

# Study on Fiscal Sustainability and Fiscal Response to Epidemic

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China is currently at an important historical juncture. The realization of a series of economic and social goals requires more proactive and effective fiscal policies, but the contradiction between fiscal revenue and expenditure has become more prominent under the impact of the COVID-19 outbreak, and the fiscal system is facing huge challenges. The paper re-summarizes the fiscal function and the direction of fiscal policy response to the impact of the epidemic. By estimating the impact of the epidemic on the fiscal deficit rate and assessing the sustainability of China's finances, we believe that the epidemic may lead to a more severe fiscal situation in China, but fiscal sustainability is strong. China's finance must adopt a "two-way" strategy that balances economic and social goals with fiscal sustainability. To this end, proactive fiscal policies can work in two ways: first, increasing income sources, appropriately increasing the deficit rate and special debt; and second, improving quality and enhancing efficiency, making up for shortcomings and expanding domestic demand. At the same time, we must turn the crisis into an opportunity to promote the reform of the fiscal system, including establishing a medium-term budget framework, promoting cooperation between the government and society in public utilities, rationally positioning the tax function and reforming the tax system, and implementing national pooling of social security system.

**Keywords:** epidemic shock, fiscal sustainability, fiscal policy, fiscal system

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## 1. Introduction

As the year of ending the 13th Five-Year Plan, 2020 is facing the arduous task of winning the three critical battles against major risks, poverty and pollution and building a moderately prosperous society in all respects. However, the COVID-19 outbreak has caused a shock on China's economy and society. Coupled with the complex, severe international situation, the downward economic pressure has been mounting and the uncertainty sharply increased. Such an important historical juncture

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requires more proactive and effective fiscal policies and an intensified countercyclical adjustment, which is inevitable for preventing and resolving economic and social risks towards high-quality economic development and a moderately prosperous society in all respects.

Fiscal policies are powerful responding to economic and social shocks, which embrace a rich theoretical basis and extensive global practice. The theoretical basis of macro-intervention comes mainly from Keynes's macroeconomics theory. In the 1930s, the Keynesian Revolution pioneered the modern state intervention, advocated governments to adopt demand management policies, and believed that fiscal policies had the most direct, effective impact on consumption and investment. As economic stagflation occurred in the mid-1970s, the "Neoliberalism Economics", represented by the New Classical Macroeconomics and the Modern Monetarism, criticized the effectiveness of macro policies. While most of these schools opposed the government intervention, the controversy contributed to perfecting the macro-intervention theory. In the 1980s, Neo-Keynesian economics reaffirmed the legitimacy of government intervention, and advocated fiscal and monetary policies to be exerted from both sides of supply and demand, with appropriate government intervention to keep the macro-economic balance. Since the Keynesian Revolution, macroeconomic policies have experienced a series of evolutions, but it is undeniable that fiscal policies have been a strong approach for governments to intervene in the economy in times of crisis. For instance, when 2008 financial crisis swept across the global, the fiscal policies featuring tax cuts, increased government investment, expanded government spending and debt issuance played a big role, and the macro-control function of fiscal policies in response to crises has been widely acknowledged.

Conventional public finance theory holds that the fiscal system plays its role in the economic sector, but in retrospect, China's fiscal practice goes far beyond the areas of resource allocation and economic growth, and a macroeconomic regulation and control model with Chinese characteristics was shaped against the background of socialism with Chinese characteristics (Pang, 2016; Research Group, 2017). On the one hand, aggregate is combined with structure, i.e., targeted and well-timed regulation is applied on the basis of the range-based regulation to ensure the "structural adjustment without stalling"; and on the other hand, supply is combined with demand, that is, strengthening the supply-side structural reform while managing the demand (Liu, 2016). Pang (2016) summarized this as "aggregate + structure" and "demand + supply", an innovative macroeconomic regulation and control theoretical paradigm. It means that the design and practice of fiscal policies in China cannot be limited to conventional public finance theory, especially in the face of epidemic shock, the fiscal function positioning is related to the direction and effectiveness of fiscal policies, and should be more in line with system characteristics of China and serve its economic and social development needs.

Fiscal policies have become increasingly prominent since the 18th CPC National Congress. As a foundation and important pillar of national governance, the fiscal system has become the hub that mobilizes all parties to resolve social risks (Liu *et al.*, 2018). Under the epidemic shock, fiscal policies are bound to be crucial but historically different. For the first, the response is under tightened fiscal space. China's fiscal space has been greatly tightened after the large-scale tax cut of 1.3 trillion yuan in 2018 and 2.3 trillion yuan in 2019, and the fiscal policies in 2020 need to be more proactive and effective, indicating greater regulation in a smaller space.<sup>1</sup> Second, the response is under a mix of economic downturn, epidemic shock and global economic turmoil. With such a severe economic climate posing more fiscal challenges than ever before, the contradiction between balancing fiscal sustainability and achieving economic and social goals is becoming prominent. At a time when the task of epidemic control is arduous, identifying the fiscal function, ensuring fiscal sustainability, resolving economic and social risks and stabilizing social order are the proper meanings of giving full play to the role of proactive fiscal policies.

It is of great practical significance to study fiscal policies under the epidemic shock, which seems almost more challenging to the fiscal system than ever before. The research on fiscal policy response still has the following deficiencies. First, a comprehensive analysis of the fiscal function and sustainability is absent. On the one hand, fiscal policies need to meet basic needs and offer stimuli in times of crisis, and conventional theory of the fiscal function needs adjustment; and on the other hand, fiscal risks are likely to be induced if fiscal sustainability is not considered, as past experience tells us that the imbalance between fiscal risks and economic risks may lead to severe social crises. Second, there is the failure to balance economic and social goals and fiscal sustainability and to achieve economic and social development goals while addressing fiscal difficulties. The work on “two-way” fiscal policies is more in line with the objectives of macroeconomic regulation and control. Third, the importance of fiscal system construction in times of crisis is not fully aware. Developing the fiscal system is essential to the continuity and stability of proactive fiscal policies, and this epidemic shock can be turned into an opportunity to reform fiscal and tax systems.

