



# RESEARCH ON ECONOMIC DEVELOPMENT OF RESOURCE-ORIENTED CITIES-BASED ON LOUDI, CHINA

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## ABSTRACT

*Loudi, is a typical resource-oriented city with superior location and convenient transportation. It located in the geometric center of Hunan province, which is a key thoroughfare with north-south access and east-west coherence. It is not only an important node city in the one-hour economic circle around Changzhutan city cluster, but also one of the comprehensive supporting reform experimental areas of "two-oriented society". However, in the process of economic reform, Loudi also faces a series of development problems faced by resource-oriented cities, such as resource depletion, decline in industrial benefits, single industrial structure and low product structure. Firstly, this paper analyzes economic development data of Loudi in 2018 to get the development status of Loudi; Then, through quantitative analysis, the empirical analysis of economic transformation of Loudi is conducted to find out the industries with relative advantages and disadvantages of Loudi in the whole province; Finally, it gives some suggestions on economic development of Loudi.*

**KEY WORDS:** *Economic Development; Oriented Cities; Location Quotient (LQ) model*

## 1. INTRODUCTION

Loudi is the youngest prefecture-level city in Hunan province and also a typical resource-oriented city. It is an important part of the changzhutan city group, known as the "pearl of central Hunan". It has

jurisdiction over Louxing district, Lengshuijiang city, Lianyuan city, Shuangfeng county, Xinhua county, Loudi economic development zone and Wanbao new district, with a total area of 8,117 square kilometers and a total population of 4.38 million. Loudi enjoys

superior location, convenient transportation, rich resources, solid foundation and excellent environment, and is suitable for living and working. However, in the process of economic reform, Loudi also faces a series of development problems faced by resource-oriented cities, such as: resources depletion, decline in industrial benefits, single industrial structure, low product structure, unformed alternative industry, environmental pollution and frequent natural disasters [1]. Resource-oriented cities are more likely to fall into the trap of rigid specialization due to functional lock, cognitive lock and political lock, and face greater obstacles to the transformation of their development mode and adjustment of economic structure [2]. In view of this problem, there are two main transformation ideas in the theoretical circle at present: one is to achieve industrial upgrading through the restructuring, extension and transformation of traditional resource-oriented advantageous industries; Second, we should actively cultivate alternative industries, especially the service industry, to form a diversified industrial structure and reduce dependence on resource-oriented industries [3].

Facing the economic transformation, Loudi should proceed from reality, and grasp the important strategic opportunities brought by the new normal of China's economy, and adjust the economic structure, actively adapt to the new normal economy, effectively solve the development of resource-oriented cities. It should not only promote services accounted for and one-sided pursuit of high-end service industry, and should be matched its stage of industrialization, and make full use of the comparative advantage of resources industry and industry base, to realize the economic transformation. The following examples of foreign and domestic economic transformation are listed to provide experience for Loudi economic transformation:

- (1) The experience of Singapore 's economic transformationSingapore's experience in economic transformation is mainly reflected in the following aspects: first, Singapore has formulated a clear industrial development direction in every major stage

of economic development that is in line with its national conditions and the mainstream of world economic development, and introduced effective industrial development supportive policies. Second, the Singapore government always puts itself as a service provider, in the management of social and public affairs, the government always insists that enterprises are the creators of social and economic benefits, and the government's function is to provide good social environment and efficient services for the development of enterprises. Third, in order to make full use of external resources, the Singapore government actively implements the policy of opening up to the outside world and encourages foreign enterprises to invest and develop in Singapore, so as to drive the development of its own economy.

- (2) The experience of South Korea's economic transformationSouth Korea's experience in economic transformation is mainly reflected in the following aspects: first, the south Korean government attaches great importance to the positive role of innovation, thinks that innovation has become a production factor and the quality of innovation ability determines the quality and efficiency of economic development under the background of knowledge economy, so the south Korean government spent more on R&D and innovation than the United States and China did at the same time. Second, the South Korean government has provided detailed industrial support policies for industrial development through legislation, fund and other means.

- (3) The experience of Yan 'an economic transformationDomestically, we choose Yan 'an, which is similar to Loudi city, for comparison. The experience of Yan'an 's economic transformation is mainly reflected in the following aspects: first, it is clear that enterprises are the main creators of market value, and the government is a service-oriented organization that creates value for enterprises, it established an efficient and clean government oriented to economic transformation. Second, the government realized that only the

talents who fully understand the development status of Yan'an industry and accurately grasp the development trend of the world industry can guarantee the successful implementation of Yan'an economic transformation. Therefore, the government should create a working environment that can attract and retain talents. Third, it is necessary to carry out technological transformation oriented to traditional industries, and to create high-tech industries such as new energy and new

materials as key areas of innovation.

