Research on the Implementation Path of Structural Reform of Supply Side of Automobile Industry in Jilin Province

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Abstract. The automobile industry is one of the pillar industries of Jilin Province's economic development. With the transformation of China's demand structure and supply structure, the contribution of Jilin Province's automobile industry to the economy has also weakened. Promoting the structural reform of the supply side of the automobile industry in Jilin Province is an inevitable choice to improve the quality and efficiency of the industrial supply system. The supply-side structural reform is a fundamental transformation of the industrial economic development mode and a comprehensive transformation and adjustment of enterprises and industries. The main implementation path is to strengthen the status of the pillar industry of the automobile industry, improve the technological innovation capability of the automobile industry, strengthen the linkage and integration between the automobile industry, highlight the structural reform of the supply side, and effectively implement the "three to one, one reduction and one supplement" at the central economic work conference. The five major tasks are to improve the quality and exquisiteness of the automotive industry products, and gradually establish new power and new advantages in the development of the automobile industry in Jilin Province.

Introduction

Industry is one of the most important material production sectors in China's national economy, and it is the main battlefield for supply-side structural reform. In recent years, with the changes in demand structure and production factors, China's industrial structure has presented new characteristics and trends, mainly due to the weakening of traditional growth drivers, while new growth drivers are being cultivated and formed, and new and old pillar industries have entered the replacement period. In the process of transforming the demand structure and supply structure, and changing the old and new growth conditions, promoting the structural reform of the industrial supply side has become an inevitable choice to improve the quality and efficiency of the industrial supply system.

Current Status of the Automobile Industry in Jilin Province

The position of the automobile manufacturing industry in key industries in Jilin Province. In 2016, the added value of industrial enterprises above designated size in Jilin Province was 498.82 billion yuan, a growth rate of 6.6%. In 2017, the industrial growth rate of Jilin Province rebounded slightly. The added value of industrial enterprises above designated size increased by 5.5% year-on-year. The estimated value added was 650 billion yuan. The growth rate was 0.1 percentage points higher than that of the previous three quarters. During the same period, it fell by 0.8 percentage points. The key industries in Jilin Province mainly include eight major fields such as automobile manufacturing, medicine, chemical industry and metallurgical building materials. In 2017, the eight key industries included in the Jilin Province Industrial Growth Plan achieved a growth rate of 6.8%, and the automobile manufacturing industry ranked first with a growth rate of 13.9%, far exceeding other industries, and the automobile manufacturing industry. Be a leading industry that leads and drives the development of other industries.
The total amount of automobile production and sales in Jilin Province. In 2000, the Chinese government first proposed “encouraging cars to enter the family”. This is a huge turning point in the automobile consumption policy from “suppression” to “encourage”. The automobile industry has entered a period of rapid development. Since 2006, the sales volume of automobile production in Jilin Province has increased steadily and steadily year by year. In 2017, the production and sales volume of automobiles was 4.5 times that of 2006. From the comparison of domestic GDP growth rate and the growth rate of automobile sales in China and Jilin Province, the trend of automobile sales in Jilin Province is consistent with the national automobile market as a whole. However, since 2011, the Chinese auto market has ended its rapid growth in production and sales, and since the “Twelfth Five-Year Plan”, the Chinese auto industry, including Jilin Province, has entered a period of micro-growth. It is worth noting that since 2015, the overall development of the automobile industry in Jilin Province has once again exceeded the growth rate of GDP and national automobile sales, indicating that the internal reform of FAW has achieved initial results, and the automobile industry has become the driving force for the development of other industries in Jilin Province, achieving “Made in China 2025”. An important catcher of the goal.

The status and utilization of the automobile industry in Jilin Province in the country. As the first pillar industry in Jilin Province, FAW Group has an annual production capacity of more than 2.8 million vehicles, and the target of 3 million vehicles in 2020 is less than 200,000. Major automobile companies include FAW Volkswagen, FAW Car, FAW Jiefang and many other automobile manufacturing plants. According to the provincial statistical caliber calculation, Jilin Province's automobile production ranked third in the country in 2008 with 2,824,700 units, Guangdong ranked 3.1 million and Shanghai ranked second, Chongqing, Hubei and Guangxi. The provinces are located behind Jilin Province.

