Analysis of China's Economic Downturn: From the Perspective of Macro-control

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ABSTRACT
China's economic downturn is the result of multiple factors, and macroeconomic regulation is an important cause. China's macro-control policy has changed from a large-scale stimulus to maintain economic growth during the global financial crisis in 2008 to a "micro-stimulus" approach to maintain the internal dynamics of economic growth. In this thesis, we focus on the structural optimization and supply-side reform of the steel industry under the framework of macro-control. It has been found that the downward spiral of China's economy is the process of industrial structure optimization, which is a necessary process for macro-control and economic quality upgrading. At present we have achieved greater milestones, but there are still many problems to be solved.

Keywords: *China's economic downturn, macroeconomic regulation, supply-side reform, steel industry, excess production capacity*

1. INTRODUCTION

After the global financial crisis in 2008, the global economy entered a phase of low growth. In light of this, China introduced a 4 trillion stimulus plan to ease the economic downturn. Taking 2012 as a turning point, China's economy changed from the previous high growth to medium-high growth, slipping from a GDP growth rate of 10.64% in 2010 to 7.04% in 2015. Most countries cannot maintain above 5% after economic maturity, but China's GDP growth rate under government regulation was maintained at 7.86%, 7.77%, 7.43% and 7.04% from 2012 to 2015 respectively. This shows the importance of government regulation on economic growth.

According to Samuelson's multiplier-accelerator theory, investment, income, and consumption in the economy and society influence and regulate each other. Rising income and consumption lead to new investment by means of accelerator and investment leads to further income growth by means of multiplier, resulting in a cumulative economic expansion or contraction. If the government does not intervene in the economy, the growth rate of our economy will intensify the slowdown as well as the downward pressure. China has combined its macro-control with the actual situation and changed from preserving economic growth during the global financial crisis in 2008 to the current "micro-stimulation" to maintain the internal momentum of economic growth. This thesis analyzes the causes of China's economic downturn by sorting out the necessity, milestones and policy recommendations of China's macro-control policies. The follow-up arrangement is as follows: Part 3 is a literature review, Part 4 analyzes the supply-side reform, and Part 5 contains conclusions and recommendations.

2. LITERATURE REVIEW

The important causes for the downward pressure of China's economy are the change of macroeconomic regulation concept and overcapacity, but foreign trade exports, industrial structure, aging population, financial deleveraging and China-US trade friction are also influencing factors.

This part includes the analysis of the causes of China's economic downturn and the research of China's macroeconomic regulation and control.

2.1. The causes of China's economic downward pressure

2.1.1.The change of macroeconomic regulation concept

Previously, China's macroeconomic regulation and

control requirements came into effect quickly with strong efforts and were likely to cause hidden danger. Nowadays, macroeconomic regulation and control policies have slowed down, allowing the market economy to play more of a role. The stimulus policies launched in China after the financial crisis in 2008 achieved the goal of maintaining economic growth, but planted hidden danger of overcapacity and debt risks. Drawing on the experience of previous regulation, China's macro-control concept is changing positively. The government is changing from a manager to a service provider, stimulating market vitality; economic policy adheres to the concept of "maintaining growth, controlling risks, adjusting structure and advancing reform", insisting on interval regulation and control as well as "micro-stimulation " approach to maintain the internal momentum of economic growth. The current monetary policy is more prudent, changing from the previous "total easing and rough stimulation" to "total stability and structural optimization".

2.1.2.Overcapacity

According to Guo Jingjing, with the rapid development of China's economy, overcapacity in related industries will reduce residents' consumption expectations and enterprises' investment expectations, increase non-performing assets in the banking industry, and intensify the downward pressure on China's macroeconomy[1]. Twenty-one percent of China's manufacturing industries saw capacity utilization rates below 79% in 2018, with eight of them witnessing utilization rates below 70% and serious overcapacity. The steel industry, coal industry and cement industry are burdened with serious overcapacity[2].

2.1.3.Other causes

In addition, foreign trade exports, industrial structure, aging population, financial deleveraging and China-US trade friction are also factors that cannot be ignored.