## 2. ANALYSIS OF CURRENT SITUATION OF LOUDI

### 2.1 Comprehensive development status of Loudi in 2018

The development status of various industries in Loudi is analyzed by collecting comprehensive index data of Loudi from January to October 2018, as shown in figure 1:

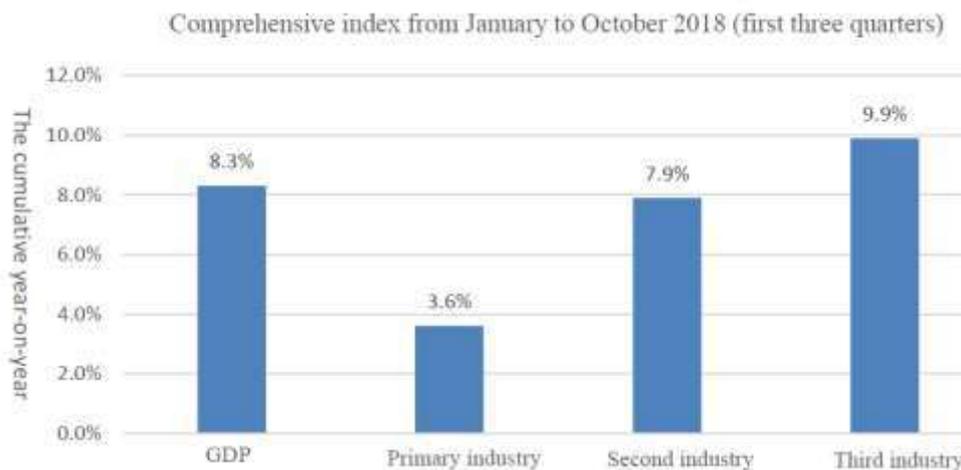


Figure 1 (data source: statistics bureau of Loudi)

According to the figure 1, from January to October 2018, all industries in Loudi grew steadily, and the tertiary industry grew more prominently. The tertiary industry is an industrial form with the service industry as the main body. Compared with the primary industry (agriculture as the main body) and the secondary industry (industry as the main body), it

has higher economic added value. This shows that Loudi's industrial structure is moving in a good direction.

### 2.2 Industrial development status of Loudi in 2018

The industrial development status of Loudi in the first ten months of 2018 is shown in figure 2:

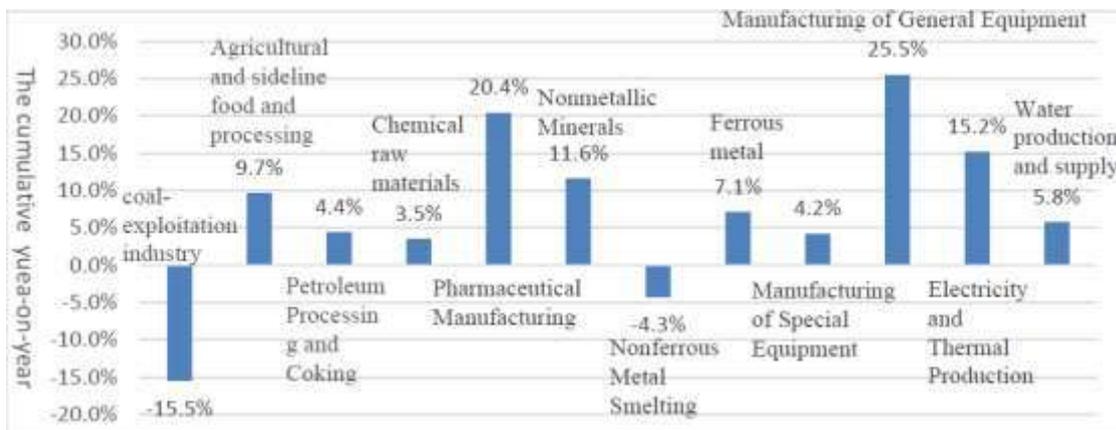


Figure 2 (data source: statistics bureau of Loudi)

According to the figure 2, from January to October 2018, the industry with the fastest year-on-year

growth is general equipment manufacturing, followed by pharmaceutical manufacturing. The

traditional coal mining and washing industry decreased the fastest, followed by non-ferrous metal smelting and rolling processing industry. These data indicate that Loudi's industrial economic structure is changing constantly, transforming from traditional

industry to new industry.