The paper has three focuses: re-thinking the fiscal function and the direction of fiscal policy response to the impact of the epidemic; estimating the impact of the COVID-19 epidemic on the fiscal deficit rate and assessing China's fiscal sustainability from the perspective of flow and stock; and studying how fiscal policies respond with a “two-way” strategy, and whether the crisis is turned into an opportunity to reform the fiscal system and address system problems over years.

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<sup>1</sup> On January 15, 2019, the press conference of the Information Office of the State Council announced that the scale of tax and fee reduction for 2018 was approximately 1.3 trillion yuan. The scale of tax reduction in 2019 is obtained from the website of the Ministry of Finance.

## 2. Thoughts on Fiscal Function and Direction of Fiscal Policy Response to Epidemic

### 2.1. Thoughts on Fiscal Function

The COVID-19 epidemic has shocked China's economic and social development like never before, and is challenging social sciences to cause a reflection and even reconstruction of the basic theory. What role the fiscal system plays in national governance and what fiscal function it has are exactly under the category of fiscal basic theory.

The widely acknowledged theory on fiscal function in China and abroad is Musgrave (1959) theorized three functions, i.e., the fiscal function includes: resource allocation, income distribution, and economic stability and growth. The three functions are all about economics, but viewed from social development, fiscal activities inevitably have a major impact on society, thus there are limitations when considering only the economic positioning of the fiscal system. Polanyi (2007) considers that social protection controls market expansion in a certain direction, which makes it clear the social protection regulating the market system should also fall within the fiscal function.

With the Third Plenary Session of the 18th CPC Central Committee positioning China's fiscal system as "the foundation and important pillar of national governance", the role of the fiscal system in national governance has attracted growing academic attention. Gao (2014), for example, believes that the fiscal system spans areas of economy, politics and society, and should be put under an integrated category. From the perspective of public risks, Liu *et al.* (2018) believe that the fiscal function lies in resolving public risks. Lyu (2018) indicates that the basic fiscal function is promoting the public order, which is ever facing shocks and reconstructions after the development of market economy. Then the fiscal function is by no means confined to economics. In the course of China's economic transition, the fiscal system has served economic and social development needs and the scope of the fiscal function is being adjusted. There will be a bias when overemphasizing some aspect of the function. Lyu *et al.* (2019) summarize that the fiscal function involves: security & incentive, which they believe decide the fiscal system's big position in China's national development strategy.

As a matter of fact, in the course of socialist modernization, the fiscal system has exerted its part around three major tasks of reform, development and stability. Especially in times of disasters and epidemics, emergency finances safeguard public security and stabilize social order, as well as recover the economy and provide growth momentum. Based on China's reform and development goals and existing views, the paper summarizes three modern fiscal functions: social protection, economic growth

and income distribution. Social protection is to stabilize economy and society to meet basic needs of people and safeguard basic rights of citizens by preventing and resolving risks, protecting basic rights of vulnerable groups, and covering the cost of reform. Economic growth represents the fiscal contribution to economy, which works in two ways: first, government productive expenditure can directly enter the corporate production function and affect the output of private sector; and second, the government offers system arrangements for economic activities to push forward market contracts. Income distribution means the fiscal equitable distribution, such as distributing income, tax burden and public services. As the carriers, though, government authorities are not a monopoly in the specific exercise of functions. For instance, in the function of economic growth, a large number of mixed public goods can be provided by the private sector, while the government guides, supervises and provides the system security. In the function of social protection, based on the multi-center governance theory, the participation of social organizations in public health, environment and community governance effectively reduce public administration costs. Therefore government authorities and social organizations should work together for social governance, as the fiscal system performs the three functions.

## *2.2. Direction of Fiscal Policy Response*

Governments have released fiscal policies responding to the epidemic, and the fiscal system is to strengthen the macroeconomic regulation and control in the face of a series of economic and social problems. By the direction of response, these fiscal policies fall into two parts: one is fiscal policies that meet basic needs, and the other is economic stimulus policies, which correspond to the functions of social protection and economic growth, respectively.

Fiscal policies that meet basic needs perform the function of social protection, specifically involving epidemic response, economic recovery and social support. Epidemic response policies are for epidemic prevention and control and the aftercare. Governments generally launch fiscal expenditure policies for epidemic relief, e.g., China's sustainable funds at all levels for epidemic control, and the U.S. Coronavirus Preparedness and Response Supplemental Appropriations Act, and after the epidemic is under control, they need to take actions on property acquisition compensation, government procurement and storage. Economic recovery policies are mainly for relieving companies in difficulty to resume production and solve cash flow problems, e.g., China's tax deductions and deferred payment, the U.S. relief to affected industries such as aviation, and Greek business aid programs, etc. Social support policies are mainly used to secure the subsistence and basic consumption of vulnerable groups, such as China's expansion of the coverage of subsistence allowances and support for the extreme poor, and the EU's massive new coronavirus stimulus plan, as well

as Canada Emergency Wage Subsidy, epidemic-response subsidies and federal tax subsidies.