Regarding foreign trade exports, Ma Huijun and Du Renhuai believe that in the short run, the impact on the supply capacity of foreign trade enterprises and demand in the international market bring real risks to China's foreign trade exports. In addition, long-term risks are likely to befall foreign trade exports through the impact on the international environment, the global industrial chain and the world trade pattern.[3] He Jun argues that the pandemic affects the global supply chain in the short term by delaying order delivery and reducing the scale of production, and by changing the structure of the supply chain in the long run[4]. In terms of the contribution of China's net exports of goods and services to GDP growth, weak foreign trade demand increases the downward pressure on China's economy when foreign trade exports and GDP growth are highly positively correlated.

In terms of industrial structure, Sachs and Fan point out that the rapid transformation of China's backward industrial structure is the core driver of China's high economic growth[5]. Liu, Wei and Zhang Hui, Gan Chunhui and Zheng Ruogu also show that industrial structure has a positive impact on economic growth, but this "structural dividend" is gradually diminishing with the advance of reform[6][7].With the transformation of economic development and industrial restructuring, China has lowered its economic growth target, which has also increased the downward pressure on China's economy.

In terms of financial deleveraging, Chen Zeyu shows that the deleveraging policies introduced in China in recent years, in the long term, are conducive to reducing the uncertainty of our economy and promoting the stable growth of our economy. However, in the short term, due to reduced fund liquidity, it will affect the capital turnover of enterprises to a certain extent, leading to deflation and the short-term risk of economic downside[7].

Regarding population aging, Liu Chengkun argues that population aging will promote the advanced and rationalized industrial structure in both labor productivity effect and technological innovation effect, but at the same time hinder the process through labor supply effect, consumption expenditure effect and human capital accumulation effect, thus increasing the downward pressure on the economy[8].

China-US trade frictions also increase the downward pressure on China's economy to a certain extent. Kesha Guo and Li Li found that the longer the US-China trade frictions last, the greater the impact on macroeconomic indicators are, including the two sides' GDP and price level. What's more, their share in the global export market will fall significantly in both short and medium terms, and the greater the impact would be over time[10].

2.2.Macro regulation and control

There were three major macro-control practices in China before 2012. The first one was in late 1988, whose regulation was extensive and influential, starting late with strong efforts. Although in less than a year, the economy regained its basic balance and the inflation rate dropped to below 5%, the economic growth rate dropped, the social unemployment rate increased significantly, and the index of residents' consumption level dropped from 104.6 in 1988 to 102.8 in 1990 [11].The second one (1993) was very effective, however it lasted too long and led to a serious decline in economic efficiency of some enterprises, especially state-owned enterprises in the late 1990s. As a result, China had to invest in these enterprises in order to address difficult issues while laying off employees and

increasing efficiency as well as redirecting laid-off workers. According to Zhu Mingchun, the main problem to be solved in macroeconomic control at that time was to adjust the structure based on aggregate control, in order to prevent the economy from overheating but to achieve structural rationalization at the same time[12]. According to Xie Jinrong, it is necessary to regulate not only the state-owned economy, but also other types of economy. In addition, it is necessary to use legal and administrative means appropriately on the basis of economical means[13]. In terms of indirect regulation, the market should change enterprises from passive objects of macro regulation to micro bases that adapt to market changes and macroeconomic policy orientation, and shift the focus of regulation from physical aggregate balance to value the aggregate balance. The third (2003) macro-control practice began when the economy was only partially overheated with just reasonable efforts and scope, proper handling of land and capital supply as well as an appropriate duration.Therefore, this one was more comprehensive and successful with the economic growth rate increasing from 10.04% in 2003 to 10.11% in 2004, which delivered a better effect compared with the decrease of economic growth under the first two macro-controls, as shown in **Figure 1.**