### 2.3 Development status of domestic trade in Loudi in 2018

The development status of domestic trade in Loudi in the first ten months of 2018 is shown in figure 3:

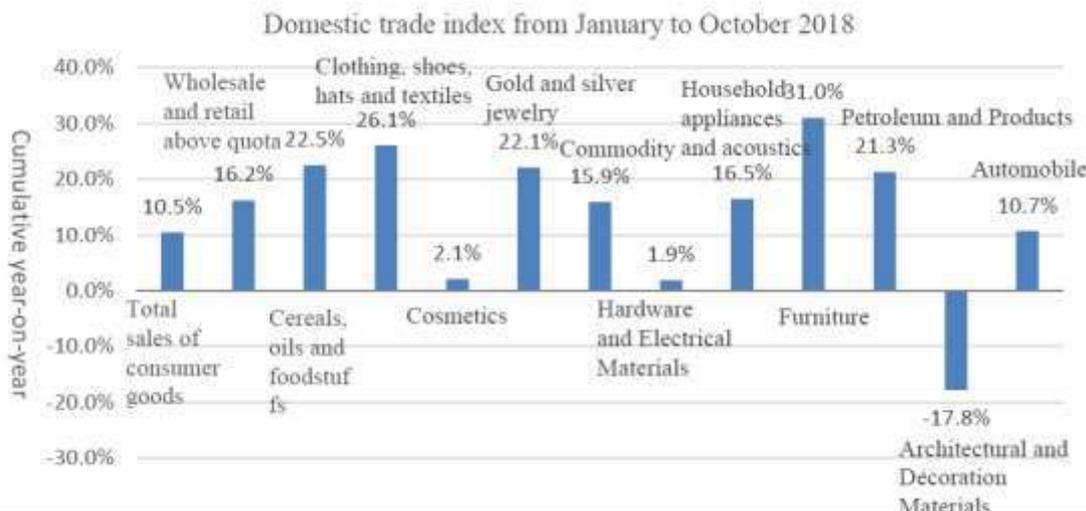


Figure 3 (data source: statistics bureau of Loudi)

As can be seen from figure 3, in the domestic trade indicators of Loudi from January to October 2018, the category with the fastest cumulative year-on-year increase is furniture, followed by clothing, shoes and hats, needle textiles, and only construction and decoration materials are decreasing.

### 2.4 Development status of import and export and tourism in Loudi in 2018

In the first ten months of 2018, the development status of import and export and tourism in Loudi is shown in figure 4:

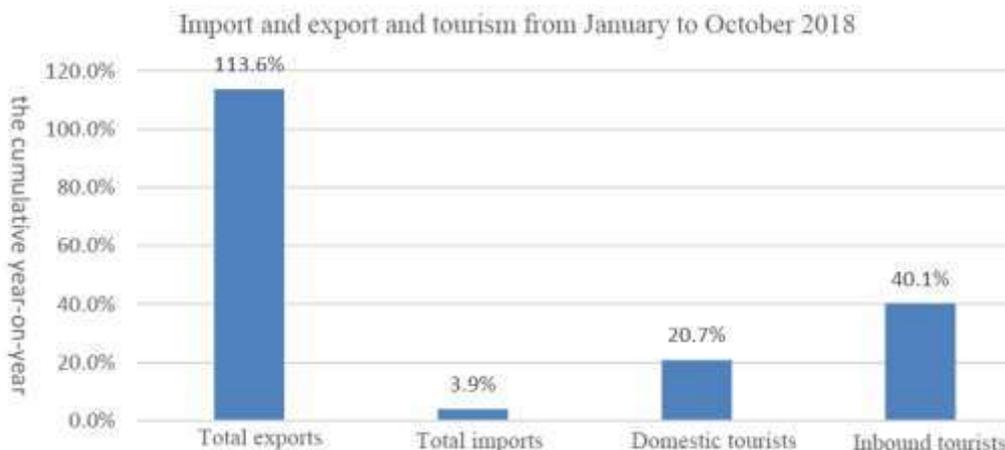


Figure 4 (data source: statistics bureau of Loudi)

