

# ***Overcapacity Resolving Mechanism in Yunnan Province under "One Belt One Road"***

—***Take Manufacturing Industry as an Example***

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**Abstract**—This paper analyzes the overcapacity phenomenon of manufacturing industry in Yunnan Province, and takes the manufacturing industry of Yunnan Province as an example, and combines with the special geographical location of Yunnan Province, and analyzes the economic and trade cooperation status of the Southeast Asia and South Asia countries along "One Belt One Road". The author thinks that the "One Belt One Road" strategic opportunity should be used, and put forward a series of suggestions to resolve overcapacity.

**Keywords**—"One Belt One Road"; overcapacity; resolving mechanism

## I. INTRODUCTION

Overcapacity is one of the most common phenomena in market economy. As the industry is too optimistic, the developing countries are likely to invest a lot of money in some industries, which will lead to overcapacity. The problem of overcapacity started in the middle and late 90s in China, and became serious after the economic crisis in 2008. In September 2009, the State Council endorsed National Development and Reform Commission and the Ministry of Industry and Information about Several Suggestions on Curbing Overcapacity in Some Industries and Reestablishing to Guide the Healthy Development of the Industry, which clearly pointed out that there are overcapacity problems in steel, cement, flat glass, coal chemical industry and other industries. Based on manufacturing industry in Yunnan Province as an example, this paper analyzes the current situation of overcapacity, and combines with the present trade situation between Yunnan Province and countries along the "One Belt One Road", and proposes suggestions on resolving overcapacity in Yunnan Province.

### A. Current Situation of Overcapacity

Many domestic scholars analyze the overcapacity of different industries in China at present. Some scholars use the comprehensive index method and the grey system theory and quantify the degree of excess capacity of China's steel industry in 1996-2012, and point out that in 2008 and 2012 China's iron and steel industry is in severe overcapacity [1]. Someone takes

Yunnan iron and steel industry as the research object, then point out that the proportion of crude steel output in Yunnan province has increased between 2013 and 2015, and average annual growth rate is higher than that of the whole country. Yunnan Province is in a state of serious overcapacity according to international standards [2]. Some scholars point out that the reduction of coal supply in China causes the contradiction between the production demand and the product more prominent [3]. Some scholars take the manufacturing industry as the research object, and use the generalized moment estimation method (GMM) of panel data to measure the capacity utilization level of China's manufacturing industry from 1999 to 2008, then argue that there are serious overcapacity in the seven major industries: ferrous metals, nonferrous metals, petrochemical coking, chemical raw materials, non-metallic mineral products, chemical fibers and paper [4].

### B. Causes of Overcapacity

About the causes of overcapacity, there are mainly the following opinions: One is the institutional factor. Some scholars from a financial perspective, consider that excessive intervention by local governments leads to overinvestment in large enterprises and overcapacity [5][6]. The intervention failure of the central government and the overinterference of the local government constitute the improper intervention of the government, which is the main reason for the overcapacity in the strategic emerging industries [7]. The serious defect in the promotion system of officials and regional investment subsidy competition is the most important reason for overcapacity [8]. Another one is the market factor. Local government distorts enterprise investment decision and market exit through factor market distortion, and then causes the problem of overcapacity and overcapacity curing [9]. Capital market distortion and rectification may be the reason for overcapacity of enterprises [10]. The economy of developing countries is often driven by investment, which increases the scale of investment and exacerbated the difficulty of estimating and coordinating other investments. The occasional overcapacity in developed countries is not only severe in fast-growing developing countries, but may also occur in a series of industries one after another [11].

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**C. Overcapacity Governance**

For the above two reasons, many scholars put forward some solutions and countermeasures. Managing overcapacity requires weakening the ability of local governments to intervene in the economy. The government should distinguish its responsibilities and obligations in different stages and stages of the system reform, and clarify the boundary between the government and the market [12][13]. We can improve the overcapacity by strengthening the institutional mechanisms such as administrative management, investment and financing, government officials' performance appraisal and price formation mechanism [14]. To dissolve the overcapacity contradictions, we should through deepening the system reform, perfecting the policy measures to optimize the market environment, accelerate establishing and perfecting market dominant industry access, fair competition, innovation and development, smooth out a long-term mechanism, monitoring and early warning, etc [15]. Some scholars focus on the reform of the market, and point out that the institutional withdrawal barriers should be reduced, then accelerate the use of market mechanisms to complete the survival of the fittest, and establish and improve the market exit mechanism to prevent and reduce overcapacity [16] [17]. Only if we play the correct role of the government and the market, can we solve the problem of overcapacity [18][19][20]. Some scholars taking Yunnan as the object, put forward some industrial structure problems, such as optimizing the industrial structure, rationally utilizing the resources endowment of Yunnan Province, attaching importance to personnel training and scientific and technological progress and so on [21].

