The Impact of China's Policies during the Covid-19 on the Chinese Economy

Jian Zhao*
Department of Mathematics, University College London, London, 2HE484, UK
* Corresponding Author Email: ZCZLJ51@ucl.ac.uk

Abstract. China faced significant challenges to its economic growth due to the emergence of the novel coronavirus in December 2019, resulting in a record-low increase in GDP for 2020. To mitigate the virus's spread, the government implemented stringent measures, leading to unprecedented losses in production levels and rising unemployment. However, China's economic recovery displayed resilience, with GDP growth in 2021 expected to be one of the highest in recent years. State-driven investments and domestic demand played key roles in this recovery. Despite the pandemic's impact on industries like restaurants, tourism, and exports, the government introduced stimulus policies to foster economic recovery. These policies included tax reductions, consumption vouchers, and the promotion of digital currency adoption. This paper provides a comprehensive analysis of the effectiveness of these policies in driving China's economic recovery amidst the COVID-19 pandemic. The tax reduction policies supported businesses and consumers, while consumption vouchers stimulated post-pandemic spending in catering and retail industries. Additionally, the adoption of digital currency, particularly the digital RMB, enhanced transaction efficiency and provided accurate economic data. The Chinese government's multifaceted approach highlights its commitment to sustaining economic growth, stability, and progress during challenging times.

Keywords: Chinese economy, covid-19.

1. Introduction

Since the emergence of the novel coronavirus in December 2019, China has faced significant challenges to its economic growth, with the GDP for 2020 experiencing a record-low increase of 2.3% [1]. (As shown in Table 1)

Table 1. Accounting data of GDP for the fourth quarter and the whole year of 2020

<table>
<thead>
<tr>
<th></th>
<th>Absolute amount (hundred million yuan)</th>
<th>Year-on-year growth(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fourth quarter</td>
<td>Whole year</td>
</tr>
<tr>
<td>GDP</td>
<td>296,298</td>
<td>1,015,986</td>
</tr>
<tr>
<td>Primary industry</td>
<td>29,630</td>
<td>77,754</td>
</tr>
<tr>
<td>Secondary industry</td>
<td>113,940</td>
<td>384,255</td>
</tr>
<tr>
<td>Tertiary industry</td>
<td>152,728</td>
<td>553,977</td>
</tr>
</tbody>
</table>

To mitigate the virus spread, the Chinese government implemented stringent measures, including nationwide restrictions on normal activities. Citizens were only allowed limited outings within specified time frames, compulsory mask-wearing, and regular testing. There were even reports of forced isolation measures, such as citizens being locked inside their apartments. Some remote villages erected barriers to restrict the movement of people in and out. The pandemic resulted in unprecedented losses to the Chinese economy, with plummeting production levels and rising unemployment.

However, following the initial wave of the pandemic, China's economic recovery displayed resilience. Beginning from a lower base, the GDP growth in 2021 is expected to be one of the highest in recent years. State-driven investments have undoubtedly contributed significantly to this recovery, while domestic demand is also anticipated to bounce back, even amidst the challenges of a fragile rebound. China effectively controlled the first wave of the pandemic and made progress in vaccine
distribution. As of July 5, 2023, the Chinese Center for Disease Control and Prevention reported that the peak of the second wave of COVID-19 has passed, though it has proven to be more destructive [2].

The restaurant and tourism industries have been continuously devastated by the impact of this second wave. Many cities and regions have implemented close-contact reservations and epidemiological investigations in restaurants, making dining more cumbersome and unpleasant [3]. Moreover, due to the uncertainty caused by the pandemic, people may opt to eat at home, further impacting the restaurant sector. The tourism industry, influenced by policy measures, witnessed the closure of scenic spots, cancellation of large-scale events, and a significant drop in hotel and tourism revenues. Many individuals have abandoned their travel plans, hindering the recovery of the tourism sector. As a major exporting nation, China has also been severely affected in terms of production and supply chain disruptions during the second wave of the pandemic. Forced home isolation has led to substantial losses for companies, resulting in inevitable layoffs.