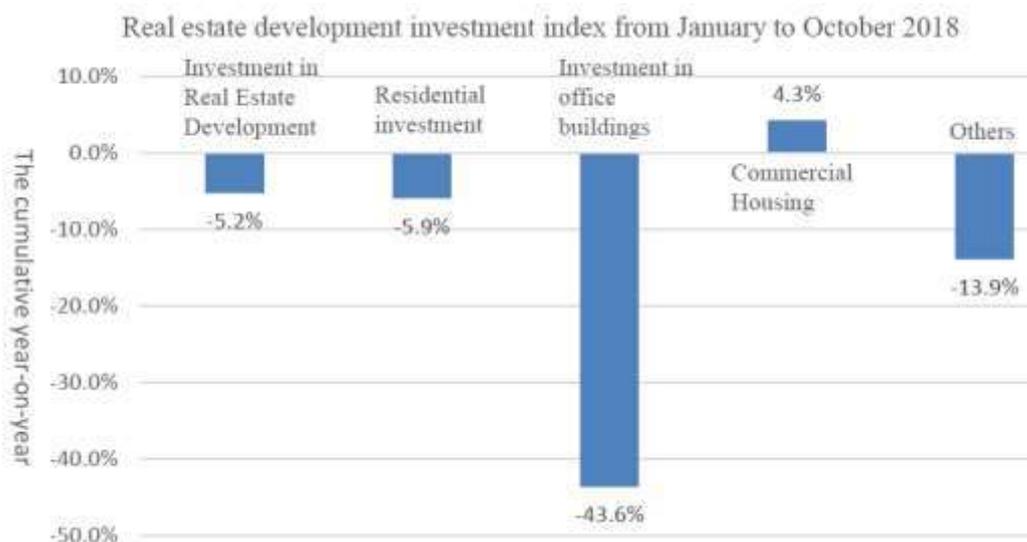
As can be seen from figure 4, the cumulative total export of Loudi in January to October 2018 increased by 113.6% year-on-year, and the total import increased by 3.9% year-on-year. Domestic tourists increased by 20.7 percent and inbound tourists by 40.1 percent. These data indicate that Loudi economy

is speeding up the pace of going out, and tourism is also attracting more people to Loudi.

### 2.5 Development status of real estate in Loudi in 2018

Real estate is a pillar industry of a place. The development status of real estate in Loudi in the first

10 month of 2018 is shown in figure 5:



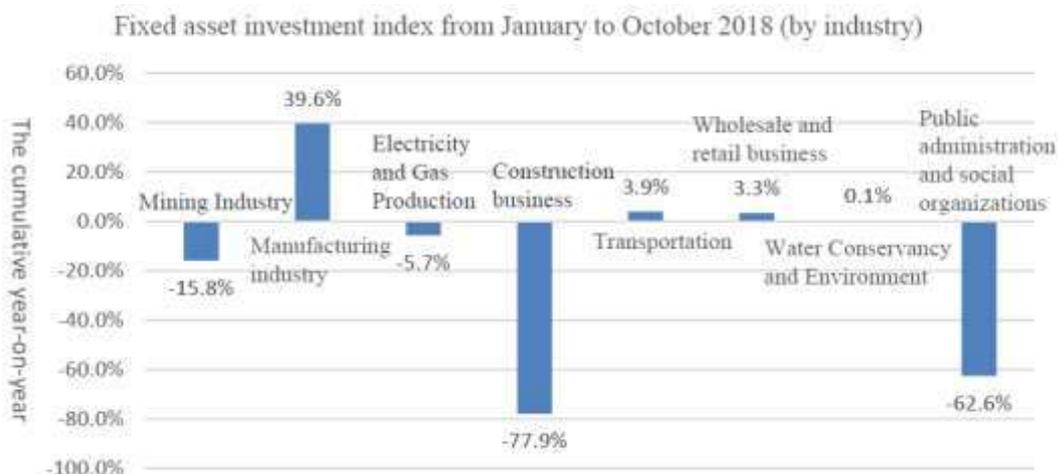
**Figure 5 (data source: statistics bureau of Loudi)**

As can be seen from figure 5, the real estate in Loudi was in recession from January to October 2018. Only the commercial housing increased year-on-year, and the other categories were decreasing, among which the office building decreased the most significantly, with a cumulative decrease of 43.6%

year-on-year.