Development of auto parts in Jilin Province. Jilin Province is a major province for the production of auto parts and accessories in China. Jilin Province is mainly engaged in the production of comprehensive types of auto parts and accessories enterprises. The products are complete and have strong market competitive advantages in the country. Parts and components include body stamping parts, chassis system, flywheel ring assembly, brakes, drive shafts, lamps, speakers, automotive wiring harnesses, seats and other varieties, mainly for FAW Jilin Automobile, Volkswagen, Liberation, Dongfeng, Hafei, Chery and other vehicle companies supporting. The distribution of auto parts enterprises in Jilin Province is wide, and Changchun is at the core. According to the statistics of "Changchun Auto Parts Manufacturing Enterprises Directory" (2016 edition), Changchun City has 1,181 auto parts manufacturers. The Changchun City led by FAW Group is called "Detroit of China", Changchun not only There are more than 1,000 auto parts companies, such as the FAW Group, and there are more than a thousand auto parts companies all over the city, most of which are supplied by FAW, with a high degree of industrial clustering.

The Problems in the Development of the Automobile Industry in Jilin Province

Automobile products lack scientific strategic positioning, and the independent brand effect has not been reflected in recent years. The increase in automobile production value and the growth rate of production and sales in Jilin Province show a “double slowdown” and uneven utilization rate of capacity, mainly because of Jilin. Provincial automakers generally lack scientific and accurate product market positioning, and the independent brand effect is not reflected. Affected by FAW Group's domestic market positioning and strategic layout adjustment, it is behind the provinces and cities where the auto market is active in the total amount of real estate sales. The advantages of high-end product structure are shrinking year by year. In 2015, the chairman of the FAW Group, “Xu Jianyi Incident” caused a huge shock in the automotive industry [4]. In the past seven years, its strategic goals have basically not been achieved. The goal is vague and extensive management is the root cause of the failure of FAW's own brand. The successful breakthrough of Changan Automobile's own brand has formed a stark contrast with FAW Group's “Waterloo”. The key to
Changan Automobile's rapid growth is the clear direction and firm execution of the automotive industry's strategic goals. In 2008, in the “Red Flag Renaissance” development strategy represented by the Red Flag H7, Xu Jianyi did not recognize the logical relationship between the market demand side and the enterprise supply side in terms of purchasing power and resource allocation. FAW Group spent billions of funds and more than 1,000 scientific research forces to build the Red Flag H7 R&D team. However, the 300,000-500,000 mid-to-high-end market pricing did not cause a positive response from the demand side. More than 30% of the sales in the past eight months, more than 30% belong to government procurement. Changan Automobile and FAW Group have adopted a positive R&D strategy, Changan succeeded, and FAW failed. Facts have proved that without long-term technical accumulation and brand precipitation, it is an unscientific strategy to rush to take the route of high-end cars.

The independent research and development capability of the automobile manufacturing industry is weak. The lack of independent research and development capability of the automobile industry is the central link to improve economic efficiency and the core competitiveness of the automotive industry for sustainable development. After the reform and opening up, Jilin Province adopted the technological development route of “introduction, digestion, absorption and innovation” proposed by the state, and the automobile technology and production level were effectively improved. However, the situation of “re-introduction, light digestion, and no innovation” is still widespread. When we re-examine the history of “market-for-technology”, we found that although the company gave up the market and even transferred part of the ownership, it did not exchange for more powerful technological innovation capabilities. From the perspective of enterprise technology innovation, the development pattern of the automobile industry in Jilin Province, the huge gap between FAW Group and other automobile companies in research and development capabilities has further led to a large gap with other domestic automobile provinces. In addition, in terms of automobile product structure, the lack of independent brand effect is an important reason for the lagging development of commercial vehicles and passenger vehicles. The key is that the core technology required for the assembly process of the automobile is extremely extroverted and forms a vicious circle of repeated introduction. In the new round of technological changes, the weakness of independent research and development capabilities will also lead to a series of problems such as insufficient development of the automobile industry.