The existing literature has made a lot of research on overcapacity and its resolution from different angles with fruitful results. Some scholars have pointed out that the "One Belt One Road" strategy has contributed to the solution of China's overcapacity [22][23][24], and a set of more mature theoretical systems has been formed. However, China is a vast country with different levels of economic development. Some studies cannot adapt to the current situation in Yunnan Province. In particular, there are few researches on the solution of overcapacity in Yunnan Province. This paper starts from the present situation of Yunnan Province, combined with the "The Belt and Road" strategy to resolve the overcapacity in Yunnan province to provide a feasible idea.

**II. THE CURRENT SITUATION OF OVERCAPACITY IN YUNNAN PROVINCE**

It is generally accepted that China's Manufacturing Purchasing Managers Index (PMI) exceeds 50%, which means the capacity expansion of manufacturing industry. Related information shows that, from a nationwide perspective, PMI has basically been over 50% in March 2016. See the line fig.1. below:

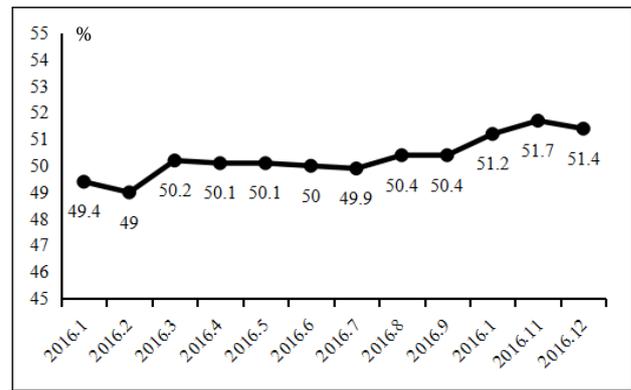


Fig. 1. China PMI index of manufacturing industry in 2016

Although the expansion of production capacity has led to the GDP growth rate in Yunnan Province in recent years, the blind expansion of certain industries in the province has brought about a serious overcapacity situation in the manufacturing industry. From 2013 to 2016, the manufacturing output value of Yunnan Province increased from 25.025 billion yuan to 268.334 billion yuan in 2016. Except 2016, manufacturing industry in Yunnan Province keeps the average 8.7% growth, while keeping the high speed growth, both from the environment and people's livelihood is not good to promote the economic development of Yunnan Province. According to the 2016 Yunnan Statistical Yearbook, the total energy consumption of manufacturing industry in Yunnan accounts for nearly 84% of the total industry in 2016, which is increasing year by year. In addition, the energy consumption of chemical manufacturing, metalworking and smelting industry accounts for nearly 75% of the total industrial energy consumption. According to the latest published National Manufacturing Industry Quality Competitiveness Index Bulletin, the quality competitiveness index of Yunnan manufacturing industry in 2015 was 80.17, which was lower than the national quality competitiveness index of 83.51, ranking 23 in China. The proportion of Yunnan manufacturing engineering technicians is 12 percentage points lower than the national average. The proportion of research and test development funds is lower than the national average level by nearly 10 percentage points. The proportion of new products sales is less than 17 percentage points in the national average level. Only 0.03% of enterprises with core technology of independent intellectual property rights, and 99% of them fail to apply for patents. All the facts prove that the large consumption of energy consumption has not improved the backward situation of manufacturing industry in Yunnan Province.

Take the steel industry as an example, during 2010 ~ 2016, the Yunnan Province of steel production increased from 12.1499 million tons to 12.1499 million tons, including 2013 tons of steel production peaked in 2013. The average growth of 20.7% from 2010 to 2013, nearly ten percent higher than the national average growth in steel production, until the end of the 2013 annual output to a downward trend, the average decline rate is 6.7%. In the past 2013~2015 years, the utilization rate of crude steel production in Yunnan was 62%, 55.6% and 46.6% respectively, which were lower than 74.9%, 72% and 69% of the national average level in the same period, and which were

lower than 78.1%, 76.7% and 69.7% in the world. According to the international standard of less than 79%, which is overcapacity and less than 75% is a serious standard, Yunnan iron and steel industry has serious overcapacity. At the end of 2015, the central economic work conference clearly pointed out that the primary task of 2016 was the structural reform of the supply side, and formally put forward the "cut overcapacity", across the country including Yunnan Province officially responded to this policy. In 2016, the output of steel in Yunnan was reduced by 2.4% than that in 2015. In 2017, the output of steel in Yunnan was 2.9% less than that in 2016, but the utilization rate of production capacity was still lower than that of the same period in the country, and the production capacity was still in serious excess in accordance with the international standards.