2.6 Development status of fixed asset investment index of Loudi in 2018

The development status of fixed asset investment index of Loudi in 2018 is shown in figure 6:



**Figure 6 (data source: statistics bureau of Loudi)**

From figure 6, it can be seen that in Loudi from January to October 2018, only the manufacturing industry increased by 39.6%, the construction industry decreased by 77.9%, and the public management and social organizations decreased by 62.6%.

### 3. EMPIRICAL ANALYSIS OF ECONOMIC TRANSFORMATION OF LOUDI

Loudi is a typical resource-oriented city in China. Traditional resource advantages have made outstanding contributions to the economic and social development of Loudi for many years. However, with the economic and social development, the benefits of traditional advantageous industries have

gradually declined due to extensive management, short production chain and low product hierarchy, and the original economic growth momentum has significantly decreased. Although Loudi is built on industry, thriving on industry, but now the past resource dependence and advantage gradually lost, six pillar industries except building materials are not well developed, steel production and prices fell in line, coal resources exhausted, Nonferrous metals suffered heavy losses, thermal power and chemical industry face difficulties, at the same time coal machinery and other related industries collapse. How to seize the opportunity to accelerate the industrial transformation and upgrading of Loudi, and accelerate the transformation and development of the city, and accelerate the cultivation of new drivers of economic development is a practical problem that needs to be solved urgently.

### 3.1 Analysis model

In this paper, the Location Quotient ( $LQ$ ) model is selected and the added value method is adopted to calculate the  $LQ$  of Loudi. In other words, the  $LQ$  obtained by dividing the ratio of added value of a certain industry in Loudi to the total output value of this region by that of the whole province is obtained.

By calculating the  $LQ$  of selected industry sectors, we can determine whether the industry of Loudi has a certain advantageous position in the whole province, and measure the degree of its advantage according to  $LQ$ . If  $LQ > 1$ , it indicates that the industry has a comparative advantage in the whole province; the higher the value, the stronger the competitiveness of the industry; if  $LQ < 1$ , it

indicates that the industry has no obvious advantage in the whole province.  $Y_g$  represents the annual added value of an industry in Loudi, and  $A_g$  represents the annual gross product of Loudi;  $Y_h$  represents the annual added value of an industry in Hunan province, and  $A_h$  represents the annual total production value of Hunan province. Then, the calculation formula of  $LQ$  is as follows (similarly, the value of industry can be calculated):

$$LQ = \frac{Y_g / A_g}{Y_h / A_h}$$

### 3.2 Index selection

This article selects the Loudi, Hunan province, China statistical yearbook data to carry on the empirical analysis. The selected variables include the following: gross domestic product, added value of agriculture, forestry, animal husbandry and fishery, added value of construction industry, added value of wholesale and retail, added value of transportation, warehousing and postal services, added value of accommodation and catering industry, added value of financial industry, added value of real estate industry, value added of other services, added value of primary industry, added value of secondary industry, added value of tertiary industry.

This paper calculates the  $LQ$  of each industry and measures and analyzes the advantageous industries in Loudi, data is shown in table 1.

**Table 1 sample data of Loudi city, Hunan province and China (100 million yuan)<sup>1</sup>**

Added value of industry	Loudi(billion)	Hunan province (billion)	China (billion)
GDP	121.04	2562.26	785770.00
Added value of agriculture, forestry, animal husbandry and fishery	8.56	144.62	67726.60
Added value of construction industry	4.82	110.77	52133.60
Added value of wholesale and retail	5.26	143.73	75976.30
Added value of transportation, warehousing and postal services	10.90	87.28	35431.30
Added value of accommodation and catering industry	2.04	48.58	13982.90
Added value of financial industry	2.91	149.03	63195.10
Added value of real estate industry	3.30	39.07	47846.90
Value added of other services	40.15	1079.32	162679.20
Added value of primary industry	8.51	128.22	65332.30
Added value of secondary industry	48.04	888.24	318008.90
Added value of tertiary industry	64.75	1564.62	402428.80

### 3.3 Analysis process

The results obtained according to the calculation formula are shown in table 2.