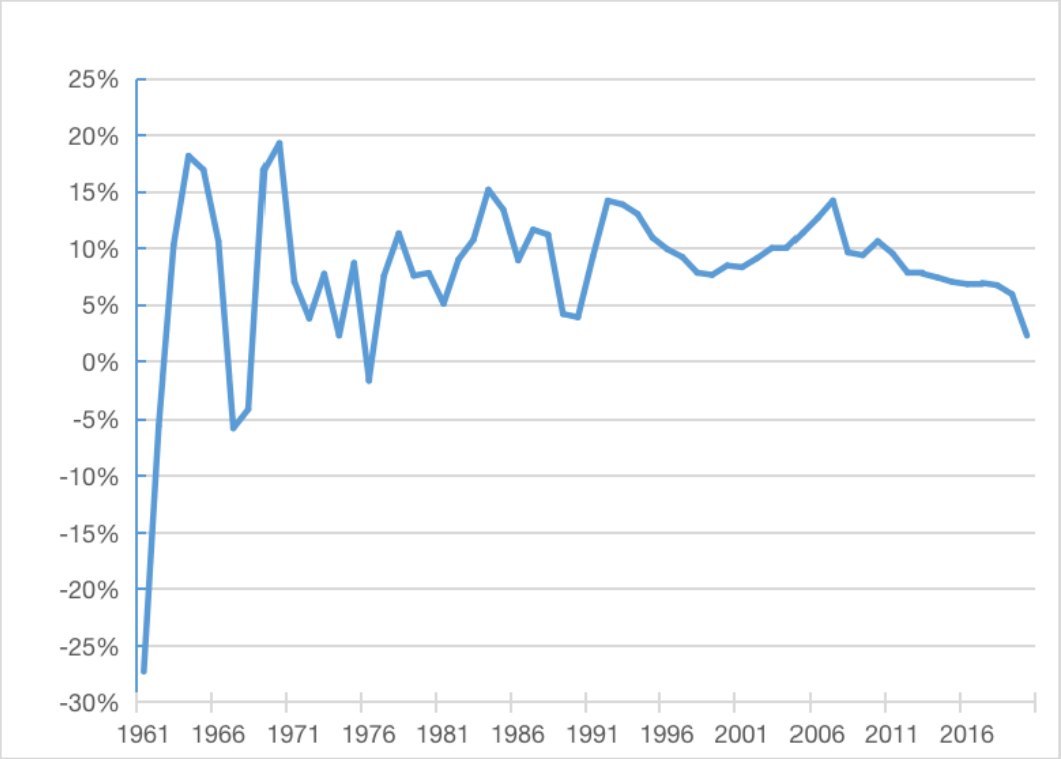


Figure 1. Annual GDP growth rate trend in China

3. MACRO CONTROL: SUPPLY-SIDE REFORM

Since the 18th National Congress of China, in order to adapt to the new normal presented by economic development and achieve long-term economic growth in China, the supply-side structural reform has been taken as the leading idea of macroeconomic regulation and control in China, which has represented a new breakthrough in macroeconomic control theory[14].

3.1 The necessity of supply-side reform

China's national conditions. In recent years, China's GDP growth rate has been declining year by year, from 2010-2014 in the order of 8. 7%, 8. 2%, 7. 8%, 7. 7% and 7. 3%. On the surface, China's demand is once again seriously insufficient, and the lack of demand in the steel, cement and coal industries is particularly serious. But in fact, the fundamental cause is that the original economic development approach needs to be changed in terms of the supply side.

Since the reform and opening up, China has adopted an extensive economy, thus the rapid growth of most industries has been relying on large input of labor, capital and natural resources. But in the 21st century, these resources can no longer sustain high investment, which means China needs to transform its extensive economy while faced with two unprecedented challenges: one is the " Lewis Turning Point ", the other is the "middle-income trap". Since the initiative of the reform and opening up, China's rapid economic growth was achieved by the almost unlimited labor transfer from the agricultural sector to the industrial sector, but now our economy is subject to the risk of "downward turning" due to the transfer shortage. Along with our

entry into middle-income countries, our wage costs continue to increase. Besides, we are not as good as countries that lag behind us in the production of low-end and labor-intensive products, while we are no match to developed countries in the production of technology-intensive products at medium and high ends, which has led to a relative contraction of the international market. In addition, the domestic market demand has not increased relatively due to the increasing income distribution gap in our country and other reasons. This has caused relative stagnation in our economy. Therefore, China needs supply-side reform.

