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The Industrial Structure Optimization Research in Nanning-Guiyang-Kunming Area

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---- Abstract ----

As we know that in the process of social reproduction, the industrial structure is the relations in which the various national economy industries relate mutually and restrict mutually, is the important facts that attribute to the regional economy development comprehensively, coordinately and sustainably. With the development of productive forces, with the advance in technology, the reform and innovation in the economic system, the industrial structure always evolutes along some certain path and way.

In 17th century, English economist William Petty believed that the income in manufacturing industry are much more than that in agriculture, and the commercial income are much more than that in manufacturing industry. Therefore, the relative income difference impels the labor force shift from the low income industry to the high income industry. He promulgated the basic direction in the economical development and the structure evolution, established the mechanism which enhanced the shifts from the low productivity to the high productivity, so the industry labor productivity enhancement and the industry advanced the economical development from the low productivity to the high productivity. In 40's, English economist Corrin Cluck believed that the labor force always favors to the high income industry because of the relative income difference in the economical development, therefore, with economical development and national income level enhancement, labor force shifts from primary industry to second industry; when the national income level further enhances, the labor force shifts to the tertiary industry, as a result, the primary industry labor force reduces, then the tertiary industry labor force will increase. The renowned American economist S.Kuznets believed that, with the economical development, the relative proportion in the agricultural labor force and its relative proportion in the national income proportion drops unceasingly, but the proportion in second industrial labor force will be roughly invariable or rise slightly, yet its proportion in the national income proportion raised; The proportion in tertiary industry labor rises slightly or roughly invariable; The changing proportion in each industry synchronizes in national income proportion. The renowned American economist Hollis Channel believed that, in the gross national product, the share which the industry occupy rises gradually, the agriculture's will drop gradually, the tertiary industry's will rise slowly; In the labor employment structure, the share which the agriculture occupy will drop gradually, and the industry's will change slowly, then the tertiary industry

will absorb the massive labor forces gradually. German economist Hoffman believed that in the industrialization advancement, the Hoffman proportion (i.e. the ratio of subsistence output value and the capital material industry output value) drops unceasingly. The industrialization process has four development phases: In the first stage, the subsistence production occupies dominant position in the manufacturing industry, and its Hoffman proportion is about 5; In the second stage, capital material industry growth are quick than that in subsistence industry, but, in this stage, the production scale in subsistence industry still bigger than that in the capital material industry, and its Hoffman proportion was about 2.5; In the third stage, the capital material industry production continues to grow, the scale expands rapidly, and keeps balance with the subsistence industry production, its Hoffman proportion is approximately 1; In the fourth stage, the capital material industry production occupies dominant position, its scale of production is bigger than the consumable scale of production, thus realizes the industrialization basically, and its Hoffman proportion is smaller than 1. All these famous economists told us the basic rule in the industrial structure evolution.

As the “bridgehead” between China and the Southeast Asian Nations’ free trading area, the industrial structure evolution in Nanning-Guiyang-Kunming Area basically conforms to the industrial structure evolution rule which the economists proposed. Nanning-Guiyang-Kunming Area has rich natural resources and the prominent geographical superiority, its three industrial structures tend to be reasonable gradually, but, its economy development level is still lower than that of the Western Area’s average level, thus its dual structure characteristic is extremely typical; Its industrial structure is equal with the industrialization acceleration period in the developed country; In the entire industrial system, the resource industry is primary, and the foundation industry is quite weak; The industrial departments such as tobacco industry, sugar industry, nonferrous industry, energy industry, tourism are quite active; Information service industry, high and new technology industry which takes the resources as the foundation are rising fast; Interrelatedness between various industrial departments is increasing unceasingly. Looked from the structure benefit, in the entire industrial system, the competitive power, the rising rate, and the primary industry are not ideal; For the second industrial, the prominent question is lack of the competitive power, and its structure adjustment duty is very arduous; Generally speaking, the tendency of tertiary industry development is good, but the modern service industries such as financial insurance business are not ideal, which means there is far way to go to the great future for Nanning-Guiyang-Kunming Area as the “the bridgehead” between the China--Southeast Asian Nations’ free trading area; Looked from the industrial spatial layout, primary industry

main layout is in general countryside, second industrial main layout in the satellite towns around key cities, and tertiary industry main layout in key city. The industrial connection analysis to Nanning-Guiyang-Kunming Area indicates that the industrial departments such as the tobacco industry, nonferrous industry, energy industry have strong impetus function; Yet industrial departments such as construction and traveling have the strong impetus function; Chemical, agricultural, transportation equipment manufacture simultaneously have the strong impetus. As to the industrial production and the integrated development, the rates of second and third industrial specialization are high.

The industrial structure adjustment and the optimization are the common question that each country or the region faces in the industrial development. For the traditional industry, the supply is much more than the demand; With the technology advancement acceleration, the economical globalization advancement speeds up; As the China--Southeast Asian Nations' free trading area completes, as the Chinese West-Development Strategy advances, under such background, to Nanning-Guiyang-Kunming Area, the pressure and the importance of the industrial structure adjustment and the optimized is more and more prominent. Speeding up the industrial structure adjustment and its optimization is the most important way for Nanning-Guiyang-Kunming Area to realize the economy leap development.

The industrial structure adjustment and its optimization are a complex engineering system. First, for Nanning-Guiyang-Kunming Area, the basic goal must be clear, which is through some adjustment, to obtain the power to speed in the long period of time (in 10-15 years) and maintain high development speed (about 9%-12%) to the entire region economy; Second, through the deep level system question solution, we can form new mechanism which can gradually adjust and make positive respond to the structure question. The adjustment and the optimization mentality is: to optimize agriculture, develop industry, speed up the tertiary industry development. In "11.Five" period, try to realize the "321" modern industrial structure.