In contrast, economic stimulus policies stress stimulus rather than recovery, and therefore, on the condition of epidemic control and basic economic recovery, fiscal stimulus policies should be put in place to achieve economic and social development goals, which represents the function of economic growth. Economic stimulus policies include demand-side stimuli and supply-side stimuli, in which the former focuses on consumption and investment. China has stimulated auto consumption and issued special debt quotas in advance to expand social demand and investment, and adopted supply-side stimuli such as starting new infrastructure projects and increasing public health spending. Other countries, including Australia, New Zealand, Italy and Kenya, have also adopted tax cuts and accelerated depreciation of fixed assets to boost consumption and investment.

A note is that each policy performs not a single function, and that some policies may have the dual functions of both relief and stimulation, such as the transfer payment to disadvantaged groups for social support and consumption. In summary, the fiscal system's two core functions correspond to two policy responses. Although the economic and social conditions are various, and then fiscal policies are somewhat focused, the fiscal system needs the integration of fiscal policies that meet basic needs and economic stimulus policies when playing a role in national governance.

### **3. Analysis of Fiscal Deficit and Fiscal Sustainability under Epidemic**

#### *3.1. Analysis of Epidemic Impact on the Fiscal Deficit*

China's fiscal policies will undoubtedly help prevent and control the epidemic and stabilize social expectations, but will bring enormous pressure on all levels of finances. As is shown in Figure 1, China's fiscal shortfall has been widening since 2014, and in 2019, reaching 4.25 times of that in 2014. The general public budget revenue in 2019 grew at a rate of 3.8%, and the tax revenue at 1%, the lowest since 1978. The rigid growth of fiscal expenditure has been clear and remained at about 8% in the past three years. Thus, China's fiscal situation has been severe, and the epidemic shock is to cause an expanding shortfall in fiscal balance in 2020. So how severe is the epidemic impact on China's fiscal deficit rate? The forecast in this part is built on the projected deficit rate for 2019.

Based on the Ministry of Finance released budget report for 2019, the general public budget deficit rate in 2019 was 2.79%, but it was significantly underestimated mainly because the impact of the budget stabilization fund and the balance carry-over fund was taken into account, which should have been used for financing projects to cover deficits. To reveal the epidemic shock on the real fiscal deficit as much as

possible, the paper draws on the approach of Guo (2019), measuring the general budget deficit with the actual shortfall in the revenue and expenditure and adding the government managed fund deficit to assess the overall status. The general budget deficit rate for 2019 calculated by this method was 4.89%, which reached 5.59% after adding the government managed fund deficit.<sup>1</sup>

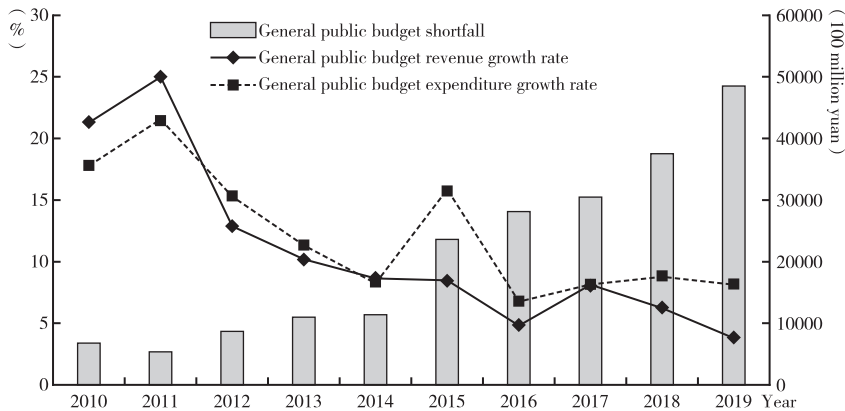


Figure 1. General Public Budget Revenue and Expenditure (2010–2019)

Note: The general public budget shortfall (100 million yuan) corresponds to the secondary axis.

Source: *China Statistical Yearbook (2011–2019)* and the fiscal balance for 2019 released by the Ministry of Finance.

In response to the epidemic, China's total fiscal expenditures (including reductions) brought about by fiscal polices that meet basic needs and economic stimulus policies are roughly divided into three types: (1) explicit fiscal expenditure: epidemic response subsidies, finance discount, tax relief; (2) potential fiscal expenditure: compensation for administrative requisition, procurement and storage, medical remuneration; and (3) contingent fiscal expenditure: funds for social security gap, unemployment benefits, and greater public health investment. According to the published data and fiscal revenue and expenditure over the years, we estimate that the fiscal shortfall adds up to at least 1 trillion yuan only for responding to the epidemic.<sup>2</sup>

In addition to the direct impact on fiscal revenue and expenditure, the epidemic indirectly leads to a reduction in fiscal revenue through economic downturns. The 2020 Government Work Report does not set a specific target for economic growth throughout the year, but plans a deficit rate of 3.6% or more, corresponding

<sup>1</sup> The data of general public budget revenues and expenditures and government managed fund revenues and expenditures in 2019 are from the "Fiscal Revenues and Expenditures in 2019" published on the website of the Ministry of Finance; GDP data for 2019 are from the Statistical Communiqué of the People's Republic of China on the 2019 National Economic and Social Development.

<sup>2</sup> This paper separately estimates the expenditure scale of each policy. The author can be consulted for the specific estimation process.

to a nominal GDP of about 104 trillion yuan and a nominal GDP growth rate of approximately 5.4%. However, while the global epidemic situation and economic and trade situation are highly uncertain, it is hard to predict how the GDP growth rate and deficit rate will be in 2020. Therefore, this paper roughly assesses the real deficit rate level of economic growth rate in 2020 within a certain range based on the macro-tax burden in 2019.<sup>1</sup> To keep in line with the calculation of tax burden, this paper estimates the real general public budget revenue in 2020 by nominal GDP growth rate. If the nominal GDP growth rate drops to 6%, 5%, 4% and 3%, the general public budget revenue will increase by 1,138.4 billion, 948 billion, 757.7 billion and 567.4 billion yuan respectively as compared with 2019, and according to the data reported in the draft budget, the general public budget expenditure in 2020 will increase by approximately 897.6 billion yuan.