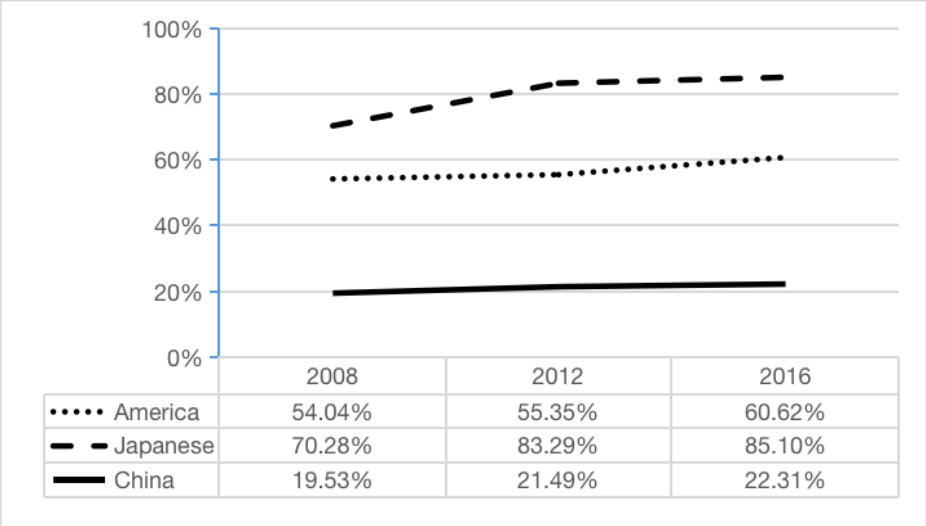
Theoretical analysis. According to mainstream development economics, supply and demand are likely to remain balanced in the short term, so information can be managed from the perspective of supply and demand. In the long term, supply and demand are dynamically balanced through the price mechanism. Both demand and supply should be discussed in terms of long-term and short-term management methods. The country should combine different supply-side factors to promote economic development based on different development stages or economic systems. Therefore, according to the current transformation of China's economic development mode, supply-side reform is the guidance and direction for our government to formulate economic policies.

Under the new normal, the reduction of potential output by supply-side structural factors is the main cause of the decline of China's economic growth. Many studies have also supported this judgment. Cai Fang and other researchers suggest that during the periods of 1979-1994 and 1995-2010, China's potential output growth rate stood at 9.66% and 10.34% respectively[15]. But it dropped to 7.55% from 2011-2015, further decreasing to 6.2% from 2016-2020. According to Chong Li, China can only effectively promote the transformation by promoting the accumulation of human capital and the adjustment of industrial structure, further improving the effective allocation of social resources while making progress in science and technology[16]. Xu Zhong and others also believe that the growth rate of potential output in China gradually slowed down from 1993 to 2018. Without supply-side structural reform, the downward trend will intensify in the future[17]. Therefore, it is necessary to implement the guidance of the Third Plenary Session of the 18th Central Committee of the People's Republic of China and carry out effective solutions to risks and hidden dangers such as overcapacity with comprehensive development and deepening education reform, so that China's social and economic markets can operate normally.

3.2 The direct object of supply-side reform and the main outcomes (taking the steel industry as an example)

The steel industry, along with the rapid economic growth since China's reform and opening up, serves as an important industry in the supply-side reform. We have conducted in-depth analysis of its necessity and milestones in the supply-side reform, as well as the problems it faces. China has eased the overcapacity of steel in recent years through supply-side structural reform, but the problems including unreasonable industrial layout, insufficient innovation capacity and insufficient environmental protection in the steel industry have not yet been solved.

First of all, the layout of China's steel industry is unbalanced coupled with regional surplus. Since the 1990s, due to capital booming, the steel industry has witnessed rapid expansion, focusing more on northeastern regions than southwestern regions, seriously affecting the normal development. In 2017, 65% of China's crude steel production will be concentrated in the country. 65% of China's crude steel production is concentrated in the east, 26% in the center, and only 9% in the west, forming a seriously skewed layout. In addition, the concentration of China's steel industry is at a low level[18].Table 2 indicates that the concentration of production capacity of the top four steel enterprises in China (CR4) is much lower than that of the United States and Japan.



	2008	2012	2016
America	54.04%	55.35%	60.62%
Japanese	70.28%	83.29%	85.10%
China	19.53%	21.49%	22.31%

Figure 2. Concentration of the top four steel industries (CR4)

Data source: World Steel Industry Statistics

Second, China's steel industry is not innovative enough, structural surplus. At present, China's low-end steel products supply too much and high-end products supply less. Special steel in developed countries accounts for about 15% to 20% of steel products. And from 2003-2017, China's special steel production was less than 15%. As shown in Table 3, compared with Japan's high-end special steel accounting for 30%, China's high-end special steel accounts for only 10% of the total production of special steel.