To counter the severe economic impact of the pandemic, China has introduced several stimulus policies aimed at fostering economic recovery. These policies include:

1. Tax Reduction: The government has implemented tax cuts to ease the financial burden on businesses and encourage investment and consumption.
2. Consumption stimulus: The government has taken measures to encourage residents to spend more, such as issuing consumer vouchers, to boost market demand. Helping the catering and other industries to recover from the impact of the pandemic.
3. Digital Currency Transformation: In response to the pandemic's challenges, China has accelerated its efforts to promote digital currency adoption, aiming to enhance payment efficiency and financial inclusion.

This paper will delve into a comprehensive analysis of these three policies' effectiveness in driving China's economic recovery amidst the COVID-19 pandemic.

2. Three Policies Influencing the Chinese Economic System

2.1. Three Description of Policies

2.1.1 Description of Tax Reduction

Since the outbreak of the COVID-19 pandemic in 2019, the Chinese economy has experienced significant impacts. Despite gradually reopening its borders, the country is still in a phase of recovery, and the economy remains in a downward trend. To facilitate and support economic recovery and growth, the Chinese government has vigorously pursued a policy of tax reduction and fee reduction, as lowering taxes can help ensure stable growth on both the supply and demand sides. Firstly, from the perspective of demand, reducing taxes and lowering costs have created favorable conditions for expanding consumption and upgrading consumption patterns. In recent years, the contribution of investments to China's economic growth has not been as significant as that of consumer spending. However, after enduring three years of pandemic-related restrictions, the desire and purchasing power of Chinese citizens have gradually declined. Hence, reducing tax rates also eases the tax burden on consumers' purchases and services, thereby enhancing their actual purchasing power. Looking ahead, China's potential growth rate is gradually decreasing, mainly due to intensifying political trade frictions and accelerated population aging. A large-scale tax reduction and fee reduction policy can sustain and strengthen citizens' purchasing power, to some extent, supporting the development of the Chinese economy.

On the other hand, from the perspective of supply, tax cuts and fee reductions will also enhance the ability of market entities to expand their investments. Taking the manufacturing industry as an example, it contributes approximately 30% of the total tax revenue and around 60% of the value-added tax revenue. Logistics enterprises play a crucial role in scaling up and adjusting the industry's structure. As the manufacturing sector expands its scale and undergoes structural transformation, the
logistics industry needs to adjust accordingly. For logistics enterprises in the expansion phase, they invest significantly in machinery, equipment, and the construction and expansion of logistics facilities. Consequently, a reduction in the value-added tax rate would provide them with the most significant tax benefits. Observations reveal that lowering tax rates has created an upstream and downstream complementary incentive mechanism for the development of the real economy. These small and medium-sized enterprises (SMEs) within the manufacturing industry, both in the upstream and downstream, constitute the backbone of China's economic development. They are the most active participants in the market economy and the primary drivers of employment. During times of crises, such as the pandemic, SMEs often face immense pressures. Their capacity to cope with adverse environments is limited, and they become especially financially constrained during challenging times. Once their financial lifeline is severed, recovery becomes exceedingly difficult. Nonetheless, due to their substantial presence in China, SMEs create numerous employment opportunities, making them pivotal in maintaining social stability. Therefore, the government has prioritized supporting SMEs through tax refunds, thereby stabilizing the overall market situation. The implementation of a series of tax cuts and fee reductions also helps SMEs lower costs, increase profitability, and strengthen their ability to counter external pressures effectively. Since 2013, China's tax reform has led to a cumulative reduction of 8.8 trillion yuan in taxes. However, fiscal revenue has nearly doubled, increasing from about 12 trillion yuan in that year to over 20 trillion yuan in 2022 [4]. This significant increase in fiscal revenue demonstrates the effectiveness of the tax reduction and fee reduction policies. With the intensification of population aging, there is widespread concern about pension insurance. During the pandemic, the government introduced a series of preferential policies for pandemic-related pension insurance subsidies to address the situation of unemployment or income reduction. These measures aimed to ensure a reasonable standard of living for employees after contributing to the social security pension [5]. To alleviate the financial burden on both enterprises and individuals, the government provided partial exemptions on their social security contributions. Enterprises and individuals affected by the pandemic were eligible for a certain percentage of reduction in their social security expenses. This policy helps ease the economic burden on enterprises and individuals, thereby stabilizing and promoting their motivation to sustain their development efforts and contribute to the economic recovery.