The domestic and foreign industrial development practice indicated that, for the industrial structure adjustment and the optimization, key lies in the choice and the cultivation of leading industry. This article utilizes the method of Qualitative and Quantitative Analysis, selects the information industries (at present mainly is information service industry), takes high and new technology industry(which taken the resources as the foundation) and the tourism as the leading industry, take the tobacco industry, the nonferrous industry, the mechanical industry, the electric power industry, the building materials industry, the chemical

industry, the food industry as the pillar industries, take the pharmaceutical industry, the sugar industry, brews industry as superiority industry. At the right moment, develop electronic, the information technology industry, the bio-engineering, the medicine technology industry, the new material technology industry, the resources, the environment technology industry, the light integration of machinery technology industry, the farming and forestry technology industry.

The industrial structure optimization is a dynamic process. In this process, we must pay great attention to the industrial mutual fusion and impelling. Through the industrialization, we can promotion informationization. As the informationization impetus industrialization, through the industrialization, we can impetus service industry development, promote the industrial structure promotion and the optimization .Through the development production service industry, we must pay great attention to this region comparison superiority, and unify the economies of scale and the strategic support, thus cultivate enhance the region's independent innovation ability, increase its industry core competitive power, strengthen its intrinsic power. We must depend upon the idea innovation, the system innovation, the technological innovation and the management innovation to promotion system reforming and growth reforming, thus impetus industrial structure promotion reforming. We must choose and cultivate scientifically the leading industry group, transform its leading industry order reasonably, impetus industrial structure readjustment and the optimization continually. We must unify the region's production, the assignment, the exchange and the expense effectively, thus realize this region's economic development comprehensively, coordinately and sustainably.

In order to advance its industrial structure adjustment and its optimization, we must have good policy supports. The policy including: non-balanced growth policy, technology policy, the leading industry policy, resources incline disposition development policy and coordinated development policy. And formulate the corresponding necessary measure: Raise consumption hot spot and guidance expense diversification, reform investment system, develop the leading industry financing channel, deepen enterprise reform, transform the traditional industry with the high technology and new technology dynamics, conformity region resources, build the good region innovation environment, improve technical education and infrastructure, and enhance human resources development.

The research mentality of this article is: by using engineering principle, by taking the science development view as the instruction west, places its region industrial structure adjustment and the optimization question to the economical globalization advancement. As

the West China's development strategy advances, according to "qualitative analysis - - quantitative analysis - - qualitative analysis" pattern, we can clarify this region geographical superiority, the resources position potential, the industrial structure evolution process and various industrial spatial distribution, take the nation and the western area as a reference system, carry this region various industries department's comparison superiority, transformation ability, the competitive power on the system analysis. We must have the industrial structure present situation characteristic as a whole south the assurance. By using the Markov's theory and method, we can analyze this region's future industrial structure evolution; propose its industrial structure optimization condition, the reasonable industrial layout condition and the advanced industrial policy condition.

As to the concrete analysis method, we use a matured method which puts the regional economics and the region industrial structure economics together. First, in order to analyze this region's industrial structure transformation ability and the competitive power, we use Shift-share Method (SSM); second, we carry on the cluster analysis to this region industrial structure characteristic, clarify the industrial spatial distribution. In order to have clear overall characteristic, we carry on the hierarchical analytic hierarchy, by using the industrial relation theory and level structure theory (system engineering theory). By using the Markov method, we analyze its industrial structure evolution process and the future evolution situation. In the qualitative analysis and in the quantitative analysis foundation, we carry on the leading industry and pillar industry's screening and the optimized analysis. The qualitative analysis and the quantitative analysis are the main analysis method through the whole text.

The overall construction of the article is: First chapter is the general remarks--the elaboration selected topic background and the significance, the research mentality and the method. Second chapter for theory model. Third chapter to the sixth chapter, analyzing the resource talent situation and the geographical superiority, the industrial structure evolution process, using SSM, using the host ingredient analytic method and the cluster analytic method to analyze this region industrial structure benefit, the specialization and the integrated development, thus as a whole, grasping this region industrial structure as a whole the static state and the dynamic characteristic. Seventh chapter is the article's key point, analyzing the industrial structure adjustment and the optimization background, elaborating this region industrial structure adjustment and the optimization goal, the principle, the restriction factor, the way, the optimization condition symbol, the basic direction and the optimization condition. Eighth chapter discusses the industrial structure adjustment and the optimized industrial policy. Ninth chapter is the concluding remark, elaborating this article

research conclusion.

This paper's innovation mainly manifests the following six points:

1st, using engineering principle and the method, regards this region as a whole, analyzes its industrial structure the evolution process, proposes its adjustment and the optimization plan.

2nd, using SSM, host methods, ingredient analytic method and cluster analytic method, under the support of SAS software, analyzes the static characteristic and the dynamic characteristic of the industrial structure.

3rd, using the Markov method, grinds the evolution process of the region industrial structure, and forecasts its future change.

4th, proposes the concept of the advance condition to the region industrial structure adjustment and optimization, of the reasonable condition to the industrial layout and of the advanced condition to industrial policy.

5th, take the science development view as the instruction, through the analysis research. In current and future section of times, the region must face the world, face the future, face the modernization, face the market, choose and cultivate the leading industry group.

6th, discusses the industrial structure adjustment and the optimization goal, the principle, the way and the optimization condition, believes that this region should impel the industrial structure and optimization promotion through the idea innovation, the system innovation, the technological innovation and the management innovation.

Key Words : Nanning-Guiyang-Kunming Area 、 industrial structure 、 structure adjustment and the optimization、 research