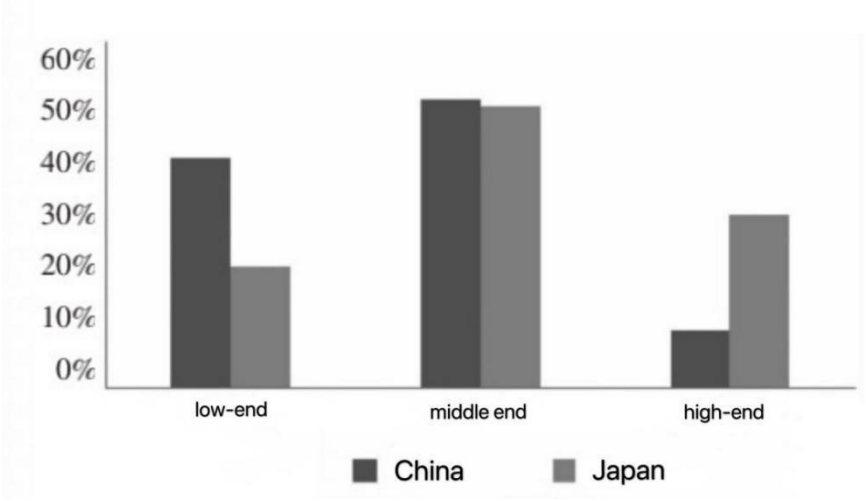


Figure 3. Comparison of Special Steel Structure between China and Japan, 2003-2017

Data source: He Weida and Qiu Linhui [18]

As shown in Table 4, although the proportion of steel enterprises with R&D institutions to the total gradually increased from 2008 to 2017, reaching 13.2%. In 2017, 290.3 billion yuan were invested on scientific research, accounting for 1.8% of the main business income, but still far below the world average of 2.5%. It can be seen that China's steel enterprises do not invest enough in scientific research and lack the incentive to innovate. This has led to the unreasonable structure of China's steel products and structural surplus.

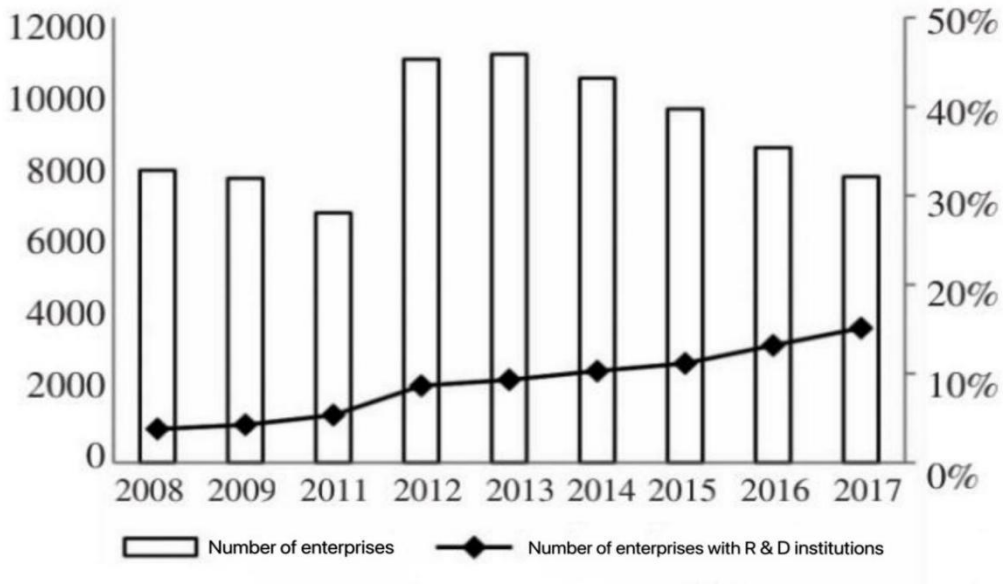


Figure 4. Number of firms in the steel industry

Data source: He Weida and Qiu Linhui [18]

To solve steel overcapacity from the perspective of the supply side, it can be narrowed down the following three aspects referring to the governance mechanism of the United States and Japan: first, introduce policies and regulations; second, increase investment for technology research and development and transform enterprises' production equipment; third, optimize resource allocation by means of the market regulation mechanism. Although China can learn from their methods because of their obvious effects, it needs to base on combine the actual situation from the supply-side perspective in that cause behind steel overcapacity is quite different. Therefore, China is expected to further take technological innovation as the driving force, optimize the governance mechanism of the steel industry, strengthen the level of technology and promote the upgrading of industrial structure, which is the only way to effectively solve the problem of excess steel production capacity[18][19].