**Table 2 locational quotient of Lou di sample data**

Industry	Loudi (Hunan province)	nationwide
Added value of transportation, warehousing and postal services	2.64415	1.99741
Added value of real estate industry	1.78702	0.44753
Added value of primary industry	1.40431	0.84522
Added value of agriculture, forestry, animal husbandry and fishery	1.25237	0.82012
Added value of secondary industry	1.14505	0.98081
Added value of construction industry	0.92067	0.59989
Added value of accommodation and catering industry	0.88728	0.94531
Added value of tertiary industry	0.87602	1.04450
Value added of other services	0.78757	1.60242
Added value of wholesale and retail	0.77423	0.44917
Added value of financial industry	0.41266	0.29844

<sup>1</sup> Data sources: Loudi statistics bureau in 2017, Hunan statistical yearbook in 2017, and China statistical yearbook in 2017.

Note: some data of 2018 have not been released, so the data of 2017 is adopted. In 2017, China statistical yearbook did not publish the added value of each industry, and this paper adopted the calculation of output value of each industry.

It can be seen from the  $LQ$  results obtained in table 2, within the scope of hunan province, the industries whose  $LQ$  is greater than 1 include transportation, warehousing, postal service, real estate, agriculture, forestry, animal husbandry and fishery. Among them, the largest location business is transportation, warehousing and postal service, as 2.64415. This shows that transportation, warehousing and postal service are the industries that Loudi has the most relative advantages in Hunan province. Meanwhile, real estate, agriculture, forestry, animal husbandry and fishery also have some relative advantages. The  $LQ$  of the financial industry is 0.41266, which is the smallest of the calculated industries. This indicates that the financial industry of Loudi is at a relative disadvantage in Hunan province and should be further developed. Nationally, transportation, warehousing and postal services also have advantages.

#### **4. SUGGESTIONS ON ECONOMIC DEVELOPMENT OF LOUDI**

##### **4.1 Strengthening the development of tourism resources**

Loudi culture is profound and talented. It is the hometown of chiyou, one of the three ancestors of the Chinese nation, who was respected as "god of war" in later times. Cultivated reading culture and longyam culture have clear vein and complete structure; Xinhua folk songs, meishan martial arts, paper-cut art, nuo drama and other rooted in the folk, unique charm, is the "home of Chinese martial arts", "home of Chinese poetry", "home of Chinese women". There are three national 4A tourist attractions, such as meishan dragon palace, zeng guofan's hometown and purple magpies' terraced fields. There are also two national forest parks, big bear mountain and longshan mountain, and more than 70 boutique tourist attractions, such as mei river and bo yue cave. Unique scenery and culture gave birth to after shu prime minister jiang wan who was called "the state" by zhuge liang, a key official zeng guofan in qing dynasty, the late qing dynasty famous diplomat Ceng Jize, democratic revolutionary fighter tian-hua Chen and renfengTan, and the communist

party of China early he-sen Cai ,bases his outstanding leaders, Chinese women's movement leader Cai chang, as well as the proletarian revolutionist, educators fangwu, luo shengjiao, a fighter of the international communist and outstanding representative in our contemporary famous entrepreneur liang wengen, etc. However, the tourism resources of Loudi have not been fully developed. The government should increase the investment and construction of infrastructure in scenic spots and do a good job in the publicity of tourism characteristic advertisements in combination with the tourism advantages of Loudi. The tourism services, including Internet publicity, food attraction, historical celebrities attraction, unique scenery, standardized management of home stay, fast and convenient transportation, etc, will be created. Then, Loudi will make full use of its price advantage to inject new driving force into the economic development of the city by virtue of its tourism resources.

##### **4.2 Increasing investment in the financial sector**

Finance is the lifeblood of modern market economy, whose vitality is maintained by effective financial system. When developing the financial industry, Loudi needs to adhere to the combination of market-oriented promotion and government guidance, as to perfect the system of financial institutions, improve the function of financial markets, speed up the financial product innovation, optimize the financial ecological environment, develop the banking, securities and futures, insurance and trust industry, industrial investment fund and related supporting industries. We should accelerate the planning and construction of financial agglomeration areas, encourage financial institutions to increase innovation, vigorously develop the capital market and insurance market, develop and strengthen local financial institutions, and improve the financial supporting service system. While promoting the development of the financial sector, we will crack down on financial fraud and illegal fund-raising, improve the market integrity system, and establish a

sound market order. This is very important for the establishment of Loudi market system, investment attraction and sustainable development of Loudi economy. We can draw lessons from the experience of the ground such as wen zhou, and establish the financial organization that is contributive jointly by government apportion money and civilian fund or enterprise fund inside area mutual financial institution, develop professional asset management organization, establish equity to invest an enterprise and the management organization of relevant investment, let finance operate below sunshine thereby, and grow healthily.