Yunnan Province's cement output was 109.63 million tons in 2016., reached a net increase of 16.58 million tons and an increase of 17.8%, which is 15.3 percentage points higher than the national growth rate. The national cement productivity utilization rate is 68.7%. The utilization rate of cement productivity in Yunnan is far lower than that of the country, according to the international standard, the cement industry of Yunnan province is also in serious overcapacity in 2016. According to the Yunnan Provincial Industrial and Information Committee issued the Yunnan Cement Industry 2016 Annual Structural Adjustment Bulletin, in the cement production of the provincial cement enterprises, the cement ratio of 32.5 grade is up to 47%, and the clinker and cement ratio are 1:1.46, which is higher than the national average ratio of 1:1.3.

**III. THE CURRENT SITUATION OF ECONOMIC AND TRADE COOPERATION BETWEEN YUNNAN PROVINCE AND THE COUNTRIES ALONG THE "ONE BELT ONE ROAD"**

Recently the foreign investment from China to the countries along the "One Belt One Road" is expanding continuously." One Belt One Road" involves 64 countries, the vast majority of which are developing countries, including 43 in Asia, 16 in central and eastern Europe, 4 in CIS and 1 in Africa. Yunnan Province is located in the junction of China and South Asia, Southeast Asia. It is the "link" connecting South Asia and Southeast Asia in southwest China. It is also the connecting point of "One Belt One Road" and Yangtze river economic belt. In the past five years, the foreign investment has also been on the rise. See the fig.2. below:

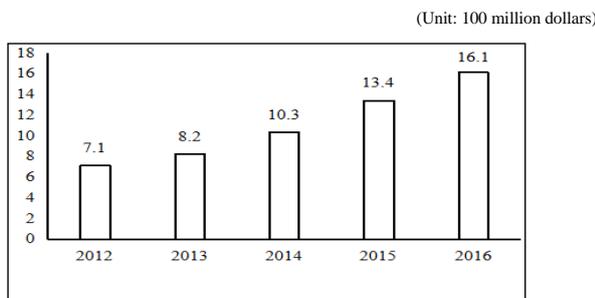


Fig. 2. foreign direct investment trade in Yunnan Province

It can be seen that since the "One Belt One Road" strategy was put forward in 2013, the growth of FDI in Yunnan Province has accelerated significantly, and the amount of foreign direct investment doubled between 2013 and 2016, with an average growth rate of 22.8%, and the biggest growth rate reached 30.1% in 2015.

The import and export trade between Yunnan Province and the countries along the "One Belt One Road" has developed rapidly, either. The export trade volume of the countries along the "One Belt One Road" accounted for an average of 58.5% of the total amount of export trade in Yunnan Province, of which export trade volume in 2015 accounted for 62.8% of the total export trade in Yunnan Province. From 2013 to 2015, the trade surplus between Yunnan and exporting countries increased continuously, with a trade surplus of us \$8.725 billion in 2015. the impact of international trade situation and domestic policy adjustment decreased slightly in 2016, .In the export trade of countries along the "One Belt One Road", the export trade of Yunnan Province and the Asian countries is of great importance. The export volume of Asian countries accounted for 97.6%, 97.4%, 97.4% and 98.2% respectively from 2013 to 2016. See the fig.3. below:

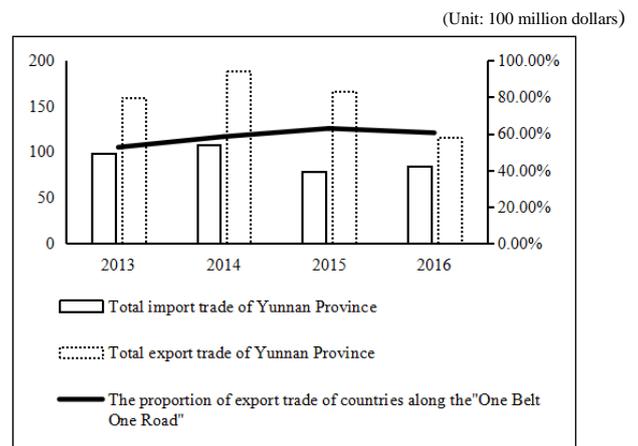


Fig. 3. Import and export trade volume of Yunnan Province

**A. Yunnan Province and Southeast Asia**

Yunnan Province and the Southeast Asian countries along "One Belt One Road" import and export totaled \$11.833 billion in 2016, the largest import country is Myanmar, imports of \$3.576 billion, and the biggest exporter is also Myanmar, exports of \$2.489 billion. Myanmar's total imports and exports accounted for 51.3 percent of the total imports and exports of Southeast Asian countries along the "One Belt One Road". See the table 1 below:

