is basically a pillar industry. However, due to the epidemic, people should keep a certain distance from each other and try not to go out. There is also a substantial increase in the number of unemployed people who don't have enough income to support consumption, which has seriously hit the service-oriented industry. Service consumption in the United States and Europe is sluggish [10].

7. MACRO ADJUSTMENT POLICY TOOLS AND POLICY TRENDS IN THE UNITED STATES AND EUROPE

Theoretically, according to the U.S. dollar cycle, the U.S. dollar "smile curve", during the epidemic period, the U.S. economy was hit so the U.S. will release more dollar, expecting to reverse the cycle. At the same time, it can be predicted that the U.S. dollar exchange rate will decline in the short term, and the U.S. interest rate and exchange rate will rise in the long term. In fact, this will lead to a gradual decline in people's confidence in the US dollar and an outflow of capital.

7.1. The U.S. Macro Adjustment Policy

the expansionary monetary policy of the United States is to cut interest rates by 50 basis points on March 3 and 100 basis points on March 15, and launch a US $700 billion quantitative easing plan. The expansionary fiscal policy measures of the United States include giving aid funds to enterprises in difficulty, and extending the tax payment period, etc.

7.2. Macro Adjustment Policies in Europe

European monetary policy is also to cut interest rates. So far, there is basically no room for interest rates to fall. Europe's expansionary fiscal policy measures include the April 9th European Union finance ministers' meeting agreeing to provide a 540 billion euro large scale aid plan against COVID-19, [2].

Table 3. Exchange rate and number of transactions between dollar and RMB in 2020

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<thead>
<tr>
<th>Data source: China monetary network</th>
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<td>currency</td>
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<td>April</td>
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<td>May</td>
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7.3. The Trend of Anti Globalization in America and Europe

Reasons for anti globalization: in the process of globalization, developed countries such as the United States and Europe continue to transfer manufacturing industry to developing countries, resulting in hollowing out of manufacturing industry, unemployment of many industrial workers, and widening gap between the rich and the poor. It is also because globalization damages the interests of the middle and lower classes, resulting in anti globalization demands of public opinion. At the same time, another reason is that the developed countries such as the United States and Europe bear most of the responsibilities of international
public goods, but the United States often has a deficit in international trade. The imbalance between the benefits and costs makes them feel anti globalization.

![Figure 3. Exchange rate of US dollar to RMB in 2020](image)

Anti globalization performance: during the severe epidemic period, many countries put forward restrictive measures on the production and sales of medical equipment, etc., and the US Department of commerce also issued a series of new regulations in the first half of 2020 to restrict some export plans, including restricting the supply chain of Huawei semiconductor. This kind of protectionism promotes the trend of anti globalization. There is also a trend of anti globalization in EU countries, which is mainly reflected in anti immigration and questioning of European integration policies. On January 30, 2020, the EU officially approved brexit, and on January 31, the UK officially left the EU [11].

### 7.4. The Scientific and Technological Strength of the United States and Europe Supports the Economy

Science and technology is the primary productive force, and the role of scientific and technological innovation in promoting economic development has been placed in an important position by many countries. Even during the epidemic and economic recession, the United States, Europe and other countries still put forward many policies to promote the development of science and technology. Similarly, according to “horizon 2020”, the research level will increase by 3% by 2020 [12].

### 8. THE IMPACT OF AMERICAN QUANTITATIVE EASING POLICY ON CHINA

Under the influence of the epidemic, the United States adopted an expansionary fiscal policy and again launched a $700 billion quantitative easing program, that is injecting more money into the circulation field. This will have an impact on China. Here is an introduction to the path of the impact of quantitative easing on China’s domestic liquidity.

First, stabilize the European and American economies, increase the risk preference of international capital, and make capital flow to emerging economies. Second, the increase of US dollars in circulation will lead to the decline of US dollar index, the rise of commodity prices, and the increase of US dollars flowing into China through foreign trade, which will lead to imported inflation. Third, the decline of the dollar index may lead to appreciation of the RMB, which will lead to arbitrage and capital inflow into China.
It will lead to the increase of foreign exchange reserves in China, and the necessity of reducing the statutory reserve ratio will be reduced.

9. COMPARISON OF MACRO CONTROL POLICIES BETWEEN THE UNITED STATES, EUROPE AND CHINA

Generally speaking, the United States, Europe and other countries are responding to the epidemic and recovering their economies. The most prominent features of monetary policy are quantitative easing, interest rate reduction and increasing the number of banknotes printed, while China is not. China adopts reverse repurchase to increase market liquidity. In terms of fiscal policy, the United States, Europe and China will adopt the way of subsidies to enterprises to restore the economy, including reducing taxes and fees for enterprises. The Chinese government has also issued a large number of special debts to reduce the deficit. In addition, the United States and Europe will take some protective measures to increase trade barriers. China will actively safeguard the situation of globalization and help other countries through difficulties.

10. SUGGESTIONS

10.1. Enhance the Strength of Science and Technology

China must establish a perfect national innovation system and improve independent innovation and R & D capabilities. During the outbreak of novel coronavirus pneumonia, the United States issued new regulations to restrict some export plans, including restricting the use of American patent technology in the world, which almost caused HUAWEI, a leading state-owned enterprise in China, be in a predicament. China must enhance its technological strength and avoid such a situation that it is restricted by foreign technology.

10.2. Helping Enterprises Purposefully

In the outbreak of novel coronavirus pneumonia, the extent of infection in different industries is different. We should provide consistent support for different enterprises in the same industry. At the same time, we can make full use of big data to analyze and judge different industries, and help them more purposefully.

10.3. Stabilizing Industrial Chain and Supply Chain

In the anti globalization trend [13] of thought set off by the United States and Europe and other countries, some countries, for their own interests, implement protectionism, increase trade barriers and take anti globalization measures, which may affect the global industrial chain and supply chain, and may have adverse impact on China. China proposes "stabilizing the industrial chain and supply chain", accelerating the efficiency of supply chain recovery in the short term. We should improve our strength and maintain the trend of economic globalization.

10.4. Avoiding Excessive Government Intervention

The market is an invisible hand, and the government is a tangible hand. We should try to make the financial field work according to the market principle. Although we should help the enterprises in the industry damaged by the epidemic, we should not intervene excessively. We should help the enterprises with strong technology, progress and ability.

REFERENCES


