

Impact of Automobile Industry Development on Economy based on the Background of Epidemic Situation

-- Take Shiyan City, Hubei Province as an Example

Zi Yang¹, Yixiang Cheng², Yanqiu Huang³, Chunping Qiu⁴, Jun Sun¹

¹School of International Economics and Trade, Anhui University of Finance and Economics, Bengbu, China

²Anhui University of Finance and Economics Faculty of Arts, Bengbu, China

³School of Accounting, Anhui University of Finance and Economics, Bengbu, China

⁴School of Finance, Anhui University of Finance and Economics, Bengbu, China

Abstract

The epidemic of New Coronary Pneumonia continues to spread around the world, the world economy is recovering slowly, the international situation is more complex and severe, and the uncertainty of the trade environment has risen significantly. However, China's automobile industry has demonstrated good development potential and resilience, which not only drives the smooth operation of the supply chain of the global automobile industry chain, but also seizes the development opportunities of the international market to achieve a breakthrough in the scale of automobile exports.

Keywords

Automobile Industry; Economic Situation; Epidemic Background.

1. Introduction

Behind the sustained growth of China's automobile and new energy vehicle exports is the staged outbreak of the achievements of China's automobile industry's electrification transformation and upgrading. China continues to strengthen top-level design and adhere to innovation driven. The development of the new energy automobile industry has grown from small to large, from weak to strong, and has become an important force leading the transformation and upgrading of the global automobile industry. China's new energy vehicle industry has formed a strong demonstration effect. Under the background of global low-carbon development, major countries such as Europe and the United States have also strengthened the strategic positioning of developing new energy vehicles to seize the opportunities of industrial transformation and development. In 2021, the global sales of new energy vehicles will reach 6.89 million, with a year-on-year growth of 110%. Among them, the sales in Europe and the United States reached 2.348 million and 673 million respectively, up 66% and 105% year on year, accounting for 34% and 10% of the global total.

2. Background

China's automobile and new energy vehicle exports have hit new highs, and its exports to developed countries have increased significantly. Belgium, Britain and other European countries and Chile, Mexico, Peru and other American countries have become important export markets. Some Chinese brand car enterprises accelerate the export of new energy vehicles. BYD not only entered Chile, Ecuador, Brazil and other markets, but also announced its official entry

into the Japanese passenger car market. At the same time, it also worked with partners in Europe to provide new energy vehicle products for Sweden and Germany; SAIC Group continues to deeply explore the new energy vehicle market in Europe, Australia and so on. Weilai and Landu enter Norway, and Xiaopeng exports to Europe.

On April 3, BYD announced that it had stopped the production of fuel vehicles since March this year, focusing on pure electric and plug-in hybrid vehicles. BYD has become the first car company to stop producing fuel vehicles in China. Under the current situation of high oil prices, new energy has become an extremely important part of the national development strategy and national energy security. It is mentioned in the 2022 government work deployment "Promoting the sustainable recovery of consumption" to continue to support the consumption of new energy vehicles. On March 23, the Medium and Long Term Plan for the Development of Hydrogen Energy Industry (2021-2035) was released, which made the hydrogen energy industry a hot spot overnight.

3. Industry Overview

The automobile industry is one of the important pillar industries in the development of the national economy. It is a national basic industry with a huge scale and a huge correlation with other industries. The automobile industry is a capital intensive and highly technology intensive industry, integrating a large amount of capital and new materials, new equipment, new processes and new technologies in many key areas

Comprehensive industry: A car is composed of tens of thousands of parts and components. A large number of supporting enterprises will gather around each automobile main engine factory. Generally, the main assemblies such as engine, transmission, axle and body are manufactured by the enterprise itself, while tires, glass, seats and other small parts are completed by supporting enterprises. At present, the division of labor and cooperation are basically in this way, with a high degree of coordination, which often forms a regional automobile industry cluster around the automobile main engine factory.

4. Industry Status

The whole vehicle mainly includes passenger cars and commercial vehicles. Passenger cars are divided into sedans, SUVs, MPVs and cross type passenger cars; Commercial vehicles are divided into passenger cars and freight cars.

At present, China is the largest automobile market in the world, with its production and sales scale ranking first in the world. In 2009, China sold 13.645 million cars, surpassing the United States as the world's largest auto market. Since then, China has been the world's largest auto producer and seller, and its own brands have gradually grown.

Among the industrial enterprises in Shiyan City, the number of automobile enterprises accounts for 42.8% of the manufacturing industry, the number of employees accounts for 66.7%, the stock of assets accounts for 85.3%, the output value is 73.30A, the tax revenue created by them accounts for 86.9%, and they occupy a dominant monopoly in the industrial economy.

However, in recent years, affected by the epidemic, the automobile market in Shiyan City has entered a medium to low growth period. It is expected that the automobile industry market will be relatively stable in 2022, and will still show a growth trend. However, affected by the epidemic and constrained by the chip capacity, the situation is not optimistic. In fact, since 2017, the growth of the automobile industry in Shiyan City has slowed down, showing the cyclical volatility of the industry. The incremental market has begun to decline, and the stock market is huge.