**TABLE I. THE TRADE ACCOUNT IN 2016 BETWEEN YUNNAN PROVINCE AND SOUTHEAST ASIAN COUNTRIES ALONG THE "ONE BELT ONE ROAD"**

(Unit: 100 million dollars)

	Imports	Import ratio	Exports	Export ratio
Brunei			0.04	0.00%
Myanmar	35.76	62.7%	24.89	40.6%
Cambodia			0.50	0.8%
Indonesia	0.04	0.00%	4.28	7.0%
Laos	6.59	11.5%	2.10	3.4%
Malaysia	0.12	0.00%	3.67	6.0%
The Philippines			1.04	1.7%
Singapore	0.28	0.00%	0.76	1.2%
Thailand	1.35	2.3%	10.09	16.5%
Vietnam	12.92	22.6%	13.90	22.7%

#### B. Yunnan Province and South Asia

Yunnan Province and the South Asian countries along "One Belt One Road" import and export totaled \$561 million in 2016, the largest import country is India, and the biggest exporter is also India, and India's total imports and exports accounted for 66.7 percent of the total imports and exports of South Asian countries along the "One Belt One Road". See the table 2 below:

**TABLE II. THE TRADE ACCOUNT IN 2016 BETWEEN YUNNAN PROVINCE AND SOUTH ASIAN COUNTRIES ALONG THE "ONE BELT ONE ROAD"**

(Unit: 100 million dollars)

	Imports	Import ratio	Exports	Export ratio
Pakistan			0.34	6.30%
India	0.25	100%	3.49	65.1%
Bangladesh			1.22	22.8%
Sri Lanka			0.31	5.8%

#### IV. COUNTERMEASURES AND SUGGESTIONS FOR RESOLVING THE OVERCAPACITY IN YUNNAN PROVINCE THROUGH THE "ONE BELT ONE ROAD"

Overcapacity is one of the major long-standing problems in Yunnan Province and even the development of the national economy. Yunnan province is a unique geographical advantage in the "One Belt One Road" strategy, is the only one of many provinces in southwestern China connect both Southeast Asia and South Asia from the land at the same time, the "One Belt One Road" strategy makes Yunnan Province and the world especially in Southeast Asia and South Asia, the economic and trade exchanges increased year by year. Some scholars have pointed out that "One Belt One Road" strategy is helpful to transfer China's overcapacity because it is formed an industrial transfer mechanism with the industry differential as the basis, the factor flow as the condition, and the market interest mechanism as force. Therefore, it is very feasible to resolve the overcapacity in Yunnan Province through this strategy, and its solution can be based on the production capacity transfer. The relevant countermeasures and suggestions are put forward in the following aspects:

#### A. The Government Should be Committed to Providing a Harmonious and Stable Investment Environment.

Countries along the "One Belt One Road" have different religious, cultural and economic backgrounds, and these diverse backgrounds may have potential adverse effects on the stability of the investment environment. As an important land passage to Southeast Asia and South Asia, Yunnan Province is an important bridgehead for our country to be open to the southwest. The government, especially the border city government, should actively settle disputes and frictions with neighboring governments and provide a more stable investment environment for enterprises. Investors should strengthen communication with the competent authorities of the government. They should actively sought and absorb the opinions and suggestions of the government, comply with local laws and regulations, and do well the relationship with government and local residents, especially the discretion and the relationship between the government officials to ensure continued operation of enterprise.

#### B. Expand the Scope of Trade with Asian Countries.

It can be seen from the import and export trade between Yunnan province and south Asia and southeast Asia that Yunnan province has no trade relations with some countries along the "One Belt One Road", such as East Timor and Bhutan, and has a unilateral trade state with some countries, such as Sri Lanka and the Philippines. Because of the limit of consumption level in developing countries, the amount of trade that each country can undertake is limited, and Yunnan province can develop new market from these countries and let more capacity "go out".

#### C. Strengthen Infrastructure Construction with Countries along the "One Belt One Road"

Countries along the "One Belt One Road" are mostly developing countries, and they share a common characteristic - infrastructure construction is usually weak. Therefore, the construction industry and the manufacturing industry are urgently needed. The enterprises in Yunnan Province can realize the transfer of excess capacity in steel, cement and other industries through the construction of external contracting infrastructure, and provide the foundation for the social and economic development of the host country to achieve win-win results.

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My theoretical basis is not particularly solid, so there are many shortcomings in this article, this international conference contributes only to exercise myself, and I hope that I can finish writing the paper more smoothly in the future.

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