The auto parts industry is seriously lagging behind and the supporting capacity needs to be improved. The steady growth of automobile production and sales has created a historic market development opportunity for the development of the parts industry. The component industry, which is the basic element of the automotive industry, is the basic guarantee for the overall improvement in the quantity and quality of automobile manufacturing, accounting for more than half of the total value of the global automotive industry chain. The high-end development of automotive products is conducive to the transformation and upgrading of the automobile industry in Jilin Province, but the rapid growth of the mid- to high-end automobile market and the slow development of the local parts supporting capacity have formed a large contradiction, while the local matching rate is relatively high in the low The mature models show a trend of product transfer, which means that second- and third-tier suppliers with poor competitiveness and low technical level are faced with the development problem of whether they can continue to survive. In general, the problems in the development of the auto parts industry in Jilin Province are mainly manifested in three aspects: First, the scale problem. The auto parts enterprises in our province are mainly small and micro-sized. The capital chain is long, the capital reserve is insufficient, the scale of production capacity is small, the aggregation effect is poor, and the problem of repetitive production is dispersed. Second, technical issues. The auto parts enterprises in our province have not yet formed a core technology with national competitive advantages, and have long relied on external technology supply. The technical structure is unreasonable, the proportion of traditional parts is too high, and the supporting capacity of enterprises is weak. Third, brand issues. No matter the quantity or structure, our province has not yet formed a competitive independent brand. Imitation has become the biggest obstacle to the
development of branding. The company's supporting facilities are not synchronized, and the lack of brand premium ability further reduces the market supply capacity of enterprises.

The automobile market is out of order and the standard management is lacking. The automobile service industry, also known as the automotive aftermarket, is a high value-added industry that has emerged along with the development of the automobile industry. However, the development of the automobile service industry in Jilin Province has problems of scattered, small-scale and disorderly enterprises. The root cause lies in the lack of market system, the scale and brand effect are not obvious, and it cannot meet the development requirements of automobile manufacturing service. The end-to-end and flexible market demand cannot be realized. C2B (Customer to Business), that is, the consumer-to-business model is truly user-centric. However, the decoupling between the automobile service industry in Jilin Province and the former market is significant, and the user part with great commercial value has not been caused. The market before and after the automobile manufacturing industry attaches great importance to this, which obviously has the development trend of “Internet + manufacturing”.

The Basic Connotation of Structural Reform of Industrial Supply Side

The purpose of the structural reform of the supply side is to improve the supply of the total factor productivity. The structural reform of the supply side is part of the comprehensive reform. It refers to the reform initiated from the supply side and aimed at the deep institutional contradictions of economic structural problems. The driving force of economic development comes from the combination of effective supply and effective demand, and fundamentally comes from the consumption demand of the terminal. As China gradually enters the late stage of industrialization, the traditional market demand space in some manufacturing fields has been greatly reduced. Under this circumstance, it is necessary to tap the new impetus for industrial growth and promote the fundamental transformation of economic growth momentum. The key to the structural reform of the supply side is to recognize the basic changing trend of the demand structure, adapt to the demand structure transformation of the middle-upper income to the transitional stage of the developed economy, and solve the problem that the supply structure cannot adapt to the demand structure transformation and timely adjust various institutional and institutional obstacles. The supply-side structural reform is an extremely arduous and complex adjustment of the overall transformation of enterprises and industries. The purpose is to improve the efficiency of industrial development through the further flow of factors and re-optimization and configuration.

Supply-side structural reform is a fundamental shift in the way the industrial economy develops. With the improvement of the economic development stage, the growth model driven by factor input has become unsustainable, and the investment drive has entered a stable period, and the resource and environment rigid constraints have intensified. We must get rid of the traditional development path that relies on low-end industries, low-cost labor and resource and environmental consumption, and recast new competitive advantages. The structural reform of the industrial supply side is to guide the industry from simply relying on factor expansion and investment to the pursuit of intensive and quality-efficient development. From the perspective of economic development, whether economic growth can be realized by factor input, resource consumption and innovation-driven transformation is related to the sustainability and quality of economic growth. From the perspective of long-term development, the improvement of factor quality and the enhancement of innovation capacity will gradually replace the expansion of factor scale and become a new driving force for industrial growth. Equipment manufacturing and high-tech manufacturing will gradually replace traditional high-energy-consuming industries and become a new driving force for industrial growth.