2.1.2 Description of Consumption Stimulus

The impact of the pandemic on the catering and retail industries cannot be underestimated. Chinese government take the “lockdown” policy during the epidemic, coupled with the decreased purchasing power of people after the pandemic, prompted the government to implement the distribution of consumption vouchers to stimulate post-pandemic spending. Starting from March 2020, more than 80 cities in China, including Shanghai and Hangzhou, began issuing consumption vouchers. Government officials have expressed their support for practical measures taken by local authorities to boost domestic consumption and unleash its potential, ultimately benefiting market entities and the general public. The scale of this consumption voucher distribution is unprecedented. From April 19th to July 31st, Wuhan city has successively released 500 million yuan worth of "Wuhan Consumption Vouchers,” covering vouchers for dining, shopping malls, supermarkets, and cultural and tourism consumption. On April 15th, the Fuzhou Municipal Bureau of Commerce announced the phased distribution of 150 million yuan worth of consumption vouchers to promote urban consumption recovery, including 120 million yuan of general consumption vouchers and 30 million yuan of special automobile subsidies. Hangzhou has also issued five rounds of consumption vouchers, and the enthusiasm of citizens to obtain these vouchers has only increased. Businesses and the public have actively participated in this initiative, as consumption vouchers not only bring benefits to the public but also ignite enthusiasm for offline spending. When comparing the effectiveness of directly distributing cash subsidies with that of distributing consumption vouchers, the government believes that for the purpose of stimulating consumption, cash subsidies may not necessarily be more effective than consumption vouchers because vouchers are less likely to be saved. Digital consumption vouchers can avoid the possibility of cash subsidies being saved and can be tailor-made based on
local industry conditions and consumer habits, achieving precise customization and implementing policies tailored to each city. During this year's Spring Festival holiday, sales revenue in various consumption-related industries nationwide increased by 12.2% compared to the previous year [6]. Domestic tourism during the Spring Festival holiday generated 3758.43 billion yuan in revenue, a 30% year-on-year increase. In January, China's box office exceeded 10 billion yuan, setting a record for the fastest annual box office to surpass this milestone, demonstrating the robustness of the film market. The surge in consumption is a manifestation of confidence in China's economy. This confidence is supported by the continuous implementation of comprehensive economic policies and the optimization and adjustment of pandemic prevention and control measures, leading to a bottoming-out rebound trend in our country's economy. As we can see in figure 1, in January 2023, the Purchasing Managers' Index (PMI) for the manufacturing industry reached 50.1%, returning to the expansion zone [7].

![Figure 1. Manufacturing PMI index](image)

Both supply and demand have improved simultaneously, and business confidence has significantly increased, indicating a notable recovery in the manufacturing industry's business climate.