4. CONCLUSION

On the whole, China's macro-control policy has gradually become mature and stable. The first one (1988) was unsatisfactory mainly because it was not timely and moderate; the second one (1993) lasted too long while the third one (2003) achieved a more comprehensive success because it started and ended at a right time with moderate efforts. The fourth one (2015), the supply-side reform, has withstood the "Lewis turning point" and the "middle-income trap" based on China's national conditions, shifting China's extensive economic development toward structural optimization and achieving a soft landing of the economy. Although China's economy is on the downside, it manages to maintain a high growth, social stability as well as industrial upgrading and optimization with the help of increasingly mature macro control.

China has a large number of steel enterprises which are diverse and widely distributed. Thus China needs to give full play to the government and the market so as to ensure healthy and sustainable development of the steel industry. The government should strengthen macro control, legislation and market supervision as well as implement the necessary corrections to marketing mistakes. This thesis concentrates on the steel industry for an in-depth analysis of supply-side reform, finding that other sectors have common features with the steel industry while also representing their own characteristics. We can add other sectors such as real estate in subsequent research.

REFERENCES

[1] Guo Jingjing. Analysis of the current phenomenon of overcapacity in China from the perspective of Marxian political economy[J]. Journal of Beijing Printing Institute, 29(2):5.

[2] Xiao Tingyu. Current situation of overcapacity in China and policy suggestions for removing capacity[J]. Economic and Trade Practice,2018(24):43.

[3] Ma Huijun, Du Renhuai. The impact of the new pneumonia epidemic on China's foreign trade exports and countermeasures [J]. China Price,2021(09):21-24.

[4] He J. From efficiency to security:Global supply chain adjustment and response under the epidemic shock[J]. Learning and

Exploration,2020(05):79-89+192.

[5] Wang X. Financial repression and foreign direct investment of developing countries [J]. International Economic Review, 2013(1):10.

[6] Gan Chunhui, Zheng Ruogu, Yu Dianfan. The impact of industrial structure change on economic growth and volatility in China[J]. Economic Research, 2011(05):4-16.

[7] Liu W, Zhang F. Industrial structural change and technological progress in China's economic growth[J]. Economic Research,2008,43(11):4-15.

[8] Chen Zeyu. Analysis of the current situation and causes of the downward pressure of China's economy [J]. Guangxi Quality Supervision Herald,2019(06):195+194.

[9] Liu Chengkun." Research on the role mechanism of population aging affecting industrial structure upgrading." Survey World ():

[10] Guo, Kesha, and Li, Li." Analysis of the Motivation, Trends and Impact of China-US Trade Friction." Tianjin Social Science .05(2021):149-160. doi:10.16240/j.cnki.1002-3976.2021.05.016.

[11] Yang Qixian." Achievements and Main Experiences of China's Macroeconomic Regulation and Control." Economic Vertical .09 (2007):2-4. doi:10.16528/j.cnki.22-1054/f.2007.09.001.

[12] Zhu, Mingchun." Current problems and countermeasures of macroeconomic regulation." Management World .02 (1992): doi:10.19744/j.cnki.11-1235/f.1992.02.005.

[13] Xie, Jinrong." On the transformation of macroeconomic regulation model and its requirements." Finance Teaching and Research .04 (1995): doi:10.16620/j.cnki.jrjy.1995.04.013.

[14] Qi Jianguo . Contextual analysis of the "new normal" of China's economy [J]. Western Forum, 2014 - 12 - 29.

[15] Cai Fang, Lu Yang. The potential growth rate of China's economy[J]. Economic Research Reference, 2013(24):8-9.

[16] Li Chong. Theoretical Basis and Policy Choice of Supply-side Reform [C]// Foreign Economic Theories and China Research Report (2017). 2016.

[17] Xu Zhong, Jia Yandong. Comprehensive measurement of China's potential output and its policy implications [J]. 2021(2019-3):1-17.

[18] He Weida, Qiu Linhui. How to break overcapacity in China's steel industry? --Thinking based on supply side and governance mechanism[J]. Journal of Jiangxi University of Technology,2019,40(06):44-49.

[19] Xie Di,Kong Xiao. The key to breaking overcapacity is to further promote the optimization of industrial organization [J]. Economic Research Reference,2021(04):113-127.