Considering the direct and indirect impacts of the epidemic on fiscal revenue and expenditure, the real deficit rate of general public budget in 2020 is 5.34%, 5.57%, 5.81% and 6.05%, respectively, under nominal GDP growth rates of 6%, 5%, 4%, and 3%. Based on the 2020 draft budget report, which shows the budget deficit of government managed funds in 2020 will be approximately 4.47 trillion yuan, the budget deficits will reach 9.59%, 9.87%, 10.15% and 10.43% respectively. The prediction reveals a relatively strong short-term impact of the epidemic on the fiscal deficit, and under the mixed effect of policies, the budget deficit rate will rise by 4 percentage points even if GDP achieves a nominal growth rate of 6% in 2020. The fiscal system will be more severely challenged.

However, from the large development trend, the epidemic is a “black swan” incident with a short-term impact on China’s economy, and the long-term promising economic fundamentals will not change. In light of the epidemic control and resumption of production, China’s economy has much room for flexibility, and will eventually fluctuate around the potential growth rate as the supply-side structural reform deepens and the country opens wider to the outside world. Therefore, we do not see that the epidemic will lead to a serious impact on the fiscal deficit during the 14th Five-Year Plan to make it unlikely to cause fiscal drag.

### *3.2. Analysis of China’s Fiscal Sustainability*

The epidemic has largely increased China’s deficit rate in 2020. So what is China’s fiscal capacity and how much space can fiscal policies work? The point lies in fiscal sustainability. To assess China’s fiscal sustainability, this paper analyzes the fiscal

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<sup>1</sup> In 2019, the proportion of general public budget revenues to GDP is 19.21%, i.e., the macro-tax burden measured by this is 19.21%. Assuming that the value remains unchanged in 2020, the scale of general public budget revenue in 2020 can be roughly calculated.

space from the perspective of revenue and expenditure flow, and the adequacy of fiscal resources from the perspective of capital stock.

### 3.2.1. Current Fiscal Space

When general public budget expenditure exceeds revenue, the shortfall can be made up by the transfer of funds and the use of carry-over balances. It is specifically divided into three parts: the use of the central budget stabilization fund, the transfer from the central government managed fund budget and the central state-owned capital operating budget, as well as the use of local carry-over balances and the transfer of funds.

From the use of the central budget stabilization fund, the balance at the end of 2018 was 376.6 billion yuan, and after transferring in the budget of 280 billion yuan in 2019, regardless of excess revenues and expenditure balances, the balance at the end of 2019 was about 96.6 billion yuan. If the transfer-in sum of 530 billion yuan in the draft budget is to be realized in 2020, the new replenishment sum of the central budget stabilization fund will be larger.<sup>1</sup> As for the local carry-over balance, the local carry-over balance at the end of 2017 amounted to 910.2 billion yuan, and the carry-over balances and transfer-in funds from 2018 to 2020 reached 1231.2 billion, 1896.7 billion and 2110 billion yuan respectively. There is a continuous increase in sum. Considering the efforts made in recent years to put idle budgetary funds to use, there is little room for the use of local carry-over balances and transfer-in funds by 2020.<sup>2</sup>

The central budget stabilization fund and local carry-over balances can be used as reserve funds to cover fiscal deficits, but available fiscal resources are insufficient as the deficit expands and local idle funds are put to work. Besides, the transfer-in scale of the central government funds budget and the state-owned capital operation budget has been relatively small in recent years, with a total of only 39.4 billion yuan in 2019, making it too hard to cover fiscal deficits.<sup>3</sup>

Can we reduce the fiscal deficit by increasing revenues and reducing expenditures? On the expenditure side, the spending on national defense and social security cannot be cut, and that can be reduced is on general public services, but the pressure is great and there is limited space for reduction. On the revenue side, there is still room for

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<sup>1</sup> Data are obtained from the *Report on the Final Accounts of the Central Government for 2018* and the *Report on the Execution of the Central and Local Budgets for 2019 and on the Draft Central and Local Budgets for 2020 (Summary)*.

<sup>2</sup> Data are obtained from the China national financial final accounts for 2017 and 2018, and the *Report on the Execution of the Central and Local Budgets for 2019 and on the Draft Central and Local Budgets for 2020 (Summary)*.

<sup>3</sup> Data are obtained from the *Report on the Execution of the Central and Local Budgets for 2019 and on the Draft Central and Local Budgets for 2020 (Summary)*.

some increase in the profits turned over by financial state-owned enterprises. On the one hand, in the pattern of national income distribution, the financial sector's income accounts for a gradual increase in the proportion of GDP, and the government has repeatedly stressed adjusting the distribution pattern to benefit the real economy.<sup>1</sup> On the other hand, financial state-owned assets are managed by the Ministry of Finance and the profits turned over are included in the general public budget, while other central enterprises are managed by the State-owned Assets Supervision and Administration Commission of the State Council. From the perspective of cost adjustment, it is feasible to increase the turn-in ratio of profits turned over to financial state-owned enterprises.

### 3.2.2. Government Stock Assets and Debts

As a country with socialist public ownership as the basis, the Chinese government holds or controls substantial stock assets, which constitute an important financial basis for implementing fiscal policies. Therefore, in answering China's fiscal sustainability, the government's stock assets and debts must be taken into account. According to calculations by Yang *et al.* (2019), in 2010–2017, the total government assets basically remained at the level of millions of billion yuan, and showed an upward trend over the past four years, reaching 2.1 times of the then GDP in 2017. Among government assets, financial resources that reflect economic interests account for a large part, which means that the government has a large size of disposable financial resources and is highly flexible in realizing and allocating assets.