5. Market Pattern

Shiyan City has initially formed a whole industrial chain of new energy vehicle technologies, standards, policies, supply chains, infrastructure, etc. Through the cultivation and development of new energy vehicles, the automobile industry of Shiyan City has achieved independent innovation breakthrough from complete machine integration to core technology of key industrial chain, moved from product quality improvement to brand promotion, from industrial protection to full opening of the industry, from domestic competition to international development, from copying and imitating technical regulations to deeply participating in the formulation of international technical standards, and achieved remarkable achievements in the transformation and upgrading of the automobile industry's electrification.

We have cultivated a number of brand enterprises with international competitiveness and innovative vitality, and created an open and competitive market environment. With the first mover advantage of new energy vehicles, the car enterprises in Shiyan have accelerated the R&D and production layout of new energy vehicles. BYD, SAIC GM Wuling, Geely and others have entered the forefront of global sales of new energy vehicles. Weilai, Xiaopeng, Ideal and other new power car making enterprises have grown rapidly. Dongfeng, SAIC, Chang'an and others have successively launched new energy vehicle brands with the characteristics of electrification, networking and intelligence, such as Landu, Zhialready, Jihu, etc, We will vigorously promote the development of domestic brands.

Shiyan is accelerating the construction of a new pattern of double cycle development, which will inevitably promote further opening up. The internationalization of the industry is an important feature of a powerful automobile country. The experience of developed countries in the automobile industry shows that powerful automobile countries will go to the international market. Although the current external environment is becoming more unstable, and there are still weak points in the industry, Shiyan's automobile industry has never stopped moving towards a higher level of development. In the future, we should further promote the international development of the industry and turn the first mover advantage into a new driving force for industrial breakthroughs.

The automobile industry has a high market concentration and a stable market pattern. Major listed enterprises in the industry: SAIC Group, GAC Group, Chang'an Automobile, BYD, Geely Holding, etc

6. Development Trend

Trend 1: Double carbon strategy, new energy vehicles have broad prospects in the future

In recent years, the new energy vehicle industry has become an extremely important part of the national development strategy and national energy security. Under the carbon peak, carbon neutral and dual carbon strategy, the development of new energy vehicles is the top priority in the future. With the help of policies, the rapid development of the entire industry has been accelerated. In recent years, both production and sales have reached new highs.

In 2021, the production and sales of new energy vehicles will reach a new high. The annual production and sales have reached the level of 270000 vehicles. The production and sales record of 200 years has been refreshed, with rapid growth and continuous growth trend. Shiyan's automobile industry is leading the world in the field of new energy, and is expected to surpass in the case of track conversion.

Trend 2: The lightweight design of the whole vehicle, and the market demand for composite materials and magnesium alloys explodes

At present, the main design idea in the automotive industry is to replace steel with aluminum, replace forging with casting, and make the car body lightweight. Especially, the ultra large

integrated aluminum alloy die-casting body parts led by Tesla are the latest technological development direction. In particular, many new energy vehicles use aluminum alloy to achieve automotive lightweight. In the coming years, carbon fiber composites and magnesium alloys will have many advantages in achieving automotive lightweight, It is mainly because the cost is lower when the performance is equivalent, and the market demand will increase dramatically.

Trend 3: Digital vehicle R&D, more intelligent and other new technology applications accelerate industry change

Use digital technology to shorten the R&D cycle, meet the individual needs of users, and reduce R&D costs.

Trend 4: downgrading and upgrading of industrial consumption coexist, and the trend is obvious

In the current economic environment, under the impact of the epidemic, more and more ordinary people will downgrade their consumption, start to consume low and pursue cost-effective products. The bulk products in household consumption such as automobiles are no exception. Automobile brands with low price and reliable performance will be more and more popular with such users.

Of course, there are more and more rich people in the current economic environment, which is obviously polarized. These people belong to consumption upgrading, start to consume more and pursue high-quality products. Especially in the area of automobiles, the sales of luxury imported cars have reached new highs in recent years, which can prove this. In 2021, BMW will sell 846000 cars in China, up 8.9% year on year; Mercedes Benz will sell 774400 cars, up 11.7% year on year. In 2021, the ranking of the three major auto luxury brands in Shiyang market will remain a "BBA" pattern. It is expected that this pattern will continue in the future.

Trend 5: The stock market is huge and the demand for automotive aftermarket services is promising

In Tuoangou Industrial Park, Maojian District, Shiyang City, a new factory with 100000 special vehicles of Chitian Jingang has been built, and a 170000 square meter workshop has been basically completed. The high production of automobile enterprises has led to the rapid recovery of Shiyang's automobile industry. The resumption rate of 445 enterprises in the city's automobile industry above the designated size is 100%. The city's automobile industry power consumption index exceeds 100%, which is the best level in the same period in recent years.

Under the background of economic globalization and market integration, with the continuous improvement of car ownership, the demand for car aftermarket is also expanding, with broad prospects. The whole automotive aftermarket service involves a large number of parts manufacturing, logistics and service industries, which also generates a greater market demand and talent demand. Later, this section will make a detailed introduction and analysis.

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