### 2.1.3 Description of Digital Currency

Since the beginning of the 21st century, an increasing number of countries have completed or are on the verge of completing industrialization, urbanization, information digitization, networking, globalization, and intelligentization, leading to a new wave of global industrial revolution. During this period, the adoption of electronic payments has surged, and traditional methods like paper currency and checks are gradually being supplanted. According to Global Payments Report provide by FIS, in 2022 (Figure 2), China continues to set the pace in the adoption of digital wallet, both in e-commerce and at POS. It can be seen in figure 2, digital wallet accounted for a remarkable 81% of e-com transaction value [8].
As a result, China is rapidly entering the era of digital economy. However, when considering Bitcoin as an example, despite its decentralized distributed storage and digital encryption features, it has faced significant challenges. With a fixed supply of 21 million units, it fails to synchronize its currency issuance with the needs of economic growth, leading to extreme volatility in its value. Moreover, if used as a currency, it would inevitably cause economic and financial disasters due to deflation. Bitcoin mining has contributed to an alarming Gini coefficient of over 0.88 [9], resulting in a terrifying wealth gap exceeding any extreme wealth inequality in the world today, which deviates significantly from its original intent of decentralization. Additionally, Bitcoin has not been able to escape its association with criminal activities like money laundering, and its numerous major flaws, making it susceptible to extortion without effective prevention and intervention. Consequently, no country is willing or daring to recognize Bitcoin as legal tender. In 2014, the People's Bank of China (PBOC) commenced prospective investigations into central bank digital currency (CBDC) [10]. Subsequently, in 2016, the establishment of the Digital Currency Research Institute of the People’s Bank of China marked a pioneering milestone as the world's earliest formal entity exclusively focused on CBDC advancement. Towards the conclusion of 2017, the State Council granted authorization to the People's Bank of China to spearhead collaborative efforts with diverse commercial institutions in developing the digital RMB system [11]. A central bank digital currency represents a digital form of the national currency, not a new currency itself. In terms of application scenarios, CBDC enables "double offline payment" similar to paper cash, allowing transactions to occur even when both parties are offline. With a digital RMB wallet installed on their smartphones, users can transfer funds or make payments by simply tapping their phones together without requiring network connectivity or signals. During the initial period of the pandemic, people aimed to reduce cash transactions to avoid virus transmission. Although China had already achieved widespread adoption of online payment methods such as Alipay, some remote mountainous areas and elderly individuals who were unfamiliar with smartphones found online transactions too complex. Once digital RMB is in circulation, its ease of use and efficiency will stimulate consumer enthusiasm. CBDC effectively combines the efficiency of digital deposits with the added capability of peer-to-peer cash transactions. As China has already established dominance in mobile and other digital payment systems, the country has largely achieved a cashless society. By including risk-free legal tender, CBDC can achieve complete digitalization of currency and payments within the country. If CBDC is eventually incorporated into bank deposits, the economic benefits will be even more significant, potentially leading to a reduction in the scale of commercial bank credit intermediation. The programmable features of CBDC can provide credit subsidies or cash exemptions for existing loans. Affected by the COVID-19 epidemic, China's GDP in the first quarter was 2,065.4 trillion yuan, down 6.8% from the same period last year at constant prices. The value added of the primary industry was 1,018.6 billion yuan, down 3.2 percent; The
added value of the secondary industry was 7,363.8 billion yuan, down 9.6%; The value added of the tertiary industry was 12,268 billion yuan, down by 5.2% [12]. In response to economic pressures, the Chinese government introduced a massive stimulus plan, including issuing consumer vouchers and subsidies to boost consumer spending. Stimulus funds provided through CBDC can be directly deposited into the digital RMB accounts/wallets of small and medium-sized enterprises impacted by the pandemic, mitigating the downward impact on the economy. Also, the use of digital currency can help provide more accurate economic data, as all transactions are recorded in real-time on the blockchain. This way, the government can more accurately assess the economic situation and formulate corresponding fiscal policies to support the hardest-hit industries and regions affected by the pandemic.

3. Conclusion

China has taken significant measures to boost its post-COVID-19 pandemic recovery by implementing tax reduction and fee reduction policies. These policies focus on both the supply-side and demand-side aspects of the economy. By reducing taxes and fees, particularly for the manufacturing sector, the government aims to enhance the financial standing of businesses and encourage investments and expansion. This, in turn, contributes to economic growth and structural adjustments in related industries. On the demand side, tax reduction measures create a favorable environment for consumption expansion and upgrading. Lowering value-added tax rates lightens the tax burden on consumers, increasing their purchasing power and stimulating demand for goods and services. Special attention is given to small and medium-sized enterprises (SMEs) as well as private enterprises, as they are considered crucial drivers of economic development and employment. Providing tax refunds to SMEs helps them cope with financial constraints, especially during challenging times like the pandemic, and supports employment and social stability. The efficacy of tax reduction policies is evident from the substantial reduction in taxes and fees, amounting to approximately 2.5 trillion yuan in 2022. Despite these reductions, fiscal revenue has increased significantly, indicating that tax reduction measures have not hindered economic growth but have, in fact, contributed to it. Regarding the policy of distributing consumption vouchers, the government aims to stimulate people's consumption enthusiasm through subsidies, ensuring that the vouchers are not converted into savings by the public. This approach ultimately promotes economic recovery in the catering and retail industries. In parallel with tax reduction efforts and consumption stimulus, China has embraced the era of the digital economy by developing a central bank digital currency (CBDC). The CBDC, known as digital RMB, offers convenience, efficiency, and offline peer-to-peer transactions like paper cash. It complements China's transition to a cashless society and provides additional benefits, such as more accurate economic data, efficient stimulus distribution, and programmable features for supporting businesses and individuals. Overall, China's comprehensive approach to tax reduction and digital currency adoption reflects its commitment to achieving economic growth, stability, and continued progress in the face of global challenges.

References