In terms of debts, China's central fiscal debt burden rate has changed little since the national debt balance management was introduced in 2006. After local debts were added, the direct explicit debt burden rate in 2019 was 38.3%, well below the 60% threshold in EU (see Figure 2). From the perspective of repayment of the loan and the accrued interest, the proportion of fiscal debt interest expense to total expenses increased from 2% in 2009 to 3.5% in 2019, and recent years have seen a marked upward trend, causing a great pressure on financial debt service. Considering contingent and implicit debts, the total debts of the Chinese government has grown rapidly in recent years, but the government's asset-liability ratio has remained at a low level, which indicates that the Chinese government has adequate capacity against debt risks, and government assets can completely cover the debts and there is still room for increasing.

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<sup>1</sup> According to the data and projections in the capital flow table, in the initial distribution structure from 2009 to 2019, the financial sector rose from 3.2% to 5%, and the non-financial sector rose from 21.5% to 22%. The proportion of financial sector revenues rose rapidly, and the initial distribution was inclined to the financial sector.

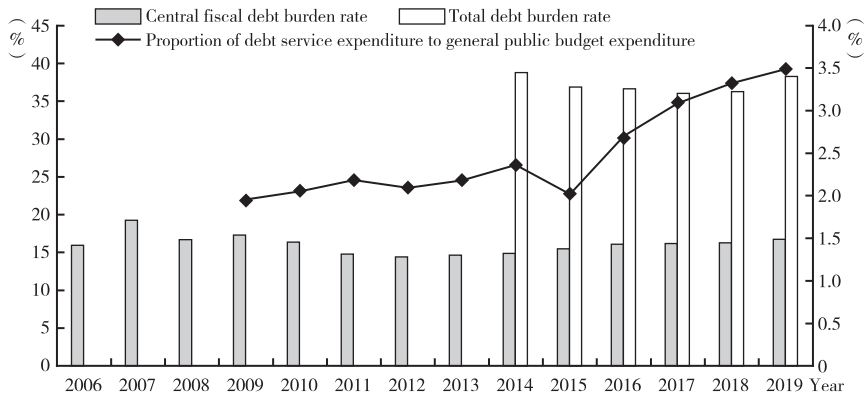


Figure 2. Explicit Debt Burden Ratio and Debt-Interest Expenditure Ratio

Note: The proportion of debt service expenditure to general public budget expenditure corresponds to the secondary axis.

Source: Website of the Ministry of Finance.

The above analysis of fiscal sustainability is a general assessment of China's fiscal situation, and structural factors need to be taken into account. In light of the local fiscal status in Q1 2020, most provinces' fiscal revenues increased negatively, and local fiscal revenues declined seriously under the epidemic shock.<sup>1</sup> Therefore, the central government can alleviate some of the fiscal difficulties by transfer payments, local debts and other policies, which requires an increase in the source of funds for transfer payments. See part 4 for the analysis.

In view of China's fiscal increment space, stock assets and debts, the fiscal increment space is limited, but the government has a strong financial base and the fiscal risks caused by the short-term rise in the deficit rate are generally controllable. China's fiscal sustainability remains strong. Facing external shocks, governments are confronted with the trade-off between economic risks and fiscal risks. They can neither ignore the increase in fiscal risks for reducing economic risks, nor lead to a greater economic crisis for seeking a fiscal balance. Within the space of fiscal sustainability, sticking to a bottom-line thinking and taking appropriate fiscal risks in exchange for economic risks are key actions for the fiscal system to exert its functions of social protection and economic growth.

#### 4. Fiscal Policy Options Taking into Account Both Economic and Social Goals and Fiscal Sustainability

Based on above analysis, this paper holds that, in order to achieve economic and

<sup>1</sup> The fiscal revenue data of Hubei and Chongqing in Q1 2020 are obtained from their statistical office websites.

social goals and make up for developmental shortcomings exposed by the epidemic, while keeping the fiscal sustainability and preventing and resolving major fiscal risks, two things should be noted as China puts in place proactive fiscal policies responding to the epidemic: one is to appropriately increase sources of fiscal revenue, adjust the fiscal deficit, and increase local special debt; the other is to improve quality and enhance efficiency, improve the efficiency of using fiscal funds, optimize the fiscal expenditure structure, improve medical and public health systems, and promote a new round of infrastructure construction.

#### *4.1. Increase in Sources of Fiscal Revenue*

First, the proportion of profits turned over to state-owned enterprises, especially state-owned financial enterprises, is increased. Besides the small number of companies turning profits over and the low proportion of turned-over profits to the total revenue, there has a series of problems such as structural imbalance and excessive investment. The Third Plenary Session of the 18th CPC Central Committee proposed to raise the proportion of state-owned capital revenues turned over to public finance to 30% by 2020, based on which the proportion of state-owned capital operating budget transferred to the general public budget needs to be increased. The expenditure for basic people's livelihood can be ensured through coordinating the two budgets.

Second, the consumption tax is reformed. The consumption tax's share of GDP has remained relatively low at about 1% in recent years, so the consumption tax revenue can be appropriately increased.<sup>1</sup> Firstly, the tobacco industry's consumption tax can have an increased rate. According to the WHO report, China's tobacco tax rate was 51% in 2016, still far from its recommended tax rate at 75%. In 2019, the total tax revenue of China's tobacco industry reached an all-time high, which indicated much room for raising the consumption tax on tobacco. Secondly, the levy and management of consumption tax on liquor needs to be strengthened. China is a big liquor consumer, but levies a limited scale of the consumption tax, less than 5% of the total. The liquor has low consumption elasticity and is a food-consuming product. Measures including well managing the liquor transfer pricing and moving the tax levy to marketing company can be taken to increase the tax scale of liquor consumption tax.