The result of structural reforms on the supply side is the formation of a new industrial economic growth mechanism. The main point of comprehensively promoting the structural reform of the industrial supply side is to promote institutional reform, structural optimization and factor
upgrading. Improve the supply structure and accelerate the new power of the industry. Develop new technologies, new products, new formats, and new models to improve the efficiency of the allocation and use of resources such as labor, capital, technology, and land. Promote pillar industries to improve quality and efficiency, and promote the expansion of the industrial chain. Only when enterprises and industries can adapt to the demanding market demand, enterprise benefits, fiscal revenue, employment situation, etc. will be in a state of healthy and sustainable development, and social reproduction can enter a new track of higher levels. Establishing a new advantage in industrial economic development lies in judging and grasping the possibility of the evolution of potential comparative advantage industries, and forming a pattern of coordinated development between traditional superior industries and strategic emerging industries. Increasing the effectiveness and precision of investment is critical to the formation of a new industrial economic growth mechanism. Effective investment is an important supply factor for long-term economic growth. It is not only an important engine for economic growth, but also an important catcher for the economic complement. The growth of the high-end manufacturing industry is a slow variable. It should optimize the direction of industrial investment, focus on the development of high-tech, high-output, and driven incremental projects, and involve the integration and optimization of industrial development resources with new incremental projects. Industrial development conditions such as infrastructure, high-quality talents, etc. effectively nurture and combine into new advantages of developing high-complexity knowledge capital-intensive industries. In the supply-side structural reform, corporate profitability is one of the key core metrics.

The Path Selection of Supply-side Structural Reform

Consolidate the status of the pillar industry of the automobile industry. Guide people, money, and materials to focus on the pillar industries, and expand and strengthen the pillar industries. To build a world-class automobile industry base, build two major automobile industrial parks in Changchun and Jilin, and strive to build a Changji automobile industry cluster belt to comprehensively improve FAW's capabilities in research and development, production and service, especially research and development capabilities, and focus on supporting its own brands. To optimize the production process of the whole vehicle, increase the output of spare parts, increase the export of related products, and continuously improve the output and quality of the automobile industry products in Jilin Province.

Improve the development level of the automobile industry and the ability to innovate in science and technology. At present, a new round of technological revolution and industrial transformation represented by big data, cloud computing, Internet of Things, robots, smart sensors, new materials, new energy and life science technology are emerging. After the international financial crisis, the revitalization of manufacturing in developed countries is not to let traditional labor-intensive manufacturing industries return. The key point is to seize the opportunity of the new industrial revolution, cultivate and develop strategic emerging industries and advanced manufacturing industries, and seize the future industrial development. Commanding heights. The history of economic development in all countries, especially developed countries, shows that every industrial revolution is a good opportunity for the country to achieve catch-up with leading countries. Accelerate the optimization and upgrading of the automotive industry. Give priority to the development of competitive equipment manufacturing industry, continuously improve the design, R&D and assembly level of automobiles; develop and promote the design, manufacture and production of FAW's independent energy-saving and new-energy vehicles; build an industrial chain and strengthen product features.

Strengthen the connection and integration between the automobile industry, organically integrate the automobile and the rail passenger car, give play to the advantages of FAW and CRRC in Jilin Province, and make the automobile industry of Jilin Province rise again, so that FAW is once again at the leading level in the country. Traditionally, manufacturing has used a variety of equipment and
tools to turn raw materials into products for people to use. In order to enable users to use industrial products, manufacturers also provide simple services such as installation, commissioning, monitoring, and maintenance. However, as the complexity of industrial products continues to increase, the investment in R&D design is increasing. As the end product users become less and less capable of mastering the operation principle, operation and maintenance of the products, they need to provide more complicated and advanced users. Service, service activities have gradually become an important source of profit for manufacturing companies, which is the process of manufacturing service. Especially driven by information technology such as smart sensors, Internet of Things, big data, artificial intelligence, etc., manufacturing companies can further promote the innovation of service-oriented manufacturing models by analyzing the data generated by users during the use of equipment and the data generated by users themselves. The development of service-oriented manufacturing can reduce the waste of resources and make the whole manufacturing industry cleaner while improving the technological content of the manufacturing industry and increasing the profits of enterprises.