#### **4.3 Vigorously promote the innovation-driven strategy**

On the one hand, a city's network connectivity and hub driving force will greatly affect the city's international competitiveness and innovation. With the rapid development of science and technology, smart phones are being popularized on a large scale, and Internet economy has become the new normal of economic development. Loudi should also keep up with the pace of The Times by using big data to build the Internet of things and break down the barriers of offline and online economy. Moreover, it is necessary to further increase investment in scientific and technological innovation, and establish urban industrial network, talent network, traffic network, information network, innovation network and ecological network, and accelerate the agglomeration and diffusion of urban people flow, logistics, capital flow and information flow. In this way, Loudi economy can be better introduced and go out faster.

Loudi, on the other hand, is an important energy industry base, its chemical industry, building materials, steel and other traditional pillar industry are facing the problem of excess production capacity, and so on through innovation for the process of economic power, it both need to upgrade traditional industry oriented technology, it also needs to take high-tech industries such as new energy and new materials as key areas of innovation..

#### **4.4 Improve the talent security system for economic transformation**

The important guarantee for the success of economic transformation of Loudi is to introduce management talents who fully understand the development status of Loudi industry, and accurately grasp the development trend of China's industry and are familiar with the key technologies of specific industries. First, the government should create a good living environment for the introduction of talents, provide a fair introduction mechanism, and ensure enough space for the subjective initiative to play, so as to attract high-end talents to join the team of building beautiful Loudi. Second, the government should establish a knowledge deepening system for high-level talents. For example, by holding high-level BBS, the government provides a platform for high-level industrial talents to exchange, learn and cooperate. By going out to participate in the exchange meeting, Loudi industry talents will have enough opportunities to communicate with those who master the latest industrial development research results, so as to further deepen the industry high level talented person's ability to understand and predict industry development, to better carry out the economic transformation in the field of economic activities, and it can further combine the actual situation of Loudi to create a development path suitable for Loudi.

#### **4.5 Create the development path of high-end industry**

In order to change the long-term extensive and predatory economic development mode of Loudi, and change the gradual depletion of resources, and the difficulties of restructuring and transformation, we should strive to build with high and new technology to form the high-end industrial chain, with independent innovation to promote development, with developing the industry of high-end core technology to grab the international high-end industries, to form a high-end technology with the national industry standard of "high-end" transition path to promote industrial upgrading and industrial synergy, and open a new space for the rapid and

healthy development of Loudi economy. It includes: accelerating the establishment of high-end development system through industrial upgrading; Taking independent innovation as the starting point to accelerate the formation of high-end industry leader; Upgrading technologies to promote the high-end development of leading industries; Accelerating the improvement of high-end development support by relying on factor platform; Moving forward to intelligent manufacturing, focusing on the introduction of major projects, so that more and more goods are branded with "Loudi zhi" mark; We should strengthen innovation in science and technology and put innovation at the core of overall development.

#### 4.6 Accelerating the path of internationalization

With the opening of "xiang-ou express line", the traditional pattern of foreign trade, which used to focus on the eastern coastal cities, will be broken. Located in the hinterland, hunan will become an important transit point and "bridgehead" of China's exports to Europe. Loudi can speed up the transformation and development path of integrating into the international market and sharing the achievements of international market integration through the "xiang-ou express line". We should make full use of the opportunities of implementing the "One Belt and One Road" strategy, the free trade zone strategy, the manufacturing power and innovation-driven strategy, the network power strategy, the trade power strategy, the supply-side structural reform, and the policy of "bringing in" and "going out". It proposes a new direction and way for Loudi to open up and rise, provides a stage and creates an environment. A series of advances have been made in the internationalisation of the renminbi. With the establishment and operation of aiiib, China's transformation of foreign trade development mode has been accelerated, the structure has been constantly optimized, and the step to become a strong trading country has been more solid, which has enhanced the confidence and strength of Loudi's opening up and rising. With the opening of the

express trains between Yu-eu, zheng, han, xiang-eu and other china-europe, the central and western regions are rapidly opening up to the outside world, constructing new channels for Loudi to develop foreign trade, vigorously cultivating cross-border e-commerce, and supporting the construction of cross-border e-commerce comprehensive parks. We should actively expand the total volume of foreign trade, vigorously implement the "Loudi commodities exit" action plan, and promote the good products, enterprises and resources of Loudi.

#### Acknowledgments

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