#### *4.2. Appropriate Increase in the Deficit Rate and Local Special Debt*

After all, there is limited room for fiscal revenue increase and spending cuts. To

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<sup>1</sup> The consumption tax accounts for 1.5%, 1.4%, 1.2%, 1.2% and 1.3% of GDP respectively from 2015 to 2019, which is calculated by the author, based on the statistics of China Statistical Yearbook over the years and the website of the Ministry of Finance.

strengthen the counter-cyclical adjustment, we can consider appropriately expanding deficit rates to break the 3% limit. On the one hand, the 3% ceiling for deficit rates is the result of the coordination between Germany and France when the EU launched the euro, but not some iron law globally. On the other hand, China's macro-tax burden has been on a downward trend since the business tax was replaced with value-added tax (VAT). If the restrictions on deficit rates are not relaxed, a series of economic and social development goals in 2020 may be hard to achieve. However, raising deficit rates does not mean loosening the fiscal restraint. The higher deficit rates are, the more important it is to stress the fiscal restraint. It is inappropriate to normalize the breakthrough of 3% deficit rate ceiling, and when the epidemic is over, deficit rates should be cut down in a timely manner according to actual needs. In the short term, the increase in deficit rates means more space for the issuance of treasury bonds. The issuance of 1 trillion yuan of special treasury bonds against the epidemic can be used to enlarge the support for the normal functioning of primary-level governments, while the central transfer payment fund needs to be structurally adjusted, with particular support given to areas with severe epidemic situation and fiscal difficulties.

In terms of local debts, the scale of local special debt can be properly expanded. According to statistics of the Bank for International Settlements (BIS), as of Q2 2019, the leverage ratio of Chinese government sector was 52.4%, too lower than the average of major developed economies. Even if implicit debts are considered, based on the above analysis, the government still has space to increase the leverage, so it is feasible to increase the scale of local special debt, but the local debt management mechanism needs to be improved against special debt risks.

#### *4.3. Quality Improvement and Efficiency Enhancement on Fiscal Expenditure Side*

In addition to adjusting the scale of fiscal revenue and expenditure, the next step should be to highlight the "quality improvement" and "efficiency enhancement" of fiscal policies.

First, tax reduction policies on the fiscal revenue side should be more targeted. We do not see much space for tax cuts after the massive tax cuts of 2018 to 2019, and it is the case where targeted tax reduction policies should be adopted: policies for epidemic prevention and control and policies for solving corporate cash flows. Fiscal policies need to work with monetary policies and social security policies. After the epidemic, the result in cutting tax and fees should be strengthened to stimulate market vitality and to expand the tax base and increase fiscal revenues.

Second, the fiscal expenditure side should be optimized structurally. We need to improve the expenditure structure, put idle funds to use and make policy support more targeted and effective, while adjusting the fiscal expenditure scale. Administrative costs and general expenditures need to be cut, and more importantly, fiscal funds

need to be well allocated for better use and performance need to be comprehensively improved. Firstly, fiscal expenditure policies should have focuses; and secondly, fiscal expenditures need to be more efficient and have stronger audit and supervision.

#### *4.4. Improvement in Construction of Medical and Public Health Systems*

The epidemic has revealed shortcomings in disaster prevention, emergency response, public health, etc., thus indicating the need to reform medical and health services. On the one hand, as the principal contradiction facing Chinese society changes, the government needs to strengthen such social management and services. On the other hand, multiplier mechanisms are various. In the long run, the fiscal multiplier of social infrastructure including science, education, culture and health is larger than that of economic infrastructure such as transportation. Therefore, increasing investment in public health can both meet social needs and contribute to long-term economic growth.

The existing medical and public health systems in China are inadequate and unbalanced. For one thing, the supply of medical resources is insufficient, and the phenomenon that takes medical treatment more important than prevention and control is acute. In such case, investment in public health facilities needs to be stepped up. First, in hardware allocation, big cities need a larger number of Grade A hospitals in their epidemic response system, especially specialized public health institutions and centers for disease prevention and control. Second, in terms of medical staff allocation, the faculty of medical staff needs to be expanded, with an appropriate increase in medical staff for disease control. For another, the distribution of medical and health resources is unbalanced, and the system of tiered diagnosis and treatment is hard to put in place. The rigidity of medical human resources in public institutions needs to be resolved through the development of diversified medical service modes (Zhu, 2016). In parallel, it needs to develop social organizations such as medical institutions' trade associations and doctor associations that assume supervisory functions, so a new medical service model of cooperation between the government and society is to take shape.

#### *4.5. Standardized “Old Infrastructure Construction” and Appropriately Start of “New Infrastructure Construction”*

Infrastructure is a crucial for economic and social development. To hedge against economic downturns, the way to achieve quick results in a short term is to accelerate infrastructure construction. In the face of the epidemic, how to bring into play the advantage of “new infrastructure construction” with huge investment space and play its role in effective investment with “old infrastructure construction” can be considered as follows.

First, “new infrastructure construction” needs to take heterogeneity of areas into account. Densely populated urban clusters have a serious shortage of infrastructure, such as education, health care and rail transit, and a high demand for science and technology, thus more investment is needed. As for the areas with outflow of population, investment projects need to be strictly assessed to avoid waste of funds. Second, the market access needs to be relaxed to attract more investors. We see certain advantages of the government-social capital cooperation model, and the key is to do better in risk prevention and control. Therefore, the professionalism and risk control awareness of local governments need to be enhanced for supervising projects. The government-social cooperation model needs greater incentive compatibility as the uncertainty in the area of “new infrastructure construction” grows, and local governments are encouraged to develop such new models for public services and emerging industries.