Highlight the importance of structural reforms on the supply side, adjust government functions, and effectively play the role of the market. The supply-side reform is to ask the government to “let go” and make the market develop healthier. "Let's let go" does not mean "hands-on". "The most important thing at the moment is to clarify the power boundary of the government. In the spirit of self-revolution, do more 'subtraction' in administrative intervention, and treat 'let go' as the biggest 'handle'. At the same time, 'letting hands' is not 'hands-on', the government must also fulfill its basic duties of macro-control, market supervision, public services, social management, and environmental protection." Supply-side economics, whether it is the increase of production factors or technological progress The development is a long process. The supply-side reform emphasizes the role of the market and allows the market to play a decisive role in resource allocation. In order to better play the decisive role of the market in resource allocation, and clarify the power boundary of the government... By further improving the market mechanism, correcting the distortion of the factor configuration caused by excessively relying on administrative allocation resources... The past is due to the market mechanism. The role played insufficiently, and too much government intervention led to the market not being able to clear out in time, triggering various structural contradictions.

Effectively implement the five major tasks of the “three to one, one reduction and one supplement” proposed at the Central Economic Work Conference. In the automobile industry of Jilin Province, we will do “addition, subtraction, multiplication and elimination”, dispose of some “zombie enterprises” on the automobile industry chain, realize the overall improvement of the quality and efficiency of economic development, and carry out supply-side reforms with the “strong men’s broken wrist”, effectively implement “ Five tasks: de-capacity, de-stocking, deleveraging, cost reduction, and short-boarding. To promote the supply-side structural reforms in the automotive industry, it is necessary to make the government's "visible hand" and the market "invisible hand" to perform their duties. The role of the government is to improve market competition rules and correct market failures. Although after more than 30 years of reform and opening up, especially the party’s 18th National Congress proposed to play a decisive role in the market mechanism, China’s transition from a planned economy to a market economy is still incomplete, and there are too many government interventions. There are still many basic rules for market operation. Order has not been established. Therefore, on the one hand, the government should withdraw from the field of market competition, on the other hand, it must accelerate the establishment and perfection of market competition order by enacting laws and regulations. The government also needs to increase R&D investment, establish a common technology platform, strengthen the education and training of talents, ensure the improvement of the quality of labor, enhance the technological capabilities, stimulate the innovation and entrepreneurial vitality of the automobile industry, and support the pillar enterprises in the automobile industry. Market-competitive enterprises stand out, the economy of Jilin Province, the industry of Jilin Province and the automobile industry of Jilin Province achieve phoenix nirvana.
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References

[1] Tian-Shu Li, Industrial supply side structural reform direction and implementation path, Liaoning Economy, 10(2016)10-12.

[2] A.K. Matta; Shyam Prasad Kodali; Jayanth Ivvala; P. Jamaleswara Kumar, Metal Prototyping the future of Automobile Industry: A review, Materials Today: Proceedings,10 (2018) 17597-17601.

[3] Qing-Guo Li, Research on Structural Reform of Jilin Industrial Supply Side from the Perspective of Industrial Economic Efficiency, Statistics and consulting ,7(2016)36-39.

[4] Xiao-hua Li, Supply side structural reform promotes industrial revitalization, China Economic Times, 26, 2. 2016(05).

[5] Zhao-mu Lin, Adhere to the supply-side structural reform as the main line, Xinxiang Review, 3 (2019) 47-49

[6] Qun-hui Huang, On the Supply Side Structural Reform of China's Industry, Chinese industrial economy, 9(2016)5-23.