There is still a need to rationally balance the investments in new and traditional infrastructure projects, which can play an active role by standardizing “old infrastructure construction” and starting “new infrastructure construction”. “New infrastructure construction” includes new science and technology industries, as well as traditional areas with shortcomings, such as public health services and emergency response supplies. China’s urbanization still needs a large improvement, and this is a proper opportunity. In contrast to previous problems in infrastructure investment, the new round of infrastructure construction needs to prevent the risks brought by overinvestment, and avoid the overcapacity and inefficient allocation caused by blind and repeated investment, as well as to prevent the crowding out effect of rising interest rates caused by borrowing on private investment.

## **5. Direction of Fiscal System Reform to Turn Crisis into Opportunity**

Historically, China and the rest of the world have experienced many situations in which fiscal efforts are needed to cope with economic and social risks. To sum up, there are two kinds of fiscal responses. One is that the fiscal system makes a stress response and issues a series of measures to control economic and social risks, only that these measures are likely to pose new risks in the future, that is to say, when fiscal risks are used to convert social risks, fiscal risks can accumulate excessively to be out of control. The other is turning the crisis into opportunities, by which the fiscal system rolls out important reforms to solve system problems troubling for years and move the economic and social development to a new height. Reforms concerning the replacement of profit delivery by taxes, and the tax-sharing system were successful examples in China. The COVID-19 epidemic may also be turned into an opportunity of reforming the fiscal system. Fiscal system problems do not arise after the epidemic, but become prominent under the shock, so the reform is

more urgently needed. This paper believes that some areas can be reformed at the current times to solve the fiscal system problems with more prominent contradictions under the epidemic.

### *5.1. Improve Budgetary Transparency and Implement Cross-Year Budget Balance*

To realize fiscal sustainability, China needs to resolve two problems in the budget system: first, the budget transparency is not high and citizens' rights of participation and supervision in budget decision-making and execution are limited; second, the budget time span is short, and the annual balance mechanism fails to strengthen the fiscal risk control. Therefore, the budget transparency and cross-year budget balance are what to achieve through reforming the budget system.

Based on provincial draft budget reports published during two sessions of the provinces, the detailed items of budgetary expenditures have not been effectively made public and citizens' right to know about budget information is limited. The low transparency of the budget means that fiscal revenue and expenditure are not well supervised by the society, which is highly likely to lead to corruption, and the rising cost in implementing policies can easily lead to inefficient government operations. Therefore, the improvement of budget transparency and a standardized, all-round budget disclosure are the direction of reforming the budget system, which is helpful for government's credibility and is the most effective method for improving quality and enhancing efficiency for the fiscal system.

In terms of budgeting, China implements an annual balance mechanism with a short time span, and government authorities are unable to assess the medium and long-term impact of each policy when making decisions, thus being unable to well predict and control fiscal risks (Ma, 2013). Fiscal policies can be more flexible through the establishment of a medium-term budget framework and a five-year balance mechanism in budget with dynamic balance deficit rates below a certain ceiling. Cross-year budget balance means that the expenditures, deficits and debts of each year can be adjusted dynamically, in the midst of which higher transparency is needed. The information about project planning, reserved funds, use of over-collected funds, etc. should be made public, and performance management should be enhanced to allocate fiscal funds in an efficient manner.

### *5.2. Improve the Fiscal Expenditure System and Promote the Cooperation between the Government, Market and Society in the Provision of Public Goods*

Public expenditures on infrastructure, education, medical care, etc. grow as China's economy and society develop, and the epidemic brings about more severe challenges. To avoid problems in fiscal sustainability caused by the expansion of fiscal

expenditures, we need to move faster to improve the fiscal expenditure system and promote the cooperation between the government, market and society in the provision of public goods.

On the one hand, we need to attract social capital in the provision of public goods. Based on the theory of the provision of mixed public goods (Buchanan, 1968; Ostrom, 2012), mixed public goods can be provided by the private sector, while most of the public goods currently provided by the government are mixed public goods, so they can be transferred to the private sector, both to stimulate social participation in public governance and to alleviate upward pressure on fiscal expenditure. On the other hand, government spending should reflect the purpose of protecting society and maintaining the social order. Large scale fiscal transfer will bring heavy burden to the government. We should not blindly expand the scope and scale of government spending on areas of medical care and pension, but need to reduce such government spending by the development of social organizations, which requires some profound changes in the society, such as the identification of philanthropic organizations, social access and supervision.

In the way public goods are provided and the direction of government spending, deepening the reform will help adjust the relationship between the government and market and the relationship between the government and society. With the involvement of social capital in public affairs, government authorities will be further streamlined and social participation in public governance will be encouraged, finally realizing the transformation from government-centered governance to social common governance (Yu, 2014; He and Ma, 2018).

### *5.3. Optimize the Tax Structure, and Reform the Tax System Based on the Principle of "Efficiency First and Fairness Considered"*

China's reforms of the tax system have been frequent in recent years, but objectively speaking, several major problems have not been fundamentally addressed. First, the capacity of raising tax revenue remains low, and fiscal revenues rely heavily on the non-tax revenues. Second, it is mainly the turnover tax levied in the upstream part of the national income cycle, which has a great impact on production. Third, taxpayers are mainly enterprises and the degree of tax embeddedness in society is insufficient. These problems have led to a dilemma for tax cuts when China's economy faces external shocks: deflation and falling trade in times of crisis will cause the turnover tax to decrease rapidly, which in turn may squeeze cash flows of enterprises and discourage recovery. It can be said that further deepening the tax reform is imperative and cannot be delayed. In the light of China's economic and social status quo and development goals, the tax reform has three major directions.

First, the fiscal revenue structure needs to be optimized to increase the share of tax

revenues. The most prominent problem facing China's fiscal revenue structure is that the proportion of tax revenues is relatively low and that of non-tax revenues too high. However in fact, among all kinds of fiscal revenues, tax revenues have the highest standard and the lowest cost. A large amount of fiscal revenues exist in the form of funds, fees, and land transfer fees, which cannot fundamentally reduce the burden on enterprises and stabilize social expectations. Especially in the tightened fiscal situation, local governments should be prevented from making up for the shortfall of tax revenue growth with the abnormal growth of non-tax revenues. Therefore, it needs to clear taxes and fees and optimize the structure of fiscal revenues to create a fair tax burden environment.

Second, the tax structure needs to be improved to have a stronger ability of tax to raise revenue. From the perspective of tax structure, Chinese tax revenues are concentrated in the upstream part of the national income cycle, which makes it hard to realize efficiency and fairness. The direction of reform is that: in the tax structure, the tax collection is transferred from production to redistribution, consumption and wealth accumulation; in the reform of the value-added tax, the tax rate is optimized to reduce unsound preferential tax policies; the individual income tax is reformed following the principle of "a more simplified tax system, broader tax base, lower tax rates and stricter tax collection" to improve the ability of individual income tax to raise revenues; in the reform of the consumption tax, we need to balance the realization of its adjustment target with the goal of raising revenues.

Third, the benefit principle of taxation is embodied in the development of local taxes. There is a close relationship between local taxes and the exertion of local governments' initiative, which is divided into three phases following the rise of per capita income: development of production, provision of public services, and public governance. Chinese people's pursuit of economic growth has gradually given way to the demand for good public services and participation in public governance. The development of local taxes should aim at encouraging local governments to provide public services and improve the public governance (Lyu and Tai, 2018). The benefit principle of taxation is conducive to motivating local governments to respond to local needs and to provide high-quality public services in education, health care and environmental protection. Besides, the tax revenue sharing according to the rules of consumption instead of the rules of production can also reflect the benefit principle of taxation.

The tax reform does not necessarily have to be done when the economic environment turns right. Seen from historical reforms of the tax system, the driving force for the tax reform is small even as the fiscal situation is good, and successful reforms are frequently driven by fiscal pressure. The current situation may be considered when reforming the tax system.

#### *5.4. Promote the Reform of the Social Security System from Both Ends of Revenue and Expenditure, and Substantially Improve the Overall Planning of Social Security Nationwide*

Outstanding problems facing the China's social security are: from the revenue end, social security has been supported by a large number of fiscal subsidies for years; from the expenditure end, as social security has not yet been fully integrated throughout the country, social security funds have surpluses or deficits across areas, and the efficiency in the use of funds is not high.<sup>1</sup> However, if these two problems are to be solved, the social security system faces two dilemmas. On the one hand, standardizing social security contributions will increase the burden on enterprises. If the actual collection rate is to be raised in the areas with social security deficits, it will inevitably lead to an increase in human resource cost and outflow of population, and the shortfall in social security revenue and expenditure will further widen. On the other hand, while national integration is conducive to solving the imbalance across areas, it is easy to dampen the enthusiasm of these areas, making it harder to raise social security funds, which is not helpful for the overall increase.

This paper holds that social security can be reformed from two aspects. One is that the social security fund shall be handed over to tax authorities for collection and management, but the premise is to reduce the nominal fee rate of social security. On the basis of reasonable calculation, the nominal contribution rate of social security can be further reduced. After the social security fund is handed over to tax authorities for better collection and management, the burden on enterprises should be maintained within an appropriate range to enhance their sense of gain. The other is that the accumulated balance of the social security fund shall be transferred under the national pooling, but the local interests shall be taken into account. There needs to find a balance of interests between the central and local governments and reduce the difficulties in the implementation of policies. We can refer to the 1994 tax-sharing system reform for the policy of tax increment refunds and the replacement of business tax by VAT for the policy of value-added tax quota returns to adjust the social security fund increment, which protects the local vested interests and ensures the smooth progress of the reform of social security nationwide, and mobilizes the initiative of the central and local governments for the sustainable development of the social security fund.

## **6. Summary**

The economic and social situation facing China is challenging, and the fiscal tasks

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<sup>1</sup> Data are obtained from the *Report on the Execution of the Central and Local Budgets for 2019 and on the Draft Central and Local Budgets for 2020 (Summary)*.

are arduous. While the fiscal system is a powerful means of coping with economic and social shocks, proactive fiscal policies undoubtedly help prevent and control the epidemic and recover the economy, but the expansion of the fiscal deficit may severely challenges the fiscal sustainability. Focusing on the fiscal sustainability, with the analysis of the direction of fiscal policy response under the epidemic, this paper predicts the epidemic shock on the fiscal deficit rate and comprehensively evaluates the fiscal sustainability of China's fiscal system. This paper believes that the fiscal situation in China is challenging under the epidemic, the fiscal space available currently is limited, but the government has sufficient resources for allocation and in general, the fiscal risks are controllable.

For both the economic and social goals and the fiscal sustainability, there needs a balance between economic risks and fiscal risks, as well as an improvement in fiscal policies and a reform of the fiscal system. On the one hand, proactive fiscal policies should adjust the scale of revenues and expenditures and appropriately increase deficit rates and special debts; and on the other hand, it needs to improve quality and enhance efficiency, shore up shortcomings and expand domestic demand to make the allocation of fiscal funds more efficient. By the opportunity of reform, the fiscal system should improve the budget transparency, implement cross-year budget balance, improve the fiscal expenditure system, and advance the reform of the tax system and the social security system.

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